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street & number 600 S. Atlantic Street (office) ___ not for publication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

<table>
<thead>
<tr>
<th>Category</th>
<th>Ownership</th>
<th>Status</th>
<th>Present Use</th>
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<td>public</td>
<td>X occupied</td>
<td>__ agriculture</td>
</tr>
<tr>
<td>building(s)</td>
<td>X private</td>
<td>___ unoccupied</td>
<td>___ commercial</td>
</tr>
<tr>
<td>structure</td>
<td>___ both</td>
<td>___ work in progress</td>
<td>___ educational</td>
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<tr>
<td>site</td>
<td>Public Acquisition</td>
<td>Accessible</td>
<td>___ entertainment</td>
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<tr>
<td>object</td>
<td>___ in process</td>
<td>___ yes: restricted</td>
<td>___ government</td>
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<td>X yes: unrestricted</td>
<td>___ scientific</td>
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<td>___ no</td>
<td>___ transportation</td>
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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 X no
date 8/1981 ___ federal X state ___ county ___ local
depository for survey records State Historical Society of Wisconsin
city, town Madison state Wisconsin 53706
7. Description

Condition

X. excellent       deteriorated       unaltered
___ good       ___ unexposed
___ fair

Check one

X. altered
___ original site
___ moved date

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 1979, 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.

1916

1896

1900, 1907

1901

1909

1905

E. Atlantic St.

APPLETON WIRE WORKS
(not to scale)
## Period Areas of Significance—Check and justify below

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<th>Period</th>
<th>Archeology-prehistoric</th>
<th>Archeology-historic</th>
<th>Architecture</th>
<th>Art</th>
<th>Commerce</th>
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**Specific dates** 1896, 1905, 1909, 1916

**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. 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. At age eleven, Buchanan began the first of his apprenticeships as a bobbin 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. 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

3. Tax Rolls for the City of Appleton, Outagamie Series 4. 1895-1960. Housed in Area Research Center, University of Wisconsin-Green Bay, WI.

10. Geographical Data

Acreage of nominated property approx. 1.5

Quadrangle name Appleton

Quadrangle scale 1:24,000

UMT References

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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

<table>
<thead>
<tr>
<th>state</th>
<th>code</th>
<th>county</th>
<th>code</th>
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</table>

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  X 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

[Signature]

title Director, State Historical Society of Wisconsin date 9/16/82

For NPS use only

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

[Signature]

title Keeper of the National Register date 10/1/82

Attest:

[Signature]

title Chief of Registration
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. 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.

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


3 Fifty Years of Excellence, 1976.
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 11

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 16TH DAY: 7/23/08

DATE OF WEEKLY LIST: 7/23/08

DATE OF PENDING LIST: 7/23/08

DATE OF 45TH DAY: 9/05/08

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 Bell 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.
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

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
APPLETON WIRE WORKS, 601 S. Atlantic St.,
Appleton, Outagamie Co., WI. Photo by
Paul Abrahams, June 1982. Neg. at WI
Hist. Society. Corner N. Union & E.
Hancock, facing SE. Photo #3 of 4.