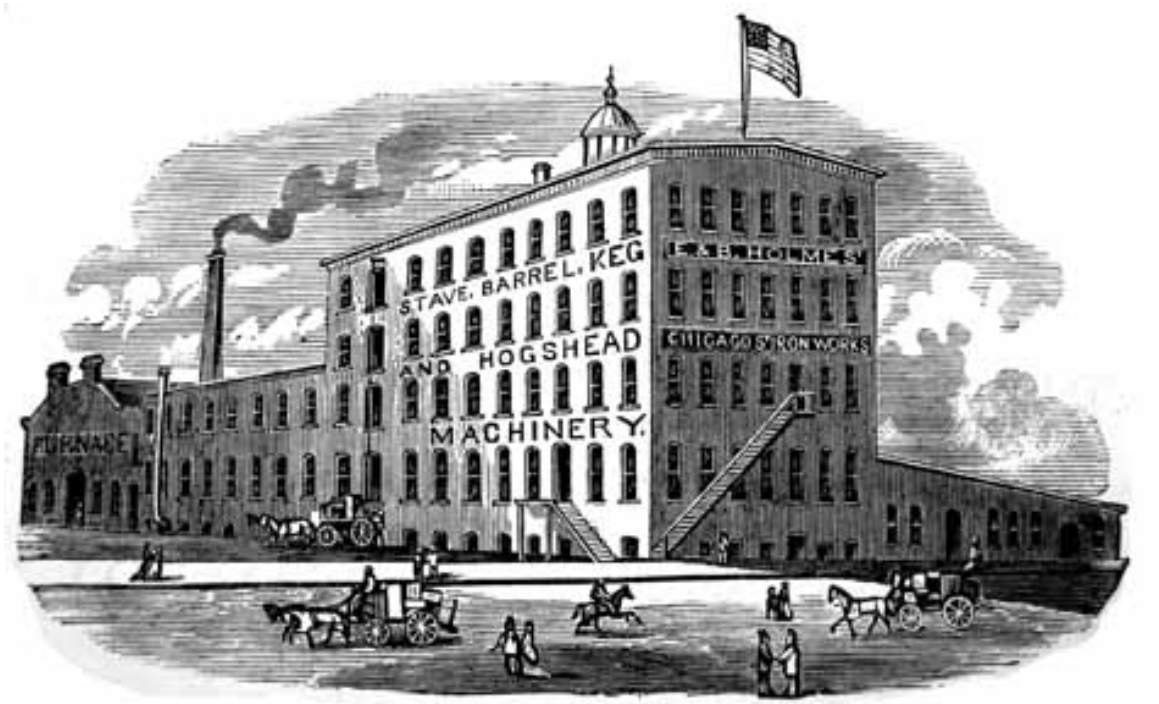
State and National Register of Historic Places Nomination
December 2008

THE E. & B. HOLMES MACHINERY COMPANY BUILDING

"The Cooperage"

55-59 Chicago Street
Buffalo, Erie County, NY 14204



The E. & B. Holmes Machinery Company Building, ca. 1876

Prepared by:

Clinton Brown Company Architecture ReBuild
The Pierce Building in the Theater Historic District
653 Main Street, Suite 104
Buffalo, NY 14203
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OMB No. 10024-0018

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer to complete all items.

1. Name of Property

historic name E. & B. Holmes Machinery Company Building

other names/site number The Cooperage

2. Location

street & number 55-59 Chicago Street [ ] not for publication

city or town Buffalo [ ] vicinity

state New York code NY county Erie code 029 zip code 14204

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, 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 as set forth in 36 CFR Part 60. In my opinion, the property [X] meets [ ] does not meet the National Register criteria. I recommend that this property be considered significant [ ] nationally [ ] statewide [X] locally. ([ ] see continuation sheet for additional comments.)

Signature of certifying official/Title Date

New York State Office of Parks, Recreation & Historic Preservation
State or Federal agency and bureau

In my opinion, the property [ ] meets [ ] does not meet the National Register criteria. ([ ] see continuation sheet for additional comments.)

Signature of certifying official/Title Date

State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that the 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 the Keeper date of action

E. & B. Holmes Machinery Company Building | Erie County, New York
Name of Property | County and State

5. Classification

Ownership of Property
(check as many boxes as apply)

[X] private
[ ] public-local
[ ] public-State
[ ] public-Federal

Category of Property
(Check only one box)

[X] building(s)
[ ] district
[ ] site
[ ] structure
[ ] object

Number of Resources within Property
(Do not include previously listed resources in the count)

Contributing	Noncontributing	
1	3	buildings
		sites
		structures
		objects
		TOTAL

Name of related multiple property listing
(Enter "N/A" if property is not part of a multiple property listing)

N/A

Number of contributing resources previously listed in the National Register

N/A

6. Function or Use

Historic Functions
(enter categories from instructions)

INDUSTRY/
Manufacturing

Current Functions
(Enter categories from instructions)

VACANT
WORK IN PROGRESS

7. Description

Architectural Classification
(Enter categories from instructions)

LATE 19TH & EARLY 20TH CENTURY
AMERICAN MOVEMENTS/ No Style

Materials
(Enter categories from instructions)

foundation stone rubble (portion), concrete
walls brick
roof slag and tar
other

Narrative Description
(Describe the historic and current condition of the property on one or more continuation sheets)

E. & B. Holmes Machinery Company Building | Erie County, New York
Name of Property | County and State

8. Statement of Significance

Applicable National Register Criteria
(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

[X] **A** Property associated with events that have made a significant contribution to the broad patterns of our history.

[ ] **B** Property is associated with the lives of persons significant in our past.

[X] **C** Property embodies the distinctive characteristics of a type, period, or method of construction or that represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.

[ ] **D** Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations
(Mark "x" in all boxes that apply.)

[ ] **A** owned by a religious institution or used for religious purposes.

[ ] **B** removed from its original location

[ ] **C** a birthplace or grave

[ ] **D** a cemetery

[ ] **E** a reconstructed building, object, or structure

[ ] **F** a commemorative property

[ ] **G** less than 50 years of age or achieved significance within the past 50 years

Areas of Significance:
(Enter categories from instructions)

Architecture (Architectural Type/Architects)

Industry (Manufacturing)

Invention (Barrel Making)

Period of Significance:

1857-1950 (Holmes Company)

c. 1860s- 1913 (Architectural)

Significant Dates:

1857, 1863, 1878, c.1910-12, 1913

Significant Person:

N/A

Cultural Affiliation:

N/A

Architect/Builder:

Unknown (c.1850s - 1870s)
Colson-Hudson (1910-1912)
Lansing, Bley, & Lyman (1913)

Narrative Statement of Significance
(Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographical References

Bibliography
(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

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 Building 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 repository: _____

10. Geographical Data

Acreage of Property .67 Acres

UTM References
(Place additional UTM references on a continuation sheet.)

	Zone	Easting	Northing		Zone	Easting	Northing
1	18			3	18		
2	18			4	18		

Verbal Boundary Description
(Describe the boundaries of the property on a continuation sheet.)

Boundary Justification
(Explain why the boundaries were selected on a continuation sheet.)

11. Form Prepared By

name/title Jennifer Walkowski, Architectural Historian [Edited and arranged by Daniel McEneny, NY SHPO]

organization Clinton Brown Company Architecture, pc date

street & number 653 Main Street, Suite 104 telephone (716) 852-2020

city or town Buffalo state NY zip code 14203

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps

A **USGS map** (7.5 or 15 minute series) indicating the property's location
A **Sketch map** for historic districts and properties having large acreage or numerous resources.

Photographs

Representative **black and white photographs** of the property.

Additional items
(Check with SHPO or FPO for any additional items)

Property Owner (Complete this item at the request of the SHPO or FPO)

name Newark Niagara LLC

street & number 653 Main St, Suite 104 telephone (716) 852-2020

city or town Buffalo state NY zip code 14203

Narrative Description

1.) Overview:

The E. & B. Holmes Machinery Company Building is located at 55-59 Chicago Street, in Erie County, Buffalo, New York. Chicago Street is a north-south thoroughfare which is located in an area known as the Old First Ward section of Buffalo. The building sits on a roughly rectangular plot which measures approximately 185 feet north-south by 150 feet west-east and it is located on the east side of Chicago Street, between Ohio and Mackinaw Streets. To the property's east is located Father Conway Park which was constructed by the infill of the Ohio Basin. To the south is located an automotive garage and petroleum company. Empty lots and storage yards surround much of the immediate area. The property is located about 200 yards north of the Buffalo River, which is home to several of Buffalo's famous grain elevators and several assorted industrial and manufacturing buildings both historic and modern. Not far away from the Holmes building in the Old First Ward area is scattered a few contemporary mid- to late-nineteenth-century industrial buildings which are smaller and generally less well preserved.

The E. & B. Holmes Machinery Company Building is a roughly rectangular building composed of three primary sections of four-, three- and two-stories which encircle a central courtyard. These segments of the building reflect the various additions and changes which the building underwent throughout its 150 year history. The oldest portion of the building, known today as the Mill Building (c. 1870s), is a four-story rectangular brick structure with a flat roof located along the north of the building. Adjoining the south-east of this building is a similar three-story rectangular brick wing known as the Forge Building (c. 1910-1912) which runs perpendicular to the Mill Building. Parallel to the Mill Building and attached to the Forge Building is a two-story rectangular wing which is known as the Pattern Building (1913). Connecting the Mill and Pattern Buildings along Chicago Street is a one-story Office unit which housed office space (also 1913). A smaller wing known as the Tool Room (c. 1910-12) projects from the north-west end of the Mill building and is a two-story addition which is raised on steel piers over a driveway. All portions of the building are constructed of brick masonry and the westernmost section of the Mill Building rests on a basement space which has stone rubble foundation walls. Other portions of the building were built with the wood floor joists directly at grade. The roof of the building is flat and is finished with slag and tar.

The E. & B. Holmes Machinery Company Building is a stylistically simple, functional design with almost no ornamentation or decorative detailing. The elevations are defined primarily by evenly spaced, tiered, single and grouped, multi-paned, double-hung windows. The only noticeable embellishment appears to be the segmental-arched window openings and subtle sills as well as a simple brick corbelling along the roofline of the Pattern building. The building is typical of nineteenth-century vernacular industrial structure, and is similar to those commonly seen in urban areas throughout the United States. The edifice is distinguished from other manufacturing structures in the area by the white "E. & B. Holmes Mach'y Co." and "Chicago St. Iron Works" lettering that is painted on the exterior masonry of the structures and is still largely visible to this day. The words "General Machinist" are painted on newer sections of the complex.

2.) Exterior Description:

The Mill Building (c. Late 1870s, portions possibly c.1850s-1860s), *Architect/Builder Unknown*

The Mill Building is a brick, four-story rectangular building located on the north of the E. & B. Holmes Machinery Company Building. It measures approximately 45 feet wide by 150 feet long. The Mill Building is the oldest portion of the Holmes building and was largely constructed in the late 1870s following a terrible boiler explosion in 1863 and a devastating fire in 1878 which destroyed most of the original building which dated to circa 1855-1856.[1] Today, the Mill Building shows evidence of a partial collapse which occurred in 2007 after years of neglect by previous owners. The building's eastern wall now lies in ruin, along with portions of the north-western corner and the fourth floor.

The front (west) façade which faces Chicago Street sits on a slightly elevated watertable and measures six bays in width (seven at the first floor) with numerous tall, narrow segmental-arch headed windows. Main entry into the building is located through a door located at the north-western corner of the building and features a round-headed arch above. The windows are wood, four-over-four double hung windows. One of the most notable features of the Mill Building's Chicago Street façade is the remnants of painted lettering on the brick building which still visibly read "E. & B. Holmes Mach'y Co.," "Chicago St. Iron Works," and "E. & B. Holmes Machinery" painted in horizontal bands between the windows. The upper brick wall surface shows evidence of alteration along the parapet.

Both the north and south facades of the Mill building are similarly unornamented brick facades which feature numerous rows (approximately 18 bays) of segmental-arched, twelve-over-twelve wood framed double-hung windows. These windows are slightly larger than the tall, narrow windows found on the northern façade, but are

[1] Advertisements for the Swartz Iron Company in 1856 note that customers should "come visit [them] in their new building" which was located on Chicago Street near the Ohio Basin on the site of the present Holmes Building. Contemporary accounts record it as a four-and-a-half-story brick building which had a basement. Articles indicate the Holmes brothers bought the company (and the building) from Swartz in 1857. Dating of the various portions of the building is a bit more complicated. The building suffered a massive boiler explosion in 1863 which destroyed the rear (east) wall and collapsed the side walls. Minimal structural damage to the western façade of the building is mentioned. It seems likely based on this information that the original 1850s west façade survived while the rear and side walls of the building were rebuilt in the 1860s. This building is depicted in an engraving from 1876 as four-and-a-half stories, seven bays wide and with a gabled roof. A fire swept through the building in 1878 and it was reported that the building was "entirely destroyed." Although the building was rebuilt in the late 1870s in a manner entirely similar to the original, it seems likely that a portion of the first story of the western wall as well as the northern wall may have survived and were incorporated into the new construction. The 1876 image depicts 7 bays along the western façade which is still the case in the first floor of the Chicago Street façade today. Upper floors now contain 6 bays of slightly wider windows which are also depicted in an 1889 engraving, indicating that the western first floor wall and basement may be original (c. 1855-56). The appearance of exactly 18 bays of windows across the northern façade in both the 1876 illustration and the current building is striking evidence for this wall's survival from the 1860s construction. The large, arched doorways are also located in exactly the same positions in both the drawing and the current building. It also seems likely that a majority of the basement was infilled with the resulting rubble and debris following the fire, possibly as a means to stabilize new construction above. When one traces the position on the building on the property through numerous maps and atlases, the western and northern walls appear to remain in their exact locations which would also indicate their prolonged survival. Alterations to the parapet of the roof may have been completed when the 1878 fire damaged the rafters, and the building was converted from a gable roof to a new flat roof.

very much of a similar design. Several of the building's stories contain fragments of an iron band which runs across the rows of windows of each story, possible used to secure large shutters or for sliding ladders or equipment. One of the most prominent features which are found only on the north façade is a series of stacked round-headed arched openings found at the building's approximate midpoint. These arched doorways contain large wood doors and are surmounted by the remains of an elevator canopy. Even dating back to the earliest image of the building from 1876, a hoisting system was located in approximately this same location and allowed materials and machinery to be raised from the ground to the subsequent floors above. Located just to the north-east of the arched doorways is a raised metal-clad walkway which at one time connected the second floor of the building to a large storage warehouse which faced onto Mackinaw Street (demolished). Raised on steel beams and columns, the metal walkway contains several small windows for lighting. The northern façade also shows some of the damage which resulted from the 2007 partial collapse of the Mill Building. At the north-eastern corner of the north façade several bays of windows are now missing, as are portions of the fourth-story walls. Damage to the southern façade was less severe, but it still contains portions of missing wall material along the fourth-story. Both the north and south facades also feature traces of painted lettering similar to that found on the western façade.

The eastern façade of the Mill Building is no longer standing and was the most significantly devastated in the 2007 collapse. A majority of this elevation was likely constructed in the 1890s. Previous images of this elevation show a simple, solid brick wall with no window voids, however today this façade completely exposes the interior structural system. Funding for the stabilization of the remaining building fabric following the collapse was secured by the current developer through a grant from the Preservation League of New York. Stabilization and complete enclosure of the building is largely complete at this time, with new construction work expected to begin in March 2009.

The Forge Building (first floor c. 1864-1872, addition 1910-12) & Tool Rooms (c. 1910-12), *Colson-Hudson*

The Forge Building is the smallest wing, measuring approximately 40 feet by 60 feet, of the three main areas of the E. & B. Holmes Machinery Company Building. Originally this portion was a one-story ell and dates to the between 1864-1872.[2] It was enlarged to three-stories by Colson-Hudson in their c. 1910-12 renovations; built right on top of portions of the existing first-story. Like the Mill Building, this is a simple brick industrial structure, three-stories in height with minimal ornamentation. The windows in this portion reflect the changing styles of the early twentieth-century, and rather than the segmental-arched individual windows, those found in the Forge Building are commonly paired, flat-headed windows with a two-over-two design.

Today, the Forge Building is engulfed within portions of the later 1913 addition to the building and the original western façade is obscured behind a small three-story unit which was added to house restrooms. The entire north of the building connects to the south-east wall of the Mill Building. The south-facing elevation of the

[2] The one-story ell which became the first-floor of the Forge building appears to have been constructed following the 1863 fire as an enlargement to the original rectilinear Mill Building, and it appears on an 1872 atlas. Also as a part of this construction was a kiln area which was ran along the east side of the Mill Building and the ell. This was demolished for some reason circa 1891, thus the east elevation of the entire Holmes building appears to date from the 1890s.

building hints at the original appearance of this wing, with two-stories of three bays of paired windows above the first-story which features a large rectangular doorway which has large wooden doors centered in the wall. To the right of the large doorway is a segmental-arched window which is a remnant of the original first-story construction from the 1860s-70s and was converted into a larger door opening. The point where the old building fabric was incorporated into the new construction is marked on the south façade by the appearance of a portion of an arched opening which is visible between the old segmental-arched window and the new rectangular door opening. This partial arch is now a pattern in the brickwork. To the left of the doorway is a flat-headed window from the c. 1910-12 construction.

The eastern façade of the Forge Building was likely constructed in the 1890s and is a rectangular surface of brick with two small, two-over-two windows which appear to have been inserted into the wall more recently. A five-story brick chimney is position to the northern edge of the Forge Building façade. This elevation is unornamented and plain in its overall appearance. Visible in the brick of this façade is a difference in the appearance and coloration of the brick, with a portion of the first-floor being of an older type of brick, with newer brick built above. This was noted in the working drawings of Colson-Hudson who incorporated the existing one-story ell into their new three-story Forge Building in the early 1900s. Metal tie rods are also visible on the surface of the east elevation. Traces of painted lettering remains on the façade, with the words "E & B. Holmes Machinery…" are barely visible today. The brick chimney also displays traces of painted lettering.

Also constructed by Colson-Hudson in their c. 1910-12 additions to the Holmes Building is a small, rectangular, raised two-story wing known as the Tool Rooms which attaches to the north façade of the Mill Building at the very west corner. This small wing, which measures approximately 34 ½ feet across the western end by 24 feet along the northern end, housed the Holmes company's various tools, small equipment and materials used in the machine shop. It is raised to a height of approximately 31 feet, standing above a driveway on steel columns. Both the west and east facades of the Tool Rooms are two bays in width. The west façade features tripled window groups which each are a six-over-six double-hung window. The windows of the eastern façade are similarly in groups of three, but each window is a two-over-two double hung window. This type appears to be original to the Colson-Hudson work as it is also found in the Forge Building. Traces of painted lettering run across both the western Chicago Street façade and the northern elevation.

The Pattern Building & Office Wing (1913), *Lansing, Bley & Lyman*

The 1913 Pattern Building addition which was designed by the firm of Lansing, Bley & Lyman is a two-story rectilinear brick building measuring 45 feet wide by 120 feet long which runs parallel to the existing Mill Building. This portion of the Holmes Building was built with a sympathy towards the existing Mill Building architecture, maintaining the simplicity of the design and with numerous segmental-arched windows along its facades. The Pattern Building connects at its eastern end to the Forge Building and is linked to the Mill Building along the western façade via a one-story Office wing which creates a continuous façade along Chicago Street. Lansing, Bley and Lyman also created a small three-story restroom addition which covered the existing western façade of the Forge Building, and a four-story elevator tower at the south-eastern corner links the Pattern and Forge Buildings.

The western façade of the Pattern Building is complimentary to that established by the earlier Mill Building. Two stories of segmental-arched six-over-six windows in six bays provide a continuous appearance along the primary Chicago Street façade. This look is extended through the three bay one-story addition of the Office wing, which connects the Mill and Pattern Building facades, creating one visually seamless elevation along the street-front. Across the Office wing and Pattern Building on the western elevation is painted text reading "E. & B. Holmes Machinery Co.," running between the first and second floors. This addition sits on a stone watertable which is squarer and slightly different from that of the Mill Building, and the window sills are somewhat more prominent than on the older building portion. Along the upper portion of the wall is one of the building's sole embellishments; a simple brick corbel detail runs near the parapet of the roof. This may have been drawn from a similar detail which ran along the Mill Building, but since the parapet of the Mill Building shows evidence of alterations, this is unknown.

The north and south elevations of the Pattern Building contain numerous segmental-arched windows along the 14-bay elevation, and each window is six-over-six double-hung with wood framing and rests on a stone sill. At the approximate midpoint of the first and second floor of the north façade are large doorways for access to the courtyard. The doorway of the second-story is connected to the Mill Building across the courtyard via an elevated wire-grate walkway. The south façade of the building also contains a central doorway on the first floor, allowing for the moving of large machinery and components in and out of the building. The four-story elevator tower which projects above the south-eastern corner of the building contains a single window at each of the floor levels.

The eastern end of the Pattern Building connects to the earlier Forge Building, creating an enclosed central interior courtyard within the Holmes Building. Also added by Lansing, Bley & Lyman is a three-story restroom addition visible at the eastern end of the courtyard. This addition features three bays of six-over-six segmental-arched windows. Visible at the western end of the courtyard is the eastern façade of the Office wing which is a stepped, one-story addition which contained the additional office space to the western end and restrooms in the lower eastern portion. The windows of the eastern façade of the Office wing are typical of Lansing, Bley and Lyman's additions to the building.

3.) Interior Description:

Mill Building

The interior of each of the buildings is mainly open, with the exception of a handful of smaller spaces that include offices, drafting rooms, toilet/ locker rooms, and storage/ tool rooms. These rooms are generally located on the periphery of each building. Many original and non-original features remain in these smaller spaces, including remnants of a pressed tin ceiling and several of built-in wood storage units. The large, central spaces were utilized as workshops, and heavy timber posts and beams are the only visual dividers in these large open spaces. The ceilings of the workshops are lined with built-in belt and pulley systems that powered the barrel-making machines that were once located below. The walls of workshop spaces are exposed brick, with walls of

offices and entryways once covered with a combination of plaster and wood wainscoting. Some wood doors remain, including paneled doors with transom windows, and larger rounded double-doors that open into the interior courtyard.

Typical of factory construction, the four floors of the Mill Building are primarily open interior spaces with a single row of heavy columns at the central axis for support. While the interior is in deteriorated condition, it is still possible to get a sense for the location and types of functions which were contained within the building. Materials used on the interior include maple flooring, hemlock joists, significant northern pine columns and yellow pine bracing.

Entry into the building is through doorways at the north-western corners of the building, which open into a two-story interior vestibule space which originally ran the entire width of the Mill Building. A stair in this space along the northern wall leads to the upper stories. Today, this room contains a large vault (still labeled with the Holmes name) and partition walls which separate off an office. The walls have a wainscot detail with traces of painted surface above. Along the room's eastern interior wall is the floor of what had at one time been a mezzanine balcony on the second floor, although this has been enclosed and is longer open to the floor above. The ceiling still contains traces of pressed tin tiles and the space contains a large cast iron radiator which is surprisingly ornate given the building's use as a factory. The front room of the Mill Building leads into the office space which was renovated by Lansing, Bley and Lyman in their 1913 renovations.

To the east of the front entry vestibule and on each of the second, third and fourth floors are large, open rectangular workspaces with minimal partitions. These open room plans would have allowed for maximum flexibility in using the large machines and equipment. The maple floor is in poor condition in places, but overall the support structure is sound in the workspaces. Walls are generally painted brick. The doors present in the space are simple, utilitarian wood doors which typically roll on tracks, providing minimal intrusion of the door into the work space. Various machinery elements and equipment is still present in the workspaces especially along the ceilings, including wheels, pulleys, chains, pipes and other parts. Still present on the ceiling of the first floor workspace is a trolley track which would have functioned for moving large and heavy pieces of machinery around the floor. Ceilings are generally unfinished with the rafters and cross-bracing exposed to the interior. Perhaps the most striking interior features of the workspaces are the exposed heavy wood framing and support structure; the massive pine columns and Y-shaped braces which were used to support the heavy load of not only the building but also the dynamic load of the machinery, tools and equipment.

The elevated two-story northern addition served as a tool and equipment storage area, and the interiors feature floor-to-ceiling bins for sorting and holding various nuts, bolts, screws and other mechanical pieces. The western wall of this section is marked by two sets of six-over-six double hung wood windows, each grouped in sets of three, for a total of twelve windows. Tools and other components were stored in this room, and many pieces still remain safely stored in their labeled bin even today.

The eastern end of the Mill Building suffered from a devastating structural collapse in 2007. Today, the entire eastern rear wall of the building has been demolished out of safety concerns, and all four floors are open to the

elements. All elements of the rear portion of the building which were precarious and could potentially have caused additional collapse have been demolished. In the redevelopment plans created by Clinton Brown Company, this area of the building will become a glass wall.

Historically, the Mill Building was used for a wide variety of functions through its 150 year history, all of them pertaining to manufacturing. Early accounts from the 1860s list that five separate tenants used the various floors of the building as machine shops, stave dressing and the Holmes' shook factory. The interior would have featured large pieces of machinery and work benches, and the open plans would have allowed for flexibility in arranging the equipment as technology changed.

Forge Building

The interior spaces have a similar industrial character as those in the Mill Building and include maple flooring, painted brick wall surfaces and exposed ceilings. Rather than the massive Y-shaped support columns and braces in the Mill Building, support is through smaller pine columns and hemlock capitals. Various remnants of industrial machinery remain, including an old boiler tank. The most significant piece of equipment to remain in the building is an old blast furnace and hood which dates back to the area's use as a forge for the metal working. Large workbenches were located in this area and were used to work the heated metal. Historically, this area of the building seems to always have been used for heating and working with metal, as it was noted as the blacksmith building and bending works in the 1880s.

Pattern Building and Office Wing

The two-story Pattern Building and the one-story Office wing is the most recent addition to the building, completed by Lansing, Bley and Lyman in 1913. The Pattern Building contains several smaller partitioned spaces which functioned as a drafting room, large storage vault, private office and a small private lavatory at the western end of the first floor, and large open work spaces on the first and second floors, comparable to those in the Mill Building. The small private office clearly was designed for one of the Holmes' as it is shows traces of being one of the more elegant interiors in the building. Along the wall dividing the office from the fire-proof vault is a fireplace with decorative wood paneled surrounds. At the south-eastern corner where the Pattern Building and Forge Building connect, a four-story elevator shaft is located. The connecting wing contained an office space and a small lavatory area. While the workspace areas are similar in their design and function to those in the Mill Building, here we see the use of metal support columns and steel beams. Interior wall surfaces are exposed, painted brick and the ceiling also is also open to the rafters. The two-story building has nine-over-nine double-hung wood windows on the first floor and six-over-six double-hung wood windows on the second floor. Doors, like the one at the east which connects the Pattern and Forge buildings, are large, heavy wood doors. Some of these doors are on rolling tracks or can swing open. Near the center of the workshop room is a wood stair for access between floors. Machinery components are hung in various locations along the exposed ceiling including chains, belt-driven wheels and shafts and other elements. The interior ply-board housing for the elevator is collapsing into the elevator shaft and the elevator itself is mostly intact but not functional. Portions of the roof on the second story are missing and open to the elements, and work is currently underway

to secure and seal off the open areas. Accessible through large wooden doors and connecting the second floor of the Pattern Building with the Mill Building is a wire grate bridge, which crosses over the interior twenty foot wide by eighty foot deep courtyard.

4.) Other Buildings on Site:

Also present on the site are three service buildings; a garage, a hoop shed and a transformer house. Throughout its long, 150 year history numerous buildings cropped up on the property owned by the Holmes Company, serving the needs of the industrial production as they were needed. Today, few of these buildings remain standing.

Beneath the raised northern Tool Rooms addition is located a corrugated metal rectilinear garage. This garage features several wood-framed windows and a door and is now used for general storage. Historically, this was noted as functioning as an automobile garage in the 1920s and was likely built on the site of an earlier small horse stable. Due to its altered condition, deterioration and later construction date, this building is non-contributing to the E. & B. Holmes Machinery Company Building.

The hoop shed is located at the south-east corner of the property, tucked in the corner of the property. This one-story building is built utilizing a concrete wall along the south and a brick wall along the east, using these pre-existing wall segments as portions of the building's walls. A large shed-like building, it features corrugated metal and steel beams in its construction. It is in precarious condition currently, with some portions leaning and some of the roof caving in. Historically, this structure was used for storage of hoops and other barrel and machine components, and it may have covered a water storage tank. A structure in the same location appears in a Sanborn map dated to 1914, and was apparently a one-story brick building used for storage. Today, the remains of this earlier structure are visible in the brick wall which runs from the Forge Building to the south-eastern corner of the property, connecting to the concrete wall which runs along the southern edge of the property. This brick wall features noticeable segmental-arched window voids which have now been infilled. The present version of the hoop shed likely dates to the 1920s and is largely in poor condition. It is a non-contributing building on the site.

The other notable structure which is present on the site is a brick transformer house, located near the collapsed north-eastern corner of the Mill Building. Damaged when struck by debris from the 2007 collapse, this pre-1925 brick structure lies in ruin today. Originally, this was located beneath an earlier metal 30,000 gallon water storage tank. This is also a non-contributing building.

Narrative Statement of Significance

1.) Introduction:

The E.& B. Holmes Machinery Company Building is significant under Criteria A and C as a substantially intact factory complex that embodies the distinctive characteristics of a nineteenth- and early twentieth-century urban industrial building in Buffalo, New York. Under Criteria A, The Holmes Company Building is significant as a building which is a fragment of Buffalo's once booming industrial area around the Erie Canal and also as a place where the unique invention of several patented machines for barrel making were developed and produced. Several of these machine designs won prestigious national awards. Under Criteria C, the E. & B. Holmes Machinery Building is an excellent example of the type of simple industrial architecture which was prevalent in mid-nineteenth century cities like Buffalo but now today, a majority of these buildings have been demolished. The Holmes Building is a rare survivor of such industrial architecture which flourished in Buffalo's once-thriving Old First Ward area.

At a time when barrel making was done in much the same manner as it had been for centuries, each barrel being hand-made individually by a cooper, the E. & B. Holmes Machinery Company revolutionized the barrel making industry in the United States by specializing in the design and manufacturing of machinery used for mass producing barrels. Company founders, brothers Edward and Britain Holmes, were successful and well-known in the local Buffalo community as a result of their national manufacturing acclaim. Architecturally, the E & B. Holmes Machinery Company Building is an excellent example of the type of urban industrial architecture which was common along the Buffalo waterfront during the mid-nineteenth and early twentieth-century. Remnants of this industrial history include Buffalo's famous collection of Grain Elevators (which include examples like the Concrete-Central Elevator built 1915-17, NR 2003 and the Wollenberg Grain and Seed Elevator built 1912, NR 2003), however few other examples of Buffalo's thriving industrial history remain intact.

2.) Buffalo's Waterfront and Industrial History in the Mid-Nineteenth Century:

Buffalo became a center for trade, commerce, manufacturing and industry following the opening of the Erie Canal in 1825. Following improvements to the Buffalo harbor, the city flourished as a transfer point for goods being shipped between the East and the emerging Midwestern markets. In 1836 the first rail lines were laid in Buffalo, strengthening the city's connection to other growing cities across the country including New York, Boston and others. To take advantage of its prime location as one of the country's most successful ports, Buffalo created an enlarged Inner and Outer Harbor system which allowed for the anchorage of large lake freighters in Lake Erie while accommodating docks for smaller vessels in the Buffalo River. Lacing the harbor areas, Buffalo created a series of artificial canals, basins and slips which maximized the city's use of its ports and increased the speed in which loading and unloading of freight could be accomplished.

As trade boomed in the area of Buffalo along the waterfront, Buffalo River and Erie Canal areas, construction of new industries, warehouses, factories and other buildings in this area also thrived. Among the most

identifiable structures built in this section of Buffalo include the Grain Elevators, which were originally invented in Buffalo in 1842 by Joseph Dart. At these elevators, grain arrived in bulk from the Midwest and was weighed, sorted and packaged according to the orders by grain mills and traders. The grain was packaged into wooden barrels. The process was done so quickly that grain could arrive from the Midwest, be packaged and on canal boats ready for shipping to the cities in the East within the same day. The number of barrels required daily for the shipment of grain alone would have been enormous, and considering that each barrel had to be individually made by hand during the 1840s and 1850s, the task seems staggering.

The influx of materials moving through the Buffalo ports created significant opportunities for secondary industries to grow and prosper, and aided by significant advancements in industrial technologies, Buffalo became not only a thriving grain port but also had significant timber and iron manufacturing industries. In the 1850s, a majority of items used in everyday life- both in homes and businesses- was made of iron, and the city contained numerous iron working foundries located primarily in the First Ward area of Buffalo, conveniently located near the Erie Canal, the Buffalo River and other waterways. Companies such as Jewett and Root's Stove Factory was located near the Ohio Basin with access to the Erie Canal, and Buffalo Architectural Iron Works was located nearby and catered to the growing demand for iron as a building material. In the early 1850s, the Swartz Iron Works, later located on Chicago Street near the Ohio Basin, produced a wide variety of products including engines, boilers, architectural pieces and castings. Already operating a successful lumber and planning mill along the Hamburgh Canal (taking advantage of the demand for building materials in the Midwest and the ample supply of raw lumber coming in from Pennsylvania, New York and Canada), brothers Edward and Britain Holmes purchased the Swartz Iron Works in 1857. With the ability to produce both the wood staves and the iron components, it was not long before the Holmes' brothers began producing barrels to fill the ever-growing demand for storage and shipping containers. The company then invented and developed machines which could mass produce barrels, taking advantage of the demand created by Buffalo's booming trading and commercial economy.

Across Chicago Street from the Holmes Company was the historic Harbor Inn and tavern which housed numerous raucous guests and visitors, catering to the bustling waterfront area. During the mid to late nineteenth-century, Buffalo's First Ward was a dicey place where men after a long day toiling in the factories and waterfront shipping industries could meet for a drink and entertainment. During the mid-late-nineteenth-century, Buffalo's waterfront area was known as a lawless- often dangerous- area of the city filled with bars, brothels, gambling and young women were warned to stay far away in order to protect their virtue. The Harbor Inn was an especially notorious bar in the area. Like numerous nineteenth-century remnants in the Old First Ward the building was torn down in 2003. Another nearby tavern, McBride's Tavern, which was located at 115 Chicago Street just up the road from the Holmes Company, was rumored to be the site where the infamous invasion of Canada, Fenian's Raid, was planned in 1866.[3] After suffering from a partial collapse, it too was demolished in 2008.

[3] Larned, 53. This rumor also crops up on numerous Buffalo-area websites including forgottenbuffalo.com due to the large number of Irish immigrants who lived and worked in the First Ward area congregated in the establishments in the area.

3.) A Brief History of Barrel Making:

In an age before metal and plastic containers, the goods and products of the world were stored and shipped in wooden barrels for thousands of years. Wooden tubs date back to ancient tombs in Egypt from around 2690 BC. Liquid-tight wooden barrels made from staves (bent wooden pieces which are bound together using metal hoops) were likely invented by the Romans and became commonly used in the 2000 years following. Some scholarship points to similarities between barrel construction and ship construction, and the two may have developed concurrently. By the Middle Ages in Europe, the wooden barrel was a standard packing and shipping unit and was used to ship and store a majority of the world's wine, oil, and dry goods. For most of the barrel's history, each one was handmade by a highly-skilled craftsman known as a cooper. During the Middle Ages, coopers formed guilds which trained apprentices to be able to properly shape and secure the oak staves to prevent liquids from escaping. These guilds were powerful groups who not only were responsible for the creation of the barrels themselves, but also for setting standards for weights and sizes of shipped merchandise.

In America, barrels were played a key role in the development of the colonial market. A majority of the goods which supplied the new colonists were provided by barrels including meat, water, vegetables and gunpowder. As the American economy turned towards the export of resources, barrels again played a key role. Exports of rice, tobacco, whale oil and other goods were stored and shipped around the world, and the abundant timber in the US allowed for barrels to be plentiful and relatively inexpensive. Like their medieval counterparts, American coopers united in 1833 to organize trade unions and by 1871 they were the second largest union in the US.

Coopering continued to be a hand operation until well into the nineteenth century. In a time when the US was resource rich but labor poor, new machines were invented which could help Americans utilize the raw materials on an ever-increasing scale. This became the dawn of the industrial revolution in the US, and machinery was invented for industries such as textile making, mining, metallurgy, saw mills and numerous other facets of production. The barrel making industry, like many others during this time, was revolutionized by new machines which could create barrels on an unprecedented level, turning out new storage and shipping containers to suit the ever growing demand of the booming American economy. The E. & B. Holmes Machinery Company was at the forefront of this technological revolution in America, developing what are believed to be the first machines for the production of barrels in America during the late 1850s and into the early 1860s. Over their 150 year history, Holmes machinery played a key role in supporting the economic strength of many American industries including sugar, flour, tobacco, liquor and numerous other goods.

The wooden barrel saw a decline in use during the twentieth-century, although as early as the Civil War other options for storage and shipping were developed. Paper bags and small wood crates could be produced cheaply and were an easy option for the purchase and transport of smaller individual-sized purchased. At the turn of the century, packaging turned towards individual consumer packages rather than the bulk barrel type of package, and paper, plastic and metal storage options became faster, cheaper and disposable packaging options. While the golden age of the wooden barrel has largely ended, barrels continue in use today primarily in the wine and whiskey industries and are often made by hand.

4.) Barrel Making Machinery Patents:

In an age of rapid industrial development and the increasing reliance on machines in production and manufacturing, the E. & B. Holmes Company developed numerous patents for barrel making machinery and related manufacturing devices. The first patent granted to the Holmes brothers was reportedly awarded in 1860. In 1861 a patent was issued to Edward and Britain Holmes for an "Improvement in Stave Making Machines," indicating the brothers were hard at work designing and developing their barrel making machinery soon after they purchased the Swartz Iron Works in 1857. Several other patents emerge from the 1860s and include number 37,720 which was issued in 1863 to Edward Holmes for a refinement on the 1861-patented stave dressing machine. Edward also invented and patented a complicated but improved hoop-driving and barrel-crozing machine in 1863 as well.

It is during the 1870s and 80s that the products developed by the Holmeses begin to really impact the marketplace. During this period, several articles in the *Scientific American* journal, one of the leading industry and invention magazines in the country at that time, featured the Holmes barrel making equipment in several articles. In 1876 alone two separate articles ran which pictured several of the Holmes machines including their patented barrel-head dressing and jointing machine, keg stave jointing machine, machine for leveling and trussing slack barrels and a machine for rounding barrel heads. These articles often mention the fact that these machines were patented by the Holmes, a move which allowed the brothers to corner the market when it came to developing and refining the barrel making technology. In 1873 the Holmes company patented an improved machine for crozing and chamfering barrel staves. Britain patented a machine for grinding steel bars in 1881 and in 1882 he invented a method of patching knot holes in the wood for staves in order to maximize the lumber used in barrel making. In an age of rapid invention and mechanization, journals such as *Scientific American* helped to bring national and international recognition to the Buffalo company and their wide variety of products.

While Edward and Britain Holmes were credited with many of the early patents, later patents are often attributed to an Edward F. Beugler who appears to have been employed by or associated with the Holmes Company. Many patents which were issued to the Holmes firm between 1900 and into the 1930s were credited to Beugler, and although no information has been located on Mr. Beugler, he was likely head of product development or a manager for the company. His 1901 patent for a "Sawing Machine" was an improvement on previous devices used by the firm for sawing wood used in the barrel making process. Other inventions Beugler patented for the Holmes firm include machines more related to the barrel making process; patents for a "Heading-Up Machine," a "Stave Jointing Machine" and a "Variable Speed Countershaft" were all patented during the 1910s as refinements and improvements to the company's earlier machinery. The numerous quantity of patents which can be located between 1900 and the 1930s demonstrate the E. & B. Holmes Machinery Company's innovation and continued push to develop and refine their products throughout their long history- this was not a company who rested on their laurels.

In the February 19, 1881 issue of *Scientific American*, the Holmes brothers and their products were featured in a lengthy article devoted to their products. The article featured detailed engravings of some of the Holmes barrel

making machines and noted that these illustrations were but a few of the "some forty different machines for the manufacture of barrels" which the company was producing in the 1880s. The article also noted that "in the manufacture of machinery for making staves, heading, hogsheads, barrels and kegs, Messrs. E. & B. Holmes, of Buffalo N.Y., undoubtedly take the lead, their machines being in use the world over."

5.) The E. & B. Holmes Machinery Company History:

The E. & B. Holmes Machinery Company has a long history of manufacturing which spans roughly 150 years. The creation of the firm mirrors the increasing opportunities which arose in Buffalo and other US cities as a result of the industrial revolution but the company owed its longevity to its later diversification and continued commitment to manufacturing quality products. The Holmes brothers, Edward and Britain, were among the thousands who came to Buffalo following the growth of the Erie Canal as a highway for commercial and economic growth in the nineteenth century.

The story of the Holmes Company begins when Reverend Benjamin Holmes and his wife Susannah emigrated from Stratford-on-Avon, England to settle in Massachusetts and later Vermont. In 1840 the Holmes family relocated to the town of Lancaster, NY near the growing city of Buffalo. The roots of the E. & B. Holmes Machinery Company were laid when Edward and Britain Holmes founded their first company in 1840 in Lancaster. Taking advantage of the region's thriving lumber trade, the Holmes brothers established a lumber business and saw mill- the only such operation in Lancaster. This company thrived for twelve years before they relocated to Buffalo in 1852. This new business endeavor was known as the E. & B. Holmes Washboard Factory and was founded in the midst of Buffalo's thriving industrial waterfront at Michigan Street near the Hamburgh Canal. The company was incorporated in 1856 and was known as the E. & B. Holmes Washboard & Pump Tubing Manufacturing and Planing Mill & Grist Mill, indicating the diversity of industry and the general success at the Michigan St. company.

Looking to further expand and diversify their prosperous business, the Holmes brothers purchased the Chicago Street Iron Works on Chicago Street near the Ohio Basin in 1857. Advertisements from the era date the existence of a building at this site to 1855-56 when it was known as the Swartz Iron Works (owned by another team of brothers, George and Samuel Swartz). Upon purchasing the iron works the Holmes Company constructed a large barrel making factory at the rear of the building. The E. & B. Holmes Company continued to operate both the Michigan Avenue location which specialized in the lumber industry and the Chicago Street Iron Works which was dedicated to iron working and barrel making. The two operations were linked not only by roads but also through the extensive system of small canals including the Hamburgh and Ohio Basin Slip which laced the waterfront industrial areas of Buffalo during the nineteenth century. Raw materials and goods could easily be transported by barge from the lumber mill to the barrel manufactory allowing quick, easy and inexpensive business operations. By 1865, the city directory listed two separate branches of the Holmes Company- both the Planing Mill & Lumber Company on Michigan Street and the Chicago Street Iron Works and Barrel & Shook Machinery Works. It appears very likely that the firm began developing machinery for the manufacturing of barrels in the mid-1860s if not earlier. Also in 1865, the Michigan Street Planing Mill was a victim of a fire which destroyed nearly $35,000 worth of lumber and property.

The E. & B. Holmes Company thrived in the 1870s and continued to manufacture a variety of products from its two facilities. At various times, the company advertised the manufacturing of iron wagons, farm equipment, internal combustion engines, tools and various machines. During the 1870s, the Holmes brothers took on additional supervisors to run and oversee the operations at their two busy locations, and James B. Holmes, Julius Ditz were noted as co-owners of the Michigan Avenue Planing Mill and Lumber Company. National awareness of the Holmes Company and their barrel making products was dramatically increased following the publication of an extensive article devoted solely to the Holmes' barrel making machinery in the March 28, 1874 issue of *Scientific American*. Perhaps the best indication of the success of the Holmes Company during the 1870s comes from the awards won at the Centennial International Exhibition held in Philadelphia in 1876. The firm's barrel making machinery was "commended for the ingenuity displayed in the contrivance of machinery for the manufacture of various descriptions of casks. There is great mechanical skill shown in several of the combinations, more especially with reference to hooping and heading part of the plant. For the rougher class of casks these several tools show fitness for their intended purposes. The style of construction is not expensive."

Business was clearly booming at both Holmes Company endeavors as evidenced by numerous advertisements and articles written about the many products produced by the E & B. Holmes Machinery Company during the 1870s. Even a massive fire which swept through most of the city block on July 9th, 1878 could not hamper the prosperity at the E. & B. Holmes Machinery Company. This inferno was described in local reports as devastating the Holmes barrel factory and machinery works on Chicago Street, and in an area of the city with numerous lumber yards, the fire easily burned over one-quarter mile of land all the way to the Ohio Basin. Despite what must have been an immense financial blow to the company, it was also noted that within two years of the fire the E. &. B. Holmes Company was rebuilt at twice the size of the original plant. As a mark of their financial recovery from this fire, the company added a high-grade woodworking tool line in 1887 and displayed their products at the Buffalo International Industrial Fair in September of 1888. At the apex of their industrial power, it was noted that during this period approximately 400 people were employed at the E. & B. Holmes Lumber Yard and Planing Mill and the E & B Holmes Machinery Company. By 1888 the Holmes brothers had obtained over 60 patents for their barrel marking machinery and all the cooperage being done in the US was either made on Holmes Company machines or by machines made in imitation.

However, the E. & B. Holmes Machinery Company appears to have gone through rough times beginning in the 1890s. This decline may have been a result of the so-called Long Depression of 1873- 96 which caused a global economic downturn following the collapse of the Vienna Stock Exchange. The Panic of 1893 which was created by a financial and banking collapse coupled with a run on gold also may have contributed to the struggles that the E. & B. Holmes Company faced. On September 2nd, 1890 newspapers reported that the Holmes Company failed, assigning its assets to various investors. A large portion of the Holmes' property along Wabash Street seems to have been sold off to the Central Manufacturing Company, despite the adjoining nature of the building, as a result of the financial failure. Perhaps as a means to stimulate growth and boost sales or as a result of their financial recovery, in 1893 the E. & B. Holmes Company displayed their machinery at the Chicago World's Columbian Exposition. The firm was awarded numerous prizes in the Machinery Department of the Chicago World's Fair for several woodworking machines, including those involved in barrel making.

Despite the success and renown of their products, the firm continued to face financial troubles, and in 1895 assigned their various assets and closed the Michigan Street Planing Mill operation.

Little information about the company is available following the 1895 assignment, but the E. & B. Holmes Company machinery business managed to survive. Following the deaths of Edward and Britain Holmes, Edward Britain Holmes (son of Edward) continued the E. & B. Holmes Machinery Company, becoming president of the operation in 1906. Upon the death of Edward B. in 1934, his widow Maud became president of the company. This was likely an unusual occurrence during the 1930s, that a woman should become president of a machinery company; however Mrs. E.B. Holmes was noted to be a shrewd and intelligent woman. As the demand for wood barrels waned following the invention of metal and plastic storage technologies, Maud Holmes transformed the Holmes Company, turning to the manufacturing of a variety of wood working and specialty machinery. In January 1950, Maud Holmes and her business partner George Talamo sold the Holmes Company to Fred Henry and Martin Elskamp, thus ending nearly 100 years of family ownership in the E. & B. Holmes Machinery Company. Despite this change in ownership, business continued in much the same manner, even following the sale of the Holmes Company in October 1971. Purchased by Andrew S. Krafchak, president and treasurer of company and his wife Elinor who was vice president, it was reputedly the oldest business operating in the same location and under the same name in Buffalo until its downsizing and relocation in 2002. Today, although the E. & B. Holmes Manufacturing Company is no longer in business, replacement parts for their machinery can still be purchased through the Jentsch Company in Buffalo.

6.) Significant Figures in the E. & B. Holmes Company:

Edward and Britain Holmes-
Sons of the Reverend Benjamin and Susannah Holmes from Stratford-on-Avon, England, Edward was born in July of 1818 in England prior to his family's emigration. Britain was born on March 13, 1823 in Madrid, NY (St. Lawrence County). The family moved between Massachusetts, Vermont and other areas in New England before relocating to Lancaster, NY near Buffalo in 1840. In this year, the two brothers established what would become a life-long business partnership, founding a lumber yard and planing mill. The brothers relocated their business in 1852, moving to Buffalo where they shared a residence at 65 South Division. The brothers seem to have had a close relationship, and in spite of their company's increasing success the brothers shared a residence for several decades. Even upon the marriage of Edward and Clara Keeney and the subsequent births of their children Edward Britain and Susan Bishop Holmes and Britain's marriage to Eleanor Child Harrison, both Holmes families resided at 71 East Swan Street. Both brothers were active in the Central Presbyterian Church in Buffalo, with Edward serving as a deacon and Britain serving as a trustee and president of the Board. Both men were prominent local figures during the nineteenth century, and Britain Holmes also served as a member of the board of the park commissioners and was a member of the Merchants' Exchange for many years. Both Holmes brothers were known to be successful businessmen and were noted for their intelligence and inventive natures. It is no great surprise, given the close personal and professional lives of Edward and Britain Holmes that Britain died in 1905, followed by Edward in 1906.

Edward B. Holmes-
Son of Edward and Clara Holmes, Edward Britain Holmes was born in Buffalo on February 3, 1872. He attended local public schools before attending Cornell University, and upon graduation he joined his family's business, working at E. & B. Holmes Company. After the deaths of his father and uncle, Edward B. Holmes became the company's president. On February 1, 1911, he married Maud Gordon of Rochester. Like his father and uncle, Edward B. was also a prominent local citizen. He was a member of the Buffalo Club, the Pytonga Fish and Game organization and the Wanakah Country Club. During World War I he also led a division in Liberty Loan drives. He also worked to manage similar drives at the University of Buffalo. Besides serving as head of the E. & B. Holmes Company, Edward B. also served as director of Claude-Neon Displays, Inc., Marine Safe Deposit Company and the Simonds-Hite Tool Company of Toledo, Ohio. In 1927, Edward B. Holmes was elected a director of Pratt & Lambert, Inc. Edward and Maud Holmes resided in the Lakeview area of Hamburg, south of Buffalo for many years, moving into the city each winter. Edward B. Holmes died at age 62 after a brief bout of pneumonia at his home at 577 West Ferry Street on April 13, 1934.

Maud Holmes-
In a time when men dominated the majority of leadership roles in manufacturing and industrial businesses, Maud Holmes proved to be a successful president of the E. & B. Holmes Machinery Company. Born and educated in Rochester, NY, Maud Gordon came to Buffalo in 1893. She married Edward Britain Holmes in 1911. Mrs. Holmes likely served in some role in her husband's manufacturing company, the E. & B. Holmes Machinery Company, since she succeeded him as president of the operation following his death in 1934. Mrs. Holmes apparently did not take her role in the company lightly, as reports noted that "each day she is at her desk in her company's plant at 59 Chicago Street." It was under her leadership that the products of the Holmes company shifted away from the diminishing cooperage industry to the more profitable wood-working and industrial machinery arenas. Mrs. Holmes also had an interest in gardening and was an active member and president of the Derby Garden Club and The Garden Center Institute of Buffalo and won numerous awards for her gardens and her service. Having no children to pass the family business along to, Mrs. Holmes sold the E. & B. Holmes Machinery Company to long-time employees Fred Henry and Martin Elskamp in 1950. Maud Gordon Holmes died in February of 1964.

7.) <u>History of the E. & B. Holmes Machinery Company Building:</u>

Like many industrial buildings, the E. & B. Holmes Machinery Company Building located on Chicago Street went through many changes, alterations and additions over its 150 year history. This was a structure designed for utility and function rather than high-style and artistic appeal, and as the needs of the E. & B. Holmes Company changed, the building was altered as well.

The earliest indications of a building on the site on Chicago Street can be traced back to advertising by the Swartz Iron Company in 1856 and mention that the company has moved into its brand new building. It is unknown exactly what this building looked like, as no contemporary descriptions or images have surfaced, and the building was only described as a "large four and a half story brick building on Chicago Street." Like other industrial buildings of the time, it was constructed of brick for its fire retardant properties and would have used

heavy wood framing on the interior. The building suffered devastating destruction from a boiler explosion on September 26, 1863. Reports indicated that shortly before 3:00 AM, the boiler of the 40-horse power engine which was used to drive the machinery for the Holmes Company exploded, demolishing some forty feet of the eastern end of the building, blowing the partitions and windows out of the front part and when the eastern wall collapsed, destroyed a one-story brick building at the rear which was occupied by a nut and bolt factory. At this time, it is mentioned that the one-story building connected the Holmes building to the F. O. Drullard & Co. foundry; it appears that the original four-and-a-half story building was connected into a large series of connected industrial buildings in the 1850s-60s. According to published reports, the boiler which had been located in the rear of the basement ripped the building apart and the condition of the building was thus described:

> "In a moment, the building was cloven in two, the rear part of it, about 40 feet long, together with the lean-to, still farther to the rear, became a chaos of brick, wood and rubbish. The rear wall fell out; the side walls crushed in."

The explosion at the E. & B. Holmes was described as "one of the most terrible accidents that has ever occurred in this city," as the explosion buried at least fifteen workers in the brick and wood rubble. The accident killed twenty people immediately, and since reports indicated a large number of people were wounded and missing, it is likely more succumbed in the days following the explosion.

The E. & B. Holmes Machinery Company Building was rebuilt in the years to follow and the earliest depictions of the size, shape and appearance of the building comes from the 1870s. An atlas image from 1872 indicates that the building extended from Chicago Street to Wabash Street at the east, and had a large, irregular rectilinear form. This rear portion was primarily a one-story, wood framed section and was rented by the Holmes brothers to various other industrial operations. These wood-framed additions to the building may have been constructed in haste following the demolition of the building in the 1863 explosion, and their size and shape seems to give good evidence to the extend the building was damaged. Other outbuildings which included a stable are indicated on the property during this time. The earliest image of the building comes from one of the numerous advertisements for the E. & B. Holmes Company which was first published in the 1876 Buffalo City Directory. This engraving depicts a four-and-a-half-story brick industrial building with a shallow gabled roof measuring 7 rank by 18 rank in size which had a two-story portion at the rear. At the very rear (or east) of the building was shown an attached furnace building with a tall smoke-stack. It seems as if the rear portion of the building which was destroyed during the 1863 explosion may have been this furnace area and was rebuilt in a similar fashion, with the steam boiler to drive the building's machinery in a comparable rear location. To the south of the Mill Building facing along Chicago Street is a shed-roofed one-story wing. According to the engraving the entire building rested on a raised half-story basement level. Numerous segmental-arch headed windows are featured in the illustration of building, which would have allowed for plentiful natural illumination to fill the factory interior. One-story and two-story exterior staircases were located on the western and northern facades, with the main entry to the factory accessible on the first floor of the northern façade at the building's corner. The northern façade also appears to have had a pulley and winch system which could hoist materials up to the fourth floor, with supplies brought into the building through large round-headed arched doorways. Based

on this drawing, the Holmes building appears to have retained a majority of its northern and eastern facades intact since at least the 1870s and these elevations can be dated to the 1860s reconstruction and may even date to the earliest origins of the building in the 1850s. Although a simple, utilitarian building in its overall style, the E. & B. Holmes Building was ornamented with a decorative molding along the front gable and the walls were painted with text advertising for the company as "E. & B. Holmes' Chicago St. Iron Works" along the eastern Chicago Street façade and "Stave, Barrel, Keg and Hogshead Machinery" painted on the northern façade. As a rather fanciful touch, the building was crowned with a decorative cupola.

However the E. & B. Holmes building would soon fall victim once again to the scourge of many nineteenth-century buildings: fire. On July 9, 1878 a devastating blaze erupted at the factory and completely engulfed the building. The fire spread quickly, destroying the nearby lumber yards and wood-framed tenement homes and burning over one-quarter mile of land all the way to Ohio Basin. Damage was estimated at $125,000. It is unknown exactly what the extent of the damage to the E. & B. Holmes Machinery Company Building was during the 1878 fire and although much of the wood framing was likely destroyed it is unclear how much of the brick walls remained standing. Yet again, the devastation of the building left the Holmes brothers more determined than ever to rebuild the company and the building, and reports indicated that within two years of the fire the structure was rebuilt on an even larger scale than before.

Following the 1878 fire, the Holmes building is depicted in 1884 as an L-shaped brick building with adjacent wood-framed portions which extended the building to Wabash Street on the east. An 1881-87 Sanborn map for the site further clarifies the building as a four-story west-east building with a one-story perpendicular ell "bending works" building. The wood-framed sections of the building are two-stories in height and were used both by the Holmes and also by the Central Manufacturing Company. Based on the size and position of the building based on analysis of the 1872, 1884, 1881-87 and 1891 maps and atlases, it appears that northern and western portions of the original fabric of the building (dating to the 1850s) could have survived not only the 1863 explosion but the 1878 fire as well to be reincorporated into this late nineteenth-century version. In the four-story main building (Mill Building), the Holmes machine manufacturing was done of the first and second floors, while the third floor was used as a pattern shop and the fourth used for storage. The one-story brick ell which attached to the south-eastern rear corner of the main four-story Holmes building appears to have been created as an addition following the 1863 fire, as it appears outlined on the 1872 map. Also at the rear of the brick building were located the kilns for steaming and bending wood, and some manner of ramp connected the rear of the Holmes building to a storage building to the north on facing Mackinaw Street. This rear kiln area which was noted as being made of brick in 1887 appears to have been destroyed or demolished by 1891 to make way for an additional wood-framed portion of the adjacent Central Manufacturing Company. This action diminished the total length of the brick Mill Building and ell by approximately twenty feet. The two-story wood framed portion, although connected and attached to the main brick building used by the Holmes Company, appears to have been sold off to the Central Manufacturing Company following the company's 1890 financial troubles and may have been rebuilt in brick before it was demolished sometime between 1915-20. Two other buildings were on the Holmes property, located just south of the main four-story building, and a one-story wood framed structure (which first appears c.1884) appears to have been used by a file works company and a one-story corrugated iron building (appears in the later 1880s) housed additional storage. During this period, the

Holmes company owned large lumber yards nearby on Mackinaw Street and along the Ohio Basin. This arrangement of the main Holmes building appears to remain consistent through to at least 1900, although the one-story file works building to the south was enlarged.

Although the original architect/builder of the Holmes building is unknown, the architectural firm of Colson-Hudson was known to have made alterations to the building at some point between 1910-1912. Their work for the building contained two elements, including an enlargement of the rear ell from one-story to three-stories and the addition of an elevated two-story addition to the north-west corner of the building which was raised above a driveway. The three-story building was called the "warehouse" by Colson-Hudson and was designed in brick with cast iron support. Drawings indicate that the two stories of this portion were built using the existing one-story brick construction and a smaller one-story level was built on top, enclosing a large water tank. The smaller raised northern addition connected to the second story of the existing four-story building and was likely used storage and as a tool room. Plans dated to 1909 indicate that the Holmes company also have several smaller service buildings on the site, including a two-story frame storage house, a one-story hoop and frame area, a small automobile garage and was using the one-story building which had previously housed the file works as storage. These drawings also indicate that an exterior elevator was constructed as a small projection on the northern façade of the original building but it is unclear whether this work was done by Colson-Hudson.

The next significant enlargement of the Holmes building comes right on the heels of the Colson-Hudson work in the early twentieth-century. In 1913, the architectural firm of Lansing, Bley and Lyman was enlisted to incorporate the file works building as a new factory building addition to the pre-existing L-shaped E. & B. Holmes Machinery Company. The firm designed an additional two-story L-shaped component which mirrored the form of the original building, and thus created an irregular rectangular form with an interior court. A small one-story office was inserted at the south of the original building, connecting the new and old Chicago Street facades. Also connecting the old and new portions was an elevated second-story bridge. The new addition which nearly doubled the space available for the Holmes machinery and production was called the "factory building" by Lansing, Bley and Lyman and housed a work shop, drafting room and an elevator which was enclosed in a four-story tower to serve all floors of the building. The firm also renovated the front interior rooms of the original building to include a vault and additional office space. Main entry to the sprawling building was through an open doorway and into a sheltered alcove on the western Chicago Street façade. During this same period a raised bridgeway connected the old building to the large two-story storehouse nearby which faced onto Mackinaw Street. This would have allowed the easy movement of goods between the factory and the storehouse. Elevations from Lansing, Bley and Lyman indicate that these new additions to the building were designed in sympathy to the existing appearance of the building, including numerous segmental arch-headed windows set into the brick facades and featuring a brick corbelled molding which may have been drawn from what originally existed at the top of the older building before the obvious parapet reconstruction was done.

This is the form that the E. & B. Holmes Machinery Company maintained for the next nearly 95 years of its existence. Those alterations and additions which were made were relatively minor. By the 1950s, the company had sold off the two-story storage building and property on Mackinaw Street and a large automobile shed at the north of the property was gone.

8.) Architects Associated with the E. & B. Holmes Machinery Company Building:

Colson- Hudson-
The architectural firm of Colson-Hudson was founded in 1905. Both Ellicott R. Colson (1871-1923) and Harry F. Hudson (1878-1963) were Buffalo natives, and both received most of their professional training in local offices. Colson worked for many years in the office of Esenwein & Johnson, while Hudson worked for Green & Wicks, as well as for D. H. Burnham & Co. of Chicago. The office of Colson-Hudson was active and produced a wide range of projects in the Buffalo area during the early twentieth century. Their residential designs included homes for Dean R. Nott at 556 Lafayette Avenue (1908), James A. White at 110 Oakland Place (1909); and Charles Rohlfs at 156 Park Street (1912) designed in association with the prominent Arts and Crafts furniture craftsman. Among numerous commercial and office buildings designed and renovated by the firm are the reinforced concrete warehouse for Adam, Meldrum, & Anderson Co. at 210 Ellicott (DOE), 996-1004 Elmwood Ave. (1908), conversion of a former livery stable into a Hupmobile dealership at 401 Franklin Street (c.1920s altered) and 515-517 Main St. (1911). The Republic Metalware Co. (1905-1913, demolished) at Republic & Alabama Streets, the Cyphers Incubator Co. (1913, altered) at 67 Dewey Avenue, and the Sowers Manufacturing Co. (1913-1920) at 1300 Niagara St., were some of the firm's industrial complexes. After the death of Colson, Hudson formed a partnership with his younger brother and former Colson-Hudson architect, Chauncey Hudson, to create the firm of Hudson and Hudson. This firm continued to produce works in the Buffalo area, including the art moderne Lancaster Municipal Building (1940, NR 1999).

Lansing, Bley and Lyman-
The firm of Lansing, Bley and Lyman comprised of partners Williams Lansing, Lawrence Bley and Duane Lyman, all of whom were well known and prominent men in Buffalo. The partnership was formed in 1914 and lasted until about 1919-1920. Their most prominent projects include The Buffalo Tennis and Squash Club (1916), NR Listed 2008), the Curtiss Aeroplane Company Office and Laboratory Building (1917) in Garden City, Long Island, and the Yale University Armory (1916-1917) in New Haven, Connecticut. During this time the firm held offices in the famed Prudential Building (1895, NR 1973) and in the Delaware Court Building which the firm designed in 1917.

Williams Lansing was born on October 1st, 1860 to one of Buffalo's oldest and most prominent families. After graduating from Buffalo State Normal School he went to Colorado and spent several years on western ranches before returning to Buffalo to work in the architectural office of Green and Wicks. Lansing worked briefly as an independent architect before partnering with fellow Green and Wicks draftsman Max G. Beierl around 1892. He served as supervising architect for the Buffalo Pan-American Exposition in 1901 before joining with Bley and Lyman in 1910. After he left the firm of Lansing, Bley and Lyman he joined with another architect of the name Oakley in 1919. Among his most prominent works were the Connecticut Street Armory (1898-1900, NR 1995) with State Architect Isaac Perry, the C.W. Miller Livery Stable (with Beierl in 1892-94, NR 2007) and the homes of several prominent Buffalo businessmen. Lansing died after suffering a stroke on September 30th, 1920 at his home at 200 Bryant Street. He was buried at Forest Lawn Cemetery.

Lawrence H. Bley was born in the Buffalo suburb of Hamburg on December 15th, 1884, where he resided throughout his life. After graduating from Hamburg High School he worked in the offices of Lansing and Beierl before he partnered with Williams Lansing and Duane Lyman. After the departure of Williams Lansing, Bley and Lyman completed numerous notable works including the Saturn Club (1921-22, NR 2005), the Johnston House (1934, NR 1997), the Buffalo Federal Courthouse (with E.B. Green, 1936), the Vars Building (1929), and the Niagara Mohawk Building in Syracuse, NY (1932, with Melvin L King). Bley was a member of the AIA, the Hamburg Knights of Columbus, Hamburg Business Men's Association and the Kiwanis Club among many other organizations. Lawrence Bley died in 1939.

Duane Shuyler Lyman had a long and prominent architectural career in Buffalo and has been dubbed the "Dean of Western New York Architecture" due to the prominence of many of his projects. Born in Lockport, NY on September 9th, 1886 Lyman attended Manlius Military Academy before studying architecture at Yale University's Graduate Sheffield Scientific School, graduating in 1908. With his new bride Elizabeth Stimson, Lyman lived in Europe for several years before returning to Buffalo on the eve of World War I. Lyman worked in the office of Lansing and Beierl from 1912 until 1914 when the firm of Lansing, Bley and Lyman was created. During the War, Lyman left the firm and served as a Major in the Ordinance Department. The firm of Lansing, Bley and Lyman lasted until about 1920 when Lansing left the partnership and Lyman returned from the war to partner with Bley. The firm of Bley and Lyman existed from 1920-1938 when many of Lyman's most notable works were created. In 1938, the firm of Duane Lyman & Associates was established. This firm was noted for their numerous school buildings which they designed around Western New York, including Williamsville South High School (1949-51, NR 2008). The firm also was responsible for the Bethlehem Steel Co. Management Country Club (1964), M&T Central Bank (1964-66, under primary designer Minoru Yamasaki) and the Christ the King Chapel at Canisius College (1949-51). Outside of his architectural work, Duane Lyman was passionate about fishing, hunting and gardening, served as a dean of the Saturn Club and was active in the Buffalo Fine Arts Academy. Lyman died on April 30th, 1966 in his home at 78 Oakland Place, which he had designed for himself in 1948.

8.) Recent History of the E. & B. Holmes Machinery Company Building:

After the E. & B. Holmes Machinery Company vacated the building in 2002, it sat empty and vulnerable to the elements for several years. In 2005 the property was purchased by Newark-Niagara LLC who worked to stabilize the structure, however after several years of neglect the eastern portion of the main four-story Mill Building collapsed in October of 2007. Currently the site is undergoing cleanup and stabilization efforts in preparation for the building's conversion into the River Lofts at the Cooperage live-work lofts with rentable commercial space. While work on the site has already begun, construction of the lofts is expected to begin in 2009.

Plans created by the office of Clinton Brown Company will transform the remaining historic building envelope into a series of new high-end lofts on the upper stories with rentable commercial properties on the group floors. The reuse of the building is designed to show a great deal of sensitivity to the building's historic origins and long use as an industrial and manufacturing business. Industrial elements like belts, shafts and wheels will be

restored and reinstalled along the ceilings giving the spaces an industrial and sculptural element. The damaged wall of the Mill Building will be replaced with a wall of glass, affording excellent light and views of the surrounding park and historic grain elevators. Overall, the project has garnered much enthusiasm from preservationists, architects, historians and Buffalo residents; all eager to see the transformation of the beloved 150-year-old edifice.

9.) Conclusion:

The E. & B. Holmes Machinery Company Building is an excellent example of mid-nineteenth century industrial architecture in Buffalo which has survived remarkably intact despite suffering from fires, explosions and collapse throughout its long history. It is an excellent example of the type of industrial buildings which were common in the 1860s and now have largely disappeared across the country. Like most buildings which were designed for utility rather than aesthetics, its design has been shaped by its function as a working machinery factory. Later additions were completed in a similarly simple and harmonious fashion which was sensitive to the original appearance and design of the oldest portion. In a time when a majority of industrial buildings were devastated by fires and industrial accidents, portions of the Holmes building remain standing which may date back to the buildings antebellum origins. The increasing size of the building throughout its 150 year history is an indication of the growing demand and production needs of the Holmes Company itself. In an age of rapid technological and mechanical innovation the E. & B. Holmes Machinery Company was at the forefront of developing and refining their barrel making machinery, making it easier and more affordable to ship, store and display goods and products across the ever-expanding world. That the company was prominent and profitable between the 1850s and into the 1950s is a mark of the quality of the Holmes machinery designs.

Although the original builder for the Holmes building is unknown, several prominent architectural firms were brought in during the twentieth-century to enlarge and renovate the original Holmes building which indicates the pride the company had for their historic headquarters. Today, the E. & B. Holmes Machinery Company Building stands as one of the few surviving early manufacturing buildings from Buffalo's golden age of waterfront industrialism. It is a lone survivor in an area which at one time was responsible for the growth and economic prosperity of the city which by the turn of the twentieth-century was the 8th largest city in the country. Buffalo's location as a port and trading center allowed for cities like Chicago in the Midwest to become significant regions of the country, and the businesses along the Erie Canal helped to rapidly expand trade between the East and the Midwest. Buffalo's Old First Ward was at the heart of the city's earliest financial success and today is the focus of current preservation and redevelopment projects. The Holmes building has withstood over 150 years of nearly continuous occupation and use and currently stands ready to take on new life as a combination live-work loft and office building.

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