

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form



HISTORIC PRESERVATION OFC
14 FEB'17
RCVD

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. Place additional certification comments, entries, and narrative items on continuation sheets if needed (NPS Form 10-900a).

1. Name of Property

historic name Trenton Watch Company Building/ Circle F Manufacturing Company Building

other names/site number Ingersoll Trenton Watch Company Building

2. Location

street & number 720 Monmouth Street

city or town Trenton City

state New Jersey code NJ county Mercer code 021 zip code 08609

☐ not for publication
☐ vicinity

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

Paul Boony Ass't. Commissioner 2/16/17
Signature of certifying official/Title Date

NJ DEP
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

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):

John Nelson H. Beall 4.3.17
Signature of the Keeper Date of Action

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5. Classification

Ownership of Property

(Check as many boxes as apply.)

<input checked="" type="checkbox"/>	private
<input type="checkbox"/>	public - Local
<input type="checkbox"/>	public - State
<input type="checkbox"/>	public - Federal

Category of Property

(Check only **one** box.)

<input checked="" type="checkbox"/>	building(s)
<input type="checkbox"/>	district
<input type="checkbox"/>	site
<input type="checkbox"/>	structure
<input type="checkbox"/>	object

Number of Resources within Property

(Do not include previously listed resources in the count.)

Contributing	Noncontributing	
1	0	buildings
0	0	sites
0	0	structures
0	0	objects
1	0	Total

Name of related multiple property listing

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

N/A

Number of contributing resources previously listed in the National Register

0

6. Function or Use

Historic Functions

(Enter categories from instructions.)

INDUSTRY/PROCESSING/EXTRACTION –

Manufacturing facility

Current Functions

(Enter categories from instructions.)

VACANT/NOT IN USE

DOMESTIC – Multiple dwelling

7. Description

Architectural Classification

(Enter categories from instructions.)

COLONIAL REVIVAL

LATE VICTORIAN

OTHER - INDUSTRIAL

Materials

(Enter categories from instructions.)

foundation: STONE

walls: BRICK

roof: SYNTHETIC

other: WOOD

STONE

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Narrative Description

(Describe the historic and current physical appearance of the property. Explain contributing and noncontributing resources if necessary. Begin with a **summary paragraph** that briefly describes the general characteristics of the property, such as its location, setting, size, and significant features.)

Summary Paragraph

The Trenton Watch Company Building/ Ingersoll Trenton Watch Company Building/ Circle F Manufacturing Company Building, hereafter known as the Trenton Watch Company Building, is an industrial factory located on a 1.9-acre parcel at 720 Monmouth Avenue in the Chambersburg neighborhood of Trenton, New Jersey. The building was constructed in five primary phases: 1886, 1911, 1924, 1926 and 1955 (Figure 9 and Building Chronology). Each section is characteristic of the period in which it was constructed. The Trenton Watch Company Building retains its integrity, as both the overall form and defining stylistic characteristics remain intact since the last significant construction in 1955. There have been no significant demolitions since the earliest portion of the building was constructed in 1886.

Narrative Description

The Trenton Watch Company Building occupies the entire block. Tyler Street is the northern boundary; Monmouth Street is the western boundary; Culbertson Avenue is the southern boundary; and North Anderson Street is the eastern boundary. There is a paved parking lot at the southwest corner of the block and an open paved area near the center of the Tyler Street elevation. Two sheds, built around 1980, are non-contributing and project into the open area (Photograph 12). A concrete block shed with a flat roof projects from the north elevation of the 1955 building and a stuccoed shed with a shed roof projects from the west elevation of the 1955 building. All four streets have paved sidewalks partially flanked by narrow grassy areas and street trees. The building stands approximately .5 miles east of the Trenton Freeway, one mile east of the Delaware River and .5 miles south of the rail line. Trenton Central High School and St. Francis Medical Center are located two blocks to the east. The surrounding neighborhood primarily consists of a mix of early 20th century two- and three-story row houses and scattered early 20th century low-rise educational and religious buildings.

The oldest portion of the complex is an L-shaped, 3-½ story building that dates from 1886 (Photographs 1, 2, 13 and 17). This building has both a hipped and gabled roof with two gables at the western end and a truncated brick smokestack at the eastern end (Photograph 14).² The overhanging eave of the roof is supported by wood bullnose rafter tails (Photograph 1). The 1911 section is a 1½- and 3½-story brick building with a T-shaped footprint and a flat roof located to the north of the 1886 section (Photographs 14-16). The 1924 portion of the complex is located to the south of the 1886 section (Photographs 3-6). It is a 2½-story brick building with a rectangular footprint and both a hipped and a flat roof. The 1926 section is also located to the south of the 1886 section (Photographs 7 and 8). The 2½- and 4½-story brick building has an L-shaped footprint and a flat roof. The 1955 section is located to the east of the 1886 and 1926 sections (Photographs 9-12). The 2-story brick building has an L-shaped footprint and a flat roof.

The 1886 building is constructed of brick with banded molded brick and stone detailing. The primary, west elevation faces Monmouth Street and is six bays wide (Photograph 2). It is divided into three sections, which are accented by brick pilasters with stone caps. In the center of the elevation, a stone plaque with raised stone letters reads "Trenton Watch Company" (Photograph 1). In the outer bays of

² As can be seen in Figure 5, the smokestack was originally substantially taller.

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the 1st and 3rd floors and in the center bays on the 2nd floor, the window openings have flat heads and stone sills. In the outer bays of the 2nd floor and the center bays of the 1st and 3rd floors, the window openings arched brick heads and stone sills. The secondary east, north and south elevations, which are also accented by brick pilasters with stone caps. The 1st and 3rd floor window openings primarily contain flat heads and stone sills. The 2nd floor window openings primarily contain arched brick heads and stone sills. The majority of openings contain 1998 replacement windows but some in the easternmost section have been infilled with brick but the original heads and sills remain visible.

The 1911 addition is 1½- and 3½-stories and all elevations are constructed of brick with stone detailing (Photographs 14-16). Most of the brick and stone have been painted. The addition is two bays wide and ten bays deep and the bays are separated by substantial brick pilasters with stone detailing. The bays all contain large window openings with tripartite 1998 replacement windows and brick sills.

The 1924 addition is 2½-stories and designed in an industrial interpretation of the Colonial Revival style and all elevations are constructed of brick with stone detailing and a stone base. There is a simple wood cornice around the roofline. The primary, west elevation faces Monmouth Street and is four bays wide (Photograph 3). The northernmost bay is significantly recessed and connects the addition to the 1886 building. The 1st floor contains an elevated, multi-light, double-leaf replacement door. It is accessed by a set of stone steps with a metal railing and located beneath a wood awning. The 2nd floor contains a 1998 replacement window with a jack arch brick head and a brick sill. Each of the remaining three bays are flanked by brick quoins and the center bay contains a stone surround with a bracketed and broken arched pediment on the 1st floor and a stone window surround on the 2nd floor. In the center bay, the 1st floor opening has been infilled with contemporary tile and the 2nd floor opening contains a 1998 replacement window (Photograph 3). In the outermost bays, the basement openings contain paired 2-light 1998 replacement windows and the upper floors contain paired 1998 replacement windows with brick sills and brick jack arched head with stone keystones. On the secondary north and south elevations, the basement openings contain single and paired 2-light 1998 replacement windows and the upper floors contain single and paired 1998 replacement windows with brick sills and brick jack arched head with stone keystones.

The 1926 addition is 2½- and 4½-stories, and all elevations are constructed primarily of brick. The addition is eight bays wide and three bays deep. On the east and west elevations, the rectangular window openings primarily contain paired 1998 replacement windows and brick sills (Photograph 7). On the south elevation, the western end of the façade has been covered in painted stucco and has a centered double-leaf glazed replacement door (Photographs 5 and 6). The window openings in that portion of the elevation contain paired 1998 replacement windows. The westernmost bay of the brick portion contains tripartite 1998 replacement windows and brick sills (Photographs 6 and 7). The two easternmost bays contain a single-leaf metal door to the east on the 1st floor and 1998 replacement windows with brick sills and heads on the upper floors. The bays are separated by substantial brick pilasters throughout. To the north of the addition are three small, full-height projections. The southernmost projection is clad in vinyl siding and the northern two are constructed of brick.

The 1955 addition is 2-stories and is constructed of brick with a stone base, stringcourse and cap along the roofline. On the south elevation, the western end of the 1st floor contains two large garage-style doors and a double-leaf metal door. (Photographs 8 and 9) The remainder of the 1st floor and the entirety of the 2nd floor contain multi-light industrial metal ribbons windows with 4-light operable

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sections. The east and west elevations contain multi-light industrial metal ribbons windows with 4-light operable sections on both floors (Photographs 10 and 11). The north elevation contains a large garage-style door at the west end of the 1st floor (Photograph 12). The remainder of the 1st floor and the entirety of the 2nd floor contain multi-light industrial metal ribbon windows with 4-light operable sections.

Interior Description

The interiors of the 1886 building and of the 1911, 1924 and 1926 additions were not completely accessible at the time of survey (Photographs 25-31). However, the accessible portions have undergone comprehensive renovation during the conversion to residential units and there is no sense of the original building sections other than the substantial brick walls that separate the various building sections. The finishes are largely contemporary and include carpeting, painted drywall partitions and dropped acoustical tile ceilings. Some of the extant visible original elements include painted exposed brick in the original stairwells and, in the area between the 1886 building and the 1924 addition, the roofed in area has exposed brick walls and pilasters (Photographs 18-20). The original window openings also remain intact but the frames and sashes have been removed. All of the other original finishes, including exposed wood and concrete columns, exposed floor joists and wood floors and brick walls remain intact and encapsulated within the new finishes.

The interior of the 1955 addition is primarily open in plan on both floors (Photographs 32-41). There is an axial grid of mushroom cap painted concrete columns on the 1st floor, which are unusual for a building of this late date, and painted steel columns on the 2nd floor, concrete floors, painted concrete ceilings and painted cinderblock walls. The 2nd floor also has an exposed metal truss ceiling. All of the utilities are exposed. The building has three return U-return stairway with metal treads and risers and a metal railing, which are located near the northwest and southwest corners and in the center of the west elevation (Photographs 32, 36 and 37). There is also one freight elevator that is located in the center of the west elevation (Photograph 34).

In 1998, the former industrial building was converted into residential units. As part of that conversion, a wraparound porch was added to the western end of the 1886 building and the previously open area between the 1886 and 1924 portions was roofed over (Photographs 1 and 17 and Figure 9).

Integrity

The Trenton Watch Company Building has the capacity to convey its significance as an industrial property. Both the overall form and the defining stylistic characteristics remain, including its brick masonry sections, stone detailing, regular window openings and symmetrical facades. While the windows have been largely replaced, the newer units were placed within the existing openings and the original fenestration patterns remain visible. The quality, placement and condition of the construction materials, as well as the individual architectural styles are both highly characteristic of the periods in which they were constructed and also all remain substantially intact.

The complex remains intact from the last phase of construction in 1955 and no significant portion of the complex was ever demolished either during the period of significance or since. The only alterations are the replacement of the windows in the four oldest sections during the 1998 renovation; the removal of three 1-story sheds for the construction of the 1955 addition; the truncation of the smokestack from the 1886 building and the removal of the cupola from the 1886 building, both of

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which can be seen in the 1895 rendering (Figure 5). The renovations also involved the addition of a wraparound porch to the western end of the 1886 building and a roof between the 1886 building and 1924 addition. The conversion of the interior into apartments necessarily subdivided the floor plan and encapsulated the majority of the original finishes, including exposed wood and concrete columns, exposed floor joists and wood floors and brick walls, within the contemporary finishes. Some of the extant visible original elements include painted exposed brick in the original stairwells and, in the area between the 1886 building and the 1924 addition, the roofed in area has exposed brick walls and pilasters. The former exterior window openings also remain intact. Despite the extent of the contemporary alterations, they are wholly reversible and, although they did not unfortunately allow for the original finishes to be exposed, they do not present a permanent adverse impact on the interior of the historic structure.

The location and setting of the building, as addressed in Section 8, Pages 5 and 6, remains intact since the 1886 building was constructed. The design and materials similarly retain their integrity. The workmanship is expressed through the range of architectural styles that were typical during their periods of construction and is of good quality. The feeling and associations of the building also have a high level of integrity, in large part because of the integrity of the previous five aspects. Although the equipment, furnishings and people have long since departed, the large intact building campaigns effectively convey the sense of place and the notable industrial history of once-prominent Trenton manufacturers.

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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.)

- ☒ 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.)

Property is:

- ☐ 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

1886-1966

Significant Dates

1886

1911

1924

1926

1955

Significant Person

(Complete only if Criterion B is marked above.)

N/A

Cultural Affiliation

N/A

Architect/Builder

J. Osborne Hunt (Architect)

William C. Ehret (Contractor)

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Statement of Significance Summary Paragraph (In one paragraph, provide a summary that briefly states what the significance of the property/district is, and, for each claim, identifies the level of significance and applicable criteria that apply. The summary paragraph also needs to identify the period of significance.)

The Trenton Watch Company Building was both the principal factory of a locally prominent watch-making company (1886-1921), and then the principal factory of a locally innovative and enduring electrical wiring manufacturer (1922-1990). The Trenton Watch Company, later the Ingersoll Trenton Watch Company, specialized in the comprehensive manufacture and assembly of various timepieces, parts and accessories. The Circle F Manufacturing Company manufactured electrical wiring, wiring devices, and associated fixture parts. By the mid-20th century, more than 70 percent of American appliances featured Circle F devices.³ Although individually significant, the two companies are also both noteworthy for manufacturing items to a large consumer market that went from individual luxuries to daily necessities during the era in which they were produced here. The Trenton Watch Company capitalized on the international fascination with personal timepieces, and the Circle F Manufacturing Company manufactured wiring devices in a time when electrical power, and its thousands of associated conveniences, was becoming a requirement in every home, city and state in the country. The factory meets National Register Criterion A with local significance in industrial history.

Period of Significance (Briefly justify the period of significance identified above.)

The period of significance begins in 1886, with the construction of the oldest section of the building, and ends in 1966, as the Circle F Manufacturing Company continued its successful operation after that time and in compliance with the National Register's fifty-year standard for listing. The building remained in continual use as manufacturing facility for the Circle F Manufacturing Company until 1990, at which time the company vacated the building. The western portion of the building was renovated into residential units in 1998 and the eastern portion is currently vacant.

Criteria Considerations (Briefly explain how the property meets any Criteria Considerations that apply.)

N/A

Developmental history (Explain the construction history or the creation of the property, and its evolution through the period of significance.)

One of the earliest maps of the block is an 1882 map that shows the entire parcel was owned by S.K. Wilson.⁴ The lot was empty except for one small shed in the northwest corner. The neighborhood surrounding the future factory site was primarily composed of large lots, which were undeveloped except for a single residence and an occasional outbuilding or two. The largest two buildings in the immediate neighborhood were Saint Francis Hospital to the southeast and the New Jersey School of Deaf Mutes to the southwest.

³ "Circle F Report." Circle F Manufacturing Company, Vertical Files, Courtesy of the Trenton Public Library, Trentoniana Room.

⁴ Wilson owned several of the surrounding lots as well.

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The Trenton Watch Company building first appears on an 1889 Fitzgerald Map. An L-shaped building facing Monmouth Street was only shown in general outline but it is clearly labeled "Trenton Watch Factory." The small shed has been demolished and the rest of the block was empty. The surrounding area shows no significant changes from the 1882 map. There were mostly large parcels of open land with freestanding residences.

An 1890 Sanborn Map shows a similar footprint for the Trenton Watch Company as the 1889 Map, but goes into more detail (Figure 1). The different sections of the 1- and 3-story building were noted as being used for a range of functions, including carpentry, finishing, storage, plating, training, offices, grinding, timing, hardening, soldering and gilding. Different areas were also designated for different watch components, including a case room, an escapements room and a dial room.⁵ The various functional aspects of a factory also appear, such as a water tank, a forge, an oil house, boilers and a coalhouse. A 1-story rectangular shed was also shown to the east. The adjacent neighborhood shows a comparable growth with the separation of larger lots into smaller ones and the construction of both 2- and 3-story rowhouses and twins. This building type would certainly classify as working class housing. There was also a significant increase in the number of churches, indicating that there was a new neighborhood population who was in need of them. This was perhaps in part because of the impact of the Trenton Watch Company. An 1890 Scarlet and Scarlet Map shows comparable information to the 1890 Sanborn Map.

A 1908 Sanborn Map shows that same configuration and function as the 1890 map (Figure 2). The neighborhood, however, shows a significant increase in development with almost no empty land available. The predominant new building type continues to be rowhouses and twins. More churches were also constructed to keep up with the demand.

A 1927 Sanborn Map shows significant changes and that the building belonged to the Circle F (Figure 3). Manufacturing Company. All of the original building remained and was shown as used for assembling, storage and office space. A 1- and 3-story addition was constructed to the north, which was used as a tapping room and machine shop.⁶ A 2- and 4-story addition was constructed to the south, which contained storage, shipping and office spaces.⁷ The 1-story shed was demolished but three freestanding storage and plating buildings have been constructed to the east, along with a 50,000-gallon water tank on a steel tower. The adjacent blocks now had no empty land at all.

A 1930 Franklin Map shows the same configuration as the 1927 Sanborn Map. However, the Trenton Central High School and the Union Industrial Home were now constructed. There were also some small-scale industrial buildings along E. State Street, but nothing at the same scale

⁵ An escapement is the piece of watch machinery that counts the number of rotations.

⁶ Additional information indicates that this addition dates to 1911.

⁷ Additional information indicates that these additions date to 1924 and 1926. The stylistic differences between the two can likely be attributed to the fact that the 1924 addition, as office and administrative space, needed a more formal appearance, while the 1926 addition could reflect its industrial function.

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as the Trenton Watch Company. Suddenly, Chambersburg has become a comprehensive and self-sufficient neighborhood that provides for every aspect of life.

1950 and 1955 Sanborn Maps also show the same configuration (Figure 4). In 1955, the three freestanding buildings were demolished and a large 2-story brick addition was constructed on the remainder of the lot. In 1998, the western half of the block was renovated into housing units. At that time, the area between the original building and the southern 1926 addition was infilled and a porch was added along the west elevation of the 1886 building.

In addition to fostering the construction of residential buildings, the Trenton Watch Company Building also supported the presence of numerous jewelry stores along E. State Street. Period maps show a high concentration of jewelry stores and it is possible that this was related to the proximity of the factory. One of the unique aspects of the company's organization was that it sold directly to jewelry stores and it is therefore understandable why it would be advantageous to both to be conveniently located to one another.

Narrative Statement of Significance (Demonstrate each of the claims for significance made in the summary paragraph.)

A Brief History of the Chambersburg Neighborhood

The Trenton Watch Company Building is located in the working-class neighborhood of Chambersburg in the south ward of the City of Trenton. Both the Trenton Watch Company and the Circle F Manufacturing Company, the two companies located at 720 Monmouth Street during the period of significance, were highly specialized industries and typical of the Chambersburg neighborhood and fulfilled a prominent niche in Trenton's industrial story.

The area, extending over approximately twenty blocks, was named for Robert Chambers, one of its early founders. Chambersburg was first incorporated as a borough in 1872, but was officially annexed by the City of Trenton in 1888. Historically a mixed industrial and residential neighborhood, Chambersburg is best known as the home of the John A. Roebling Wire Works, which moved there in 1848. Manufacturers of wire rope, the Roebling Wire Works was involved with some of the country's most famous bridges, including the Brooklyn Bridge, the George Washington Bridge and the Golden Gate Bridge.

From the late 19th to mid-20th centuries, the neighborhood was home to the large immigrant population who "worked in the city's industries that bordered Chambersburg." Even in 1970, 35% of the neighborhood workers were employed in manufacturing.⁸ Period city directories from the early 20th century provide many examples of residents of the streets adjacent to the Trenton Watch Company as being employed in the profession of watchmaker. Although it is not possible to conclusively determine where these people worked, it is highly likely that a number of them were employed by the Trenton Watch Company.

In examining a list of Circle F employees from c.1930, the last names cover a range of ethnicities and include, Albanowski, Lassiter, McKinnis-Manning, DiFiore, Amodeo, Zucchetti,

⁸ John T. Cumbler. *A Social History of Economic Decline: Business, Politics and Work in Trenton* (New Jersey: Rutgers University Press, 1989): 149.

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Yackenovitch, Jones, Kucharski, Silva, Miller, Van Doren, Rivera and Hauser.⁹ When cross-referenced with city directories, many of these employees can be identified as living within a one-mile radius of the factory. In addition to listing addresses, the city directories also list the profession of each resident. In addition to being listed as watchmakers, employees of the Trenton Watch Company were also listed as being electricians, laborers, clerks and stenographers.

Both the Trenton Watch Company and the Circle F Manufacturing Company, both by their large scale and ceaseless productivity, were a catalyst for the development of the Chambersburg neighborhood. The neighborhood “grew up around [the] large factory... When it closed in 1990, the neighborhood began to decline because of both the loss of jobs and the blighting effect of the vacant factory.”¹⁰ While the company thrived however, and even as it shifted operations, it remained “the heart of a small working class neighborhood in Trenton’s East Ward.”¹¹

A Brief History of Watch Manufacturing in the United States in the 19th Century

In 1809, Luther Goddard opened a watch manufacturing business in Shrewsbury, Massachusetts. Known as “America’s first watch-manufacturer”, his business flourished primarily because of a law prohibiting the import of foreign made watches.¹² When the law was repealed in 1815, Goddard could not compete and his business closed. The next significant attempt was by the American Horologe Company, known later as the Waltham Watch Company, which was established in 1850. The company immediately differentiated itself by manufacturing watches using standardized parts, a technique made popular by Eli Whitney. Other notable competitors at that time were the Elgin National Watch Company, established in 1864, the Hamilton Watch Company, established in 1892 and the Gruen Watch Company, established in 1894.¹³ In large part bolstered by both the great military demand during the Civil War and the expansion of the railroad, the United States had thirty-seven watch manufacturers by 1869.¹⁴ In keeping with other manufacturing trades in the late-19th century, the watch manufacturing business expanded in terms of output and market position but also streamlined in terms of manufacturing efficiency and number of companies. They also began to specialize and hone their product lines. One of the first companies to notably embrace these practices was the Ingersoll Company, who began to manufacture dollar watches. They rebranded the idea that pocket watches were exclusively reserved for wealthy businessmen.

A Brief History of the Trenton Watch Company

The Trenton Watch Company was founded in October 1883 with a capital of \$100,000 under the name of the New Haven Watch Company and was located there. In 1886, with the initial capital expended, the company moved to the Chambersburg neighborhood of Trenton and the

⁹ “Former Circle F Employees List.” <http://mackstruckofwisdom.blogspot.com/2011/12/former-circle-f-employees-list.html>. Accessed on September 17, 2014.

¹⁰ Alan Mallach. *Bringing Buildings Back: From Abandoned Properties to Community Assets* (New Jersey: Rutgers University Press, 2006): 241.

¹¹ Seth Kirshenber. *Brownfields Redevelopment: A Guidebook for Local Governments and Communities* (Washington, D.C.: The Association, 1997): 13.

¹² Harry C. Brearley, *Time Telling through the Ages* (New York: Doubleday, Page & Co., 1919): 161-162.

¹³ Brearley, 178, 182.

¹⁴ Brearley, 182.

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name was changed to the Trenton Watch Company.¹⁵ From the time of its founding, period business and industrial directories list it as the only watch manufacturer in the city of Trenton and one of only two or three in the state of New Jersey.

The first portion of the building was immediately constructed of pressed brick with hard pine finishes and the finished factory was described as being “one of the most complete in all its details (Figure 5).”¹⁶ Because of the precision work required in watch manufacturing, adequate natural light was vital. With over three hundred windows, a period journal stated that the light in the factory “is splendid, each workman having a window to himself.”¹⁷

When the factory opened, it had approximately 200 employees who produced approximately 180 watches daily, but the space was capable of accommodating 250 employees manufacturing 500 watches.¹⁸ To put this number in a larger context, there were only three other industrial employers in Chambersburg at the time. One was the behemoth Roebling Wire Works and its subsidiary companies, several times as large, and the other two were the Trenton Iron Works and the American Cigar Company. The former was of a far larger scale with 600 employees in 1887 and the latter had 280 employees when it opened in 1902.¹⁹

By 1895, the company had 210 employees, half of whom were women. The factory by this time was described by a reporter as being “one of the most complete in the country.”²⁰ His article from the *Trenton Evening Times* describes this completeness further:

The machine shop contains machinery used solely in repairing and making the fine mechanism that turns out the various parts of the watch; the train room, where the wheels and pinions are made; the escapement department, where the finest and most difficult work in the production of a watch – the wheel cutting – is performed; the finishing room; tempering room; the polishing department; the gilding room, where portion of the watches’ interiors are made to assume a golden hue; the press room, where huge machines with heavy jaws bite the circular bit out of large sheets of metal of which the dials are made; the carpenter shop; the blacksmith shop; the dial stamping room and baking kilns.²¹

The result of such industriousness was 400 complete movements per day for fourteen types of men’s watches and twenty types of women’s watches. The president of the company at that time was former Trenton Mayor Frank A. Macgowan.

¹⁵ Additional investment was promised with the move, both from private investors and the city of Trenton. Although it is not clear why that specific plot of land was purchased, the Chambersburg neighborhood was already home to a high concentration of jewelers and jewelry stores. Because of the close relationship between the factory and these sellers, it is reasonable to assume that such proximity was a major advantage.

¹⁶ Henry G. Abbott, *Watch Factories of America* (Chicago: George K. Hazlitt and Co., 1888): 125.

¹⁷ Abbott, 125.

¹⁸ Abbott, 126.

¹⁹ “Factories of the American Tobacco Co., (The Cigar Trust).” *The Cigar Makers’ Official Journal* 27:8, 15 May 1903: 17.

²⁰ “Watch Works Resume.” *Trenton Evening Times* (15 January 1895): np.

²¹ “Watch Works Resume.”

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In 1901, the Trenton Watch Company expanded to “about double the capacity of the works” and had 305 employees. These large numbers are specifically cited by Edwin Robert Walker in his 1929 publication *A History of Trenton*, as part of a larger discussion about Trenton’s prominent industries.²² In 1906, there were 390 employees and the business was stated as being in a highly profitable condition” with “a fine modern factory” and the “very best machinery known to the trade.”²³

In December 1906, John Moses, the principal stockholder of the company died and his wife, Olivia Moses, petitioned the Court of Chancery to place the company into receivership so that she could recoup his investment.²⁴ After reviewing a report by the two receivers – John A. Cutter and Lewis A. Thompson – the court confirmed that the company should immediately be put into receivership.²⁵ In 1908, it was subsequently purchased by the Ingersoll Company for \$50,000.²⁶ The Ingersoll Company, which was previously known for its manufacture and sale of dollar watches, saw the more upmarket Trenton Watch Company as a way to diversify their product line.²⁷ The purchase of the company was so significant that it was the single event cited for Mercer County in June 1908 by the New Jersey Bureau of Statistics of Labor and Industries Annual Report.²⁸

The new company subsequently became known as the Ingersoll-Trenton Watch Company. It was wholly owned by brothers Charles H. and Robert H. Ingersoll and was “among the largest watch factories in the world.”²⁹ Due to the significant financial investment by the Ingersoll Company, the new Ingersoll-Trenton Watch Company initially had 500 employees.

Shortly thereafter, the company completed a significant 3½-story addition to the north of the original building. The fireproof structure was specifically noted for its large windows that contained violet-colored glass, which was believed to be beneficial to the eyes of the employees.³⁰ By 1910, the Ingersoll-Trenton Company was producing 12,000 watches every month.³¹ In a 1912 newspaper article, it was said that

²² Edwin Robert Walker et al, *A History of Trenton, 1679-1929: Two Hundred and Fifty Years of a Notable town with Links in Four Centuries* (Princeton, NJ: Princeton University Press, 1929). <http://www.trentonhistory.org/His/industries.html>. Accessed on June 16, 2016.

²³ “Factory Enlargements.” *Twenty-Fourth Annual Report of the Bureau of Industrial Statistics of Labor and Industries of New Jersey* (Trenton, NJ: MacCrellish and Quigley, 1907): 497; *Thirtieth Annual Report of the Bureau of Statistics of Labor and Industries of New Jersey for the year ending October 31, 1907* (Camden, NJ: Sinnickson Chew & Sons Company, 1908): 610.

²⁴ “Woman Wants Receiver.” *The Philadelphia Inquirer* (30 December 1906): 6.

²⁵ *Thirtieth Annual Report of the Bureau of Statistics of Labor and Industries of New Jersey for the year ending October 31, 1907*, 610.

²⁶ Brearley, 246.

²⁷ “Copy Embodies New Found Principles.” *Printers’ Ink* 91:3 (April 1915): 95-96.

²⁸ *Thirty-First Annual Report of The Bureau of Statistics of Labor and Industries of New Jersey for the year ending October 31st, 1908* (Camden, NJ: Sinnickson, Chew & Sons Company, 1909): 357.

²⁹ “Ingersoll Watch Co. Is Coming.” *Trenton Evening Times* (15 May 1908): 1.

³⁰ “Trenton Watches by the Thousands.” *Trenton Evening Times* (10 April 1912): 7.

³¹ Ingersoll-Trenton Watch Company Advertisement, 1910. This figure of 19 million includes those watches that were manufactured in New Haven between 1883 and 1886.

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There is not another factory in the city that requires such perfect work.... A fraction of an inch of a hair breath out of the way will prevent a piece of work from passing inspection. Every piece of work must be exact as to the dimension. ... Some of the pieces of a watch made at the factory can hardly be seen. For instance, tiny screws, which are turned out by a number of machines, are about the thickness of a point of a fine needle.³²

The article goes on to describe how one man can operate ten screw machines, the manufacture of the screws from fine wire, the setting of jewels within the machinery; and the final assembly, fitting and timing.

In 1912, the company purchased the Waterbury Watch Company in Waterbury, CT, which had previously manufactured select Ingersoll watches on commission.³³ The Waterbury plant primarily manufactured a four-jeweled model for \$2.50 and, later, the highly successful Ingersoll-Radiolite, which had numbers that glowed in the dark.³⁴ The plant was comparable in size to the Trenton factory, with approximately 300 employees, most of whom either relocated from Trenton or had previously worked at the Waterbury Watch Company.³⁵ These were the only two manufacturing facilities under the Ingersoll umbrella.

This consequently prompted the construction of a large 1- and 3-story addition to the north, completed in 1911. The addition allowed for the hiring of 200 more employees, almost doubling its capacity, and resulted in the determination that the factory was "the most modern of its kind in the United States."³⁶ By 1913, the company had 300 employees and produced 25,000 to 30,000 watches per month, due largely to the incorporation of new and additional machinery (Figure 6).³⁷ Despite these large numbers, a 1914 newspaper article stated that the company could only fulfill sixty to seventy percent of its orders.³⁸ The space was in part used for the manufacture of watch crystals, which had been previously almost exclusively produced in Europe.

After World War I, the country suffered a significant recession and the Ingersoll-Trenton Company was not spared. Although they tried to avoid collapse by firing all but 100 employees, their efforts were not successful and the company went bankrupt in 1921. This was largely because the Dollar Watch has such a small profit margin and the post-war recession increased production costs to an unsustainable degree. The company was purchased by the Waterbury Clock Company in 1922 for \$1,500,000.³⁹

³² "Trenton Watches by the Thousands."

³³ The Waterbury Watch Company was also known as the New England Watch Company.

³⁴ The women who painted the numbers later became known as the Radium Girls, because, during the painting process, they would wet the tip of the brushes with their mouths to maintain a fine point and consequently got radium poisoning.

³⁵ William Jamieson Pape, ed. *History of Waterbury and the Nugatuck Valley, Connecticut, Volume III* (New York: The S.J. Clarke Publishing Company, 1918): 546.

³⁶ John C. Honeyman, *New Jersey History, Volumes 85-86* (Trenton, NJ, New Jersey Historical Society, 1967): 195.

³⁷ *The Iron Trade Review Index* (Cleveland: The Penton Publishing Co., 1913): 720.

³⁸ "Building Construction." *Trenton Evening Times* (16 October 1914): 1.

³⁹ The Connecticut plant was purchased by the Waterbury Clock Company as well.

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Products of the Trenton Watch Company and the Ingersoll-Trenton Watch Company

From its founding, the Trenton Watch Company manufactured straight-line lever watches with “second hand, 18-size, jeweled, stem wind and set, and quick train,” in addition to watch components.⁴⁰ Period journals stated that the company specialized in the “manufacture, repair, purchase [of] watches, clocks and other timepieces of any kind, nature and description and all parts and accessories...” including “clock escapements, cyclometers and small mechanical novelties.”⁴¹ An 1896 newspaper article describes the cyclometer as, “completely eclipsing anything of that kind we have ever seen” (Figure 11).⁴² It came in three sizes, all of which were of aluminum and were dust proof and waterproof. The sizes measured 1,000, 10,000, 100,000 miles and repeats, respectively. To test the cyclometers, the company placed them on a steam power lathe and spun a minimum of twelve miles backwards and forwards at a rate of one mile per two seconds.⁴³

In 1897, the company also began producing chronographs, which were similar to a stopwatch and often used for horse racing.⁴⁴ In a typical watch factory, the watch mechanism would be assembled but then sent to an outside jeweler to be placed in a decorative case or the watch and the case would be manufactured independently and the retailer would complete final assembly. The Trenton Watch Company was wholly unique in that it always manufactured every aspect of the watch from the most minute of components to the gilded case, which was originally made from silverine.⁴⁵ Moreover, both the machinery and the case were also tested and guaranteed by a single manufacturer. This was the “only instance of the kind in the history of watchmaking.”⁴⁶ As such, the company was able to provide a high-end class of watch at an affordable price with a complete and thorough guaranty of quality and function.

Prior to its acquisition of the Trenton Watch Company, the Ingersoll Company was made famous by the Ingersoll Dollar Watch, which cost \$1.00 and was the best-selling watch in the world at that price point. Subsequent to the acquisition, the company also began to manufacture the Ingersoll-Trenton Watch (Figure 10). The Ingersoll-Trenton Watch was initially sold at three price points. There was a \$5.00 watch in a nickel case; a \$7.00 watch in a gold-filled case to last for ten years; and a \$9 watch in a gold-filled case to last for twenty years.⁴⁷ Over the years, the company expanded its offerings to include models costing \$8, \$10, \$12, \$15, \$19 and \$25. The various models had different numbers of jewels and a longer guaranty of the gold fill. Because the company only sold directly to the jewelers, they were able to fix these prices from the factory and were able to keep them regulated throughout the world.

⁴⁰ Abbott, 123.

⁴¹ *American Trade Index* (New York: National Association of Manufacturers, 1906): 220.

⁴² “Local News.” *The Homer Republican* (11 June 1896): 3. A cyclometer attaches to a bicycle and measures the distance that the bicycle travels by counting the rotations of the wheels.

⁴³ “Local News.” *The Homer Republican* (11 June 1896): 3.

⁴⁴ “The New Chronograph.” *Trenton Evening Times* (5 April 1897): 1.

⁴⁵ Silverine looked like silver but was a combination of nickel, copper and manganese.

⁴⁶ “Advertisers.” *Pearson’s Magazine* 23:2 (February 1910): 433.

⁴⁷ *The World’s Work, Volume III* (New York: Doubleday, Page and Company, 1910): 12908. Gold-filling is the process by which sheets of gold are welded together around a base metal. This provides a gold exterior at a substantially reduced cost.

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The introduction of the Ingersoll-Trenton watch to Ingersoll's product line interestingly doubled their profits from their Dollar watch, without doubling their production. As the Trenton Watch Company was historically associated with a higher-end product, the general public felt that although no changes were actually made to the Dollar watch, it was now seen as more of a luxury item.

By producing essentially only two types of watches, the company was able to reduce costs and increase efficiency, in contrast to other factories that were less specialized. The company was also unique in that, in keeping with the original approach of the Trenton Watch Company, they were involved with the watch from start to finish, including "casing, testing and regulating."⁴⁸ Other companies did not perform these final tasks. As such, it was the first "high-grade watch sold with a definitely printed guarantee covering the entire watch, movement, case and assembling."⁴⁹

The primary reason that the Trenton-Ingersoll watch could be fixed at a lower price point than the standard, high-end watch was because it had fewer jewels. Irrespective of the model, the Trenton-Ingersoll watch had seven interior jewels – three garnets, two sapphires, two rubies – that would prevent friction within the watch mechanism. These hard stones served a vital, rather than decorative, function as they could bear the brunt of the wear.⁵⁰ Despite the stone differential, the Ingersoll-Trenton watch was otherwise "in all other respects like a full jeweled model; it has the best materials obtainable, the same bridge model, micrometer adjustment, compensating balance, safety pinion, Breguet hair-spring of the very best watches and a special patented stem-wind superior to any other ever made."⁵¹ There was no other watch that could make this claim.

The Trenton Watch and the Ingersoll-Trenton Watch Companies were also notable for their significant innovations in the watch manufacturing industry. One of the most effective ways to assess this is through examining the types and dates of patents issued by the company. Between 1890 and 1904, the Trenton Watch Company obtained four patents, which included a setting and winding mechanism to increase efficiency and decrease production cost; a cyclometer, which measured the distance that a bicycle traveled; a watchcase with a simple opening system; and a watchcase that attaches to the watch with less material, thereby again reducing cost.⁵² Between 1913 and 1919, the Ingersoll-Trenton Watch Company obtained five patents, which included a method for attaching watchcase backs; a method for more securely attaching the dial plate; a method for manufacturing the hair spring that would ensure a more accurate movement; a new configuration of levers within the watch mechanism; and a new configuration for the relationship between the stem winding and stem setting mechanisms.

⁴⁸ Ingersoll-Trenton Watch Company Advertisement, 1909.

⁴⁹ Ingersoll-Trenton Watch Company Advertisement, 1909.

⁵⁰ In a standard watch, the points of intersection are subject to 432,000 motions every twenty-four hours.

⁵¹ Ingersoll-Trenton Watch Company Advertisement, 1912.

⁵² "Trenton Cyclometer." *Scientific American* 77 (25 September 1897): 207.

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The final two models debuted by the Ingersoll-Trenton Watch Company were the Reliance model in 1916, which was of a higher grade than those previously manufactured and the Radiolite, in 1919, which had a luminous radium dial.⁵³

A Brief History of Electrical Wiring Manufacture in the United States in the late-19th and early-20th Centuries

In 1879, Thomas Edison unveiled his invention of an interior residential light. Over the next decade, Edison refined his designs, making them fireproof and waterproof, which enabled their distribution to a broader market. The earliest residential wiring system was known as “knob and tube” and it consisted of encircling uninsulated wires within tubes and supporting the tubes with porcelain knobs to prevent friction and damage. The popularity of this system was initially fostered by a decision from insurance companies in 1891 that they would no longer insure wooden wire insulators because of the fire hazard they imposed. The manufacture of such products came from two sources: companies already engaged in the manufacture of porcelain products who just added this to their product lines, and companies specifically founded to manufacture these porcelain products. As demand for wiring was continually on the rise, both types of companies saw nothing but growth until the Great Depression. Just as with the watch manufacturers, the smaller companies were often bought out by the larger enterprises and while the individual number of operators decreased the output was resoundingly positive. The Circle F Manufacturing Company was clearly characteristic of this trend, not only specializing in porcelain manufacture but also consolidating numerous smaller companies under its umbrella.

A Brief History of the Circle F Manufacturing Company

The Circle F Manufacturing Company was an outgrowth of the E.H. Freeman Electric Company, which was founded in Trenton by Edgar H. Freeman in 1904. The original company was particularly known for the brass shell socket and its manufacture of parts for Atwater Kent radios.⁵⁴ The name of the Circle F Manufacturing Company was adopted in 1922 and referenced the trademark of the E.H. Freeman Electric Company, which was an “F” set within a circle (Figure 12). 1922 was also when the company moved to Monmouth Street, purchasing the subject property from the Ingersoll-Trenton Watch Company, which went bankrupt in 1921 and was subsequently sold to the Waterbury Clock Company in 1922. The Circle F Manufacturing Company moved the manufacturing, assembly and administrative operations of the company to Monmouth Street.⁵⁵ This repurposing of industrial buildings was typical in Trenton. A publication by the Trenton Chamber of Commerce in 1940 cited this type of conversion with numerous examples, including that of the Ingersoll-Trenton and Circle F companies.⁵⁶

Almost immediately, the company began constructing a 5-story addition to the southeast of the original buildings, to be used for general manufacturing and the storage of raw materials. The

⁵³ The Reliance model began with a production level of 1,000 per day.

⁵⁴ Ingersoll-Trenton Watch Company, Matchbook cover.

⁵⁵ Although originally two different companies, the E.H. Freeman Company and the Trenton Porcelain Company always shared offices and a board of directors. After the official merger, the Circle F Company adopted the product lines of both companies.

⁵⁶ Eleanore Nolan Shuman, *The Trenton Story* (New York: MacCrellish and Quigley Company, 1958): 201.

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brick building was designed by the notable Trenton architect J. Osborne Hunt and was similar in design to the 1911 addition (Figure 8).⁵⁷ William C. Ehret from Trenton was the contractor. Its estimated cost was \$100,000. When the company opened its factory on Monmouth Street in 1925, its capital stock was valued at \$1,250,000. Also in that year, the company absorbed the Trenton Porcelain Company. The original plant of the Trenton Porcelain Company remained at the southeast corner of Prince and Meade Streets, approximately one mile north, and served as the porcelain manufacturing arm of the company.

The next decade was the greatest period of innovation for the company with over forty patents issued by the company. These patents are discussed in greater detail in Section 8, Page 20. The most prolific inventors were employee Carl M. Petersen, founder Edgar H. Freeman and his son, Edgar Kenneth Freeman.⁵⁸ Despite these successes however, the company was in financial difficulties by 1936 and had only 150 employees. It was subsequently purchased by Herman B. Ring and several other investors.⁵⁹ Ring was named president and continued the operations of the company under the same name. By 1938, Ring had increased the number of employees to 373 and, in 1941, expanded by purchasing the building of the Fidelity Pottery Company, which was located next to the Prince Street plant. Shortly thereafter, the company established the Trenton Plastics and Metals Company, which primarily manufactured Bakelite and other plastic elements to be used in electrical wiring devices and other Circle F products, such as cigar lighters.

During World War II, the company was, like so many others, actively involved in the war effort and the number of employees rose to 511.⁶⁰ Ring, as a representative of the Circle F. Manufacturing Company, was appointed to an Industry Advisory Committee of the War Production Board. The Industry Advisory Committees were targeted groups that focused on the minutiae of American manufacturing, one of which was the Wiring Devices Industry Advisory Committee, of which Ring was a participant. The committees were organized into larger divisions that included more general categories, such as the Automotive Division, the Steel Division and the Textile and Clothing Division. The Wiring Devices Industry Advisory Committee was included under the larger umbrella of the Building Material Division.⁶¹

The purpose of each advisory committee was to “advise and make recommendations on problems of war production confronting industry, and to assist [their] Division in obtaining data on resources and requirements, also [to] keep industries informed of the policies, regulations and actions of the War Production Board.”⁶² There were seven other members of the Wiring Devices Industry Advisory Committee including representatives of the Leviton Manufacturing Company in Brooklyn, Pass and Seymour Inc. of Syracuse, New York, Bryant Electric

⁵⁷ Prominent buildings by J. Osborne Hunt in Trenton include the First National Bank Building, the Princess Theater and the annex to the New Jersey State House.

⁵⁸ Petersen went on to form the Star Electric Motor Company, which manufactured electric motors and generators.

⁵⁹ Herman B. Ring was best known for the design and installation of the engine that powered Charles Lindbergh’s “The Spirit of St. Louis.” “Herman B. Ring Is Dead at 69.” *New York Times* (2 November 1964): np.

⁶⁰ *The Industrial Directory of New Jersey* (Trenton, NJ: Bureau of Industrial Statistics, Department of Labor, 1949).

⁶¹ *Directory of Industry Advisory Committees as of January 23, 1943* (Washington, D.C.: Government Printing Office, 1943): 163-166.

⁶² *Directory of Industry Advisory Committees as of January 23, 1943*, 2.

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Company of Bridgeport, Connecticut, Arrow-Hart and Hegeman Electric Company of Hartford, Connecticut, Knox Porcelain Corporation of Knoxville, Tennessee, Harvey Hubbell, Inc. of Bridgeport, Connecticut and John I Paulding, Inc. of New Bedford, Massachusetts.⁶³

In the decade after the war, the company experienced a “spectacular pace of business growth” with a 120% growth in sales volume.⁶⁴ This was made possible by the over 1,000 employees who worked in its 400,000 square feet of manufacturing space.⁶⁵ A company advertisement from this time stated that the factory “operates its own tool rooms, press rooms, screw manufacturing plant, plastics and porcelain plants, as well as complete assembly facilities.”⁶⁶ In 1952, Herman B. Ring purchased the company outright, to take advantage of these conditions.⁶⁷

One of the company’s first post-war successes was the contract to install 3,000,000 devices in the new development in Levittown, Pennsylvania.⁶⁸ This was more than a large and impressive contract, it was emblematic of the contemporary desire for modern housing, complete with fully available electrical power. Herman’s son, Edward A. Ring, had taken over as president of the company from his father. The younger Ring specifically addressed this phenomenon, stating that the “growth in the market of electrical appliances has been so phenomenal in the last quarter century that the job of wiring them has become a big business.”⁶⁹ He illustrates this point by saying that, in 1938, the average six-room house was built with nine electrical outlets and that that number had increased to thirty by 1965. Moreover, in 1939 there were 14,579,000 washing machines in the United States and, by 1964 the number had increased to 44,975,000. In 1939 there were no television sets, but there were 3,600,000 in 1949 and 55,950,000 in 1964. Similarly, there were no deep freezers in 1939, but 1,950,000 in 1949 and 13,095,000 by 1964. It is more than evident from these statistics that not only the appliances, but also the electrical devices necessary to make them functional, were areas of tremendous industrial growth. Electrical wiring products helped make possible the suburbanization of America. In response to this expanding market, the company, “which is a leading producer of electrical switches, receptacles and other wiring equipment, works on a 24-hour schedule to meet the need.”⁷⁰

In 1955, the company acquired the Eastern Insulated Wire Corporation in Wallingford, Connecticut. This company primarily manufactured “rubber, neoprene, asbestos, plastic and

⁶³ *Directory of Industry Advisory Committees as of January 23, 1943*, 16. Through the 1960s, these firms continued to be some of the Circle F Manufacturing Company’s primary competitors.

⁶⁴ “Circle F Mfg. Expands Operations on 2 Fronts.” *The Philadelphia Inquirer* (7 March 1955): 27. It is possible to assume that this growth was a part of and a response to the tremendous construction boom that occurred throughout the country after World War II.

⁶⁵ “Circle F Mfg. Expands Operations on 2 Fronts.”

⁶⁶ Ingersoll-Trenton Watch Company, Matchbook cover.

⁶⁷ “Circle F Report.” Circle F Manufacturing Company, Vertical Files, Courtesy of the Trenton Public Library, Trentoniana Room.

⁶⁸ “Circle F Report.” Circle F Manufacturing Company, Vertical Files, Courtesy of the Trenton Public Library, Trentoniana Room.

⁶⁹ “Financial Gossip.” *United Press International* (29 October 1965): 9.

⁷⁰ “Financial Gossip.”

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braided wires and cords.” The acquisition was significant, as it meant that the Circle F Manufacturing Company could produce both the electrical devices and the electrical cords and cord sets that allowed them to function. In this unique instance, the Circle F Manufacturing Company chose to retain a portion of the manufacturing component in Wallingford and even constructed a 50,000 square foot addition to the existing plant, which more than doubled its size.⁷¹ The most prominent division of the Eastern Insulated Wire Corporation, however, involving the manufacture of cord sets, was moved to a new plant adjacent to the Trenton Porcelain and the Trenton Plastics and Metals Companies, on the west side of Meade Street.⁷² After relocation to Trenton, the division manufactured 2,500,000 cord sets per month, increasing production by 54%.⁷³ Although never specified by the company, it is possible that the purchase of the Eastern Insulated Wire Corporation was instigated by the sale of the Roebling Wire Works to Colorado Fuel and Iron (CF&I) in 1953. CF&I closed down Roebling’s “woven wire fabrics sections” that year,⁷⁴ and with this threat to its supply chain, it is reasonable to assume that Circle F resolved this issue with the acquisition of a company that could fulfill their need.

Also in that year, the company constructed a 50,000-square foot, 2-story brick addition to the east of the Monmouth Street plant, which covered the remainder of the block and was primarily used by the Assembly Division, and also for shipping and storage.⁷⁵ A matching 45,000 square foot addition was constructed to the east of the Trenton Plastics and Metals Company plant on Prince Street and the two, in addition to the acquisition of the Wallingford plant would both “more than double present sales volume within the next three or four years” and increase company employment in Trenton by 25-40%.⁷⁶ This expansion in the 1950s was unique among Trenton industries.

From that point onward, the company was Trenton’s highest taxpayer, “the largest [private] employer in the Trenton area” with between 1,600 and 2,000 employees, “the largest privately and locally [-owned] company in Mercer County” and the second largest manufacturer of wiring devices in the United States.⁷⁷ The success of the company during this period can be quantified by a statistic from 1960 that cites the annual use of “6 million pounds of clay and clay products, 2 million pounds of aluminum, 4 million pounds of Bakelite, 5 million pounds of vinyl plastics

⁷¹ “Circle F Mfg. Expands Operations on 2 Fronts.”

⁷² The plant was formerly the home of the Acme-Hamilton Rubber Company.

⁷³ “Circle F Mfg. Expands Operations on 2 Fronts.”

⁷⁴ John T. Cumbler, *A Social History of Economic Decline: Business, Politics, and Work in Trenton* (New Brunswick, NJ: Rutgers University Press, 1989): 140.

⁷⁵ “Circle F Mfg. Expands Operations on 2 Fronts.”

⁷⁶ “Circle F Mfg. Expands Operations on 2 Fronts.” Both additions were designed by the New York firm of David and Earl J. Levy, also known for their design of the D and D Building in New York in 1963.

⁷⁷ “Companies Give \$25 Million to Arts; Critics Say Gifts Cultural Imperialism.” *Tonawanda (New York) Evening News* (19 August 1968): 12; “Circle F Report.” Circle F Manufacturing Company, Vertical Files, Courtesy of the Trenton Public Library, Trentoniana Room; Robert M. Fulmer and Theodore T. Herbert, *Exploring the New Management* (New York: Macmillan, 1974): 94. Other major manufacturers of electrical wiring devices at that time included General Electric, Westinghouse, Leviton and Pass and Seymour.

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and neoprene and 500 tons of paper board, chipboard and corrugated board.”⁷⁸ In 1966, approximately 1,600 people were employed in over 650,000 square feet of space.⁷⁹

The Circle F Manufacturing Company and Industrial Trenton

The significance of the Circle F Manufacturing Company should also be considered within the larger historical context of industrial Trenton. While Trenton was one of the nation’s major innovative manufacturing centers beginning in the late 19th century, the Great Depression instigated an initial decline in manufacturing. This decline was somewhat suspended by federal relief programs and, under the New Deal, “employment, although well behind the prewar years in most industries, increased significantly in steel, iron, tobacco, pottery and electrical products.”⁸⁰ The war years provided a significant boom to the economy and manufacturing of all kinds was necessary to the war effort. After the war however, Trenton began a general industrial decline perpetuated both by a “number of corporate mergers taking place that resulted in the closing or reduction of local plants” and the purchase of business by “non-local corporations.”⁸¹ Those few businesses that did continue to operate often decamped for the suburbs, in pursuit of safe neighborhoods, limitless parking and updated facilities. Consequently, the “downtown of Trenton was suffering from the loss in revenue from corporate taxes and reduced population” and was on its way to fulfilling the 1957 prediction that it would become a “nightmarish, ethnic, low income ghetto.”⁸² By the 1960s, “rubber, pottery and primary metals production and employment declined sharply, and only electrical machinery offered an encouraging sign.”⁸³ As industrial directories list the Circle F Manufacturing Company as the only manufacturer of electrical wiring devices in Trenton during the entire period of significance, it is possible to assume that this “encouraging sign” could be largely attributed to them. In contrast to virtually all of industrial Trenton, the Circle F Manufacturing Company was “one of but a few manufacturing firms employing substantial numbers of people remaining in Trenton”, standing alone as a reminder of what the city had once been.⁸⁴

In 1961, the Public Service Electric and Gas Company of New Jersey took out an advertisement in the *Philadelphia Inquirer* promoting the companies that either expanded or relocated to New Jersey in the 1950s. Of the eighty-five companies listed, only eight are in Trenton. In addition to the Circle F Manufacturing Company, the others are Aberdeen Sportswear, Inc., C.V. Hill & Co., House of Huston, Inc., Naomi Purse & Novelty, Co., Oxyzn Co., Standard Packaging, Co. and Trenton Times Newspapers. Ranging from apparel and accessories, to groceries, pet products and newspapers, these companies, while certainly positive for Trenton’s overall fiscal health are a far cry from the titans of industry who once called Trenton home.

⁷⁸ “Circle F Report.” Circle F Manufacturing Company, Vertical Files, Courtesy of the Trenton Public Library, Trentoniana Room.

⁷⁹ John Kolesar, “Circle F Must Now Expand... But Not in This City.” *Trenton Times* (14 April 1966): np.

⁸⁰ Cumbler, *A Social History of Economic Decline*, 116.

⁸¹ Quentin R. Skrabec, Jr., *The Fall of an American Rome: De-Industrialization of the American Dream* (New York: Algora Publishing, 2014): 41; Skrabec, Jr., 42.

⁸² Skrabec, Jr., 42; Cumbler, 159.

⁸³ Cumbler, 146.

⁸⁴ Joyce Head, “Circle F: One of Trenton’s Few Remaining Industries.” *Trenton Times* (9 January 1977): F1.

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To place the Circle F Manufacturing Company within the context of these associated companies, it had nearly 1,500 employees in 1961. All of the above companies, with the exception of the Trenton Times Newspapers, were substantially smaller companies with only a few handful of employees and were headquartered elsewhere, with only a limited presence in Trenton. Even among those companies that could be potentially considered its peers, the Circle F Manufacturing Company was a clear industrial leader in Trenton at this time.

For about two decades from the 1940s onward, the Circle F Manufacturing Company saw nothing but expansion and profit. The success of the company can be largely attributed to three primary factors. The first was its ability to capitalize on local materials and manufacturing capabilities. While manufacturers of raw materials could, by definition, be self-sufficient, manufacturers of electrical wiring devices were more dependent on outsourcing. Fortunately, Trenton had access to both the porcelain and steel industries, two major elements of electrical wiring devices. The E.H. Freeman Company initially took advantage of the proximity of the booming local porcelain industry, which was considered to be “the center of sanitary-ware and electric porcelain manufacturing,” as well as the increased industrialization of porcelain in electrical wiring devices, through their early collaboration with the Trenton Porcelain Company.⁸⁵ This association was advantageous for the company as it both standardized their type and quality of product and prevented them from being negatively impacted when the overall industry declined in Trenton in the second half of the 20th century. From that time onward, “a fundamental company policy [was] to buy everything possible from local area sources....”⁸⁶

The Circle F Manufacturing Company again embraced that which Cumbler called the civic capitalism that was characteristic of Trenton in the late 19th and early 20th centuries by using the best grade of spring wire from the nearby Roebling Wire Works as the driving spring in their high-grade shallow-type flush switches.⁸⁷ These switches were one of the company’s most successful products and they understandably heavily advertised the use of the Roebling wire.

The second unique aspect of the company was that it chose to remain and expand in Trenton, while other companies sought refuge, and cheaper costs, in the suburbs. The Circle F Manufacturing Company began with its primary office and general assembly space on Monmouth Street and its porcelain manufacturing plant one mile north. In 1941, the company expanded with the addition of the Trenton Plastics and Metals Company and again, in 1955, with the new plant for the Eastern Insulated Wire Corporation. At the time of acquisition, city officials said that it was “the first time in several years that a factory building has been acquired for expansion purposes by another plant.”⁸⁸ That year also saw major additions to both the Monmouth and Prince Street plants, which were not only virtually identical in design but also took advantage of empty lots adjacent to the existing buildings, once again taking advantage of available local resources.

⁸⁵ Shuman, 192.

⁸⁶ “Circle F Report.” Circle F Manufacturing Company, Vertical Files, Courtesy of the Trenton Public Library, Trentoniana Room.

⁸⁷ *Circle F Wiring Devices*, Trade Catalog No. 11, March 1936.

⁸⁸ “Circle F Buys Former Hamilton Rubber Plant.” *Trenton Times* (19 May 1963): np.

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The company went beyond real estate to maximize its functional capabilities so that relocation would not be necessary. One of the main ways they achieved this was through industrial innovations, such as the semiautomatic cartoner, which was used for packaging beginning in 1950. The cartoner, which was first used by the Circle F Manufacturing Company, could accommodate a wide range of sizes and package two cartons simultaneously.⁸⁹ This meant that the company could keep its shipping in house and wouldn't be forced to outsource or relocate, as was the approach of so many other Trenton companies.

The third notable approach of the company was its impressive trend of acquiring associated companies, so that, rather than becoming increasingly reliant on outsourced manufacturers, the Circle F Manufacturing Company was able to grow as an independent company and manufacture a comprehensive product. In general, the Circle F Manufacturing Company purchased companies from whom they had been previous customers. Once the company was purchased, their manufacturing divisions, and often their machinery, would be moved to Trenton. These companies included the Electric Company of Hartford, CT, the Chase Brass and Copper Company of Waterbury, CT, the Eastern Insulated Wire Corporation in Wallingford, CT, the Machen Electric Company of Philadelphia, and the Alcor Manufacturing Company of Chicago. These acquisitions not only increased the size and value of the Circle F Manufacturing Company but also made it "a fully integrated manufacturer" and therefore competitive within the larger market.⁹⁰ The company was therefore not as vulnerable as comparable companies, which were eventually absorbed by larger, non-local competitors. As such, the Circle F Manufacturing Company stood in direct contrast to the majority of Trenton industries from the 1950s onward.

The success of the Circle F Manufacturing Company can also be evaluated within the context of specific Trenton manufacturers. In reviewing a Sanborn Fire Insurance Map from 1950, the industrial decline of the city is not yet apparent. Present on the map are large industrial complexes, such as the Roebling Wire Works, the Trenton Potteries Company and the Thermoid Company, all of which seemingly vouch for the industrial success of the city. The Roebling Wire Works, established in Trenton in 1848, had unparalleled international success until 1953, when it was sold to Colorado Fuel and Iron Corporation and became simply another subsidiary of an outside conglomerate. The Trenton Potteries Company was formed in 1892, as a conglomerate of five former potteries. In 1928, the Trenton Potteries Company was purchased by the Crane Company of Chicago, who continued to operate the Trenton plant as a long-distance subsidiary. The Thermoid Company was incorporated as the Trenton Rubber Manufacturing Company in 1897. The company continued successful operation until 1960, at which point it closed because of an inability to compete in the market. Although the Circle F Manufacturing Company began its story as a comparatively minor player in the industrial history of Trenton, its steady growth meant that it eventually eclipsed these notable competitors in terms of employee size and output. Over the course of ninety-four years, the joint use of the Monmouth Street property by both the Trenton Watch Company and the Circle F Manufacturing

⁸⁹ "First of Its Kind." *Modern Packaging* 23 (1950): 519.

⁹⁰ "Circle F Report." Circle F Manufacturing Company, Vertical Files, Courtesy of the Trenton Public Library, Trentoniana Room.

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Company firmly establishes it as a center of industrial Trenton, which, through its managerial ingenuity, was able to retain its independence throughout.

Products of the Circle F Manufacturing Company

The Circle F Manufacturing Company specialized in the manufacture of electrical devices for residential, commercial and industrial functions. The company ultimately manufactured over 15,000 separate items, including light sockets, wiring devices, radio antenna insulators, cleats, strains, nail knobs and wall tubes. These seemingly invisible components were subsequently used in larger, more familiar, appliances by major national brands, such as Whirlpool, RCA, Zenith, Sunbeam, Hoover, Stiffel, Magic Chef, Modern Maid, Corona and Singer. By the mid-20th century, more than 70% of American appliances featured Circle F devices.⁹¹ A 1958 press release for the company stated, "Thousands of different types of electrical wiring devices made by Circle F Industries are designed specifically as component parts for hundreds of different products, including electrical appliances, home-care equipment, power tools and business machines. Circle F devices are sold directly to original equipment manufacturers who incorporate them into their brand name products."⁹² These electrical wiring devices, and the modern appliances they facilitated, characterize the integral technological advances of the mid-20th century, which would not have otherwise been possible.

One of the earliest inventions of the company, and one that represented a significant departure from the E.H. Freeman Electric Company, was an electrical socket with a porcelain body and a standard metal cap (Figure 13). Previously, the socket bodies had been made of brass, which did not get hot quickly and was expensive to use. The introduction of porcelain was equally effective at preventing overheating but was substantially less expensive. As essentially every form of lamp used this kind of socket configuration, this invention represented a substantial savings for both manufacturer and consumer. It also explained the important reason for the acquisition of the Trenton Porcelain Company.

Over fifty years later, the company continued to be at the helm of technological innovation through the installation of electrical wiring devices in the electronic scoreboards that were being installed in stadiums throughout the county. In the scoreboard of the Houston Astrodome, an innovative structure in and of itself, 50,000 Circle F porcelain sockets were installed. The Circle F Manufacturing Company also provided all of the necessary electronic wiring and components for the scoreboards of Busch Stadium in St. Louis and Dodgers Stadium in Los Angeles.⁹³ Other prominent commissions during this time cover an enormous range of building types, including the Pentagon, the lighting in the fountain at the New York World's Fair, the enormous Horizon House in Fort Lee, New Jersey, state government buildings in Trenton, California and

⁹¹ "Circle F Report." Circle F Manufacturing Company, Vertical Files, Courtesy of the Trenton Public Library, Trentoniana Room.

⁹² "Circle F Report." Circle F Manufacturing Company, Vertical Files, Courtesy of the Trenton Public Library, Trentoniana Room.

⁹³ "Circle F Report." Circle F Manufacturing Company, Vertical Files, Courtesy of the Trenton Public Library, Trentoniana Room.

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Pennsylvania, the Offutt Air Force Base near Omaha, Oklahoma and Madison Square Garden.⁹⁴

Similar to the Ingersoll-Trenton Watch Company, the Circle F Manufacturing Company is best placed in the context of its field through an understanding of the company's contributions to it. While located on Monmouth Street, the company obtained nearly eighty patents for a significant range of wiring devices and promoted itself as "one of the leaders in developments at patents in the field."⁹⁵ Some of the more notable patents filed during the period of significance for the building include the pull chain candelabrum socket, which enabled multiple lights to be turned on from a single switch; a candelabrum socket that could be raised or lowered depending on desired height; a push-switch for a high wattage lamp; a plug receptacle that would fix the lamp to it, would be durable and could sustain a high volume of wattage; a screw shell that would both more securely attached the bulb to the lamp and allow for easily installation; a push switch that was both durable and could be manufactured at a lower cost; a lamp socket casing in which the shell and the cap and be fitted together at any point on the circumference rather than just one; a dimmer switch that could control both light from a lamp and heat from a stove; a plug receptacle that could be flush due to the use of materials like Bakelite rather than metal; a shallow flush switch that had both twice the length of break between blade and terminal as any of its competitors and was the only shallow switch that would pass the Underwriters' overload test without intervention; a table tap, which was essentially a surge protector that allowed multiple electrical devices to be plugged into a single outlet; a knob-turn socket that didn't require insulation, which cut down on both manufacturing costs and labor; and an attractive cigar lighter that would both protect against heat and have a durable switch.

These patents, numbering nearly 150 since the founding of the company, are impressive for their sheer number as well as for the variety of categories that they cover, including switches, sockets, receptacles, bases, caps and miscellaneous products, such as the lighter. The depth and breadth of the electrical wiring devices manufactured by the company attest to its inherent significance (Figure 14).

Another way to appreciate the patents is to see how the items impacted their competitors. The patents of the Circle F Manufacturing Company were referenced by hundreds of subsequent patents, including those submitted by such nationally important companies as the Chrysler Corporation, the Bell Telephone Company, the General Electric Company, Harvey Hubbell, Inc., Leviton, Schick and Sunbeam. Going beyond the walls of their Trenton factories, the inventions of the Circle F Manufacturing Company have had widespread implications for subsequent industrial and consumer products.

In addition to providing an interesting view of electrical wiring developments in the mid-20th century, the patents also serve to clarify the objectives of the company. On the whole, they are aimed at providing a more cost-effective product that could be easily assembled in the factory

⁹⁴ "Circle F Report." Circle F Manufacturing Company, Vertical Files, Courtesy of the Trenton Public Library, Trentoniana Room.

⁹⁵ Ingersoll-Trenton Watch Company, Matchbook cover. The E.H. Freeman Electric Company, prior to its relocation to Monmouth Street, obtained nearly forty patents.

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and would be more durable when taken into your home. Essentially, their objective was to reduce labor, reduce materials and thereby reduce cost. A 1929 patent application best summarizes this goal by stating that, the proposed design would allow for "a minimum number of parts, which are strong and durable, inexpensive to produce and in which the assembling operations are greatly simplified."⁹⁶

The Circle F Manufacturing Company in the late 20th Century

The Circle F Manufacturing Company continued to be a driving industrial force in Trenton in the 1970s and 1980s. By 1990 however, the relatively high cost of manufacturing in the northeast combined with the overall decline of Trenton's manufacturing foothold, prompted the company to close the factory and relocate to North Carolina. The factory only had 175 employees at that time. The western half of the block was occupied by Merlin Industries beginning in 1993 and the eastern half of the block was subsequently renovated into residential units in 1998.

⁹⁶ United States Patent no. 1821031.

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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
☒ Other
Name of repository: Trentoniana Room, Trenton Public Library

Historic Resources Survey Number (if assigned): _____

10. Geographical Data

Acreage of Property 1.9 acres

(Do not include previously listed resource acreage.)

UTM References (Place additional UTM references on a continuation sheet. A patch is also available to permit use of latitude and longitude coordinates. It may be cut and pasted into this document in the place of the UTM coordinates.)

Latitude/Longitude Coordinates (Follow similar guidelines for entering these coordinates as for entering UTM references described on page 55, *How to Complete the National Register Registration Form*. For properties less than 10 acres, enter the lat/long coordinates for a point corresponding to the center of the property. For properties of 10 or more acres, enter three or more points that correspond to the vertices of a polygon drawn on the map. The polygon should approximately encompass the area to be registered. Add additional points below, if necessary.)

Datum: WGS-84

1. Latitude: 40.217481 Longitude: -74.745568

Verbal Boundary Description (Describe the boundaries of the property.)

The boundary of the Trenton Watch Company Building is the block bounded by Tyler Street to the north, Monmouth Street to the west, Culbertson Avenue to the south and N. Anderson Street to the east (see Site Map).

Boundary Justification (Explain why the chosen boundaries are the most appropriate.)

The nominated property includes the entire tax parcel on which the building is situated and historically associated with the nominated property. No historically associated resources have been excluded.

Trenton Watch Company Building/ Circle F
Manufacturing Company Building
Name of Property

Mercer County, NJ

County and State

11. Form Prepared By

name/title Logan I. Ferguson, Senior Associate

organization Powers & Company, Inc.

date August 18, 2016

street & number 1315 Walnut Street, Suite 1717

telephone (215) 636-0192

city or town Philadelphia

state PA

zip code 19107

e-mail logan@powersco.net

Additional Documentation

Submit the following items with the completed form:

- **Continuation Sheets** (in ascending numerical order, by section and page number)
- **Maps:** A **USGS map** (7.5 or 15 minute series) indicating the property's location, or acceptable substitute map.
A **Sketch map** for historic districts and properties having large acreage or numerous resources.
Key all photographs to this map.
- **Additional items:** (Check with the SHPO or FPO for additional items, especially for "Photographs" below.)

Photographs:

Submit clear and descriptive photographs. Each digital image must include an array of 3000x2000 pixels or greater. For the submission of hard-copy photographs, consult your SHPO or FPO. Key all photographs to the sketch map.

Name of Property: Trenton Watch Company Building

City or Vicinity: Trenton

County: Mercer

State: NJ

Photographer: Robert Powers

Date Photographed: June 2014

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

Photograph #	Description of Photograph
1.	West and south elevations, 1886 building, view northeast
2.	West elevation, 1886 building, view east
3.	West and north elevations, 1908 addition, view southeast
4.	West and south elevations, 1908 addition, view northeast
5.	South elevation, 1908 addition, view north
6.	South elevation, 1908 and 1925 additions, view northwest
7.	West and south elevations, 1925 addition, view northeast
8.	South elevation, 1925 and c.1958 additions, view northeast
9.	South elevation, c. 1958 addition, view northeast
10.	South and east elevations, c.1958 addition, view northwest
11.	North and east elevations, c.1958 addition, view southwest
12.	North and west elevations, c.1958 addition, view south
13.	North and east elevations, 1886 building, view southwest
14.	North elevation, c.1915 addition, view south
15.	North and east elevations, c.1915 addition, view southeast

Trenton Watch Company Building/ Circle F
Manufacturing Company Building

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16.	West and south elevations, c.1915 addition, view northeast
17.	South elevation, 1886 building, view west
18.	1 st floor, view east
19.	1 st floor, view northwest
20.	1 st floor, view west
21.	1 st floor, Stairway, view east
22.	1 st floor, Stairway, view north
23.	1 st floor, view west
24.	1 st floor, view east
25.	1 st floor, view south
26.	2 nd floor, view west
27.	2 nd floor, view east
28.	2 nd floor, view south
29.	2 nd floor, view north
30.	2 nd floor, view south
31.	2 nd floor, view north
32.	C.1958 addition, 1 st floor, Stairway, view north
33.	C.1958 addition, 1 st floor, view north
34.	C.1958 addition, 1 st floor, view northwest
35.	C.1958 addition, 1 st floor, view southeast
36.	C.1958 addition, 1 st floor, Stairway, view northwest
37.	C.1958 addition, 2 nd floor, Stairway, view west
38.	C.1958 addition, 2 nd floor, view northeast
39.	C.1958 addition, 2 nd floor, view north
40.	C.1958 addition, 2 nd floor, view west
41.	C.1958 addition, 2 nd floor, view south

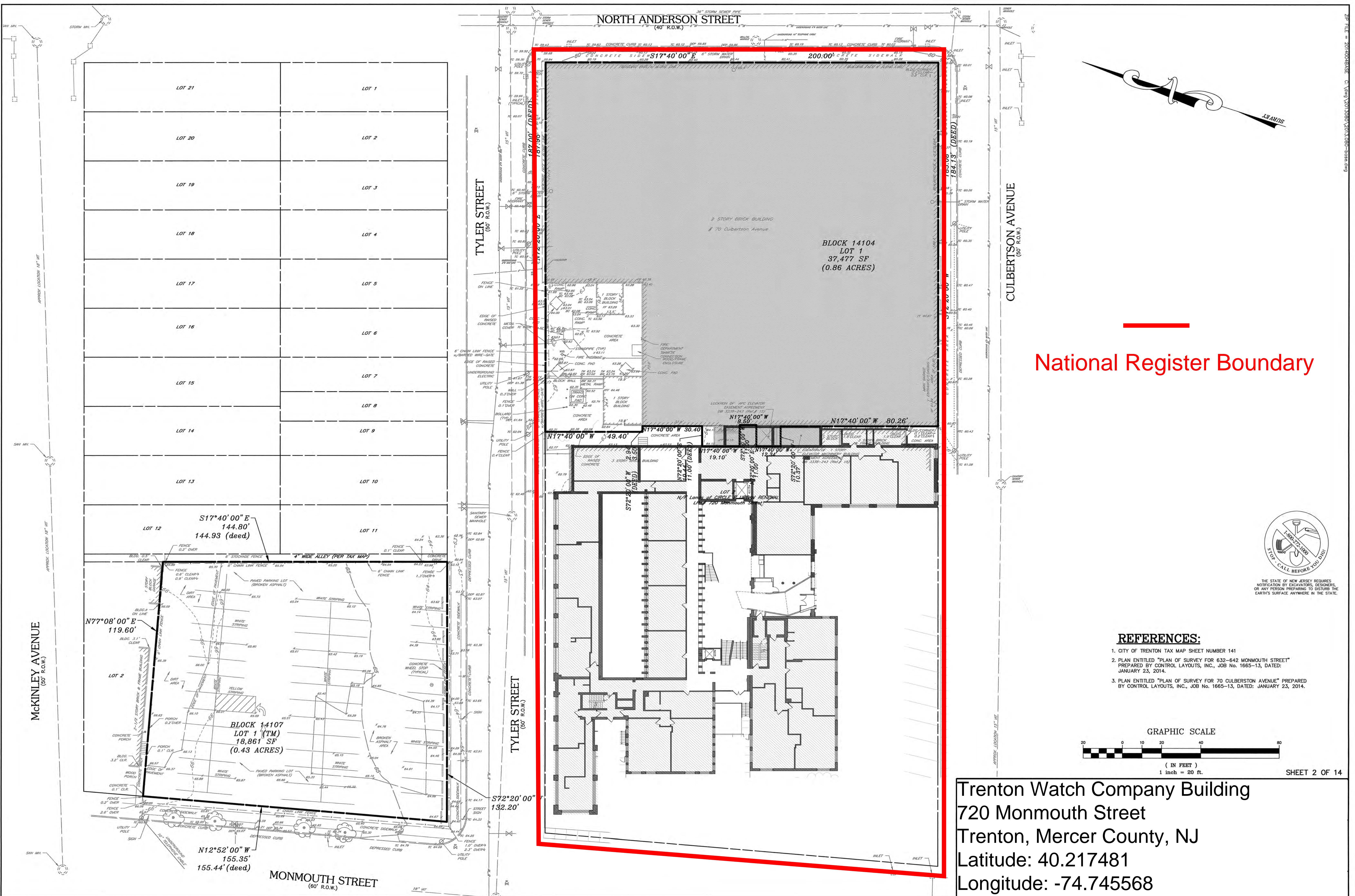
Property Owner:

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

name _____
street & number _____ telephone _____
city or town _____ state _____ zip code _____

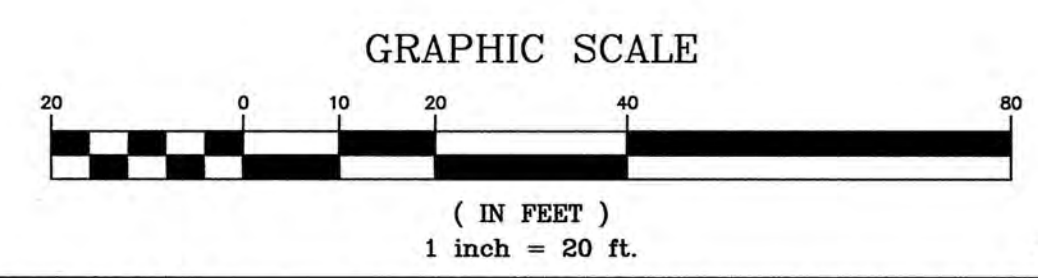
Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C.460 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Office of Planning and Performance Management, U.S. Dept. of the Interior, 1849 C. Street, NW, Washington, DC.

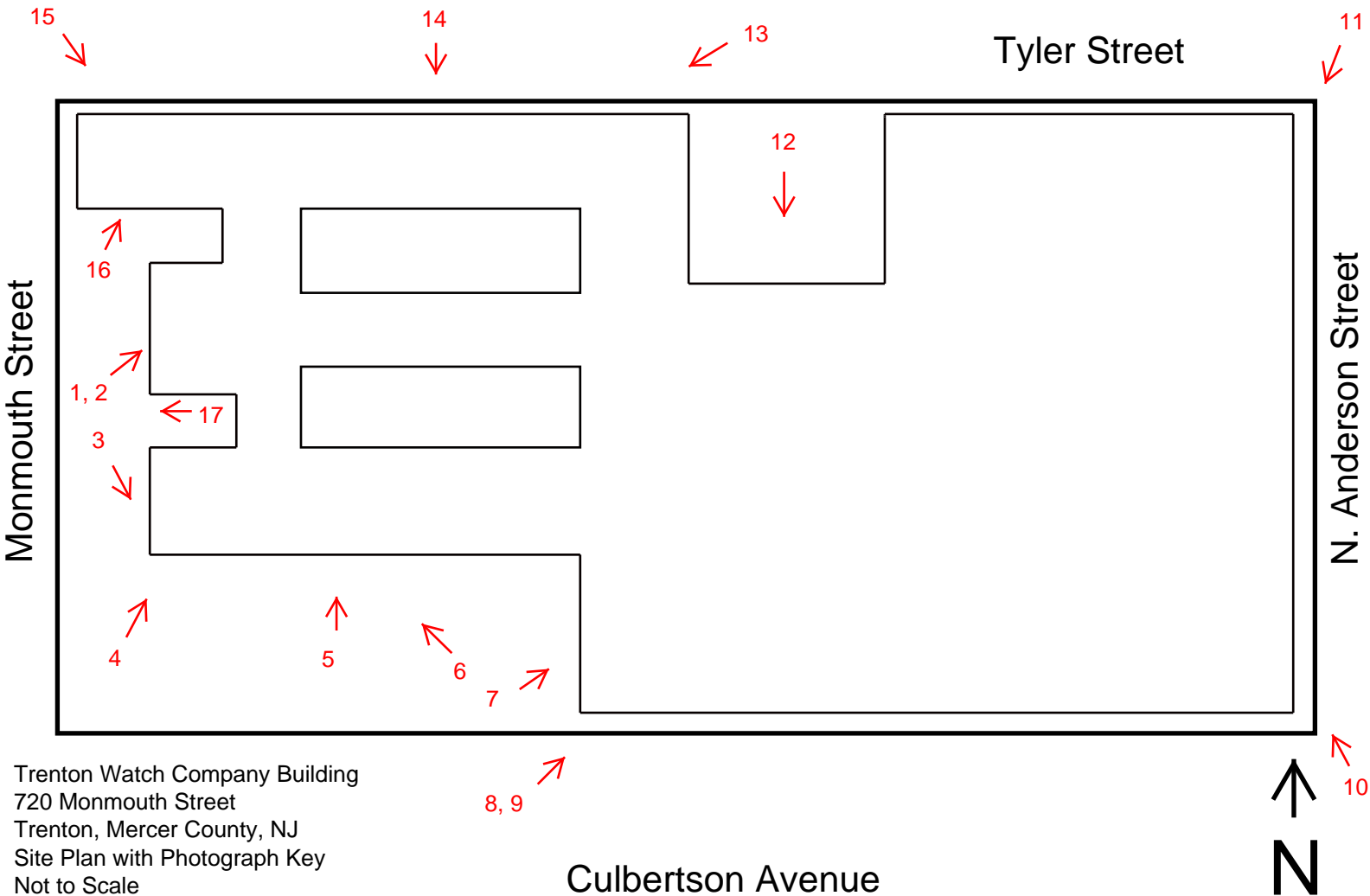


National Register Boundary

- REFERENCES:**
- CITY OF TRENTON TAX MAP SHEET NUMBER 141
 - PLAN ENTITLED "PLAN OF SURVEY FOR 632-642 MONMOUTH STREET" PREPARED BY CONTROL LAYOUTS, INC., JOB NO. 1665-13, DATED: JANUARY 23, 2014.
 - PLAN ENTITLED "PLAN OF SURVEY FOR 70 CULBERTSON AVENUE" PREPARED BY CONTROL LAYOUTS, INC., JOB NO. 1665-13, DATED: JANUARY 23, 2014.



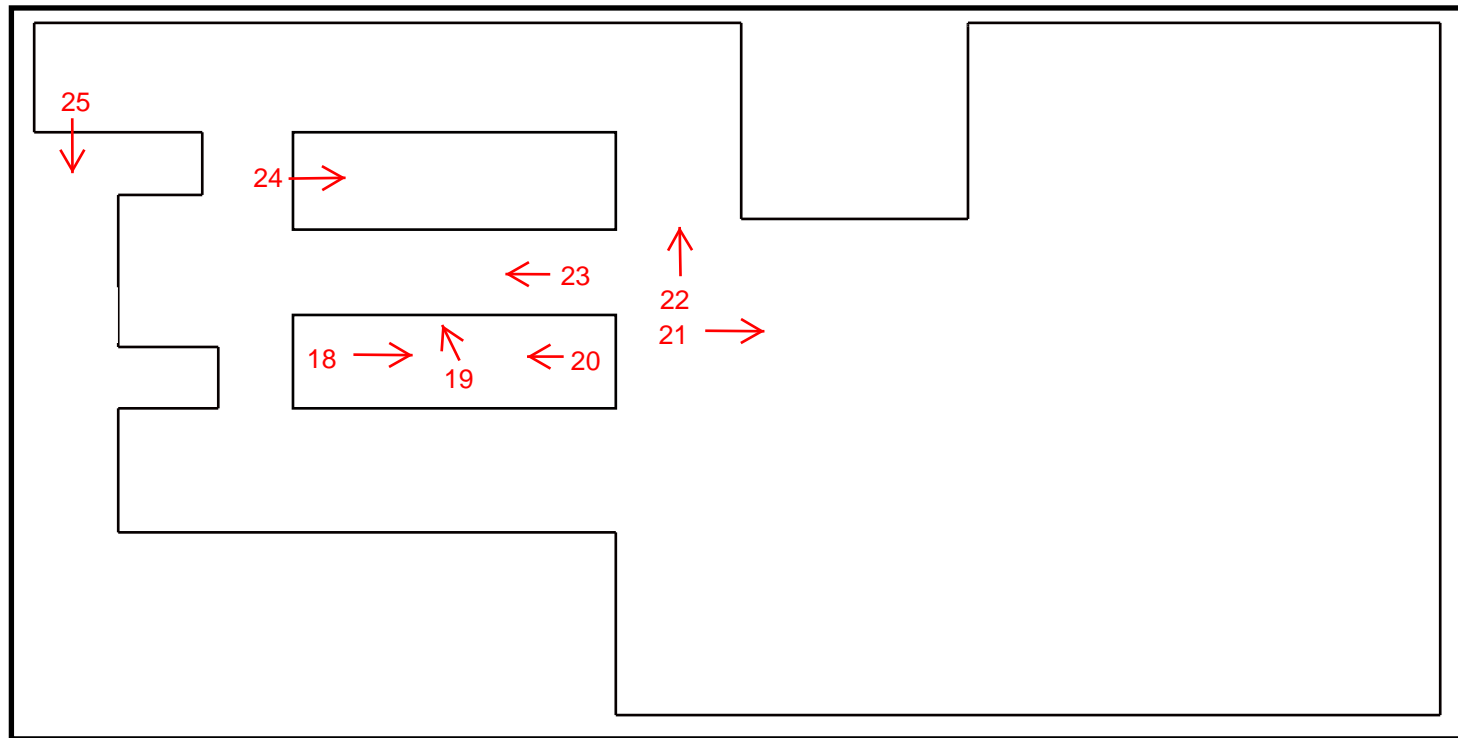
Trenton Watch Company Building
720 Monmouth Street
Trenton, Mercer County, NJ
Latitude: 40.217481
Longitude: -74.745568



Trenton Watch Company Building
720 Monmouth Street
Trenton, Mercer County, NJ
Site Plan with Photograph Key
Not to Scale

Tyler Street

N. Anderson Street



Monmouth Street

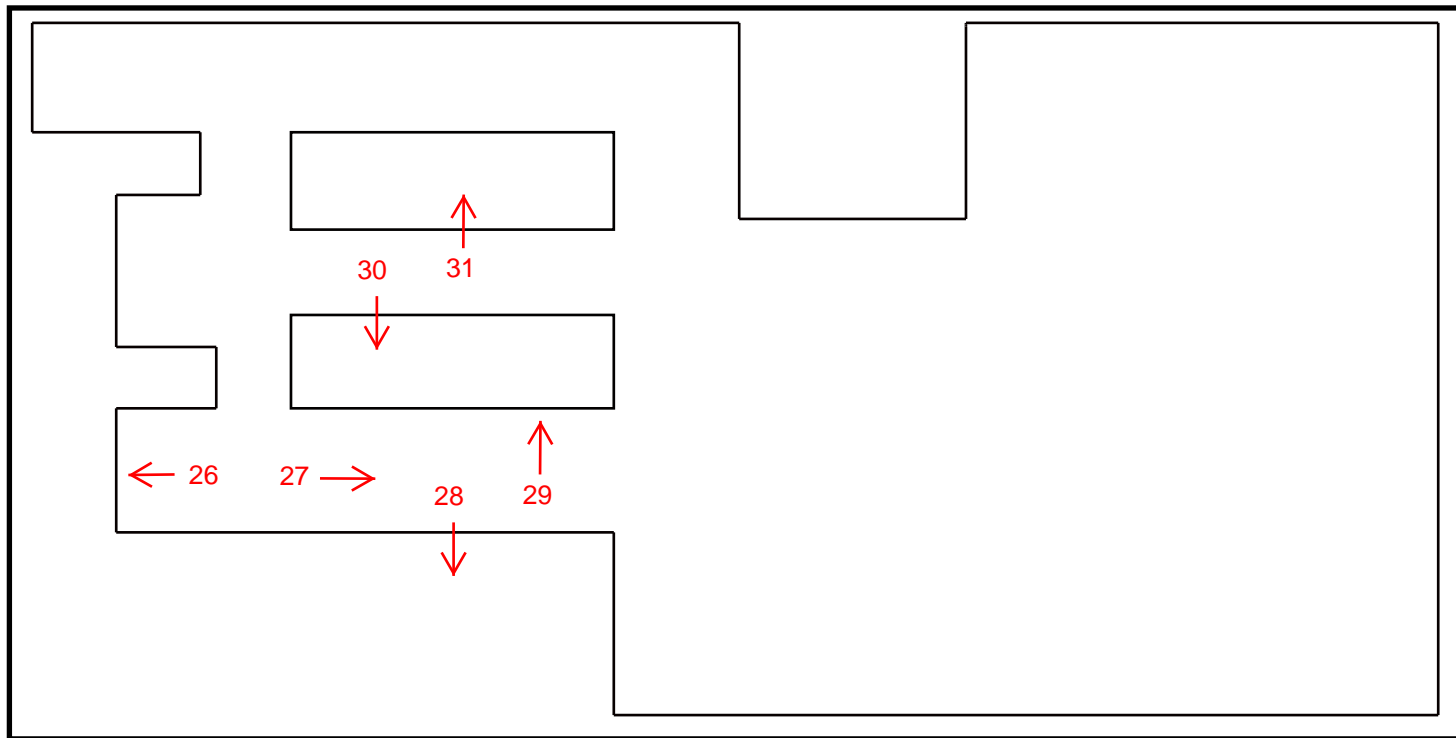
Trenton Watch Company Building
720 Monmouth Street
Trenton, Mercer County, NJ
1st Floor Plan with Photograph Key
Not to Scale

Culbertson Avenue



Tyler Street

N. Anderson Street

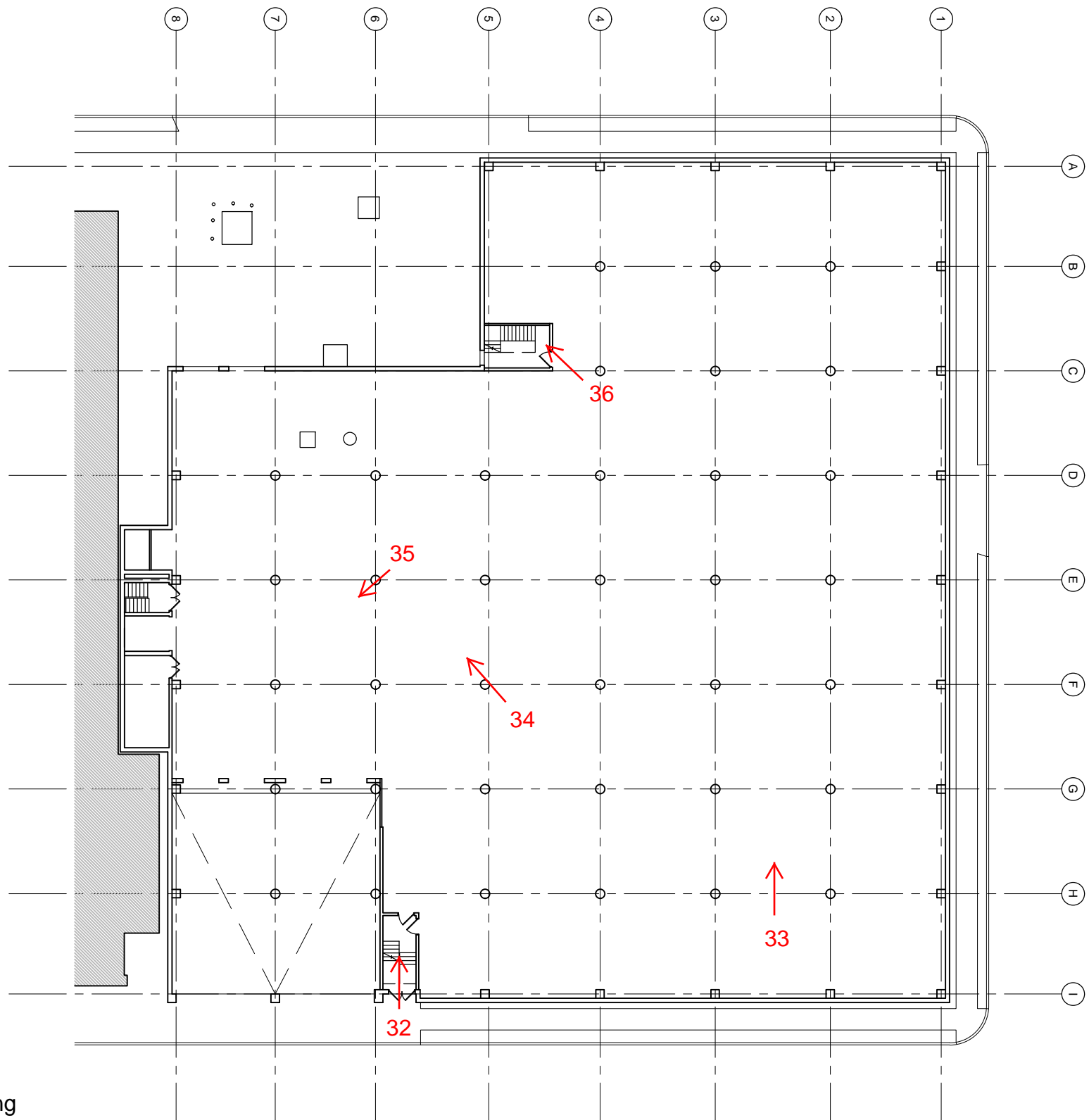


Monmouth Street

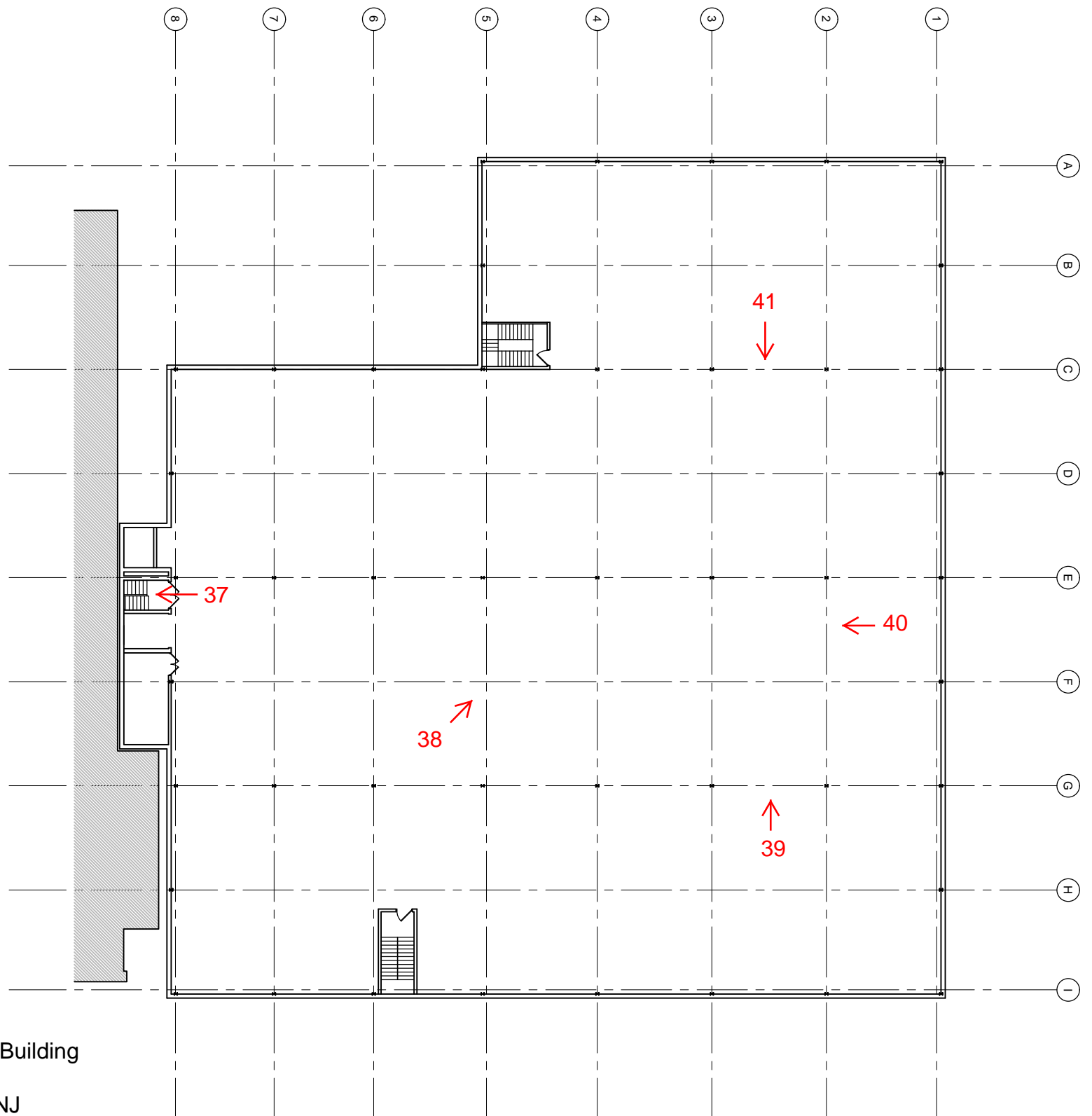
Trenton Watch Company Building
720 Monmouth Street
Trenton, Mercer County, NJ
2nd Floor Plan with Photograph Key
Not to Scale

Culbertson Avenue





Trenton Watch Company Building
720 Monmouth Street
Trenton, Mercer County, NJ
1st Floor Plan with Photograph Key



Trenton Watch Company Building
720 Monmouth Street
Trenton, Mercer County, NJ
2nd Floor Plan with Photograph Key

Tyler Street

Monmouth Street

N. Anderson Street

Culbertson Avenue



----- National Register Boundary

1911

c. 1980

Open

1886

1998

1924

1926

1955

Trenton Watch Company Building
720 Monmouth Street
Trenton, Mercer County, NJ
Building Chronology
Not to Scale

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Trenton Watch Company Building

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N/A

Name of multiple listing (if applicable)

Historic Images Page 1

Index:

<i>Figure #</i>	<i>Description of Figure</i>
1.	<i>Sanborn Fire Insurance Map, 1890.</i>
2.	<i>Sanborn Fire Insurance Map, 1908.</i>
3.	<i>Sanborn Fire Insurance Map, 1927.</i>
4.	<i>Sanborn Fire Insurance Map, 1950.</i>
5.	Rendering of the Trenton Watch Company Building, 1895.
6.	Ingersoll-Trenton Watch Company, Assembling Department.
7.	Employees of the Circle F Manufacturing Company, 1939.
8.	Circle F Manufacturing Company, Trade Catalog, March, 1948.
9.	Aerial image, 2014.
10.	Ingersoll-Trenton Watch Company, Advertisement, 1911.
11.	Ingersoll-Trenton Watch Company, Cyclometer, Patent no. 578288.
12.	Trademark of the E.H. Freeman Electric Company and the Circle F Manufacturing Company.
13.	Circle F Manufacturing Company, Electric Socket, Patent no. 1665495.
14.	Circle F Manufacturing Company, Advertisement, c. 1960.

United States Department of the Interior
National Park Service

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Historic Images Page 2

Trenton Watch Company Building

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N/A

Name of multiple listing (if applicable)

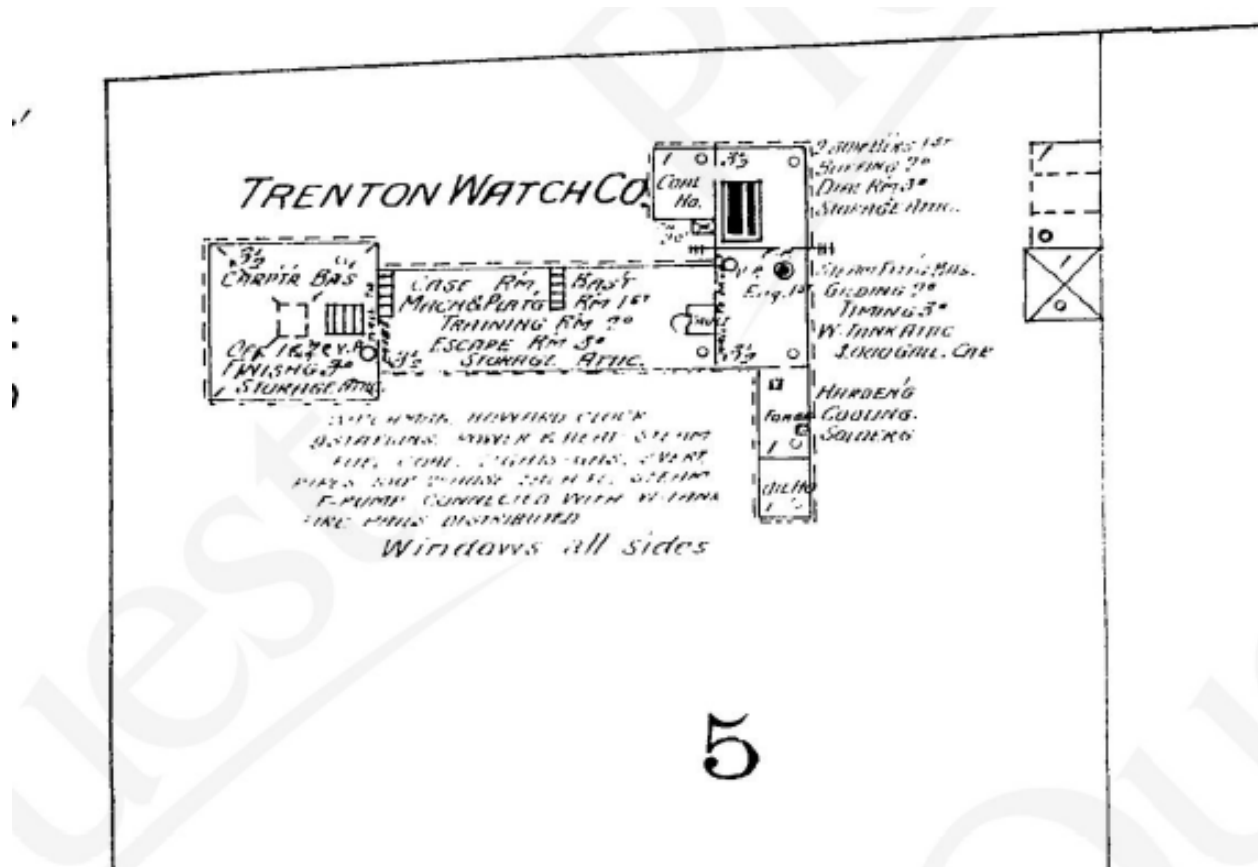


Figure 1 – Sanborn Fire Insurance Map, 1890.

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Historic Images Page 3

Trenton Watch Company Building

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N/A

Name of multiple listing (if applicable)

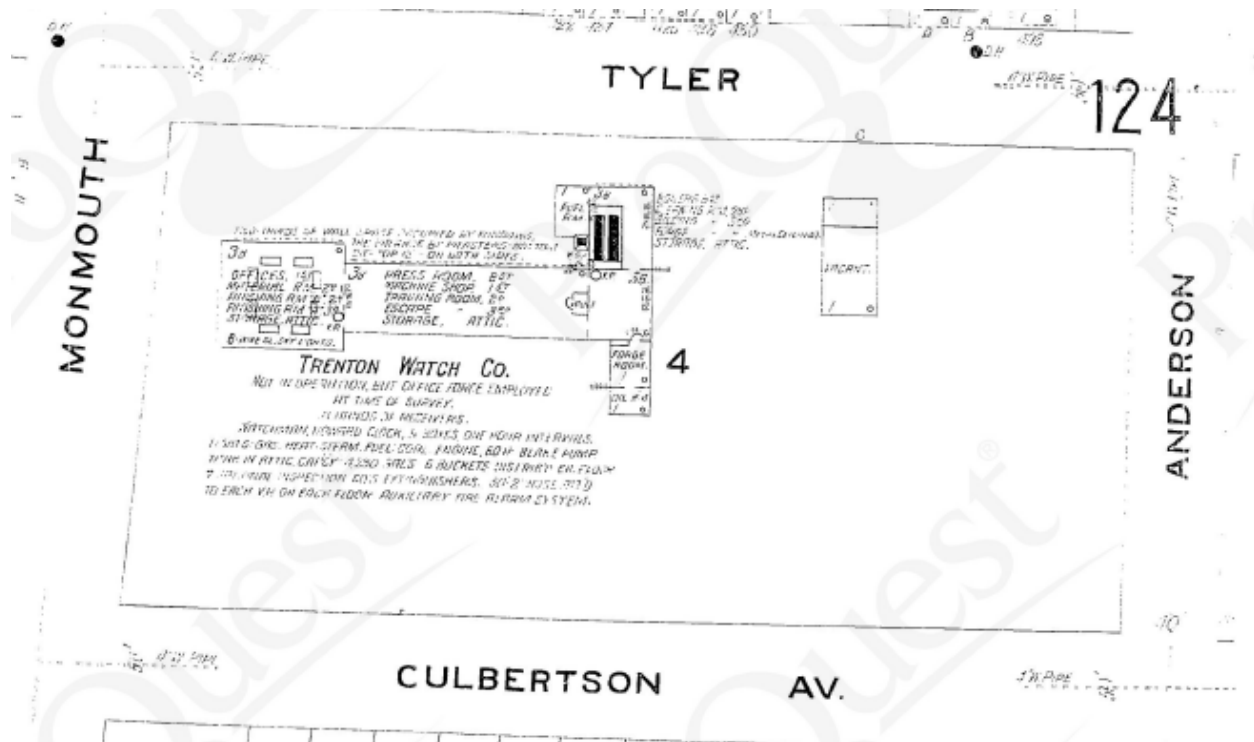


Figure 2 – Sanborn Fire Insurance Map, 1908.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Historic Images Page 4

Trenton Watch Company Building

Name of Property

Mercer County, NJ

County and State

N/A

Name of multiple listing (if applicable)

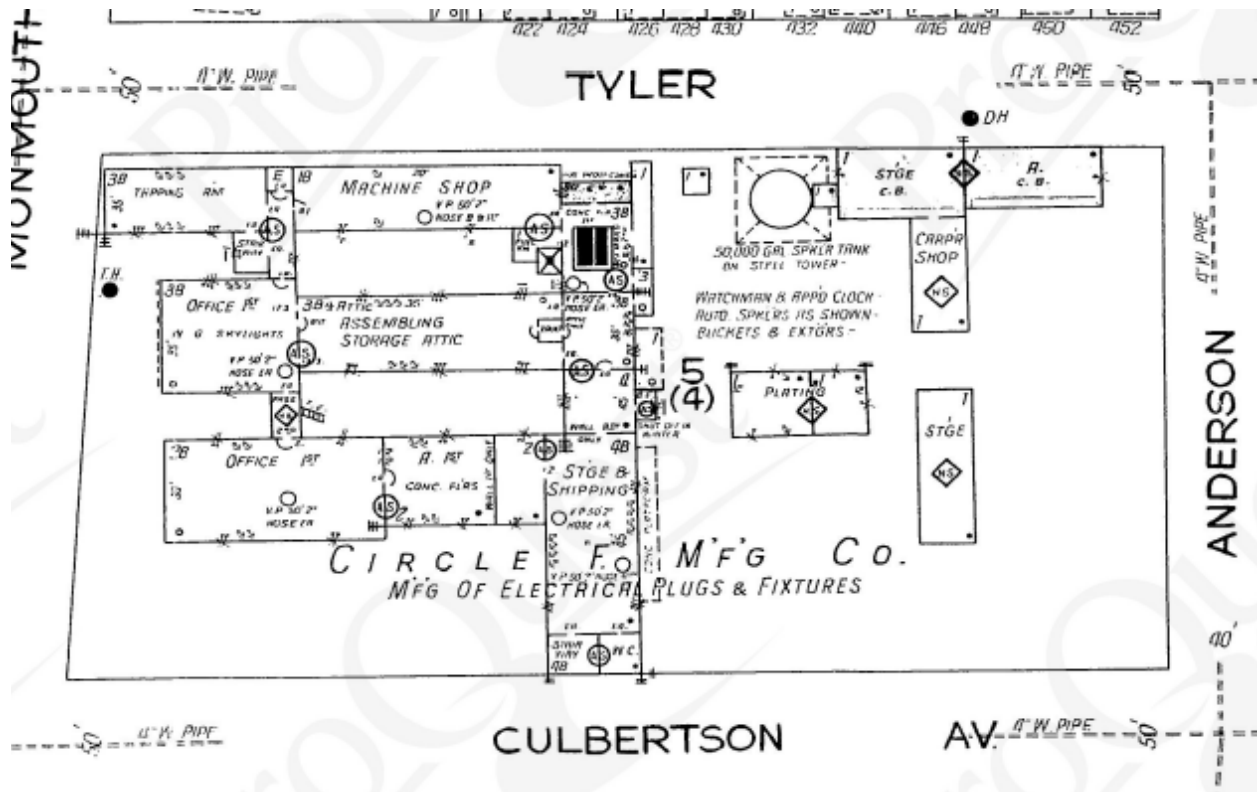


Figure 3 – Sanborn Fire Insurance Map, 1927.

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Trenton Watch Company Building
Name of Property
Mercer County, NJ
County and State
N/A
Name of multiple listing (if applicable)

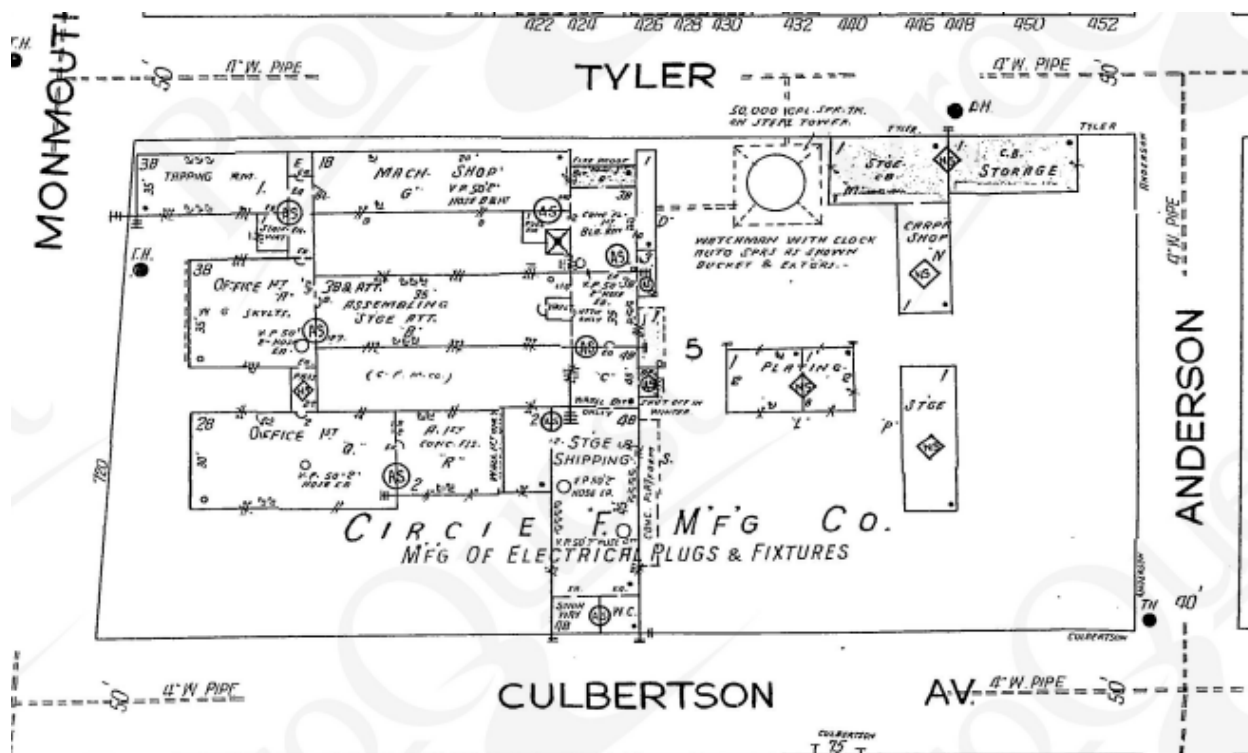


Figure 4 – Sanborn Fire Insurance Map, 1950.

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National Park Service

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Trenton Watch Company Building

Name of Property

Mercer County, NJ

County and State

N/A

Name of multiple listing (if applicable)

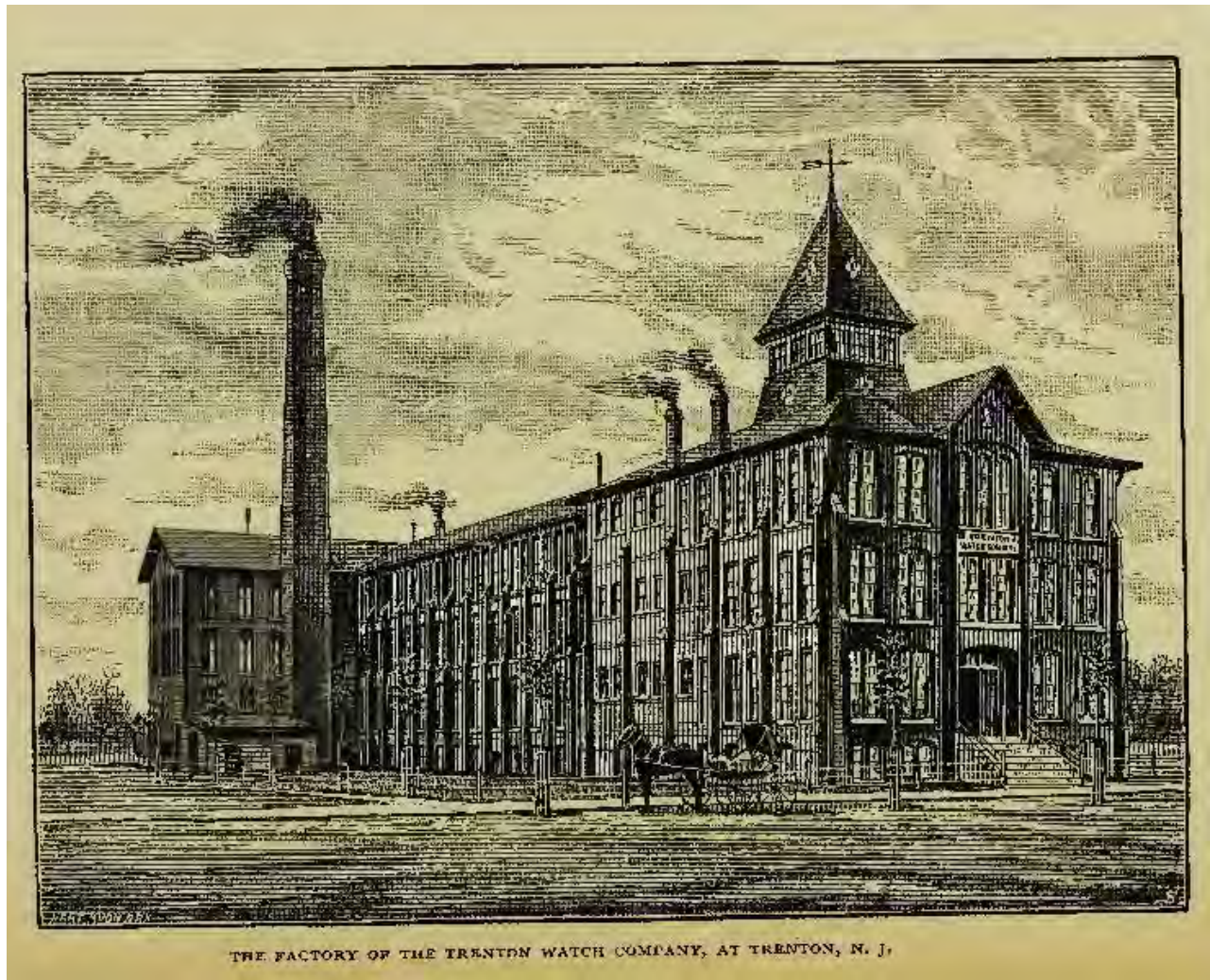


Figure 5 – Rendering of the Trenton Watch Company Building, 1895.

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N/A

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Figure 6 – Ingersoll-Trenton Watch Company, Assembling Department.

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Figure 7 – Employees of the Circle F Manufacturing Company, 1939.

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N/A

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Figure 8 – Circle F Manufacturing Company, Trade Catalog, March, 1948.

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Figure 9 – Aerial image, 2014.

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Trenton Watch Company Building
Name of Property
Mercer County, NJ
County and State
N/A
Name of multiple listing (if applicable)

Ingersoll and Ingersoll-Trenton

\$1.00 \$25

Here are two distinct kinds of watches—one built upon the experience of the other—one a plain, practical timekeeper which during 18 years has so proved its usefulness that now over half the watches sold are Ingersoll Watches; the other a fine jeweled watch for those who buy for extreme accuracy, durability and beauty. The Ingersoll Watch has always been regarded as a really wonderful thing for the money—something only possible through a manufacturing ability never approached in the watch industry and in mighty few others. The Ingersoll-Trenton is coming to be known as the Ingersoll value in high-grade watches. All the experience, the economies, the

highly specialized methods, the manufacture of great numbers in few styles, the efficiency principles, learned in making almost thirty million watches, combined with unique originality and inventive power, are producing in the new Ingersoll-Trenton factory the finest American watches at prices that heretofore would buy only commonplace timepieces.

7-jewel movement, \$5
in solid metal case
7-jewel movement, \$10
in 20-year case
15-jewel movement, \$12
in 20-year case
19-jewel movement, \$25
in 20-year case

Ingersoll-Trenton Watches are sold only by responsible jewelers. Nine thousand jewelers handle them. For a complete and conclusive description of the Ingersoll-Trenton Watches, write today for the book, "How to Judge a Watch."

Figure 10 – Ingersoll-Trenton Watch Company, Advertisement, 1911.

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(No Model.)

W. W. DUDLEY.
CYCLOMETER.

No. 578,288.

Patented Mar. 2, 1897.

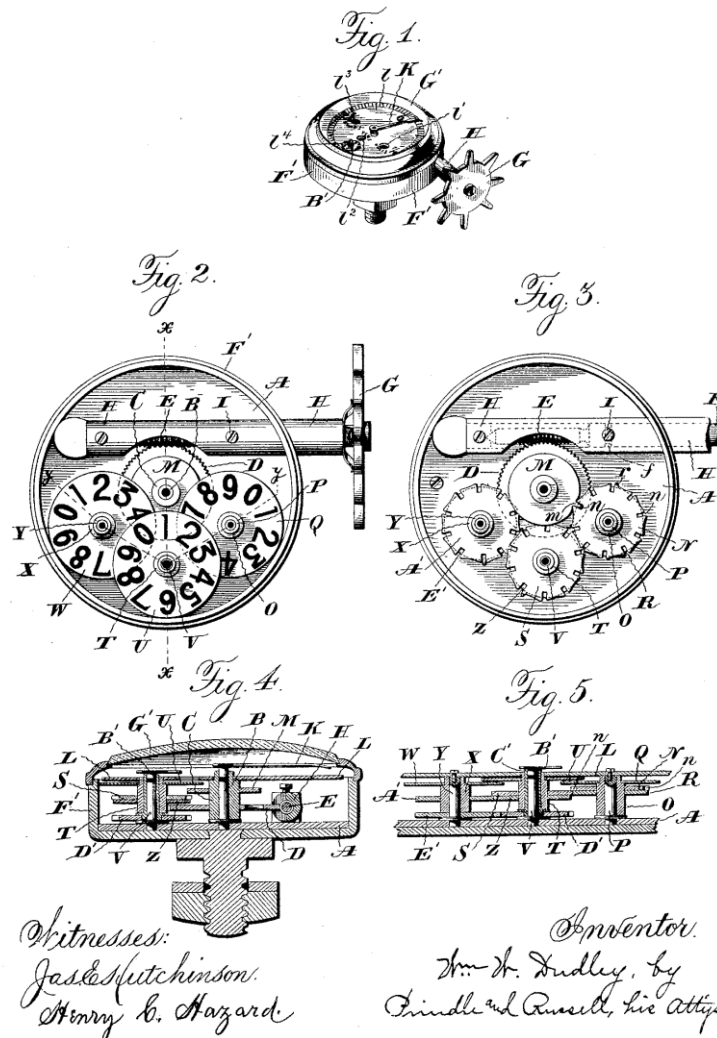


Figure 11 – Ingersoll-Trenton Watch Company, Cyclometer, Patent no. 578288.

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Name of multiple listing (if applicable)

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Figure 12 – Trademark of the E.H. Freeman Electric Company and the Circle F Manufacturing Company.

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Trenton Watch Company Building

Name of Property

Mercer County, NJ

County and State

N/A

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April 10, 1928.

1,665,495

E. H. FREEMAN

ELECTRIC SOCKET

Filed July 10, 1926

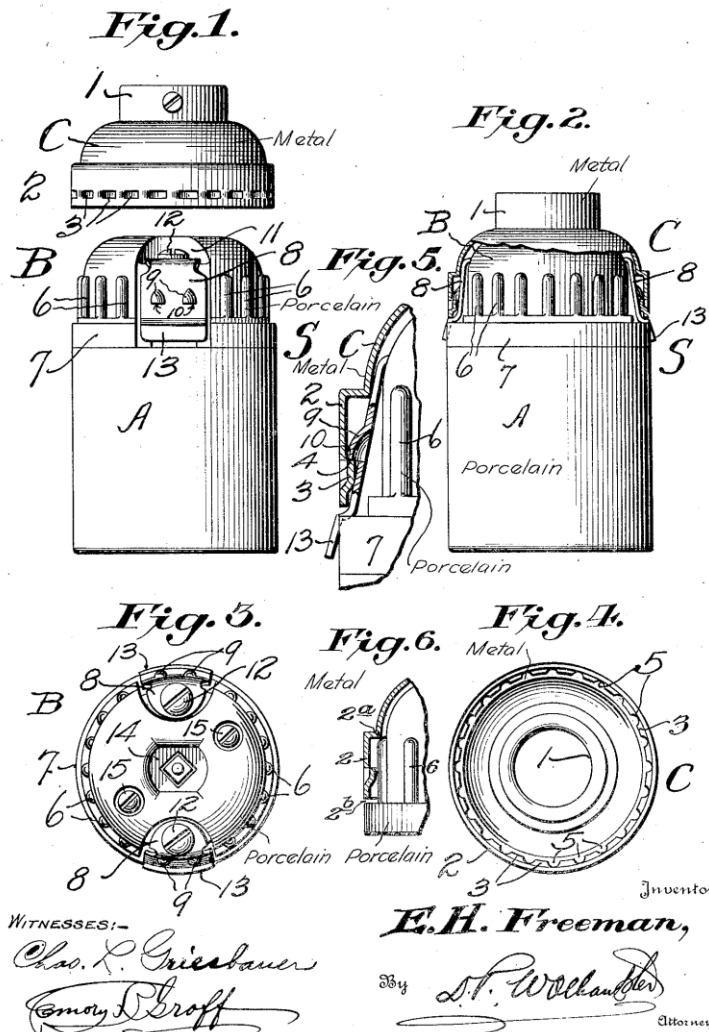


Figure 13 – Circle F Manufacturing Company, Electric Socket, Patent no. 1665495.

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Historic Images Page 15

Trenton Watch Company Building

Name of Property

Mercer County, NJ

County and State

N/A

Name of multiple listing (if applicable)

Now with our LIFETIME GUARANTEE*



Special ridged screw reduces aluminum wire "cold flow"

Easy accessible break-off

8 wire connections side and back

Straight through mounting strap

Exclusive: Repressed holes provide bare wire safety shield

Listed by Underwriters Laboratories, Inc.

Finest "U" Ground Receptacle...Back and Side Wired

Specify Circle F "U" Ground Receptacles manufactured with the old-fashioned virtues ... CRAFTSMANSHIP ... PERFORMANCE ... SENSIBLE PRICES. Ask your local Circle F distributor for Cat. No. 1630.

*All Circle F wiring devices carry a replacement guarantee on any item found to have left our factory in defective condition. In addition, the major construction devices listed in our Construction Guarantee Bulletin No. 100 are guaranteed for the lifetime of the installation into which they are initially placed. Any construction device listed which does not perform properly will be replaced when mailed postpaid to Circle F Industries, Inc., Trenton, New Jersey provided it has not been improperly used or subjected to service beyond its rating.

CIRCLE F INDUSTRIES • BOX 591, TRENTON, N.J. 08604
Manufacturers of wiring devices engineered for safety • Members of  & National Electrical Code Committees
Offices and Warehouses in Principal Cities • In Canada: CIRCLE F (CANADA) LTD., ONTARIO



Figure 14 – Circle F Manufacturing Company, Advertisement, c. 1960.





TRENTON
WATCH COMPANY

















MiFennelly
SALE/LEASE
609-520-0061

TANK





McFennelly
SALE/LEASE
809-520-0061

NO PARKING
ANYTIME











THURSDAY
PERMIT
ONLY
8AM - 5PM











BASEMENT
ACCESS
ONLY
NO EXIT

1











































Project # 15-2056
HPO-B2017-123

State of New Jersey

MAIL CODE 501-04B

DEPARTMENT OF ENVIRONMENTAL PROTECTION

NATURAL & HISTORIC RESOURCES
HISTORIC PRESERVATION OFFICE

P.O. Box 420

Trenton, NJ 08625-0420

TEL. (609) 984-0176 FAX (609) 984-0578

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor



BOB MARTIN
Commissioner

February 16, 2017

Paul Loether, Chief
National Register of Historic Places
National Park Service
Department of the Interior
Washington, D.C. 20240

Dear Mr. Loether:

The enclosed disk contains the true and correct copy of the nomination for the Trenton Watch Company Building/Circle F Manufacturing Company Building, located at 720 Monmouth Street, in the City of Trenton, Mercer County, New Jersey.

This nomination has received unanimous approval from the New Jersey State Review Board for Historic Sites. All procedures were followed in accordance with regulations published in the Federal Register.

Should you want any further information concerning this application, please feel free to contact Katherine J. Marcopul, Administrator, New Jersey Historic Preservation Office, Mail code 501-04B, P.O. Box 420, Trenton, New Jersey 08625-0420, or call her at (609) 984-5816.

Sincerely,

Rich Boornazian
Deputy State Historic
Preservation Officer