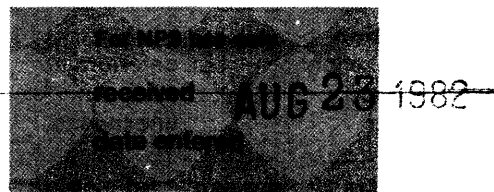


United States Department of the Interior
National Park Service

National Register of Historic Places
Inventory—Nomination Form



See instructions in *How to Complete National Register Forms*
Type all entries—complete applicable sections

1. Name

historic Appleton Wire Works

and/or common Appleton Wire

2. Location

street & number 600 S. Atlantic Street (office) ___ not for publication

city, town Appleton ___ vicinity of ~~___ congressional district~~

state Wisconsin code 55 county Outagamie code 087

3. Classification

Category	Ownership	Status	Present Use
<input type="checkbox"/> district	<input type="checkbox"/> public	<input checked="" type="checkbox"/> occupied	<input type="checkbox"/> agriculture <input type="checkbox"/> museum
<input checked="" type="checkbox"/> building(s)	<input checked="" type="checkbox"/> private	<input type="checkbox"/> unoccupied	<input type="checkbox"/> commercial <input type="checkbox"/> park
<input type="checkbox"/> structure	<input type="checkbox"/> both	<input type="checkbox"/> work in progress	<input type="checkbox"/> educational <input type="checkbox"/> private residence
<input type="checkbox"/> site	Public Acquisition	Accessible	<input type="checkbox"/> entertainment <input type="checkbox"/> religious
<input type="checkbox"/> object	<input type="checkbox"/> in process	<input type="checkbox"/> yes: restricted	<input type="checkbox"/> government <input type="checkbox"/> scientific
	<input type="checkbox"/> being considered	<input checked="" type="checkbox"/> yes: unrestricted	<input checked="" type="checkbox"/> industrial <input type="checkbox"/> transportation
	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> no	<input type="checkbox"/> military <input type="checkbox"/> other:

4. Owner of Property

name Robert H. Sloan, President, Albany International Corporation

street & number One Sage Road, Menands

city, town Albany ___ vicinity of state New York 12201

5. Location of Legal Description

courthouse, registry of deeds, etc. Outagamie County Courthouse: Register of Deeds

street & number 410 S. Walnut Street

city, town Appleton state Wisconsin 54911

6. Representation in Existing Surveys

Wisconsin Inventory of Historic Places/
title Fox River Valley Industrial Survey has this property been determined eligible? yes no

date 8/1981 federal state county local

depository for survey records State Historical Society of Wisconsin

city, town Madison state Wisconsin 53706

7. Description

Condition		Check one	Check one
<input checked="" type="checkbox"/> excellent	<input type="checkbox"/> deteriorated	<input type="checkbox"/> unaltered	<input type="checkbox"/> original site
<input type="checkbox"/> good	<input type="checkbox"/> ruins	<input checked="" type="checkbox"/> altered	<input type="checkbox"/> moved date _____
<input type="checkbox"/> fair	<input type="checkbox"/> unexposed		

Describe the present and original (if known) physical appearance

As nominated, the Appleton Wire Works is essentially a full, four-sided two-story cream brick veneer square block of industrial buildings. Constructed between 1896 and 1916, the buildings are nearly consistent in their pale coloration and the regularity of openings along the perimeter of the block that they occupy. A standing-seam gable roof covers the south (1909) and south-half of the east side (1901) of the complex, while the rest of the "square" is flat-roofed. The interior of the block contains a metal water tank and tall brick stack, as well as several small "courts" generated by incomplete infill by additions made to the enclosing structures. Windows and doors are generally rectangular, set within segmentally-arched openings; on the west (N. Union Ave.) and north (E. Hancock St.) sides especially, many of the openings have been enclosed with painted plywood panels (first story) or brick (second story). The additional block of the complex (across E. Hancock St.) to the north, and a half block of buildings to the northeast, are post-1940 construction, and therefore are not currently considered part of the historically-significant company or nomination.

The first structure, a 35 x 96-foot two-story wooden weaving and storage facility, was erected on the then-outskirts of Appleton at the corner of Lawe Ave. and E. Hancock St. in March 1896. In 1899, the outside walls of the building were covered with a brick veneer to harmonize with the later brick buildings, and the gable roof and attic story were replaced with a flat roof. In 1901, the building was extended along Lawe Ave. to E. Atlantic St. with a 35 x 120-foot weaving area of cream brick. A two-story steam plant was constructed on E. Hancock St. in 1900, and extended in 1907; the original smokestacks were removed in 1975.

In 1905, a major two-story addition was made continuing the construction around the perimeter of the block, extending from the first addition on Lawe Ave. 80 feet to the west along E. Atlantic; in 1909, the wing was extended farther along Atlantic to N. Union Ave. (This addition housed machines weaving screens to 165 inches in width, the widest then known.) In 1916, the sixth addition was made at the northwest corner of the block: a 35 x 104-foot two-story annealing room where wire could be heated for and softened for subsequent reduction in diameter. Between and after construction of the enclosing buildings, various minor extensions and additions were made to the interior of the "square," to the extent that very little open space remains in the block. A second-story closed walkway connects the 1896 building to the block to the north; it is not considered significant.

Much of the interior is open to accommodate the large weaving looms. Floors are generally of wood or concrete, and walls are cream brick or painted plaster. Interior structural members, a combination of wood and steel posts and beams, are visible throughout. With sequential additions, exterior brick walls have become interior dividing walls. Although machinery design for weaving has not changed radically since the late nineteenth century, post-World War II automation has required modification of the Appleton Wire Works equipment. The original loom, unaltered, still remains in the complex, although it is not in use.

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Inventory—Nomination Form**

Appleton Wire Works, Appleton, Outagamie Co., WI

Continuation sheet

Item number 7.

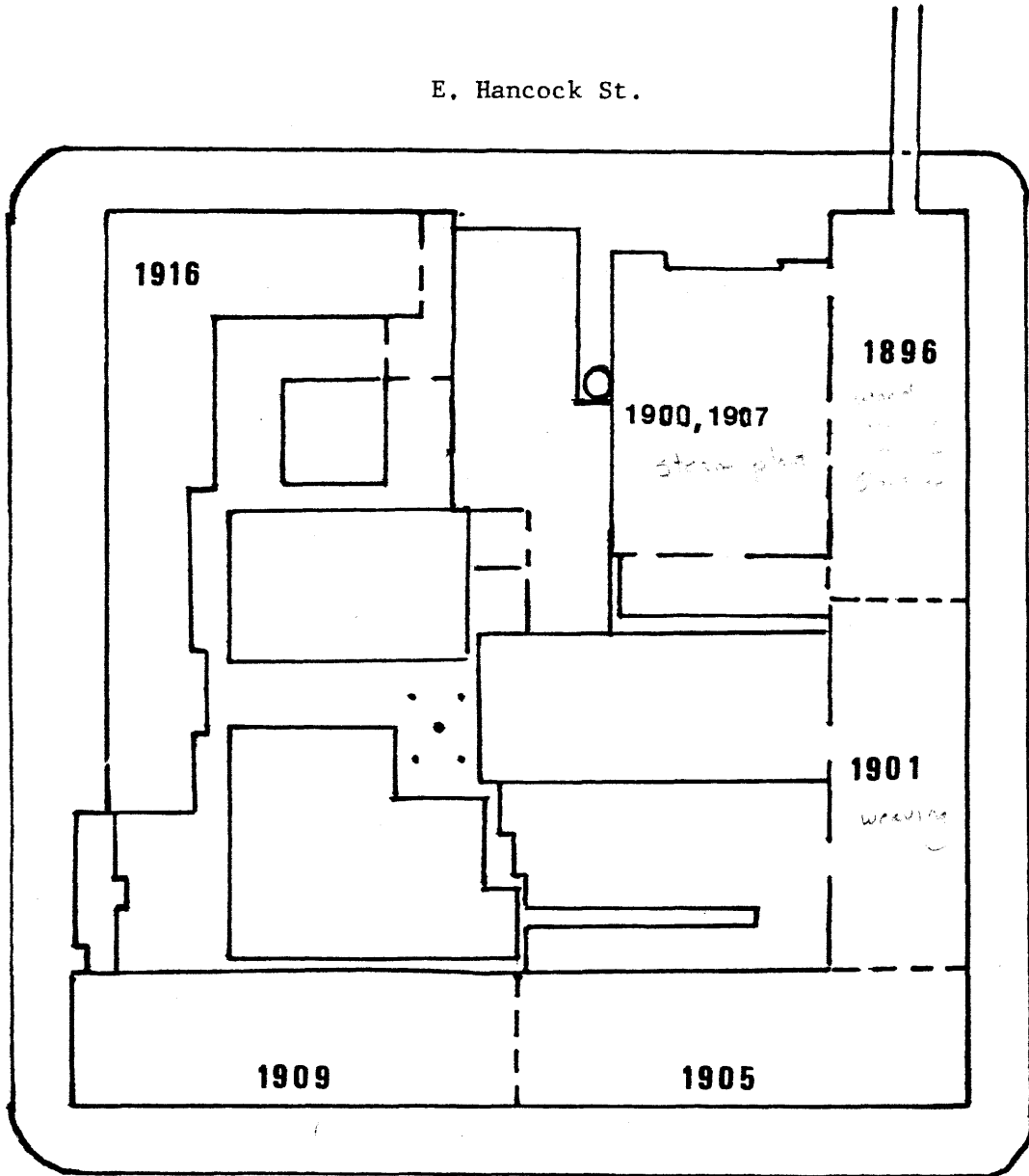
Page 1.



E. Hancock St.

N. Union Ave.

Lawe Ave.



E. Atlantic St.

APPLETON WIRE WORKS

(not to scale)

8. Significance

Period	Areas of Significance—Check and justify below			
<input type="checkbox"/> prehistoric	<input type="checkbox"/> archeology-prehistoric	<input type="checkbox"/> community planning	<input type="checkbox"/> landscape architecture	<input type="checkbox"/> religion
<input type="checkbox"/> 1400-1499	<input type="checkbox"/> archeology-historic	<input type="checkbox"/> conservation	<input type="checkbox"/> law	<input type="checkbox"/> science
<input type="checkbox"/> 1500-1599	<input type="checkbox"/> agriculture	<input type="checkbox"/> economics	<input type="checkbox"/> literature	<input type="checkbox"/> sculpture
<input type="checkbox"/> 1600-1699	<input type="checkbox"/> architecture	<input type="checkbox"/> education	<input type="checkbox"/> military	<input type="checkbox"/> social/ humanitarian
<input type="checkbox"/> 1700-1799	<input type="checkbox"/> art	<input type="checkbox"/> engineering	<input type="checkbox"/> music	<input type="checkbox"/> theater
<input checked="" type="checkbox"/> 1800-1899	<input type="checkbox"/> commerce	<input type="checkbox"/> exploration/settlement	<input type="checkbox"/> philosophy	<input type="checkbox"/> transportation
<input type="checkbox"/> 1900-	<input type="checkbox"/> communications	<input checked="" type="checkbox"/> industry	<input type="checkbox"/> politics/government	<input type="checkbox"/> other (specify)
		<input type="checkbox"/> invention		

Specific dates 1896, 1905, 1909, 1916¹ **Builder/Architect** Unknown

Period of significance: 1896-1940

Statement of Significance (in one paragraph)

The second wire cloth company to be established in the midwest, the Appleton Wire Company is of state level significance historically as an ancillary industry to the development of the paper industry in the Fox River Valley of Wisconsin. By the 1930s, the company, with some sixty looms for the manufacture of machine wire and wire cloth for paper drying, could claim to be the largest Fourdrinier (wire screen) weaving company in the world.

In 1896, William Buchanan, sons John R. and Gustavas E. Buchanan, and Albert Weissenborn founded the Appleton Wire Works, and production began in the first building at the corner of E. Hancock St. and Lawe Avenue in 1896.¹ Buchanan (born 1842), was the son of Robert Buchanan, a skilled wire-screen maker from Scotland who established the first wire screen-making plant in the United States in New Jersey in 1848.² At age eleven, Buchanan began the first of his apprenticeships as a bobin boy for the Wm. Stephens & Son company, and in 1861 moved with his father to Georgetown, Connecticut to work for Gilbert & Binnett, weaving screen cloth and iron wire cloth. William Buchanan worked for several other companies in the New York-New Jersey area, then the heart of the Fourdrinier wire weaving industry, before and after the Civil War; in 1876, he established, with partner Charles Smith, the Standard Wire Works in Bloomfield, New Jersey, and in 1882 started the Fourdrinier department at the Cheney-Bigelow Wire Works in Springfield, Massachusetts. From the time of his move to Appleton in 1896 until his retirement in 1912, William Buchanan expanded the Appleton plant and its machinery to the point where the three-quarter-block facility housed forty-two Fourdrinier looms capable of weaving wire screen to a width of one hundred seventy inches. (Appleton Wire's Loom #1 manufactured wire screen of 100 inches in width.) After William's retirement, son Gustave and partner Weissenborn brought the company to world-wide leadership by the time of their deaths in 1938.³ By 1950, the company had expanded to over two city blocks in size, its buildings housing eighty-nine looms capable of weaving screen up to 242 inches in width.

In addition to increasing the number and size of its looms, the Appleton company introduced several important innovations in the industry:

- an electro-pneumatic loom, which advanced the automation of the weaving process, 1905;
- the App-Weld seamless joint, extending the life of the screens, 1933;
- Monoplane wire, reducing screen marks on paper (especially important in printing pictures), 1934;
- superfine weaves, which facilitated the production of highly critical grades of paper used in Bible tissues and condensers, 1940.

(continued)

9. Major Bibliographical References

1. Eighty Years of Excellence, Appleton Wire, Appleton, WI. Bi-Centennial issue. May 22, 1976.
2. 1848-1948, A History of the Wisconsin Paper Industry (Chicago, 1948).
3. Tax Rolls for the City of Appleton, Outagamie Series 4. 1895-1960. Housed in Area Research Center, University of Wisconsin-Green Bay, WI.
4. Sanborn Insurance Maps, 1901-1911 Housed in A.R. U.W.G.B.
5. "Better Than Good," (Appleton Wire Works, n.d.)

10. Geographical Data

Acreeage of nominated property approx. 1.5

Quadrangle name Appleton

Quadrangle scale 1:24,000

UMT References

A	<u>116</u>	<u>31818</u>	<u>41610</u>	<u>419</u>	<u>012</u>	<u>41310</u>	B						
	Zone	Easting	Northing	Zone	Easting	Northing							
C				D			E						
E				F			G						
G				H									

Verbal boundary description and justification - Legal description Bateman's Addition, Blk. 7, Lots 1-8, entire block occupies the entire block surrounded by Atlantic St. to the south; Lawe St. to the east; Hancock to the north; and Union to the west. Located in the 1st Ward. 1917 Standard Atlas of Outagamie County.

List all states and counties for properties overlapping state or county boundaries

state	code	county	code
state	code	county	code

11. Form Prepared By (continued)

name/title Paul Abrahams/Project Director

organization SHSW/FRVIS/UWGB

date April 13, 1982

street & number University of Wisconsin-Green Bay

telephone 465-2348

city or town Green Bay

state Wisconsin

12. State Historic Preservation Officer Certification

The evaluated significance of this property within the state is:

national state local

As the designated State Historic Preservation 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.

State Historic Preservation Officer signature

Richard Henry

title Director, State Historical Society of Wisconsin

date 5/16/82

For NPS use only

I hereby certify that this property is determined eligible for inclusion in the National Register

DOE/OWNER OBJECTION

Beth Crowne

date 10/4/82

Keeper of the National Register

Attest:

date

Chief of Registration

**United States Department of the Interior
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Appleton Wire Works, Appleton, Outagamie Co., WI

Continuation sheet

Item number 8

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The Fourdrinier wire screen weaving process resembles that of textile weaving, but machinery is heavier. Although screen-formed paper was invented nearly 2,000 years ago, it was not until 1797 that continuous sheet paper making was invented. The Fourdrinier machine, with its long wire mesh screen, is a development of that eighteenth-century machine. The Fourdrinier process requires the making of a fine-diameter wire, achieved by repeatedly heating the wire (annealing) and drawing it through dies; the wire is then wound on bobbins for weaving across a wire warp. Wet paper pulp can then be carried to rollers and driers on the wire screens.

When the Appleton Wire Works was organized in 1896, there were thirteen manufacturers of paper mill wire cloth in the United States, five in New England, seven in the New York area, and one in Ohio.² With its central location and ready source of power on the Fox River, Appleton was a logical choice for the location of a second midwest plant. Of the thirteen Fourdrinier companies in existence at the turn of the century, only six survived until 1950, and only six new firms were established in the twentieth century. Several other wire weaving companies were established in the Fox River Valley (at Menasha, Green Bay, and Appleton), but some have failed and others have been incorporated into the Appleton Wire Company itself. Currently, Appleton Wire has only one competitor in the midwest: Wisconsin Wire Screen, also in Appleton.

With the automation of the weaving process after World War II and the development of plastic screens, the Appleton looms were modified or replaced, but the company does retain the original loom, although not in use. The company is currently a subsidiary of Albany International.

¹Eighty Years of Excellence, Appleton Wire Company publication, Appleton, Wisconsin, May, 1976.

²1848-1948, A History of the Wisconsin Paper Industry, p. 60.

³Fifty Years of Excellence, 1976.

**United States Department of the Interior
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Appleton Wire Works, Appleton, Outagamie Co., WI

Continuation sheet

Item number 11

Page 1

Form Prepared BY:

Diane H. Filipowicz/Architectural Historian
State Historical Society of Wisconsin
816 State Street
Madison

May 1982
608/262-2732
Wisconsin 53706

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES
EVALUATION/RETURN SHEET

REQUESTED ACTION: NOMINATION

PROPERTY Appleton Wire Works
NAME:

MULTIPLE
NAME:

STATE & COUNTY: WISCONSIN, Outagamie

DATE RECEIVED: 7/23/08 DATE OF PENDING LIST:
DATE OF 16TH DAY: DATE OF 45TH DAY: 9/05/08
DATE OF WEEKLY LIST:

REFERENCE NUMBER: 82005123

NOMINATOR: STATE

REASONS FOR REVIEW:

APPEAL: N DATA PROBLEM: N LANDSCAPE: N LESS THAN 50 YEARS: N
OTHER: N PDIL: N PERIOD: N PROGRAM UNAPPROVED: N
REQUEST: N SAMPLE: N SLR DRAFT: N NATIONAL: N

COMMENT WAIVER: N

ACCEPT RETURN REJECT _____ DATE

ABSTRACT/SUMMARY COMMENTS:

Entered in
The National Register
of
Historic Places

RECOM./CRITERIA Accept

REVIEWER Edson Beall

DISCIPLINE History

TELEPHONE _____

DATE 9.4.08

DOCUMENTATION see attached comments Y/N see attached SLR Y/N

If a nomination is returned to the nominating authority, the nomination is no longer under consideration by the NPS.

WISCONSIN



WISCONSIN
HISTORICAL
SOCIETY

Headquarters Building
816 State Street
Madison, WI 53706-1482
608-264-6400

July 15, 2008

Dr. Janet Matthews
Keeper, National Register of Historic Places
National Park Service
1201 Eye St., NW
8th Floor (MS 2280)
Washington, DC 20005
Main telephone: 202-354-2213

Jan
Dear Dr. Matthews:

Enclosed is a notarized letter from the current owners of the Appleton Wire Works, Outagamie County, Wisconsin, asking the objection to listing be lifted. The property was determined eligible October 4, 1982 due to owner objection. The reference number is 82005123.

If you have any questions or require additional information, please contact Daina Penkiunas of my staff at (608) 264-6501.

Sincerely,

Michael E. Stevens
State Historic Preservation Officer
Administrator, Division of Historic Preservation-Public History
608/264-6464
michael.stevens@wisconsinhistory.org