NPS Form 10-900 OMB No. 1024-0018

United States Department of the Interior
National Park Service

SG-1909

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 National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form.* If any 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.

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NAT REGISTER OF HISTORIC PLACES
NATIONAL PARK SERVICE

1. Name of Property

Historic name: Lycoming Rubber Company
Other names/site number: United States Rubber Company, Weldon Pajama Company, Raytown, The Pajama Factory
Name of related multiple property listing:
N/A
(Enter "N/A" if property is not part of a multiple property listing

2. Location

Street & number: 1307 Park Avenue
City or town: Williamsport State: PA County: Lycoming
Not For Publication: N/A Vicinity: N/A

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 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 at the following level(s) of significance:

___ national ___ statewide X local

Applicable National Register Criteria:

X A ___ B ___ C ___ D

Andrea T MacDonald 11/2/2017

Signature of certifying official/Title: **Date**

Pennsylvania Historical & Museum Commission – State Historic Preservation Office

State or Federal agency/bureau or Tribal Government

In my opinion, the property ___ meets ___ does not meet the National Register criteria.

Signature of commenting official: **Date**

Title : **State or Federal agency/bureau or Tribal Government**

Lycoming Rubber Company
Name of Property

Lycoming, Pennsylvania
County and State

4. National Park Service Certification

I hereby certify that this property is:

✓ entered in the National Register

___ determined eligible for the National Register

___ determined not eligible for the National Register

___ removed from the National Register

___ other (explain:) _____

Patrick Andrus 12/21/2017

Signature of the Keeper Date of Action

5. Classification

Ownership of Property

(Check as many boxes as apply.)

Private:	X
Public – Local	
Public – State	
Public – Federal	

Category of Property

(Check only **one** box.)

Building(s)	X
District	
Site	
Structure	X
Object	

Lycoming Rubber Company | Lycoming, Pennsylvania
Name of Property | County and State

Number of Resources within Property

(Do not include previously listed resources in the count)

Contributing	Noncontributing	
10		buildings
		sites
1	1	structures
		objects
11	1	Total

Number of contributing resources previously listed in the National Register N/A

6. Function or Use

Historic Functions

(Enter categories from instructions.)

INDUSTRY/PROCESSING/EXTRACTION

Current Functions

(Enter categories from instructions.)

7. Description

Architectural Classification
(Enter categories from instructions.)
LATE 19TH AND EARLY 20TH CENTURY AMERICAN MOVEMENTS /Commercial Style

Materials: (enter categories from instructions.)
Principal exterior materials of the property:
Foundations: Stone, Concrete
Walls: Brick, Concrete, Steel, Glass
Roof: Metal, Synthetic

Narrative Description
(Describe the historic and current physical appearance and condition of the property. Describe contributing and noncontributing resources if applicable. Begin with **a summary paragraph** that briefly describes the general characteristics of the property, such as its location, type, style, method of construction, setting, size, and significant features. Indicate whether the property has historic integrity.)

Summary Paragraph
The Lycoming Rubber Company property at 1307 Park Avenue, Williamsport, Lycoming County, Pennsylvania consists of 10 two- to five-story industrial style, red and brownish red brick buildings enclosing approximately 310,000 square feet of industrial loft-type space and one 175' tall freestanding boiler house chimney all constructed by and for the Lycoming Rubber Company between 1882 and 1918 for the manufacture of rubber boots and shoes. The 4 ½ -acre site (see **Figures 1. & 2.** below) is bounded to the north by Park Avenue, to the east by Rose Street, to the south by the doglegged Memorial Avenue, and to the west by Allen Street on the north half of the property and Cemetery Street on the south half of the property. The property is approximately ¾ mile north of the West Branch of the Susquehanna River and ½ mile east of Lycoming Creek in an area known at the time of its development as the 6th Ward, a working-class neighborhood on the west side of the city. Despite its change of use from manufacturing to an arts related incubator and jewelry store, the 11 contributing structures on this site continue to possess integrity of location, design, setting, materials, workmanship, feeling, and association. A greenhouse constructed in 1986 on the northeast corner of the site is unrelated to the manufacture of rubber goods and is the only non-contributing structure on the property.

Figures 1. & 2. Location Map and Property Map of the former Lycoming Rubber Company Property, 1307 Park Avenue, Williamsport, PA. Maps drawn on Bing Maps, Copyright 2017 Microsoft.

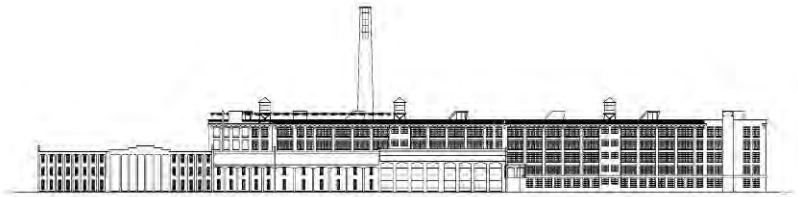


Figure 3. East Elevation of the former Lycoming Rubber Company factory. Drawing by Filson & Rohrbacher

Current and Prior Uses

Pajama Factory, LLC purchased 9 of the 11 contributing structures of the former Lycoming Rubber Company property on June 11, 2007 from Raymond P. and Jan A. Smith for $903,000, and rechristened it as the Pajama Factory (see **Figure 3**. above) in homage to its prior use as a pajama factory by the Weldon Company, at one time the largest maker of pajamas in the world. The Weldon Company leased space in the building beginning in 1934 and purchased the entire complex in 1951. The property was scouted and used as a model for the 1954 Broadway musical, "The Pajama Game," based on Richard Bissell's book **7 ½ Cents**, a novel about a pajama factory where union employees forced to work at breakneck speed demand and, until the final act, are refused a 7 ½ cent raise. The musical was made into a movie of the same name starring Doris Day released in 1957.

Pajama Factory, LLC sold its holdings in the former rubber works for one dollar on February 8, 2016 to a related entity, PJ Holdings, LLC. Pajama Factory, LLC, now a wholly owned subsidiary management company of PJ Holdings, LLC, has demonstrated exceptional sensitivity in repurposing the property since 2007 as a mixed-use, arts-related business incubator and maker space in a manner that reflects an understanding of and appreciation for the character defining features that continue to communicate its significance. Approximately half of the former factory's useable space has already been repurposed. PJ Holding's plans for the remainder of the space it owns include a distillery, more studios on the first two floors and converting upper floors to live-work loft space.

Current tenants of the Pajama Factory studios include artists and arts related entrepreneurs, a dance studio, a manufacturer of outdoor gear, apparel, and equipment for backpacking, hiking, and camping; a low power radio station; a coffee shop; a game room; photography and health food shop; several live-work spaces; and most recently, a commercial kitchen and community events space.

The Historic Neighborhood Trust, trading and doing business as Factory Works, a 501(c)(3) non-profit, functions as an umbrella organization for a variety of community based workshops scattered throughout the complex, including the Factory Works Clay Studio, Bicycle Recycle, The Williamsport Community Darkroom, and the Williamsport Community Woodshop.

Two of the 11 contributing structures, both constructed circa 1898 by the Lycoming Rubber Company, were split off from the parent tract on March 1, 1981. The two buildings comprising approximately 13,000 square feet on a quarter acre lot at 600 Cemetery Street are presently owned by the Weldon Factory sales Room, Inc. The larger of the two buildings, what remains of the original boot making and machine shop, operated as a jewelry store until 2017 and is now vacant. The smaller building, a former box shop, is also presently vacant.

Setting

The view south from the cemetery on the hill overlooking the neighborhood surrounding the complex of industrial buildings constructed by and for the Lycoming Rubber Company hasn't changed much since 1932, the year the United States Rubber Company—the holding company that acquired a controlling interest in the Lycoming Rubber Company in 1892—ceased operations at this location (see **Figures 4. & 5.** below).

Figure 4. View of the Lycoming Rubber Company factory (center of photo) from Wildwood Cemetery.

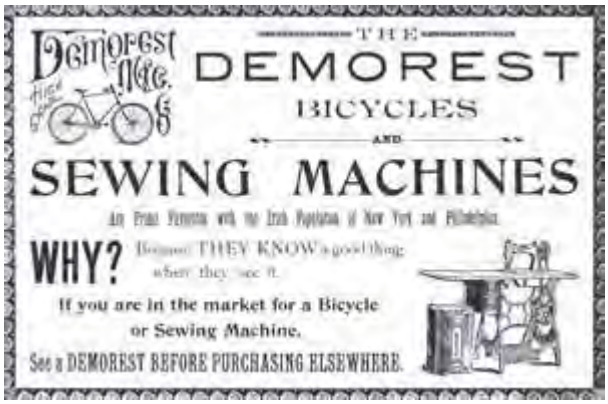
Figure 5. Aerial View of L-shaped Lycoming Rubber Company (near center of photo) and the Demorest Manufacturing Company (left background), circa 1940. Photo downloaded 1/16/2017 at http://www.lycoming.edu/textile/garment.html

Most of the land immediately surrounding the factory is still occupied by the same brick or wood-frame, two-story, single-family and duplex style homes built for skilled workers and factory laborers between 1882, the year the manufacturer of rubber boots and shoes erected its first two buildings on this level site strategically located above the floodway, and 1932, the year that marks the end of this property's period of significance.

Figure 6. Typical home in Sawyer Park, constructed circa 1920. Photo by Claudia Albertin
Figure 7. Lycoming Rubber Company Plant Manager S.N. Williams' mausoleum in Wildwood Cemetery. Photo by Glenn A. Vernon

Most notably, Sawyer Park, a nationally recognized planned community of 100 brick and stucco-clad homes modeled after English industrial villages and built in 1920 specifically to attract young families to the rubber works to address the housing shortage that followed the first world war (see **Figure 6.** above), still occupies the land between the factory and the cemetery on top of the hill where S.N. Williams, the rubber plant's first general manager, brothers William and Gottlieb Waltz, the plant's original architect and builders, and Peter Herdic, lumber baron and financier behind the first rubber factory constructed in Williamsport, were laid to rest within 100 yards of one another (see **Figure 7**. above).

Although the working-class neighborhood surrounding the factory never developed a significant commercial district, and a handful of national brand stores line the main thoroughfares leading to and through the neighborhood, most of the commercial buildings on the east, west and south sides of the factory were built during the rubber work's period of significance and are still occupied by mom and pop businesses like those that sprang up principally to serve the resident population during the property's period of significance.



Figures 8. & 9. Although the factory formerly known as Demorest now manufactures about half the world's aircraft engines, the Lycoming engine company, now known as Textron/ AVCO, still occupies the original building that manufactured bicycles, sewing machines and opera chairs during the Lycoming Rubber Company's period of significance.

The land lying east of Lycoming Creek and one block northwest of the former rubber works is occupied by another large factory also constructed during the property's period of significance. Built for the Demorest Sewing Machine Company (see **Figures 8. & 9**. above) and funded by public conscription led by the Williamsport Board of Trade to diversify the region's economy, the former sewing machine, bicycle and opera chair factory is now a division of Textron/AVCO, manufacturer of aircraft engines for more than half the world's rotary and fixed-wing aircraft fleet. Although the buildings housing the former sewing factory property have been significantly altered and expanded, the factory still supports the community that occupies the homes built during the project's period of significance, when the Lycoming Rubber Company and the Demorest Sewing Machine Company were the city's two largest employers.

Site

The approximately 4- ½ acre property is the same level lot purchased in 1882 by the Lycoming Rubber Company two blocks north of plant manager S.N. Williams boyhood home on 4th street facing Cemetery Street, with one exception:

The lot owned and occupied by St. John's Lutheran Church at the corner of Rose Street and Memorial (Erie) Avenue was purchased by the Lycoming Rubber Company to provide a site for a 3-story annex constructed circa 1902 and a 2-story office building constructed in 1903 and occupied in 1904. The office building was demolished by a previous owner in the 1980's.

The ten contributing buildings and freestanding powerhouse chimney constructed for the Lycoming Rubber Company were built over a period that spanned nearly 4 decades, with work on the site beginning in November of 1882, the year the rubber company was formed, and the last building completed circa 1918 under the direction of the United States Rubber Company, the "rubber trust" that acquired a controlling interest in the Lycoming Rubber Company in 1892.

Figure 10. Aerial view of the Lycoming Rubber Company factory circa 1970, before the power plant to the left of the 175-foot chimney was demolished. Image downloaded 1/13/2017 at http://www.lycoming.edu/textile/garment.html
Figure 11. Digital night view of the rubber factory today. Image provided by PJ Holdings.

Figure 12. Site plan of the Lycoming Rubber Company factory showing buildings and the date they were constructed. Buildings noted in parentheses were demolished by previous owners. Buildings noted as "old C" & "E" are owned by Weldon Factory Sales Room, Inc., all others owned by PJ Holdings. Map created by author from Bing Maps.

Like the L-shaped site itself, which resembles a backward L between Rose, Allen and Cemetery Streets with its bottom left corner sliced off by the doglegged Memorial Avenue (formerly Erie Avenue), the 10 contributing buildings on this

site resemble a nested pair of backward L's, with an open-ended backward L- shaped courtyard between them (see **Figures 10. & 11.** above). Although several additional buildings occupied the site during the property's period of significance, they were either demolished to make way for more modern additions constructed during the property's period of significance (i.e., building B), or demolished by previous owners because they were no longer needed or fell into disrepair (buildings G, N, J and M, all noted in parentheses on **Figure 12.** above).

Most of the open space on the property is paved in asphalt for parking, including a square shaped parking lot surrounding the freestanding 175' tall powerhouse chimney on Cemetery Street, a rectangular shaped parking lot surrounding 3 sides of the freestanding, non-contributing greenhouse at the northeast corner of the property, a rectangular parking lot in the southeast corner fronting on Memorial Avenue, and a narrow parking area along the west half of the south side of the horizontal leg of the interior courtyard between the L's. The vertical leg of the courtyard is landscaped with brick pavers and concrete. The Rose Street, Park Avenue and Memorial Avenue sides of the property have sidewalks centered in the lawn between the building setbacks and curb. Four small ornamental trees occupy the curb space on the east and north side of the greenhouse, and two 4 to 5 story tall trees occupy a narrow strip of lawn on the east side of the 5-story tower.

Three rail sidings from a branch line of the Pennsylvania Railroad that formerly occupied Memorial Avenue west of the site (two north of and one between the horizontal legs of the L's) were removed by previous owners. Four bridges constructed to move materials and finished goods between the 2nd and 3rd floors link the two L's across the interior courtyard. An underground tunnel linked the buildings to a power house constructed near the center of the west parking lot on Cemetery Street. The powerhouse was demolished in the 1980's by the previous owner.

The eastern L with its back facing Rose Street (see **Figure 12.** above) is comprised of four 19th century "American rounded-arch style" buildings [1], including a 3-story building fronting on Rose Street referred to at the time it was constructed in 1882 as the "main building" and on later plans and drawings as "building A" (hereafter referred to as "Building A"); a 3-story extension of the Rose Street façade of Building A referred to at the time of its construction in 1918 as the "*mill room extension"* (hereafter referred to as the "Building A extension"), a 2-1/2 story warehouse and packing building constructed in 1886 north of the Building A extension (hereafter referred to as "Building D"), a 2-1/2 story addition to Building D constructed in 1888 (hereafter referred to as the "Building D extension"), and a 2-story 20th century "modern American industrial style" building [2]constructed in 1917 to house eight new pressurized vulcanizer chambers (hereafter referred to as "Building K") attached to the north end of the Building D extension. A 3-story American rounded-arch style building constructed circa 1902 and referred to at the time it was built as "the annex" or Building F (hereafter referred to as "Building F"), is attached to the south side of Building A.

With the exception of Old Building C and E constructed in 1889 as American rounded-arch style buildings, the western L facing Cemetery Street was designed in 1916 as a 5-story modern American industrial style building constructed in three phases over a period of three years, beginning with the manufacturing building constructed in 1917 at the south end of the vertical leg of the L (hereafter referred to as "Building H"), an extension of Building H constructed in 1918 originally referred to as the H Extension and later as Building L (hereafter referred to as "Building L"), and a 5-story T shaped addition constructed in 1918 at the south end of Building H ("hereafter referred to as "New Building C"). The lone contributing structure on the site, a 175-foot tall brick chimney (hereafter referred to as "structure M") was constructed in 1918 as part of a modern American industrial style powerhouse referred to as Building M.

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[1] Betsy Hunter Bradley, author of **The Works,** *The Industrial Architecture of the United States*, describes American rounded-arch style architecture as "an interpretation of an idiom developed in Germany by progressive architects during the 1830's and 1840's [that formed] the artistic basis of much building in brick and commerce."

[2] Use of the phrase "modern American industrial style" is a reference to an article describing the "1917 manufacturing building" published in the May 2, 1917 edition of the *Williamsport Sun Gazette*. The local reporter's enthusiastic description of the Lycoming Rubber Company's new building as a "modern American industrial plant" reflects many of the same ideas that Lindy Biggs, author of **Rational Factory,** *Architecture, Technology and Work in America's Age of Mass Production*, uses to describe the design profession's adoption of a stripped down, utilitarian modern style of architecture to express the scientific thought associated with mass production during the Long Progressive Era.

The 19th Century "Rounded-Arch Style" Buildings

A basic understanding of the process of making rubber boots and shoes during the property's period of significance will help the reader recognize the character defining features that contribute to the historical integrity of each of the buildings on this site, beginning with Building A, the first building constructed on this site in 1882.

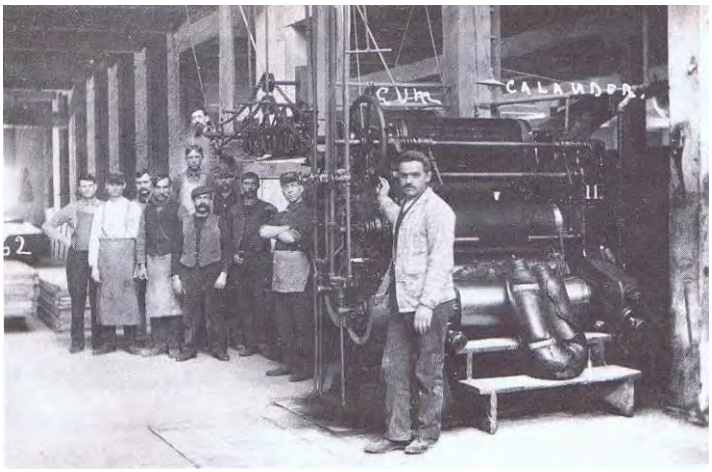


Figure 13. The mill room on the ground floor of the Lycoming Rubber Company had several calendar machines like this one at the Mishawaka rubber company**.** Photo from **History of the United States Rubber Company**, by Glenn D. Babcock.

Building A- The 1882 "Main" Building

The ground floor of the Lycoming Rubber Company's 175' long by 50' wide, 3-story building originally called the "main building" housed the rubber company's engine room, mill room, and storerooms, noted by the letters D., E. and F. respectively on the 1884 Sanborn Map of Williamsport, PA (see **Page 4** of Continuation Sheets). The office was also located on the ground floor with its principal entrance on Rose Street. (The "main" building is referenced in subsequent company literature and drawings, Sanborn Maps and this nomination form as Building A.)

Raw rubber (i.e.; latex) was delivered in 40 pound bales the size of large hams shipped from the Para region of Brazil and transported by rail to the grinding and mixing room on the ground floor of the 2 ½ story 10,000 square foot building constructed north of the rail siding, noted by the letter B. on the 1884 Sanborn Map (the entire building housing rooms A. and B. was noted as Building B in subsequent Sanborn Maps and is noted as such in this nomination form as well). After grinding the bales to a uniform consistency and mixing it with Sulphur and accelerants, the rubber was sent to the mill room on the first floor of Building A (see **Figure 13.** above), where huge calendar machines heated and compressed the rubber between 4 steel rollers into a uniform thickness that varied depending on the type of footwear being made and whether the company was making uppers or soles that day.

The cutting room (see **Figure 14.** below) was located on the second floor of Building A, where workers —usually men— cut the sheets of rubber according to patterns popular for the times, placed the sticky pieces in "books" separated by sheets of paper or fabric accompanied by a "ticket" describing how the pieces were to be assembled, and sent them off to the making room on the top floor of Building A (see **Figure 15.** below), where skilled workers —usually women and girls— assembled the pieces into boots or shoes on wooden lasts mounted on racks arranged in rows perpendicular to the windows along the two outer bays to take advantage of natural daylight and fresh air.

The rubber boots or shoes assembled on their wooden lasts mounted on racks were then wheeled across a bridge connecting the making room on the 2nd floor of Building A to a varnishing room on the 2nd floor of Building B noted as room A. on the 1884 Sanborn plan. After applying a proprietary coat of varnish mixed in a small 1-story brick structure north of Building B, the footwear was wheeled into a small room heated by steam to 200 degrees also located in the room noted as A. on the 2nd floor of Building B, called the heater room, or vulcanizer. Several hours later, the

"vulcanized" footwear was wheeled back to the storeroom on the ground floor of Building A, stripped from the lasts, trimmed of any excess rubber, packed in boxes and shipped by rail to jobbers (wholesalers).

Figures 14. & 15. Cutting department (left photo) and making room (right photo) of the Lycoming Rubber Company. Images downloaded 1/13/2017 at http://www.lycoming.edu/textile/garment.html

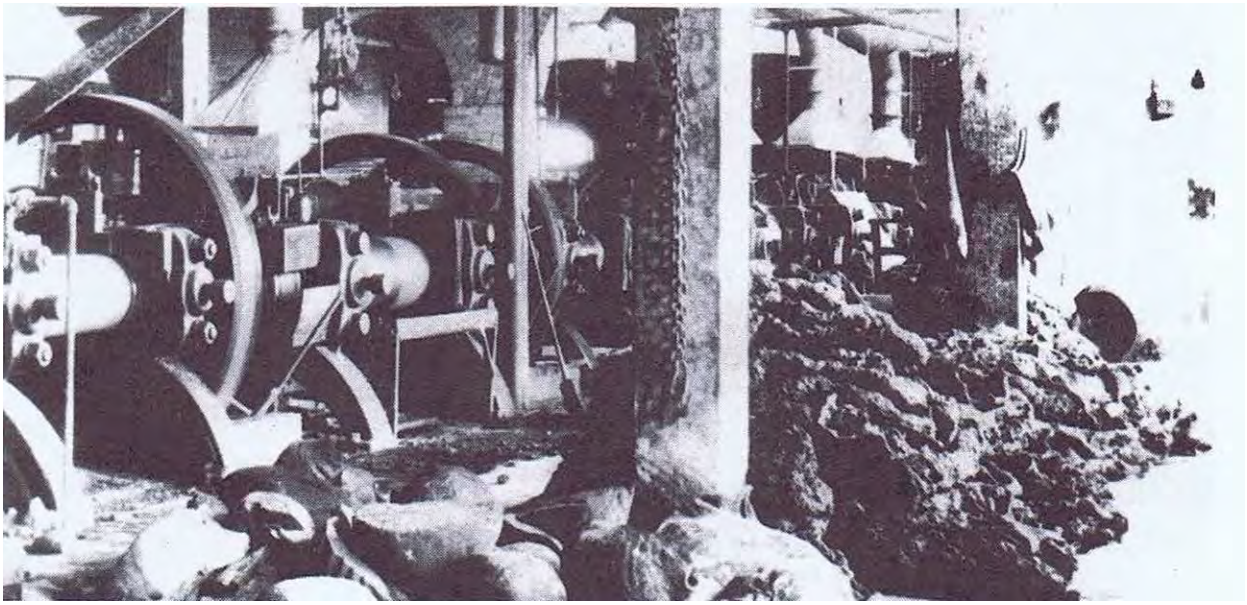


Figure 16. The ground floor of Building B probably would have looked a lot like the grinding and mixing room of the Mishawaka rubber factory in this photo, where bales of rubber (left foreground) were ground to a consistent size (right foreground) in grinding mills (left background), and then mixed with Sulphur and a proprietary mixture of accelerants delivered by hoppers from bins in the compound room above them. Sulphur is the key ingredient that when mixed with latex and heated to 200 degrees make rubber more durable in the process patented by C. Goodyear known as vulcanization. Image from **History of the United States Rubber Company**, by Glenn D. Babcock.

Proprietary wooden lasts were kept in the attic of Building B, where they could be easily retrieved or stored by makers using another bridge connecting the 3rd floors of the two buildings. Both buildings were powered by an engine on the west end of the ground floor of Building A, and heated by a one story 25' long by 50' wide boiler room attached to the west end of Building A. The attached boiler room and a 1-story addition constructed on the west end of the south side of Building A circa 1898 were demolished after the new freestanding boiler house, Building M, was placed in service in 1919.

Photo 1. East Elevation of Building A, with 1918 stair tower addition (left) and mill room extension (right).

East Elevation of Building A

The east elevation of Building A (see **Photo 1**. above) still retains many of the character defining features that communicate the building's original function as a late 19th century rubber boot and shoe factory. The words "Lycoming Rubber Company" --painted in black, block letters against a white background -- are faint but still legible on the brick spandrel above the 1st floor windows of the 3-story, 6 bay elevation facing Rose Street, and its brick façade laid up in a common bond pattern with rounded-arch style windows separated by brick pilasters rising above a stepped water table are typical of utilitarian, industrial-style buildings when the footwear industry was still transitioning from an artisanal craft to mass production.

All but one of the windows on the east elevation of Building A have been covered with sheets of plywood painted to complement the building's red brick façade, but most of the original wood sashes remain in place behind the plywood installed to protect the glass panes from vandalism.

The standard-size 3/8" mortar joints are pointed with a lime mortar mix consisting of a buff-colored sand that has naturally darkened with age. Sheer cracks above the windows on all three levels of the 1st bay at the south end of the east elevation have been repointed with a Portland type mortar —noticeable by its light grey color. A pair of metal tie rods capped with star pattern heads over round steel plates are visible near the cornice above the 3rd floor windows of the 1st and 2nd bays. Although the original standing seam tin roof was changed to a built-up tar system by a previous owner, the shallow pitched gable roof is not visible from the street.

The 16” wide by 4” deep brick pilasters of the Rose Street facade rise uninterrupted from the top of the water table to form segmental arches constructed of a double row of header bricks above the third-floor windows. The segmentally arched heads of the windows are also constructed of a double row of header bricks, and the wooden sills have been covered with aluminum coil stock painted to match the brick. The cornice of the stepped-gable parapet is articulated with two rows of corbelled header bricks capped with half-round glazed coping tiles.

The original main entrance door to the rubber works was relocated from the 4th bay from the south end of the east elevation to the ground floor of a 9’ wide by 25’ deep, 3-story stair tower constructed in 1918 at south end of the Rose Street façade (see **Photo 2**. below). The masonry opening for the original entrance door was filled in below sill height and toothed in above sill height with a red brick that matches other 1918 additions on site and a window that matches the original 3’-3” wide by 9’-1” tall 12 over 12 double hung wood windows on the ground floor of the east elevation. The masonry openings for the 9 over 9 double hung wood sash windows on the second and third floors are also 3’3” wide but only 7’-1” tall.

The rounded-arch style three-story stair tower constructed in 1918 features a pair of windows stacked above one another at half levels between the first and second floors. The stair tower has a stepped parapet featuring two rectangular stone cartouches flanking a diamond-shaped stone cartouche at its center beneath limestone caps.

Photo 2. South Elevation of Building A, with 1918 stair tower addition (right) and 3-story Building F (left).

South Elevation of Building A

The south elevation of Building A is bisected near its center by a link to the 3-story Building F (see **Photo 2.** above for south elevation east of Building F and **Photo 3.** below for south elevation west of Building F). The brickwork, fenestration and details of the south façade are similar to the Rose Street elevation except the wall terminates in a dentilated brick cornice at the roof line. The 3 bay 1918 stair tower constructed at the east end of the elevation has a

masonry opening with a pair of aluminum framed glass entrance doors and transom covered with plywood at grade in the left bay and an exit door at the base of the stair tower at the ground level of the right bay.

Photos 3. South Elevation of Building A west of Building F, with 1918 elevator tower.

A few of the original 9 over 9 double hung wood sashes painted green are visible on the windows not covered with plywood painted red. The brick above the third-floor windows west of Building F is severely eroded due to a roof leak, and the first four window bays from the west end of the façade have been whitewashed below the midpoint of the 2nd floor windows where the boiler house addition was attached to the façade.

A timber-framed entrance canopy with a cross gable roof covered in wood shingles constructed in the 1980's by a previous owner over the 1st three window bays at the west end of the south facade provided a separate entrance door for a retail establishment that formerly occupied the west end of the ground floor. Two windows below the canopy and one above it have been partially bricked in. The 4th ground floor masonry opening from the west end has also been filled in with brick. Garage doors the width of the distance between pilasters were installed in the 7th and 11th ground floor masonry openings from the west end. The garage door in the 11th masonry opening has a concrete loading dock; the garage door in the 7th bay is at grade.

A four-story elevator tower constructed in 1918 immediately east of the 8th window bay from the west end rises one floor above the roof. The common bond brick and mortar of the elevator tower match the brickwork of other 1918 additions. The tower terminates with a simple stepped brick cornice and has no fenestration other than a double door opening at grade on its south elevation.

Photo 4. West Elevation of Building A, with the 2-story bridge connecting Building A to Building C beyond at left and the west elevation of Building F visible beyond at right.

The west elevation of Building A faces Cemetery Street (see **Photo 4.** above), and is similar to the east elevation with the exception of a loading dock in the 6th bay from the north end, and a widening of the corner pilaster just below the 2nd floor window on the south end, presumably done to strengthen the right side of the masonry opening for the original loading dock.

Although all of the upper story windows of the west elevation have been covered with plywood painted to match the brick, the lower half of the original wood double hung sashes in the 2nd, 3rd and 4th window bays from the left (north) are visible at the ground floor level. The bottom half of the bottom sash of the 6th ground floor masonry opening has been filled in with brick that matches other 1918 additions. A horizontal line of tar above the ground floor windows marks the location of the original 1-story boiler house that was attached to the west facade of Building A.

North Elevation of Building A

The north elevation of Building A is divided by a 2-bay wide, 2- story bridge located in the 8th and 9th window bays from the west end (see bridge at left in **Photo 4**. above). The 20' wide by 40' long bridge was constructed in 1918 to replace 2 single-bay, single-story bridges constructed in 1882 that linked Building A to the 2nd and attic floors of Building B before it was demolished to make way for Building C. A woven wire and wood frame fence constructed beneath the bridge secures the east end of the courtyard and may explain why all the windows on the north elevation west of the bridge are covered with plywood, and why all but 3 of the ground floor windows on the north elevation east of the bridge are not (see **Photos 5. & 6.** below).

Photos 5. & 6. North elevation east and west of the 2-story bridge connecting Building A to Building C. The east end of the north elevation abuts the 1918 Building A extension, visible at the far right of Photo 5. An original doorway at the ground level of the engine room at the west end of the north elevation has been partially filled in with brick to accommodate a standard size metal door with a vision panel, and the ground floor window in the 4th bay from the west end has been enlarged to provide an entrance door that is now covered with plywood.

Photo 7. Enlarged view of east end of north elevation showing bricked in openings where the 1882 bridges were located, and 2 partially infilled openings in the 1st and 3rd bays from the left at ground level where finished goods were loaded on railcars from the packing room.

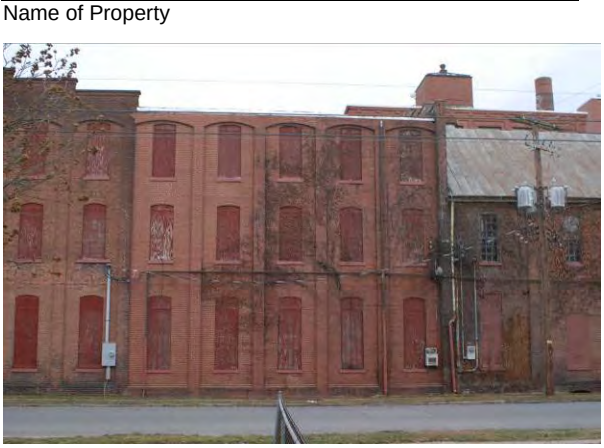
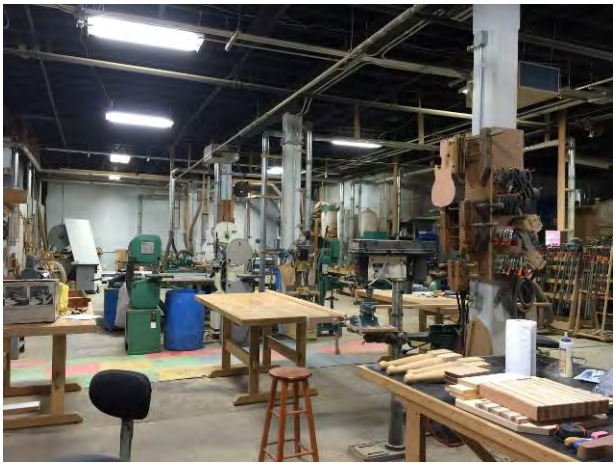



Photo 8. East elevation of Building A extension between 1882 Building A (left) and 1886 Building D (right).
Photo 9. West elevation of Building A extension between 1886 Building D (left) and 1882 Building A (right).

East and West Elevations of Building A's 1918 Extension
The gap on Rose Street created by the railroad siding on the north side of Building A was filled in with a 40' wide by 50' deep mill room extension constructed in 1918 (see **Photo 8**. above). The north wall of Building A was removed when the mill room extension was built so the space enclosed by the mill room extension is continuous with the space enclosed by Building A. Although the brick and mortar of the mill room extension matches other 1918 additions, the 5 rounded-arch style windows of the extension match the windows of Building A. A note on the construction drawings directed the contractor to salvage the windows from the north wall when it was demolished.

The west elevation of the mill room extension (see **Photo 9.** above) has 5 masonry openings evenly spaced between brick pilasters on each of the 3 floors, with windows that match Building A. The center bay of the ground floor originally had a double door that has been infilled with metal vertical panels around a single leaf solid metal fire door. The two ground floor windows at the south end of the west façade are partially covered by a single-story cinder block pump house with a poured-in-place concrete slab shed roof constructed when the Weldon pajama company occupied the building in 1947.

Structure and Interiors of Building A and Its 1918 Extension
The 3 floors of the 3-bay wide by 12-bay long Building A are supported by wood joists spaced 12" on center resting on beams spanning the length of the building supported by load bearing 3-wythe, 12" thick brick walls at the perimeter and on the interior by heavy timber capitals mounted on heavy timber posts with chamfered corners.




Photos 10. and 11. Views of woodshop on ground floor of Building A looking west and north toward the 1918 extension of the mill floor. Note the wood frame structure, and tall ceilings of the former store room.

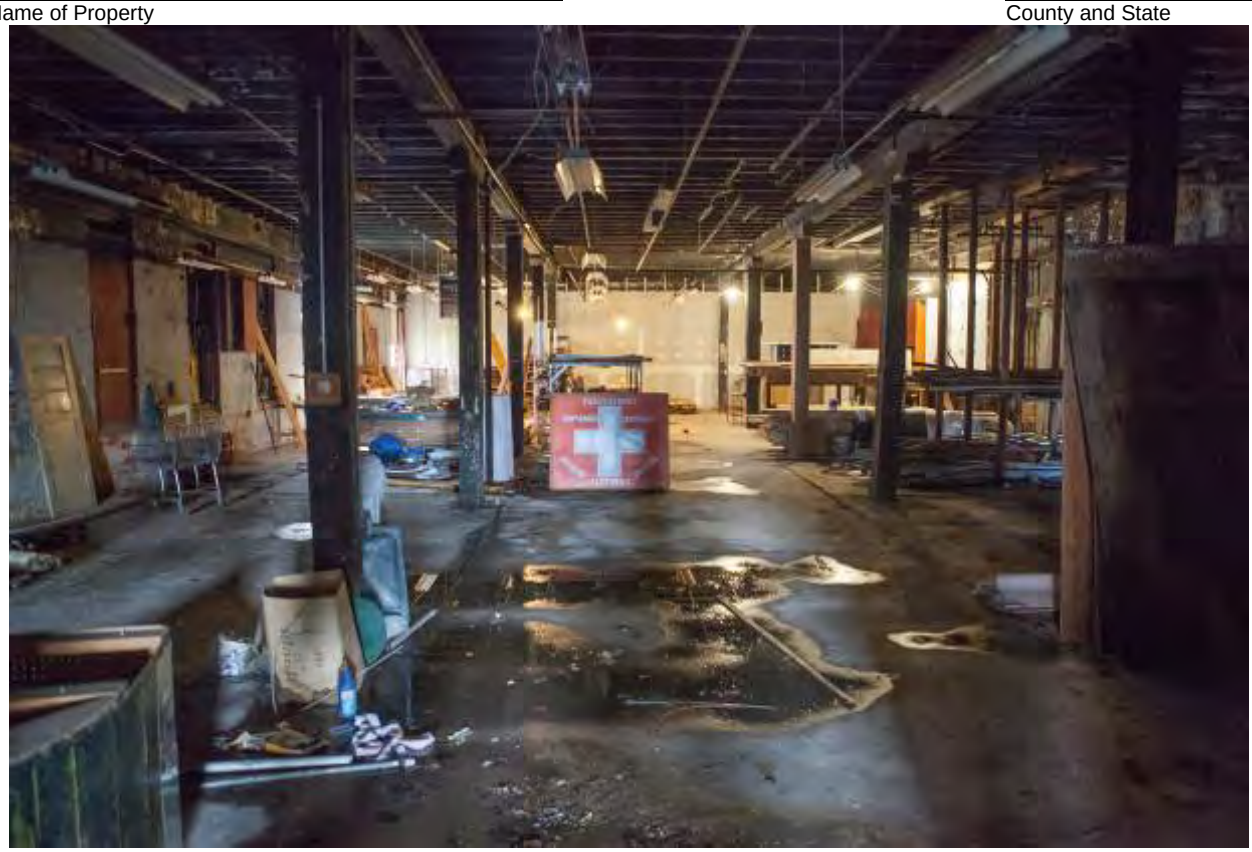
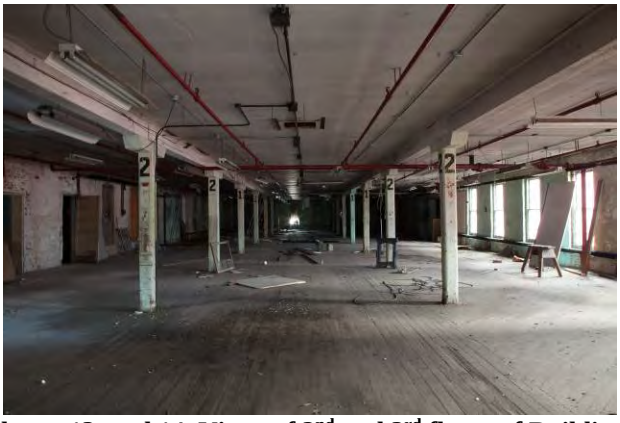
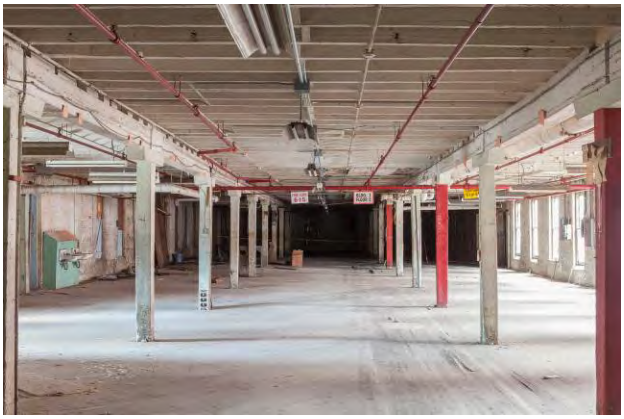


Photo 12. View of ground floor of Building A looking east toward wood frame demising wall separating the community woodshop from the remainder of the space.

The east half of the ground floor of Building A and its mill room extension are presently occupied by the Williamsport Community Woodshop (see **Photos 10. & 11.** above). The west half of the ground floor (see **Photo 12.** above) and the second and third floors of building A (see **Photos 13. & 14.** below) and its mill room extension are presently vacant (see **Photo 15.** below). Although some of the original sashes are missing, and roof leaks have damaged some of the historic fabric, the structure, original volumes and much of the historic fabric, including unfinished wood floors and ceilings and the original tin clad fire doors in the firewalls that separate the buildings, are largely intact.





Photos 13. and 14. Views of 2nd and 3rd floors of Building A looking west.

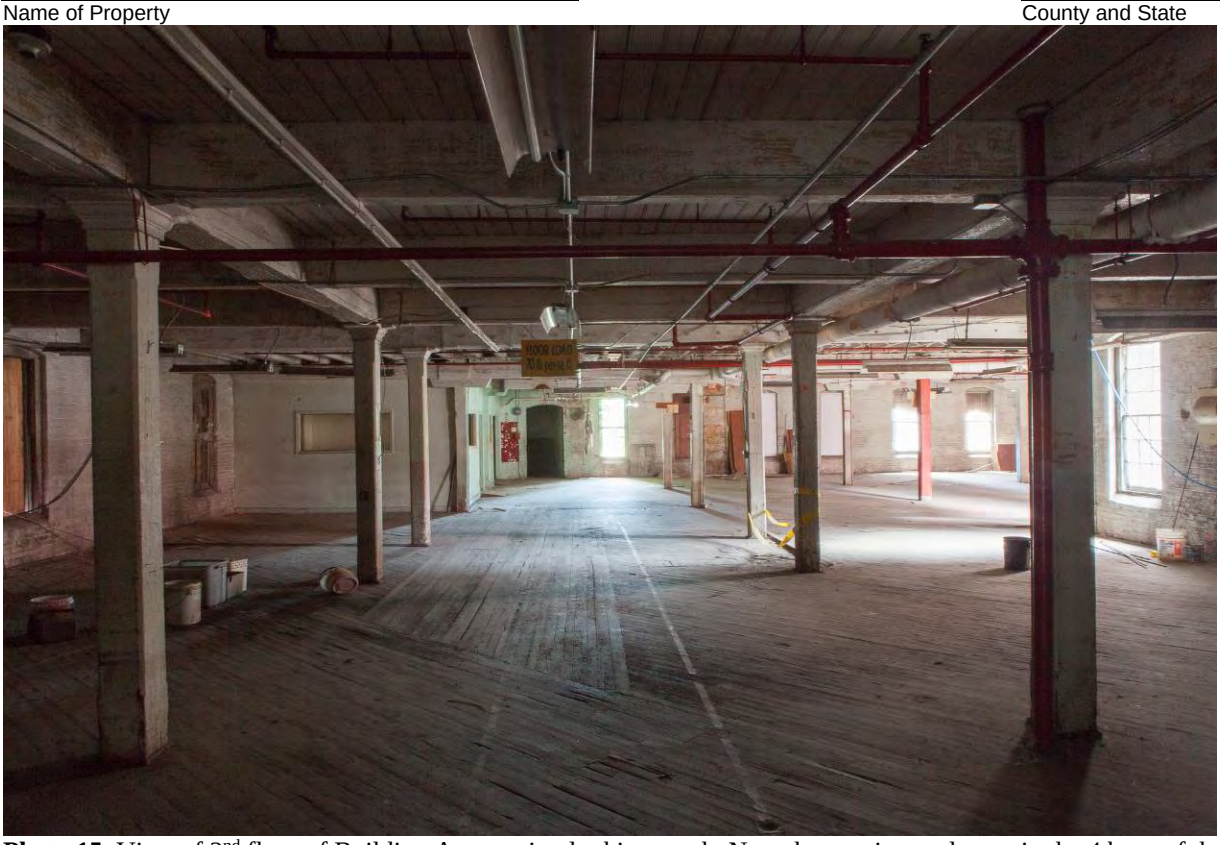


Photo 15. View of 2nd floor of Building A extension looking south. Note the cast iron columns in the 4 bays of the foreground, and the timber frame structure in Building A in the 2 bays in the background.

Building D-The 1886 Warehouse

Although earlier versions of this nomination placed the date of Building D as 1888 presumably based on the 1888 Atlas of the City of Williamsport, (see **Figure 17**. below), the building actually appears in a perspective view of the "Lycoming Rubber Co." published in a report for the Williamsport Board of Trade in 1886 (see **Figure 18**. below).

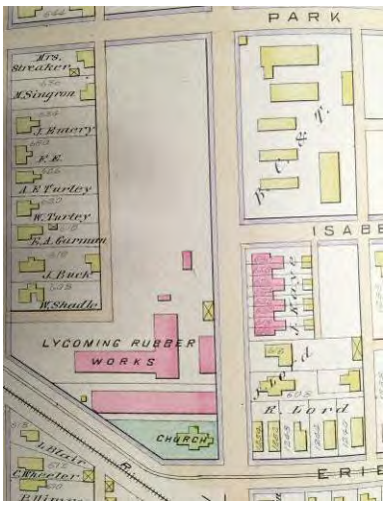


Figure 17. *1888 Atlas of the City of Williamsport*
Figure 18. Lithograph from *The Resources and Industries of the City of Williamsport and Lycoming County, Pennsylvania* compiled for the Board of Trade by J. F. Meginness in 1886.

East (Rose Street) Elevation of Building D

The ground floor of Building D's 5-bay Rose Street elevation (see **Photo 16.** below) features a pair of 9 over 9 double hung wood sash windows set in 3' wide by 6' tall segmentally arched openings laid up in a common bond pattern with lime mortar that appears to match the brickwork of Building A. The windows have wood sills covered in metal coil stock and heads made up of double rows of header bricks. The windows are centered in bays separated by 4" deep by 16" wide brick pilasters rising above a stepped brick water table and terminating at a stepped brick cornice. A pair of wood 3-panel entrance doors beneath a transom covered in plywood are centered in the middle bay. The chamfered edge brick water table sits above a stone foundation concealed below grade. The crawl space beneath the building is ventilated by 3-foot wide lightwells with segmental arched heads made up of single rows of header bricks beneath each of the ground floor openings. The 5 lightwells are covered with metal grates.

Photo 16. East elevation of the Rose Street façade of Building D between Building A and Building D extensions

The second floor of Building D has five 9 over 9 double hung wood sash windows set in 3' by 6' segmentally arched openings centered over the ground floor openings. The windows have wood sills covered in coil stock and heads made up of double rows of header bricks. A single shed roof dormer is eccentrically located on the standing seam gambrel roof left of the 3rd floor window above the 4th bay from the south end. The roof is drained by galvanized metal half-round gutters leading to round downspouts abutting the pilasters terminating in a stepped firewall at either end of the façade. A pair of round ventilators are centered on the peak of the gambrel roof above the 1st and 5th bay windows. The ground floor windows and doors and the attic dormer are covered with plywood painted red or, in the case of the dormer, green. The ground floor window in the 5th bay from the left (south) has been enlarged to a height just below the level of the second-floor joists, and the new bricks toothed in with brick pointed with a grey Portland type mortar. A metal tie rod capped with a star pattern head on top of a round plate buttresses the pilaster at the second-floor level between the 4th and 5th bays from the left. The 3/8" brick mortar joints appear to be an original lime mortar mix with a buff colored sand that has darkened with age.

Photo 17. View of the 1st two bays of the west elevation of Building D abutting the Building D extension on left.
Photo 18. View of the south end of Building D abutting the Building A extension on right.

Photo 19. View of courtyard looking north from beneath the 2-story bridge between Building D and Building C.

West (Courtyard) Elevation of Building D

The west facade of Building D faces the inner courtyard, and is dominated by a 2-story metal clad bridge that connects two bays of the 2nd and attic floors of Building D to the 2nd and 3rd floors of Building C. (see **Photos 17., 18. & 19.** above). The ground floor has 9-over-9 lite double hung wood sash windows in the end bays and a door centered under the bridge. The second floor has two 9-over-9 lite double hung wood sash windows on the north side of the bridge, and one in the end bay on the south side. The 2-story 20' wide timber framed bridge constructed in 1918 replaces a narrow bridge that connected Building D to Building B. The attic has a single shed roof dormer opposite the Rose Street dormer at the north end of Building D.

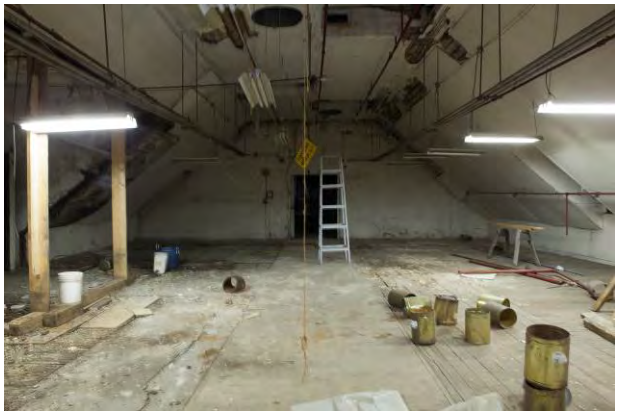


Photo 20. View of 2nd floor of Building D looking north. Note the circa 1918 tin clad fire door at the entrance to the bridge (far left), and bank of electrical panels (far right). **Photo 21**. View of attic floor looking north.

Structure and Interiors of Building D

The structure of the 1886 warehouse is similar to the structure of the 1882 main building, with load bearing exterior brick walls 3 wythe thick, and a post and beam style heavy timber frame carrying the industrial grade wood floors on wood joists spaced 12-inches on center. The building is currently vacant and, like Building A, its historic industrial character defining features and finishes are undiminished by the addition of fluorescent lights and a bank of electrical panels installed by previous owners (see **Photos 20. & 21.** above).

1888 Building D Extension

The Building D extension expanded the ground and second floor warehouse and attic floor packing room 6 bays northward along Rose Street to accommodate growth brought on by increased efficiency, greater access to markets and the use of specialized machinery custom designed for the Lycoming Rubber Company to manufacture lasts.

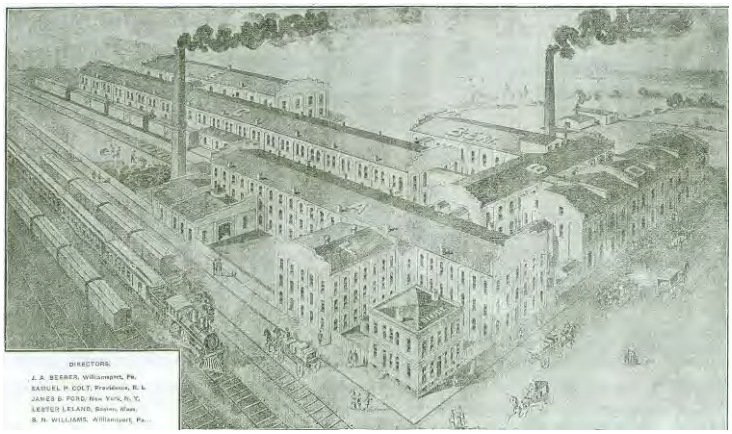


Figure 19. Perspective of Lycoming Rubber Company published in July 2, 1906 edition of the Williamsport Sun.

The expansion appears on Sheet 8 of the 1891 Sanborn Map of Williamsport, Pennsylvania (see **Page 6** of the Continuation Sheets) and is identified as building D in the full-page birds-eye view of the rubber works published on page 19 of the July 2, 1906 edition of the Williamsport Sun (see **Figure 19**. above).

East (Rose Street) Elevation of Building D extension

The brickwork and fenestration of the 8-bay Rose Street elevation of the Building D extension (see **Photo 22.** below) matches the Rose Street elevation of the 1886 warehouse. Both floors of the east facing elevation originally had eight 9-over-9 lite, double-hung, wood sash windows set in 3' wide by 6' tall segmentally arched openings with heads made up of double rows of header bricks and wood sills that are now covered in aluminum coil stock painted red. Like the 1886 warehouse, the windows were originally centered in bays that correspond to the interior structural bays, separated by 4" deep by 16" wide brick pilasters at each column line rising above a stepped brick water table and terminating at a dentilated stepped-brick cornice beneath the bottom edge of the gambrel roof line.

Several of the ground floor windows have been modified by previous owners, including the replacement of the window in the 5th bay from the left end of the building with a single entrance door, and the bricking in of three windows on the north end of the building. A new entrance door was also cut in next to the south pilaster in the third bay from the right, but has since been covered with vertical metal siding painted red. The brick and mortar of the ground floor changes appear to match the brick and mortar of other 1918 additions. The mortar surrounding the ground floor windows in the first and second bays from the left also appears to have been repointed with a mix that included Portland cement. The sashes and frames of the ground floor windows that remain are painted an iron red, and the main entrance door in the 5th bay from the left is centered in a plywood covered opening painted lavender with a heavy wood surround painted black.

Photo 22. East Elevation of Building D extension

Two of the second-floor windows have also been modified. The original wood sash in the 6th window bay from the left has been replaced with a 5-by-4 lite steel frame window with a 3-by-3 lite pivoting panel at its center that appears to have been salvaged from the 1917 main building when the 1918 and 1919 additions were constructed. The window opening in the 7th bay from the left has been lowered by approximately one foot and covered with a pair of wood shutters that are not original to the building. The brick and mortar that was used to close in or modify the 2nd floor windows appear to match the brick and lighter colored mortar of other 1918 additions on the site. All but the northernmost window on the second-floor are painted black. The northernmost window has original green paint on a 4 over 4 double hung wood sash.

Three shed roof dormers provide daylight and ventilation for the attic story, one above the pilaster separating the 2nd and 3rd bays, one over the pilaster separating the 5th and 6th bays, and a double wide dormer with a pair of 6 over 6 double hung wood sashes covered with tarpaper above the 8th bay from the left. The standing seam metal roof is drained by galvanized metal half-round gutters leading to round downspouts abutting the pilasters terminating in a stepped firewall at either end of the façade. Three round ventilators are centered on the peak of the gambrel roof, but only the outer ones above the 3rd and 6th bay windows are visible from the street. Metal tie rods capped with star pattern heads on top of round plates buttress the pilasters at the second-floor level beneath the two smaller dormers. Except as noted earlier, the 3/8" brick mortar joints are filled with a lime mortar mix with a buff colored sand that has darkened with age to a patina that matches Building A.

West (Courtyard) Elevation of Building D Extension

The west facade of the Building D extension facing the inner courtyard (see **Photos 23., 24., & 25.** below) originally had eight 9-over-9 lite, double-hung, wood sash windows on both floors. Several of the windows of this facade have also been modified. On the ground floor, an aluminum-framed, fully-glazed door with a plywood surround has been added in the center of the third bay from the right, and the window in the 1st bay from the left has been covered by a 2-story addition associated with the 1917 vulcanizer building. An open wood-framed fire stair with lattice screen constructed in 1988 by the previous owner to provide an exit from the second floor of the vulcanizer building partially covers the ground floor windows on the 2nd and 3rd bays from the north end of the west facade.

Three of the original 9-over-9 lite double-hung wood sash windows in the 3rd, 4th and 5th bays from the left of the second floor have been replaced with circa 1918 5-by-4 lite steel frame windows with 3-by-3 lite operable awning panels at their center set on poured-in-place concrete sills. Four shed roof dormers light the attic story from the west. Much of the mortar in this façade has been replaced with a Portland mix. A continuous line of tar covers the bricks a few courses below the second-floor sill, suggesting a shed type addition on the west side that has been removed.

Photo 23. Detail of 2nd floor window

Photo 24. View of Courtyard Elevation of Building D extension

Photo 25. View of Courtyard Elevation of Building D extension

Structure and Interiors of the Building D Extension

With the exception of longer spans in the north-south direction, the structural system of the Building D Extension is identical to the structure of the 1888 warehouse, with load bearing exterior brick walls 3 wythes thick and a post and beam style heavy timber frame carrying the industrial grade wood floors on wood joists spaced 12'' on center. The building is vacant, but recently housed a winery on the 1st floor (see **Photo 28.** below). The wood siding and other cosmetic changes made to accommodate the winery appear to be reversible. The loft-type spaces on the 2nd and attic floors appear much as they did when they were occupied by the rubber works (see **Photos 26. & 27.** below).

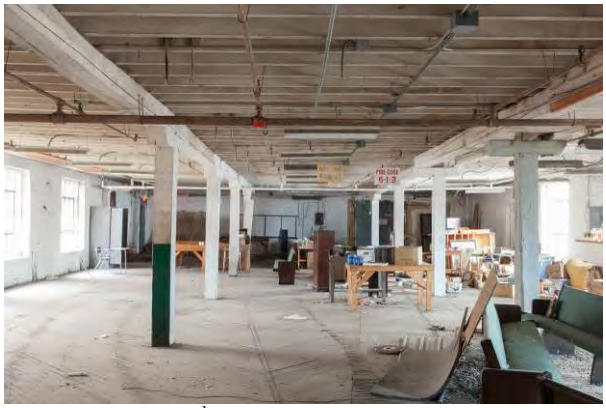


Photo 26. View of 2nd floor looking north.

Photo 27. View of attic floor looking north.

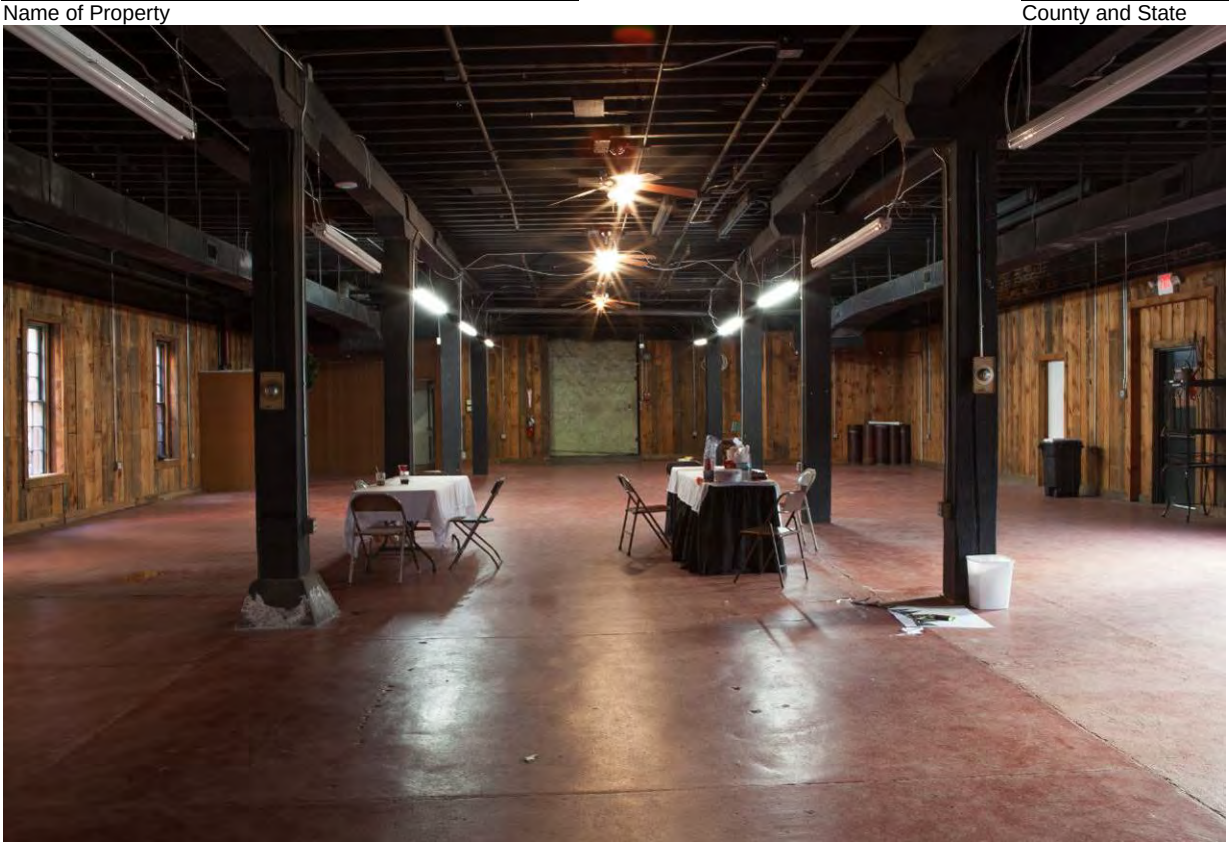


Photo 28. View of ground floor looking north. The volume, exposed structure and windows are all original.

Building F, the 1902 Annex

The 3-story building facing Memorial Avenue described as the "Annex" in the 1912 Sanborn map (see **Page 8** of the Continuation Sheets and postcard image in **Figure 20**. below) was originally connected to the south façade of Building A by a 1-bay wide 3-story link near its center. Constructed a decade after the Lycoming Rubber Company joined the rubber trust known as the United States Rubber Company, the 1st and 2nd floors were used for cutting operations, and the 3rd floor for shoe making.

Figure 20. Postcard view of stepped gable annex at left, before the company office at right was demolished.

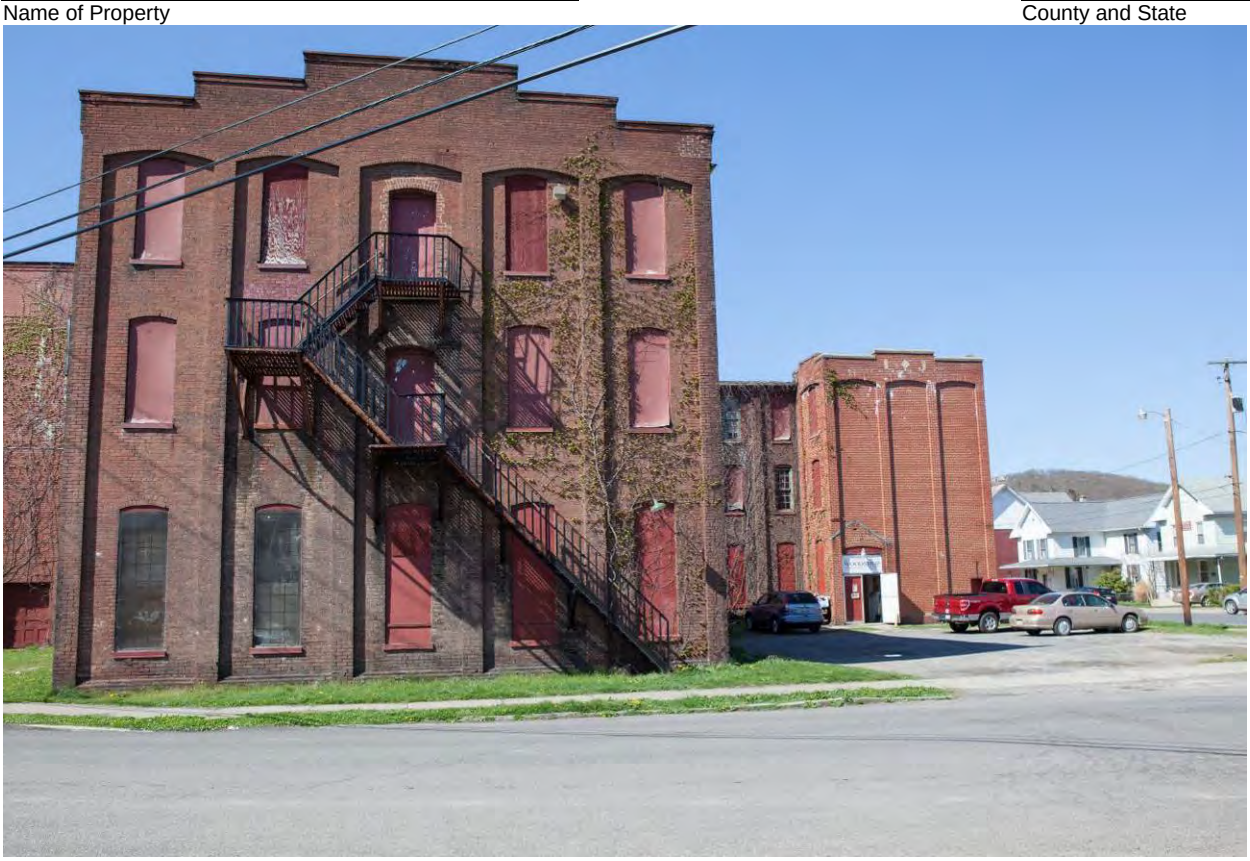


Photo 29. South (Memorial Avenue) elevation of Building F, also known as the 1902 Annex. Memorial Avenue was known as Erie Avenue in 1902, when Building F was constructed on the site formerly occupied by St. John's Lutheran church. A branch line of the Pennsylvania Railroad ran down the center of Memorial Avenue. The company's office building was also constructed on the former church site at the corner of Memorial Avenue and Rose Street. The office building was demolished by the previous owner in the 1980's.

South Elevation of Building F

The reddish-brown common bond brick and buff colored lime mortar of the 3-story, 5-bay Memorial Avenue façade of the 1902 annex (see **Photo 29.** above) matches the color, detailing and fenestration of Building A. The ground floor of the south façade has five 12-over-12 lite, double-hung, wood sash windows set in 3'-3" wide by 9'-1" tall segmentally arched masonry openings, with heads of double rows of header bricks and wood sills covered in aluminum coil stock painted red 24" above the finished floor. The heads of the second and third floor windows are similar to the ground floor windows except they have 9-over-9 lite double hung wood sashes in 3'-3" wide by 7'-1" tall segmentally arched openings, with sills set 34" above the finished floor.

The two ground floor windows in the 1st and 2nd bays from the left have been replaced with 12-over-12 lite brown anodized-aluminum frame sashes. All of the other windows on the south façade are covered with plywood painted red. The brick opening in the center bay of the second and third floors have 3'-0" wide exit doors that lead to a metal fire stair exiting at grade attached to the south façade. The exit is lit with a gooseneck lamp with a metal shade mounted above the head of the ground floor window in the last bay on the right.

The windows are separated by 4" deep by 16" wide brick pilasters that rise above a stepped brick water table with chamfered edges and terminate in segmental arches made up of a double row of header bricks directly above the heads of each 3rd floor window. The stepped-brick cornice conceals the gable roof behind it.

Photo 30. West (Cemetery Street) elevation of Building F.

West Elevation of Building F
The windows and detailing of the west elevation of Building F (see **Photo 30**. above) match the south façade of Building A, except the gap on the west side of the tin clad bridge that originally linked the two buildings was infilled in 1918 with a 3-bay wide addition for water closets on all three floors. The water closets have three 6-over-6 lite double hung wood sashes centered in brick spandrels separated by 16-inch wide by 4-inch deep pilasters, giving the west façade the appearance of having 9 bays of windows at all three levels.

The west wall terminates in a dentilated stepped brick cornice that matches the cornice of the south elevation of the 1882 main building. A round industrial ventilator mounted at the peak of the roof near its center and the parapet of the north firewall are visible from the street on both the west and east sides of Building F.

East Elevation
The windows and detailing of the east facade of Building F (see **Photo 31.** below) match the west façade, except the gap east of the 1 bay wide tin clad bridge between the 1902 annex and the 1882 main building was infilled with an infirmary (see **Photo 32**. below). The ground floor infirmary has 2 windows flanking a double entrance door beneath a one-story stepped gable parapet. The head and sill of the windows and door are made up of a single row of soldier bricks with a cast stone keystone at their centers supported by steel lintels. The top floor of the 3-story bathroom tower behind the infirmary had fallen into disrepair and was removed by the present owner. The roof of the infirmary has also rotted away (see **Photo 33**. below).

Photo 31. East (Rose Street) elevation of Building F, with ground floor infirmary at right.

Photo 32. 1918 Infirmary and toilet tower beyond

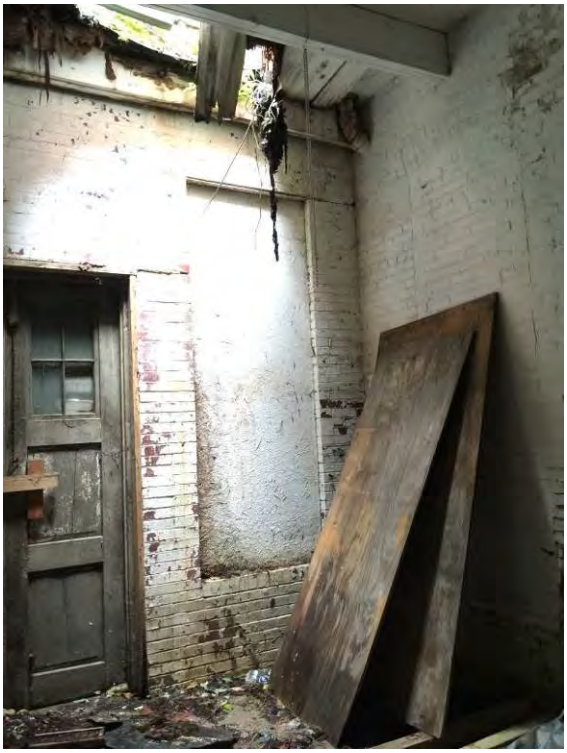


Photo 33. Interior view of infirmary entrance

Structure and Interiors of Building F

The structural system of the 1902 annex is 2-bays wide in the east-west direction by 7-bays deep in the north-south direction, with 3 wythe load bearing exterior brick walls 12" thick and a post and beam style heavy timber frame carrying the industrial grade wood floors on wood joists spaced 12" on center on the interior. The main beams in the east west direction are supplemented by steel tension rods that run beneath the beams. The beams are anchored in the brick walls on the perimeter and on the interior by a summer beam supported by heavy timber posts with chamfered wood capitals. The ground floor is currently used by the Williamsport Community Woodshop (see **Photo 34.** below), and the upper floors are vacant (see **Photos 35. & 36.** below).

Photo 34. Ground floor of Building F looking south. Note corners of columns chamfered to improve fire resistance.

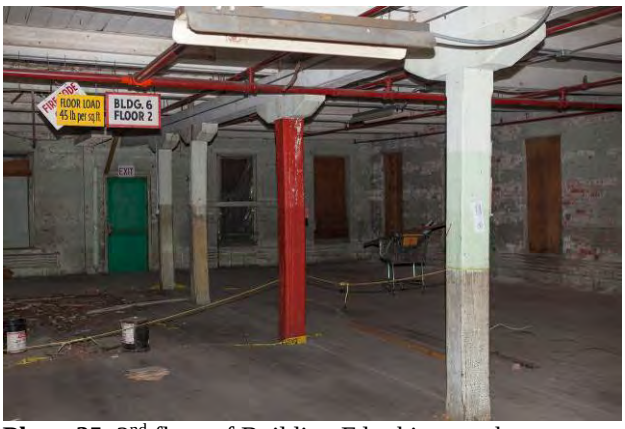


Photo 35. 2nd floor of Building F looking south

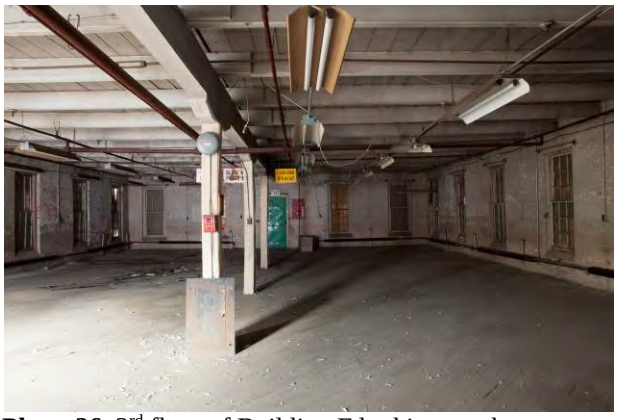


Photo 36. 3rd floor of Building F looking south

The Lycoming Rubber Company's 20th Century "American modern industrial style" plant

The L-shaped 5-story "American modern industrial style" building and its associated vulcanizer building and power plant were constructed north of the original L-shaped 19th century "rounded arch style" buildings in response to a surge in business after WW II associated with the United States Rubber Company's decision to manufacture a new brand of tennis shoes called Keds at its Lycoming Rubber Company plant (see **Page 35** of Continuation Sheets and **Figure 21.** below).

Figure 21. 1916 pair of Keds Champion tennis shoes with rubber soles and canvas uppers for women; image downloaded 01-19-17 at https://en.wikipedia.org/wiki/Keds_(shoes)

The company's 20th century American modern industrial plant was designed by the Boston office of Lockwood Greene & Co. Engineers, an internationally renowned mill designer and operator that pioneered much of the technology for the nation's textile industry (which included shoes with canvas uppers) and, until it was purchased by CH2M Hill in 2003, was the oldest continually operating architectural engineering firm in the United States, with over 30 of its buildings listed or eligible for listing on the National Register. [3]

The main L-shaped manufacturing building was constructed in three phases between 1916 and 1919 to avoid disrupting operations in the vulcanizer room in Building B until Building K housing the company's 8 new state of the art pressurized vulcanizer chambers were placed in operation in 1917. With its new focus on tennis shoes, the east end of Building C housing the boot making department was also torn down to make way for a new 5-story Building C attached to the south end of Building H, where the main building where Keds shoes were manufactured. Although the authors were not able to get access to the west end of building C that was not torn down, and whose interiors have been cosmetically altered to accommodate a jewelry business that closed in 2017 and is now vacant and Building E, the former box shop, which is also vacant, the buildings appear to be well-maintained and otherwise retain historic integrity (see Photos 71, 72 and 75).

Building H

A contract was let on December 5, 1916 for the 200' long by 60' wide building identified on Sheet 202 of the Lockwood Greene Plat Plan for the Lycoming Rubber Company as "manufacturing building H" (see page 17 of Continuation Sheets). The building was the first of three buildings that form the 20th century American modern industrial style L of the United States Rubber Company's Lycoming Rubber Company plant. The first 110' of the manufacturing building was completed and occupied on February 15 of 1917. The first floor of Building H was used as a stock room, the second floor as a packing department, the third and fourth floors as the shoe making departments, and the fifth floor was occupied by stitching machines.

West Elevation of Building H

The west elevation of the 60,000 square foot manufacturing building faces Cemetery Street, and apart from dwarfing the 2 story homes that surround it, is most notable for its departure from the rounded arch style windows of the buildings constructed for the Lycoming Rubber Company that preceded it (see **Page 21** of Continuation Sheets). Firewalls rising 2 feet above the roof separate the manufacturing building from its 60' wide by 250' long extension constructed in 1918 to the north (Building L) and its 175' long by 60' wide T shaped addition constructed in 1918 perpendicular to its southern end (Building C) (see **Photo 37.** below**)**.

[3] (See https://en.wikipedia.org/wiki/Lockwood,_Greene_%26_Co.)

Photo 37.. West elevation of Building H. The firewall visible above the roofline at the north end and the elevator tower and hoist visible above the roof line at the south end mark the limits of the building constructed in 1917.

Each of the 9'-0" wide structural bays of the top 4 floors between the internal stair and elevator towers at either end of the "daylighted" factory building features a pair of steel frame windows separated by 8" wide cast iron columns in 15'-4" wide masonry openings. The masonry openings are separated by 2'-8" wide brick pilasters that sit 4" in front of the exterior face of the brick spandrels and 8" in front of the exterior face of the steel sashes.

The 7'-4" wide by 8'-6" tall steel frame windows have thirty 14" wide by 20" high lites arranged 6 across by 5 down with pivoting operable sashes 4 lites wide by 2 lites tall. The top 3 rows of lites, including the lites in the operable sashes, are made of prismatic glass with horizontal ridges designed to reflect light into the interior bays. The windows have concrete sills set flush with the interior and exterior faces of the brick wall 36" above the finish floor. The head of each window is constructed of a single row of soldier bricks above a steel lintel set flush with the brick in the spandrel panel above it.

The masonry openings in the stair and elevator tower bays at the north and south end of the manufacturing building are 6'-4" wide, with windows that are the same height as the windows in the bays between the stair towers, but narrower by one lite, with operable sashes 3 lites wide by 2 lites tall. The windows in the stair tower bays are separated by 2'-8" wide brick pilasters instead of 8" square structural columns.

The masonry openings at the ground floor level have steel frame windows 5 lites wide by 5 lites high set on concrete sills and heads made of a single course of soldier bricks above steel lintels. The 6' wide openings are separated by 2'-11" wide brick piers.

The ground floor windows in the first three structural bays from the north end of the manufacturing building were covered with diagonal wood siding installed in 1988 by the previous owner for a nightclub that has since closed. The wood storefront is approximately 16'-0" high by 51'-0" feet long, with a projecting wood canopy above a pair of aluminum frame glass entrance doors in the brick wall beneath the canopy. The 6 ground floor windows south of the nightclub façade are covered with metal siding painted red. A 2-story tall insulated metal chimney installed between the 5th and 6th windows from the north end of the 4th floor projects a half story above the roof line.

Like the 19th century utilitarian rounded arch buildings on this site, the ornamentation of the modern 20th century building is spare, limited on the west façade to a continuous shadow line three bricks above the 5th floor windows created by a 4" offset of brick with dropped brick pendants above each pilaster beneath a dentilated brick cornice supporting the flush edge of the roof lined with a copper gravel stop that has weathered to a dark brown patina. Ornamentation at the ground floor level is limited to a shadow line created by a 1" offset 5 brick courses beneath the concrete sills of the 2nd floor windows flashed in 24-gauge iron, and a shadow line created by a second 1" offset in the spandrel panel 6 brick courses below the upper shadow line and directly above the brick soldier course of the heads of the ground floor windows.

East Elevation of Building H

The windows in the masonry openings at the north elevation of Building H were relocated to the north elevation of Building L when it was completed (see **Page 22** of Continuation Sheets. The construction photo shows Building H before Building L was added at the north end and Building C was added at the south end). The east elevation of Building H (see **Photo 38.** below) faces the courtyard, and is similar to the west façade, except it has a 1-bay wide bathroom tower in the center bay, and a pair of exit doors at the ground floor level of each stair tower. The pair of exit doors at the north end of Building H were replaced with a pair of aluminum framed glass doors.

Photo 38.. View of the southern end of the east elevation of Building H looking north from the courtyard. The stair tower of Building C is visible on the left, and the stair tower near the center of Building H is on the right just north of the bridge connecting the 2nd floor of Building H to the second floor of Building K. A wooden stair and landing provides an exit for the bridge connecting the 2nd floor of Building H to the former vulcanizer room on the second floor of Building K.

The windows in the east face of the bathroom tower are similar to other steel frame windows of the building, with head heights that match the other windows on the façade, but are only 5 lites wide by 3 lites high, with pivoting sashes at their centers 3 lites wide by 2 lites tall. The windows on each floor of the bathroom tower are separated by 2'-8" brick pilasters.

The concrete ramp in the foreground of the photo in front of Building D was probably constructed in 1919 along with other improvements made to improve drainage on the site after Building H and Building C were constructed. Lockwood Greene was a pioneer in the use of concrete.

The freestanding pergola in front of Building H (see **Photo 39**. below) was constructed by the present owner to humanize the courtyard. The gazebo (see **Photo 40.** below) above the entrance to the stair tower in Building C was constructed by the previous owner.

Photo 39. View of the southern end of the east elevation of Building H looking west from the courtyard. The last pair of windows in the bay on the left are actually part of Building C.
Photo 40. View of the northern end of the east elevation of Building H looking north from the courtyard. The stair tower at the left is the midpoint of Building H, and the southern face of the bridge beyond the pergola aligns with the northern firewall of Building H..

Building H Structural System
The original construction drawings prepared for the Building H extension archived at the Smithsonian Institution's Lockwood Greene collection provide a wealth of information about the building H, L and C's structural system. Gravel ballasted EPDM covers the original 5-ply tar and gravel roof on 3" hemlock planks sloping 3/8" per foot toward the center. The roof is supported by 8" wide by 14" deep wide-flange steel beams resting on 17" thick brick bearing walls at the perimeter, and attached on the interior with 6" by 6" x 12" steel angles to 12" wide by 16" deep wood beams supported by 7-5/8" diameter "Milford" columns with cast iron bolsters (see photo of column capital below). The roof drains into 5" round cast iron conductors installed next to the columns in the west side of the center structural bay.

The Milford columns on the lower levels support 20' long 15" deep I beams 42" on center connected by 6" by 6" by 12" deep angles to 18' long 20" deep I beams. The Milford columns increase in size to 8-5/8" diameter on level 3 and 10-3/4" diameter on level 2 and on the ground floor, where they are supported by 22" by 22" by 3-1/4" thick cast iron bases. The cast iron bases sit on 2' deep by 2' square piers sitting on 2' deep by 4' square piers on top of 2' deep 6'-6" square piers. The exterior bearing walls also increase in thickness to 22" below the 4th floor level, and sit on 24" wide concrete foundation walls on 30" wide concrete footers.

The floors on levels 2 through 5 have 1"x 4" solid maple flooring on 1" intermediate subfloors over 3" hemlock planks on 4" by 8" nailing planks bolted to the top flange of the beams through ¾" holes pre-drilled 24" on center. The ground floor is composed of 1" maple over a 1" intermediate subfloor on 2" hemlock planks above 4" of tar concrete.

Building H Interiors

The interior of the ground floor of the former storeroom of the 1917 manufacturing building has been subdivided near its center bay by a wood frame partition that demises the former nightclub in the north end of the building (see **Photo 41**. below) from the remainder of the space, which is currently vacant and used for storage. The windows on the west side of the former nightclub space are covered with wood panels on the inside, but the original steel framed windows are still in place behind them. The 3- ¼ ” thick cast iron base sits on concrete footers (see **Photo 42**. below). The windows on the east side of the nightclub are still exposed (see **Photo 43.** below).

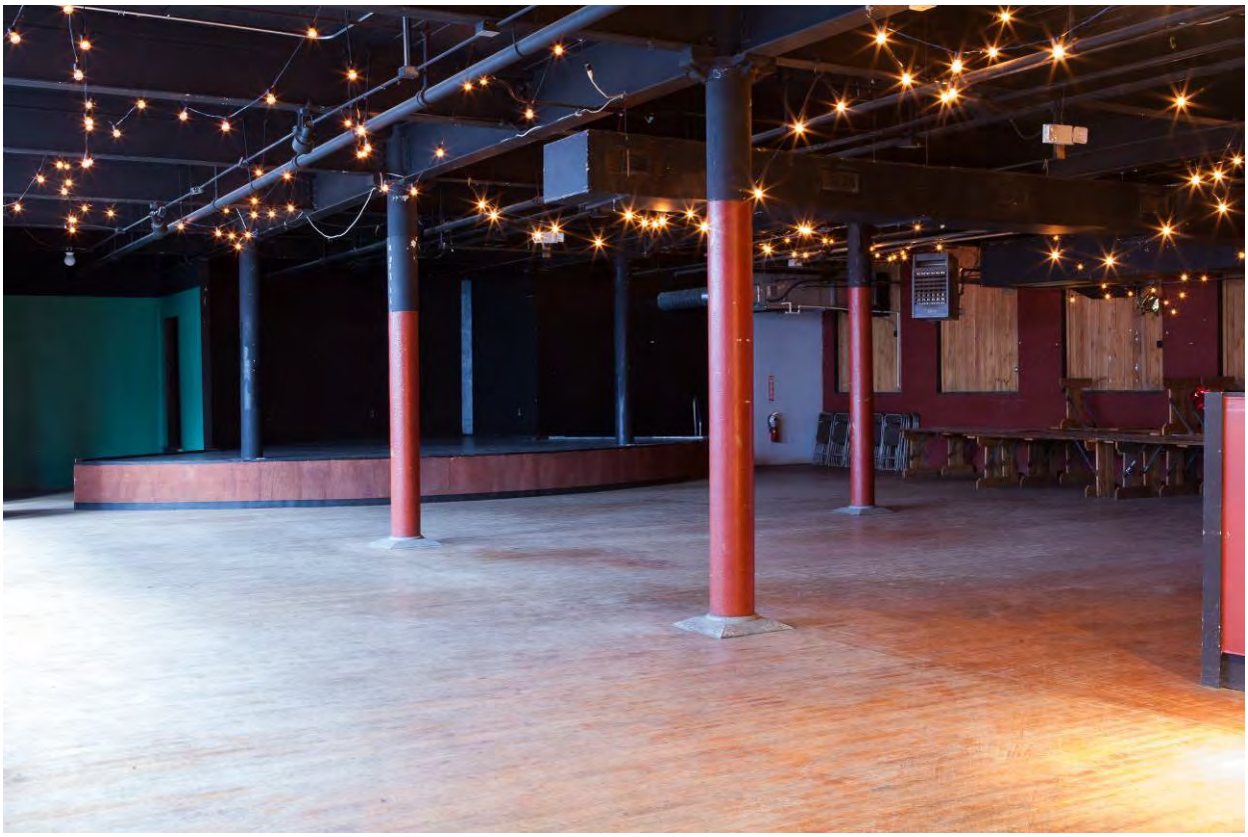


Photo 41. View of the nightclub on the ground floor of Building H.

Photo 42. Original 22” by 22” by 3¼ “column base

Photo 43. View of the nightclub’s east elevation

The 2nd floor of Building H was subdivided by the current owner into tenant spaces for artisanal makers and arts related businesses that vary in size between 500 and several thousand square feet (see Figure x below). The wood frame demising walls of the tenant spaces and corridors were installed to reveal as much of the original structure as possible and to meet exterior walls at columns or partitions separating the steel frame windows. The exterior brick walls, steel frame, wood ceilings, fire stairs, tin clad doors at the openings in the firewalls, freight elevators, and maple floors have also been preserved, in most cases in their original condition. (see **Photos 44., 45., & 46.** below).

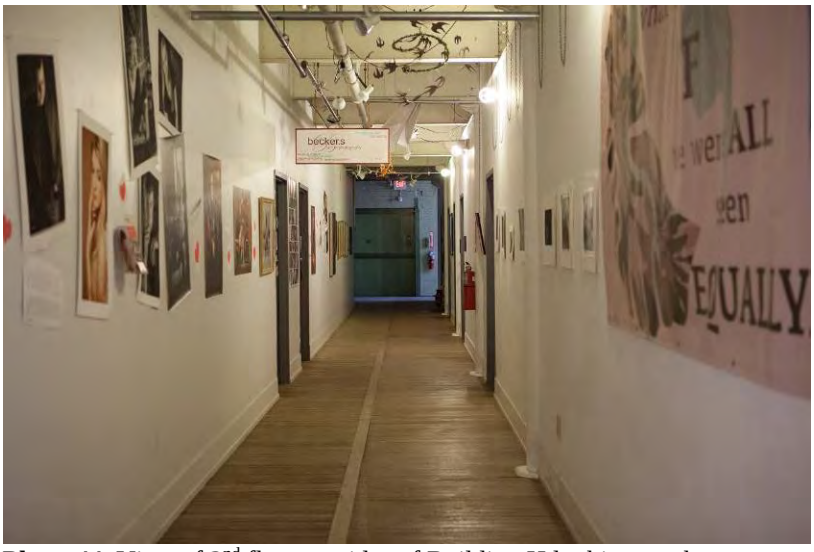


Photo 44. View of 2nd floor corridor of Building H looking north.
Photo 45. View of stairs between 2nd & 3rd floor at north end of Building H.

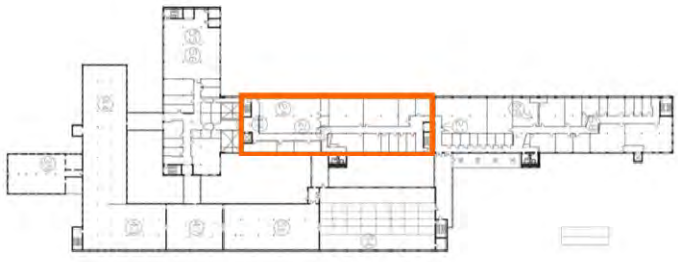


Photo 46. Column capital on second floor at corridor partition. Note exposed metallic wire just below capital.
Figure 22. 2nd Floor Building H Key Plan**.** (base drawing by Filson & Rohrbacher)

The three upper floors of the 1917 main building are presently unoccupied and used for storage by the owner and tenants (see **Photos 47., 48., & 49.** below).

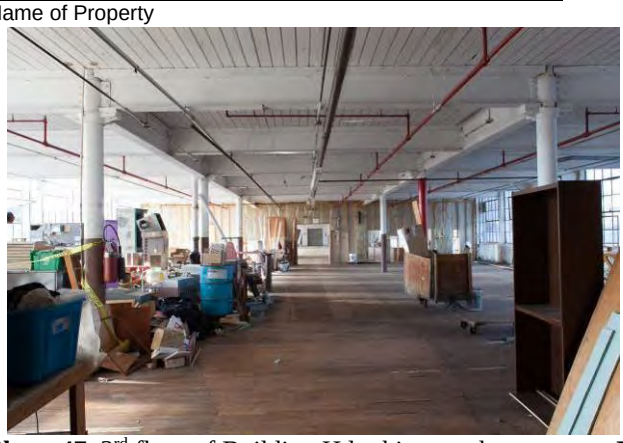


Photo 47. 3rd floor of Building H looking north

Photo 48. 4th floor of Building H looking north

Photo 49. 5th floor of Building H looking north; the structure changes from steel frame to timber at the roof. Steel rails installed in the floors eased the job of moving boots and shoes on racks from the making rooms on the upper levels of the manufacturing building to the pressurized vulcanizer chambers on the second floor of Building K.

The 1917 Vulcanizer Building K

Construction of the new 2-story vulcanizer building fronting on Rose Street referred to on the 1917 Lockwood Greene plat plan as the "new heater building," the "vulcanizer building," and building "K" began in 1917, shortly after work on the new manufacturing Building H began. The 120' long by 68' wide, 17,728 square foot vulcanizer building was constructed at the north end of Building D, replacing the original 1882 vulcanizer building immediately south of Building H. A dashed line on Sheet A202 of the Lockwood Greene Plat Plan noted the location of a "possible extension to heater building" on Rose Street north of Building K

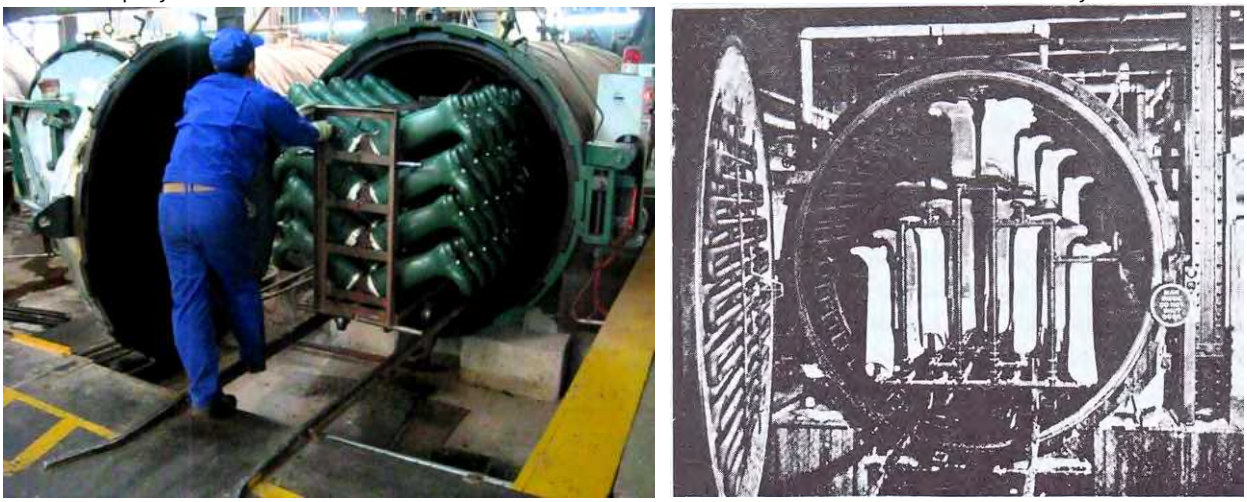


Figure 23. Photo on left shows worker loading rubber boots in a modern pressurized vulcanizer chamber that looks a lot like the ones installed in the Lycoming Rubber Company's 1917 vulcanizer building in the photo at right. Note the similarity of the racks and rails on the floor.
Image on left downloaded on 1/19/2017 at https://i.ytimg.com/vi/Bgktc4IpKBY/hqdefault.jpg. Historic photo from **History of the United States Rubber Company**, by Glenn D. Babcock.

The 8 new pressurized vulcanizer chambers installed on the 2nd floor of Building K (see **Figure 23.** above) dramatically reduced the time required to cure rubber boots and shoes. The large room on the second floor housing the vulcanizers was ventilated by clerestory windows that spans the entire length of the 120' long building.

A one-story tin clad asbestos lined timber frame bridge connected the south end of the second floor of the vulcanizer building to a pair of 7'-0" arched doors in the bay immediately south of the restroom tower of the packing room on the second floor of the manufacturing building, where the rubber boots and shoes were trimmed of excess rubber and packed in boxes and then shipped out by rail to wholesalers.

The detailing of the brickwork, windows and doors of the new vulcanizer building are similar in appearance to the brickwork, doors and windows on the ground and upper floors of the new manufacturing Building K, but the windows are much larger and have more operable panels to aid in ventilation.

East (Rose Street) Elevation of Building K
The 2-story 120' long, 28' high east façade of Building K facing Rose Street (see **Photo 50.** below) has eight masonry openings in 4 wythe, 16" thick brick load-bearing walls laid up in a common bond pattern that generally correspond to the eight 15' by 17' steel framed structural bays behind them, plus a smaller masonry opening on both levels of the 12' wide by 35' deep restroom and stair tower attached to the north end of the building. The heads of the masonry openings are the same as the heads on the manufacturing building, with a single course of soldier bricks carried by steel lintels, but the masonry openings also have an additional 4" wide reveal of header bricks set flush with the steel frame windows installed 4" behind 16" wide pilasters between all but the two center openings, which are separated by a 24" wide pilaster.

The 8 standard-size 2nd floor openings are filled with pairs of steel frame windows 4 lites wide by 6 lites high, with 2 by 2 lite pivoting sashes one lite below the head and one lite above the sill. The masonry openings in the restroom and stair tower have steel frame windows 5 lites wide by 6 lites high on the 2nd floor and 5 lites wide by 5 lites high on the ground floor, with operable pivoting sashes 3 lites wide by 2 lites high one lite above the sills.

The restroom windows on both floors of the stair tower and 2 of the standard size windows at each end of the 2nd floor have been covered with red metal siding. The ground floor originally had 6 steel frame windows 8 lites wide by 5 lites high, and pairs of 6 panel entrance doors with vision panels beneath transoms in the 3rd and 8th bays from the south end. All but two of the ground floor windows in the 2nd and 6th bays from the south end have been covered with red metal

siding, and the original entrance doors have been replaced with non-conforming single passage doors. The windows in the 1st, 5th and 7th bays also appear to have been removed and replaced with pairs of reflective glass lites centered in the masonry openings.

Photo 50. Rose Street elevation of Building K

The pilasters between the windows rise above a stepped brick water table 4 courses above a perfectly level grade, and terminate in a stepped brick cornice that matches the details of the 1917 manufacturing building, with drop pendants over each pilaster. The brick fire wall at the south end of the façade extends 8 inches beyond the face of the building half way down the 2nd floor window, where it corbels back to the face of the building. Half round painted metal gutters empty into round galvanized downspouts that empty onto the strip of lawn between the building and the sidewalk. Two of the ground floor windows have exhaust pipes poking through them for the coffee roaster in the ground floor coffee shop.

North Elevation of Building K

The 35’ wide by 12’ deep 2-story water closet and stair tower attached to the east half of the north firewall has 2 masonry openings on each floor, with steel frame windows 3 lites wide by 6 lights high on the second level. The ground floor window of the water closet at the east end of the tower is concealed behind plywood. An unpainted wood fence divides the entrance to the northeast parking lot from a narrow strip of lawn that runs the length of the stair tower. The windows on both floors at the west end of the stair tower are covered with plywood painted red. The 4 masonry openings have heads of soldier bricks on steel lintels and concrete sills all flush with the brick face of the north elevation.

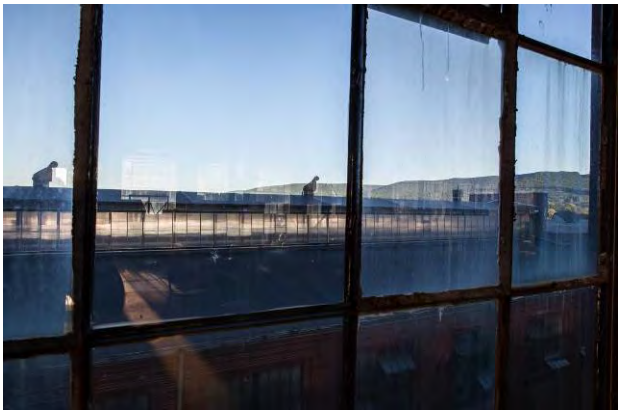
A one-story bridge supported by steel columns and covered in red metal siding connects the north end of the 2nd floor of Building K to the south end of Building L (see **Photo 51**. below). The 16' wide bridge sits in front of the stepped gable firewall at the north end of Building K. The stepped gable firewall extends a minimum of 2' above the sloped roof behind it, and is capped with half round glazed tile. The center step of the firewall conceals the 27' tall by 30' wide clerestory lit ventilator that runs the entire length of the building. A small one story flat roofed porch covered with red metal siding between the bridge and the stair tower covers the landing outside the exit door located on the west side of the stair tower and an aluminum framed glass entrance door in the 2nd bay from the right of the north firewall leading to the ground floor space.

Photo 51. North elevation of Building K

West Elevation of Building K

The west elevation of Building K facing the courtyard (see **Photo 52.**. below) is bookended between the two one story 2nd level bridges covered in red metal siding mentioned earlier. The west façade has 8 masonry openings on the second level and 7 on the ground floor level. The steel frame windows in the masonry openings are separated by pilasters that match the size and detailing of the windows on the east façade. An aluminum framed glass entrance door was installed in the last bay beneath the south bridge, and several of the ground floor windows have been covered with red metal panels. Three round ventilators on the gable roof of the clerestory are visible from the upper floors of Building H (see **Photo 53.**. below).

Photo 52. West (courtyard) elevation of Building K looking south toward bridge connecting the south end of Building K on the left to the 2nd floor of building H on right. The waterwheel, freestanding pergola and lamppost in the photo are unrelated to the rubber works.



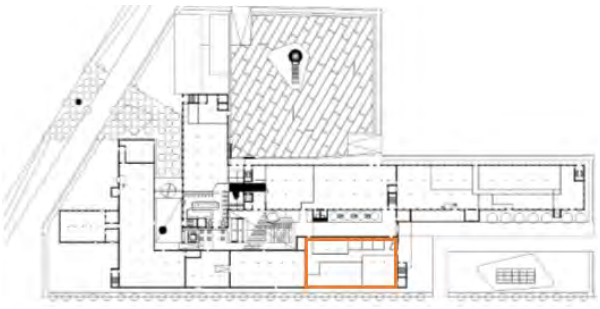


Photo 53. View of roof of the 1917 vulcanizer building from window on 3rd floor of Building H. The gable roof of the clerestory has 3 round ventilators, 1 at the center and 1 at either end.
Figure 24. Ground floor key plan Building K (base drawing by Filson & Rohrbacher)

Structure and Interiors of Building K

The vulcanizer building has 16" thick brick load bearing walls on both floors laid up in a common bond pattern and a steel frame interior structure with 15' wide by 17' long bays supporting a 4" thick subfloor beneath 3/4" by 4" maple flooring. The second-floor level has a single row of columns on 15' centers down the center of the space beneath the clerestory roof supported by open web steel frame trusses anchored in the pilasters between each pair of windows. The exposed roof trusses support a 3" plank roof covered with standing seam metal panels.

The ground floor of the 1917 vulcanizer building is subdivided into tenant spaces separated by wood frame partitions on both sides of a corridor the length of the building in the 2nd bay from the west side. The depth of the beams in the ceiling of the ground floor give an indication of the weight of the 8 pressurized vulcanizer chambers loaded with racks of boots and shoes on the second floor above them (see **Photos 54. & 55.** below).

Photo 54. View of café space on the ground floor of Building K
Photo 55. View of corridor down the center of the ground floor of Building K

The second-floor space beneath the clerestory is currently used as an open events area (see **Photos 56. & 59**. below). The masonry openings in the party wall at the south end of the vulcanizer building were bricked in to create a firewall between the vulcanizer and warehouse. A pair of exit doors on the south wall lead to the bridge that connects the south end of Building K to the 2nd floor of Building H. Partitions enclosing a 900 square foot certified community kitchen nested in the corner at the north end of the 8,400 square foot clerestory space were constructed to limit the impact on the character defining features of the main space while still meeting building code and food service sanitation requirements (see **Photos 57. & 58.** below).

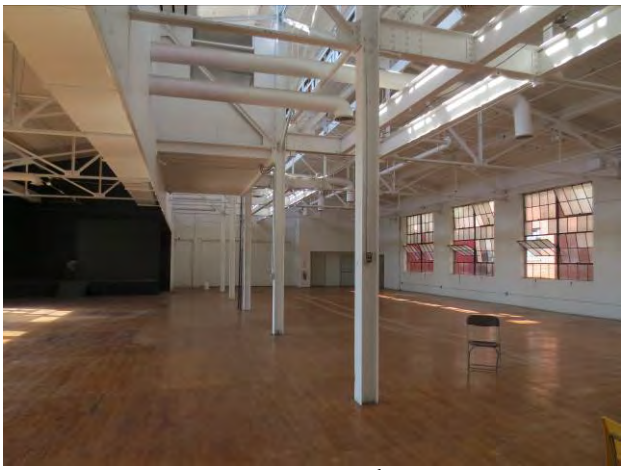


Photo 56: View looking south on 2nd floor of Building K
Photo 57. View of community kitchen under construction at northwest corner of the same space. Note operable sashes and open steel frame trusses.

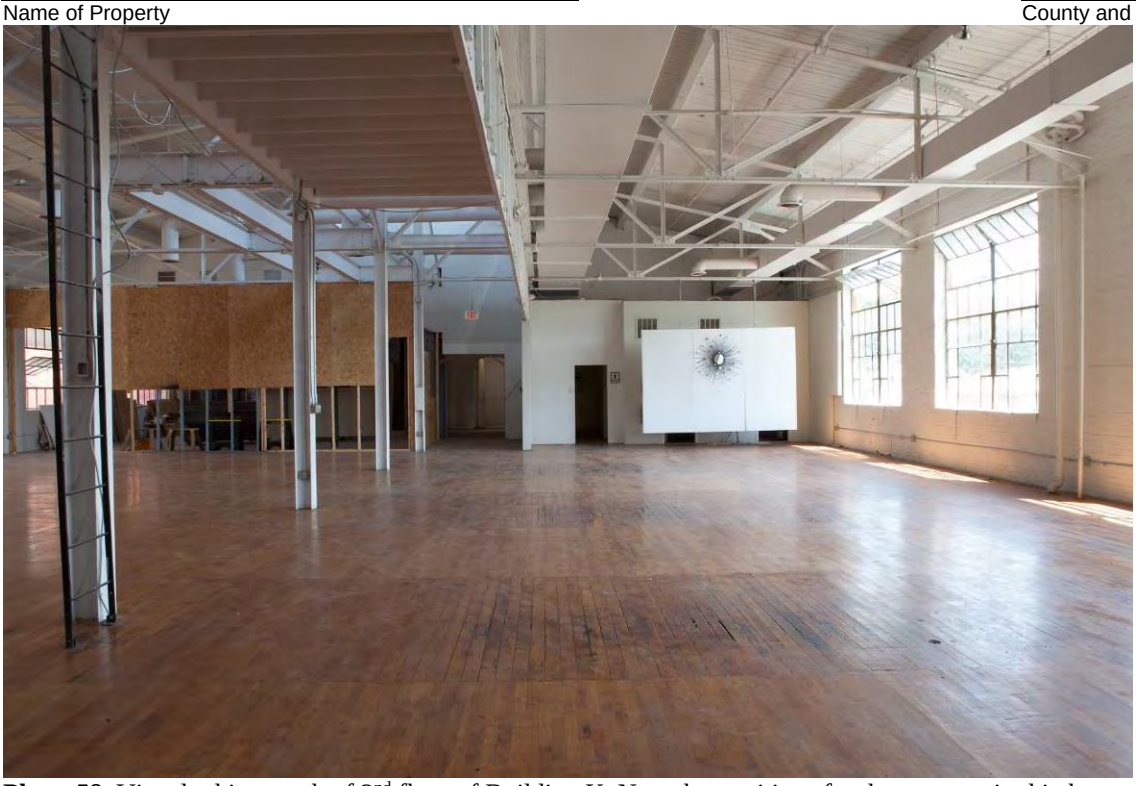


Photo 58. View looking north of 2nd floor of Building K. Note the partitions for the community kitchen under construction beneath the joists at the north end, and the outlines on the maple floor left by three of the eight pressurized vulcanizer chambers. The ladder leads to a catwalk above the vulcanizers.

Photo 59. View of former vulcanizer room set up for a banquet.

Building L

The 5-story, 250' long by 60' wide extension to the north of Building H (see **Page 28** of Continuation Sheets) was originally conceived of as 2 separate phases, with the first 6 bays of the 14 bay long extension abutting the north firewall of Building H identified on Sheet A-202 of the 1917 Lockwood Greene plat plan as "H extension, Job No. 5063" and the last 8 bays identified as a "second extension to Bldg. "H", Job No. 5121." The 2 job descriptions were scrubbed out on the linen originals and replaced with a new title with an arrow marking all 14 bays describing the work as "Building L" under Job No. 5063. The outline of a "possible future extension" perpendicular to Building L along the entire length of Park Avenue is also noted on Sheet A-202 (see **Page 17** of Continuation Sheets).

West (Allen Street) Elevation of Building L

The west elevation of the 75,000-square foot extension to Building H is similar to the west elevation of the 1917 manufacturing building with a few notable exceptions. The stair tower at the north end of the building is noticeably wider than the stair tower at the south end of the 1917 manufacturing building, more than likely to accommodate the exit width required to meet code for the north half of the 1918 extension, plus the exit requirements for the "possible future extension" along Park Avenue. The fire stair exits at the street level on the west facade to a pair of original 3' wide by 9' tall, 4 panel wood doors with 2 by 2, 4-lite vision panels beneath a 6' wide by 3' tall, 2 by 5, 10-lite transom covered with red metal panels.

The twelve ground floor windows south of the stair tower have also been covered with plywood painted red. A single leaf exit door installed in the next (13th) masonry opening from the north end is articulated by a surround of 4" header bricks beneath a head of soldier bricks on a steel lintel. The transom above the door is covered with plywood and a makeshift roof lit by a street lamp mounted above the masonry opening.

Photo 60. View of the northwest corner of Building L taken from Park Avenue north of Allen Street, showing the seamless 1918 extension of the west facade facing Allen Street north of the firewall of the 1917 manufacturing building on the right, and the north elevation of the 1918 extension facing Rose Street on the left.

North Elevation of Building L

The north façade of the 1918 extension (see **Photo 60.** above) has 6 window bays separated by pilasters that correspond to the 3 structural bays behind them. The 6'-2" wide by 8'-6" high masonry openings of the 1st 2 bays on the west side of the north elevation corresponding to the 19'-2" wide stair tower bay have soldier course heads and concrete sills that match the other openings on the north façade, but are infilled with brick that matches the surrounding brick and appears to be original.

The other four window bays of the north façade have steel frame windows with 25 lites arranged 5 across and 5 down with 6 lite pivoting sashes 3 lites wide by 2 lites high separated by pilasters corresponding to the center and east structural bays behind them. The two windows in the 18'-4" center structural bay of the ground floor are covered with metal panels painted (from east to west, respectively) red and white and the 2 windows in the 19'-2" wide structural bay on the east side of the ground floor have been replaced with smaller windows with anodized bronze aluminum sashes with matching bronze privacy panels in the upper 1/3 of the sashes.

Photo 61. East (Rose Street) elevation of Building L

East Elevation of Building L

The east elevation of Building L (see **Page 28.** of Continuation Sheets and **Photo 61.** above) is also similar to the other facades of the 5-story tower with a few noticeable exceptions. A gap in the cornice at the north end of the east façade the width of the "possible future extension" along Park Avenue is perhaps the most concrete evidence of United States Rubber Company's stated intentions for eventually building out the Lycoming Rubber Company plant's entire site. As further evidence of that intention, the elevator is attached to the outside face of the east façade in what would be the center bay of the possible future extension along Park Avenue instead of next to the stairs like the elevator in the stair tower in the south bay of the 1917 manufacturing building (building H).

A one-story wood frame shed roof loading dock at the base of the elevator tower first appears on the September 1954 update of Sheet 67 of the Sanborn Map for Williamsport. The addition has been closed in and covered with vinyl siding painted white. The loading dock has 3 loading bays, the two on the right side of the building have been closed in with plywood and the bay on the left with a roll-up style garage door. A passage door on the north elevation of the loading dock enclosure leads to grade.

The original double leaf entrance door at the ground floor at the north end of the 1918 extension has been changed to a single leaf glass entrance door with anodized bronze aluminum frame set in a wood frame surround painted yellow, with decorative pilasters and a cartouche centered above the door painted green. A semicircular canopy cantilevered over the door is painted orange, and the original transom above the door has been removed and replaced with an anodized aluminum privacy panel.

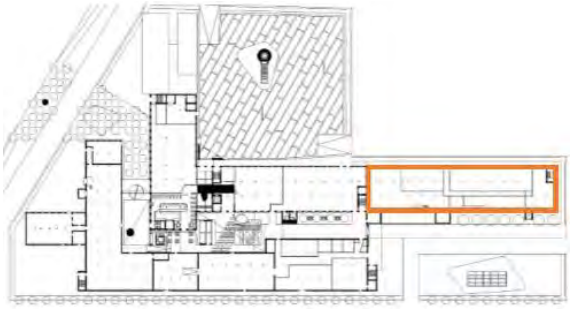
The original steel frame window in the masonry opening left of the entrance door has also been removed and replaced with an anodized aluminum frame window. The 2 original steel frame windows removed from the ground floor of this elevation and the 2 windows removed from the ground floor of the north elevation might be the 4 steel frame windows installed on the 1890 warehouse. A pair of entrance doors 3 bays south of the loading dock have been removed and replaced with a single leaf door. The original transom area above the door and the masonry opening around the door have been covered with plywood painted red.

The east façade has a toilet room tower that matches the size and detailing of the toilet tower in the 1917 manufacturing building. The tower roughly corresponds to the location of the 6th structural bay north of the firewall that separates the 1918 extension from the 1917 manufacturing building. A 2-story shed roof addition constructed at grade between the toilet tower and the 1-story bridge linking the north end of the vulcanizer building to a pair of doors leading to the second floor in the first bay north of the firewall of the 1917 manufacturing building also first appears on the September 1954 update of Sheet 67 of the Sanborn Map for Williamsport. The addition is covered with horizontal siding painted white. The lower level was built as a 6-bay loading dock (see **Figure 25.** below), but the openings have been infilled with plate glass windows. The upper level connects to the bridge, and has small single pane windows that face east above each truck bay.

Figure 25. Employees of the Weldon Pajama Company's Williamsport plant standing in the parking lot in front of the loading docks circa 1954. After WWII, trucking gradually replaced the shipment of goods by rail.
Historic photo downloaded on 1/19/2017 at http://www.lycoming.edu/textile/garment.html

Structure and Interiors of Building L

The structural system of Building L is identical to Building H. The ground floor of the building is divided down its length by an L shaped corridor that exits the building at the north and west sides (see **Figure 26.** below), with tenant spaces on either side of the corridor. Tenants include a health food store at the north end in the same space where the Lycoming Rubber Company's employee store was most likely located, a bicycle recycle shop, a gym, ballet company studio and office (see **Photos 62. & 63.** below).



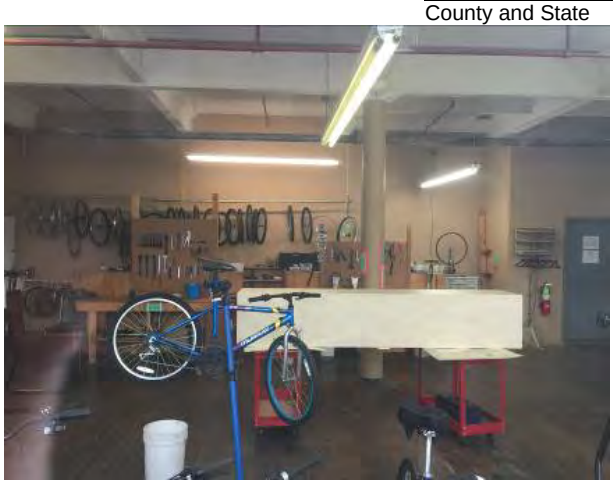


Figure 26. 1st Floor Key Plan (base drawing by Filson & Rohrbacher)
Photo 62. View of bicycle recycle shop

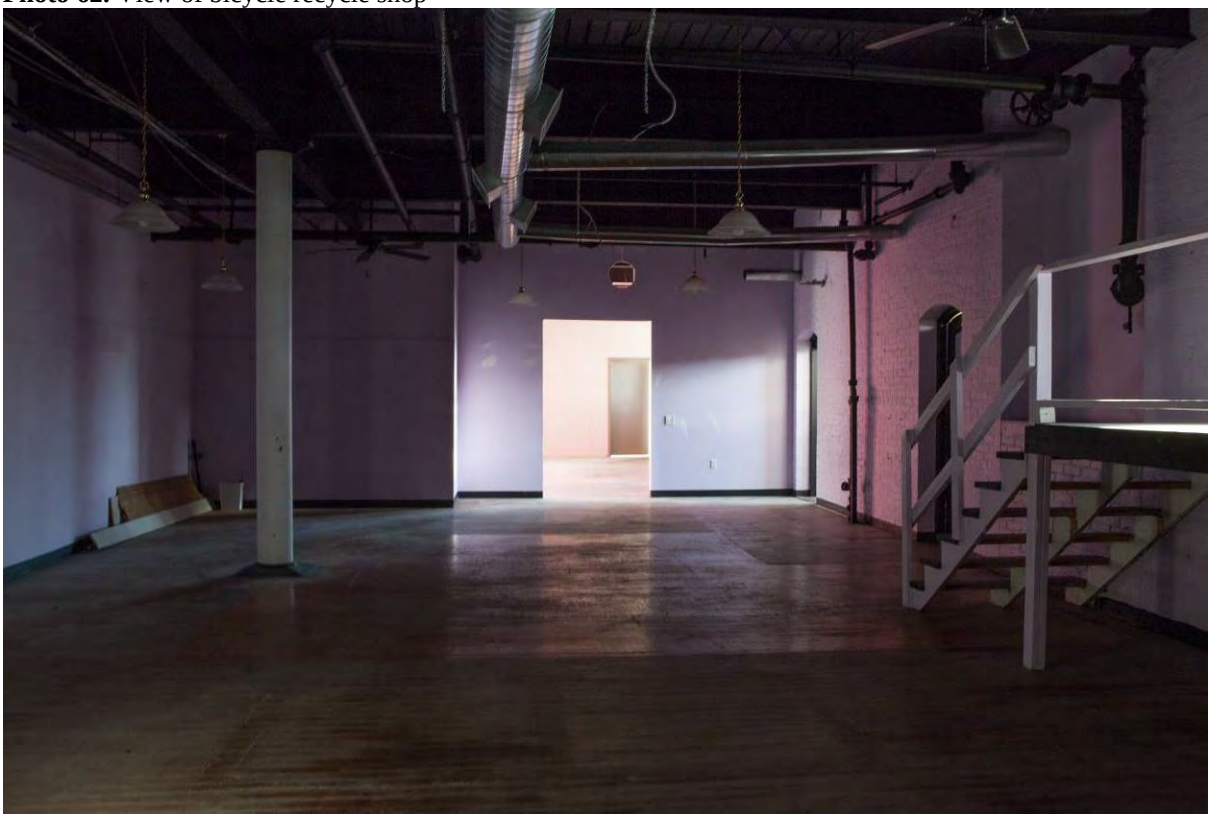


Photo 63. View of vacant demised space on the east side of the south end of the ground floor of Building L looking north. The steps on the right lead to the former truck loading dock, and the wall on the left is the demising wall of the corridor that runs through the length of Building L. The arched opening in the brick wall leads to the ground floor bathroom of the bathroom tower.

The layout of the second floor of Building L is a continuation of Building H, with tenant spaces for artisanal makers and arts related businesses on both sides of a central corridor that runs the length of the building (see **Figure 27.** below). The wood frame demising walls of these tenant spaces and corridors were also installed to expose as much of the original structure as possible, and to meet the exterior walls at the columns or partitions separating the steel frame windows. The exterior brick walls, wood ceilings, tin clad doors and hardware at the openings in the firewalls,

industrial grade elevators, and maple floors with wood inserts that replaced the steel rails for moving finished goods on the shoe making floors have also been preserved on this floor (see **Photo 64.** below).

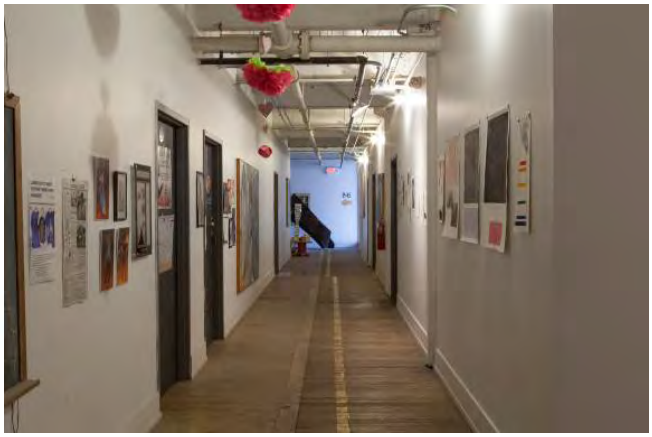


Figure 27. 2nd Floor Key Plan (base drawing by Filson & Rohrbacher
Photo 64. View of 2nd floor central corridor looking north

The entire third floor of Building L is occupied by a manufacturer of outdoor gear and apparel that has occupied the space for close to 3 decades (see **Photos 65., 66., & 67.** below).

Photo 65. Panoramic view of space occupied by the maker of outdoor gear looking north at left and south at right

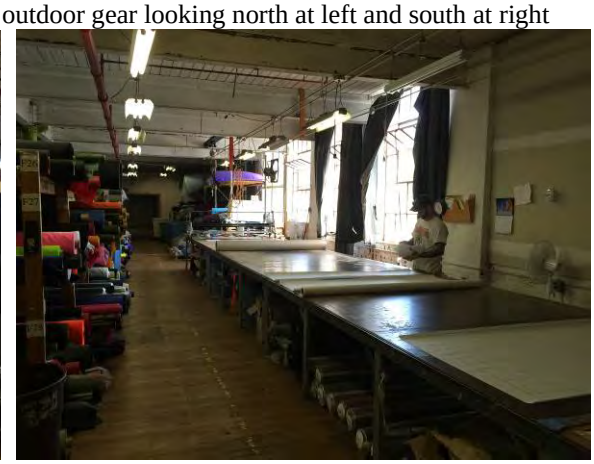


Photo 66. View of stitching room looking south toward firewall of north end of Building H (above left).
Photo 67. View of cutting room looking north (above right).

The open loft style space easily lent itself to repurposing the building for garment companies like this that occupied the building after the rubber company ceased operations in 1932, but this maker of high quality goods claims to be one of the few garment companies that did not offshore operations during the last several decades, and has struggled to find qualified craftspeople to replace its aging workforce.

The 4th and 5th floors of Building L appear much as they did in 1932, when the United States Rubber Company ceased operations at this location. Both floors are presently unoccupied and used for storage by the owner and tenants (see **Photos 68., 69. & 70.** below).

Photo 68. View of 4th floor looking south toward firewall of Building H.

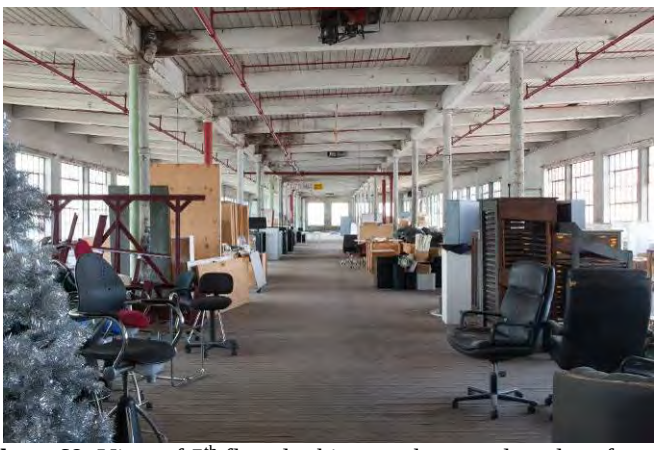


Photo 69. View of 5th floor looking north, note sloped roof.
Photo 70. View of 5th floor looking south. Note 5" cast iron rainwater conductor next to column.

Building C

Construction of the T-shaped 175' long by 60' wide 52,500 square foot building C, with its 20' long by 60' wide 6,000 square foot link attached perpendicular to the south end of the 60' wide 1917 manufacturing building H, was constructed over the original 1882 vulcanizer building B (see **Page 34.** of Continuation Sheets).

South (Courtyard) Elevation of Building C

The 175' long south elevation of Building C, the last of the 20th century manufacturing buildings constructed on this site, faces the courtyard across from the north elevation of Building A, the first of the 19th century manufacturing buildings constructed on this site (see **Photo 71**. below). The west end of the 5 story Building C abuts the east firewall of the 2-story Building C extension, the Lycoming Rubber Company's boot making building constructed in 1889. The October 28, 1917 Lockwood Greene Plat Plan identified a 5-story extension of Building C all the way to the property line on Cemetery Street that would have required the demolition of the boot making shop and the box shop behind it (Building E), but the rubber trust closed the factory before the extension was built.

Photo 71. View of the South elevation of the 5-story Building C from the parking lot of the original 2-story Building C.

The windows of the original 2-story Building C and Building E and the ground floor windows of the new Building C have been covered with plywood or red metal siding to protect them from vandalism. (see **Photos 72. – 75.** below).

Photo 72. West elevation of Building E and Old Building C in the foreground, with 5-story New Building C behind. Note the brick infill in the masonry openings for the proposed extension to Cemetery Street.
Photo 73. Courtyard view of northeast corner of new Building C with its single north bay of the T-shaped wing.

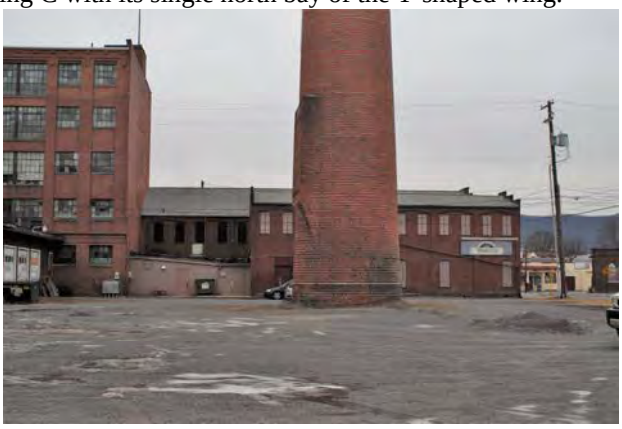
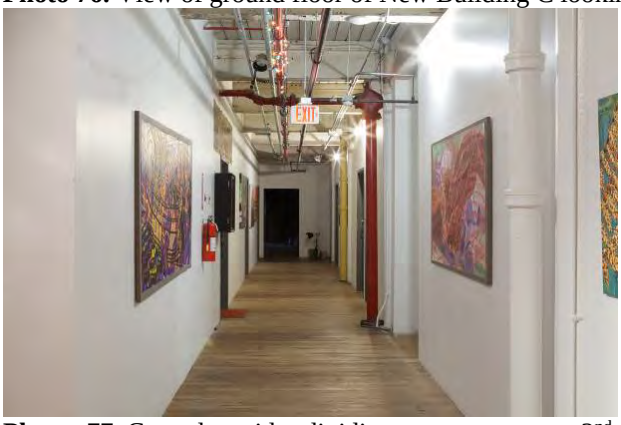
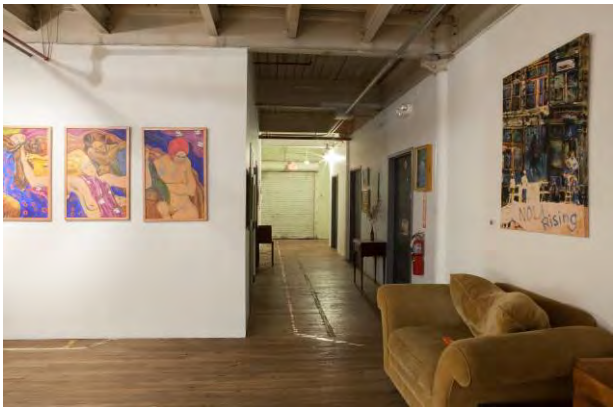


Photo 74. West end of north elevation of New Building C. The single-story concrete block loading dock covered in wood siding was constructed after the rail line and power plant were demolished.
Photo 75. North elevation of Building E (box shop) and Old Building C (the original boot shop).

Structure and Interiors of New Building C
The structure of the 3 bay wide by 10 bay long New Building C is identical to the structures of Building H and Building L, with 22” thick load bearing brick walls on concrete foundations above concrete footers, an interior steel frame structure on concrete piers, and a timber-framed roof that slopes gently toward 5” cast iron rain conductors.

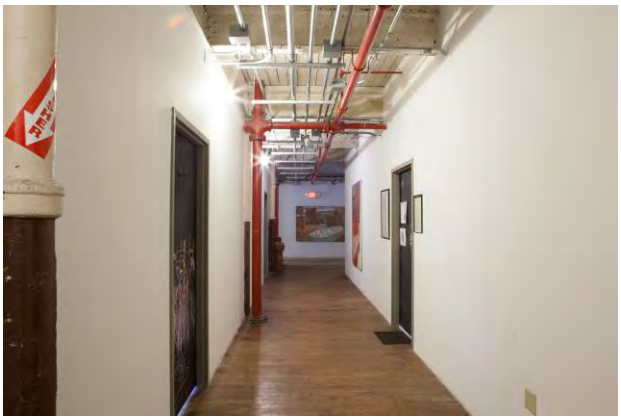
Figure 28. Key Plan C1**.** 1st Floor of New Building C. Base drawing by Filson and Rohrbacher
Photo 76. View of ground floor of New Building C looking east.





Photos 77. Central corridor dividing tenant spaces on 2nd floor looking west
Photos 78. Conversation area at jog in corridor looking east toward original fire door of bridge to Building D

Although the cafe with outdoor seating in the courtyard proposed in the master plan drawing of the 1st floor (see **Figure 28.** above) did not materialize, the east end of the floor is currently occupied (see **Photo 76.** above). The upper floor tenant spaces are typically fully occupied. Jogs in the corridors were designed to provide areas for tenants to meet (see **Photos 77. & 78.** above), and the structure and sprinkler system piping has been painted red and exposed (see **Photos 79. & 80.** below). Although the rails used to wheel racks of Keds from the making area to the vulcanizer were removed by earlier owners, the wood inserts that replaced the rails are still visible on the floors. Two live-work spaces on the property have been installed on the 4th floor (see **Photos 81.** and **82.** below).



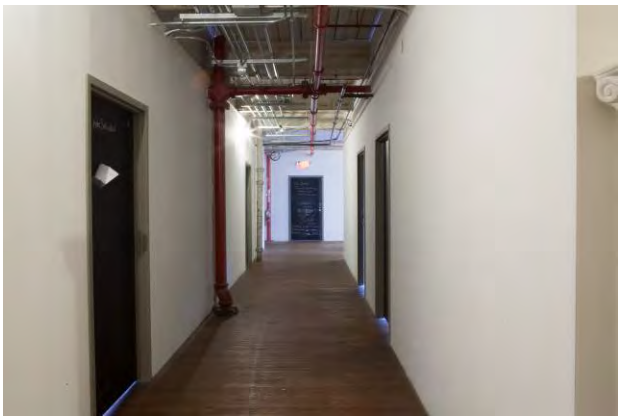


Photo 79. View of 3rd floor corridor looking east.
Photo 80. View of 4th floor corridor looking east.

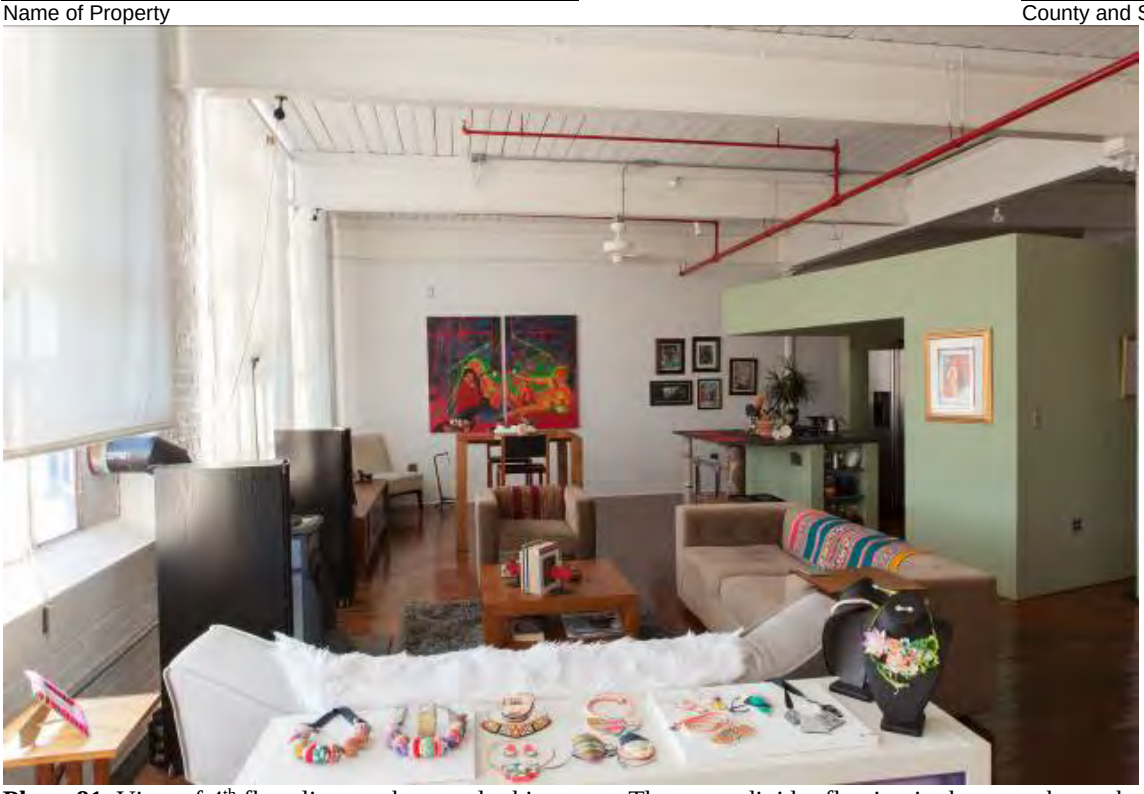


Photo 81. View of 4th floor live-work space looking west. The green divider floating in the space beneath the structure encloses the kitchen. Original sprinkler pipes throughout the building are painted red in keeping with the color-coded system devised by Lockwood Greene & Co. Engineers for the Lycoming Rubber Company.

Photo 82. View of 4th floor live-work space looking south over the roof of Building A. Note corbelled brick wall.

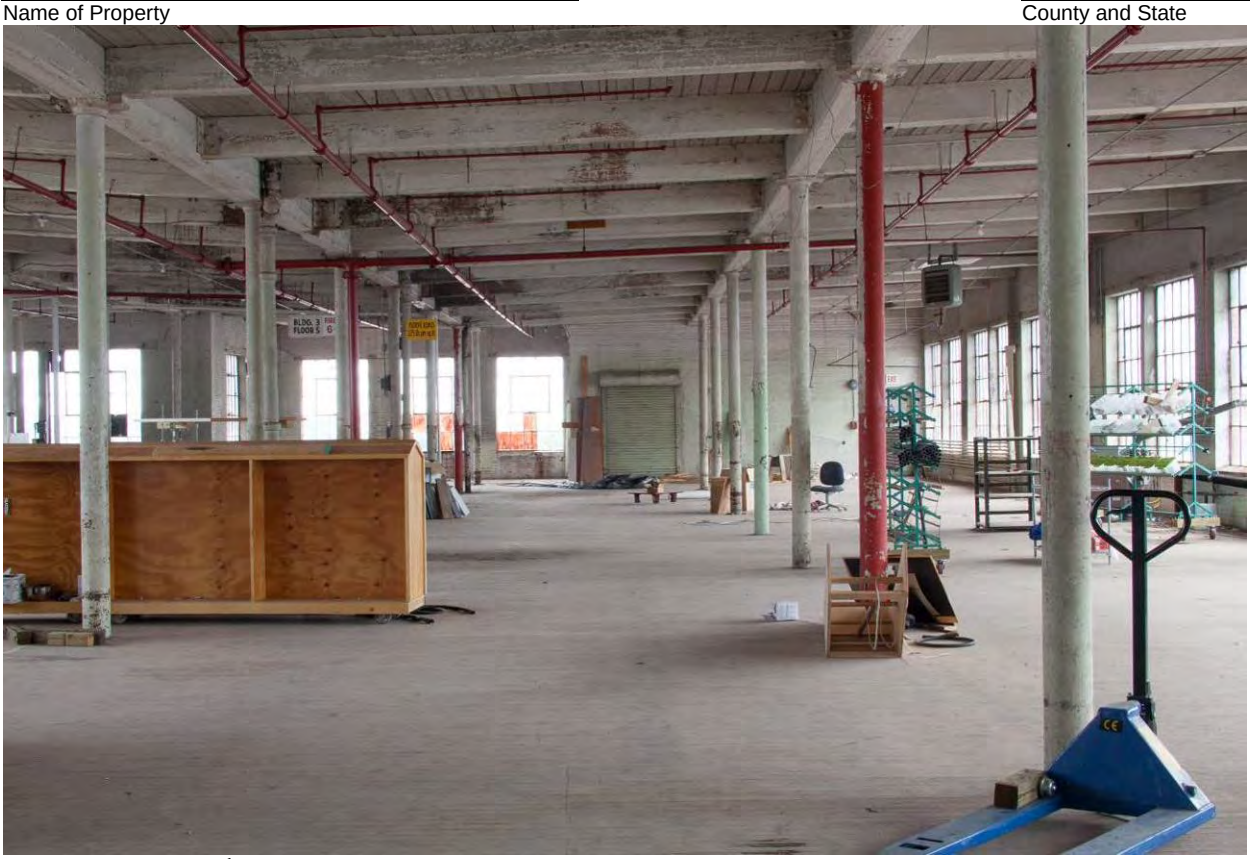


Photo 83. View of 5th floor of New Building C looking east.

Photo 84. View of tin clad fire door with self-closing pulley and cable hardware and heavy duty face mounted metal strap hinges in stair tower, typical throughout the property.

Photo 85. Many of the spaces in the building retain other more ephemeral features and finishes that a time traveler from of the property's prior use as a factory would immediately recognize, like the signage and authentically timeworn paint finishes in the stair towers, or the wear marks on the steps that not only trace the path of the thousands of workers that climbed or descended the stairs every day, but even recorded the arc of their movement.

The 1919 Powerhouse Chimney, Building M

The July 22, 1918 specifications for the contract awarding the new $50,000 boiler house and chimney to the McNally Building Company described the sequence of events necessary to maintain operations in the existing boiler house that supplied steam to the vulcanizers in Building B while the new vulcanizer Building K was under construction.

Photo 86. View of the throat of the boiler house chimney looking west toward Cemetery Street.
Photo 87. View of the boiler house chimney from the north side.

The 1919 boiler room housing a pair of 250 HP 7' diameter by 20' long coal fired boilers was demolished by the previous owner, but the 175' tall brick chimney attached to the west side of the boiler room still remains. The round chimney is constructed of oversized curved bricks with angled ends set in a running bond pattern (see **Photo 86.** above) with a 4½ foot tall water table that steps back approximately 3" to a 16' diameter shaft reinforced with 14 bands of steel spaced every 12 courses tapering to a 9' diameter poured in place concrete cap. The chimney was attached to the west side of the 2-story tall boiler house by a rectangular throat that corbels back at the base. Ray Smith, the previous owner of the former rubber factory, had the word "Raytowne" painted in large white block letters on the north and south sides of the chimney (see **Photo 87.** above).

Integrity

Despite the property's change of use from an owner-occupied factory to its present use an arts related multi-tenant building--with a variety of uses mostly related to the garment industry in between--the 10 contributing buildings and single freestanding boiler house chimney associated with this property retain the character defining features that convey the **design, setting, materials, workmanship, feeling and association** with a factory designed and constructed at this **location** for the manufacture of rubber boots and shoes during a period of exponential growth in the rubber industry made possible by vulcanization—the addition of Sulphur and heat to latex that made the resulting rubber products more durable—and the economy of scale attributable to mass production techniques, namely the division of labor and the use of specialized equipment, that made rubber goods a staple of domestic, industrial and military commerce and a cornerstone of Greater Williamsport's economy for nearly half a century.

Location and Setting
The 310,000-square foot 5-story factory and 175' tall boiler house chimney constructed on this 4 ½ acre site between 1882 and 1919 by and for the Lycoming Rubber Company still dominate the skyline of the working class neighborhood made up of predominantly 2-story single family and duplex style brick and wood frame homes constructed between 1882 and 1932--the rubber works period of significance— for and to a large degree still occupied by skilled factory workers and laborers.

Design, Materials & Workmanship
Although all of the buildings have been modified to some degree to satisfy building and life safety codes and to suit the needs of the dozens and perhaps even hundreds of tenants that have occupied or still occupy this factory in the near century since the United States Rubber Company ceased operations at its Lycoming Rubber Company plant, the massing, scale, materials, workmanship and relationship of buildings to each other and to the street still convey the original design intent and the means and methods used by Williamsport brothers William and Gottlieb Waltz to construct the first group of traditional 19th century rounded arch style factory buildings for the locally organized Lycoming Rubber Works or the scientific management methods employed by the massive United States Rubber Trust and their internationally renowned engineering firm of Lockwood Greene & Co. Engineers for the last group of 20th century modern American industrial style rational factory buildings designed, constructed and operated during the final decades of the Long Progressive Era.

Feeling and Association
A student of or visitor from the last two decades of the 19th century would quickly recognize and associate the character defining features inside the walls of the earliest additions to this property with utilitarian factory buildings common to this region and time period, including the painted exposed brick of the exterior load bearing walls, in many cases still bearing signage, ephemera, and other indications of wear and usage from the period, the exposed timber frame posts and beams with chamfered corners and massive timber capitals supporting 4" thick maple floors darkened and worn from age and use, and the deep set rounded arch double hung wood frame sashes with wavy glass lites offering daylight, fresh air and a view of the humble homes surrounding the factory.

A student of or visitor from the first two decades of the 20th century would also easily recognize many of the character defining features inside the walls of the most recent contributing additions to this property as early examples of a very modern, very utilitarian American "daylighted" rational factory, including the early use of concrete for foundations and the poured in place sills of the Fenestra steel framed windows with pivoting sashes designed to offer fresh air and prismatic lites designed to reflect day light into the interiors and to offer visual relief for workers, many of them artisanal craftsmen and women adjusting to the fast paced demands of mass production.

Visitors and students of the early 20th century buildings would also recognize the exposed steel framed structure with its Milford columns sitting on massive 3" thick cast iron bases, the tin-clad fire doors and freight elevators still operational with their original hardware intact, and even the original sprinkler system painted a bright red in accordance with the system devised by the engineers and still in use throughout the occupied portions of the property.

Although all of the equipment used in the manufacture of rubber boots and shoes was removed from the property when the Lycoming Rubber Company ceased operations at this site in 1932, and some of the interior spaces have been updated to meet codes and subdivided or cosmetically altered in ways that are for the most part reversible to make the property more functional and affordable for the variety of tenants that have occupied the property in a neighborhood that has not commanded high rents in the 85 years since the rubber factory closed, the property nevertheless retains the 7 key elements of integrity that reflect its association with broader trends in the rubber industry occurring during the property's period of significance (1882-1932).

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 is 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.
- [ ] C. Property embodies the distinctive characteristics of a type, period, or method of construction or 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 the 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 old or achieving significance within the past 50 years

Areas of Significance
(Enter categories from instructions.)
INDUSTRY

Period of Significance
1882-1932

Significant Dates
1882 – Construction begins on the first two Lycoming Rubber Company buildings in the American rounded-arch style
1917 – The Lycoming Rubber Company works expanded as a modern American industrial plant in the Commercial Style

Significant Person
(Complete only if Criterion B is marked above.)

Cultural Affiliation

Architect/Builder
Waltz, Gottlieb
Waltz, Walter
Lockwood Greene & Co.
Thayer, Roland A.

Statement of Significance Summary Paragraph (Provide a summary paragraph that includes level of significance, applicable criteria, justification for the period of significance, and any applicable criteria considerations.)

The Lycoming Rubber Company complex located at 1307 Park Avenue, Williamsport, Lycoming County, Pennsylvania consists of 10 three to five story red brick buildings and one 175 foot tall boiler house chimney all constructed for the manufacture of rubber boots and shoes during a period of exponential growth in the rubber industry following Charles Goodyear's 1844 patent on vulcanization—the process of adding Sulphur, heat and other additives to latex that made rubber goods more durable—coupled with patented innovations in design that made rubber products appealing and useful to a broad audience of consumers, and ongoing innovations in the ownership structure, operations, material handling, scientific management, labor relations, advertising, marketing, supply and distribution chains of the rubber industry that, taken all together, made rubber footwear a staple of domestic, industrial and military commerce and a cornerstone of Greater Williamsport's economy for half a century during the property's period of significance (1882-1932). As such, the property is an excellent candidate for inclusion in the National Register under Criterion A for Industry.

Narrative Statement of Significance

Historical Overview

From its beginning as a pair of late 19th century 2- and 3-story, American rounded-arch style brick and timber framed buildings designed and constructed by local architect/builders William and Gottlieb Waltz to accommodate skilled workers and laborers and the tools and machinery they used for the manufacture of rubber boots and shoes in the early days of mass production in the Lycoming Valley to the Lycoming Rubber Company's final years occupying an expanded campus that included several 2 to 5-story, American modern style steel frame and brick bearing wall structures with "Detroit-Fenestra" steel frame "window walls" designed by the internationally acclaimed Boston based firm of Lockwood Greene & Co. Engineers, one of the most prolific and prominent innovators, operators and engineers of industrial style mill buildings of the late 19th and 20th centuries,—the structures, fenestration, and even the workers within the walls of this complex were treated and, to the degree management was successful in devising and implementing Taylorism and Fordism's "scientific management" practices humanized by the "industrial welfare movement" in effect during the Long Progressive Era, functioned as if they were part of the machinery itself.

All eleven of the contributing structures on this site were built during the period of the property's significance between 1882, the dawn of the nation's Second Industrial Revolution, when the first two buildings for the Lycoming Rubber Company, Limited were constructed near the corner of Erie Avenue and Rose Street, and 1932, in the midst of the Great Depression, when the United States Rubber Company, the holding company that acquired a controlling interest in the newly incorporated Lycoming Rubber Company and eight of its competitors in 1892, commonly referred to as the "Rubber Trust," ceased manufacturing at this location.

The Lycoming Rubber Company, Limited, a locally organized limited partnership conceived of and led by S. N. Williams, a self-made man born and bred a few blocks south of the site of the factory, became the fledgling Williamsport Board of Trade's answer to a diversified regional economy after the lumber industry depleted its regionally sourced resources. In the Board of Trade's own words, the Lycoming Rubber Company was proof that "the experiment of manufacturing rubber goods [in Williamsport] has been successfully demonstrated" after infamous lumberman Peter Herdic's Williamsport Rubber Company failed and its successor, the Keystone Rubber Company, was destroyed by fire and its owners elected not to rebuild.

The United States Rubber Company was organized by the wealthy New York financier and ardent capitalist Charles R. Flint, advisor to and frequent guest of American presidents, foreign governments and international financiers and an advocate for scientific management dubbed the "Father of Trusts" for his efforts to consolidate the operations of a variety of industries, including his failed attempt to consolidate the electric light and power industry during the great *Current War* that erupted over Thomas Edison and Nicholas Tesla's highly publicized debate over the safety of DC versus AC power before Flint formed the Rubber Trust, and his highly successful efforts to bring together the four

tabulating and measuring companies that eventually became IBM after he created the Rubber Trust.

Although the closure of the Lycoming Rubber Company was a devastating loss for Williamsport, it was just another "calculated step" in the United States Rubber Company's march forward—informed now by a tabulating punch card system introduced by IBM—toward become a truly "rational factory"—one that ran like a machine—by concentrating and consolidating its most efficient and profitable operations increasingly focused on rubber tires at its corporate headquarters in Naugatuck, Connecticut, the birthplace of vulcanization and the American rubber boot and shoe industry, where it remained in business until 1966, when it rebranded itself as Uniroyal. In 1989, after merging with former competitor Goodrich, Uniroyal-Goodrich was purchased by Michelin, a French tire manufacturer based in Clermont-Ferrand in the Auvergne region of France.

This complex of buildings changed hands and uses many times between the year the United States Rubber Company closed the factory in Williamsport and its present owners purchased it from Raymond and Jan Smith, who purchased it in 1984 for a dollar from the Lycoming City Industrial Development Authority, a subsidiary of the Williamsport/Lycoming Chamber of Commerce, successor to the Williamsport Board of Trade, and christened it "Raytowne," the name now emblazoned on the factory's now dormant 175-foot tall boiler plant chimney.

Tenants between the United States Rubber Company and the Smith's tenure included a number of shoe and clothing makers, some of the more notable ones being: Franklin Hosiery Mills, Faxon Fabrics, W.S. Green Shoe Company, Lucille Footwear, Wundies, Inc., and the Weldon Manufacturing Company, the world's largest shirt and pajama manufacturer at the time it owned the property.[4]

The Smith's sold 8 of the 10 former rubber factory buildings and boiler house chimney in 2007 to New York City architect Mark Winkelman and his wife Susan Winkelman, an advertising executive, who rechristened it "the Pajama Factory," a name chosen in homage to its more marketable association with the making of pajamas and the iconic movie, *The Pajama Game*, starring Doris Day, whose producers visited the plant and modeled the set of the movie in the likeness of the pajama factory operated at this location by the Weldon Manufacturing Company between 1945 and 1980. The days when the price of "crude rubber" was as important a marker to the nation's economy as the price of "crude oil" is today—or when "rubber," the miracle material that got the nation's feet out of the mud and its wheels in motion was as important to the culture of its time as "plastics" was to the culture of the era made famous by Dustin Hoffman's lead role in the iconic coming of age story, *The Graduate*—are just a distant memory now.

The Pajama Factory's efforts to repurpose the remaining buildings in this complex as an arts-related incubator and maker space providing working and living areas for businesses focused on building community not only preserves the character defining features that set the stage for resurfacing and retelling long forgotten stories of these buildings and the work and workers—the majority of them women and children— employed in the rubber footwear industry during a timeframe that coincides with the nation's Long Progressive Era; it also places this very significant landmark at the center of a Second Industrial Divide- a return to the artisanal craft tradition from which this industry and all industry was born.

ORIGINS OF THE RUBBER INDUSTRY

The origin of the word "rubber" is commonly attributed to Joseph Priestley, the British philosopher and inventor credited with discovering oxygen in 1774 who, prior to emigrating to Northumberland, Pennsylvania to escape religious persecution and political unrest in England, wrote that he had seen a natural, gum-like material that was superior to bread crumbs in "rubbing" out pencil marks. Priestley referred to the exotic substance as "India rubber," because it was erroneously thought to have come from the far east, but the name eventually was shortened to just "rubber." [5]

However, it was not erasers, but boots "made of one single piece which are impervious to water and which when smoked look like real leather," that actually triggered widespread *'European interest'* in the commercial possibilities of

4 see appendix a for a complete listing of occupants of the Raytowne Complex, more recently known as the Pajmam Factory, compiled from phone book listings by the curator of the Taber Museum

5 Andrea C. Dragon, *Rubber* in Whitten, David O., and Bessie E. Whitten. *Extractives, Manufacturing, and Services: A Historiographical and Bibliographical Guide* (New York, Greenwood, 1997) 238.

the "mysterious, bouncy substance oozed from the trees somewhere in the Amazon region [that] could be manufactured into useful objects," as the French mathematician, physicist, explorer and geographer Charles Marie de la Condamine described the material in a widely circulated report he submitted in 1751 to the French Royal Academy of Sciences. [6] Condamine, who had been sent to the equator on an official expedition to conduct measurements to verify the shape and size of the globe, named the whitish sap-like substance "latex," (Latin for liquid or liqueur) and the smoke-cured result *caoutchouc*.[7]

Andrea C. Dragon, author of the chapter about rubber in the book, **Extractives, Manufacturing, and Services**, *published in* 1997 by the Greenwood Press, traces the origin of '*American interest'* in the commercial prospects for the rubber industry to the Boston Tea Party, when patriotic Americans began drinking coffee imported from Central America and Brazil in protest of the tax imposed on tea by the British. At the time, Britain had an exclusive trading monopoly with Brazil, granted through a diplomatic arrangement with Portugal, which until 1845 controlled most of the Amazon territory where the rubber trees grew.[8]

In defiance of Britain's trade agreement, American vessels loaded their ships at the Brazilian port of Para with Brazilian coffee and sarsaparilla, "whose roots, gathered in the Amazonian headwaters region of Peru," [9] were used to flavor root beer, another drink popular in colonial America. It was here at Para, the Brazilian territory known for producing the finest rubber in the world, that American sea captains learned about rubber. By the beginning of the 19th century, according to Dragon, America dominated the trade in rubber.

Between 1837 and 1842, the number of rubber shoes imported from the Para region grew from a low of 128,000 pairs in 1839 to a high of 478,000 in 1842.[10] The market for Para rubber boots and shoes grew especially fast in America, where the benefit of a durable, waterproof boot or shoe was quickly grasped and highly valued by workers in an economy still dominated by agriculture and extractive industries, like mining and timber, but it didn't take long for rubber boots and shoes to become popular in urbanized areas as well. Until the early part of the 20th century, most of the streets and sidewalks throughout America were unpaved. America was "stuck in the mud," and the rubber shoe, which sold at prices between $.25 and a dollar a pair, became an affordable way to keep men, women and children out of it.[11]

Despite the growing demand for rubber products and the crudeness of the Brazilian technology, no one in the rapidly industrializing world of Europe or the United States succeeded in making rubber boots and shoes superior to Brazil's Para rubber products during the first half of the nineteenth century.[12] But even Brazil's widely and highly regarded Para shoes were known to dry out and crack in the extreme cold of a New England winter, or to slowly melt down in warm weather. The solution to rubber's lack of durability was vulcanization, the chemical process of mixing Sulphur and rubber at high temperatures perfected and patented by Charles Goodyear. According to Ann Marie Sommers, author of *Charles Goodyear and the Vulcanization of Rubber,* published on the website, www.ConnecticutHistory.org:

> *Goodyear was 33 years old when he decided to venture into rubber products in the 1830s after his father's New Haven hardware business went bankrupt. At that time, rubber appeared to be a "miracle material." The gooey, milky sap, bled from trees in Brazil, was waterproof and easy to stretch. Called latex in its fluid form and rubber when it hardened, the substance could be formed to fit a variety of uses. Rubber barons and wealthy families staked their fortunes on its potential. But India rubber, as it was called at the time, had a flaw, and it was a fatal one: it melted in the summer and cracked in the winter.*

6 Andrea C. Dragon, *Rubber* in Whitten, David O., and Bessie E. Whitten. *Extractives, Manufacturing, and Services: A Historiographical and Bibliographical Guide* (New York, Greenwood, 1997) 238

7 Stephen L. Harp, *A World History of Rubber; Empire, Industry and the Everyday* (Wiley Blackwell; 2016) 12.

8 Dragon 238.

9 Dragon 238.

10 Glenn D. Babcock, *The History of the United States Rubber Company : A Case Study in Corporation Management.* (N.p.: Bureau of Business Research, Graduate School of Business, Indiana U, 1966) 8.

11 Dragon 245.

12 Dragon 245.

> *By the mid-19th century, the rubber industry was on the verge of collapse due to rubber products that sagged and melted into blobs in extreme temperatures. It would take Goodyear several … years to recreate the chemical formula and perfect the process of mixing sulfur and rubber at a high temperature; he patented the process in 1844, the year after establishing the Naugatuck India-Rubber Company in Naugatuck. Goodyear named his discovery vulcanization, after Vulcan, the Roman god of fire."*

According to Sommers, Goodyear "licensed his patent to manufacturers and showcased it at exhibitions. The vulcanization process put Naugatuck, Connecticut, on the map as a leading site of rubber manufacturing during the 19th and 20th centuries." The industry contracted dramatically after Goodyear secured and prevailed himself of the courts to rigorously defend his patent, forcing mom and pop operators to either pay royalties or sell out, with most opting for the latter choice. "By 1860, so many business combinations had taken place that the American rubber industry had only eight companies making rubber footwear—and they were all Goodyear licensees."[13]

Work in a rubber factory in the second half of the 19th century was labor intensive. American rubber footwear factories typically employed hundreds of men, women and children, most of them as unskilled laborers who learned what little of their trade there was to learn from their peers. It was the workers who cut the sheets of masticated rubber into boots and shoes, and the workers who fashioned those pieces into footwear, that maintained the culture and traditions of the industry; they were the skilled workers, the artisans of the factory floor.

Cutters and makers, as they were called, stood apart from and were treated differently by management, labor organizations, and the rest of the workers in the factory. They oftentimes lived in different neighborhoods than laborers, indicative not just of their social status, but of their economic circumstances and of managements' dependency on them.[14] "Since waste increased costs, capable cutters commanded high wages," according to Nelson. "Apart from competent management, the success of a rubber boot and shoe factory depended on the cutters' skill and the makers' dexterity. In the nineteenth century, some cutting was done with dies and mallets but most of it 'required a sharp knife whopped by a dexterous wrist motion around a tin pattern." [15]

With the exception of cutters, who were generally men, most of the workers in the rubber footwear factories were women and children. Prior to the establishment of the Fair Labor Standards Act of 1938, it was not uncommon to find children younger than 14 working long hours in factories. Work, even at an early age, was considered socially preferable to idleness, which in the Dickensian world of the Industrial Revolution, meant listlessness that inevitably led to lawlessness. Many factory owners also preferred children because they were cheaper and, as labor became more organized, less likely to strike. Dragon offers a glimpse into the life of the rubber worker in New Jersey four years before the Lycoming Rubber Company was formed:

> *In 1878, rubber workers, always paid by piece rate, earned between $1.60 and $3.25 per day and worked an average of sixty hours a week. The head of a family could expect to earn $670 annually. During the same year a teacher in New Jersey could expect to earn $769. These salary statistics are more meaningful when compared with the cost of living in the late 1870's. A rubber worker in New Jersey paid $2.75 for a hundred pounds of flour, ten cents for a pound of salt pork, twenty-five cents for a pound of coffee; a pair of workman's leather shoes, at $2.50, cost the rubber worker a day's wage. He or she (men and women were employed in roughly equal numbers in the factories) could rent four rooms in New Brunswick (without running water) for $8.00 a month.*
>
> *Regardless of gender or age—many rubber workers were children or teenagers—the average rubber laborer was expected to produce thirty-six to forty-five pairs of shoes per day, for which he or she was paid the going rate of five to thirteen cents per pair, depending on the type of shoe. Rubber factory-hands had to earn money while they were healthy because the average worker's vigor began to decline at age thirty-five.*

13 Dragon 262.

14 William *F*. Plankenhorn, *A Geographic Study of the Growth of Greater Williamsport*. (Thesis. Penn State, 1957).

15 Nelson.10.

…Tuberculosis took a terrible toll in the rubber factories.[16]

Many of the rubber workers came from nearby farming communities idled after the harvest was gathered, following a pattern of work that originated in the lumber business, when farmers would head to the lumber camps in the hills to cut timber to supplement their income. And just like farming, production in the rubber factory was very much governed by the weather. An icy cold winter or an extremely wet spring was sure to increase demand for waterproof rubber boots and shoes, and a mild winter or spring was just as certain to result in a slackening of demand.

In addition to wild swings in demand caused by the vagaries of the weather, rubber goods manufacturers also had to contend with rubber cartels that controlled the supply of rubber. According to Dragon,

> *American shipowners were unable to trade directly with the interior sources of export products because they were forbidden to use steam navigation on the Amazon and its tributaries. The Amazon Steam Navigation Company had been granted a thirty-year monopoly to ship goods via steam-powered vessels on the Amazon…and American trading companies lacked the manpower and expertise to paddle canoes through the treacherous Amazon backwaters.*[17]
>
> *By the last half of the nineteenth century manufacturers began to receive rubber from Brazil in the more standard form of [32 pound balls called] 'arrobas' instead of bottles and shoes, and manufacturing approached standardization.*[18]

Rubber cartels sold the arrobas—which looked like large smoked hams—by the pound, and unscrupulous dealers oftentimes filled them with dirt and stones to increase their weight. Although the demand for rubber footwear remained strong well into the new century, the demand for other rubber goods continued to grow as entrepreneurs continued to find new uses for rubber.

According to Stephen L. Harp's **A World History of Rubber*;*** *Empire, Industry and the Everyday,* "The 1880's and 1890's witnessed two developments that in hindsight we often view as separate, but were in fact inextricably tied. First, industrialization intensified after the start of what historians refer to as the Second Industrial Revolution, during which ever more manufactured goods found their way to ever larger numbers of Americans and Europeans who could afford to purchase them. Second, these same years saw the emergence of the era of European empires, as strongly nationalistic Europeans scrambled to expand their own country's control of Africa and Asia, where they clashed at times with the colonizers of other European nations. Two key consumer products born of the Second Industrial Revolution were bicycles and, increasingly, automobiles. Both machines needed tires, first, solid rubber ones, which required a considerable amount of energy to turn (as on a tricycle today), and then pneumatic ones, which rolled along much more smoothly (as on a bicycle today, with a rubber inner tube and a rubber tire as separate components.)"[19]

As the demand for rubber products grew, manufacturers began to look beyond the Amazon for raw material. Belgium's King Leopold II was one of the more notorious actors to appear on the scene. As the ruler of a geographically small country on a continent of great empires, King Leopold sought to increase his country's standing in the world during a period that became known as *The Scramble for Africa*. According to Thomas Packenham, author of, **The Scramble for Africa**: The White Man's Conquest of the Dark Continent from 1876 to 1912:

> *He was haunted by the dream of carving out some piece of the unexplored world as an overseas empire for Belgium. … He seemed obsesses by what he called 'the lesson of history.' It was colonies that gave modern states 'power and prosperity.' He cited examples from the Far East. A tropical colony of exploitation, such as the Dutch colony of Java, would pay hand over fist. It would also prove to the people of Belgium— 'petit pays,*

16 Dragon 263.

17 Dragon 243.

18 Dragon 261.

19 Harp 14.

petits gens' –that they were, despite themselves, an 'imperial people capable of dominating and civilizing others.' [20]

[The] Congo was not like any other colony. Of course it was not a colony. It was a personal state, the property of one capitalist genius, The King-Sovereign. Leopold had ridden the world's rubber boom like a man on a trapeze. Before the boom, the Congo's exports had consisted of a trickle of oil and ivory. By 1902, rubber sales had risen fifteen times in eight years, and constituted over 80 per cent of exports, worth over forty-one million francs (L1.64 million). The rubber grew wild and the Free State method of harvesting, if rough-and-ready, was cheap. So exports came to twice as much as imports, and the State secretly amassed a huge surplus of income over expenditure.[21]

Harp's **A World History of Rubber** explains how Leopold's "rough-and-ready" harvesting methods actually worked:

State-sponsored companies received land as concessions for exploration, where they forced Africans to gather rubber. Leopold's men oversaw an armed force of African troops, called the Force Publique, to enforce rubber collection; poorly paid and brutalized by white superiors, they in turn treated local Congolese horribly. Congolese workers who did not meet rubber quotas, in the form of smoked balls of coagulated rubber of the required weights, were whipped. … Women and children were taken as hostages until the men met the rubber quotas.

The Force Publique burned villages to the ground, and Africans abandoned fields to hide and scavenge in the forest. Much like the practice of scalping in the American West, when the Force Publique suppressed so-called rebellions they gathered butchered hands, supposedly only of those who had resisted, although numerous pictures of children, women and men without their right hand serve as evidence of the indiscriminate maiming of the Congolese. While we have no census for nineteenth-century Africa, estimates of deaths of indigenous peoples gathering rubber in the Congo Free State range as high as 10 million, a number that does not even include some comparable abuses in the French Congo to the north.[22]

Leopold's atrocities were first brought to the public's attention "as stories of the abominable treatment of human beings in Africa at the hands of Leopold and his operatives hit the papers."[23] Joseph Conrad's novella, *Heart of Darkness*, published in 1899, exposed similar atrocities in the ivory trade. Buckling under public pressure, the Belgian Parliament, which was opposed to the venture from the start, finally removed Leopold's hold on the Congo Free State in 1908, after which it became a colony of Belgium. While condemning the colonialism that continued long after Leopold's hold on the Congo ended, Harp ranks the struggle to expose the abuses in the Congo alongside abolitionism as among the great humanitarian movements of the nineteenth century.

INDUSTRY IN LYCOMING COUNTY IN THE 19th CENTURY, BEFORE THE FIRST BALE OF RUBBER ARRIVED

When the first Europeans settled in the area around Williamsport, the mountains that define the landscape of the ridge and valley region of the northcentral part of the Commonwealth upriver from Williamsport held some of the nation's finest stands of pine, coveted by carpenters and cabinetmakers alike for its utility, strength and workability. Eastern hemlock was also prevalent and highly valued, but mostly for its bark, which contained tannin, the primary ingredient used for tanning leather goods, like boots and shoes.

The region's first shoe factory came to Williamsport in 1868 "because of the possibilities of the local and regional shoe market, specializing early in the making of [lumbermen's] boots."[24] By 1885, Boyd's Directory of Williamsport listed 20 leather boot and shoe manufacturers and dealers in the Williamsport area, with 17 of them located in the City itself. Like most industries that relied on skilled labor, the Williamsport's shoe and boot manufacturers and dealers tended to cluster together, with 5 of them occupying locations on 3rd street and 6 of them on 4th Street. J. E. Dayton & Company,

20 Thomas Packenham, *The Scramble for Africa: White Man's Conquest for the Dark Continent From 1876 to 1912* (New York: Random House Inc., 1991) 13.

21 Packenham 588.

22 Harp 15.

23 Harp 15.

24 Plankenhorn 93.

the largest leather boot and shoe manufacturer in Williamsport, was originally located, at 31 west 3rd Street and, later moved its plant to 132 & 134 West 4th Street. The company was established in July of 1873, and by 1892 had 110 employees.[25]

After Peter Tinsman installed the region's first steam engine at his saw mill in 1852, leather also became increasingly important for the manufacture of industrial belting used to convey raw materials and finished goods or to transfer energy from steam engines to the machinery that exponentially boosted the region's fledging industrial economy. J. K. Mosser & Company's tannery in Newberry, Williamsport's seventh ward, was one of the largest industries of its kind in northern Pennsylvania. Founded in 1876, the buildings and sheds covered over fourteen acres of ground, with 365 vats used in the tanning of leather and a capacity that exceeded 1,000 hides per week. The plant's 75 employees used three steam engines to operate its machinery, which processed between 12,000 and 15,000 carloads of bark a year."[26] By December of 1881, the year before the Lycoming Rubber Company was founded, the Costello Tannery, located 100 miles northwest of Williamsport, was consuming 32,000 cord of bark annually to produce 6,000,000 pounds of sole leather, making it the largest tannery in the world.[27]

Although Jefferson's notion of a nation dominated by agriculture at the beginning of the 19th century was rapidly giving way to Hamilton's notion of a nation dominated by manufacturing as the century neared its end, the ebb and flow of life in the Lycoming Valley was still largely governed by the seasons. When the harvest ended and crops were in the barn, many of the region's farmers found work in the logging camps felling timber through the winter months, when the sap in the trees was down, which made them lighter and easier to transport. Snow covered ground also made it easier for mules and ox to skid logs to the river's edge, where they would be stockpiled until Spring, when the melting ice and snow raised the level of the river enough to float the logs downstream to the sawmills.

As fleet-footed rivermen guided the logs down the river, ground crews traveled ahead with long, steel-tipped peavey poles to break up any log jams that formed before the logs reached their intended destination at the giant booms—logs lassoed together by chains anchored to stone caissons laid up on solid bedrock lying beneath the mud at bottom of the river. The logs were then sorted according to the brand hammered into their end at the beginning of their journey before they were sent off to sawmills and planing mills for processing into lumber.

Williamsport, located in a low-lying region once viewed by native Americans and most early settlers as uninhabitable swampland prone to disease, was in fact an ideal place to collect logs and transfer them to shore. Fueled by the huge demand for lumber as the nation expanded westward between 1787, when land north and west of the Ohio was opened up to settlers, and the closing of the frontier in 1869, when the first continental railroad reduced the travel time between the west and east costs from weeks to days, the log boom at Williamsport transformed the small frontier town on the banks of the West Branch of the Susquehanna River into a booming metropolis that would soon become known far and wide as the "Lumber Capital of the World."

The construction of railroads, telegraph poles, pontoons and bridges during the Civil War also accelerated the demand for lumber, and many of the region's lumbermen more than likely profited handsomely from it. Williamsport's two main residential streets, 3rd and 4th Streets immediately west of the city's downtown district, christened today as "Millionaires Row," were soon filled with the stately homes of lumber barons profiting from the boom, and the city's merchants, bankers and developers who profited from them.

Local historian John Meginness's account of the lumber industry in 1892 provides a view of the industry in its heyday, when log booms erected on the river collected millions of logs worth millions of dollars:

> *After the boom was erected, and it was found to answer the purpose for which it was designed, a fresh impetus was given to the lumber business. The building of saw mills commenced, and as the civil war caused a great demand for lumber and prices rapidly advanced, the business of manufacturing soon assumed large proportions. Many of the mills were large and filled with expensive machinery. Every modern improvement was introduced by*

25 John Franklin McGinness, *History of Lycoming County, Pennsylvania, 189*, Chapter 21 (Westminster, MD: Heritage, 2008).

26 Mcginness chapter 21.

27 PHMC Historic Marker for Costello, PA

the manufacturers until the mills of Williamsport came to be recognized as taking rank among the largest, finest, and best equipped in the United States. The lumber yards were often devastated by fire and mills destroyed, but the latter were generally quickly replaced and fresh lumber manufactured. The lumber industry gives employment to fully 2, 000 men in the city eight months in the year. Over $9,000,000 are invested in the mills, and their product is estimated at nearly $7,000,000 annually. The majority of these mills are first-class in every respect, and one of them ranks with the largest in the world, having a cutting capacity of 30,000,000 feet annually. The number of mills in and around Williamsport number twenty-five.[28]

Despite Meginness's glowing report of the industry in 1892, it was clear that the end was in sight for the Lycoming Valley's lumber industry long before the 19th century approached its end. Much of the region's forest had already been depleted by then, leaving a landscape dotted by stumps and gullies and a river that flowed with mud. The denuded landscape that resulted from clear cutting practices in vogue at the time held little to no value for the region's timber barons, and some of the larger lumbermen, like the Goodyear brothers of Buffalo, began selling off or abandoning huge tracts of northern land and moving their operations south, where politicians imagining a New South based on industry instead of agriculture in the years after Reconstruction began giving away vast tracts of state and federal pine forests and cypress swampland for pennies on the dollar.[29] Others began to look for new industries to invest their wealth in back home decades before Meginness wrote his glowing report of the industry.

1872-ORIGINS OF THE RUBBER INDUSTRY IN LYCOMING COUNTY

The organizers of the *Lycoming Rubber Company, Limited* began constructing their first two buildings in 1882, choosing a 3 ½ acre lot situated about ¾ of a mile northwest of the Park Hotel, a landmark structure in Williamsport where much of the City and the region's business was conducted. But they were not the first entrepreneurs to try their hand at making rubber products in Lycoming County, and rubber boots and shoes were not the only products they had in mind.

Peter Herdic, owner of the Park Hotel, lumber baron, and a former Mayor of Williamsport alleged to have bought his way into office [30] and to have earned much of his wealth by influencing "Acts of the Legislature" favorable to his business dealings--was a director of Williamsport's first rubber works**.** Herdic's Williamsport Rubber Company, purchased from a group of Eastern men who failed to get the business off the ground, [31] was organized on November 2, 1872, and certified to the Governor on February 14, 1873 "to manufacture car springs and other rubber goods." The company was capitalized at $100,000, with 2,000 shares issued at $50 per share. In addition to Herdic, the original board of directors included H. F. Snyder, president, M.D. Hotchkiss, treasurer; Edwin White, clerk, and David Stuempfle.[32]

At the time, Peter Herdic was the region's most influential businessman, according to Frank H. Painter, author of a biographical sketch of Herdic in "*A Picture of Lycoming County*" compiled in 1939 for the Commissioners of Lycoming County, Pennsylvania by the Lycoming County Unit of the *Pennsylvania Writers Project of the Works Project Administration (WPA).* In a style reminiscent of the "great man" theory popularized in the 1840's by Scottish writer Thomas Carlyle's book, *On Heroes, Hero-Worship, and The Heroic in History*, Painter described Herdic as a heroic figure who, "more than to any other man, belongs the credit of awakening the sleepy little country town that was Williamsport in 1853 and transforming it into a thriving city."

As Painter saw it, "In 1853 Peter Herdic came to town and aroused it from its lethargy. Herdic was born at Fort Plain, New York, on December 14, 1824. Soon after his arrival in Williamsport, his dynamic personality and restless energy infused new life into this community and every branch of business and industry was renewed and invigorated. The town immediately began a period of unprecedented development and prosperity. During the next ten years, Herdic built houses, business blocks, hotels and churches. He organized bands, purchased the gas works and, failing in an attempt to

28 Meginness Chapter 21.

29 Eric Rutkow, American Canopy: Trees, Forests, and the Making of a Nation (New York, Scribner:2012) 181.

30 See Meginness Chapter 21.

31 Shoe and Boot Recorder

32 *Glimpses Into Pennsylvania's Industrial Past* (Office of the Auditor General, 1949) 37.

purchase the water works, he constructed a rival one. In 1864, he erected the Herdic House (later called Park Hotel), a very pretentious structure for the time, more than a mile from the business center of town. He then induced the Pennsylvania Railroad Company to locate its station adjoining the hotel, built a street car line to connect the hotel with the business district and proceeded to sell building lots."

Painter explained how Herdic earned his wealth after purchasing the log boom from Major James Perkins, the genius behind the boom that more than anything propelled Williamsport on its path toward earning the moniker, "lumber capital of the world":

> *"Herdic's greatest feat was gaining control of the giant log boom on the river, which he and two others, Mahlon Fisher and John G. Reading, bought from Major James Perkins and others in 1857. The log boom was virtually the toll-gate of the lumber industry. He increased the tolls from seventy-five cents to a dollar and a quarter a thousand feet. Since the number of logs passing through the boom in a year reached hundreds of millions of feet, the profit was enormous. The income of the company for the first eight years after the increase in tolls totaled over two and a quarter million dollars. In the course of his business career, Herdic became owner or controller of all the principal enterprises in Williamsport. He organized the Lumbermen's National Bank, operated sawmills, started a rubber works, owned a brush factory, a nail works in South Williamsport, the gas plant, the upper water works, the Maynard Street bridge, the West Branch Gazette and Bulletin, the Herdic House (now Park Hotel), and great tracts of coal lands, besides other extensive tracts of land and scores of dwellings."*

Like Carlyle, Painter was clearly smitten by his subject's achievements, almost begrudgingly acknowledging that, "Herdic's business tactics were often the object of severe criticism," before quickly adding that, "He had his faults, but his virtues probably exceeded them." 1873 turned out to be a very bad year for Herdic and his creditors, for it marked the beginning of a nationwide financial panic that lasted several years. According to Painter, "During the Panic of 1873, Herdic went into voluntary bankruptcy. At the time of his financial collapse his liabilities were approximately $1,000,000. But for his untimely death February 2, 1888, it is very probable that he would have again become a potent factor in the further development of his adored city."

Herdic did in fact recover after the panic of 1873, inventing and popularizing a vehicle called the Herdic or Canary Cab, predecessor to the taxicab, distinguished by its canary yellow paint job and "whose major improvement over previous types of carriage was in the springs, the way the body was mounted on the springs, and the manner in which the axles, springs, body and shaft were connected." [33] While we may never know if those carriage springs were made of rubber, we do know that work at the rubber factory did carry on despite Herdic's financial troubles.

The Williamsport Rubber Company proceeded to construct two buildings on a 5-acre parcel at the upper end of the city on Stevens Street, between West Fourth Street and the Northern Central Railroad, about a half mile southwest of the site where the Lycoming Rubber Company would be constructed a decade later. According to an article published in the *Williamsport Sun-Gazette* on July 2 of 1874, "The main building [was] of brick, three stories high, and one hundred and sixty feet in length by forty feet in width, with a packing room seventy-five by fifty feet." The article noted that there were also several other buildings on the site, including a varnish manufactory, also made of brick, and after providing a rather detailed description of the "Machinery Employed in this Extensive Establishment, From the Washing Machine to the Vulcanizing Room," the article ended with a few rather prescient "Conclusions:"

> *The above brief description of this extensive Factory will give the reader a faint idea of the business transacted. But few are aware of the importance of this enterprise in our midst, for it is establishments like this upon which Williamsport must sooner or later depend for sustenance, and in proportion as mechanics are invited to our midst, and the valley made to resound with the hum of industry—the city made a mechanical centre—in the same proportion will thrift and prosperity follow up in the commercial path marked out by capitalists. This Rubber Factory has reached its present standing in the face of determined opposition, continued croaking, and prophecies of failure, but the Rip Van Winkles cannot beat back the tide of enterprise that has set in, and we look forward to a brilliant future for Williamsport, the Rubber factory being one of the pioneer projects pointing*

33 https://en.wikipedia.org/wiki/Herdic

towards a fulfillment of the prophecy.

1874-THE WILLAMSPORT RUBBER COMPANY BEGINS OPERATIONS

The Williamsport Rubber Company began operations in May of 1873, and by October of 1874, was making "1,000 pairs of shoes daily, and [employed] a large number of hands."[34] Not surprisingly, material shortages plaguing the industry also impacted Williamsport's new rubber works during its first two years of operations, forcing the company to close on occasion, sometimes for weeks at a time.[35] In July of 1876, the company entered into a 5-year trade agreement with 8 other rubber companies to bring stability to the market by controlling the supply of raw rubber and setting quotas and prices on sales.

According to an Elmira *Leader* editorial published in the May 31, 1876 issue of the *Williamsport Sun-Gazette*, the newly formed combination, called the *Associated Rubber Shoe Companies,* purchased the *Newark India Rubber Company*, the only major producer of rubber boots and shoes that declined to be a party to the arrangement, "to get it out of the way," thereby cementing its monopoly on the rubber boot and shoe trade. Although the *Leader* likened the arrangement to "the tactics of the infamous coal combinations by so regulating the supply as to make things most easy for themselves, no matter how the public may feel about it," speculating that "the result will be an advance in price" paid for by the public, the editors of the Williamsport *Sun-Gazette* offered a more sanguine assessment of the arrangement: "Whether the above reasoning is sound or not, Williamsport has reason for congratulation, that the only obstacle in the way of success for the rubber company located here is effectually removed. After more than two years' struggle against all discouragements incident to a new enterprise, and especially in the face of the general depressions of business and the constant shrinkage of values, now by the action of the shoe association in putting prices at fixed and fair rates, the season just opening cannot be otherwise than a profitable one."

The plant manager at the time of this "arrangement" was E. H. Burlingame, a realtor and civil engineer hired by Herdic in 1873 after serving a 5-year stint managing his extensive real estate holdings.[36] Burlingame, who also happened to be the city engineer and surveyor of the 1872 map of the City of Williamsport, Lycoming County,[37] secured the 5-acre lot where the rubber plant was located in exchange for a half interest in the neighboring property, the 110 acre Watson farm[38], and along with the plant's Superintendent, D. F. Hayward, received a patent on July 25th, 1876 for "an improvement in rubber boots," which they called "the Keystone canvas boot."[39]

In the meantime, Herdic's financial troubles were mounting. A lawsuit published in Volume 17 of *The Federal Reporter* listing cases argued and determined in the Circuit and District Courts of the United States between August and October of 1883, reported that, "Peter Herdic was also adjudged a bankrupt by the same court on the same day that Charles E. Gibson was so adjudged. He had, however, failed previously, in November, 1877, for the sum of $2,000,000, … and was hopelessly insolvent at the time. The rubber company, for whom Charles E. Gibson had also signed, had also failed, and was adjudged a bankrupt."[40]

1878-THE KEYSTONE RUBBER COMPANY IS FORMED

Although Williamsport's rubber factory closed down for a short time after Herdic's failure, William A. Krause, Herdic's partner and president of the Williamsport Iron and Lumber Company,[41] resumed operations as the Keystone Rubber Company, along with McKee and Company of Boston, and Daniel Stiltz and John W. Buck of Williamsport,[42]

34 Indiana Progress, October 1, 1874

35 The Pittsburgh Daily Commercial, December 3, 1875

36 **"***Herdic's Property.,"* (Daily Gazette and Bulletin [Williamsport] 7 May 1878) 4.

37 Louis Richards and William D. Crocker, esqs *A Digest of the Laws and Ordinances for the Government of the Municipal Corporation of the City of Williamsport, Pennsylvania* in force August 1, 1900;.,(Soney & Sage, Newark, NJ; 1900).

38 **"***Herdic's Property.,"* (Daily Gazette and Bulletin [Williamsport] 7 May 1878) 4.

39 *"A Valuable Patent"* (Daily Gazette and Bulletin [Williamsport] 9 Sept. 1876) 4.

40 Robert Desty, Editor. *The Federal Reporter Vol. 17 Cases Argued and Determined in the Circuit and District Courts of the United States August-October 1883*, 294.

41 *Glimpses Into Pennsylvania's Industrial Past* (Office of the Auditor General, 1949) 36- 37.

42 *"This Morning's Fire, Total Destruction of the Keystone Rubber Works"* (Daily Gazette and Bulletin [Williamsport] 11 May 1882) 1.

manufacturing cuspadors [sic], shawl straps and large iron rollers covered with rubber for use in paper mills, in addition to boots and shoes, according to an article published in the January 24, 1878 edition of the *Williamsport Sun-Gazette.* The article described many improvements taking place at the factory, including new buildings and machinery, boasting and predicting that, "An immense trade in the manufacture of boots and shoes has already been secured, and the prospect now is that as large a one will soon be built up in the sale of rubber cuspadors [sic], as this company monopolizes that business by possessing the sole right of manufacture, it being Hayward and Burlingame's patent."

Unfortunately, Hayward and Burlingame's monopoly on rubber spittoons was short lived. On May 11, 1882, the night watchmen heard a loud crash on the floor of the main building while cleaning clinkers out of one of the rubber work's boilers and, upon investigating the source of the noise, discovered that the plant was on fire. Unable to sound the alarm because there wasn't enough steam in the boiler to blow the plant's whistle, the structures lay in ruins before the fire company, located a good distance away, even arrived. The loss, estimated at $80,000, was covered by an insurance policy of $53,500, but the dispirited owners estimated the cost to replace the works at closer to $200,000, and opted to cash out on the insurance rather than rebuild.[43]

In an editorial published the following day, the *Williamsport Sun-Gazette* noted that, "The material interests of the city will keenly feel the loss sustained in the burning of the factory belonging to the Keystone rubber company. … Aside from the heavy loss to the owners, a large number of operatives of both sexes are suddenly thrown out of employment, without any positive assurances that they will find work again at the same place for a long time. Williamsport needs all such establishments as this that she can get, and she is deeply interested in retaining any that may locate here."

The Sun-Gazette's editors called on "the capitalists of this city" to have "the rubber factory rebuilt and again put in operation." After visiting the scene of the fire the next day, the paper's editors made another plea to the businessmen of the city to rebuild the plant*:* "Outside the lumber business, Williamsport has but little to show in the manufacturing line, especially for a city of 20,000 people…. The manufacture of rubber goods is confined to only a few localities in the United States, and it pays a splendid interest on the capital invested. The works destroyed in this city Tuesday morning were just getting into shape for a most successful career. The laborers were becoming proficient at the business, there was a good demand for the production of the factory, and the business was constantly extending and increasing, and the prospects for the future of the rubber works at the time of the fire was most auspicious. The capitalists of the city should rebuild this establishment immediately."

The editors noted that several men had already expressed a willingness to invest ten thousand dollars each, and that it was hoped that a company would be organized 'and the factory again under full headway before the summer season was over.' According to Lloyd's 1929 *History of Lycoming County, Pennsylvania*, one such man, "S. N. Williams, following closely the possibilities of the Keystone Rubber Company, decided there was a great opportunity for the manufacture of rubber wear in Williamsport, provided the necessary capital could be raised and an experienced man secured who thoroughly understood the rubber business."

1882-THE LYCOMING RUBBER COMPANY IS FORMED

After several meetings at Herdic's Park Hotel, the Lycoming Rubber Company was organized as a limited partnership in August of 1882, and the full amount of $100,000 was subscribed on September 5, 1882. In addition to Williams, the original stockholders were B.C. Bowman, William Howard, D. H. Foresman, S.T. Forestman, John H. Price, E. R. Payne, William M. Harrison, William H. Sloan, D. E. Brown, Thomas Duffy, T. S. Clark, A. D. Hermance, Minnie Koch, J. Roman Way, and J. H. Link, all of Williamsport; and two men from outside the region, John G. Reading, of Philadelphia, Herdic's former partner in the Susquehanna Boom, and J. H. Roland, of Detroit.[44] B. C. Bowman was elected chairman of the board of directors, D. H. Foresman was elected president, and S. N. Williams was appointed secretary and treasurer. Within the year, Williams would also assume the role of plant manager. With the exception of Minnie Koch, a daughter of August Koch of Williamsport's prominent A. Koch Brewery family, all of the officers were successful local businessmen, and like Herdic, most had earned the bulk of their wealth from lumber or lumber related businesses.

43 *"This Morning's Fire, Total Destruction of the Keystone Rubber Works"* (Daily Gazette and Bulletin [Williamsport] 11 May 1882) 4..

44 "Lycoming Rubber Co., One of Williamsport's Most Valued Industries." (Daily Gazette and Bulletin [Williamsport] Supplement 29 June 1895) 13.

In addition to owning a lumber mill that produced 10,000,000 board feet of lumber in 1892, the year McGinnis published his history of Lycoming County, B. C. Bowman was also a Vice President of the Lumberman's National Bank, organized by Herdic and, like Herdic, would also serve a term as president and manager of the Susquehanna Boom (Bowman would actually serve two terms, the first beginning in February of 1883, the year after the Lycoming Rubber Company was formed, and again in 1892). S. N. Williams and D. H. Foresman's Star Mills also produced 10,000,000 board feet of lumber in 1892, according to Meginnesses's account. Foresman, reared as a farmer and a member of the State Board of Agriculture, also served several terms in the sixth ward of City Council, and was a director of the Lycoming National Bank until the time of his death on April 21, 1887, just four years after the Lycoming Rubber Company began operations.

S.N. Williams was raised in the working-class neighborhood of the 6th ward in a house on 4th Street facing Cemetery Street 2 blocks south of where the Lycoming Rubber Company would be built. Williams married Foresman's sister, Mary Alice, in 1866, and apparently married well—the Foresmans were the children of D. Watson and Margaret (McCormick) Foresman, "two of the pioneer families of White Deer valley"—but he also was a man of his own making, being quite well educated for a man of his times after attending a private school and Dickinson Seminary, followed by a business course at Bryant, Stratton and Bannister's College in Philadelphia,[45] whose notable alumni included John D. Rockefeller, Henry Ford, and R. J. Reynolds.[46]

Williams had good reason to be "following closely the possibilities of the Keystone Rubber Company," as historian Lloyd described William's interest in Williamsport's first rubber works. By 1882, the year the Lycoming Rubber Company was formed, insiders clearly understood that the lumber trade was in serious decline. An article published on page 3 of the February 6, 1879 issue of Herdic's *Weekly Gazette and Bulletin*, described the severity of the decline*:* "Since the great contraction of lumbering operations in the West Branch began, a material reduction in the business of our wholesale grocers followed … Demand has fallen off by one half." The article noted that the region's numerous and extensive lumber camps represented a large item for the grocer's wholesale trade, a fact the lumbermen and bank directors in charge of the Lycoming Rubber Company would not have had to read the local paper to learn.

Although it would be another three years before the Williamsport Board of Trade[47] would be "formally" established "to offset the disastrous economic consequences of [the] rapidly approaching end to Williamsport's main industry," [48] *as* William F. Plankenhorn described the situation in his 1957 master's thesis, *A Geographic Study of the Growth of Williamsport*,[49.] the men actively involved in the region's lumber and banking industries must have been well aware of the "disastrous economic consequences" Plankenhorn so accurately described three quarters of a century later, as they gathered at the Park Hotel in 1882 to establish the Lycoming Rubber Company.

The main effort of Williamsport's Board of Trade, according to Plankenhorn, "was devoted to diversifying Williamsport's industry, so that it could better survive the economic readjustment which was approaching." That inevitability would be cemented before the decade's end when the Susquehanna Boom went bust during a Spring freshet fed by over 9 inches of rain that fell on the denuded landscape of the highlands above the Lycoming valley. Meginness described "the memorable flood of June 1, 1889 [as] the highest and most destructive to life and property ever known to white men in the West Branch valley. …The boom broke and 200,000,000 feet of lumber were swept down the river, besides millions of feet of manufactured lumber. The inundated portion of the city presented a scene of desolation, on the subsidence of the water, that beggars description."

45 Meginness 739.

46 "Bryant & Stratton College." (*Wikipedia*. Wikimedia Foundation, 7 Sept. 2016. Web. 01 Oct. 2016).

47 The Williamsport Board of Trade was formally established on December 15, 1885, and S. N. Williams would eventually serve a term as Vice President of the Board.

48 Plankenhorn, *pg 101*

49 Plankenhorn's thesis, written in 1957, divides the region's growth into 5 periods, *The Early Highway Period*, ending 1828; *The Canal Period* ending 1850; *The Lumber Period* ending in 1890, the year after the Great Flood; *The Middle Period* ending in 1930; and *The Modern Period* through 1950. The references included in this text generally fall within Plankenhorn's *Middle Period*, which also happens to correspond to the timeframe historians refer to as *The Long Progressive Era*, a period that began with social reforms in the 1880's leading to further reforms in education, politics and industry that lasted until around 1930. The Long Progressive Era also happens to overlap the timeframe of this property's period of significance (1882-1932).

To the credit of its directors, the Lycoming Rubber Company was already up and running when Williamsport's great boom went bust. Once the Lycoming Rubber Company was formed, the directors lost little time purchasing the site on Park Avenue between Rose and Cemetery Street, within view of S. N. William's boyhood home on 4th Street facing Cemetery Street. St. John's Lutheran Church occupied the site south of the rubber company's lot, but it was otherwise surrounded by vacant fields and a few modest dwellings to the north and east.

A branch line of the Northern Central Railroad crossed the orthogonal grid of the city at about a 30-degree angle at the southwest corner of the site, a few blocks north of where the track joined the main line of the railroad on 4th Street. The Northern Central Railroad was completed to Williamsport in 1852 and came under the control of the Pennsylvania Railroad in 1861. The Northern Central was only one of three railroads that serviced the city in 1882, a fact the Williamsport Board of Trade made sure to promote in its 1903 brochure describing the virtues of the city: "The only city other than New York that is reached by three great railway systems of the United States; The Pennsylvania Railroad, The Philadelphia and Reading Railway, and the New York Central and Hudson River Railroad."

Lycoming Rubber Company's property was strategically located on high ground above the area flooded by the Spring freshets that caused the West Branch of the Susquehanna River to occasionally overflow its banks.[50] Even before the great flood of 1889, the river had flooded the low-lying areas of Williamsport on several occasions within the lifetime of the company's directors. The most recent flood, the worst in the memory of the directors up to that time, occurred on St. Patrick's Day in the Spring of 1865.

According to Meginness, "The ground was covered with a deep snow, and a warm southwest wind, with rain, caused it to melt rapidly. The water rose rapidly and flooded the lowlands. At Williamsport it attained a height of 27½ feet. All the river bridges from Farrandsville to Northumberland were, either carried away or badly damaged; fences were destroyed, and heavy losses entailed on the farmers. The water came up to the court house steps and all the houses in the lower part of the city were flooded. This was the highest flood ever known, and for nearly a quarter of a century it was accepted as "high water mark in this valley."

In addition to the advantages of being located near the railroad and in a flood free zone, the site was also favorably located in a sparsely populated region of the 6th Ward of the city, an area Plankenhorn's thesis described as the "Demorest Factory Section" immediately west of the branch line of the Northern Central Railroad, and the "Park Avenue Section" just east of the branch line of the Northern Central Railroad.[51] Both of these neighborhoods would soon house the skilled workers and laborers of what would within a decade become two of the City's largest manufacturers, the Lycoming Rubber Company and the Demorest Sewing Machine Company.

The Demorest Fashion and Sewing Machine Company was established in New York City in 1845 by Madame Ellen Curtis Demorest and her husband, William Demorest. In addition to manufacturing the Demorest Sewing Machine, the company published fashion magazines and was one of the pioneers of paper dress patterns. William Demorest was also an inventor, and had at least two patents, both of them, coincidentally, registered for a portable "vulcanizing apparatus."

The Demorest's sold the sewing machine business in 1883 to G.S. and F. M. Scoffield, and the business was relocated to Williamsport in 1892 after citizens, acting under the direction of the new Board of Trade,[52] subscribed $100,000 in stock and built a factory for the company on a six-acre site a block west of the Lycoming Rubber Company in 1889.[53] By 1892, according to Meginness, the factory employed 250 people and was turning out an average of fifty sewing machines per day. In addition to sewing machines, the company also manufactured "opera chairs" and the "New York" bicycle, which might explain William Demorest's interest in vulcanizers.

Meginness noted that William Howard, one of the founding directors of the Lycoming Rubber Company, a stockholder of the West Branch National Bank and the First National Bank of Emporium, and a member of the Williamsport Board

50 Plankenhorn 99.

51 Plankenhorn 99.

52 In addition to bringing the Demorest Manufacturing Company to Williamsport, the Board of Trade also succeeded in bringing the Williamsport Wire Rope Company to Williamsport in 1886, and a band instrument company and suspender company. Plankenhorn, pg 101

53 Meginness 364.

of Trade, was "active in securing the removal of the Demorest Sewing Machine Works to Williamsport, and gave liberally of his means in furtherance of that project." [54]

Except for the two main thoroughfares where Peter Herdic[55] and the most of the City's business and professional people lived, Williamsport's streets were unpaved in 1882, so getting to work could be challenging even for workers who made rubber boots and shoes.[56] According to Plankenhorn, factory laborers in the Demorest Section south of the sewing machine factory and immediately west of the rubber works lived on small lots in houses within eight feet of each other. The houses abutted the sidewalk, had small backyards, and were located as close to the factories as possible. Most skilled workers, on the other hand, lived in the Park Avenue section in houses with larger lots, up to 6o feet in width that did not about the sidewalk, had larger back yards, and were up to twenty feet apart. One in every 10 skilled workers lived in a double house, compared to 1 in every 4 laborers.

Getting to work was not the only challenge factory laborers faced in 1882. Although Williamsport had a well-balanced distribution of schools, Ward 6's Demorest Factory Section lacked an elementary school until 1890, even though its population of 3,926 residents ranked third highest in the city. The Demorest section was bounded by two railroads and the Lycoming Creek, so travel by foot on unpaved streets to schools beyond the area was not easy either. It's not unreasonable to imagine that many of these kids probably ended up working in the factories when most of the area's population growth occurred between 1880 and 1890, a decade notable for the establishment of the rubber and sewing machine factories.[57]

The 4th Ward's Park Avenue Section, on the other hand, had a population about half the size of the Demorest Section, but its 1,800 skilled workers actually had two schools, one at Park Avenue and Maple Street, and a second school just east of where the rubber factory was built. Unlike the Demorest Section, which had the density and population to support a commercial area, the Park Avenue section was too small and was too long and narrow to develop into a neighborhood, so neither section was able to support an area of commercial services.[58]

With a 3 ½ acre site located in an area of Williamsport that seemed primed for growth, the directors of the Lycoming Rubber Company hired a local man, Gottlieb Waltz, to build their factory near the corner of Erie Avenue and Rose Street, just north of the Lutheran church. According to Meginness,[59] Gottlieb Waltz worked as a superintendent for Peter Herdic for many years before starting his own construction company after Herdic's failure. In addition to overseeing construction of Herdic's Weightman Block, Trinity Church, and "Rubber Works," Meginness credits Waltz with construction of many prominent buildings in Williamsport, including the First Presbyterian church, St. Paul's Lutheran church, the Hays Building and the YMCA.

In April of 1882, Gottlieb formed a partnership with his brother Walter, an architect, who had recently returned to Williamsport from Pueblo, Colorado after he was taken ill with the mountain fever. Although the brothers parted ways two years later, Meginness credits "architect and builder" William H. Waltz with the Lycoming Rubber Company. After the brothers parted ways, Gottlieb Waltz partnered with Architect Amos S. Wagner under the name G. Waltz and Company, but it's unclear whether Wagner had anything to do with later additions to the Lycoming Rubber Company while they were partners. The company's office was located at 57 West 4th Street in the Academy of Music Building, and they also maintained a shop near 5th and Erie Avenue.[60]

On November 7, 1882, the Wellsboro Gazette reported that, "The work of erecting the buildings for the new Williamsport Rubber Company has begun, and will be pushed as rapidly as possible. The buildings will be of brick, and the estimated cost is about $15,000. The main building will be two hundred by fifty feet, three stories high, and the

54 Meginness 745.

55 Peter Herdic, who lived on the east end of 4th street and had a retail establishment on 3rd street behind his home, had both streets covered in "Nicholson pavement" as far west as the train depot, across from his Park Hotel, while he was Mayor.

56 Plankenhorn 136-139.

57 Plankenhorn 147.

58 Plankenhorn 146.

59 Meginness 835-6.

60 W. Harry Boyd and Wm H. Boyd. *Boyd's Directory of Williamsport.* (Pottsville, PA: W. Harry Boyd, 1885).

other will be one hundred by fifty feet, two stories high. The foundations are to be three feet in thickness and the brick walls twenty-one inches. Seven hundred thousand brick will be required. As the roof is to be of iron, the buildings will be thoroughly fireproof."

The claim of fireproofedness appears to have been unfounded through, according to a story published on March 29, 1883 in the *Williamsport Sun-Gazette*: "About half past twelve o'clock last night fire was discovered in the large new building of the Williamsport Rubber company on Cemetery Street, which was just approaching completion, and before the flames could be subdued the building was almost totally destroyed." The paper noted that "the origin of the fire was undoubtedly incendiary," and that "the loss would be heavy, a misfortune that would fall heavily on the promoters of the new enterprise that promised to be one of the most prominent industries of the city."

1884-THE LYCOMING RUBBER COMPANY IS BUILT

Apparently, the damage was not enough to stop the company from completing the work. The notes on Sheet 27 of the January 1884 Sanborn Insurance Map of Williamsport for the lot owned by the "Lycoming Rubber Co. Limited, Situated about ¾ Mile N.W. of Park Hotel," (see page 4 of Continuation Sheets) identifies the buildings as "new and in good condition." The map also notes that the "house is completed but not in full operation," and that the "nightwatchman & clock, will have 50' of hose on each pipe in the buildings & sufficient (say 700' of 2-½" hose) for outside hydrants."[61]

In addition to the "*vacant*" watchman's house, noted on the map by the letter "G.," the 1884 Sanborn Map shows two large buildings and two small outbuildings all constructed of brick with a roof constructed of a fire-resistive material, noted by a small "o" in the corner of each building. The Sanborn Map notes that the site has a "level grade," which would have made firefighting easier. Two hydrants, noted as "fire plugs" on the 1884 Sanborn Map, are strategically located in the open spaces on the east and west sides of the smaller brick structure, a 10,000-square foot, 2-story brick building oriented in a north south direction perpendicular to and north of the centerline of the larger "main building," a 37,500 square foot, 3-story brick structure 250 feet long and 50 feet wide, oriented in an east west direction.[62]

The mapmaker noted that the factory was lit by gas, and powered and heated by a coal fired steam plant. The four coal-fired boilers were located in a 1-story boiler room, noted by the letter D. on the 1884 Sanborn Map, attached to the western end of the main building. A pair of lines drawn at the ends of the east and west facades of the boiler room and the east side of the building indicate that they are firewalls that reach all the way through the building and extend at least one foot above the roof. The boilers are connected by a flue to a 110-foot tall brick chimney. A 300 HP engine occupies the bay immediately east of the boiler room, which is separated from the remainder of the space by a masonry wall with open passages near both ends. Both buildings on the site were protected by a "Force Pressure" system feeding two 1- ½"stand pipes at each floor. A masonry wall separated the second floor of the smaller building into two equal size spaces. Otherwise the floors appear to have been open, loft type spaces, or based on the dotted lines on the plans, had unprotected frame partitions separating the various work rooms.

The two main buildings were located just far enough apart to allow for the passage of rail cars on a private railroad spur that ran from the branch line of the Northern Central Railroad through the property parallel to and almost the entire length of the main building. In addition to delivering coal to the boiler room, the rail line would have delivered bales of rubber to the plant's "*Washing Room*," located on the ground floor at the southern end of the 2-story brick structure, noted as B. on the 1884 Sanborn Map, and picked up finished rubber goods in the "*Ware Room*," noted as F. on the Sanborn Map, located on the north side of the east third of the main building.

A bridge over the railroad tracks connected the buildings at the second-floor level. With the exception of the stair located at the east end of the main building, there was no other way to travel between the first and second floor of the 2-

61 The Sanborn Insurance Maps were created to assess fire insurance liability in urbanized areas in the United States from 1867 to 2007. Sanborn maps were plotted at a scale of 1 inch = 50 feet and employed a set of standardized colors and symbols to illustrate items an underwriter would consider relevant to assessing risk. For example, fireproof brick and tile structures were rendered in pink, while flammable wood frame structures were shown in yellow. After concrete became readily available in the first decade of the 20th century, it was shown as green. Openings (doors and windows) and fire walls were indicated by hash and slash marks along the wall, building heights marked in number of stories, and the location of fire protection equipment—call stations, sprinklers, standpipes, hydrants, etc., noted throughout the plans.

62 The "main building" is the only structure of the 5 original buildings shown on the 1884 Sanborn Map that remains intact on the site.

story brick building. Although great measures appear to have been taken to protect the building from fire, and considerable thought given to how raw materials were delivered and handled until they became finished goods as they moved through the factory, there appears to have been little thought given to how workers would have exited the buildings in the event of a fire.

1874 VS 1884-HERDIC & LYCOMING'S RUBBER MANUFACTURING PROCESS

Lindy Biggs, author of **The Rational Factory,** *Architecture, Technology and Work in America's Age of Mass Production,* notes that, "By the end of the nineteenth century, engineers realized that, by rethinking the layout of buildings and the way things moved through them, they could approximate a factory that ran like a machine. … Owners and engineers developed the rational factory in two stages: first they mechanized distinct, individual operations as a way of increasing productivity or reducing skill requirements; then they standardized and regulated the entire production process from the moment when raw materials entered the factory until the finished product left. They accomplished those ends by redesigning the factory and introducing mechanized material handling."

The following account of the rubber manufacturing process excerpted from a story published in the *Williamsport Sun-Gazette* on July 2, 1874, under the headline, *"The Rubber Factory"* describes the factory Herdic's men built a decade earlier on Stevens Street between West 4th Street and the Northern Central Railroad. Although Herdic's factory was about half the size of the Lycoming plant, and with "an engine of one hundred horsepower, with three tubular boilers, forty-eight inches in diameter each," operated at about 1/3 the power of the Lycoming rubber works, the manufacturing process and layout of the plants were quite similar, since both companies employed Gottlieb Waltz to construct their factories, and Waltz more than likely constructed the buildings in a manner that reflected local and regional means and methods of expression and construction for utilitarian buildings of his times.

> *Entering the store room on the lower floor, to the left is the business office, and to the right the stairway leading to the working rooms on the second floor, while directly in the rear is what is known as the mill room.*

This description of Herdic's layout is identical to the layout of Lycoming's ground floor. The visitor entered Lycoming's store room from the door located in the 3rd bay from the right (facing the building) on Rose Street between the office located at the far eastern end of the main building, and the stair leading to the working rooms on the two floors above it.[63] Lycoming's mill room, with its heavy equipment, was also located on the ground floor of the main building in the large room just beyond the Ware Room, noted by the letter F. on the 1884 Sanborn Map, where finished goods were stored before shipping.

> *In order to give the reader a correct idea of the process of manufacturing rubber goods, we will first introduce him to the washing room, a dirty looking department, but an important one. The material is here received in its crude state, in bales, just as it is shipped from the ports of South America. These bales are opened and the rubber sheets or layers are torn open and passed to the washing machine, where they go through corrugated rolls, a stream of water constantly falling upon the cylinders. By this process the sand and dirt is all removed from the material. From here the sheets are taken to the drying room above and left until the moisture is all expelled.*

In Herdic's plant, the drying room was located on the second floor, above the washing room, which meant it had to be conveyed up, and then conveyed back down again for further processing. At Lycoming, the drying room was located on the ground floor behind the wash room in the northern half of the 2-story brick structure, noted as A. on the 1884 Sanborn Map, which eliminated the need to lift the heavy wet material to the 2nd floor after it was washed, and then lower it again after it was dry. A boiler at the north end of Lycoming's Drying Room provided heat to accelerate the drying process.

> *Upon our visit to this establishment, there were between ten and fifteen thousand pounds hanging in the drying room, and no person looking upon the stock deposited anywhere except in a rubber factory, would for a moment suppose that the rough, warty material was that which makes up the polished rubber. After becoming thoroughly dry, the material is conveyed to the mill room ... and passed through large heated cylinders of what is known as*

63 A "ghost sign" with the words, "Lycoming Rubber Company" painted in large block letters spanning the width of the building is still evident on the east façade of the main building above the original entrance door.

the grinding machine, until it is reduced to a soft, pliable mass, of uniform consistency.

The grinding machine of the Lycoming plant was located in the Mixing Room on the ground floor of the 2-story building, beneath the Compounding Work room, noted by the letter B. on the Sanborn Map, where various compounds were stored in bins above the mixing machine.

> *At this stage various ingredients, litharge, white lead, zinc, whiting, Sulphur for vulcanizing, and other ingredients necessary for the different kind of goods required, are mixed with the rubber while it is passing through several machines. And we will here add, that no matter what process rubber is subjected to, the machinery must be heated to work it.*

After the material was compounded, it would have been conveyed across the railroad tracks to the Machine Room, noted as E. on the 1884 Sanborn Map.

> *Leaving the grinding machines, it goes in rolls or batches to a similar machine, where it is re-heated and re-worked, and then taken to what is called the Calendar, a monster piece of machinery, consisting of three cylinders with a polished surface, smooth as a mirror, for there must not exist a single defect, neither must there be any jar of this fine specimen of mechanism. The center cylinder is stationary, while the upper and*
>
> *lower are regulated by large screws so that any thickness can be secured. The rolls of rubber, previously prepared, are fed between the two upper cylinders, passing around between, and emerging from beneath the lower cylinder in an endless sheet of smooth surface, ready to be cut into stock for shoes or wound upon mandrels for car springs, packing etc. A boy stands by the cylinder, with shears, and when the sheet has rolled out a certain length, it is cut off and laid upon a canvas bearer and removed to the room above.*

The "canvas bearer" referred to in the previous paragraph was more than likely a conveyor belt used to transport the sheets to the cutting room directly above the machine room, and the boy would have in fact been a boy. The writer describes a second calendar used to press the rubber and fabric together in the machine room at Herdic's rubber works:

> *Another large Calendar is also in position in this room. Both of these machines are also used for coating cloth shoe linings, duck, and every other fabric entering into the manufacture of rubber goods. One cylinder is covered with rubber, and the cloth running through, the material adheres to it, giving it the proper coating.*

Employees are pictured with the powerful calendar rolling machine at the Lycoming Rubber Company plant. A Grit article reported, "Experienced rubber workers who left the job declared that there has been no occupation cleaner and more healthful." Women trainees at the plant received 75¢ a day. No experienced shop worker earned less than $9 per week. (July 22, 1916.)

Auken, Robin Van, and Louis E. Hunsinger. "Lycoming County's Industrial Heritage". Charleston, SC: Arcadia, 2005

In addition to rubber boots and shoes, Herdic's plant also manufactured "car springs, wagon springs, buckets for pumps, packing, and other articles used in the various mechanical branches." With the exception of the springs and packing, all this work would have been made in molds and vulcanized in a large boiler that used steam instead of the dry heat used to vulcanize rubber boots and shoes.

The Cutting Room at the Lycoming rubber works was also located on the second floor directly above the Machine Room, in the space noted by the letter E. on the 1884 Sanborn Map.

> *The shoes are manufactured in the second story, and are made up of two distinct articles, the stockinette-lining coated with rubber, with the accompanying insoles and fillings, and the upper and sole of sheet rubber, which has passed through the mill room. It is here cut from patterns, the process being similar to that in shoe manufacturies, and the shoes are made wholly by girls, lasts being used the same as in the manufacture of a leather shoes. The lasses employed are skillful workers, and it is indeed a novelty to witness nimble fingers putting together different pieces.*

The writer describes the Varnish Room of the rubber works as,

> *the most important department in the entire establishment, for upon the process here performed depends the durability of the work turned out. After the shoe is completed, it is brought to this room, where it receives a coating of peculiar varnish, which when first put on, assumes a greenish cast. Large racks are filled, and the shoes removed to a large heater, or brick drying room, the walls of which are lined with tin. Here the stock, for nearly ten hours, is subjected to a temperature running up to nearly three hundred degrees; this affects the process known as vulcanization, rendering the shoes impervious to heat or cold, giving them elasticity, and changing the varnish to a glossy black.*

Lycoming's Varnishing room, noted as A. on the 1884 Sanborn map, is located above the Drying room on the second floor of the rubber works, behind the Compounding Work room. The "large heater" the writer describes at Herdic's plant is the Vulcanizer, located in the northwest corner of the Varnishing room in the Lycoming rubber works, above the boiler that supplies the heat or steam for the Vulcanizer, the Drying Room, and the Mixing machine. Unlike Demorest's patented "portable Vulcanizer," Lycoming's Vulcanizer appears to have been an entire room, tin clad and covered with asbestos, that filled the northwest corner of the space. The boiler that provided the heat for the Vulcanizer room was connected to a 90-foot high brick chimney just north of the building.

> *After being taken from the heater and cooled, the lasts are stripped, and the shoes are taken to the packing room, where they are sorted and cased for market.*

The packing room at Lycoming is noted as F., the Ware Room, located on the first floor next to the office, where finished goods were loaded into rail cars and shipped to jobbers, the wholesalers retained by the company to distribute their rubber goods in retail stores throughout the country.

Before the tour of Herdic's plant ended, the writer noted that varnish making, "is the most difficult process in the whole business, for upon the varnish depends all other operations." The varnish at the Lycoming factory was manufactured in the small one-story brick building just north of the Varnishing area, noted as letter H. Varnish Making on the 1884 Sanborn Map. Another small one-story brick structure labeled, I., Oil House, was remotely located near the fence line separating the Lycoming factory from the vacant field to the north.

According to Lloyd's history of the company, the Lycoming Rubber Company began manufacturing the "first ticket of shoes" the last 4 days of September, 1883. For their "experienced man who thoroughly understood the rubber business", the company turned to Richard Pearce and his two sons, John H. and Richard H. to run the mill room and the making department. According to Lloyd's account, the company lost a considerable amount of money in its first year of operations, and, "It became apparent that a radical change was necessary if the business was to continue."[64] At this

64 Thomas W. Lloyd, *History of Lycoming County* 459-60.

point, Bowman and Williams "bought all the stock owned by Richard Pearce and his sons," (who apparently had been issued stock after the company was formed), and "S. N. Williams then took entire charge of the plant."

In addition to convincing George Hart, Sr.—who had been in charge of the mill room, compounds and Vulcanizers at the Keystone Rubber Company until August of 1878, when he returned to Naugatuck, Connecticut—to come back to Williamsport, Williams also hired a new cutting department foreman, William H. Driebach, and an experienced rubber man, Patrick McClelland, to act as foreman of the milling room. Williams also convinced Harry Crompton to return to Williamsport from Naugatuck to act as foreman in the shoe making department and Frank Dimon to act as foreman of the boot and lumberman's department.[65]

Although Herdic's Superintendent considered "Williamsport a desirable place, and thinks the trade of Northern Pennsylvania alone sufficient to sustain the manufactory,"[66] William's quickly established a branch house in Chicago, and saw the business grow from a retail operation manufacturing 50 pairs of boots and 800 pairs of shoes per day to a manufactory catering to the wholesale trade.[67]

1886-THE LYCOMING RUBBER COMPANY'S RATIONAL FACTORY

The cover of a booklet describing *the Resources and Industries of the City of Williamsport and Lycoming County, Pennsylvania,* compiled by J. F. Meginness and published by the Williamsport Board of Trade for 1886, included a wood cut illustration showcasing at its center the industry Williamsport was known for— Lumber—and below that the three industries the Board of Trade wished to promote in its efforts to diversify the region's economy— Leather, Iron, and Rubber.

The Board of Trade's promotional booklet described the Lycoming Rubber Works as "one of the largest manufacturies for the production of all kinds of rubber goods," employing 252 hands, 150 of whom are girls and women, at an annual cost of labor of $92,000, and the value of raw material worked up yearly at $160,000. The booklet noted that, "For 1885 the value of the product of this great industrial establishment reached $350,000. Goods are shipped all over the United States and into Canada, and find a ready sale wherever introduced, on account of their fine finish, excellence, durability and cheapness."

A handsome, full-page bird's eye view of the Lycoming Rubber Co included with the write-up shows that the factory has already added a new building since the 1884 Sanborn Map was published. Proof of the company's success in marketing its products throughout the United States and Canada, the new 50 x 100-foot warehouse and packing building was located on Rose Street across the railroad siding north of the main building. A bridge over the rail line connects the two buildings on the second floor. A wood frame stable has also been added just north of the new warehouse on Rose Street, perhaps for transporting rubber goods to local retail shops by carriage.

The Lycoming Rubber Company, "Williamsport, Its Resources and Industries", Williamsport Board of Trade, 1886

65 Thomas W. Lloyd, *History of Lycoming County* 459-60.

66 "The Rubber Factory, Machinery Employed in this Extensive Establishment." (Daily Gazette and Bulletin [Williamsport] 2 July 1874) 4.

67 "Lycoming Rubber Co., One of Williamsport's Most Valued Industries." (Daily Gazette and Bulletin [Williamsport] Supplement 29 June 1895) 13.

The Board of Trade's bird's eye illustration also provides our first view of the architectural character of the factory, with its stepped gable ends, standing seam metal roofs, and rounded arch double hung windows separated by heavy brick pilasters. Betsy Hunter Bradley explains the origins and advantages of this American style rounded-arch construction in her book, **The Works,** *The Industrial Architecture of the United States:* "The American round-arched style, an interpretation of an idiom developed in Germany by progressive architects during the 1830's and 1840's, forms the artistic basis of much building in brick for industry and commerce. The Rundbogenstil, as the style was known in Germany, synthesized classical and medieval architecture—particularly the round-arched elements of those styles—and relied on brick and locally available stone.

Brought to the United States by German immigrants and popularized by pattern books, the American round-arched style provided an appropriate architectural character for utilitarian commercial and industrial buildings and expressed many of the ideals of the engineering aesthetic. The forms were familiar to masons and were easy and economical to build because no additional materials or trades were necessary for their execution. The practical reasons for using segmentally arched openings meant that round-arched openings did not predominate, even in this style of building. Most important, the round arched style was generated by—not applied to—a building's structure."[68]

The width of factory buildings in the late 19th century was oftentimes governed by the amount of daylight that could be made to reach the interior spaces. A typical factory was three bays wide, with skilled workers sitting near the windows in the outer bays and the central bay used for moving product through the factory. Although the Lycoming plant was lit by gas, daylight would have provided the brightest and most economical light for the workers during the day, especially skilled workers on the cutting and making room floors, "where nimble fingers" worked to assemble the shoes and boots. Thickening the pilasters between the windows of the Lycoming factory strengthened the walls of the facade, which allowed the builders to increase the size of the windows to maximize the amount of daylight that reached the interior spaces. The brick pilasters provided a simple architectural solution to management's challenge of making the factory run more efficiently.

The Rational Factory's Lindy Biggs notes that, "In the late nineteenth and early twentieth centuries, owners and engineers had begun to build a new kind of factory, and in doing so they recast the idea of what a factory should be. The building had grown larger and more expensive, requiring industrialists to regard it as a major part of the investment in a new enterprise. But it was more than an expensive part of industry: it became a central feature in the planning of large production operations. No longer a passive shell simply to house machines, tools, and workers, the new factory embraced a more complex vision: it became "the master machine," organizing and controlling work. The new factory, as the engineers envisioned it, became part of production technology, helping to solve problems that stood in the way of efficient mass production."

The building shell was not the only feature factory owners and their engineers focused their attention on in their efforts to increase the efficiency of production. The people working in the factory became part of the algorithm as well. According to Biggs, "The key to understanding the architectural transformation of the factory in the United States lies in the examination of the nineteenth- and twentieth- century engineering effort to create a rational factory—one that could run automatically as though it were a grand machine. In the rational factory every element of production, including the workers, had to function with precision and predictability."[69]

Labor certainly accounted for a significant portion of a company's operations. It was probably no accident that the Board of Trade's brochure—designed to attract new industry to Williamsport— emphasized that Lycoming Rubber's annual cost of labor for 252 hands was $92,000, an amount that equated to an average annual income of $365 per employee—a dollar a day if you ignore the worker's days off. But even after accounting for a full weekend of rest, the actual daily rate would have been around $1.40 per day, a bargain when compared to the $1.60 to $3.25 per day rubber workers in New Jersey were earning in 1878.

The Board of Trade brochure was also quick to point out that 150 of Lycoming's 250 workers were women and girls.

68 Betsy H. Bradley, *The Works: The Industrial Architecture of the United States.* (New York: Oxford UP, 1999). 235.

69 Biggs. 2- 3.

Women and children were a source of cheap labor at a time many industrialists were still promoting factories as a "morally superior" alternative to a "life of idleness" on the farm. The experienced men from Naugatuck Williams hired would not only have been knowledgeable about the technical aspects of the rubber industry, they also would have been familiar with the wages paid and productivity of workers employed by Lycoming's chief competitors in Naugatuck.

We can only speculate on whether the new foremen Williams brought in from Naugatuck were the cause of or helped resolve the event reported in the October 13, 1885 issue of the Williamsport Sun-Gazette, reported under the headline, *The Strike at the Rubber Works: "*About one hundred girls are involved in the strike inaugurated at the rubber works yesterday morning. They claim that the reduction imposed upon them was unjust and unwarranted, and say that they will hold out until the old schedule is restored. On the other hand the firm claims that it was necessary to make the reduction and say that the girls can make fair wages as it is. Neither side shows any indication of giving in. "In either event, the Board of Trade concluded its summary of the Lycoming Rubber Company's operations in 1886, the year after the strike, with this statement of optimism for the prospects of the rubber industry in Williamsport: "The experiment of manufacturing rubber goods [in Williamsport] has been successfully demonstrated, and with the same good management in the future that has marked the enterprise in the past, it must continue to prosper and grow."

An article published in the July 5, 1886 issue of *The Times* of Philadelphia credited to J. Y., of Williamsport, Special Correspondent to The Times, under the caption, *In a Great Lumber Region*, with the subtitle of the now omnipresent thought, *The Product Not Likely to be Exhausted Before the end of the Century—Other Industries That Contribute to the City's Prosperity*, noted that, "the Williamsport Rubber Works are a decided success." Like the Board of Trade publication, the article also was quick to note that, "As a majority of the employees are girls, the average of wages is not high."

J.Y.'s closing remarks summed up the prevailing mood of the region's labor force up to that time:" Labor is strongly and thoroughly organized here. In no other locality in the State are the Knights of Labor so numerous in proportion to the population, there being eight assemblies, and a labor organ published here has a liberal local support and a large general circulation. There has been no labor disturbance in this neighborhood since the "Sawdust war" of some ten or twelve years ago. A prominent leader in Williamsport labor circles attributes this tranquility to the fact that the intelligence of the working people of this city and neighborhood prevents anything like a conflict between the employers and the employed, which they know would not result to their advantage. This may be true, but, in addition, it may be said that their present situation would furnish no occasion for such a conflict."

In summarizing Harrisburg's similar experience with labor, Gerald G. Eggert, author of **Harrisburg Industrializes**, *The Coming of Factories to An American Community*, noted that many of the Commonwealth's smaller cities—like Harrisburg and Williamsport—avoided the violent confrontations between labor and management happening in the larger cities during the early decades of industrialization because the smaller city's entrepreneurs lived much closer to their workers. "One of the advantages or handicaps (depending on point of view) of centering their lives where their factories were located was that they were reluctant to face down people with whom they rubbed shoulders daily, or to unnecessarily disrupt life in "their" small city. Overall, their employees gave them little trouble, rarely confronted them or questioned their authority, and did not appeal to outside groups for help in times of trouble.[70]

In the rare case where the company did call in outside help, like Williamsport's "Sawdust War" of 1872, when the Governor ordered in the militia to quell striking lumbermen demanding enforcement of the recently legislated ten-hour workday and better wages from the owners reaping fortunes off the Susquehanna Boom, the Governor later pardoned all the men convicted of rioting. Some historians speculate that the Governor's decision to pardon the convicted men was a political favor to politicians paid off by Peter Herdic, but it nonetheless demonstrates the effort men like Herdic would take to maintain peace in their community.

1888-THE LYCOMING RUBBER COMPANY GROWS A LITTLE MORE

Evidence of the Lycoming Rubber Company's continued success is evident in the official Atlas of the City of Williamsport, Penna., published by C. M. Hunter of Philadelphia, in 1888. The city map provides more information than Burlingame's 1872 official map of the city, but much less than the 1884 Sanborn map. In addition to the outline of

70 Gerald G. Eggert, *Harrisburg Industrializes: The Coming of Factories to an American Community.* (University Park, PA: Pennsylvania State UP, 1993) 326.

buildings rendered in color to distinguish brick buildings (pink) from wood frame buildings (yellow) and stables (yellow with an x connecting the corners), the map, rendered at a larger scale of 150 feet to the inch, also illustrates Ward Lines, Steam Railroads, and Street Railways (street cars).

Detail: Atlas of the City of Williamsport, 1888.

The rubber factory is identified on the 1888 Atlas as the "Lycoming Rubber Works," with no changes in the site boundaries from the 1884 Sanborn map. Like the 1886 Board of Trade illustration, the atlas includes the new packing and ware house north of the original main building, the stable north of both of them, and a new wing attached to the west side of the 10,000-square foot, 2-story compounding building. Across the street from the factory, four brick twin homes have been constructed on the 600 block of Rose Street. Owned by J. Kaye, the properties were more than likely rented to laborers at the factory. Two wood frame homes owned by J. Lord, and 5 smaller wood frame homes owned by R. Lord on the 1,200 block of Erie Avenue, were also constructed immediately south of Kaye's rental properties.

On the west side of the rubber factory, the entire 600 block of Cemetery Street is now occupied by nine single family wood frame homes, with seven of them facing Cemetery Street and the two at the north end facing the alley. Likewise, the lots on the 500 block of Cemetery Street and the 600 block north of the plant are all occupied by single family wood frame homes, many with stables, and all of which appear to be owner occupied, since each lot is identified by a different person, quite possibly one of the factory's skilled workers.

1889-THE LYCOMING RUBBER COMPANY SURVIVES THE GREAT FLOOD

Disaster struck the Lycoming valley and much of the Commonwealth at the close of spring in 1889. While most people remember 1889 as the year of "The Great Flood," or "The Johnstown Flood," when 2,200 people lost their lives after several days of heavy rain caused the dam above Johnstown to fail, unleashing a torrent of water equal to the volume of the Mississippi engorged with trees, buildings, livestock, and people unlucky enough to get out of its way, the citizens of Williamsport remember 1889 as the year the Susquehanna Boom broke.

A story published in the Wellsboro Gazette on June 11, 1889, offered this description of the scene in Williamsport that week: "In a dispatch to Governor Beaver on Tuesday Mayor Foresman summed up the situation at Williamsport as follows: The boom has been cleaned of logs from the principal yards along the river front, and the manufactured lumber has been swept away. The houses of the poor people nearest the river have been carried away with all they possessed. Thousands of people are homeless and without anything but the clothes on their backs. Provisions are scarce and are needed quick. Many of our people are in absolute want for the necessities of life. Although bereft of property themselves, our business men have responded nobly for present necessities."

The story noted that, "the aggregate of logs lost from the boom was about 200,000,000 feet, and the aggregate of manufactured lumber fully 40,000,000 feet." While Williams and Foresman and B. C. Bowman & Co.'s were listed among the lumbermen's heaviest losers, the full-page story ended by noting that, "Of the industrial establishments only three, The Demorest Sewing Machine Works, the Mankey Decorative Works and the Lycoming Rubber Company, are able to resume work." All three of them were wisely built on higher ground.

1890-THE LYCOMING RUBBER COMPANY BECOMES A CORPORATION

On July 30, 1890, the Lycoming Rubber Company, organized on September 15, 1882 as a limited partnership, was incorporated, and its "… capital stock was increased to $500,000 … but only $400,000 was issued. The production at that time was between 4,000 and 5,000 pair of boots and shoes,"[71] with a value of sales estimated at $500,000.[72.] The Board of Managers was comprised of B.C. Bowman, President; S.N. Williams, Treasurer and General manager;[73] and J. Artley Beeber, William Howard and C. La Rue Munson.[74]

In their book, **The Second Industrial Divide,** *Possibilities for Prosperity*, authors Michael J. Piore and Charles F. Sabel describe the evolution of the corporation as a mechanism designed to stabilize what they call "continuous process industries," like rubber manufacturers, as they grew in size and their market expanded beyond their local communities: "The market—in the loose sense of a large group of customers familiar with a well-defined product and accustomed to purchasing it on a regular basis—was of long standing tradition. Most of the technological basis for mass production had already been established, under competitive market conditions. Economies of scale grew slowly, through the gradual improvement of the new technology by trial and error, and firms that initially thought of themselves as small in relation to the total demand were not concerned with market organization or control. As the minimum size of an efficient plant became larger and larger, however, these industries became increasingly unstable, and this instability increasingly troublesome to individual producers. The corporation emerged out of efforts to control this new instability."[75]

1891- THE LYCOMING RUBBER COMPANY GROWS UPWARD

Sheet 8 of the 1891 Sanborn Map of Williamsport (see pages 5 and 6 of Continuation Sheets) provides detail that was lacking in the 1888 Atlas to explain the new additions to the Lycoming Rubber Company that appear on the 1886 Board of Trade illustration and the 1888 City Atlas, as well as some new additions to the rubber works more than likely funded by the $400,000 of stock issued in 1890, when the company was incorporated. Sanborn's mapmaker has assigned individual letters to each of the buildings now, so it's easier to associate the changes that have taken place to improve the flow of material and product through the plant with the respective building.

An elevator has been added to the south side of the "main building," labeled now as A., near the center of the Mill Room on the first floor, making it easier to convey material to the Cutting Room on the second floor above it. The entire 3rd floor is dedicated now to Shoe Making, while Boot Making has moved to the second floor of a new building, labeled C. The office is still on the first floor at the east end of Building A, and the brick wall separating the engine room at the west end of Building A is now noted as extending all the way to the third floor. The attached boiler room at the west end of Building A has also seen a few important changes. Openings at the ground floor of the west wall, and the fire wall at either end of the attached boiler room has been extended an additional 6 inches above the roof, to 18". In a similar fashion, the firewall at the east end of Building A has been extended a full two feet above the roof line. Sliding tin clad doors with weighted closers have also been installed over the openings between the engine room and machine room and the engine room and the boiler room.

Building B, the 10,000-square foot brick building north of the centerline of Building A, has received a new 1/2 floor labeled as the Last Room, with a pair of windows at the north and south ends, but none on the east or west walls,

71 Lloyd 460.

72 Babcock 26, Table 1.

73 According to Meginness's biographical sketch of S. N. Williams, "In August 1882, Mr. Williams withdrew from the active management of the company to take charge of the business of the Lycoming Rubber Company, with B. C. Bowman, president, and William Howard, treasurer. On the resignation of Howard in 1883, Mr. Williams was elected treasurer and general manager of the company, and later, on the death of Mr. Bowman, was elected President.

74 "Lycoming Rubber Co., One of Williamsport's Most Valued Industries." (Daily Gazette and Bulletin [Williamsport] Supplement 29 June 1895) 13.

75 Michael J Piore and Charles F. Sabel. *The Second Industrial Divide: Possibilities for Prosperity*. (New York: Basic, 1984) 55.

indicating that it's a gabled attic space for storage of shoe lasts, since it is also connected to the Shoe Making Room on the third floor of Building A by a tin clad passage with tin clad rolling doors at either end. The addition of the attic apace was accompanied by many other changes in the layout of Building B.

Milling and Compounding have now been combined on the southern half of the ground floor, and the Drying Room is still at the back. A Dye House has also been added to the back room, where the boiler is still located. The Varnishing Room has been moved to the southern end of the second floor, which is separated from the northern end—still dedicated to Vulcanizing—by a sliding tin clad door at its center. More than likely, shoes and boots still mounted on lasts were transported on carts through the center aisle of the space to the tin clad, asbestos lined Vulcanizer.

Building C is the new 33 x 100-foot brick building constructed for Boot Making. A single window at the center of the building's west end suggests an attic above the Boot Making room on the second floor. Building C is connected to the Vulcanizer on the second floor of Building B by a tin clad passage (bridge) with tin clad rolling doors at either end. Both east and west ends of Building C are protected by firewalls that extend at least 18" above the tin roof, and tin clad shutters protect the opening on the first, second and attic story windows on the east side of Building C facing Building B.

A one-story brick Fire Pump house with tin roof and door opening on its south side is attached to the southeast corner of Building C. A 40-foot deep by x 12-foot diameter cistern is located between the Fire Pump house and Building B, just south of the overhead passage. A new Woodworking and Machine Shop is located at the west end of the ground floor, separated by a partition from the east end of the building, where Sole Making is done.

A story published on page 13 of the June 29, 1895 edition of the Williamsport Gazette and Bulletin described the machine shop where lasts for boots and shoes were made, as being: "equipped with an engine, lathe and two planers, besides a complete outfit of bench tools. The planers are for iron and for wood. In the course of manufacture maple blocks of perfect face and size are required, and great difficulty was experienced in having this work properly done, no machine being found which gave satisfaction. The company procured a design and had a machine constructed after their own ideas. It does the work required of it." This early example of a machine custom made to "manufacture maple blocks of perfect face and size" is of greater significance than the author's description— "it does the work required of it" –might at first glance suggest.

The Second Industrial Divide's Piore and Sabel identify "the use of "special-purpose" equipment (product-specific) and of semi-skilled workers to produce standardized goods" as "[the limiting factor] of the model of industrial development that is founded on mass production."[76] When product-specific tools are used, they argue, the manufacturer must amortize the cost to design, fabricate and operate that specialized piece of equipment through the production of goods irrespective of actual market demand. When the supply of product required to amortize that cost outstrips demand, the factory must not only manufacture the goods, they also must manufacture the demand for it, or store it, which has its own costs.

Manufactures solved the problem of fabricated demand through creative and sometimes aggressive advertising campaigns, in essence giving birth to the modern consumer society. Industrial historians typically identify the advent of consumerism as the Second Industrial Revolution, but Piore and Sabel also mark it as the beginning of the First Industrial Divide, when rigid manufacturing technologies using highly specialized equipment replaced less rigid craft systems using general purpose equipment. "In the most advanced ones," Piore and Sabel note, "skilled workers used sophisticated general-purpose machinery to turn out a wide and constantly changing assortment of goods for large but constantly shifting markets." Piore and Sabel refer to this "use of sophisticated general-purpose machinery" as "flexible manufacturing."

In laying out their argument for a return to "flexible manufacturing" in **The Second Industrial Divide**, Piore and Sabel argue that, "under different historical conditions, … firms using a combination of craft skill and flexible equipment might have played a central role in modern economic life—instead of giving way, in almost all sectors of manufacturing, to corporations based on mass production. Had this line of mechanized craft production prevailed, we

76 Piore and Sabel 5.

might today think of manufacturing firms as linked to particular communities, rather than as the independent organizations—barely involved with their neighbors—that, through mass production, seem omnipresent."

In conditions when advertising failed to reduce fabricated demand, manufacturers were faced with the difficult choice of either shutting down and temporarily laying off workers, or warehousing product, compounding production issues for the rubber footwear industry that was already subject to the vagaries of weather—a mild winter, or a dry spring could cripple demand for rubber boots and shoes. The Lycoming Rubber Company initially addressed its warehousing needs with a stand-alone Ware House and Packing Attic on Rose Street that first appeared on the 1886 Board of Trade illustration. As production increased with equipment specialization, so did the need for additional warehousing space.

In 1890, the packing and warehouse that first appeared on the 1886 Board of Trade illustration was expanded to 160 feet long, now identified on the 1891 Sanborn Map as Building D. The first two floors of Building D, noted as Ware House, are divided into 2 spaces separated by the brick firewall that was the north wall of the original warehouse building, now with a tin clad rolling door at its center instead of a window. The top floor of Building D is occupied by the Packing Attic, which is undivided along its entire length. The Packing Attic is attached to the Shoe Making area on the third floor of Building A by a tin clad passage with tin clad rolling doors at each end. All the windows facing Rose Street and Building B have tin clad shutters, and the north and south ends of Building D are protected by firewalls that extend 18" above the roof. A tin clad passage with tin clad rolling doors at either end connects the building to the Vulcanizer room on the second floor of Building B.

A variety of outbuildings have also appeared on the site since the 1884 Sanborn Map was published. A one-story wood frame Gum Shop, labeled C2, abuts a one-story Box Shop, labeled C3, on the property line just north of Building C, near the corner of the alley between Cemetery Street and Allen Street. A Shed, labeled C4, is located further north of the alley on Allen Street, just west of the 1 story brick oil house, labeled C5. The brick Varnishing House, labeled C6 now, has a Cement House addition on its west side. A one-story wood frame "Flag House" has been constructed offsite at the intersection of Erie Avenue and Cemetery Street for the convenience of passengers departing or arriving by train.

Sanborn's mapmaker notes two more very significant changes to the factory, in addition to the 5 stations and clock that have been installed for the night watchman, and the 240 HP Wurthington [sic] Steam Pump that has been installed in the boiler room to force heat and steam power from the coal fired boiler throughout the factory. Automatic sprinklers have now been installed in all the buildings except the north end of the warehouse. The mapmaker also notes that the sprinkler system has been connected to the city's water works. But perhaps of even greater significance is the note the mapmaker added after indicating that lighting is by gas: the factory is "to have electric."

In 1891, the year our latest Sanborn Map was published, inventors Nicholas Tesla and Thomas Edison were engaged in a very public debate over whether alternating current (AC) or direct current (DC) was the better choice for transmitting electricity to customers to light up city streets, churches, stately homes and factories. Both sides had much to gain or lose from the outcome of that decision. No one had thought of using electricity for anything other than lighting, and Thomas Edison's incandescent light bulb, running on direct current, was the most widely used system in use in urban areas where enough customers could be convinced to subscribe to amortize the cost of building DC power plants and stringing copper lines on poles to power the lights.
The drawback to DC power was that electricity could not be transmitted long distances at the lower voltages required to excite (i.e., light) the filaments used in lamps like Edison's without burning them out, meaning Edison had to build many power plants to service a large area, at a high cost to the customer. DC power also required heavier gauge copper wire than AC power, and the cost of copper was rapidly eating up Edison's profits as the price of copper skyrocketed with the rapidly escalating demand for electric lighting.

Tesla, who idolized Edison and even emigrated to America from Serbia to work for him, argued that electricity could be transmitted very long distances at higher voltages on lighter gauge wires using alternating current, which could then be stepped down using transformers before it reached the consumer. Although Tesla's solution would have solved Edison's problem by eliminating the need for heavier gauge copper and localized power plants, Edison dismissed AC as "not worth the attention of practical men." Edison had a point, since no one had invented a practical way to measure AC power, so there was no way to charge customers who used it, and electrical transformers were still in their infancy and not very reliable.

So Tesla left Edison, opened his own lab, and continued writing papers advocating for AC. After reading one of Tesla's papers, the wealthy Pittsburgh entrepreneur George Westinghouse, inventor of the air brake that was now standard issue on all railcars, took up Tesla's cause. Westinghouse had already developed his own light bulb and saw AC as a way to compete with Edison's very popular light bulb, which dominated the market at the time.
Edison, who had not only invested his money but his reputation promoting DC, issued an 84-page attack on Westinghouse and AC, arguing that AC's high voltages posed a serious danger to the public. He even went as far as electrocuting several dogs and a horse at his lab to prove his point. So it's not surprising that the Lycoming Rubber Company was "to have electric," but the source of that power was, figuratively, if not in fact, still up in the air in 1891.

According to Quentin R. Skrabec, author of **Rubber: An American Industrial History,** "The electric lighting industry of the early 1880's was best described as a state of war. Hundreds of lawsuits were being filed against competing companies costing thousands of dollars and stopping any progress. Edison Electric and the United States Electric Lighting [led by Hiram Maxim] were the best organized but all the companies were dominated by head-strong egoists inventors, unwilling to give ground on their legacy."[77]

The board of United States Electric Lighting brought in a man named Charles R. Flint, friend of heads of state and frequent guest at the White House famous for his diplomatic skills, to bring the companies together. According to Skrabec, Flint couldn't even get Edison and Maxim, sworn enemies, to sit in the same room together. Although Flint ultimately failed to bring the companies together, citing his inexperience with the industry and his ownership in a competitor of the companies he was trying to combine as his big mistakes, Flint decided to try his hand at combining companies in an industry he knew quite well: rubber.

1892-THE LYCOMING RUBBER COMPANY JOINS "THE TRUST"
On December 1, 1892, The Unites States Rubber Company applied for a listing on the New York Stock Exchange, noting that, "The United States Rubber Company now either owns absolutely or permanently controls the following properties: American Rubber Co., of Boston, Mass.; Boston Rubber Co., of Boston, Mass.; L. Candee & Co., of Naugatuck, Conn.; Goodyear's Metallic Rubber Shoe Co., of Naugatuck, Conn.; Lycoming Rubber Co., of Williamsport, Pa.; Myer Rubber Co., of New Brunswick, N.J.; National India Rubber Co., of Bristol, R.I.; New Brunswick Rubber Co., of New Brunswick, N.J.; and New Jersey Rubber Shoe Co., of New Brunswick, N.J."

The United States Rubber Company, the 12th company listed on the New York Stock Exchange, identified Samuel N. Williams, Treasurer, Lycoming Rubber Company, Williamsport, Pa., among the twenty-five directors listed on the application. Officers of the company were identified as: president: Robert D. Evans, President of the American Rubber Company; secretary: a banker, John L. Waterbury, Vice President of Manhattan Trust Company of New York; and treasurer: Charles R. Flint, of Messrs. Flint & Co., of New York.

Like the electric power industry, Skrabec described the rubber industry in the years leading up to the formation of the United States Rubber Company as a time "marked by intense competition. Rubber footwear firms, then the industry's largest and most profitable operations, were competing through price wars. Rubber footwear turned an easy profit, and many new companies developed. The increasing number of companies influencing prices caused them to fluctuate dramatically.[78]

According to Glenn D. Babcock's **History of the United States Rubber Company**, "The obvious advantages that would result from an effective consolidation of the principal manufacturers of rubber boots and shoes aroused the active interest of Charles R. Flint. Born in 1850 into a family that at one time owned the second largest fleet of sailing vessels under the American flag, Flint had operated as an international merchant, financier, and negotiator. Among other items, he dealt in munitions (including naval war vessels), and at different times he outfitted and sold ships to various nations, including Brazil, Japan, and Russia. At the request of Brazil, he even provided officers and crews for war vessels furnished by him when the Brazilian navy tried to start a revolution. As one of the original partners in W. R. Grace & Co., he was intimately acquainted with South America, and became a dealer in crude rubber in 1878."

77 Quentin R. Skrabec, *Rubber: An American Industrial History*, (Jefferson: McFarland, 2013) 56-57.

78 Skrabec

Among the many advantages to consolidation Flint presented in a talk he gave in Boston in 1899, he included: the purchase of raw material at more favorable prices; the use of specialized machinery and processes, resulting in lower costs; production channeled to the most efficient or best located plants; prevention of loss by moving production to other plants in case of local work stoppage for any reason; less inventory and therefore less cost of storage; and greater skill in management applied to the whole organization rather than to the part only.[79]

According to Sabel and Piore, "efforts at control can be seen as a series of organizational experiments that ultimately led to the corporate solution. In almost all cases they began as pools: agreements among producers to fix prices or limit output. The pools were at first relatively simple constructions, but in the face of successive failures they became increasingly elaborate. Eventually the pools included provisions for the exchange of production and sales data among companies, and fines for violations of the agreement."[80]

Back in July of 1876, Herdic's rubber works, along with eight other rubber companies, had in fact been party to one of those "relatively simple constructions," or "combinations" as the Elmira *Leader* described it, called the *Associated Rubber Shoe Companies.* But the pool the Lycoming Rubber Company was now party to was one of those "increasingly elaborate" ones. Peter Herdic could have learned a lot from Charles Flint, who by the end of the century would earn the moniker "Father of Trusts," negotiate the Wright Brothers first sales of airplanes overseas, help found the Automobile Club of America, and in 1911 would consolidate four companies to form the Computing-Tabulating-Recording Company, rechristened in 1924 as International Business Machines (IBM).[81]

According to Babcock, **"**It was Flint's belief that industrial consolidations were best accomplished by a 'disinterested intermediary, who as a neutral would have commanded the confidence of the manufacturers, and who would have secured all the facts necessary to formulate a plan.' In 1889, New Jersey enacted an amendment to its general incorporation law that cleared the way for formation of a holding company empowered to acquire the majority of the voting capital stock of subsidiaries, locally chartered in New Jersey or other states," and Flint "quickly recognized the opportunities opened by this legislation."[82]

But, according to Babcock, "Flint could scarcely describe himself as an entirely 'disinterested intermediary' in the formation of the United States Rubber Company, for in 1891 the Lycoming Rubber Company, Williamsport, Pa. had sold him $50,000 of its capital stock and had given him two separate options to buy additional stock. Apparently, he exercised those options, since his interest represented 3,300 shares at Lycoming's annual meeting on May 16 1892. In September and October, 1892, United States Rubber acquired from the Flint syndicate 3,900 of the 4,000 shares then outstanding of Lycoming's capital stock."[83]

Sabel and Piore note that, "When even the most sophisticated pooling arrangements failed, the companies finally turned to more direct integration, through horizontal mergers; from this strategy it was only a short step to the modern corporation. Once the mergers had occurred, power soon shifted to the central management, which then moved to consolidate the organization, by closing down the weaker facilities and (most important for our purpose) organizing the market itself, to stabilize production."[84]

For Lycoming Rubber, that short step was still decades away, but the stage had definitely been set for those "stabilizing" steps to occur.

1893-THE LYCOMING RUBBER COMPANY, A LIVING MACHINE

Not everyone was happy about the new rubber trust that the Lycoming Rubber Company was now part of. A story published in the Fayette County Leader on May 26, 1893, running under the headline, *The Rubber Trust*, and the

79 Babcock 27.

80 Piore & Sabel. 55.

81 John N. Ingham *Biographical Dictionary of American Business Leaders, Volume 1,1983,* (Westport: Greenwood, 1983) 394-5.

82 Babcock 27.

83 Babcock 28.

84 Piore and Sabel 55.

subheading, *It Is Really a Robber Trust*, reported that, "The great rubber trust, formed last year from the remnants of several small rubber trusts, has a capital watered up to $65,000,000. It manufactures about 50 per cent of the $27,000,000 worth of rubber goods consumed here and besides controls the supply of the raw product from Brazil. It gets free raw materials and is protected by a duty of 50 per cent on its manufactured products. As the trust makes goods for the whole world, the only purpose and use of the duty is to enable the trust to charge higher prices at home than it does abroad. This it does with a vengeance."

The writer of the story quoted several "recent advances in prices" for rubber footwear ranging from 22 to 44 percent published in the industry's professional journal, *Boot and Shoe Recorder*, and then offered a few testimonials from jobbing houses (wholesalers) to cement his case, including this one from a Mr. N.M. Ladd:

> *The sixteen years that I have handled rubber goods enables me to make some comparison prices. Take for example, one line of men's rubber boots, which, up to April 1, have been buying at $2 per pair, the lowest price now is $2.60 per pair, and as the head of one of the largest jobbing houses in New York city said to me: 'We would not dare sell a pair for a cent less, for should the trust know of our doing so they would sell us no more goods.'" The writer closed the story with this warning: "The rubber trust is dictatorial. They go to the jobber and tell him what he must do and what he must not do if he desires to handle their goods. A few years ago, when rubber was 25 per cent higher than it is today, rubber goods were in many cases selling at a less price than they are now. Let the World keep this monopoly of a rubber trust before the people until such time as the trust shall be a thing of the past.*

That of course was the very cause the "trust busters" of the progressive arm of the Republican party were prepared to accomplish, with Rough Rider President Teddy Roosevelt leading the charge in the first decade of the new century. "All that progressives ask or desire," wrote Democrat Woodrow Wilson, whose term as President is often associated by conservatives with the end of "political progressivism" "is permission -- in an era when development, evolution, is a scientific word -- to interpret the Constitution according to the Darwinian principle; all they ask is recognition of the fact that a nation is a living thing and not a machine."

Wilson's message was of course not only literally but philosophically still decades ahead of what industrialists at the tail end of the nineteenth century were trying to achieve, as they continued to think of their factories and the workers who occupied them as machines. And while they went to great lengths and expense to protect their real estate with the most up to date fire protection systems, working conditions in the rubber factories during the last decade of the 19th century were still quite dangerous, as the following story published in the November 13, 1893 edition of the *Alexandria Gazette* under the headline, A *Human Torch*, demonstrates:

> *People living near the Lycoming Rubber Factory at Williamsport, Pa., were startled Saturday evening when they beheld a man, flaming like a mighty torch, leap from a second-story window. It was Albert Fisher and he was the victim of a naptha explosion. After jumping from the window, he ran half a square with the fire blazing three feet above his head, to a store where water was thrown upon him. His clothing was burned completely off his body and the skin hung in shreds from his back, arms and legs. He was taken to the hospital. It is believed that he will die.*

Accidents like these were not unusual in factories designed to run like machines; nor were they confined to the lower ranks of workers employed by the Lycoming Rubber Company, as the following story describing the injury to George Hart, the experienced man from Naugatuck that S. N. Williams convinced to return to Williamsport to run the mill room, compounds and Vulcanizer when Williams took full charge of the plant in 1884, explains:

> *This was a day of accidents here. About 9 o'clock this morning a quantity of naptha exploded at the Lycoming rubber factory and set fire to a cauldron containing fifty gallons of boiling varnish. George Hart and Charles Bruner were terribly burned about their heads and bodies. Shortly before noon Guy Harmon, a 14-year old boy, was caught in the chain gang at the saw mill of Strong, Deemer & Co. and drawn against a saw. His right leg was cut off below the knee. About 2 o-clock L. W. Dimmick, a slater, slipped from the roof*

at the Cyano Chemical Works and fell twenty-five feet to the ground. He was internally injured.[85]

Pennsylvania finally passed a factory inspection act in 1899, the year of George Hart's accident. According to Judson MacLaury, author of an article published on the United States Department of Labor's website, titled, *Government Regulation of Workers' Safety and Health, 1877-1917.* "The germ of this law originated when complaints to the state labor bureau about working conditions led the bureau to send a staff member off to Massachusetts to study their factory inspection law and develop recommendations. A bill based on this report aimed primarily at protecting woman and child workers was introduced in the legislature in 1899."

Business interests lobbied hard against the bill, according to MacLaury, and it seemed doomed to fail again until social reformer Florence Kelly, then Secretary of the National Consumers' League, helped organize a Working Women's Association to lobby for it. With additional support from the Knights of Labor, the nation's largest organization dedicated to protecting the rights of "skilled" labor at the time, the bill was passed and enacted into law. The act, according to MacLaury, "was aimed at protecting the safety of women and children, and only applied to workplaces employing ten or more of them. However, it benefited all workers in a plant that was covered. It required many of the same protections mandated in other states—covered shafts, belts and gears, protected hoistways, vats, and pans, and so on—and gave employers 60 days to rectify violations before they would be subject to a fine."

MacLaury noted that, "When factory inspection did begin in Pennsylvania, the inspector had the legal right to enter any workplace to enforce the law. A few employers attempted to deny entry to the inspectors. However, most employers reportedly exhibited "a wholesome respect for the law," allowed inspectors to enter, and complied promptly with any orders the inspectors gave. Employers did not seem to mind meeting safety or health standards, as long as everyone else complied."

1897-AMERICA IS ELECTRIFIED AS THE RUBBER TRUST GOES TO COURT

On January 12, 1897, the Cataract Power and Conduit Company hosted a banquet for 350 of the country's most prominent scientists and businessmen at the Ellicott Club in Buffalo New York. Although Edison, promoter of DC current, and the publicity shy Westinghouse, advocate for Tesla's AC power, were noticeably absent, Nicholas Tesla was the guest of honor at the banquet held in a room bathed in electric light, where he was introduced as the "greatest electrician on Earth."[86]

Nigel Cawthorne describes the events leading up to that night in his book, **Tesla vs. Edison,** *The Life-Long Feud that Electrified the World: "*Construction of the first power station at Niagara had taken five years to build. It was a headache for investors throughout. The outlay was huge and no-one knew whether it would work as the three-dimensionally imagined plans were all mainly in Tesla's head. At 7:30 a.m. on August 26, 1895, the turbine of Dynamo No. 2 began to turn, and the AC current generated was sent to power the aluminum smelter of the Pittsburgh Reduction Company, later renamed Alcoa, that had moved its plant up to the falls to take advantage of the cheap electricity."[87]

According to Cawthorne, "The battle of the current war was over now. Tesla and Westinghouse had won. While the first one thousand horsepower of electricity reaching Buffalo had been taken by the streetcar company, the local power company already had orders from residents for five thousand more. Within a few years, the number of AC generators at Niagara Falls reached the planned ten, and power lines ran as far as New York City. Broadway was ablaze with lights. It powered streetcars and the subway system. Even Edison's networks converted to alternating current."[88]

About a month after some of the most influential figures in the electric power industry met in New York to honor Tesla'a achievement, a different group of influential figures in charge of some of the nation's largest combinations were summoned to New York to testify before a committee that had been charged with investigating the practices of business combinations formed after New Jersey changed its laws to allow companies to own stock in companies from other states.

85 November 14th, 1899 edition of *The Times* of Philadelphia beneath the caption, *Serious Accidents at Williamsport*

86 Nigel Cawthorne, *Tesla Vs Edison: The Life-Long Feud That Electrified the World*, (New York: Chartwell Books) 131.

87 Cawthorne 127.

88 Cawthorne 131.

On February, 16, 1897, Charles Flint, as Treasurer of the Rubber Trust, was subpoenaed to testify before New York State's *Joint Legislative Committee on Trusts and Illegal Combinations*. On February 17th, the second day of the hearing for the United States Rubber Company, which was only one of several large trusts that had been called on to testify, Flint was cross examined by Republican Senator Clarence Lexow, who had also chaired the infamous "Lexow Committee" that brought down "Boss" Tweed's patronage ridden Democratically controlled Tammany Hall after issuing its 10,000-page report in 1895 exposing massive corruption in the New York City Police Department.

In an article published in the *St. Louis Post-Dispatch* under the headline, RUBBER TRUST ON THE RACK. TREASURER FLINT BEFORE THE LEXOW COMMITTEE; HIS INFORMATION LIMITED; Though Treasurer of the Rubber Company, He Knew Nothing of Outlay for Consolidation," the paper reported that Flint's examination was continued from the previous day, and that he was now being asked to provide details of the consolidation:

> *[Flint] explained that the capitalization of the companies consolidated by the Rubber Trust was as follows," at which point he listed the actual amount of stock issued for each of the nine companies involved in the trust, ending with "Lycoming Rubber Co., $400,000; and Rubber Manufacturing Co., $300,000.*

When the Senator cross-examined Flint, asking him which companies he had a direct financial interest in, the reporter noted that:

> *After more squabbling the witness admitted that he had [an interest] in the Lycoming Rubber Co., but could not recollect to what extent …" After quizzing Flint on whether the bank that arranged the combination received a commission on the stock, Senator Lexow came back to the question of Flint's interest in the Lycoming Rubber Works.*
> *"Was it near $500,000?" Senator Lexow asked.*
> *"I think that was the amount," the witness replied slowly.*

$500,000 was of course the entire capitalized value of the company, something Flint had earlier denied having any interest in. According to the article, Senator Lexow then quizzed Flint on the shuttered New Brunswick Rubber Company:

> *"Do you know that at the time you discharged these men and closed this factory the United States Rubber Co. purchased the Colchester factory, closed that down and threw 500 men out of employment?"*
> *"I don't know." Replied Flint.*
> *"Did not the New Brunswick factory close down in the dead of winter in 1895, throwing all its employees out of work when it was offered a contract to produce what is known as third rate goods which could have kept the factory going all winter?"*
> *"I don't know." Flint answered again.*

Later, Flint explained that, "United States Rubber Co. is producing better goods at a smaller cost, adding that the wage scale of its employees had not been sliced off at any time." The reporter also noted that, "Though repeatedly questioned Mr. Flint would not make an admission that he was the head of the rubber combination."

On March 9, 1897, Chairman Lexow issued his *Report and Proceedings of the Joint Committee of the Senate and Assembly Appointed to Investigate Trusts*. In his 1,000-page report, Lexow—a staunch Republican and chairman of the committee on resolutions credited with introducing the gold standard plank in the platform during the previous year's Republican State convention[89] — acknowledged that the issue was much greater than the time the committee had been provided to address the concerns. Despite what appeared to be a vigorous and exhaustive effort to examine the affairs of a few of the larger trusts functioning in the state, including the United States Rubber Company, the committee made little progress in sanctioning the anti-competitive practices of the trusts.

In a dissenting opinion, a minority member of the team offered a lengthy challenge to the conclusions reached by the majority, suggesting that more time should have been allotted to the examination, given the magnitude of concerns raised about illegal combinations taking place in the state. The dissenting legislator then offered a lengthy set of

89 "Clarence Lexow." *Wikipedia*. Wikimedia Foundation, 7 May 2016. Web. 01 Oct. 2016.

recommendations for ending monopolistic practices, but to no avail. With minor exceptions, the trusts were, in essence, free to continue doing business in the same manner as they had been before the hearings began.

1903-THE LYCOMING RUBBER COMPANY'S PLACE IN A "PROGRESSIVE COMMUNITY"

Lycoming Rubber Company's president and treasurer S.N. Williams ended his term in office as Williamsport's 14th Mayor in 1903, after being elected to the office in 1899. During his 3 years as Mayor and his 18 years before that as member of Common Council for the 6th Ward, the *Williamsport Gazette and Bulletin's 1901 Centennial Edition* said Williams, "Advocated the improvements the city now enjoys, sewers, pavements and electric lights all being authorized during the time he served as the representative of his Ward or an officer of the city."

The paper noted that, "The changes and improvements were not made without objection and criticism. The need, mode and matter of the improvements authorized by the ordinances in establishing a sewer system and the construction and laying of modern pavements was the battle ground." Williams, whose grandfather Joseph Williams was "one of the early pioneers of Lycoming County, and by profession a civil engineer,"[90] apparently rose to the challenge. Williams efforts to improve Williamsport during his term in office were consistent with progressive ideas associated with the City Beautiful Movement that took hold in the 1890's and continued into the first decade of the 1900's.

In fact, Harrisburg's beautification and improvement movement is often cited as one of the earliest and most successful urban reform movements in the country.[91] Harrisburg's improvement campaign was "sparked by a riveting speech of conservationist Mira Lloyd Dock to the Harrisburg Board of Trade on December 20, 1900." [92] This would have been the same time Williams was serving his first year in office as Mayor of Williamsport, and Williams, who was also a member of the Williamsport Board of Trade's executive committee, may even have been in contact with Harrisburg's Board of Trade, since all the state Boards of Trade met annually at a convention in Harrisburg.

"Dock wanted to publicly challenge the horrific conditions in Harrisburg, and set out to gain public sentiment in support of changing them. Dock's speech was titled "The City Beautiful" or "Improvement Work at Home and Abroad", and this was the starting point for Harrisburg's city improvements. Dock's contemporary and closest ally in her drive for urban beautification was J. Horace McFarland, who was the president of the American Civic Association.

With McFarland and Dock working together they were able to push the process of municipal improvement in Harrisburg by convincing prominent community leaders to donate money, and by gathering the support of the majority of citizens. In April 1901, the Harrisburg Telegraph a city newspaper published a front-page article on the city's problems, which stressed Dock's message of beautification and recreation, paved streets, clean water, a city hall, land for parks, and a covered sewer interceptor along the river. The following February, 1901, the population voted in favor of a bond issue that funded $1.1 million in new constructions and city planning."[93]

Like Harrisburg's Board of Trade, Williamsport's Board of Trade went to great lengths to present its city as a great place to live and work. The Williamsport Board of Trade's promotional brochure for 1903 described Williamsport as *The Ideal City for Home or Business*. "To hail from Williamsport is personal certification of enterprise, energy, push and success," and "Williamsport stands before the world to-day a conspicuous example of the result of push, patience and perseverance," read the quotes on the cover of the handsome booklet. The sidebar on the inside cover of the publication leaves no room for speculation about its purpose: "Persons desiring to locate manufacturing enterprises or seeking information in regard to Williamsport as a place of residence will receive prompt and courteous attention by addressing H. R. Laird, Manager the Board of Trade, Williamsport, Pennsylvania."

The board also went to great lengths to present Williamsport as a "progressive" community, describing the City of Williamsport as "The Metropolis of Central Pennsylvania, Famous for its Beauty, Health, Energy, Prosperity, Industrial Advantages, Educational Advantages, Religious Advantages, Social Advantages, and Broad-Minded Progressive Men" leaving little doubt either that the leaders of this city saw themselves as part of the progressive mind-set taking hold

90 "Williams of Pennsylvania (PA) Biography." Samuel Williams Family History and Williams Genealogy Resources by Ancestor Search. N.p., n.d. Web. 01 Oct. 2016.

91 William H.Wilson, *The City Beautiful Movement.* (Baltimore: The Johns Hopkins University Press 1994) 126–146.

92 *"City Beautiful Movement."* WOW.com. N.p., 31 Aug. 2016. Web. 01 Oct. 2016.

93 *"City Beautiful Movement."* WOW.com. N.p., 31 Aug. 2016. Web. 01 Oct. 2016.

across the country in the early part of the new century under the leadership of its progressive Republican President, Theodore Roosevelt. Even the broad categories the Board of Trade used to define the city's advantages—Industrial, Educational, Religious, and Social—were a reflection of the primary areas of change "Broad Minded Progressive Men" of the era were embracing.

In an article published on July 18, 2007, titled, *The Progressive Movement and the Transformation of American Politics*, Thomas G. West, PhD. and William A. Schambra define Progressivism as, "the reform movement that ran from the late 19th century through the first decades of the 20th century, during which leading intellectuals and social reformers in the United States sought to address the economic, political, and cultural questions that had arisen in the context of the rapid changes brought with the Industrial Revolution and the growth of modern capitalism in America. The Progressives believed that these changes marked the end of the old order and required the creation of a new order appropriate for the new industrial age."

The creation of that new order included the establishment of new institutions to not only advance the wealth of its citizens but its education and health as well. Citing its ranking of "The City's Health" by the United States Census Bureau for 1900 as "First in the State of Pennsylvania," and "Fourth in the United States," the Board credited the development of the Health Department of Williamsport for achieving its "admirable state of perfection, and the results of a rigidly enforced system [being] highly gratifying."

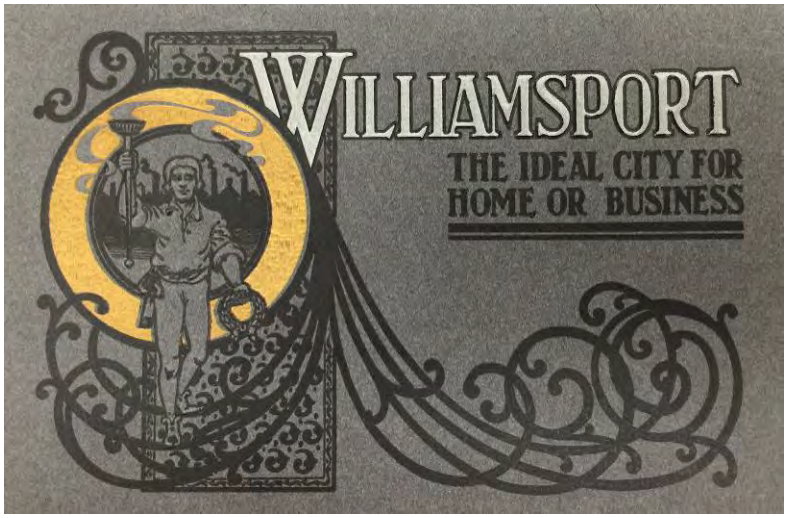
Defining the City's "Educational Advantages," as "Institutions Superior and Progressive," the brochure noted that "Williamsport's public school system includes a corps of about 120 well-trained teachers, a wide-awake and progressive superintendent and 14 modern and well-kept buildings. It's well devised curriculum and the high standard of the text books used emphasize its progressive educational spirit."

And to advance its own cause, the Board of Trade described "The City of Williamsport, Pennsylvania, located in the centre of a circle with a radius of 170 miles" as "The very centre of Pennsylvania's great coal, iron and lumber regions and of the greatest manufacturing district in the world." The brochure included a full-page ad describing its "Guaranty Fund of $215,000.00 subscribed by the citizens of Williamsport for the expansion of local industries and to loan to manufacturers, who can show substantial encouragement, as an inducement to establish their plants in Williamsport. Locate your plant where the natural advantages assist in decreasing expenses and increasing dividends, get in the prosperity belt—come to Williamsport."

As proof of that prosperity, the Board of Trade included a page titled, "Williamsport's Products Take First Place; That Pays," listing the products of the 396 industries that "take first place whenever brought into competition with those of other places." Alongside text describing world class typewriters and boilers manufactured in Williamsport, the Board included the "2,500,000 pairs of rubber and leather boots and shoes turned out annually" by the Lycoming Rubber Company.

1906-THE LYCOMING RUBBER COMPANY'S PATH TO THE FUTURE

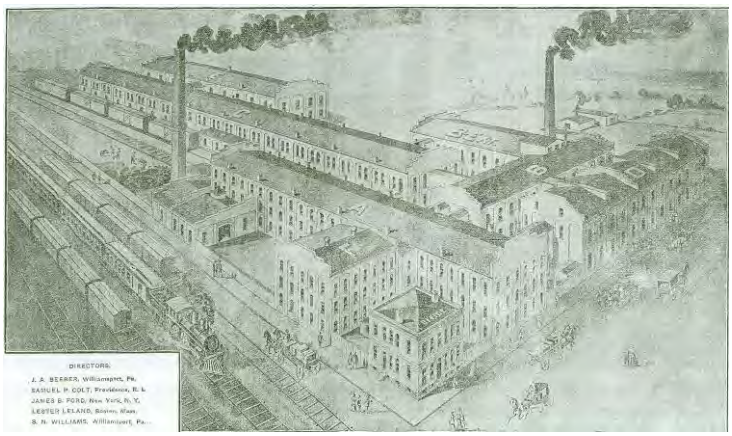
The Board of Trade published another brochure in 1906 to mark the centennial of Williamsport's incorporation as a borough. An illustration of a man holding a lamp in his right hand symbolically lighting the path to Williamsport's future, and a wreath in his left hand commemorating the men no longer with them who made major contributions to its past, appears on the cover of the brochure. A tribute to "rugged individualism" and fledgling "republican institutions," ideas commonly associated with Teddy Roosevelt's progressive era term in office, appear in bold type on the overleaf to the first page: "They impress us, however, with the conviction that they were able men, bold, self-reliant, individualistic. They had supreme confidence in the full righteousness and certain triumph of our republican institutions, then in their morning hour of trial. They were of that early, virile race of Americans who grappled fearlessly and successfully with the two-fold problem of taming to men's use, the shaggy wilderness and of erecting and maintaining thereon an enduring fabric of self-government."



Williamsport, The Ideal City for Home or Business
Williamsport Board of Trade, 1906

As "abundant evidence of Williamsport's material welfare," the board credited its newfound "diversity of industry," with the following passage: "Some one has said no foreign foe could capture Boston, for the best of Boston is not a place which could be occupied, but an Idea," and of "The diversity of industry which makes so powerfully for stability and expansion," the Board offered this passage: "The land is strewn with the wrecks of towns that had depended on a single industry. They waxed with its rise and waned in its decay. Twenty-five years ago there were those who predicted for this city such decline. They have been mercifully forgotten in the quickened march of our present progress. Then Williamsport was pre-eminently a city of a single industry; to-day it is one pre-eminently of that diversity of industry which makes so powerfully for stability and expansion."

On July 2nd, the Williamsport Sun also marked the centennial of the Borough's incorporation with a commemorative issue that included a full-page ad featuring a bird's eye view of the Lycoming Rubber Company plant. The ad, along with the following articles, provide details of the expansion that has taken place at the Lycoming rubber works since the company joined the trust.



Perspective of Lycoming Rubber Company published in July 2, 1906 edition of the Williamsport Sun.

From a story published in the Altoona Tribune on December 16, 1898, we learn that, "The Lycoming Rubber Works, in the west end of Williamsport is to have two big additions added to the already extensive plant. This establishment, which is among the city's most valued industries, was established fourteen years ago, and to keep up with the march of progress and the orders ahead the company have decided to improve the works. Work has already commenced on one

addition, which will be 70x28 feet in size and two or three stories high. Under this building is a reservoir, 70x28 feet, already built, which holds 125,000 gallons of water. A new fire protection apparatus, costing $6,000, has been installed, and other up-to-date improvements made."

Lloyd's History of Lycoming County fills in some of the details of the work that commenced on March 31st the following year: The factory was closed for an indefinite period to erect another building and replace the old boilers with four new 150 horsepower boilers and a 500 horsepower Hamilton engine. At the time of the closing the company had orders for more than 30,000 cases of boots and shoes which it was unable to manufacture due to the small capacity of the plant. With the increased power of additional building, the capacity was increased from 5,000 to 10,000 pairs per day."[94]

An article published in the morning edition of the April 23, 1902 Williamsport Daily Gazette and Bulletin reported that, "After a shut down of about a month the different departments of the Lycoming rubber works have been thoroughly overhauled and needed repairs made. On Tuesday morning the full force has been working, some hands having gone to work a few days ago. The work began with a large ticket, and the factory is now ready for a good run."

About a month later, on May 21, 1902, we learn from the same paper that the building passes a sanitary inspection in a story reported under the banner, *Wage Earners in Williamsport and in the County Outside the City, Deputy Factory Inspector English Says in His Annual Report That He Inspected 126 Establishments in Town, and 96 Outside—6,930 Employed in Williamsport.* According to that story, "The total number employed in these establishments [the 126 in town] is 6,939, of which 4,592 are males and 2,338 are females: 1,531 employees are under 21 years of age, and there are 103 males employed between the ages of 13 and 16 years and 226 females between the same ages. The sanitary condition of all the establishments, with but two exceptions, is reported good."

The writer offers no details about the conditions of the two establishments that were not sanitary in this otherwise unblemished report card, but does identify "the number of employees in some of the larger establishments," including the Lycoming Rubber Company, which is listed as having 250 males and 250 females. Many of those males and females were children, but unlike the Board of Trade's 1888 publication that shared those figures for its targeted audience, the state's new inspector either did not collect that information or the paper did not see reason to publish it.

An article published in the morning edition of the October, 12, 1904 *Daily Gazette and Bulletin* notes that, "The office of the Lycoming Rubber works will be transferred to the new two-story brick building which is now in course of erection at the corner of Rose and Erie Avenue." Lloyd's *History of Lycoming County* explains how that was accomplished: "On June 12, 1903, the lot on the corner of Erie Avenue and Rose Street, upon which St. John's Lutheran Church stood, was purchased from the congregation, the Lycoming Rubber Company agreeing to pay part of the expense of removing the church to the southeast corner of Erie Avenue and Grier Street. This property was purchased for the purpose for erecting a new office building separate from the factory. The office building was erected in the winter of 1904 and spring of 1905 and was occupied in April, 1905."[95]

An article featuring the Lycoming Rubber Company published in the *Gazette and Bulletin* on May 22, 1905 under the heading, *Some of Our Leading Manufacturers*, noted that the company now has 9 brick buildings located on 3- ½ acres and gives employment to six hundred and fifty employees. The article also described the many varieties of rubber boots and shoes the company now offered under the company's Lycoming (first quality) and Keystone (seconds) brands, including men's hip boots, lumberman's articles, school gaiters, and a fine line of tennis and yachting shoes and the famous Blucher Oxfords.

A caption at the top of the 1906 bird's eye view of the plant identifies S. N. Williams as both President and Treasurer, and Samuel P. Colt, President of United States Rubber Company, as one of the directors of Lycoming's board. As a member of the trust, Lycoming was now under contract to purchase its raw rubber from the trust.

According to Babcock's **History of the United States Rubber Company**, the trust entered into contracts with each of

94 Lloyd 460.

95 Lloyd 460-61.

the rubber companies modeled after a contract it entered into with L. Candee and Company even before the trust was formed. Under the terms of the contract, the rubber companies agreed to manufacture boots and shoes for the trust for five years at cost plus 5%, with the stipulation that the annual volume was not to exceed $500,000 at gross list prices, and to purchase all its crude rubber and other raw materials as soon as the trust was able to supply them.[96]

Babcock notes that by October of 1892, almost identical contracts were approved for the other companies involved in the trust, including the Lycoming Rubber Company of Williamsport. The trust lost no time in lining up a supplier, according to Babcock: "Immediately following execution of the cost-plus manufacturing contract with Candee, the directors of United States Rubber contracted to purchase all of its crude rubber from the New York Commercial Company, Ltd., with which Flint was associated."

According to Babcock, "The original formation of United States Rubber had as one of its stated objectives the purchase of its requirements of crude rubber at more favorable prices as the result of centralized buying. The first important step toward this goal was taken in 1894, when each company was asked to report details connected with its purchases and, by 1896, a central buying agency was established. As early as 1895, the company and its subsidiaries consumed from 7 to 10 million pounds of crude rubber annually. In 1901, their purchases of crude rubber amounted to $9,068,379. Earnings were significantly affected by the erratic changes in the price of the company's principal raw material, which at that time represented almost 50% of the total cost of manufacture."[97]

Babcock credits Samuel P. Colt, President of U. S. Rubber between May of 1901 and December of 1918 and a director of Lycoming's Board after the trust was formed, with addressing this challenge. "In 1904, the General Rubber Company, a subsidiary, was established to give United States Rubber advantages in price and a 'guarantee as to supply, not at the present time enjoyed by any other consumer in the world.' The General Rubber Company established agencies for the purpose of acquiring and trading in crude rubber at Para and Manaus on the Amazon River in Brazil, and also in London and Liverpool."

Although Babcock claims that "Flint had no official connection with the United States Rubber after 1901," the year Flint's company defaulted and declared bankruptcy on a $2.77 million obligation to deliver rubber to the trust,[98] John N. Ingham's **Biographical Dictionary of American Business Leaders** claims that: "In 1906, as treasurer of U.S. Rubber, [Flint] was sent to Brussels and negotiated with King Leopold for the entire rubber output of the Belgian Congo."[99] Ingram was incorrect about Flint being Treasurer at the time—he wasn't; but Babcock was incorrect about Flint having no official connection with United States Rubber at the time.

In the 5th installment of his memoirs "*50 Years a Trader,"* published 6 years after the meeting in the December 1912 issue of the trade journal, *Systems,* under the title, "I FIND THAT BUSINESS CAN LEAD TO KINGS AND WARS." Flint wrote: "Owing to the increased consumption of rubber and the consequential high prices, the so-called Rubber Trust decided to retain me to negotiate for the entire output of crude rubber from the Belgian Congo—which was owned by the King of the Belgians." Flint failed to strike a deal with the king. "The King had his mind fairly well made up. He suggested with the utmost suavity that my syndicate should purchase on a 5% basis—that is, to pay for the property 20 times its income. "Impossible," I answered flatly."

1909-U.S. RUBBER- A PROGRESSIVE, RATIONAL CORPORATION

On March 21, 1909, three years after Colt sent Flint to the Congo to negotiate with King Leopold on the company's behalf, *The Sun* of New York published a glowing report on the trust beneath this headline: "U.S. RUBBER- A PROGRESSIVE, RATIONAL CORPORATION, Notable Success of Present Management in Enlarging Business, Increasing Net Quick Assets While Improving Quality of Output and Reducing Selling Prices—Number of Preferred Shareholders Has Increased."

"The early years of this the twentieth century," the reporter began, "are more and more becoming known as the age of

96 Babcock 33.

97 Babcock 83.

98 Babcock 59-60.

99 John N. Ingham, *Biographical Dictionary of American Business Leaders. Vol. 1.* (Westport: Greenwood, 1983) 394-5.

maturing of immense enterprises. The latter years of the century just passed saw the inception of those, and now after a period marked by great labors and grave experiences by men of ability who have been engrossed in a study of conditions from every point of view these enormous enterprises are almost perfection in their organization. They have reached the stage where excellent returns are accruing to those who have seen years of hard brain work in guiding these corporations and good dividends to those who have invested in their stocks. No better exemplification of the thorough organization of an enormous business on lines most profitable to its investors may be seen than in the condition of the United States Rubber Company." The story went on to fill 7 entire columns of *The Sun* of New York.

On December 14, 1909, a story in the *Sun-Gazette* of Williamsport filled 3 ½ lines of a single column under this brief heading: "Rubber Works Close Down." The story was not much longer than its headline: "The Lycoming rubber works have closed down for an indefinite period owing to a large stock of manufactured goods on hand."

1910-THE LYCOMING RUBBER COMPANY CLOSES

On March 23, 1910, 3 months, a week and 2 days after the company announced its indefinite closure, the following story ran under the headline, "RUBBER COMPANY CLOSES FACTORY, Lycoming Plant of the United States Rubber Company Likely to Stop Making of Overgoods and Go Into Manufacture of Automobile Tires, it Is Said."

The reporter noted that, "Advices received in this city yesterday from the New Brunswick, N. J. headquarters of the United States Rubber Company, commonly known as the 'rubber trust,' has given rise to rumors that the Lycoming Rubber company, or branch of the combine, would not resume business after the yearly inventory on April 1. … S. N. Williams, superintendent of the local plant, when asked to confirm or deny these rumors, said that at present he was not in a position to talk but did not deny that some change was in contemplation by the United States Rubber Company."

The story ended with this note, "It is held in some quarters that the Rubber company would in the near future establish a plant in this city for the manufacture of automobile tires, but this could not be definitely confirmed from the general officers of the company last evening."

A week later, on March 30, 2010, the headline of the Williamsport *Gazette Bulletin* ran the following headline, "TRUST WILL DISMANTLE RUBBER COMPANY PLANT," and this subheading, "Notices Are Posted at the Big Factory of the Lycoming Company That the Employees Will Be Given Work at Boston---Action Goes Into Effect Immediately."

The paper reported that, "According to Samuel N. Williams, president of the Lycoming company, the work of dismantling the machinery of the Lycoming plant will begin today and continue until Friday." When asked whether the officers of the local company would "remove from this city," Williams said he could not speak for the others but he "intended to remain a resident of Williamsport."

The headline of an article published in the *Williamsport Gazette Bulletin* on April 18, 1910, offered, "ONE REASON WHY LOCAL RUBBER PLANT CLOSED," with this explanation in the headline below: "Officials of the United States Rubber Company, a Holding Corporation, May Wish to Avoid Trouble with the Government Under the Sherman Anti-Trust Law," pointing to the Standard Oil case still pending before the Supreme Court. The article also mentioned the "Announcement and rumors of the establishment of a rubber manufacturing company independent of the United States Rubber company, commonly known as the rubber trust, while welcome news to the employees of the Lycoming plant and the entire community, are rather premature."

While the Supreme Court decision may have been on the minds of President Colt and the trust's directors, that would not have been the only issue troubling them in 1910. In 1906—the year Colt sent Flint to the Congo—the activities of Brazilian and European speculators had forced the spot price of Para rubber to above $1.30 a pound. By April 1, 1910, three weeks before the trust closed the Williamsport plant, the New York price of fine Para rubber had risen to $3.00.[100]

"On May 17, 1910, in the annual report for the 1909-10 fiscal year, Colt commented that the current price of about $3 a pound was about eight to ten times the cost of producing a pound of rubber on … plantations." With Leopold's Congo

100 Babcock 85-86.

out of the picture, and the spot price for Brazilian Para rubber spiraling out of control, Colt turned his sights on Southeast Asia. According to Babcock, "Several companies had been formed in London and Holland to operate rubber plantations in Ceylon, Sumatra, Java, Borneo, and the Malay Peninsula, where tropical temperatures, abundant and regular rainfall, moderate winds, and an abundant supply of suitable labor provided favorable conditions for rubber plantations."

According to Stephen Harp's **A World History of Rubber**: "In the case of rubber, the building of new plantations in Southeast Asian colonies seemed like an effective way to meet the growing demand for rubber. In this endeavor the use of domesticated and transplanted trees would replace the harvest of 'wild rubber' and with it the abuses and 'inefficiencies' of the Congo and the Amazon concerns. The new Southeast Asian plantations would be orderly, efficient, and directly managed by Europeans who knew how to run an empire—namely British, the French and the Dutch."[101]

Harp notes that, "American firms preferred Sumatra because the Dutch encouraged international investment in order to use foreign capital to 'develop' the island. In 1910, the American rubber and tire conglomerate US Rubber took over the leases on 88,000 acres in Sumatra and controlled more than 110,000 acres in Sumatra and Malaya in 1926, and 135,000 acres in 1937. …The very size of the plantations required corporate bureaucracies that considered plantations rational and efficient, veritable oases of order in the disorderly jungle."

While the benefits of a "rational and efficient" operation were obvious to the corporations, they were less so for the communities they occupied, according to Harp*:* "Certainly, trees were exactingly spaced in perfect rows, seemingly making an efficient use of land; plantations seemed organized rationally in order to maximize production and eliminate 'waste,' and laborers were ordered about to maximize their productivity. However, we are talking here about the costs of production—and the potential for high profits—not necessarily the human costs."

Meanwhile, while Colt was in Holland negotiating a 52 year-lease on 88,000 acres of mostly uncleared Sumatran jungle, back in America, the citizens of Williamsport were contemplating the human costs of the closing of this rational and efficient operation on their community. On December 30, 1910, the *Williamsport Gazette and Bulletin* closed out the year with this headline, "HOW CAN WE BEST BOOST WILLIAMSPORT FOR THE COMING YEAR," and this caption beneath it, "This Question, Asked Numerous Citizens, Results in Most Interesting Expression of Public Opinion---'All Pull Hard and Pull Together.'" In addition to calls for joining the Board of Trade, Williamsport's citizens suggested expanding efforts to attract new manufacturers with these arguments:

> *It is a question of pocketbook with the man whether he owns his home or a business block. If Williamsport increases industrially the value of his property is appreciated. The same is true of the individual, or company, that has an investment in a merchandise establishment or factory," and this one, "It concerns the women of Williamsport, for with industrial progress comes more opportunity to enjoy socially, educationally and morally. It gives a chance to every mother and father to provide the financial sinews that will give their sons and daughters the advantages of education and the refinements of life.*

While many citizens chimed in with broad arguments in support of industry and "pulling together," many others suggested specific solutions, like this one from Hiram M. Ullman, President of Williamsport's Select council: "By having 200 men in Williamsport subscribe $1,000 each and start the Williamsport rubber factory and, says Mr. Ulman, 'I will be one of them.' Get the rubber factory doing business again as it was before the trust took it away and the balance will take care of themselves."

It's not clear whether Lycoming President and Treasurer Samuel N. Williams attended the public meeting on December 10, 1910, but it is clear that the man born and raised in a house on 4th street facing Cemetery Street two blocks south of where the Lycoming Rubber Company' factory would be constructed in 1882—the Mayor whose management skills and vision during his term in office between 1899 and 1902 reduced the City's debts, paved its streets and lit the city's neighborhoods—kept his promise, "… to remain a resident of Williamsport."

101 Harp 17.

Samuel Norris Williams, said to be "the only local boy to succeed during the lumber era,"[102]—a misleading but heartfelt attribution, since the bulk of his achievements occurred after rather than during the lumber era—died on June 5th of 1911. He was buried in a mausoleum in Wildwood Cemetery in a wooded area a few blocks north of the factory at the top of the hill overlooking the neighborhood he grew up and lived in his entire life. Local historian Samuel Dornsife is said to have quipped that William's Victorian mansion, located at West 4th and Rose Streets, one block east of his boyhood home and 2 blocks south of the factory, "was proclaimed in its day to have a $700 porch built on a $400 house." The porch must have given William's as clear a view of the factory from his home below it as his final resting place now gives visitors from the hill above it.

We may never know the exact circumstances that led S. N. Williams to sell Charles Flint a controlling interest in the rubber company he helped organize in 1892. In 1893, the following year, the nation drifted into a deep depression that originated in Argentina. Concerned that the problem might spread, European investors made a run on gold held in banks in the U.S. The run on the banks snowballed, and when it was over, 500 banks failed and 15,000 businesses followed them into receivership. The national unemployment rate in the U. S. went from 3 per cent in 1892 to 11 percent in 1893. Pennsylvania was among the hardest hit, with unemployment approaching 25%.[103] S. N. Williams must have thanked his lucky stars that he was under the umbrella of the trust that year, but it's hard to imagine he felt the same in 1911, the year he died, as the factory he built on the hill behind his home lay shuttered, indefinitely.

1912-THE LYCOMING RUBBER COMPANY'S 'PLANT NOT IN OPERATION'

The mapmaker's note at the top of sheet 67 of the 1912 Sanborn Map (see pages 7 and 8 of Continuation Sheets) indicates that the plant has not been in operation since July of 1910, but it's clear that many changes have occurred since the last Sanborn Map was published. Although the building has clearly been mothballed, the notes indicate that a "constant watchman" still checks in at time detector clocks at 15 stations throughout the plant, making his rounds at 8am to 11am, and 4 pm, and every 40 minutes from 6:30 pm to 4:30 am. Low steam pressure is kept up for heating purposes only. Power and heat are still provided by steam fueled by coal fired boilers. The engine room has been increased in size to accommodate the new 500 horsepower engine, and the firewall separating the engine room from the boiler room has been increased to 42" above the roof now.

Although the AC/DC war is over, the plants lights are also still powered by gas, but the mapmaker also notes that an independent electric plant (IEP) also provides electric power when the plant is running. The power plant is located in a small one-story addition on the south side of Building C, the Boot Making Shop. With the exception of the new Office building located on the site where the church once stood, and the smaller mostly wood frame outbuildings scattered around the site, all of the buildings are fully sprinklered now. The mapmaker notes that the system is a "Grinnell automatic wet sprinkler system," meaning the pipes are charged with water all the time, explaining why the building is also receiving minimum heat.

Grinnell's automatic sprinkler system was invented and patented by Frederick Grinnell in 1881, the year before the Lycoming Rubber Company was founded. Because of its expense, Grinnell's system was not widely used until insurance companies, led by Factory Mutual, the largest insurer of factories in its day, began advocating for automatic sprinklers to reduce their exposure to loss by fire, which in turn reduced the cost for underwriting losses for the companies they insured, which up to that time had been very high.

Grinnell's system was a marked improvement over the original sprinkler system invented by Henry Parmalee, President of a piano manufacturing company in Connecticut. Parmalee's system was a dry system that relied on a series of pipes—with holes drilled their entire length— connected to a main valve that had to be manually turned on in the event of fire. Grinnell's sprinkler system was a wet system deigned to automatically spray water from sprinkler heads spaced approximately every 9 feet along a pipe called a sprinkler main. Each head had a fusible link made of solder that melted in the event of a fire, releasing the pressurized water in the sprinkler mains.

The sprinkler heads at the Lycoming plant were spaced to cover either an 8 ft x 8ft area or a 9-2 x 9-2 area, depending

102 Robin Van Auken and Louis E. Hunsinger. *Lycoming County's Industrial Heritage*. (Charleston, SC: Arcadia, 2005) 74.

103 https://en.wikipedia.org/wiki/Panic_of_1893; 9/30/2016.

on their design, and charged with water supplied by the city from a 6" connection to the city's main at 35 to 50 pounds of pressure when the plant was running. The mapmaker also noted a 1,000-gallon tank located just west of the attached boiler house, and a 120,000-gallon cistern located under Building E, were connected to the sprinkler system by a 12" "suction water pump located in a single-story brick outbuilding attached to the west side of the boiler house.

In addition to new systems designed to protect the buildings—many people are surprised to learn that sprinklers were designed to protect buildings, not people— the 1912 Sanborn Map also shows a fire escape attached to the south side of Building A, at about the midpoint near where the elevator that appeared on the 1891 Sanborn Map was installed. And although the new 2-story Office building was noted as "Not Sprinklered," a one-story brick vault was installed on the west side of the Office building, with a tin covered sliding door to protect its contents in the event of a fire. A one-story iron passage connects the office to Building A at the location where the office was formerly located.

Building C, has been extended all the way to the west property line, and labeled for use as "storage" on the 1st floor and "shoe making above it. The basement of Building E, a new brick building located at the corner of Cemetery Street and the Alley connecting it to Allen Street, is where the new 120,000-gallon cistern is located. The first floor of Building E is labeled for use as a Box Shop, and the former wood frame box shop abutting the east side of Building E has been converted now to an un-sprinklered space for box storage.

For the first time, we also begin to see the development of a small commercial district around the factory. J.E. Gibbons Monuments now occupies a 1 ½ story wood frame structure at 517 Cemetery Street on the southwest corner of Memorial Avenue and Cemetery Street, just south of the Northern Central Railroad's 1 story wood frame flag house. Wildwood Cemetery, where S. N. Williams was recently laid to rest, is at the northern end of Cemetery Street, so it's not surprising to find a business selling tombstones located here on Cemetery Street. A one-story wood frame structure located at 515 Cemetery Street, just south of J.E. Gibbons Monuments, is identified as a "Pool Room," a business that more than likely suddenly found itself filled with unemployed workers from the recently closed factory.

As the unemployed factory workers of the shuttered Lycoming Rubber works mourned the loss of their founder and the citizens of Williamsport mourned the loss of one of their major employers, the men running the rubber trust were also trying to figure out how to deal with their own losses, as the following entry describing the United States Rubber Company in the *Gale Encyclopedia of U.S. Economic History* explains: "As the 1800s ended the rubber industry was rapidly shifting its focus to tire manufacturing for the automobile industry. But U.S. Rubber ignored the industry changes and chose to remain solely a footwear company. The new tire market turned high profits and companies competed heavily for top market shares. One of the industry's leading firms, Rubber Goods Manufacturing (RGM), saw its position in the industry gradually decline. In 1905 U.S. Rubber bought RGM as a means of entering the tire market. Immediately, the former footwear company was the top tire producer. U.S. Rubber was seen as one of the tire industry's most significant newcomers."[104]

The shift from footwear to tires was not the only change happening at US Rubber. According to Harp's world history of rubber, the shipment of concentrated liquid latex became technologically possible in the early part of the twentieth century, "so that rubber did not have to be shipped as blocks of crepe sheets or smoked balls, then masticated and reconstituted in the production process. U.S. Rubber began shipping latex as a liquid in 1913. By the early 1920's, tank cars moved latex from plantations to ports, where it could be shipped via tankers to the United States."

In November of 1912, Woodrow Wilson, a Democrat, was elected as the 28th President of the United States (1913-1921), succeeding Howard Taft, a Republican, who had been Roosevelt's hand-picked successor. Taft was nowhere near as popular as Roosevelt, and near the end of his term when Taft, who busted 70 trusts compared to Roosevelt's 40, implied that Roosevelt might have been duped by some of the bigger trusts, Roosevelt formed a new National Progressive Party, causing a split ticket in the elections that put Democrat Wilson in the White House.

Although Wilson's election represented a symbolic end to Republican progressivism, Wilson crafted his own style of progressivism. "Like Roosevelt before him, Woodrow Wilson regarded himself as the personal representative of the people. "No one but the President," he said, "seems to be expected ... to look out for the general interests of the

104 http://www.encyclopedia.com/doc/1G2-3406400983.html

country." He developed a program of progressive reform and asserted international leadership in building a new world order."[105]

1914-THE LYCOMING RUBBER COMPANY PLANT TO REOPEN

With Lycoming and the US Rubber company's local man Williams out of the picture now, and the men from Naugatuck in charge of the rubber trust working on their plan to reposition the company from a business focused mostly on footwear to a more diversified organization that included tires and other rubber goods in addition to footwear, Charles C. Krouse, President of the Williamsport Staple Company, made an independent bid to buy the shuttered factory from the United States Rubber Company and to reopen the plant at Williamsport as an "industrial incubator" with a more diverse mix of tenants than shoe making.[106]

But as Krause would quickly learn, the men from Naugatuck—with their new plantations just a few years away from producing a steady stream of easily transportable liquid latex and a new business plan with a variety of new products already on-line or under development—viewed the shuttered plant as mothballed, not closed. Although his bid for the factory failed to materialize, Krouse, now President of the Board of Trade, soon found himself in the midst of active negotiations with the men leading the United States Rubber Company to bring production back to the Williamsport plant for a new line of rubber goods.

The *Williamsport Sun Gazette* announced the news on the front page of the October 15, 1914 issue of the paper with this lengthy group of headlines: "COMPANY WILL OPEN LOCAL PLANT, General Manager Sawyer Gives President Charles C. Krouse, of the Board of Trade Assurance That Company Will Manufacture a Line of Rubber Goods Here, PLANS NOW UNDER WAY FOR THAT END, The Big Building Which Has Long Been Idle Will Once More Become a Hive of Industry and Furnish Employment to a Large Number of People."

The article described some of the new lines of hard rubber goods the company had already commenced making—telephone receivers, battery cells, combs—and other products that were still under development—rubber clothing, coverings for vehicles, etc., noting that "which of those line [sic] or a new one not disclosed will be most suitable for manufacture in Williamsport has not been determined, but in any event the industry will be a large one."
The headline in the next day's *Williamsport Sun Gazette* added this cautiously optimistic note: "CHEERING LOCAL INDUSTRIAL NEWS," followed by a brief story the reporter described as "The best piece of local industrial news that has been given to the people of Williamsport in a long, long time."

As the year drew to a close, the United States Rubber Company found itself involved in the "Great War" happening overseas, and a new opportunity and a new dilemma as a result of it. Although America did not declare war on Germany until April of 1917, the Allies fighting the war in 1915 had good reason to keep rubber supplies from reaching the Germans. In October of 1914, Britain declared rubber a contraband of war and in November placed an embargo on all shipments from British ports.

Babcock notes that: "… at the time of World War I the United States was consuming *annually* only about 60,000 long tons of crude rubber. In contrast, by June 1941, when the government restricted the use of rubber, consumption had risen to about 70,000 long tons a *month.*" So while the urgency of an embargo may not have been as crucial to America in 1915 when battles were still won on foot as it would have been during the second world war, when battles were won on wheels, it actually turned out to be a very significant issue for American manufacturers.

According to Babcock, "Prior to World War I, rubber footwear was not an item of general issue in most armies. It was not until December, 1914 that large rush orders for rubber boots and shoes for the British and French forces began to be placed with American manufacturers. During that month, the United States Rubber Company shipped footwear valued at $1.5 million to England and France. Since military equipment was not motorized to any great extant, there was no immediate upsurge in tire sales. On the contrary, tire sales during the last five months of 1914 compared unfavorably

105 https://www.whitehouse.gov/1600/presidents/woodrowwilson; downloaded 9/29/2016

106 *"Staple Company Might Get Plant"* (Gazette and Bulletin [Williamsport] 22 June 1912) 1.

with the corresponding 1913 period."[107] But it wasn't rubber boots and shoes for European soldiers overseas or rubber tires that the rubber trust had in mind for its plant in Williamsport.

1915-THE LYCOMING RUBBER COMPANY WILL MAKE TENNIS SHOES

The new year opened with promising news for the American rubber industry, according to an article that appeared the second day of the year in the *Williamsport Sun Gazette* under these headlines: "RUBBER EMBARGO MAY BE REMOVED, New Yorker Goes to England to Seek to Have Ban Lifted for United States. No Market in England."

However, the reporter of the story made clear what was at stake: "Crude rubber is selling in New York at about ninety cents a pound, while in England the price is fifty-one cents a pound, with practically no market, it is said. The normal demand for rubber in the United States during 1915 is estimated at 65,000 tons. Of this amount Brazil will be able to supply only 35,000 tons, leaving fully 30,000 tons of which must come either from Ceylon or the Malay States. Unless England lifts the embargo it is said that 250,000 employees in the rubber industry in this country will be affected as well as thousands of persons who have invested capital in rubber enterprises."

According to Babcock, "Through the efforts of a committee representing British planting and other important interests and a similar committee representing American importers and manufacturers, arrangements were made so that plantation rubber could again be exported to the United States."[108] Although the embargo was lifted later that month, news on progress at the Lycoming plant would not arrive until November 22, when the *Williamsport Sun Gazette* reported that "Official of the United States Rubber Co. en Route, WILL MEET FORMER EMPLOYEES, And Go Over Plans for Reopening Big Factory at as Early Date as Possible." The story noted that:

> *Charles C. Krouse, president of the Williamsport Board of Trade, announced on Saturday that he had received a letter from M. H. Clark, of New York city, manager of factories for the United States Rubber company and assistant to Homer E. Sawyer, vice president of the company, stating that Mr. Clark will be in Williamsport some day this week to hold a conference with former employees of the Rubber company to go over plans for the rehabilitation of the big building so long empty.*
>
> *Mr. Clark said he wished to get things shaped up so that the plant may be running as quickly as possible and to that end it is very probable that all the former employees resident in Williamsport will be notified when he arrives and meet him. The plant is being gone over, the machinery cleaned and put in first class shape and everything prepared so that when the order is given to start there will be no delays. While Mr. Clark did not state to Mr. Krouse just when it is hoped to have the plant in operation, it is believed that the works will be started within ten days, possibly within a week.*

Although no information had been shared regarding just what the factory would produce, a news brief in the December 1, 1915 issue of trade publication *The Commercial Vehicle* mentioned that minor repairs were being made to the plant "which will be ready for occupation before January 1. It is understood that the company intends to use the Williamsport plant as an overflow factory." Two weeks later, on December 13, 1915, the Williamsport Sun Gazette reported that, "Representatives of the United States Rubber Company Coming Today and New Machines Coming Also" under the headline, "WILL ARRIVE TODAY AND ARRANGE TO OPEN PLANT." The "Announcement was made on Saturday that E. W. Rutherford, assistant to M. H. Clark, general manager of the footwear factories of the United Rubber company [sic], will arrive in Williamsport this morning to go over the local plant and arrange for the complete starting up of the industry here. It was stated at this time that the plant will really begin active operations this week."

News describing what the new machines would be making came in the next paragraph: "The machines for sewing the uppers of tennis shoes, which had been held up in shipment from New York, will arrive either today or tomorrow and with their arrival the other machines of the plant, which were held up also because of the delay, will be able to go ahead. At least 25 will be employed at once and it will undoubtedly mean the taking on of more help each week. At present only the tops of tennis shoes will be made in this city." According to Lloyd's **History of Lycoming County**,

107 Babcock 139.

108 Babcock 139.

the Lycoming Rubber Company's stitching department resumed operations on December 15, with "four operators being employed and 400 tennis tops sewed complete. The force was then increased and 3,500 pairs per day were sewed."[109]

1916-THE LYCOMING RUBBER COMPANY'S TENNIS SHOES WILL BE "KEDS"

"In March, 1916," according to Lloyd, "it was decided to manufacture Champion Keds at Williamsport and on March 14, 1916, the mill room was started and the first ticket of Champion Keds was made March 16, 1916,".[110]
But *Keds* was not the company's first choice of a name for their new line of tennis shoes. The company's first choice for its new line of shoes to be manufactured at the Williamsport plant of the United States Rubber Company was actually *Peds*, Latin for foot.

According to Babcock's history of the United States Rubber Company,

> *R. W. Ashcroft, who had recently been placed in charge of United States Rubber's advertising and publicity, said that after examining about 300 names suggested by the advertising agency or by company employees, he submitted ten names to the operating council, and they chose Peds. Ashcroft proposed to have the legal department institute a search to see if there were any conflicting registrations, but was informed by the operating council that such a search was unnecessary since they would buy out any conflicting registrations. He was told to prepare advertising copy, and, at the same time, instructions were given for processing the necessary labels, dies and so forth.*
>
> *About a month later, according to Ashcroft, the legal department reported several conflicting registrations; not all the owners could be bought out, and some undoubtedly would contest any use of Peds by United States Rubber. Ashcroft was then asked to recommend an alternative name and two were submitted—Keds and Veds. Some objected that neither of these words meant anything, but Kodak was cited as an example of a coined word which had become a valuable trademark. The operating council according to Ashcroft's memorandum, 'very reluctantly …. decided to make the best of a bad job and adopted the name Keds.'*

The Keds that most people are familiar with today, 100 years after their production began, did not look anything like the Keds that were being manufactured at the Lycoming plant in 1916, as the 1918 advertisement in Figure x suggests. According to *Alyssa Shirley Morein, author of the following* April 9, 2015 post on *the website for the American Textile History Museum, an affiliate of the Smithsonian Institution*:

> *The "pamphlet from the company, titled "Keds' Sporting and Outing Shoes," published two years after the birth of the brand, … pictures styles that may be surprising to viewers of today. With innovative canvas tops and rubber soles, the company brought a new level of comfort and practicality to the popular shoe styles of the era, and as this pamphlet shows, sold a variety of styles to suit different genders, occasions, and budgets. And sell Keds did. The boosterish language of this pamphlet, which was intended for distribution to retailers, conveys the company's well-founded optimism about its new line: 'First from the start and first ever since! That is the story of Keds, the most popular hot-weather shoe in the world…. The success of Keds is truly sensational. Demand has each year outstripped supply, despite increased manufacturing facilities. We are therefore making preparations for 1918-19 on the largest possible scale… the 1918-19 Keds season promises to smash all records.'"*

109 Lloyd, pg. 461; Lloyd actually sets this date in 1916, but based on the context, it is more likely that the date is a typographical error, and was meant to be 1915.

110 Lloyd, pg. 461

United States Rubber Co. Keds: sporting & outing shoes. Des Moines, Iowa: United States Rubber Co., 1918. Accn. #2009.93.1.

Morein's post also explained why Keds became so popular in the early part of the century:

> *A number of elements came into play to create demand for Keds and other "plimsoll" styles of shoe, which with their breathable, lightweight canvas material and flexible soles were first adopted as beach or hot-weather shoes. At the start of the 20th century, Americans were enjoying increased leisure time, thanks to multiple factors. For instance, home appliance innovations such as washing machines freed people from time-consuming domestic chores, and new labor laws curtailed working hours for both adults and children. It followed, therefore, that more time for recreational activity meant more demand for leisure wear. A match of badminton, or a family picnic outing at the beach or park—such things called for lightweight, breathable footwear with non-slip soles.*

With its trial run successfully completed, the United States Rubber Company ramped up preparations for manufacturing Keds at the Lycoming plant by running ads for women interested in learning how to make rubber shoes, like this one that ran on August 15 in the *Williamsport Gazette Bulletin*:

150 WOMEN WANTED
At the
Lycoming Rubber Co.
Williamsport, Pa.
To learn Rubber Shoemaking.
Paid while learning the trade.
Steady work, good wages.
Bonus for attendance and
Production.
APPLY AT ONCE

An article published in the *Williamsport Gazette Bulletin* on November 27th ran under this headline, "10 PER CENT INCREASE IN WAGES MADE, Lycoming Rubber Co. Announced Voluntary Raise to All Employees, WILL HELP THEM OVER PRESENT STRENUOUS TIMES, Last Week's Output Exceeded Ten Thousand Pairs of Rubber Shoes Daily and Output is Growing."

According to the article, "[An]announcement was made on Saturday by officials of the United States Rubber company, that in the local plant at Erie Avenue and Rose Street, there will be effective today, a general increase for all employees

of ten percent. H. S. Marner general manager of the plant was seen by a representative of the Gazette and Bulletin and when asked for the cause of the increase said it is due to the abnormal prices of everything today. In other words, the United States Rubber Company has realized, as have many other plants all over the country that workers must pay such tremendous prices for everything they wear or use, that it is necessary for them to have more money with which to purchase."

The new plant manager's explanation for the raise sounds a bit like the much-publicized raise Henry Ford offered employees of his new automobile factory in Highland Park two years earlier. The popular version of that story is that Henry Ford doubled worker's wages to $5.00 a day so his employees could "afford to buy a Ford." Not surprisingly, the story landed on the front page of most major newspapers the next day, January 5, 1914, accompanied by photos showing literally thousands of people lined up on the sidewalk outside the factory applying for work. As is often the case though, the popular explanation of the raise is more legend than fact. First, it was the plant manager, not Ford, who actually suggested the raise, and second, Henry Ford even objected to the raise when his manager first suggested it.

According to the *Henry Ford 150th Anniversary* website, when Henry Ford introduced his moving assembly line at his new Highland Park plant in 1913, workers hated it and quit as quickly as the company trained them. So when the company announced it would double worker's pay and shorten the workday for most workers from $2.34 for nine hours to $5.00 for eight hours, manufacturers said it "was crazy and socialist, and would cost Ford 10 million dollars that year alone! But the very next day, 10,000 people flocked to Highland Park clamoring for jobs, and turnover dropped drastically."[111]

Ford's industrial historians also note that the raise actually was half pay and half bonus tied to Ford's paternalistic ideas about living life the "American way," which included classes for immigrants to learn how to speak English, and pledges to avoid vices like drinking and gambling. Ford's "Socialization Organization" even ordered periodic home inspections to make sure employees kept their part of the bargain. Along with Ford's innovation of the moveable assembly line, the company's use of specialized equipment that increased the speed of production and the higher wages paid to workers trained to operate them eventually became part of the corporate philosophy of efficient production industrial engineers called Fordism.

The Model T company's founder never called it Fordism though. In fact, Ford was always quick to credit Frederick Winslow Taylor's "time-and -motion study" approach to scientific management as the inspiration for his ideas about efficiency and mass production. Most industrial historians also credit Taylor, rather than Ford, as the father of the scientific management process that characterized the changes taking place in industry in the United States during the Long Progressive Era.

Trained as a mechanical engineer, Taylor calculated the time it took workers to complete a job by watching several workers perform the same task, taking care to keep accurate records of which workers and methods were the most effective and efficient. In addition to reaching the conclusion that there was a "single right way to perform a task," Taylor also surmised that certain people were more suited than others to perform certain tasks. Taylor reported the results of his "time and motion" studies in 1909 in a publication called "*The Principles of Scientific Management*."

The four main principles of "Taylorism" as it came to be known, are:

1. Replace working by "rule of thumb," simple habit and common sense with scientific method to arrive at the "single best solution;"
2. Match workers to their jobs based on capability and motivation for that job;
3. Monitor worker's performance to provide guidance on how to improve efficiency of time and motion; and
4. Allocate work between managers and workers so each of them becomes more efficient at their tasks.

The French nobleman Alexis de Tocqueville actually foresaw this division between managers and workers emerging—he called it a "manufacturing aristocracy"—as a natural consequence of the forces of capitalism he observed during his 9-month journey across America in 1832 to assess the pros and cons of the nation's fledgling democracy in the context of his own nation's struggle toward freedom and equality. In chapter 34. of Richard D. Heffner's 1956 English

111 "The $5 Day | Henry Ford 150." Henry Ford 150. Ford Motor Company, n.d. Web. 01 Oct. 2016.

translation of the Frenchman's journal, **Democracy in America,** titled, "*How an Aristocracy May Be Created by Manufacturers,"* the young yet prescient nobleman (he was only 27 at the time) wrote that: "I have shown how democracy favors the growth of manufactures, and increases without limit the numbers of the manufacturing classes: we shall now see by what side-road manufacturers may possibly, in their turn, bring men back to aristocracy."

Tocqueville acknowledged that, "when a workman is engaged every day upon the same details, the whole community is produced with greater ease, promptitude, and economy. It is likewise acknowledged, that the cost of production of manufactured goods is diminished by the extent of the establishment in which they are made, and by the amount of capital employed or of credit." But Tocqueville also worried about the kind of men such a system would produce, and how that might impact the nation's future prospects for an egalitarian society. Tocqueville observed that: "When a workman is unceasingly and exclusively engaged in the fabrication of one thing, he ultimately does his work with singular dexterity; but, at the same time, he loses the general faculty of applying his mind to the direction of the work. He every day becomes more adroit and less industrious; so that it may be said of him, that, in proportion as the workman improves, the man is degraded."

And in an apparent reference to Adam Smith's 1776 treatise on capitalism, **An Inquiry into the Nature and Causes of the Wealth of Nations,** where Smith uses the example of a pin factory to explain the efficiency that results from the division of labor and specialization, Tocqueville wondered: "What can be expected of a man who has spent twenty years of his life in making heads of pins? And to what can the mighty human intelligence, which has so often stirred the world, be applied to him, except it be to investigate the best method of making pins' heads? When a workman has spent a considerable portion of his existence in this manner, his thoughts are forever set upon the object of his daily toil; his body has contracted certain fixed habits, which it can never shake off: in a word, he no longer belongs to himself, but to the calling which he has chosen."

In contrast to the citizens of Williamsport who believed that, "with industrial progress comes more opportunity to enjoy socially, educationally and morally. It gives a chance to every mother and father to provide the financial sinews that will give their sons and daughters the advantages of education and the refinements of life," Tocqueville worried that, "a theory of manufactures more powerful than manners and laws binds him to a craft, and frequently to a spot, which he cannot leave: it assigns to him a certain place in society, beyond which he cannot go: in the midst of universal movement, it has rendered him stationary."

But for the manager engaged in this "theory of manufactures more powerful than manners and laws," Tocqueville saw a very different future: "On the other hand, in proportion as it becomes more manifest that the productions of manufactures are by so much the cheaper and better as the manufacturer is larger, and the amount of capital employed more considerably, wealthy and educated men come forward to embark in manufactures, which were heretofore abandoned to poor or ignorant handicraftsmen. The magnitude of the efforts required, and the importance of the results to be obtained, attract them. Thus, at the very time at which the science of manufactures lowers the class of workmen, it raises the class of masters."

It was as if Tocqueville had visited Williamsport in 1882, when S. N. Williams assembled his team of local investors to form the Lycoming Rubber Company, and again a decade later, when Charles Flint assembled his board for the rubber trust, when he wrote the previous paragraph and then offered the following observation: "The master and the workmen have then here no similarity, and their differences increase every day. They are only connected as the two rings at the extremities of a long chain. Each of them fills the station which is made for him, and which he does not leave: the one is continually, closely, and necessarily dependent on the other, and seems as much born to obey, as that other is to command. What is this but aristocracy."

Tocqueville even foresaw the emergence of a consumer society as a result of the lowering of costs for goods that would result from the efficiencies inherent in mass production, and how that would draw men of opulence, like Flint, into the industry, and eventually leave other men of lesser means and knowledge, like Williams, behind: "As the conditions of men constituting the nation become more and more equal, the demand for manufactured commodities becomes more general and extensive; and the cheapness which places these objects within the reach of slender fortunes becomes a great element of success. Hence, there are every day more men of great opulence and education who devote their wealth and knowledge to manufactures; and who seek, by opening large establishments, and by strict division of labor, to meet

the fresh demands which are made on all sides. Thus in proportion as the mass of the nation turns to democracy, that particular class which is engaged in manufactures becomes more aristocratic. …Hence it would appear, on searching to the bottom, that aristocracy should naturally spring out of the bosom of democracy."

Tocqueville nears the end of his essay on a gloomy but prescient note, not just for his times, or the Lycoming Rubber Company's times, but for our times and for all times: "The territorial aristocracy of former ages [e.g. the French or British aristocracy] was either bound by law, or thought itself bound by usage, to come to the relief of its serving-men, and to succor their distresses. But the manufacturing aristocracy of our age first impoverishes [not necessarily economically, but in the manner he speaks of earlier] and debases the men who serve it, and then abandons them to be supported by the charity of the public. This is a natural consequence of what has been said before. Between the workman and the master there are frequent relations, but no real association. I am of the opinion, upon the whole, that the manufacturing aristocracy which is growing up under our eyes is one of the harshest which ever existed in the world; but at the same time, it is one of the most confined and least dangerous. Nevertheless, the friends of democracy should keep their eyes anxiously fixed in this direction; for if ever a permanent inequality of conditions and aristocracy again penetrate the world, it may be predicted that this is the gate by which they will enter."

The November 27 *Bulletin Gazette* article describing the pay raise offered by the Lycoming Rubber Company's new "manufacturing aristocracy" ended with these few sentences, leaving little doubt that the raise that was being offered for a limited duration was as much about attracting new highly skilled workers and retaining the employees already working under enormous pressure to increase production on the new special purpose machines—a message whose meaning seemed lost on the writer of the story and perhaps the employees—as it was about a cost of living adjustment: "The increase is made effective only until September 1, 1917. More than 600 men, women and girls are affected by the raise and the employees were more than pleased with the evidence of interest in their condition shown by the company officials. Mr. Marner said the plant is daily increasing its output and last week the figure was considerably in excess of the 10,000 pairs of rubber shoes daily. This week he added, it is planned and hoped to put the figure up to and above 11,000. The work on the addition is progressing rapidly, and when it is completed many more hands will be employed."

Looking again at the December 13th 1915 story and the advertisement that ran eight months later in the *Williamsport Bulletin Gazette*, the company had just invested a considerable amount of money installing specialized "machines for sewing the uppers of tennis shoes, which had been held up in shipment from New York," with workers earning "good wages… paid while learning the trade." And like Ford's raise, Lycoming's offer was incentivized with bonuses "for attendance and production."

By 1916, Williamsport had to a large degree successfully transitioned from a single industry lumber town that had relied to a great extent on a pool of rough and tumble laborers, many of them brought in from the farm to work part-time during the winter months, to a "progressive" and diversified manufacturing "metropolis" of "scientifically managed corporations" that increasingly depended on a limited pool of highly skilled workers trained to run very expensive highly specialized machinery on a full time basis at high levels of production.

Although some of the women workers now sewing Keds at Lycoming may have been employed in the rubber factory before it closed 4 years earlier, many of them also would have moved on to other jobs by 1915. In fact, the only companies mentioned in the 1902 factory inspector's report for the Williamsport region with more women workers than the 250 females employed at the Lycoming Rubber Company were the Lycoming Pants Company, with 550 females, and the Stearns Silk Mill, with 600 employed female workers. (Of the 188 employees manufacturing sewing machines at the Demorest Factory in 1902, only 7 were females.)

The United States Rubber Company had good reason to worry about losing workers it has just invested its money training. Like the machinery they were trained on, the skilled workers of the Lycoming Rubber Company were now a valuable asset of the factory. In the language of the scientifically managed "rational factory," it was as if the seamstresses working at the Lycoming Rubber Company were now part of the machinery of the factory itself. "On the fifth day of December, 1916," according to Lloyd's history of the Lycoming Rubber company, "a contract was let for the erection of a new manufacturing building 200 feet long by 60 feet wide, five stories high, work to begin at once." Lycoming's new factory would be a reflection of its times; a physical manifestation of Taylorism and Fordism

embodied in a structure that had crossed over Piore and Sabel's First Industrial Divide. It would be a very modern building, and a very modern factory, designed and operated in a very modern, very rational way.

1917-THE LYCOMING RUBBER COMPANY BUILDS A MODERN AMERICAN INDUSTRIAL PLANT AS AMERICA GOES TO WAR

According to Lloyd, "The first portion of the new building for the rubber factory, about 110 feet, was completed and occupied February 15, 1917. An addition to this building 250 feet long and 60 feet wide was built, making the total length of the building 450 feet and five stories high. A new vulcanizing building was erected 120 feet long and 70 feet wide, two stories high, equipped with eight pressure vulcanizers, also the following: 'H' extension, 40 feet long, 50 feet wide, three stories high; building "C" 176 feet long, 60 feet wide, five stories; another 20 feet long, 60 feet wide, five stories; [power] plant, 87 feet long, 87 feet wide, one story high, chimney 8 x 175 feet high. The power plant houses four 250 horsepower boilers. The above new buildings, together with the original building, give approximately 310,000 feet of floor space."

Designed for the United States Rubber Company by the architectural firm of Lockwood Greene & Co. Engineers, of Boston, the building was a summation of much that had learned since the firm designed its first cotton mill in 1832 to become one of the most diversified and sought after operators and designers of mills and factories in the world by 1917, the year construction commenced at United States Rubber Company's rubber plant in Williamsport. The company's co-founder, Stephen Greene, was the engineer in charge of the Columbia Water Company's electrification of the Columbia Mills, the first company to use an electric motor in the manufacturing department of a textile mill. A caption at the bottom of a photo documenting the historic moment read: "Risking their reputation and fortune on a new and untried method of textile mill operation, these pioneer operators had the courage and optimism to approve a contract for electrification of the mill for which they were responsible. " [112] Lockwood Greene, as it became known, was also the designer of the first steam plant to drive a mill electrically, at Clinton, Massachusetts.[113]

According to Samuel B. Lincoln's book, **Lockwood Greene**, *The History of an Engineering Business, 1832-1958*, the company experienced an extraordinary growth in fees from $298,317 in 1916 to $3,503,812 in 1920 attributable to the postwar boom that resulted in a rapid rise in prices, a rapid increase in branch offices to service that growth, the use of a manager-engineer type of contract, and "a record breaking expansion in the textile industry, and by the United States Rubber Company."[114]

Lincoln notes that, "manufacturing activity was stepped up in almost all types of plants" after the United States declared war on Germany." In Boston there was work for U. S. Rubber continuing in large volume, with thirteen separate commissions involving new buildings at their many plants, seven of which were in New England, four in Pennsylvania and one each in Ohio and Illinois.[115] In fact, U. S. Rubber was so important to the firm that they sent Roland Thayer, a senior executive from their branch office in Atlanta, to exclusively manage all of U.S. Rubber's work in their Boston headquarters.

"[Thayer] supervised the design and construction of numerous large manufacturing plants and extensions, including buildings, etc. at Naugatuck, Malden, Hartford, Williamsport (Pennsylvania), providence, Bristol (Rhode Island), Passaic, Chelsea, Woonsocket, Chicago, Detroit, Indianapolis, and later, Cleveland."[116] The factory at Williamsport not only benefited from the company's long history of designing mill buildings, it also benefited from Thayer's concentrated efforts to coordinate and establish standards for all the facilities under the United States Rubber Company's control.

Prior to moving to Boston, "…Thayer was a district engineer of the Southern office at Greenville and Atlanta." After moving to Boston in 1914 to head the company's work for U.S. Rubber, Thayer was also Director of the Engineers'

112 Lincoln 136-7.

113 Lockwood & Greene, *Building with Foresight*, (New York: Lockwood, Green &, Engineers, 1918) 8.

114 Samuel Bicknell Lincoln *The Lockwood Greene Story: One Hundred Fifty Years of Engineering Progress*, (Spartanburg, SC: Lockwood Greene, 1986). 445.

115 Lincoln 410.

116 Lincoln pg. 247

subsidiary company from its formation in 1916 until 1926, and as a Director in Lockwood Greene Engineers, Inc." [117]

1906 "…marked a preponderance of jobs in non-textile fields," for Lockwood Greene, according to Lincoln. "The firm met the challenge with vigor and imagination. Most noted by all branches of industry was the design for the fifteen-acre plant of the Pierce-Arrow Motor Car Company, built for the George N. Pierce Company at Buffalo, New York. It started in 1906, and expanded continuously over the next several years until it was finally completed about 1910 or 1911."

The building was designed by Albert Kahn—the architect who would become famous for Ford's Highland Park plant—in association with Lockwood Greene, consulting engineers. "With the Geo. N. Pierce plant ,… Kahn began to master the modernization of building for industry brought about by engineers and to respond to their aesthetic ideals. This project capitalized on the concept of the integrated production plant based on an organic plan and buildings designed for specific functions. …The Pierce plant was also a relatively early use of reinforced concrete construction." [118]

The plant set a new standard for factories, according to Lincoln. "Handled entirely for Lockwood Greene by Frank Reynolds [of the Boston headquarters, which at this time handled 2/3^{rds} of the company's total volume of work [119]], this new plant—on a new site replacing all older facilities—was fireproof throughout, all built of reinforced concrete, with attractive exteriors and consistency of design. At the time of its completion the Pierce Arrow plant was a show place and one of the best in the industry. Detroit automobile plants had nothing better than this, and most of them were not nearly so good. Built at a time when reinforced concrete factory buildings were just coming into use, it was well ahead of the times and a credit to Lockwood Greene. It enhanced the firm's reputation as designers of modern industrial buildings of reinforced concrete."[120]

In 1910, the firm designed the Maverick Cotton Mills of east Boston, the first textile mill erected entirely of reinforced concrete.[121] By 1917, when Lockwood Greene's Williamsport plant for the United Sates Rubber Company was under construction, the company became so well known for its work in reinforced concrete that they published a booklet, titled, *Industrial Buildings of Concrete.* Lincoln pg. 414. A year later, the company published a brochure titled *Building with Foresight*. The introduction to the handsome booklet presents the company as "architects and engineers whose leadership in the industrial field has come through this very knowledge—a knowledge of technical requirements, and of commercial, financial and general business conditions acquired by actual contact."

Page 29 of the firm's 1918 brochure (see page 33 of Continuation Sheets) features a watercolor illustration of the new "Lycoming Rubber Co., Rubber Manufacturers, Williamsport, PA," and describes the building as: "One of a group of mills belonging to the United States Rubber Company. Our work consisted in enlarging an existing plant in a manner to provide for present requirements and future development. Beginning with the idea of a relatively small expenditure, the management later developed a plant of large dimension, successfully following the plan developed from the beginning by Lockwood, Greene & Co."

The Works' Betsy Hunter Bradley notes that, "Around 1900 several architects began to be recognized as specialists in the design of industrial buildings. The American Architect noted in 1911 that no longer than a decade earlier, less than 10 per cent of manufacturing buildings were designed by architects. But the balance had shifted, and few industrial buildings were erected without the involvement of an architect. This change was attributed to evidence that the highest grades of goods were manufactured where the health and comfort of employees were given attention in architect-designed buildings."[122]

On February 3, 1917, the headline read, "Rubber Company Officials Pleased With Local Plant. According to the story, "Following a visit to the local plant of the United States Rubber Company yesterday by prominent officials, an

117 Lincoln 164.

118 Bradley 245.

119 Lincoln pg. 407

120 Lincoln 254 & 261.

121 Bradley 159.

122 Bradley 24.

announcement was made by C. R. Haynes, the general manager, that the big company will shortly erect another new building here, a vulcanizing department, two stories in height and 65 by 120 feet in size.[123] This will be an important addition and will undoubtedly mean the start of several big operations for the local plant. The new building will be located on Rose Street, north of the building now occupied by the packing department."

On, February 16, the *Williamsport Gazette Bulletin* ran the following headline: PLANT MADE 15,845 PAIRS RUBBER SHOES; Establishing New Record for One Day's Output—Pushing for 16,000 Mark; LYCOMING RUBBER WORKS BIGGER THAN EVER BEFORE; Gave Bonus to Each Foreman in First Pay Envelope After the 15,000 Pairs Per Day Was Reached.

It is also clear from the headline and the text of the story that employees are being driven hard—and foremen being rewarded—to achieve production goals—"pushing for the 16,000 mark"—even as new specialized machinery is being added to the plant. For example, the text under the caption, "New Die Cutters, Five new die cutting machines, machines which were recently received in this city, have been installed and began operations yesterday" indicates that work in the cutting room floor has now been automated; and that, "The cutting room has been working nights to keep up with the tremendous rush. Even now the mill room must continue to work nights to keep even. The new spreader department is working finely and everything is running smoothly just now."

A month later, on April 6, 1917, America declared war on Germany after German subs sank a half dozen American ships sending goods to Britain— the extent of American efforts to help the Allies isolationist president Woodrow Wilson would permit up to this time. Less than a week later, on April 11, the headline of the *Williamsport Gazette Bulletin* announced: EMPLOY 3,000 BY MAY 1918 IS THE MARK; Which United States Rubber Company Has Set for Its Williamsport Plant, MORE THAN DOUBLE THE PRESENT NUMBER EMPLOYED; Board of Trades' Housing Plan on Old Wilson Farm Had Much to Do With Arriving at Decision.

The reporter noted that, "It is the purpose of the company to build a new building as soon as the one now under construction is completed and to follow that with still another until all the land it owns is covered with buildings. When this is done the Williamsport plant will be the largest boot and shoe plant of the United States Rubber Company. The present output of the plant is 20,000 pairs of shoes per day, but a year from today it will be 50,000 pairs per day."

The reporter also included the full text of this letter to the Board of Trade's President Charles Krouse from C. R. Haynes of the rubber trust:

> *As a representative of the Lycoming Rubber Co., I want to express the pleasure that we all feel after seeing the prospectus regarding Sawyerville, and realizing that at least the housing facilities at Williamsport are to be greatly improved. The Lycoming Rubber Company is beginning to find that most of the available labor in the city has been employed and there is not a sufficient number of men and women to draw from to increase the production to any remarkable extent in the future without competing directly with other factories or lines of industry. This, of course, would not be conducive to the best interests of Williamsport, and it is this condition that Sawyerville will undoubtedly meet and overcome.*
>
> *We are employing about 1,100 people at the Lycoming Rubber company, of which, roughly 700 are women and 400 are men, and we shall be able, when the buildings now in process of construction, and those contemplated are completed, to give work to about 3,000 employees, of which we would prefer 1,600 to 1,800 women and 1,200 to 1,400 men. We estimate that we shall be able to give work to this number by May, 1918 and are prepared to build up uniformly from now until then.*
>
> *It will, obviously, be necessary to push this development work on your land and houses at the utmost pace, consistent with reasonable economy in order to attract the families from neighboring towns to Williamsport in time for the needs of the Lycoming Rubber company.*
>
> *Very Truly Yours*

123 This building remains intact on site, and is now used as a café on the ground floor, and as a banquet room, events space and commercial community kitchen on the second floor.

C. R. Haynes

In a statement prepared in response to the letter, Krouse reported that he had been contacted by the trust a few weeks earlier, "…for the purpose of considering with them the extent to which the plant of the Lycoming Rubber company could be safely expanded. The question was whether plant additions should be made in Williamsport or elsewhere, and I was informed that decision would rest largely upon my judgement as to what Williamsport people would do through the agency of the Board of Trade toward supplying the houses necessary for a larger population. This feature of growth was considered all-important, as the United States Rubber company fully realize that without some concerted movement toward the building of suitable houses, with active interest of all citizens back of it, they could not depend upon any large increase above their present working force."

Krouse acknowledged that he "assumed the responsibility of speaking for the Board of Trade, and for Williamsport people generally. The officials were generous enough to say that they would accept my judgement as a basis for their decision. As a consequence, the company has decided to erect additional buildings and to uniformly increase its working force with the expectation that within one year their total working force will not be less than three thousand people." Krouse then added, perhaps to head off any criticism of his obliging the city to construct the housing, that "Merely as an intimation of the need for capitalization of a realty company as proposed, I can state that there are definite prospects, cautioned upon housing facilities, of locating in Williamsport two or three additional large manufacturing plants which will employ between 2,000 and 3,000 more men."

Less than three weeks later, a lengthy article describing the new rubber works appeared in the May 2nd edition of the *Williamsport Gazette Bulletin*, under the headline: "Magnetic Clutch Being Installed in Rubber Works; Entire Plant Can Be Shut Down From Any Machine in Case of Accident—Trip to One of City's Leading Industries." Worker's safety, as the headline suggests, was certainly an important feature in the new factory, but the even broader subject of "the personal equation," as the writer of this story calls it, was not just one of the "fundamental and pertinent matters" that managers and administrators of the "average Modern American industrial plant" must take into consideration in addition to "mechanical perfection" and "systematized procedures of business," it was now considered by many to be the most important factor of factory management.

In the few years that had elapsed now since Henry Ford's much publicized factory at Highland Park promoted widespread interest in the principles underlying Fordism, industrialists and their teams of architects and engineers were also struggling to come up with solutions to the problem of how to keep new workers from leaving—now the dominant "labor problem"—after the company's invested increasingly large sums of money to train workers on increasingly expensive, increasingly specialized machinery designed to increase the speed of production; all this in the interest of lowering costs to a steadily increasing number of consumers.

At the same time industrialists were trying to figure out how to retain workers in an increasingly competitive marketplace, the work of social reformers—like Upton Sinclair, whose 1906 book, **The Jungle**, exposed the harsh conditions surrounding immigrant factory workers in Chicago's stockyards, where assembly line production was invented— added an entirely different layer of urgency to the concern about the human factor, but from the workers point of view. "Industrial engineers," which by this time had become an established profession, and later "social secretaries," a subset of that profession that evolved out of the concern for worker conditions, were experimenting with a variety of ways to address both of these concerns under a philosophy that generally became known as "industrial betterment" or "capitalist welfare."

Rational Factory's Lindy Biggs' notes that the betterment movement, "attracted a surprising mix of supporters, from liberal reformers to industrial engineers and factory owners. Though most scholarly attention has been paid to the welfare capitalism of the 1920's, it was the early part of the movement that addressed the human machine. Welfare work, as it began in the late nineteenth century, resembled the paternalism of the earlier part of the century in which the company regarded workers as symbolic children who needed to be watched over. Companies offered, or sometimes required employees to use, company housing, schooling, churches, and other extrafactory services. Much of the paternalistic attitude remained in later welfare programs."[124]

124 Biggs 64.

Biggs cites George Pullman's "model company town" as an example of the earlier kind of industrial welfare work: "These towns were built by industrialists who believed that the proper social and physical environment would encourage the kind of personal and moral development that made for loyal, hard-working employees. Pullman's experiment, begun in 1881 and steeped in rigid, old-fashioned paternalism that dictated all behavior in the town (workers could not own their homes, no alcohol was allowed, and the company planned everything down to the gardens) resulted in dramatic failure.[125] In 1894 his workers staged a strike of such magnitude that it shook the nation."[126]

On the other hand, Biggs says, "Factory welfare work, as promoted and practiced by the engineers, centered on the seemingly conflicting ideas that the worker was a cog in the great machine but also had to be treated as a human being. Welfare secretaries [sometimes referred to as social secretaries] also used the 'oiling the machine' metaphor—welfare was to the worker what oil was to the machine. If he or she could be made happier, more fit (physically, intellectually, and morally), and more secure, the company could expect greater productivity, less labor unrest, lower turnover, and better all-around labor-management relations."[127]

With this background in mind, it is helpful to revisit the May 2, 1917 article describing the Lycoming Rubber Company's new "Modern American industrial plant." The tour the writer provides the reader is reminiscent of the tour the imaginary visitor of Herdic's "rubber works" received at the onset of the rubber industry in Williamsport. Although it's clear from the writer's account that much has changed in industry and the world in general since 1874, it's also clear from its opening lines that the writer of this story is as enamored of his subject and as anxious to present a positive outlook on this Modern American industrial plant rising above the rooftops of the surrounding neighborhood as the tourguide of Herdic's plant was in his day:

> *At the present time, the visitor must of necessity take away certain vivid and lasting impressions of the conditions that exist within the buildings and of the personnel of the men and women who are working there. After the hum of machinery has faded out of conscious remembrance, after the various strange and pungent odors and perfumes peculiar in the special products being worked in the various departments no longer linger in the nostrils of memory, there remain, distinct and vivid, the impressions of industry, progressiveness, humanness, broad-minded managements regard for personal comfort of employer and employee, happiness, and last but not least–patriotism.*

Under the heading, *Thousands of Flags*, the writer reminds us that the country is at war: "A glance at the thousands of flags pendent from machines, walls, rafters, window sills, and every place that is prominent and available, and the presence of many more banners of the national colors displayed on the windows without, attest fully and splendidly the fact that there spirit and the essence of patriotism holds full sway in the minds and hearts of the workers in this the foremost industry of its kind in the city of Williamsport."

The reporter returns to the theme of the story's headline, under the caption: "Protection of Operators- Protection of those who operate machinery is one of the first considerations in the modern industrial plant. In this connection the rubber works is installing one of the finest and most efficient devices of this kind known. It is what is known as the 'magnetic clutch.'" After noting that the clutch will be installed Saturday, "as the installation will require closing down the plant for at least one whole day," the writer describes the magnetic clutch as "a device which is fitted onto the shafting which runs from the fly wheels of the engine to the main driving gears of the mills without. It is operated by electricity, and as soon as the circuit is established, the magnet operates to throw out of gear the shafting connected with the engine. This, of course, causes the instant stopping of all the machinery in the plant because of the heavy load which is at all times opposing the driving power of the engine. In short, the operation of the magnet causes all machines to stop instantly."

125 Surprisingly, Ford would repeat Pullman's folly in 1928, when the auto maker built a town for 10,000 workers in the Para region of Brazil for the purpose of producing rubber for tires as part of Ford's ambitious plan to vertically integrate every aspect of the car making business. Like the town of Pullman, Fordlandia was a massive failure, and the company abandoned the project in 1934.

126 Biggs 65.

127 Biggs 64.

The reporter's description of the new pressure vulcanizer introduces a new theme: "a machine whereby certain classes of goods may be vulcanized in less than half the time which the older and slower process required. To house the vulcanizers, a new vulcanizer building is being erected. The walls of part of the building are already started and work will be rushed. The installation of these machines will, of course, considerably increase the output of the plant." Speed is a recurrent theme throughout the reporter's description of the new factory—the operation of the magnet causes all machines to stop instantly; the halving of time to vulcanize goods; the rush to complete the construction of the facilities; the pace at which machines, once installed, are able to produce goods. Everything about the plant is now driven by Fordism's adage, "Time is the most valuable thing in the world."[128]

"Interest at the plant, however," according to our reporter, "at the present time centers to a great extent on the new five-story building, on Rose Street. The first floor is to be used as a stock room, the second floor, as a packing department, the third and fourth floors as departments wherein the manufacture of the shoes will take place, and the fifth floor is to be occupied by stitching machines. Of course, it is to be remembered that all other departments of the plant located in the old buildings will be operated just as heretofore, the new building merely permitting of a greater expansion and greater elasticity of operation."

The reporter describes the lighting of the space as: ""Just the Best. It is a pleasure and a delight just to walk through the new building. From the topmost floors from north, east and west exposures most excellent views of the city can be obtained. The lighting facilities are of the best. Eighty per cent of the wall space is given over to windows. The walls of the interior are painted white and the resulting exterior illumination is all that could be asked. It is practically 'as light as day' within the rooms of any floor of the new building."

Like Lycoming's new factory**, The Rational Factory's** Lindy Biggs notes that, "The first feature that impressed most observers about Ford's new Highland Park factory was the expanse of windows. Highland Park has been almost universally praised by architectural and industrial historians of the United States as the first 'daylight' factory." But Biggs dismisses the idea that lighting was the primary reason for "window walls. Why would large windows be deemed so important, she asks, "when, by the time of their introduction in 1910, electricity could have provided lighting adequate for industrial production?" Not to mention that they are a lot of work to clean and expensive to replace, she adds.

Biggs believes that, "One answer lies in the industrial welfare movement's efforts to rationalize the human machine: to attract quality workers and reduce labor turnover, social engineers and welfare secretaries introduced design features that improved the quality of the work environment." As if proof of Biggs argument, the reporter for the Lycoming factory goes on to explain several features designed to make the workers as comfortable as possible.

Under the caption, "Everything Modern," the reporter notes that, "In this new building there are bubble drinking fountains, sinks, toilet facilities of the finest types for both men and women, while special installations are being made in the way of raised and enclosed platforms for the use of foremen and their assistants from which a complete view of the entire room may be had at a glance. … On one of the floors there has been installed a pianola [player piano] which is set in operation during the busy and trying hours of the day and which aids in great measure to relive much of the strain and tedium incident to such periods of the day's activities."

And as if to prove Biggs argument that the large expanse of windows might have been as much about comfort as they were a cheap source of natural daylighting, the reporter informs us that, "On the fifth floor, where the cutting machines are to be installed, there are new types of benches and lights being installed. The lights are placed on standards capable of operating in such manner that the light from the Mazda lamps used can be thrown on any part of the work being put through the stitching machines."

While the Mazda lamps, which featured tungsten filaments that were more expensive than the carbon filaments Edison first introduced, but they also lasted longer and in the long run were less expensive to operate—were used for task lighting, the ambient light from the Detroit-Fenestra window walls was supplemented by prismatic glass, a translucent

128 Biggs 128.

glazing material that uses horizontally aligned 90 degree ridges spaced 1/32nd of an inch apart running parallel to the floor and ceiling planes to create a "prismatic dispersion," effectively spreading light evenly throughout the entire space. Prismatic glass was expensive, so it was limited in use to the top 3 rows of the 5 rows of glass, allowing workers to look up from their work from time to time to relieve eye strain and to enjoy the view to the neighborhood outside the walls of the factory from a vantage point they most likely never had before.

Beneath the caption, "Making Shoes," we hear again about the speed and efficiency in which everything is done by specialized machines: "It is impossible in the small space here allotted to describe the rather involved and highly specialized process of the making of rubber and canvas tennis and overshoes. Two facts are impressed upon the visitor—the marvelous mechanism employed in these processes and the efficient and equally marvelous manner in which the manipulators of these machines operate them. There is speed, there is haste, and there is more speed, but there is, at the same time, uniformity of action, coordination of operation of one unit, with the other, and energetic wielding of the efforts of both machinery and operators that brings out of the seeming confusion and chaos the fine, attractive and finished product."

The reporter describes some of the specialized equipment in the plant: "There are to be found in this big plant machines which tie knots more quickly, more easily and much better than they could be tied by human hands: there are machines which button holes and insert eyelets at a rate of speed which would make the average housewife seem as slow and as clumsy as an ancient mammoth, though she be ever so efficient. There are machines doing work of cutting out soles, and the like, which used to be done by hand entirely. And it is stated that all of these machines have as their basic principle of operation, the movements of the human hand as they would be carried out in doing the same kind of work."

But from time to time, although ever so briefly in the context of the entire story, the reporter also reminds the reader that the "personal equation" is still very much a part of this Modern American industrial plant, as if feeling the need to convince us of the relevance of the headline and the thesis of his story: that this building dedicated to "mechanical perfection" and "systematized procedures,"—where "the steel hand has taken the place of the human hand for brawn and bone"—has not been completely taken over by machines. "There are some workmen of the plant" the reporter tells us, "who still manipulate the old time implements and who have become marvelously adept and efficient in their special work."

The reporter's closing lines summarizing his tour through the plant also seem carefully chosen to convince us that, within the walls of this massive concrete and glass building exists a benign culture where man and machine and even the products of the plant have merged into oneness: "On the first floor of the building there have been fitted up salesrooms where the employees of the plant are given an opportunity to purchase products of the plant. Indeed, as one leaves this huge hive of industry and productiveness, one takes away a most vivid impression, strange as it may seem, that he has been among friends. From Superintendent down to the humblest worker, there is accorded the visitor a courteous attention that has in it the elements of the hand-clasp of good will and the kindliness of a hearty greeting [sic]. Courtesy is the key-word of the entire plant. It is spontaneous. It is apparent, and it is genuine."

But the careful reader, informed now by the broad sweep of history that has transpired since 1917, might also leave this guided tour of the Lycoming Rubber Company's very Modern American industrial plant a century ago with a very different impression, an almost Orwellian sense that the vast majority of people working in this plant have also become the very people they have been trained to become, the very people the very prescient French nobleman Alexis de Tocqueville argued they would become: specialists, debased—unwittingly perhaps—by their willingness to sacrifice a good deal of their independence and their craft for a chance to consume the same necessities, conveniences, amusements and perhaps even some of the same luxuries the manufacturing aristocracy enjoys.

On July 6, 1917, the *Williamsport Gazette Bulletin* reported under the brief headline, "Here for Consultation," that, "R. A. Thayer of the Lockwood Greene Company arrived to consult with C. R. Haynes, superintendent of the United States Rubber Company, relative to plans for the occupancy of the various departments of the new buildings. The increased boiler capacity is already a necessity to meet the growth of the plant."

And on October 5, 1917, the *Williamsport Gazette Bulletin* updated the community on plans for the factory under the headline, "Lycoming Rubber Still Expanding, Another New Factory Building and New Power House Announced, IS

NOW EMPLOYING 1,460 MEN AND WOMEN, Its Present Output 28,500 Pairs Shoes Daily and Expanding Rapidly." According to the story, C. R. Haynes, general superintendent; and other dignitaries from the company, "were in the city yesterday and announced the intention of the Lycoming Rubber company to erect another five story brick building, 140 feet in length, modern daylight construction."

Under the caption, "New Power Plant," the article noted that, "A new power plant is also to be built on Cemetery Street, the present power plant having been outgrown in the expansion of the big plant. Work will be started on both buildings before January 1. The company now employs 1,460 people and its present output is 28,500 pairs of shoes per day."

1918-THE LYCOMING RUBBER COMPANY BUILDS A MODERN POWER PLANT WHILE THE BOARD OF TRADE CONTEMPLATES SAWYER PARK

The contract for the boiler plant was awarded to the McNally Building Company of Framingham, Massachusetts, according to a notice posted in the July 6 to December 28, 1918 edition of the McGraw Hill trade publication, *Electrical World*. The cost was estimated at $50,000. Of all the new structures constructed at the refurbished factory, the new 7,569 square foot power plant, with its 175-foot tall brick chimney rising higher than any other structure in the city, might have physically and symbolically dwarfed all other aspects of the company's passage into the modern world, including the massive, new 5-story steel and glass structure that it served.

"In Ford's first two factories," writes Biggs, "workers and managers had enjoyed close working arrangements that reinforced the lack of rigid hierarchy. But by 1910 the industry had changed; in the new plant, the highest level of management was housed in a fancy, segregated building, a fact that reflected a new relationship between management and worker. Along with the administration building, the plant's powerhouse became the company's public face, both were showplaces built at considerable expense. Ford took great pride in the powerhouse, wanting it visible and insisting that it be kept spotless. He believed that the public was as fascinated with huge generators as he was, and he had the building walled in with plate glass. He also believed that it would be a great advertisement of the company's power and modernity."

While the Lycoming Rubber Company's new power plant probably lacked the glitz and glamour Ford attached to his plant, it was an imposing building nonetheless. According to Sheet 58 of the May 1922 Sanborn Map, a tall single story 30-foot high brick boiler house occupied the western side of the 87-foot x 87-foot building, while the lower east side was evenly divided by a 16-foot high single story generator room and a separate switchboard and transformers area. Lloyd's History of Lycoming County notes that the power plant housed four 250 horsepower boilers.[129] The Sanborn Map notes that the boiler house and generator areas were automatically sprinklered, but the electric switchboard and transformer area understandably was not, although the switchboard and transformer areas were separated from each other by a firewall.

The power plant's 175-foot tall brick chimney was located in the coal yard immediately west of the boiler house. Coal was fed to the boiler house by an overhead conveyor system in the yard west of the chimney, and delivered to the yard from a new siding that ran from the spur of the Northern Central Railroad, now part of the Pennsylvania Railroad, to a point just south of the power plant.

The Works' Betsy Hunter Bradley notes that, "Around 1900, radial brick chimneys began to appear in the United States. The European firms of Alphons Custodis and H. R. Heinicke established American branches and provided both design expertise and the new material. Radial bricks, made from refractory clay, had curved faces 4 inches by 6 inches; their angled ends were part of the radius of the chimney's circular plan. Because of the larger sizes of the units, a chimney of radial brick incorporated less mortar and was stronger and less expensive to construct than a chimney of standard brick. The material introduced a sleek, uniform surface for the tapered form of the radial brick chimneys. By using two contrasting shades of brick to create vertical lettering, firms often built their name into the chimney."

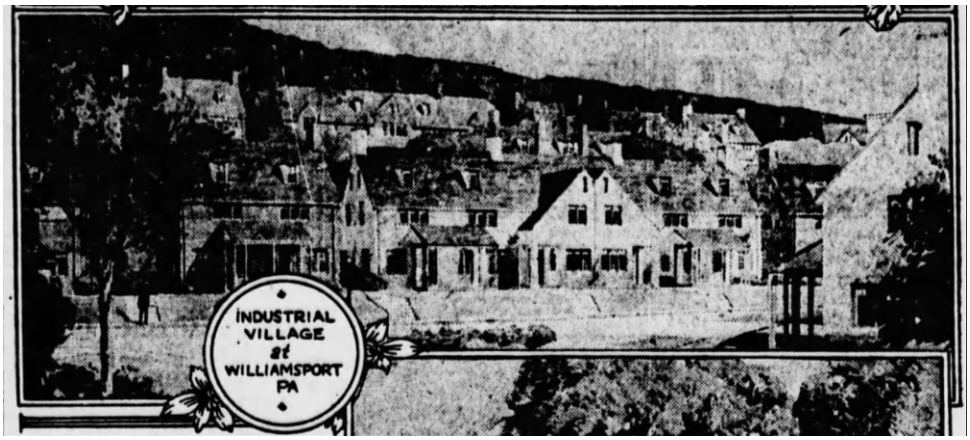
As work on the plant continued, the Williamsport Board of Trade continued its efforts to address the city's housing shortage—which had become an acute problem throughout the nation due to the war— with plans to build the village of industrial housing the Board of Trade's president Charles Krouse had given his word to see through. Krouse cleverly

129 Lloyd 461

called the housing project, Sawyerville, to win the support of the rubber trust's senior executive, Homer E. Sawyer, but it was now being referred to as Sawyer Park. The new housing for workers of the rubber plant was to be built on land north of the factory between Park Avenue and the cemetery where S. N. Williams and Peter Herdic were now buried.

On February 10, 1918, the *New York Herald* published a story featuring Krouse's Sawyer Park, under the headline, HOUSING COUNTRY'S GREAT ARMY OF WORKMEN NATIONAL PROBLEM; Best Architectural Brains Employed by Civic and Industrial Organizations to Provide Accommodations for labor Forces."

The article noted that Congress had appropriated $35,000,000 for workingman's houses, "as war scarcity has attracted considerable attention to the housing accommodations of the laboring man." Sawyer Park quickly earned accolades from civic associations around the country considering creative solutions for the demand for housing created by the war.



Sawyer Park, Williamsport- 1918
courtesy: The New York Herald, New York, New York
February 10, 1918-page 11

Work on Sawyer Park proceeded in pace with work on the rubber factory. Construction photos taken about 5 weeks apart in the Spring of 1918 (see page 27 and 37 of Continuation Sheets) from the north end of the rubber company's new main building show the progress of the work before and after glazing was installed, while the construction photo taken on June 6, 1918 (see page 38 of Continuation Sheets) shows progress of the work from the south end prior to the demolition of the original vulcanizer Building B.

1919-THE LYCOMING RUBBER COMPANY OPENS A DORMITORY

Although Sawyer Park would alleviate some of the housing problem created by the rapid expansion of the rubber factory, the company's reliance on women and girls for much of its workforce presented a unique problem. Unsupervised single women sharing a two or three-bedroom home would not have been seen as "socially acceptable" in the 1920's, so the company opened a boarding house for girls in an Italianate mansion on Grier Street, two blocks from the factory. The house was owned by Mr. Marlor, the plant superintendent, and supervised by Elizabeth L. Fisher.[130]

An article published on September 12, 1919 in the Philadelphia Inquirer, reported that Williamsport's "Housing Problem Presses" under the headline, "WILLIAMSPORT FEELS NEED OF CIVIC LOAN." According to the story, "Williamsport is confronted by a serious housing situation, to solve which the best minds of the city are directing their attention. Five hundred houses are needed at the present time and it is estimated that the needs of the next two years will be at least 1500 more. Several of the largest industries are enlarging their plants and many men will be required. This renders the housing situation much more acute. The Sweet Steel Company has partly solved the situation as it affects that corporation by purchasing a number of houses which it rents to its employees, and the Lycoming Rubber Company

130 "A Stitch in Time;" http://www.lycoming.edu/textile/garment.html

has bought a large mansion which it is having remodeled into dormitories for its women employees. It is understood that this is only the first move of the kind contemplated by this company, which has 3500 people on its payroll."

Marlor House was the girl's rooming house renovated by the Lycoming Rubber Company in 1920 to address the housing shortage.
Photo courtesy: "Stitch in Time;"
http://www.lycoming.edu/textile/garment.html

1920's-THE LYCOMING RUBBER COMPANY ENJOYS A DECADE OF PROSPERITY

Like the economy throughout America, the 1920's began as a decade of unprecedented prosperity for the Lycoming Rubber Company and the people living in the neighborhood surrounding it. In October of 1923, according to Lloyd's **History of Lycoming County**, the Lycoming Rubber Company's "highest yearly production was reached, namely 126,398 pairs of Gaiters and Arctics; 244,796 pairs of gum shoes; 178,506 pairs of Keds; [and] 4,625 pairs of Regent Keds. The company employs 2,926 persons, 70 percent of whom are women and girls, a larger number than in any other factories of the United Rubber Company [sic]. Ninety-eight per cent of the employees are American born. The maximum production of all kinds of products was attained in April, 1928, when 36,425 pairs of Gaiters, Keds, Gum Shoes were turned out. The yearly payroll of the company amounts to $2,000,000 and its local purchases amount to $50,000. Its present officers are: William P. Beeber, president; W. H. Norton, vice president; John D. Carberry, secretary; William T. Rodenbach, treasurer; John E. Caldwell, assistant treasurer; [and] George H. Bennett, assistant treasurer."[131]

The company also had a planning department now. The December 1921 issue of the Bulletin of the *Taylor Society* listed Harold C. Fuller as, "Planning Department, Lycoming Rubber Company, Williamsport, Pennsylvania," on page 13 of its directory. Page 13 of the directory (last names beginning with D's & F's) also listed a Boyd Fisher of the Service Department of Lockwood Greene and Company. The delegation of work to subordinates through departments, a practice that had been instituted by J. Edgar Thompson during his reign as president of the Pennsylvania Railroad in the mid 1850's was now standard throughout corporate America.

And although the affiliates of the rubber trust continued to be managed by local officers and their subordinates, it's clear that the central office of the trust also played a significant role in the management and operations of the rubber companies during this period of unprecedented prosperity. According to Babcock, the United States Rubber Company, the largest employer in the industry, "pioneered plans for stock purchases, pensions, and group insurance, which were designed to help foster satisfactory relations between the company and its employees." Nevertheless, "A period of labor unrest ensued after the Armistice on November 11, 1918. The factories in the United States Rubber System were not immune, and Seger [president of the trust] welcomed the opportunity in 1919 to employ a man who had demonstrated his ability to bring about improved relations between employer and employees." [132]

According to Babcock, Cyrus ("Cy") S. Ching "…felt that there was great room for improvement in the labor relations of most companies. One of the most serious weaknesses was an almost complete lack of communication between

131 Lloyd 462.

132 Babcock 155

management and the worker at the bench. Another weakness was the failure to grasp the importance of proper training and education of foremen, while at the same time relying to a large extent upon them to hire and train the workmen under their supervision. Given free rein in such matters, many foremen practiced favoritism and nepotism, giving cause for grievance and discontent."

Babcock says Ching—who outlined his basic philosophy in a paper titled, "The Human Factor in Industry" that is very characteristic of the paternalistic language and ideas of the times—believed, "the wage level should permit a young man, 'within an average time and with a normal degree of effort,' to support a wife and family. The employee's working hours should permit him to have a reasonable amount of time with his family. The tendency of some foremen and of some employers to play upon the employee's natural instinct of fear was deplored; the value and importance of loyalty were stressed." [133]

Ching also introduced the trust to the concept of factory councils, consisting of elected representatives of the employees who dealt with management. According to Babcock, Ching "considered the factory council 'a means of making the fullest possible use of the ideas and energies of the workers in the conduct of industry,' and a method of 'providing a systematic and ever-present channel through which workers can express themselves with references to their work, their relations with management, and all other factors which concern their well-being and the welfare of the company as a whole."[134]

Lycoming's relationship with the parent was a 2-way street, according to Babcock's history of the rubber trust. "In 1920, when H. S. Marlor was factory manager of the Williamsport, Pa., plant of the Lycoming Rubber Company, a program was developed at that plant in conjunction with the central planning department of the United States Rubber Company. The program established the standard number of pairs per square yard to be obtained for each cut part from a specific type of stock. While the conversion of pairs to square yards of stock could not be accurate because the proportions of small or large sizes varied from one ticket to the next, this was a great improvement over the former method of estimating. The new system, which came to be known as production control, was steadily improved and refined over the succeeding years."[135]

The companies process for establishing uniform procedures was quite democratic. As early as 1919, according to Babcock, "the footwear factories were using the written standard practices (WSP), which was intended as a permanent record of the best results which various departments and representatives had produced on a certain feature of their work. Details of operation, as practiced by the different factories, were considered by the department committees in the central service department in New haven. The departmental committee then drew up a proposed WSP, which was submitted by the committee to the superintendents of the several factories. If the superintendents accepted the plan, it then became the WSP for the entire Footwear Division."[136]

The rubber trust was also an innovator of advertising and sales promotions, according to Babcock. "Since radio was yet to be developed, and since the company's products with general appeal to the consuming public during the early 1920's were chiefly tires, footwear, rubberized clothing, and golf balls, it was possible for United States Rubber to get good results from relatively few advertisements in magazines of general circulation." After the company introduced the Keds line, they began exploring other media to reach retailers and consumers.

"In 1922, the Footwear Division inaugurated a Keds plan that offered free advertising material to all retailers who placed an order for a certain quantity. At least once a month the more than 300 stores that participated received a house [flyer], the Keds Dealer, containing stories of how other dealers had built up their business on Keds, and showing photographs of dealer's window displays. Merchants who had taken the Keds plan were eligible to participate in two contests, one for window displays of Keds, and the other for suggesting and using original ideas for the sale of Keds."

133 Babcock 158.

134 Babcock 159-60.

135 Babcock 131.

136 Babcock. 131-132.

The use of these and other efforts were so successful, according to Babcock, that "they became the cornerstone of much of the Footwear Division's selling philosophy and practice during succeeding years."[137]

On October 29, 1929, the stock market crashed, symbolically marking the beginning of the Great Depression and the end of the Roaring 20's. The market had actually started falling back in September, and then it rose again in the early part of 1930. According to Skrabec's history of the rubber industry,

> *The Du Pont family took control of U.S. Rubber in 1927. That same year, Du Pont and other elite industrialists wanted to consolidate U.S. Rubber, Goodyear, and Seiberling companies in order to establish a powerful industry leader. The idea failed to win support from financial institutions and shareholders that were unsatisfied with the industry's performance during the 1920s.*
>
> *With the onset of the Great Depression (1929–1939) in 1929, tire sales dropped by two-thirds and suppliers lowered prices for car manufacturers in order to maximize sales. In spite of these industry setbacks, U.S. Rubber thrived. It increased its market share from 6.9 percent in 1929 to 30 percent in 1931. The company's success was linked to Du Pont's interest in both U.S. Rubber and General Motors Corporation. U.S. Rubber's manufacturing base was in Detroit, Michigan, and General Motors' nearby location gave U.S. Rubber half of the carmaker's business in 1931. U.S. Rubber was simultaneously boosting its sales to Ford Motor Company. The company held a key position in the tire and rubber industry for four decades.*[138]

1932-THE LYCOMING RUBBER COMPANY CLOSES

The headline of the December 31, 1931 issue of *The Shamokin Dispatch* announced that the: "WILLIAMSPORT RUBBER PLANT WILL BE BUSY. Daily production of footwear at the Lycoming Rubber Company plant of the United States Rubber Company is to average 55,000 pairs during January." The announcement was "made to plant foremen," the article said, but it had to be welcome news to everyone working at the factory or living in the city of Williamsport. About half the company had been laid off since the start of the Great Depression, and 500 employees had already been hired back.

An article in the December 5, 1931 issue of the *Altoona Tribune* noted that, "The Lycoming Rubber Company is in the process of hiring some 500 men and women for the extension of their work. Many of these will be former employees who will be taken back. About 50 per cent of the total will be men. This will take up a lot of the slack in the unemployment situation here. The company is hiring only those who are married or, if single, have dependents." [139]

But the encouraging news was short lived. On August 16, 1932, according to a story rushed to press so fast the editor missed a typo in the headline on the front page of the evening edition of the Williamsport Sun, "Employes [sic] This Morning Receive Notice That Factory is to Be Closed September 1. Chamber of Commerce Committee Has Been Exerting Every Endeavor for Weeks to Hold Off Action—Had Help of U.S. Department of Commerce."

It's pretty clear from the headline that this news had been in the works for some time now. But it's also clear from the story that the directors of the trust had more than the economy on their minds when they made the decision to close the plant: *"The announcement stated that the action is necessary because a concentration of manufacturing activities in the Footwear department of the company and was amplified with the explanations that the move is due to general business conditions which are forcing the company to divide its manufacturing activities in this line between two remaining plants, one at Naugatuck, Conn., and the other at Mishawaka, Indiana."*

"The 1930's were devastating to all segments of the rubber industry," according to Skrabec. "The footwear segment was hit by a mild winter in 1931, which crushed the footwear market…. In addition, cheap labor in Japan and Czechoslovakia created a flood of rubber footwear into the United states. U. S. Rubber was manufacturing footwear at

137 Babcock. 200.

138 Skrabec

139 Altoona Tribune, dec 5, 1931 pg 10

20 percent capacity with obsolete factories. Production was concentrated at its oldest plants of Goodyear Metallic Shoes and Goodyear India Rubber at Naugatuck."[140]

U.S. Rubber proved to be the best of the big rubber companies at controlling footwear inventory; still during the Depression, it struggled for survival. The problem was with style and overshoes that changed season to season creating obsolete inventory. U. S. Rubber's Mishawaka, Indiana, plant developed a marketing and operating plan to adjust changes in styles. The plant continued making its Red Ball brand. U. S. Rubber worked through its old IBM ties (via Charles Flint) to greatly reduce production costs. At U.S. Rubber's New York headquarters, huge flashing electrical signs were used to advertise Keds. By the end of the thirties, U. S. Rubber turned things around with cost cutting and aggressive marketing of Keds."[141]

Charles Flint, the man who orchestrated the combination of the rubber industry and the companies that became IBM, retired on February 19, 1931, apparently for the second time, according to a story that ran in the *New York Times* under the caption, "Flint, 81, Retires; 'Father of Trusts.' Passed 50 Years of His Life in Making Big Industrial Concerns From Small Units. Intends To Hunt and Fish. Woolen, Chicle, Rubber and Many Other Combinations Due to His Efforts. Arrived Here 65 Years Ago. Proud of Money-Making Mergers."

It's probably not unreasonable to assume that Lycoming's unemployed workers would not have shared Flint's pride in his "money-making mergers" in 1932, any more than the employees of the New Brunswick Rubber Company did when the United States Rubber Company purchased the Colchester factory and closed it down in the dead of winter in 1895, almost four decades earlier. Although the reporter from St. Louis covering the hearings on that closure in 1897 reported that, "Though repeatedly questioned Mr. Flint would not make an admission that he was the head of the rubber combination," he apparently was quite willing to be credited for his "money-making mergers" in 1931, the year he retired.

While the reporter for the St. Louis paper that published the proceedings of New York's inquiry into the rubber trusts on February 16, 1897 intends to portray Flint as an uninformed and fumbling figure, his record suggests otherwise. While his skill at obfuscation was as well-honed as his skill at assembling combinations, a review of the entire proceedings on that day in February of 1897 suggest that despite his lofty position as Treasurer of a conglomerate capitalized at $27,000,000 million—a huge sum of money in those times—Flint did, in fact, have a very keen grasp on numerous facts and figures regarding the rubber industry.

Flint died on February 26, 1934, two years after the United States Rubber Company closed its Williamsport plant. His obituary published in *Time Magazine*, described Charles Ranlett Flint, 84, as a "retired industrial promoter, international agent, sportsman; [died] of arteriosclerosis after two year's illness; in Washington. Son of a New England clipper fleet owner, he outfitted warships for Brazilian revolutionists; sold torpedo boats and submarines to Russia, a cruiser to Japan; negotiated the Wright Brothers' first sales of airplanes abroad. He gathered a fortune reputed to be $100,000,000, had a hand in forming so many U. S. corporations that newspapers christened him "Father of Trusts."

Flint's legacy is certainly tarnished by his decision to purchase a majority interest in the Lycoming Rubber Company through a syndication he controlled prior to forming the trust, a fact he danced around until cross examined by Senator Lexow, and his unapologetic efforts to secure the entire rubber output of King Leopold's Congo at a time he and the entire world were well aware of the much publicized "Congo atrocities" certainly tarnishes his legacy. Flint was nonetheless a citizen of the world, a man whose penultimate objective was to increase the efficiency of industry. S. N. Williams was, on the other hand, a citizen of the City of Williamsport, a man from the 6th Ward of the City, whose penultimate objective was to improve the community he vowed to never leave, and in the end, never did.

1932-THE LYCOMING RUBBER FACTORY AFTER US RUBBER CLOSED ITS OPERATIONS

Life in the neighborhood surrounding the rubber factory carried on after it closed in 1932. Many of the women and girls who worked at the Lycoming Rubber Company found work in the shoe and textile mills that occupied the rubber

140 Skrabec 163.

141 Skrabec 163.

factory after the plant closed. The equipment and skills used in shoe making are much like the skills and equipment used in dress making, or pajama making, or even the making of undergarments. In fact, many industrial historians include shoe making in the 'textile' category of mill workers because of the fabrics and fabricating equipment used in the making of shoes, like the popular Keds tennis shoes made in the Williamsport factory of the rubber works.

"A Stitch in Time," an on-line, interactive art project, chronicles the stories of many of the women and girls who served in the textile mills of northcentral Pennsylvania during the last half of the 19th and first half of the 20th centuries (www.lycoming,edu/textile). Retired librarian and manager of the *Lycoming County Women's History Collection*, Mary Sieminski, featured the project, titled, '*A Stitch in Time' -The 'mill girls' of Lycoming County*" in '*Williamsport Women*, her weekly column of the *Williamsport Sun Gazette*.

Women with sewing machines and bins of work at the Sybil Mills, Inc. at 1306 Memorial Avenue; 1948. Notice that the blinds are drawn on all the windows, and fluorescent lighting is now prevalent throughout the work space.
Photo courtesy: "Stitch in Time;"
http://www.lycoming.edu/textile/garment.html

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Previous documentation on file (NPS):

____ preliminary determination of individual listing (36 CFR 67) has been requested
____ previously listed in the National Register
____previously determined eligible by the National Register
____designated a National Historic Landmark
____ recorded by Historic American Buildings Survey #_____
____recorded by Historic American Engineering Record # _____
____ recorded by Historic American Landscape Survey # _____

Primary location of additional data:

____ State Historic Preservation Office
____ Other State agency
____ Federal agency
____ Local government
____ University
_X___ Other (Lycoming Rubber Company Drawings A-201, A-202, A-203, A-204; and Construction Photos)

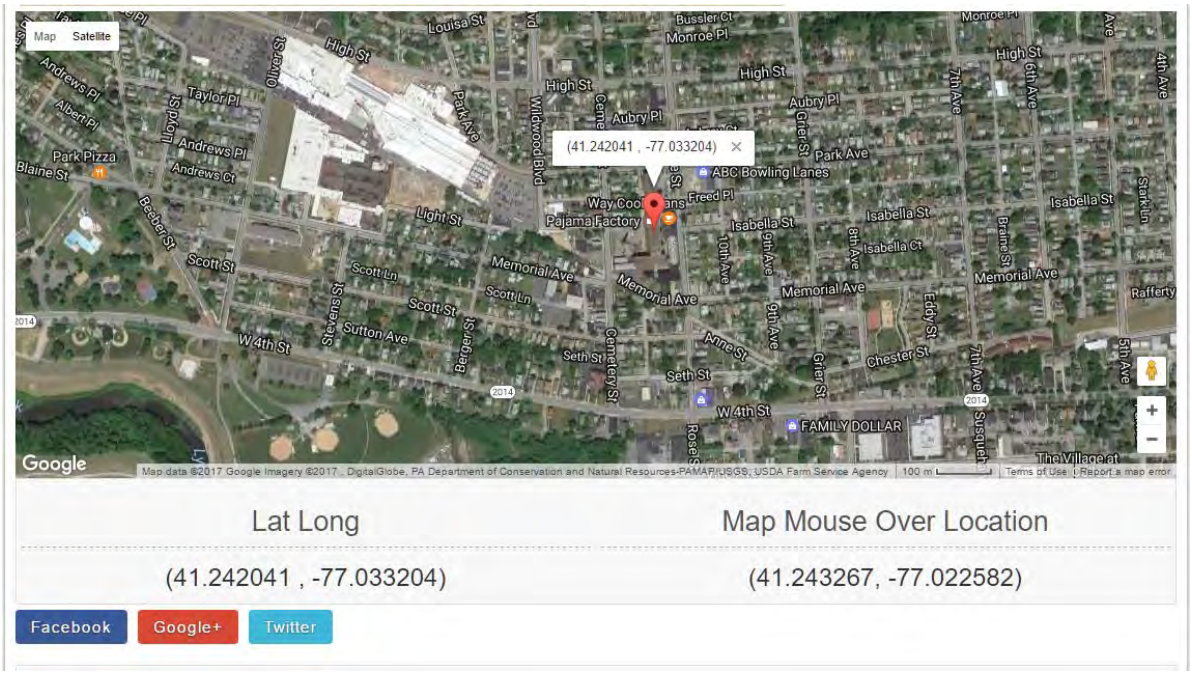
Name of repository: Lockwood Greene Records, Archives Center, National Museum of American History, Smithsonian Institution

Historic Resources Survey Number (if assigned):

10. Geographical Data

Acreage of Property 4.5

Latitude/Longitude Coordinates (decimal degrees)
Datum if other than WGS84:_____
1. Latitude: 41.242041 Longitude: -77.033204



Verbal Boundary Description

The boundary of Lycoming Rubber Factory is shown as the dotted line on Continuation Sheet 1, Figure 1: Site Boundary Map.

Boundary Justification

The boundary is the current and legal boundary of the nominated property and includes all resources historically associated with the Lycoming Rubber Company.

11. Form Prepared By

name/title: Glenn Vernon, principal and Claudia Albertin, principal
organization: Albertin Vernon Architecture LLC
street & number: 269 Logan Mills Rd.
city or town: Loganton state: PA zip code: 17747
e-mail glenn@albertinvernon.com claudia@albertinvernon.com
telephone: 570-725-2603
date: 01/24/2017

Additional Documentation

- **Maps:** A **USGS map** or equivalent (7.5 or 15 minute series) indicating the property's location.

- **Sketch map** for properties having large acreage or numerous resources. Key all photographs to this map.

- **Additional Items:** (see Continuation Sheets)

Lycoming Rubber Company — Lycoming, Pennsylvania
Name of Property — County and State

Photographs

Photo Log

Name of Property: Lycoming Rubber Company
City or Vicinity: Williamsport
County: Lycoming State: PA
Photographer: Ron Moreland, Claudia Albertin, Glenn Vernon
Date Photographed: April 19, 2016; May 14, 2016; June 16, 2016; August 24, 2016, Sept. 14, 2016; Sept. 20, 2016; January 1, 2017,

Description of Photograph(s) and number, include description of view indicating direction of camera:

PHOTO LOG

No.	Bldg.	Description	Dir.
1	A	East Elevation of Building A, with 1918 stair tower addition (left) and mill room extension (right).	W
2	A	South Elevation of Building A, with 1918 stair tower addition (right) and 3-story Building F (left).	N
3	A	South Elevation of Building A west of Building F, with 1918 elevator tower.	N
4	A	West Elevation of Building A, with the 2-story bridge connecting Building A to Building C beyond at left and the west elevation of Building F visible beyond at right.	E
5	A	North elevation east of the 2-story bridge connecting Building A to Building C.	S
6	A	North elevation west of the 2-story bridge connecting Building A to Building C.	S
7	A	Enlarged view of east end of north elevation showing bricked in openings where the 1882 bridges were located, and 2 partially infilled openings at ground level where finished goods were loaded on railcars.	S
8	A	East elevation of Building A extension between 1882 Building A (left) and 1886 Building D (right).	W
9	A	West elevation of Building A extension between 1886 Building D (left) and 1882 Building A (right).	E
10	A	View of woodshop on ground floor of Building A looking west.	W
11	A	Views of woodshop on ground floor of Building A looking north toward the 1918 extension.	N
12	A	View of ground floor of Building A looking east toward wood frame demising wall separating the community woodshop from the remainder of the space.	E
13	A	View of 2nd floor of Building A looking west.	W
14	A	View of 3rd floor of Building A looking west.	W
15	A	View of 2nd floor of Building A extension looking south.	S
16	D	East elevation of the Rose Street façade of Building D between Building A and Building D ext.	W
17	D	View of the 1st two bays of the west elevation of Building D abutting the Building D extension on left.	SE
18	D	View of the south end of Building D abutting the Building A extension on right.	E
19		View of courtyard looking north from beneath the bridge between Bldg. D and Bldg. C.	S
20	D	View of 2nd floor of Building D looking north.	N
21	D	View of attic looking north.	N
22	D ext.	East Elevation of Building D extension.	W
23	D ext.	Detail of 2nd floor window.	E
24	D ext.	View of Courtyard Elevation of Building D extension.	SE
25	D ext.	View of Courtyard Elevation of Building D extension.	E
26	D ext.	View of 2nd floor looking north.	N
27	D ext.	View of attic looking north.	N
28	D ext.	View of ground floor looking north. The volume, exposed structure and windows are all original.	N
29	F	South (Memorial Avenue) elevation of Building F.	N
30	F	West (Cemetery Street) elevation of Building F.	E
31	F	East (Rose Street) elevation of Building F with ground floor infirmary at right.	W
32	F	1918 Infirmary and toilet tower beyond.	W

33	F	Interior view of infirmary entrance.	E
34	F	Ground floor of Building F looking south.	S
35	F	2nd floor of Building F looking south.	S
36	F	3rd floor of Building F looking south.	S
37	H	West elevation of Building H.	W
38	H	View of the southern end of the east elevation of Building H looking north from the courtyard.	N
39	H	View of the southern end of the east elevation of Building H looking west from the courtyard.	W
40	H	View of the northern end of the east elevation of Building H looking north from the courtyard.	N
41	H	View of the nightclub on the ground floor of Building H.	S
42	H	Original 22" by 22" by 3¼ "column base.	W
43	H	View of the nightclub's east elevation.	E
44	H	View of 2nd floor corridor of Building H looking north.	N
45	H	View of stairs between 2nd & 3rd floor at north end of Building H.	E
46	H	Column capital on second floor at corridor partition.	E
47	H	3rd floor of Building H looking north.	N
48	H	4th floor of Building H looking north).	N
49	H	5th floor of Building H looking north.	N
50	K	Rose Street elevation of Building K.	W
51	K	North elevation of Building K.	S
52	K	West (courtyard) elevation of Building K looking south toward bridge connecting the south end of Building K on the left to the 2nd floor of building H on right.	E
53	K	View of roof of the 1917 vulcanizer building from window on 3rd floor of Building H.	E
54	K	View of café space on the ground floor of Building K.	S
55	K	View of corridor down the center of the ground floor of Building K.	S
56	K	View looking south on 2nd floor of Building K.	S
57	K	View of community kitchen under construction at northwest corner of the same space.	NW
58	K	View looking north of 2nd floor of Building K.	N
59	K	View looking north of 2nd floor of Building K.	S
60	L	View of the northwest corner of Building L taken from Park Avenue north of Allen Street, showing the seamless 1918 extension of the west facade facing Allen Street north of the firewall of the 1917 manufacturing building on the right, and the north elevation of the 1918 extension facing Rose Street on the left.	S
61	L	East (Rose Street) elevation of Building L.	W
62	L	View of bicycle recycle shop.	E
63	L	View of vacant demised space on the east side of the south end of the ground floor of Building L looking north.	N
64	L	View of 2nd floor central corridor looking north.	N
65	L	Panoramic view of space occupied by the maker of outdoor gear looking north at left, south at right.	N-S
66	L	View of stitching room looking south toward firewall of north end of Building H.	S
67	L	View of cutting room looking north.	N
68	L	View of 4th floor looking south toward firewall of Building H.	S
69	L	View of 5th floor looking north, note sloped roof.	N
70	L	View of 5th floor looking south. Note 5" cast iron rainwater conductor next to column.	S
71	C	South elevation of the 5-story Building C from the parking lot of the original 2-story Building C.	NE
72	C	West elevation of Building E and Old Building C in foreground, with 5-story New Building C behind.	E
73	C	Courtyard view of northeast corner of new Building C with its single north bay of the T-shaped wing.	S
74	C	West end of north elevation of New Building C.	S
75	C,E	North elevation of Building E (box shop) and Old Building C (the original boot shop)	S
76	C	View of ground floor of New Building C looking east.	E
77	C	Central corridor dividing tenant spaces on 2nd floor looking west.	W
78	C	Conversation area at jog in corridor looking east toward original fire door of bridge to Building D.	E
79	C	View of 3rd floor corridor looking east.	E
80	C	View of 4th floor corridor looking east.	E
81	C	View of 4th floor live-work space looking west.	W

82	C	View of 4th floor live-work space looking south over the roof of Building A.	S
83	C	View of 5th floor of New Building C looking east.	E
84	C	View of tin clad fire door with self-closing pulley and cable hardware and heavy duty face mounted metal strap hinges in stair tower, typical throughout the property.	S
85	C	Many of the spaces in the building retain other more ephemeral features and finishes that a time traveler from of the property's prior use as a factory would immediately recognize, like the signage and authentically timeworn paint finishes in the stair towers, or the wear marks on the steps that not only trace the path of the thousands of workers that climbed or descended the stairs every day, but even recorded the arc of their movement.	E
86	Ch	View of the throat of the boiler house chimney looking west toward Cemetery Street.	W
87	Ch	View of the boiler house chimney from the north side, where the word "Raytowne" is visible.	S

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Lycoming Rubber Company
Name of Property
Lycoming County, Pennsylvania
County and State
Name of multiple listing (if applicable)

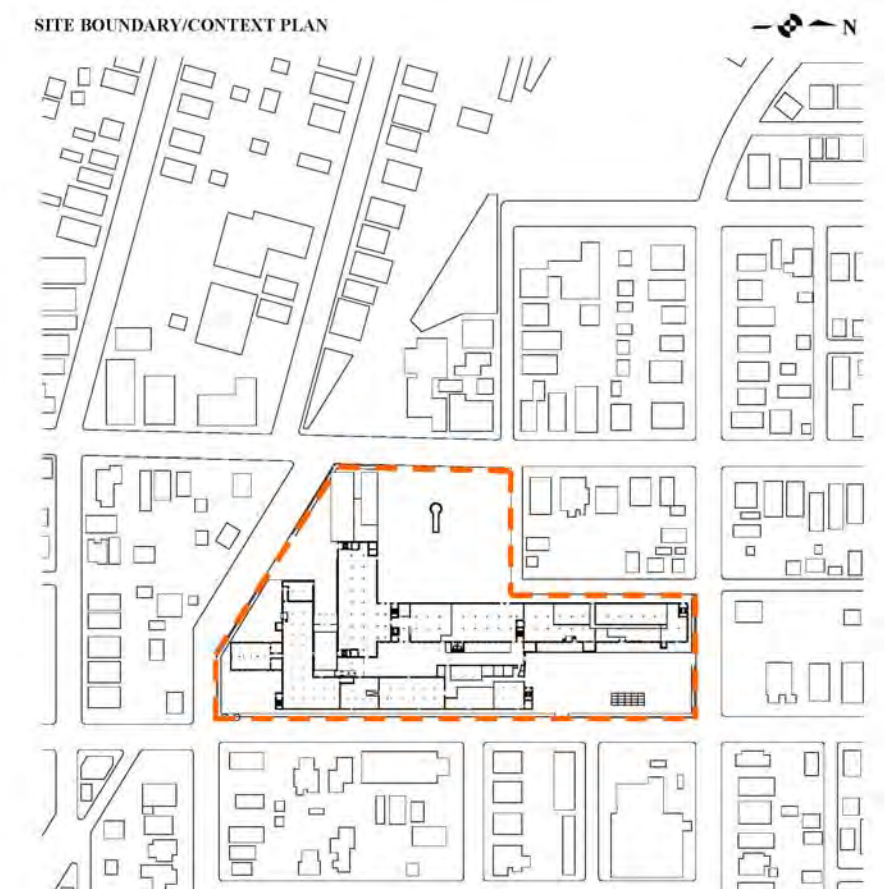


Figure 1. Site Boundary Map, 1307 Park Ave., (above) with approximate dimensions of site perimeter plotted on Bing Street Map (below).

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Lycoming Rubber Company
Name of Property
Lycoming County, Pennsylvania
County and State

Name of multiple listing (if applicable)

Section number Additional Information Page 1

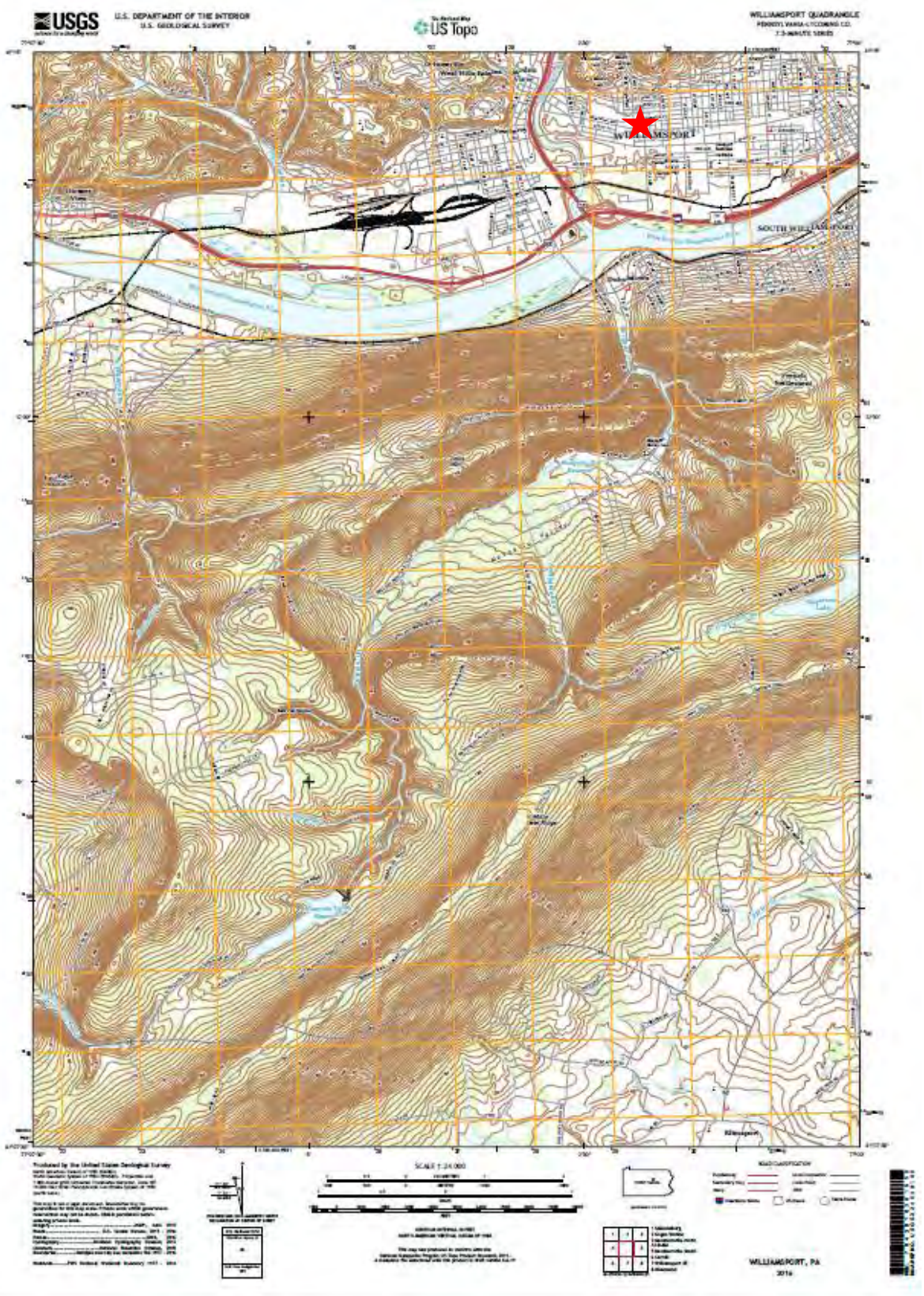
ADDITIONAL INFORMATION:

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Lycoming Rubber Company
Name of Property
Lycoming County, Pennsylvania
County and State
Name of multiple listing (if applicable)

Section number Additional Information Page 2



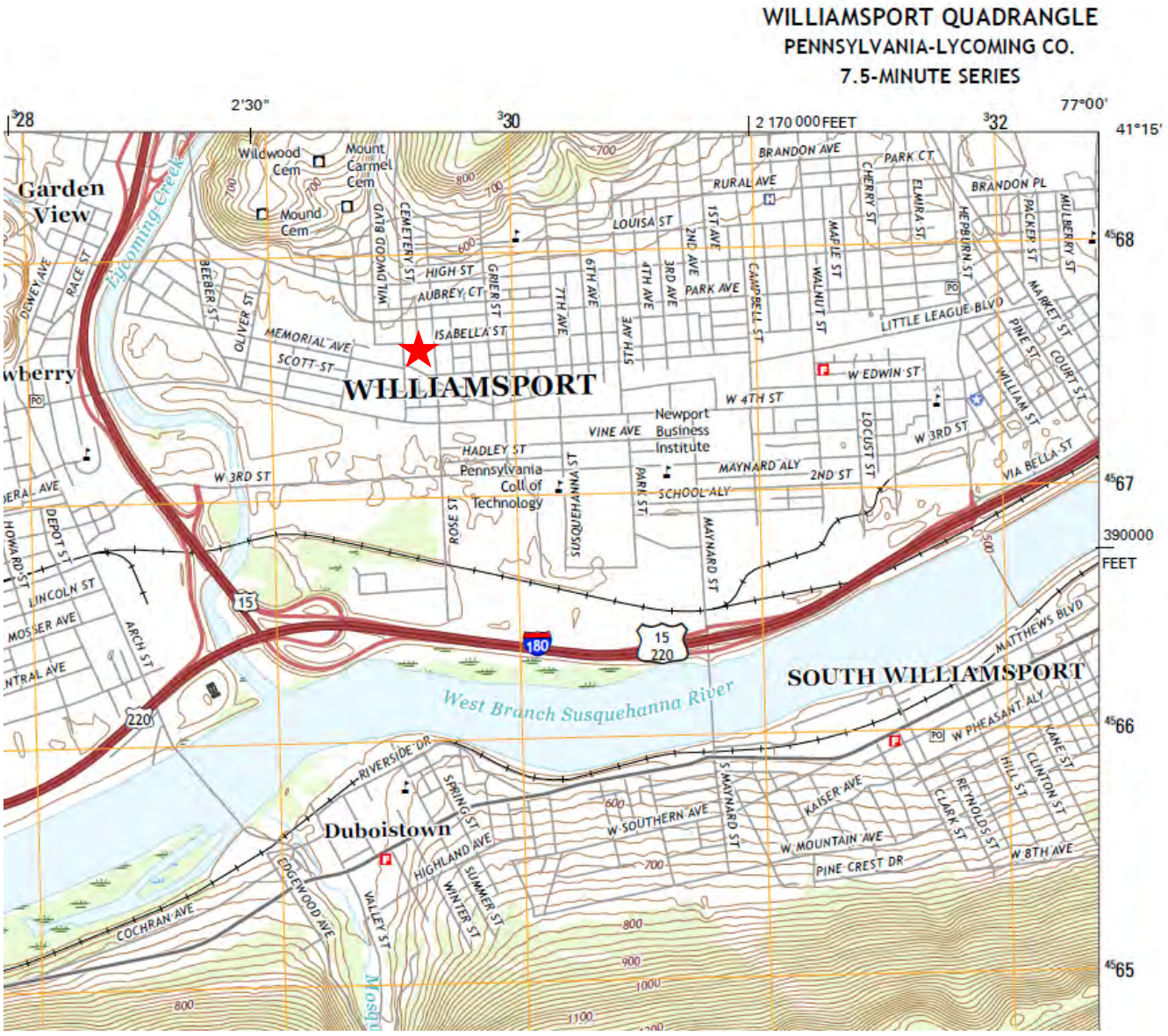
United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Lycoming Rubber Company
Name of Property
Lycoming County, Pennsylvania
County and State
Name of multiple listing (if applicable)

Section number Additional Information Page 3

USGS MAP - DETAIL



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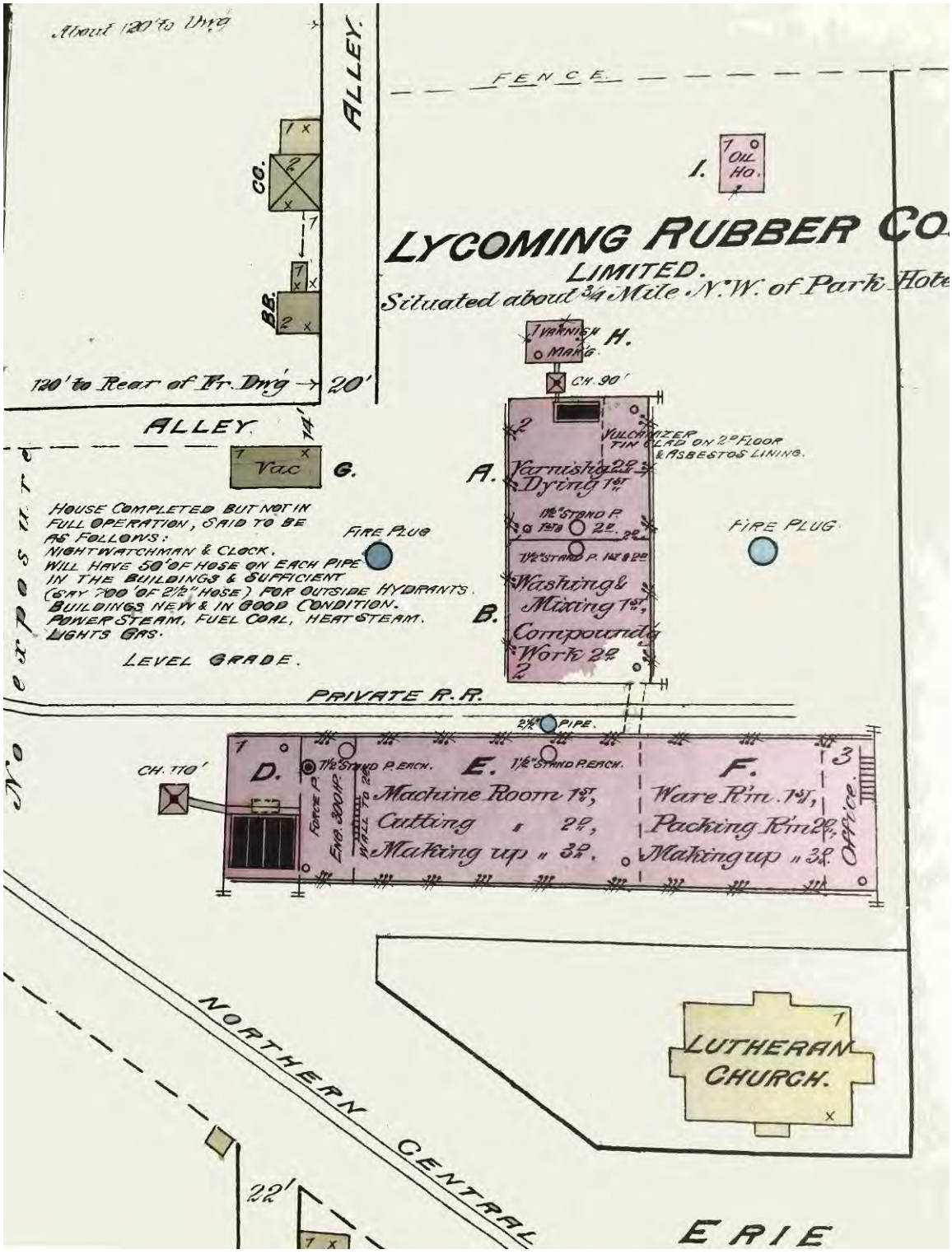
United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Lycoming Rubber Company
Name of Property
Lycoming County, Pennsylvania
County and State
Name of multiple listing (if applicable)

Section number Additional Information Page 4

1884 SANBORN MAP – DETAIL



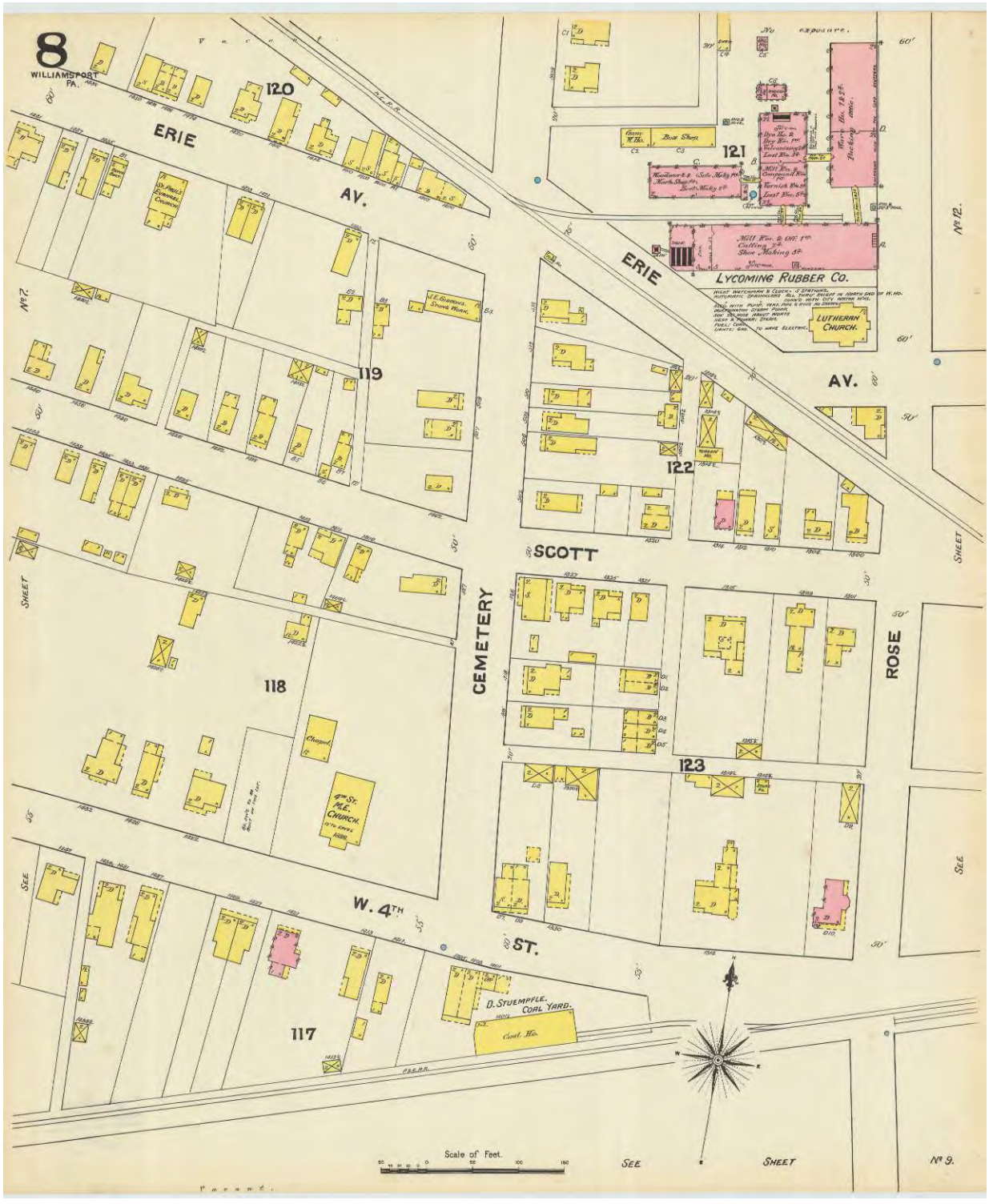
United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Lycoming Rubber Company
Name of Property
Lycoming County, Pennsylvania
County and State
Name of multiple listing (if applicable)

Section number Additional Information Page 5

1891 SANBORN MAP



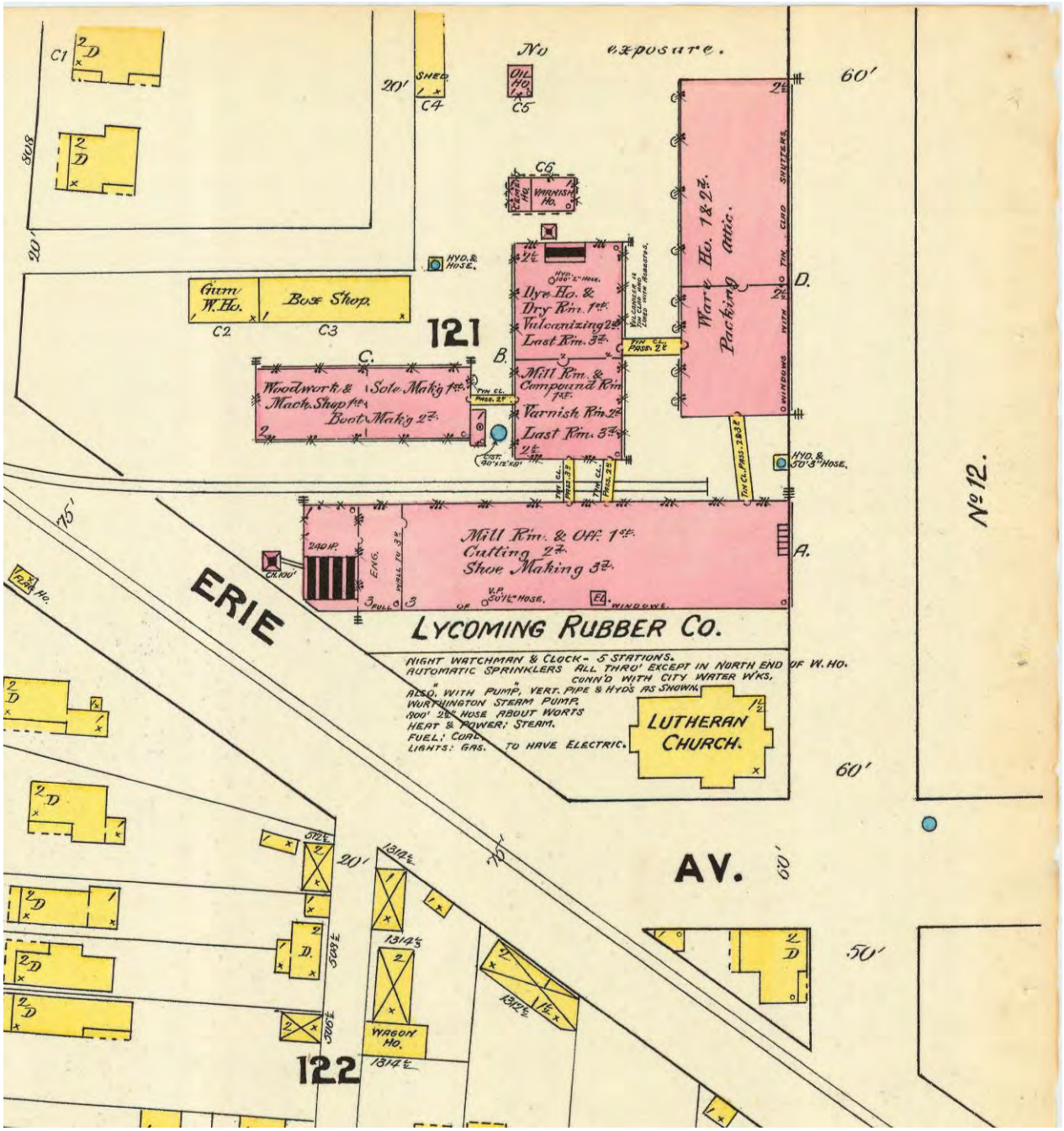
United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Lycoming Rubber Company
Name of Property
Lycoming County, Pennsylvania
County and State
Name of multiple listing (if applicable)

Section number Additional Information Page 6

1891 SANBORN MAP – DETAIL



United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Lycoming Rubber Company
Name of Property
Lycoming County, Pennsylvania
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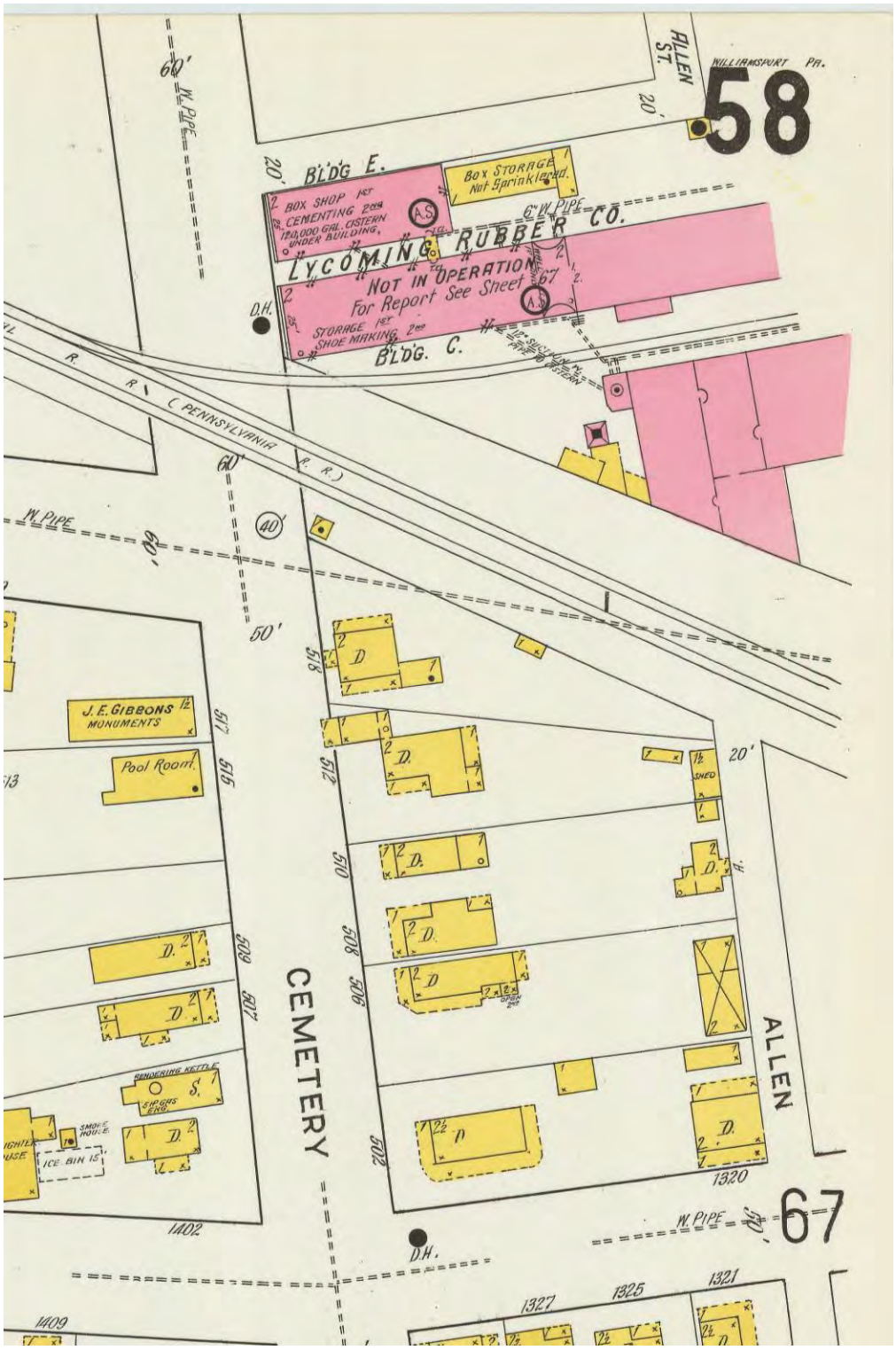
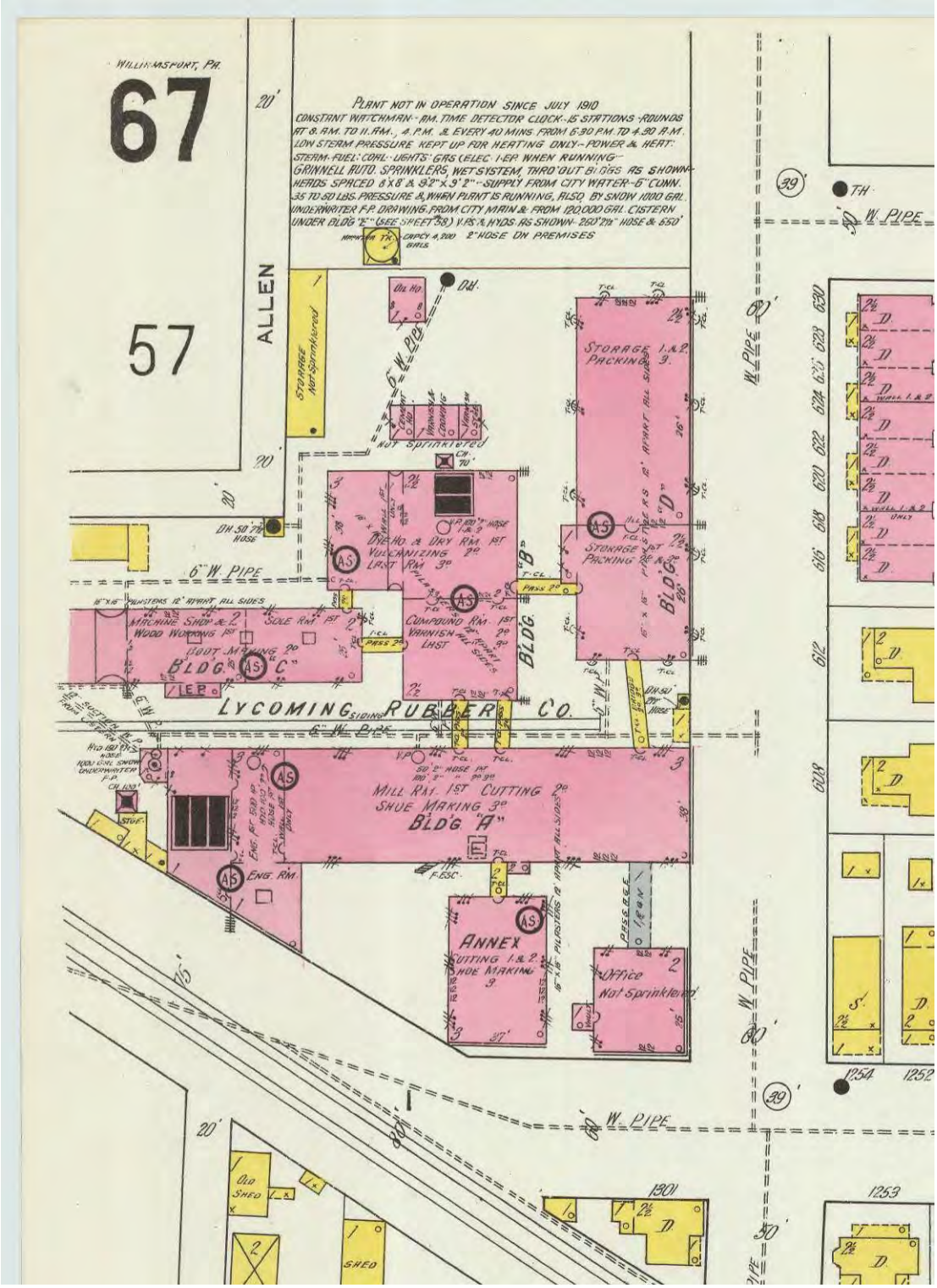
Section number Additional Information Page 7

1912 SANBORN MAP – SHEET 58 DETAIL



1912 SANBORN MAP – SHEET 67 DETAIL



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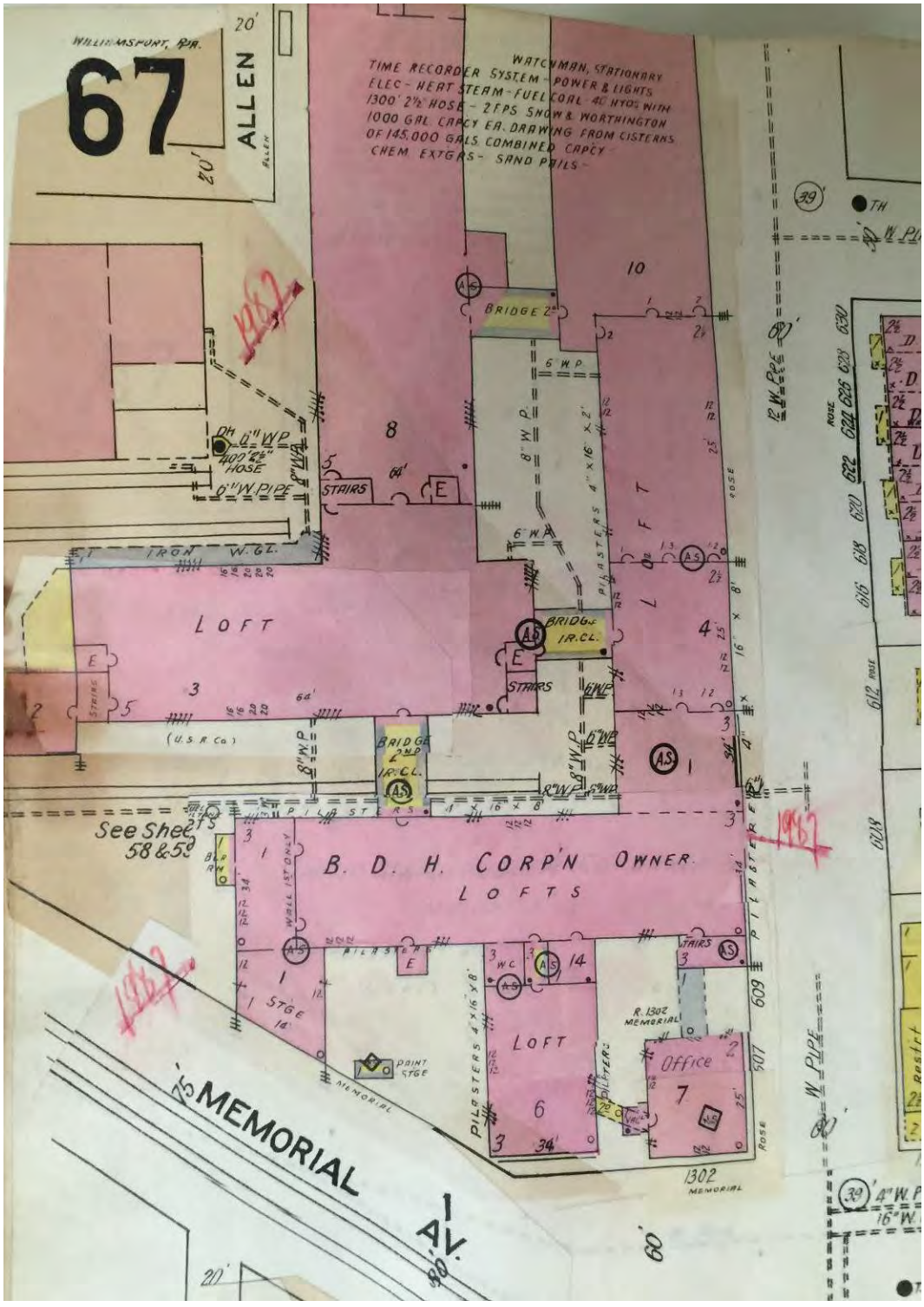
1937 WITH 1943 ADDITION SANBORN MAP – SHEET 67 DETAIL



1937 WITH 1943 ADDITION SANBORN MAP –DETAIL

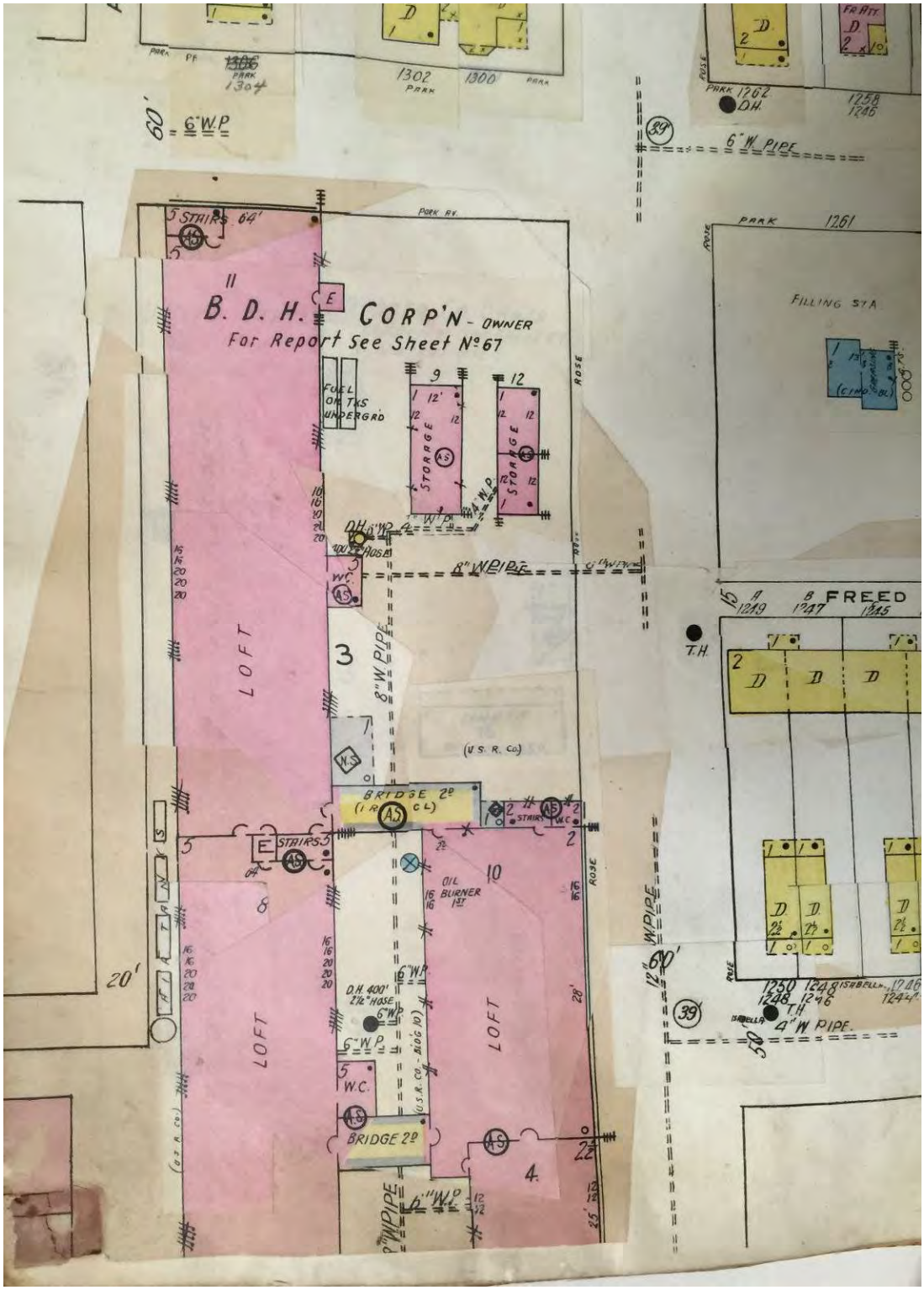
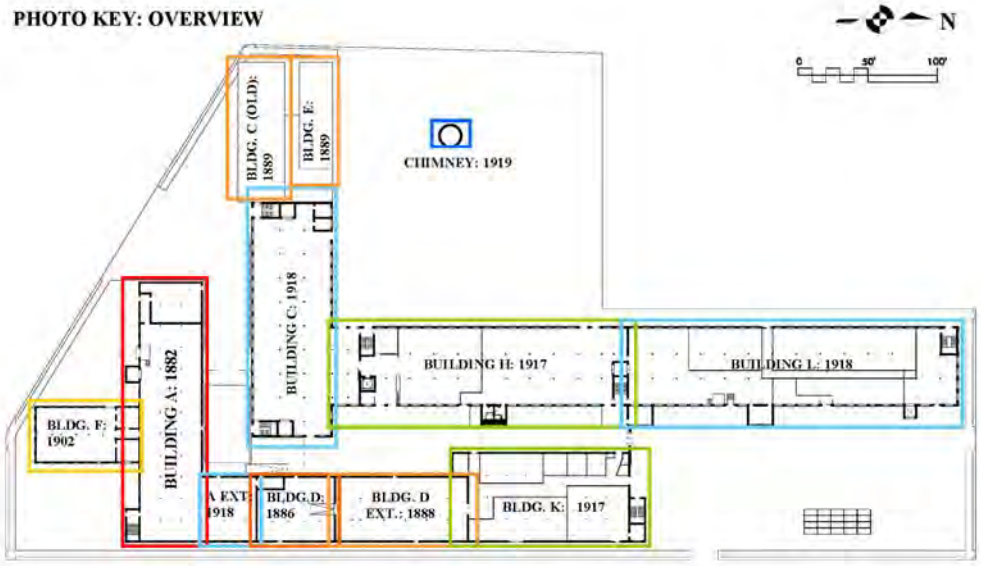


PHOTO KEY: OVERVIEW



BUILDING A, A EXTENSION, 1882, 1819: Photos 1-15
BUILDING C (OLD), 1889: Photos 71-72, 75
BUILDING C (NEW), 1918: Photos 71-85
BUILDING D, 1886: Photos 16-21
BUILDING D EXTENSION, 1888: Photos 22-28
BUILDING E, 1889, Photos 72,75
BUILDING F, 1902: Photos 29-36
BUILDING H, 1917: Photos 37-49
BUILDING K, 1917: Photos 50-59
BUILDING L, 1918: Photos 60-70
CHIMNEY, 1919: Photos 86-87

PHOTO KEY: SITE

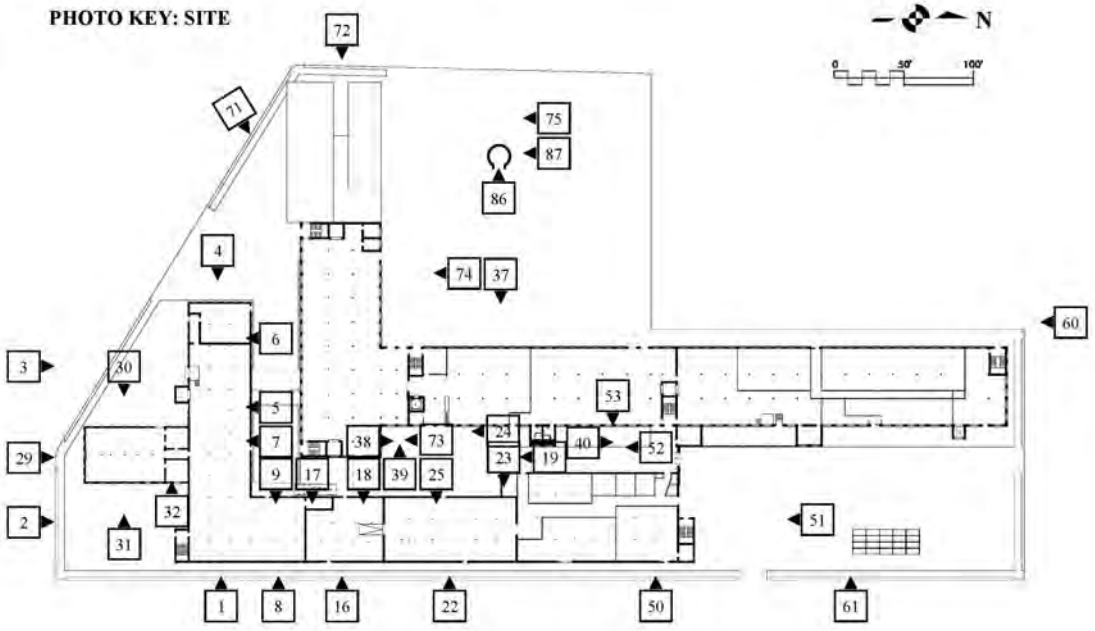


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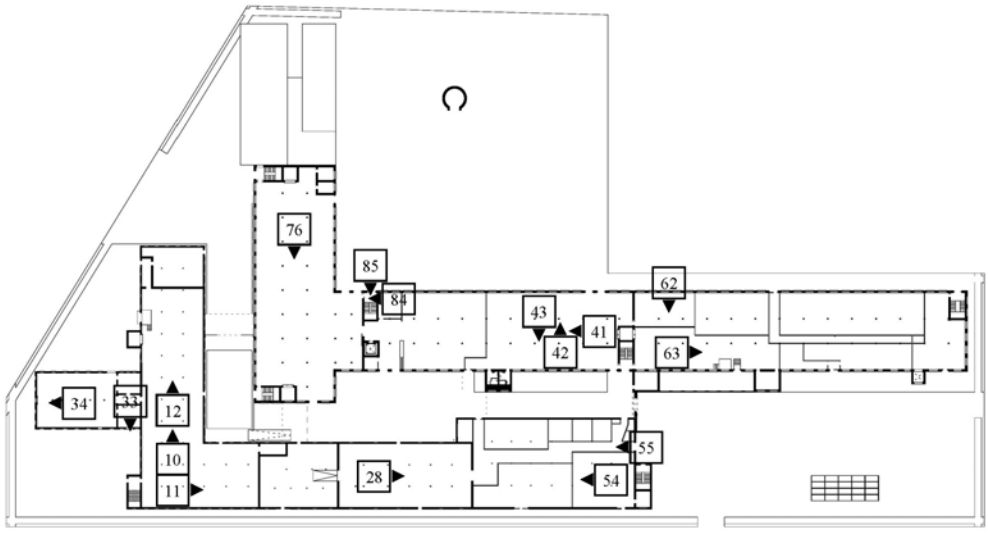
PHOTO KEY: FIRST FLOOR



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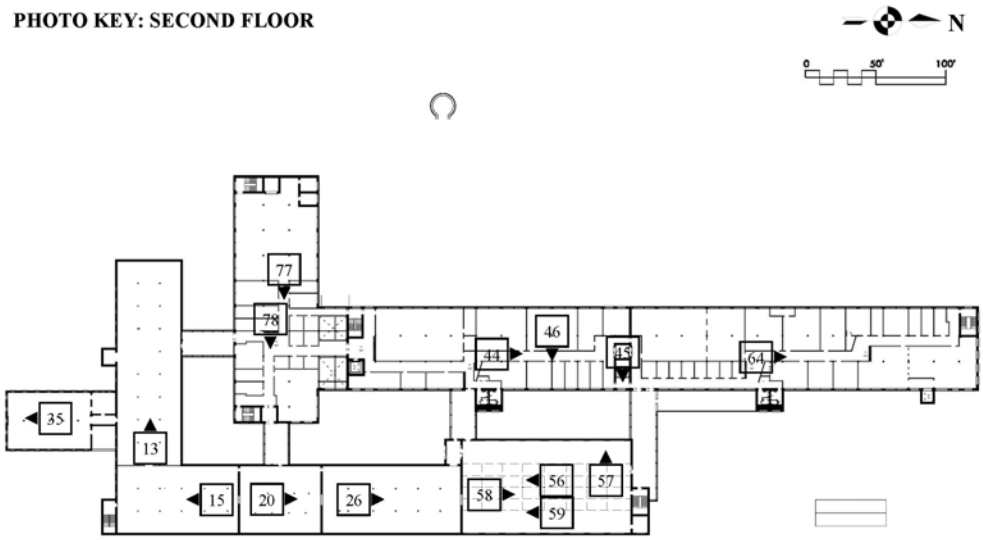

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PHOTO KEY: THIRD FLOOR

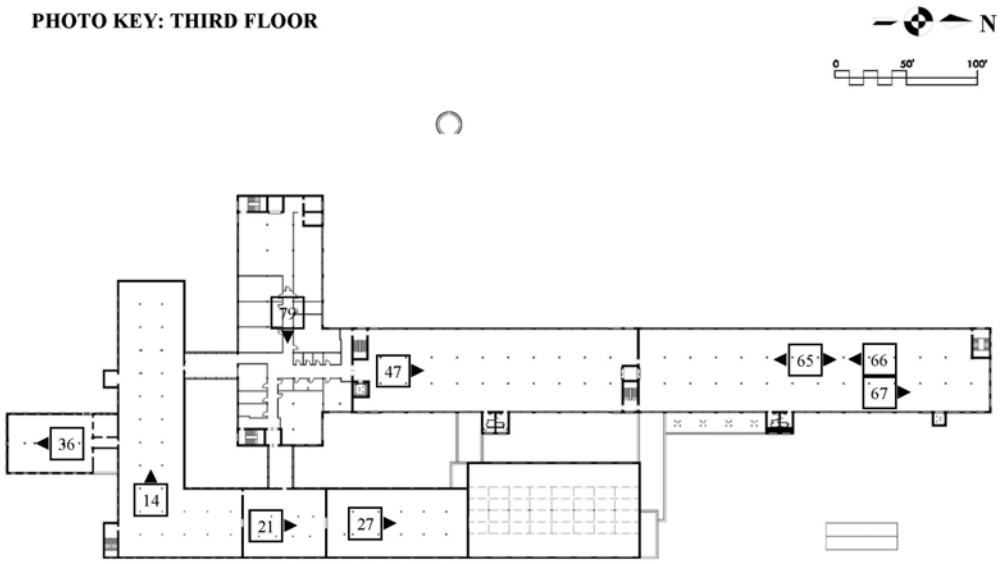
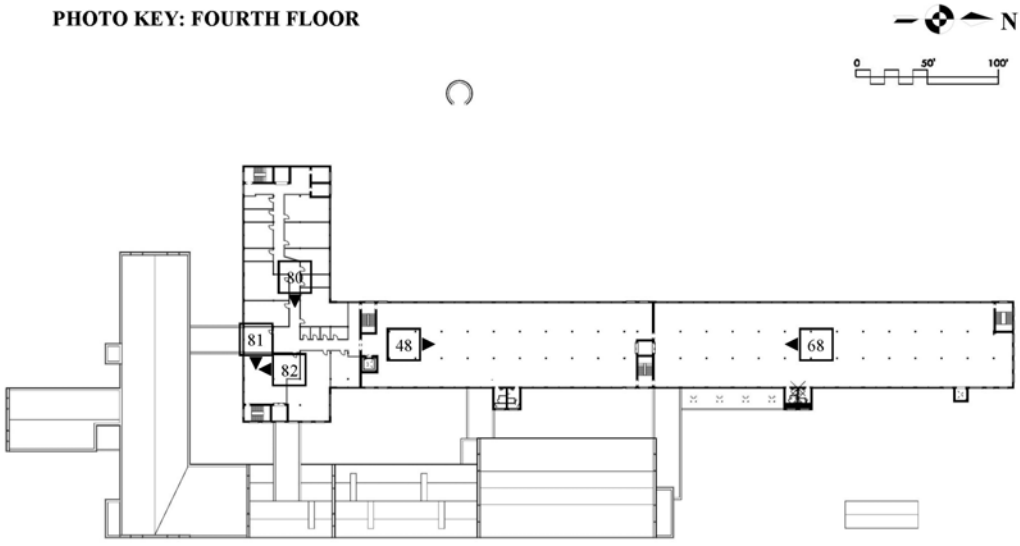


PHOTO KEY: FOURTH FLOOR



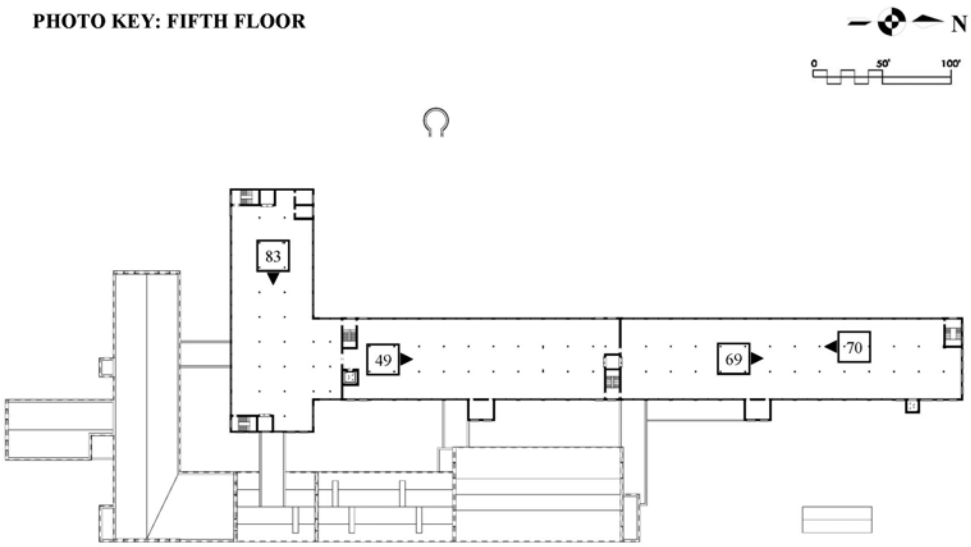


PHOTO KEY: FIFTH FLOOR
N
0
50'
100'
83
49
69
70

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Figures 1. & 2. Location Map and Property Map of the former Lycoming Rubber Company Property, 1307 Park Avenue, Williamsport, PA. Maps drawn on Bing Maps, Copyright 2017 Microsoft.

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Figure 4. View of the Lycoming Rubber Company factory (center of photo) from Wildwood Cemetery.

Figure 5. Aerial View of L-shaped Lycoming Rubber Company (near center of photo) and the Demorest Manufacturing Company (left background), circa 1940. Photo downloaded 1/16/2017 at http://www.lycoming.edu/textile/garment.html

Figure 6. Typical home in Sawyer Park, constructed circa 1920. Photo by Claudia Albertin

Figure 7. Lycoming Rubber Company Plant Manager S.N. Williams' mausoleum in Wildwood Cemetery. Photo by Glenn A. Vernon

Figures 8. & 9. Although the factory formerly known as Demorest now manufactures about half the world's aircraft engines, the Lycoming engine company, now known as Textron/ AVCO, still occupies the original building that manufactured bicycles, sewing machines and opera chairs during the Lycoming Rubber Company's period of significance.

Figure 10. Aerial view of the Lycoming Rubber Company factory circa 1970, before the power plant to the left of the 175-foot chimney was demolished. Image downloaded 1/13/2017 at http://www.lycoming.edu/textile/garment.html

Figure 11. Digital night view of the rubber factory today. Image provided by owner.

Figure 12. Site plan of the Lycoming Rubber Company factory showing building's owned by PJ Holdings and the date they were constructed. Map created by author from Bing Maps.

Figure 13. The mill room on the ground floor of the Lycoming Rubber Company had several calendar machines like this one at the Mishawaka rubber company**.** Photo from **History of the United States Rubber Company**, by Glenn D. Babcock.

Figures 14. & 15. Cutting department (left photo) and making room (right photo) of the Lycoming Rubber Company. Images downloaded 1/13/2017 at http://www.lycoming.edu/textile/garment.html

Figure 16. The ground floor of Building B probably would have looked a lot like the grinding and mixing room of the Mishawaka rubber factory in this photo, where bales of rubber (left foreground) were ground to a consistent size (right foreground) in grinding mills (left background), and then mixed with Sulphur and a proprietary mixture of accelerants delivered by hoppers from bins in the compound room above them. Sulphur is the key ingredient that when mixed with latex and heated to 200 degrees make rubber more durable in the process patented by C. Goodyear known as vulcanization. Image from **History of the United States Rubber Company**, by Glenn D. Babcock.

Figure 17. *1888 Atlas of the City of Williamsport*

Figure 18. Lithograph from *The Resources and Industries of the City of Williamsport and Lycoming County, Pennsylvania* compiled for the Board of Trade by J. F. Meginness in 1886.

Figure 19. Perspective of Lycoming Rubber Company published in July 2, 1906 edition of the Williamsport Sun.

Figure 20. Postcard view of stepped gable annex at left, before the company office at right was demolished.

Figure 21. 1916 pair of Keds Champion tennis shoes with rubber soles and canvas uppers for women; image downloaded 01-19-17 at https://en.wikipedia.org/wiki/Keds_(shoes)

Figure 22. 2nd Floor Building H Key Plan**.** (base drawing by Filson & Rohrbacher)

Figure 23. Photo on left shows worker loading rubber boots in a modern pressurized vulcanizer chamber that looks a lot like the ones installed in the Lycoming Rubber Company's 1917 vulcanizer building in the photo at right. Note the similarity of the racks and rails on the floor. Image on left downloaded on 1/19/2017 at https://i.ytimg.com/vi/Bgktc4IpKBY/hqdefault.jpg. Historic photo from **History of the United States Rubber Company**, by Glenn D. Babcock.

Figure 24. Ground floor key plan Building K (base drawing by Filson & Rohrbacher)

Figure 25. Employees of the Weldon Pajama Company's Williamsport plant standing in the parking lot in front of the loading docks circa 1954. After WWII, trucking gradually replaced the shipment of goods by rail. Historic photo downloaded on 1/19/2017 at http://www.lycoming.edu/textile/garment.html

Figure 26. 1st Floor Key Plan (base drawing by Filson & Rohrbacher)

Figure 27. 2nd Floor Key Plan (base drawing by Filson & Rohrbacher

Figure 28. Key Plan C1**.** 1st Floor of New Building C. Base drawing by Filson and Rohrbacher

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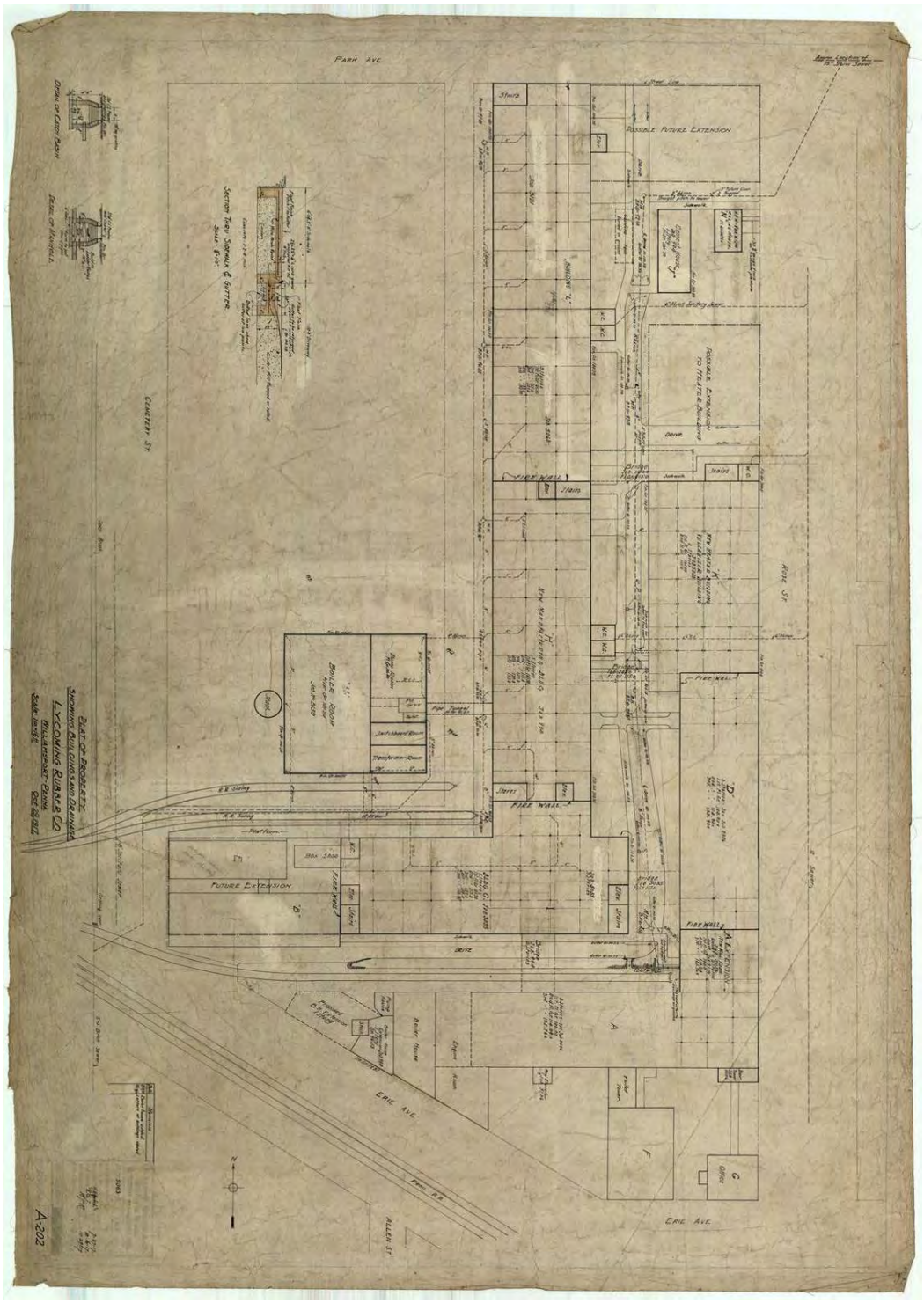
DRAWINGS FROM THE LOCKWOOD GREENE RECORDS



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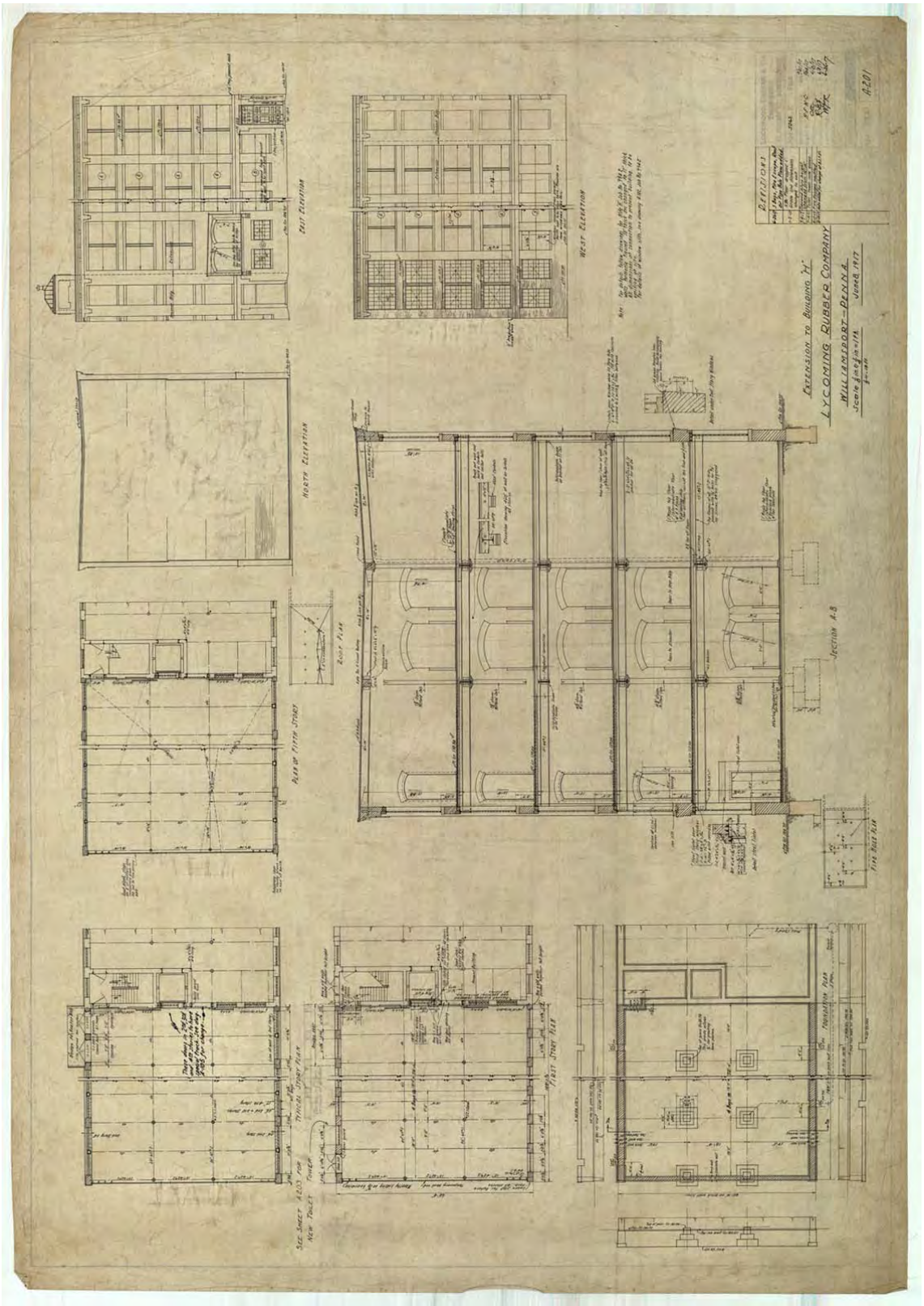

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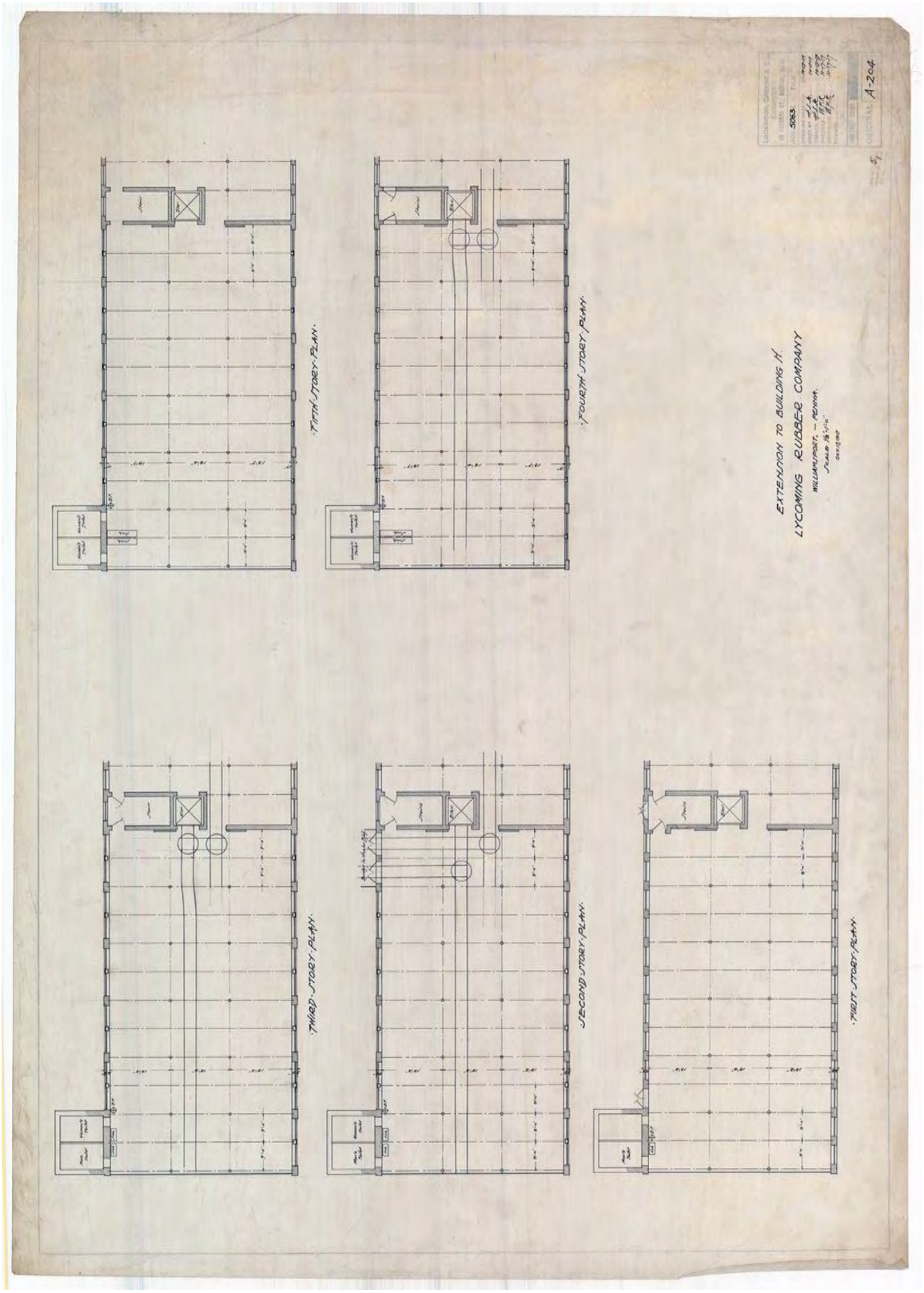

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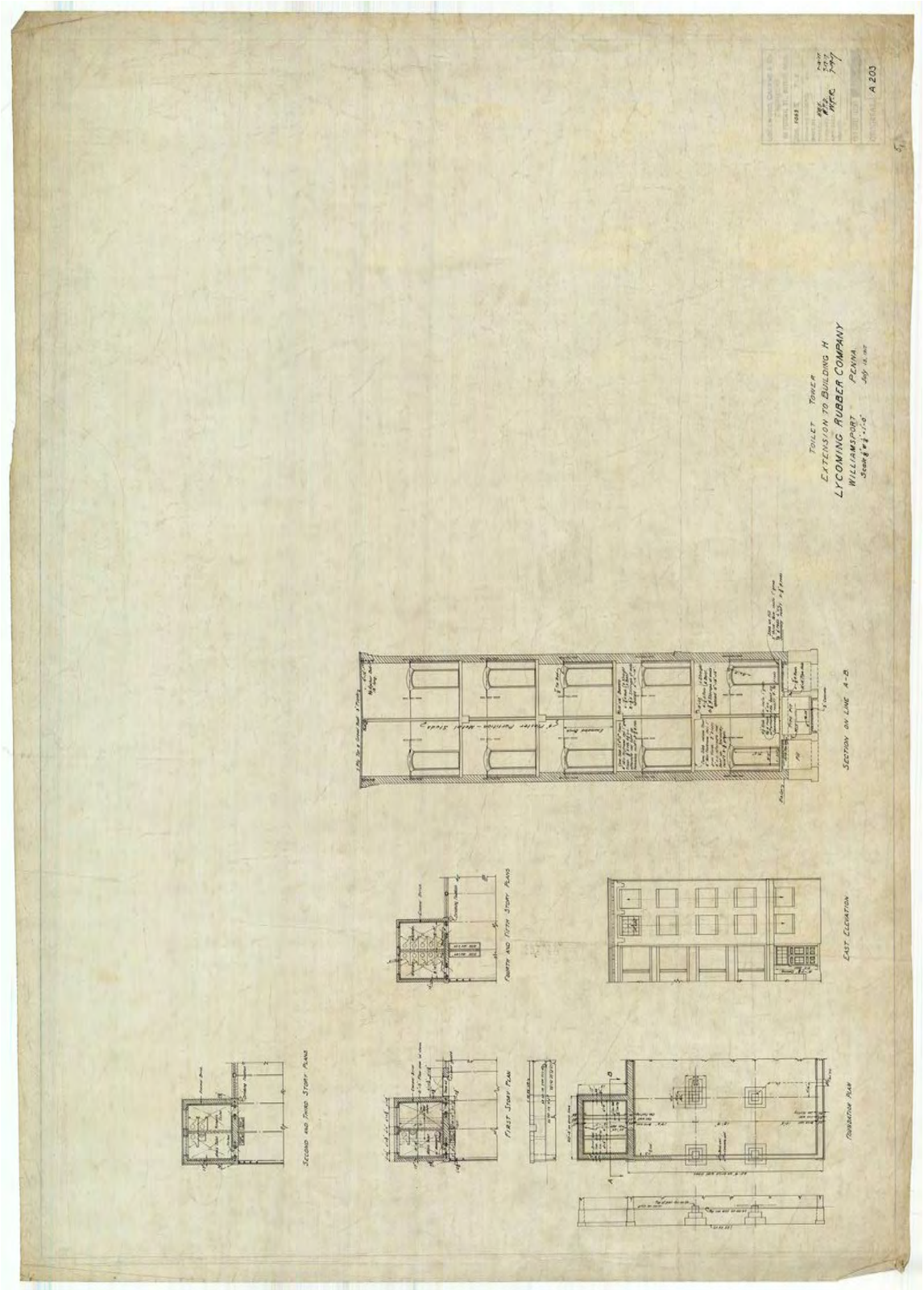

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PHOTOS FROM THE LOCKWOOD GREENE RECORDS

05-17-1917 Construction Photo of Building H (left), with Building B (right); looking northeast; Lycoming Rubber Company; Lockwood Greene Records, Archives Center, National Museum of American History, Smithsonian Institution

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Undated construction photo of the east façade of Building H taken from the empty lot at the corner of Park Avenue and Rose Street before the bridge linking Building H to Building K was constructed. The original 4-story vulcanizer building constructed in 1882 is visible in the background at left. The clouds in the background and parking area in the foreground of the image were added by an artist. Construction images from Lockwood Greene Records, Archives Center, National Museum of American History, Smithsonian Institution

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Circa 1917 Construction Photo of Building H (left), with Building B (right); looking northeast; Lycoming Rubber Company; Lockwood Greene Records, Archives Center, National Museum of American History, Smithsonian Institution

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03-21-1918 Construction Photo of Building A extension (center), on Rose Street between Building A (left), and Building D (right); Lycoming Rubber Company; Lockwood Greene Records, Archives Center, National Museum of American History, Smithsonian Institution

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04-30-1918 Construction Photo of Building K (foreground), Building H (background); Lycoming Rubber Company; looking southwest from Rose Street; Lockwood Greene Records, Archives Center, National Museum of American History, Smithsonian Institution

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Circa 1918 Construction Photo of Building K (foreground), Building H (background); Lycoming Rubber Company; looking southwest from Rose Street; Lockwood Greene Records, Archives Center, National Museum of American History, Smithsonian Institution

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Circa 1918 Construction Photo of Building K (foreground), Building H (bacground center) and Building L (background right); Lycoming Rubber Company; looking southwest from Rose Street; Lockwood Greene Records, Archives Center, National Museum of American History, Smithsonian Institution

04-30-1918 Construction Photo of Building L (foreground), Building H (center) and Building C (background); Lycoming Rubber Company; looking southeast from Park Avenue west of Allen Street; Lockwood Greene Records, Archives Center, National Museum of American History, Smithsonian Institution

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04-30-1918 Construction Photo of Lycoming Rubber Company; view from lot across Rose Street looking southwest; Lockwood Greene Records, Archives Center, National Museum of American History, Smithsonian Institution

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04-19-1919 Construction Photo of Building M, New Boiler House and Chimney;Lycoming Rubber Company; looking northwest; Lockwood Greene Records, Archives Center, National Museum of American History, Smithsonian Institution

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04-10-1919 Construction Photo of Building M, New Boiler House and Chimney;Lycoming Rubber Company; looking southwest; Lockwood Greene Records, Archives Center, National Museum of American History, Smithsonian Institution

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04-19-1919 Construction Photo of Building M, New Boiler House and Chimney; Lycoming Rubber Company; Lockwood Greene Records, Archives Center, National Museum of American History, Smithsonian Institution

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3-21-18 Construction photo of Building L immediately north of Building H, with Building C addition in background, taken from Park Avenue west of Allen Street. Image downloaded at http://www.lycoming.edu/textile/garment.html

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6-13-18 Construction photo of Building C under construction west of Building B, where the original vulcanizers were located. The south elevation of Building H is visible in the background above the ventilators on the roof of the vulcanizer building. The 2-story bridge in the left foreground will connect Building A to Building C after Building K, the new vulcanizer building on Rose Street is placed in service. Photo taken from Building A looking northeast. Image downloaded at http://www.lycoming.edu/textile/garment.html

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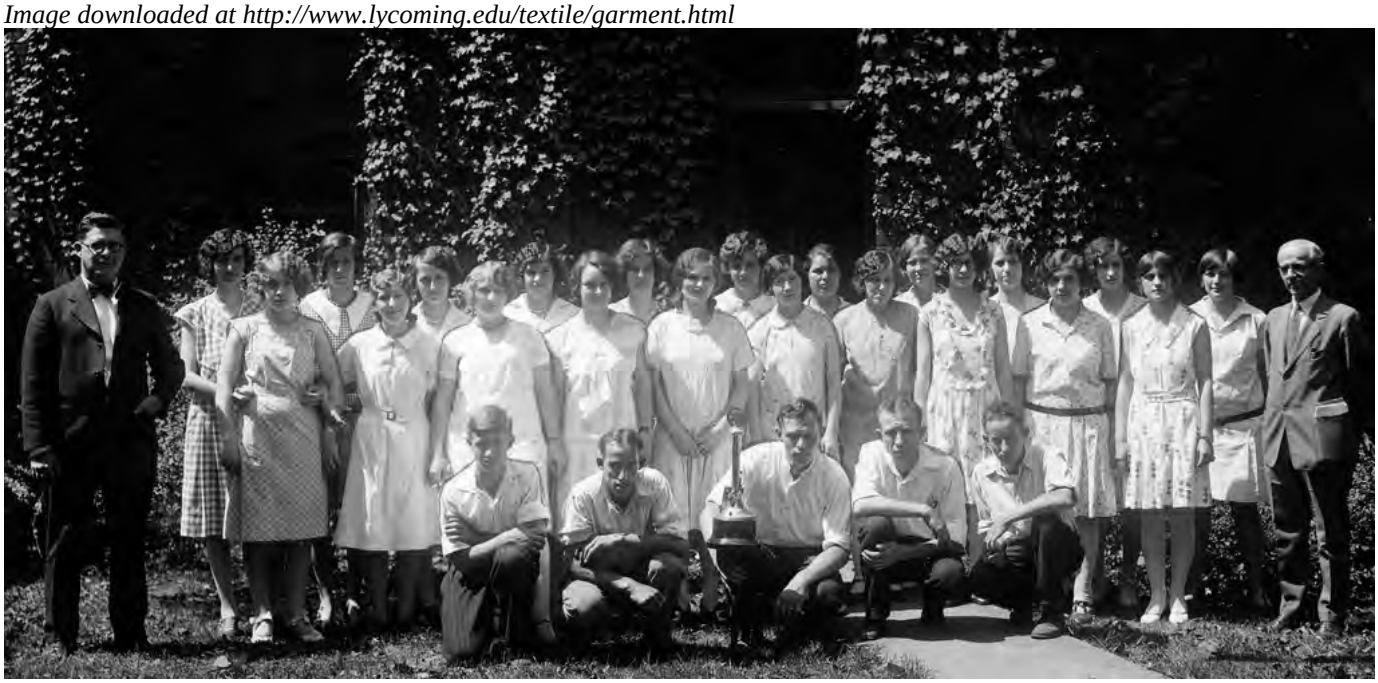
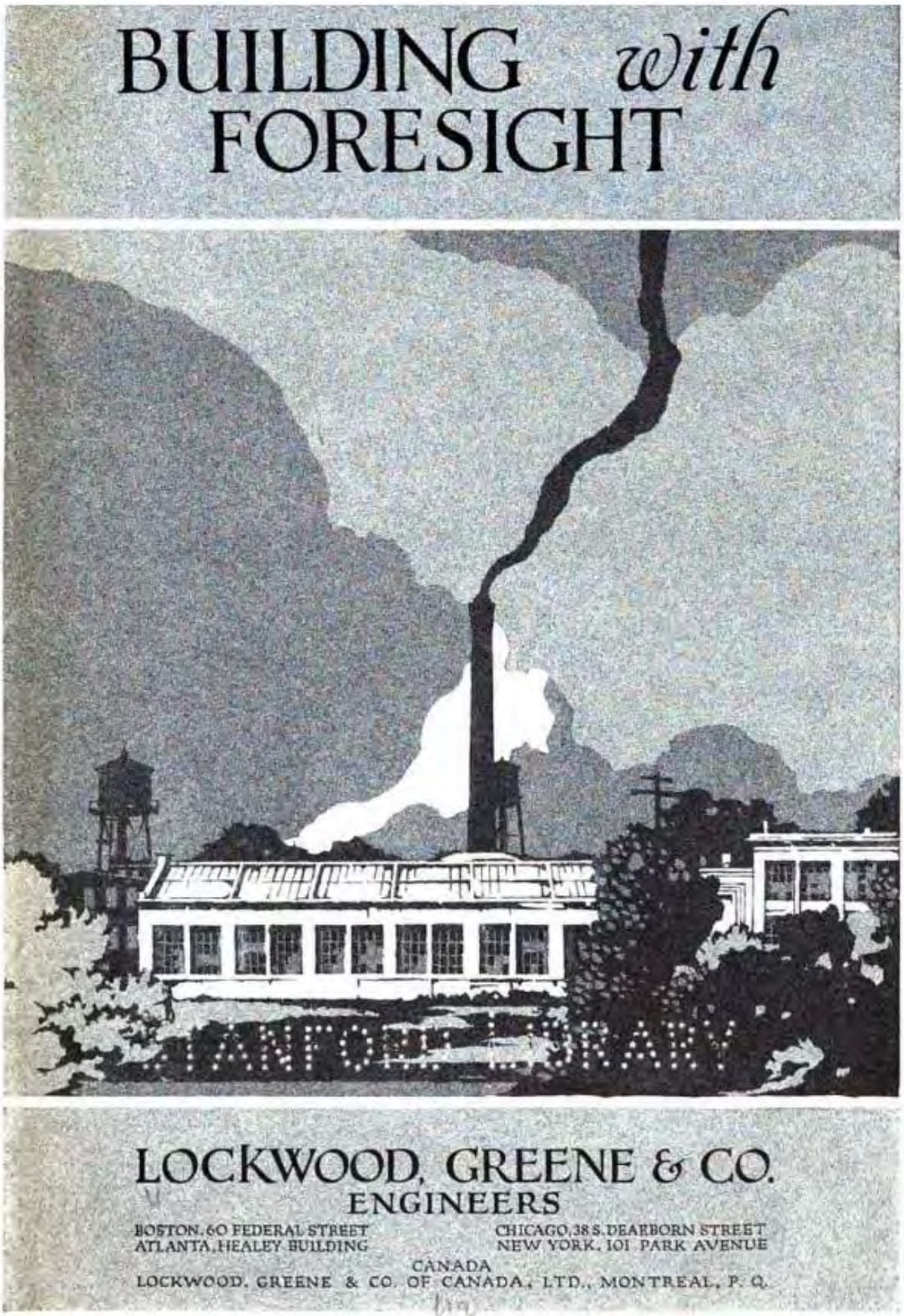
The Shoemaking Room at Lycoming Rubber Company, 1916
Image downloaded at http://www.lycoming.edu/textile/garment.html

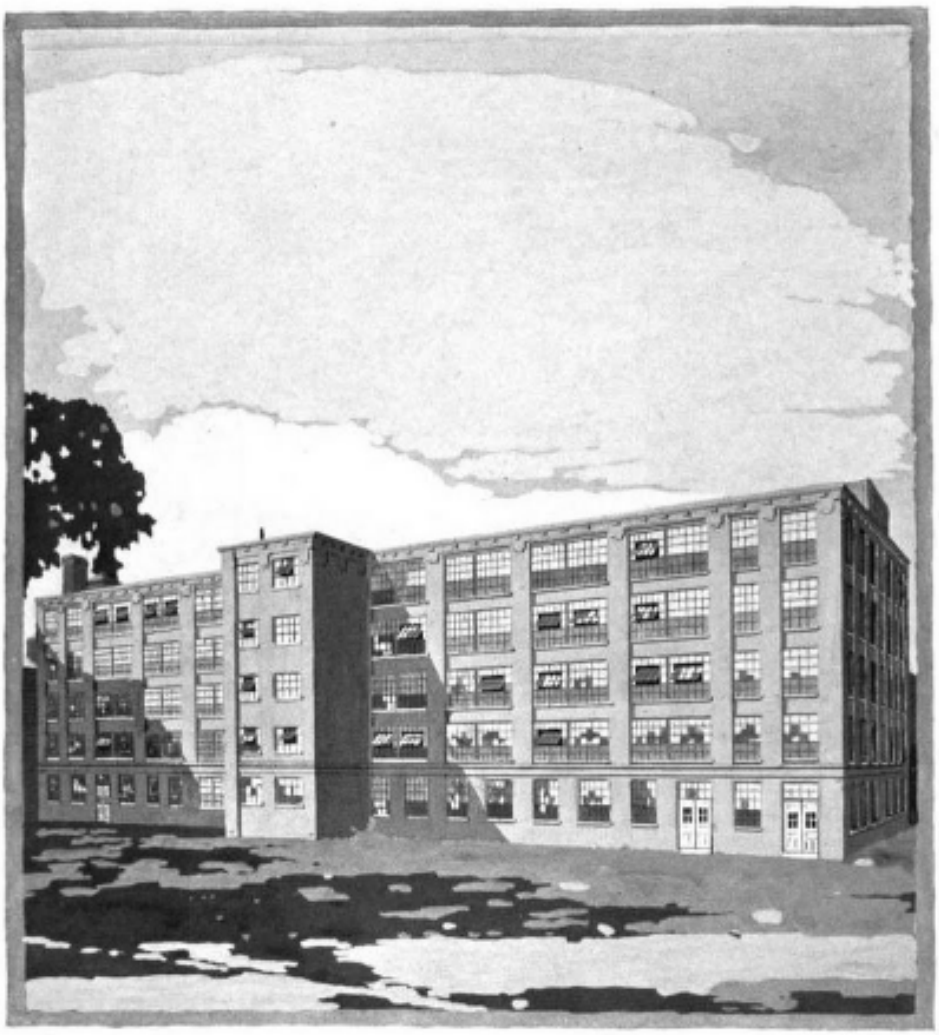


The Keds Team of the Lycoming Rubber Company in 1929
Image downloaded at http://www.lycoming.edu/textile/garment.html

Byron S. Ames in the cutting department of the Lycoming Rubber Company, 1916
Image downloaded at http://www.lycoming.edu/textile/garment.html


BUILDING with FORESIGHT
LOCKWOOD, GREENE & CO.
ENGINEERS
BOSTON, 60 FEDERAL STREET
ATLANTA, HEALEY BUILDING
CHICAGO, 38 S. DEARBORN STREET
NEW YORK, 101 PARK AVENUE
CANADA
LOCKWOOD, GREENE & CO. OF CANADA, LTD., MONTREAL, P. Q.

BUILDING WITH FORESIGHT



LYCOMING RUBBER CO.
Rubber Manufacturers
WILLIAMSPORT, PA.

One of a group of mills belonging to the United States Rubber Company. Our work consisted in enlarging an existing plant in a manner to provide for present requirements and future development. Beginning with the idea of a relatively small expenditure, the management later developed a plant of large dimensions, successfully following the plan developed from the beginning by Lockwood, Greene & Co.

THE TALK'S THE THING

(*Continued from page 82*)

one of these books, and then to turn to Dickens is like closing a grammar-book for Shakespeare. These recipes for writing need to emulate the oldtime English cookery recipe for jugged hare, which begins—"First catch your hare." Dickens has the hare, and can cook it how he will. Many of our moderns have only the accessories and the recipe, tho we are often pleased enough to partake of their dishes, to beguile a tedious journey or an hour of weariness.

Dickens is in all things extraordinarily prolific. He has no sense of husbanding his resources. Why should he, when he has never thought of their having a limit? He writes largely and freely, like a man that revels in writing, and is not self-conscious about it. He crowds his stage with characters, he weaves plot and counter-plot with gorgeous ease, fills his pages with incident and with his own wise and humorous comments and descriptions. Who does not remember inimitable touches, like that about Scrooge's house, which lost its way when it was a young house, playing hide-and-seek with all the other houses, and so had to stay in the little back court?

But where would Dickens' magic be without the constant talk of his creations? They are a sociable, talkative crowd: even the "villains," like Sairey Gamp and Quilp and Uriah Heep and Mr. Squeers and Pecksniff, reveal their characters in talk abundantly; and all Dickens' heroes are sociable and friendly young men. Everybody indeed, in Dickens' books can entertain us with their conversation by the hour—except his young women. Both Dickens and Thackeray struggled in vain with the problem of making live so psychologically unknown a problem as an ideally human young woman. Possibly no suitable young lady had ever conversed with them; at any rate, both struggled unhappily (one hopes) with the conviction that a young lady cannot be both clever and good.

To find live young women one must go to a woman writer of past days like Jane Austen, with her delicate dialog and fine characterization, or passionate Charlotte Brontë; or come on to the modern literary world, where woman has come to almost more than her own. Writers like H. G. Wells and Arnold Bennett have woven novels in which not only is the heroine the most interesting figure, but actually the one the story is about. Ann Veronica and Hilda Lessways are very much alive, if they are not the last word in womanhood even of our day; and their dialog is never dull. They talk simply and sincerely, and they are interested in life in a way that makes them both representative human beings and excellent companions. The whole impression is one of vital humanity, struggling, suffering, enjoying, failing and hoping even as we ourselves and the people round about

Wouldn't you like to join them?

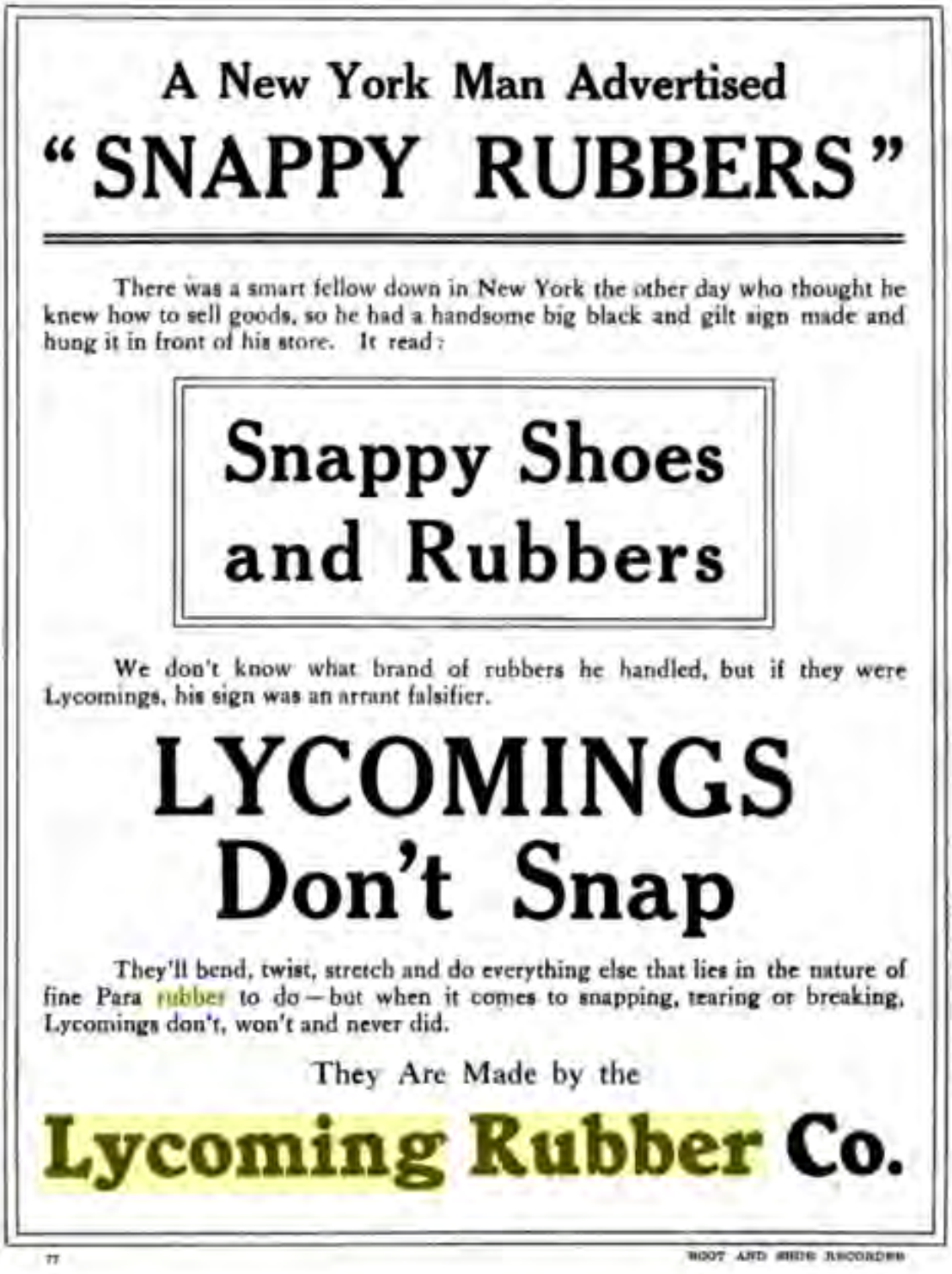
NOW here's a cool, inviting prospect. What more could mortal ask—a sequestered nook, a 3-pound trout coquetting with your fly, and a pair of light, tough, perfect-fitting Lycoming Sporting Boots.

It's an adage in the trade that a pair of damaged rubbers has never left the Lycoming Factory.

There are other good rubbers in the market—some; but a better rubber than the Lycoming (we don't care what you use for comparison—Boots, Lumbermen's Arctics, Sandals, Croquets,—anything,—everything) does not exist.

You will never find a flaw in Lycoming Rubbers

Lycoming Rubber Company



A New York Man Advertised

"SNAPPY RUBBERS"

There was a smart fellow down in New York the other day who thought he knew how to sell goods, so he had a handsome big black and gilt sign made and hung it in front of his store. It read:

Snappy Shoes and Rubbers

We don't know what brand of rubbers he handled, but if they were Lycomings, his sign was an arrant falsifier.

LYCOMINGS Don't Snap

They'll bend, twist, stretch and do everything else that lies in the nature of fine Para rubber to do—but when it comes to snapping, tearing or breaking, Lycomings don't, won't and never did.

They Are Made by the

Lycoming Rubber Co.

77 BOOT AND SHOE RECORDER

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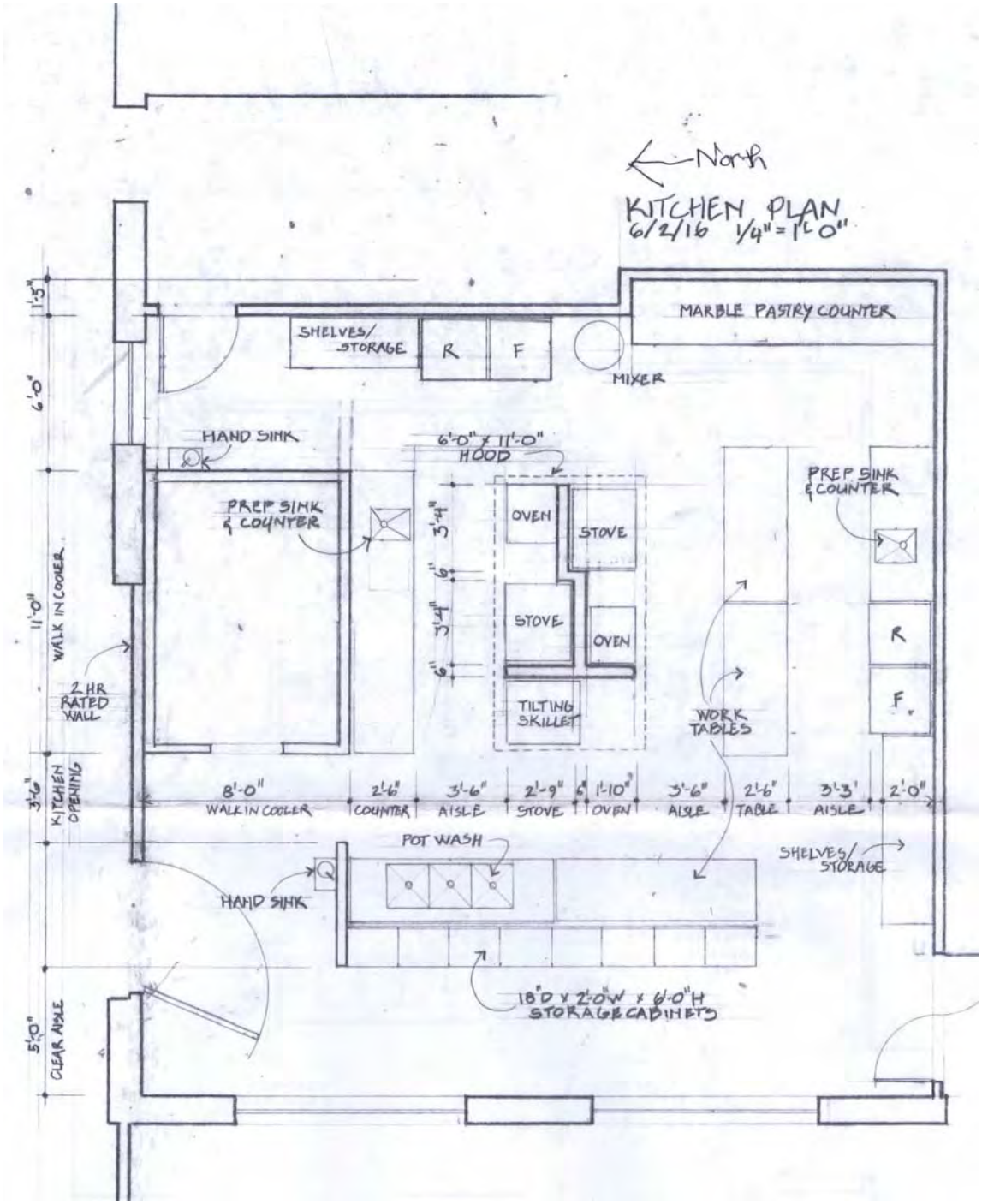


Construction drawing of community kitchen in northwest corner of Building K. Drawing provided by owner.

Floor plan of outdoor gear manufacturer occupying 3rd floor of Building L (north is up). Drawing provided by owner.


WOODSHOP


WOODSHOP


COUNTERTOPS
SIDEWALKS
DRIVEWAYS
CONCRETE DESIGN
SAWING


2
2
2
2


FIRE CODE
6·1·5
BLDG. 1
FLOOR 2


FLOOR LOAD
70 lb per sq ft


BLDG. 4
FLOOR 2
FLOOR LOAD
FIRE CODE
6·2·4
SYLVANIA


FLOOR LOAD
45 lb per sq ft
FIRE CODE
6·1·3


EXIT


FLOOR LOAD
45 lb. per sq.ft.
BLDG. 6
FLOOR 2
EXIT


BLDG. 6
FLOOR 3
FLOOR LOAD
30 lb per sq ft
EXIT


becker.s
art in photography
love
EXIT
ALL
EQUALLY


STUDIO DIRECTORY


CAUTION


BLDG. 8
FLOOR 5
FIRE CODE
6-4-2
EXIT


WXPI
88.5 FM
BOOTS
PAJAMA
NOW LEASING
570-323-7696
OPEN


PAJAMA FACTORY


WAY COOL BEANS
Coffee Worth Gettin Outta Bed For
570-601-7512


WERNER


EXIT


HAPPI
DAY
WELCOME


MURRAY


LEARN HOW TO PRINT CUSTOM T-SHIRTS WITH SUNLIGHT!
MORE

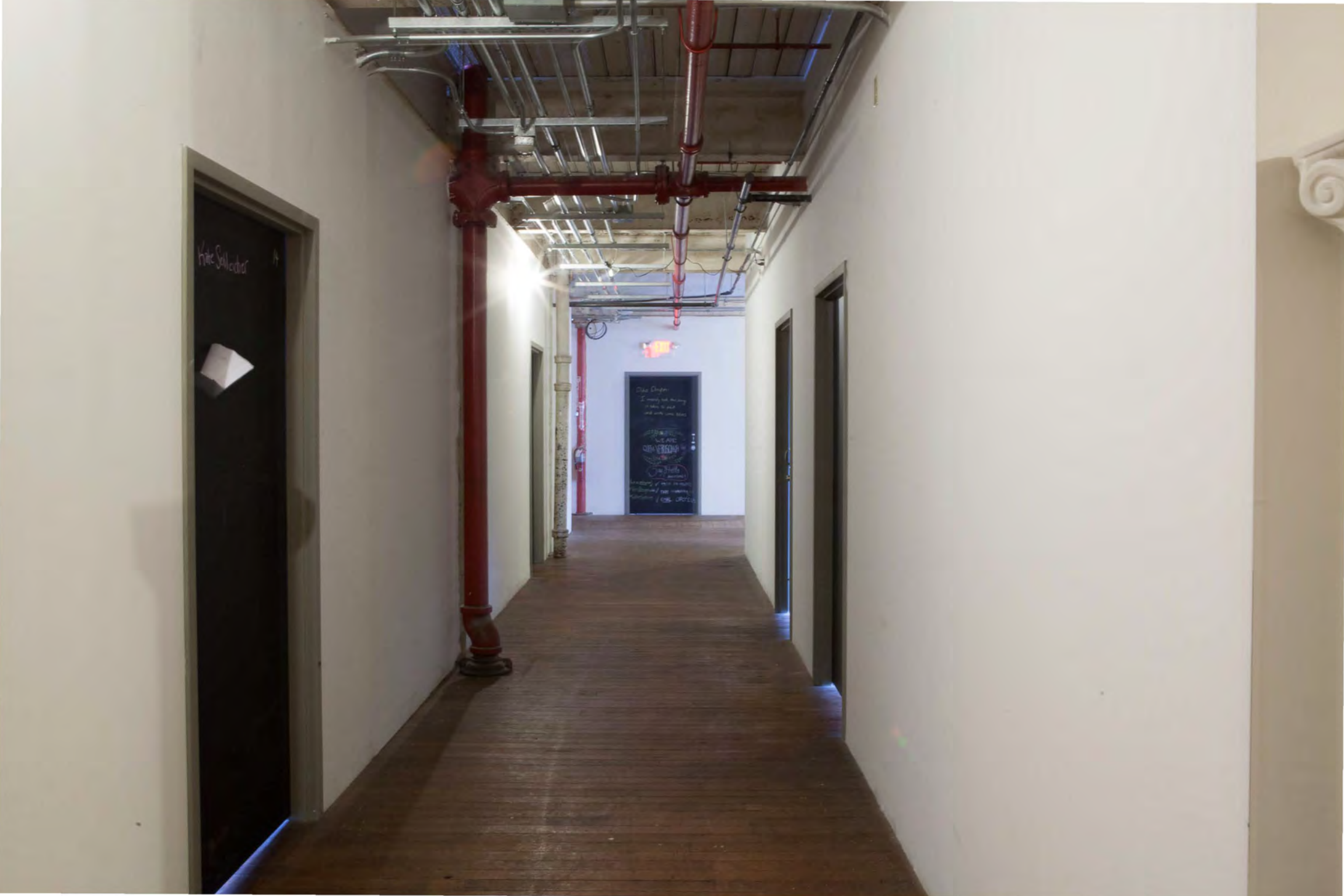

F26
F27
F28


TREBECCA


BACKPACKING


EXIT


NOLA
Rising




BLDG. 3
FLOOR 5
FLOOR LOAD
225 lb per sq ft
EXIT
CE


NO ADMITTANCE
EMPLOYEES ONLY
PLEASE PUT CIGARETTE BUTTS IN SAND BUCKETS
1


RAYTHEON

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES
EVALUATION/RETURN SHEET

Requested Action: Nomination

Property Name: Lycoming Rubber Company

Multiple Name:

State & County: PENNSYLVANIA, Lycoming

Date Received:	Date of Pending List:	Date of 16th Day:	Date of 45th Day:	Date of Weekly List:
11/6/2017	12/5/2017	12/20/2017	12/21/2017	

Reference number: SG100001909

Nominator: State

Reason For Review:

__X__ Accept _____ Return _____ Reject **12/21/2017** Date

Abstract/Summary Comments:

Recommendation/ Criteria: Accept, National Register Criterion A.

Reviewer Patrick Andrus Patrick Andrus Discipline Historian

Telephone (202)354-2218 Date 12/21/2017

DOCUMENTATION: see attached comments : No see attached SLR : No

If a nomination is returned to the nomination authority, the nomination is no longer under consideration by the National Park Service.

City of Williamsport
Community Development Office
May 23, 2017

Mr. David R. Maher
Pennsylvania State Historic Preservation Office
Commonwealth Keystone Building
400 North Street 2nd Floor
Harrisburg, PA 17120

Reference - 1307 Park Avenue 70-002-511

Dear Mr. Maher:

The Historic Architectural Review Board of the City of Williamsport is pleased to offer support for the "Lycoming Rubber Factory" (Pajama Factory), National Register nomination. The board believes this sprawling complex looks much as it did in the past, retaining many features, such as the large multi paned steel windows with original prism glass panes, clerestory, exterior brick work, and smokestack, and that it retains its industrial or "sweat shop" feel.

Buildings of this nature, once plentiful, are being demolished. The opportunity to retain and return such a site to productive use coupled with the recognition of its historic importance as an architectural sample and a reminder of our local history, is strongly encouraged. The board has noted that the buildings, while not on the current City adopted list of Historic Buildings and Sites, is on the 2015 City of Williamsport Historic Structures Update Survey, anticipated to be adopted as part of the County wide Historic/Comprehensive Plan update. HARB has also noted the property is SHPO Eligible – under Key#035741.

Thank you for the opportunity to comment on the nomination proposal and participate in the National Register process.

Sincerely,

Mary Rucinski
Mary Rucinski (for)
Williamsport Historic Architectural Review Board

Anthony H. Visco Jr. • Architects

441 Market Street • Williamsport, Pennsylvania 17701 • 570-322-3460

10 MAY 2017

MS. MARY RUCINSKI
ASST. DIRECTOR/HIST. PRES. OFFICER
CITY OF WILLIAMSPORT
245 WEST FOURTH STREET
WILLIAMSPORT, PA 17701

Re: Lycoming Rubber Company
1307 Park Avenue
Williamsport, Lycoming County, PA

Mary,

As a member of the Historic Architectural Review Board, I am adding my recommendation as part of the HARB submission to the Pennsylvania State Historic Preservation Office for the Lycoming Rubber Company.

The Lycoming Rubber Company, later repurposed as the Pajama Factory, has become a landmark in the northwestern section of the City of Williamsport. Located outside the City's nationally registered Historic District, this recognition would be vital to the incredible repurposing of the historic manufacturing complex.

Occupying the building is a blend of new occupancies, including retail, restaurants, winery, wood working shop, metal design fabricator, gardens-outdoor activities, numerous artisans, and apartments, with new penthouse apartments to be completed soon.

The complex is growing into a sustainable village containing many venues and must be protected as a viable landmark.

Very truly yours,

ANTHONY H. VISCO, JR., ARCHITECTS
EEL/pmr
2017 AHV-01 LYCOMING RUBBER COMPANY.

Pennsylvania State Historic Preservation Office
PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION

November 3, 2017

J. Paul Loether, Deputy Keeper and Chief
National Register and National Historic Landmark Program
National Register of Historic Places
1849 C Street NW Mail Stop 7228
Washington DC 20240

Re: NR nomination discs

Dear Mr. Loether:

The following nomination forms are being submitted electronically per the "Guidance on How to Submit a Nomination to the National Register of Historic Places on Disk Summary (5/06/2013)":

- Boyertown Burial Casket Company, Montgomery County
- Hotel Abraham Lincoln, Berks County
- Lycoming Rubber Company, Lycoming County
- Howell & Brothers Paper Hangings Manufactory, Philadelphia County
- Meyerhoff, Son and Company Building, Montgomery County

The enclosed discs contain the true and correct copies of the nominations listed above. The proposed actions are for listing in the National Register of Historic Places.

If you have any questions regarding the nominations please contact David Maher at 717-783-9918.

Sincerely,

David Maher
National Register section
Preservation Services