

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

**NATIONAL REGISTER OF HISTORIC PLACES
REGISTRATION FORM**

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in How to Complete the National Register of Historic Places Registration Form (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If 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 entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name Nicholson File Company Mill Complex

other names/site number _____

2. Location

street & number 1-45 Acorn Street not for publication

city or town Providence vicinity

state Rhode Island code RI county Providence code 007 zip code 02903

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this 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 meets does not meet the National Register criteria. I recommend that this property be considered significant nationally statewide locally. (See continuation sheet for additional comments.)

Signature of certifying official/Title Date

State or Federal agency and bureau

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

Signature of certifying official/Title Date

State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that the property is:

Signature of the Keeper

Date of Action

- entered in the National Register
 See continuation sheet
- determined eligible for the National Register
 See continuation sheet.
- determined not eligible for the National Register
 See continuation sheet.
- removed from the National Register.
 See continuation sheet.
- other (explain)

5. Classification

Ownership of Property (Check as many boxes as apply.)	Category of Property (Check only one box.)	Number of Resources within Property (Do not include any previously listed resources in the count.)	
<input checked="" type="checkbox"/> private <input type="checkbox"/> public-local <input type="checkbox"/> public-State <input type="checkbox"/> public-Federal	<input checked="" type="checkbox"/> buildings <input type="checkbox"/> district <input type="checkbox"/> site <input type="checkbox"/> structure <input type="checkbox"/> object	Contributing	Noncontributing
		20	4
			buildings
			sites
		1	structures
			objects
		21	4
			total

Name of related multiple property listings
(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.)	Current Functions (Enter categories from instructions.)
INDUSTRY: manufacturing facility	INDUSTRY: manufacturing facility
	COMMERCE/TRADE: business

7. Description

Architectural Classification (Enter categories from instructions.)	Materials (Enter categories from instructions.)
OTHER: 19 th and 20 th century industrial	foundation STONE: granite; CONCRETE
	walls BRICK
	CONCRETE; METAL: steel
	roof ASPHALT: shingle; CONCRETE; METAL: steel
	other

Narrative Description

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

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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 of age or achieved significance within the past 50 years

Narrative Statement of Significance

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

9. Major Bibliographical References

Bibliography

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

Previous documentation on file (NPS):

- preliminary determination of individual listing (36 CFR 36) 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

Areas of Significance

(Enter categories from instructions.)

INDUSTRY

ARCHITECTURE

ENGINEERING

Period of Significance

1865-1954

Significant Dates

1865

Significant Person

N/A

Cultural Affiliation

N/A

Architect/Builder

William T. Nicholson (original plant)

- #### Primary location of additional data:
- State Historic Preservation Office
 - Other State Agency
 - Federal agency
 - Local government
 - University
 - Other
- Name of repository
Rhode Island Historical Society Library

10. Geographical Data

Acreage of Property 7 acres

UTM References

(Place additional references on a continuation sheet.)

1	1	9	2	9	8	2	1	9	4	6	3	3	2	5	8
	Zone		Easting					Northing							
2															

3															
	Zone		Easting					Northing							
4															

See continuation sheet

Verbal Boundary Description

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

Boundary Justification

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

11. Form Prepared By

name/title Edward Connors, Principal

organization Edward Connors and Associates date December 2004

street & number 14 Brook Street telephone 401 433-2871

city or town Barrington state RI zip code 02806

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps

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

A **Sketch map** for historic districts and properties having large acreage or numerous resources.

Photographs

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

Additional items

(check with the SHPO or FPO for any additional items)

Property Owner

(Complete this item at the request of 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 amend 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. 470 *et seq.*).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 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 Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reduction Projects (1024-0018), Washington, DC 20503.

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DESCRIPTION

General

The Nicholson File Company Mill Complex is a group of late 19th- to mid-20th-century, 1- and 2-story, predominantly brick and concrete buildings sited on a roughly 7-acre city block defined by Acorn Street on the east, Kinsley Avenue on the north, Tingley Street on the south, and a spur rail line on the west. This section of Providence began to attract industrial development as a result of the introduction of rail service in the 1850s and the rechanneling of the Woonasquatucket River in the 1860s.

The first Nicholson File buildings were designed by William Nicholson and built in 1865. The initial property purchase consisted of land defined by Acorn and Tingley streets, and Kinsley and Ashley avenues. The latter street (the original western property line) was abandoned and built on in the early 20th century.

The earliest buildings were sited in a roughly *U*-shaped configuration along Acorn and Kinsley. These included Building 2 (a machine and packing shop) fronting on Acorn and two long perpendicular extensions (Buildings 1 and 8) that housed grinding, file drawing, and cutting operations. Two engine rooms (Buildings 4 and 6) and a shared boiler house (Building 5) occupied the narrow space between these perpendicular buildings along with a file straightening building extending west from one of the engine rooms. By the 1880s, Nicholson had extended Building 2 to the south along Acorn Street.¹ This post-Civil War expansion continued with the construction of a distinctive office building (Building 12) and another manufacturing building (Building 11) extending westerly behind the office building.

By the early 20th century, Nicholson File had expanded to occupy virtually all of its property west to Ashley Avenue and south to Tingley Street. A purchase of additional land to the west of Ashley Avenue ca. 1918 allowed another major expansion. From 1918 to the post-World War II years, the plant was extended southerly with the erection of buildings to Tingley Street and westerly, to the spur line of the New York, New Haven, and Hartford Railroad. This expansion included a 1943 power plant (Building 38) and stack (now shortened).

In 1959, Nicholson File moved its manufacturing operations out of Rhode Island. Now occupied by a number of manufacturing and commercial firms, the complex is substantially intact, the physical expression of ninety-two years of file and rasp manufacture for a global market. Twenty-four buildings (20 contributing and 4 non-contributing) and one contributing structure are inventoried below.

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Inventory

Contributing buildings and structures are those built during the period of significance that retain all or most of their original features. Non-contributing buildings are those built after the period of significance, those altered so that they no longer resemble the original structure, or temporary buildings.

The building numbering scheme is based (with some variation due to changes in ownership) on a convention established by Nicholson File Company in the 20th century. Unless otherwise noted, all buildings are contributing.

Acorn Street

1 **Building 2, Machine and Packing Shops (1865, c. 1882):** A brick, 2-story, 32' x 203' manufacturing building with cross-gabled roof and an elaborately corbelled cornice. This corbelling also extends horizontally across the cross gable and the Kinsley Avenue gable end of the building. The cross gable is located at the center of the building's original 18-bay Acorn Street elevation. The original dimensions of this building were 32' x 116'. An early, single-story building occupied the space to the south. Ca 1882, Nicholson File raised this building a full story, matching the brickwork and fenestration of the original Building 2.² This added 14 more bays, completing the building as it appears today.

There has been significant window alteration on the Acorn Street elevation. On the second floor, original segmental arch openings with granite sills have been brick-filled or fitted with modern metal replacement windows. First floor window openings have been modified to eliminate the segmental arch and refitted with rectangular modern windows. An original four-light oculus survives at the peak of the cross gable. The original main entrance below the cross gable has been altered. Three chimneys are located along the roofline of the north elevation.

On the Kinsley Avenue gable end of the building is a large, half-round, wood-frame window divided into four sets of lights: two 12-light and two 20-light. Second-story windows are replacement type set in the segmental arch openings. A 20th-century addition, which includes a shipping dock and steel frame overhanging roof, occupies the street level of this elevation.

1 (rear) **Building 8, Cutting and Carpenter Shops (1865):** A brick, 240' x 38' manufacturing building that housed a cutting shop (first floor) and a carpenter shop (second floor). Except for its

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Acorn Street, continued

connection Building 2, this building originally stood separate from neighboring buildings. Late 19th- and early-20th-century infill and additions have enclosed it. Framing is heavy timber with round-section iron columns. The single-story wing of this building visible from the interior courtyard is an early 20th-century addition.

1 (rear)

Building 10, Infill building (1914): A brick, 51' x 33', single-story building with shallow-pitched gable roof and heavy timber roof framing. The foundation is concrete. Window openings are wide segmental arch with brick sill, now filled with T1-11 inserts and re-cut for modern replacement metal windows. Two modern garage doors and a commercial entrance open onto a courtyard loading dock.

23

Building 12, Office Building (between 1878 and 1881): An ornate, 2-story, 62' x 51', brick office building connected to Buildings 2, 11 and, by way of an overhead walkway, Building 14. The slate mansard roof has three hipped dormers on the east and south elevations. The cornice is corbelled. A large brick structure, incorporating a chimney is located along the north roof slope at this building's juncture with Building 2. The rear elevation is completely brick with a series of five evenly-spaced chimneys that once rose above the roofline at the rear of the building but are now reduced in height. The main entrance is recessed to reveal a modern glass and steel doorway; double wood-frame outer doors appear to be original to the building.

The building sits on a raised granite foundation. Rectangular windows with granite lintels and sills are grouped in threes except for the paired windows over the front entrance. These openings have metal replacement inserts.

Between 1908 and 1918 Nicholson File matched the architectural detail of this building in the construction of an elevated walkway from the south elevation to the north elevation of Building 14 (see below). The rear, west elevation side of this walkway visible from the alley reveals reinforced concrete construction more typical of the period. A well-detailed, wood-frame, double door opens from the alleyway into what appears to be a garage space, perhaps originally intended for a carriage. This space is within the footprint of Building 12.

23 (rear)

Building 11, Machine Room/Hardening Shop (1879): A brick, single-story, 174' x 46', manufacturing building on a granite foundation. The roof is mostly gabled with a roughly 35' section of flat or near flat roof at the west end. The cornice is

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corbelled. Early maps show a space between this building and Building 12 (see below). By 1895 Nicholson File had extended this building eastward to attach to the rear of Building 12.

This building had been extended westward in the early 20th century to connect to an Annealing Building (demolished between 1937 and 1950) that occupied much of the space now serving as a central courtyard/parking area. The extensions appear to have been removed at the time of the demolition, thus returning the building to its earlier 174' length. The affected west wall was recreated with concrete block.

- 33** **Building 14, 2nd Office/Factory Building (between 1882 and 1886):** A two-story, 260' x 37', brick, end gable building with three chimneys integrated into its Acorn Street elevation. The cornice is corbelled. This building originally served as a hardening shop, rasp shop, and grinding room. Later, the front section was adapted for office space. Original windows are found along the alley on the north elevation. These are paired 9/9, wood-frame with a quarry-faced granite sill. Remaining windows are a combination of aluminum replacement types and glass brick fill. There were no first floor windows at the time of construction, nor was there an Acorn Street entrance. The present entrance is a modern alteration.
- 37** **Building 19, Forge Building (1890):** A single-story, roughly 400' x 40', brick building with a gabled roof and a prominent center chimney on the Acorn Street elevation. The cornice is corbelled; the foundation is granite. Windows are segmental arch, 12/12, double-hung, wood-frame, with the upper sash fitted to the arch. A clerestory monitor is sheathed in fiberglass panels.
- 45** **Building 20, Steel Storage/Machine Shop (between 1904 and 1908, et seq.):** A two-story, 230' x 40' brick building resting on a concrete foundation. It has a shallow gable roof with a wood cornice and corbelling. This building was originally set back along Tingley Street behind a small, square-plan, single-story building occupying the corner of Acorn and Tingley. Between 1918 and 1921 this building was removed and Building 20 extended easterly to Acorn.

Ground level windows along Tingley Street are paired, rectangular wood frame, 6-light with a concrete sill. Along the Acorn Street elevation, these have been replaced. Second-story windows are paired, segmental arch, wood-frame, 9/9, double hung with granite sill. An original wood-frame, double loading door is found on the second-story south elevation.

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Acorn Street, continued

(off) **Building 24, Annealing Shop (between 1918 and 1921):** A brick, 180' x 50', two-story building with a shallow pitched gable roof and wooden cornice. The foundation is concrete. First floor windows are segmental arch with granite sills. These are plugged with T1-11; new openings were cut for modern metal replacements. Second floor windows are paired metal replacement types fit in a rectangular opening. Two modern east elevation entrances open onto the courtyard. The south end of this building has been incorporated into a large metal shed used by CAPCO Steel. Building 24 was constructed as part of the ca. 1918 expansion of Nicholson File Company after the purchase of property west of Ashley Avenue.

Kinsley Avenue

west of **Building 1, File Drawing and Grinding Shops (1865):** A brick, one-story, 260' x 38', clear span, manufacturing building on a granite foundation. Windows are not original. Paired, metal-frame, 6/6 windows date to the early 20th century. Sills are concrete. The gable roof is shingled. Roof framing is heavy timber. Designed by William T. Nicholson.

rear of **Buildings 3-7, Engine Rooms, Boiler Room and Infill (1865 et seq.):** The long, rectangular Building 1 space formed between Buildings 1 and 8 originally housed two engine rooms, a shared boiler house and a long, narrow file straightening shop. By the early 20th century, these various rooms were made contiguous and no longer visible as separate buildings. None of the original machinery or steam engines survives.

(off) **Building 28, Grinding Shop (1918):** A roughly 200' x 40', brick, two-story, gabled-roof building resting on a concrete foundation. It was extended about 40' to the rear in 1938. Rectangular window openings have been filled with T1-11. Lintels and sills are concrete. A modern metal and glass commercial entry is on the north elevation. Building 28 was constructed as part of the ca. 1918 expansion of Nicholson File Company after the purchase of property west of Ashley Avenue.

(off) **Buildings 29, 34 and 35, Cutting Shops (1918 to 1923):** A group of three, two-story concrete buildings with brick fill extending to the rear of the complex in a U-configuration. Original full-bay windows were filled with concrete block and refitted with small, metal replacement types. Roofs are shallow-pitched gable with a wood cornice. Several modern garage doors are found on the east elevation. Building 29 (1918) is 190' x 43. Building 34 (1923) is 166' x 46'. Building

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Kinsley Avenue, continued

35 (1923) is 51' x 63'. A modern gabled entryway at Building 34 opens onto the rear courtyard. Buildings 29, 34, and 35 were constructed as part of the ca. 1918 expansion of Nicholson File Company after the purchase of property west of Ashley Avenue.

(off) **Building 30, Storage Building (between 1937 and 1950):** A single-story, 150' x 60', steel-frame, utility building resting on a raised concrete foundation and sheathed in corrugated steel and fiberglass panel.

(off) **Building 36, Storage Shed (1927, 1937):** A brick, single-story building with gabled roof. This irregularly-shaped building on a concrete foundation is roughly 100' x 35' overall. Rectangular windows are T1-11 plugged. It is connected to Building 41 (see non-contributing buildings below). A roughly 100' section of a brick wall (see contributing structures) that once extended around much of the north and east perimeter of the property is integral with the west elevation of this building.

(off) **Building 38, Power House (1943):** A moderne, brick, deep single-story, flat-roofed, 60' x 90', pier and spandrel, daylight building resting on a concrete foundation. The cornice is defined by a single course of concrete. Windows occupying the full space between piers are rectangular metal-frame grouped in threes. These are 18-light with a 6-light hopper. A single course of concrete serves as a continuous sill. Brick piers are capped with a simple concrete capital tapering to the surface of the surrounding brick. A shipping dock and single-story garage (Building 38A) are attached to the north elevation. An altered glass and steel frame commercial entrance is located on the east elevation.

A large brick chimney, no longer in use, is connected to this building at the west elevation. It once was inscribed *Nicholson File Co.* It has been shortened, now reading: *E Co.*

(off) **Building 39, Scale House and scale (c. 1940):** A small, roughly 10' x 15', single-story, hipped-roof building on a concrete foundation. Although this scale house does not appear on any Sanborn maps, a 1939 aerial photo appears to show this building. Immediately to the east of this building is an industrial scale. It is not known whether any scale mechanisms or gauges survive within the building.

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Kinsley Avenue, continued

(off) **Building 41, Storage Building (between 1937 and 1950):** A deep, single-story, 60' x 80',
NC steel-frame building with corrugated steel sheathing. It is attached to Building 36.

south side Brick and concrete wall (after 1918): A brick wall with chamfered concrete coping, extending from Building 2 at the corner of Acorn and Kinsley along Kinsley Avenue some 500' to a rear lot entrance in the vicinity of the Scale House and then continuing the wall along the rear of Building 36 to the present vicinity of Building 38. The wall varies in height from roughly 6' to 10'. While sections of this wall have been removed for new entrances along Kinsley Avenue, much of it is intact. Sections at the rear of the property behind Buildings 36 and 38 are damaged significantly.

Tingley Street

west of **Building 21, Lumber Storage/Carpenter Shop (between 1918 and 1921):** Attached to
Building 20 Building 20, a single-story, 70' x 40', brick building on a concrete foundation. The roof is shallow gable with a wood cornice. Windows are of two types: metal frame, 24-light with a 6-light hopper, concrete sill; 6-light, wood-frame, with brick sill. Entrances along Tingley Street are altered.

west of **Building 22, Garage (between 1918 and 1921):** Attached to Building 21, an 85' x 40', brick
Building 21 building with a shallow-gable roof and wood cornice. Windows are a mix of 4-light, wood sash with brick sill and 6-light metal frame with concrete sill. A modern garage door opens onto Tingley Street.

west of **Building 23, Woodwork Building (between 1937 and 1951):** An altered concrete block
Building 22 structure, now incorporated into the Tingley Street entrance to a large corrugated steel shed used
NC by CAPCO Steel.

(off) **Building 31, Storage Building (between 1950 and 1970):** A deep, single-story, irregularly
NC shaped, steel-frame, utility building with corrugated steel sheathing, roughly 240' x 110', resting on a concrete foundation.

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SIGNIFICANCE

The buildings of the Nicholson File Company Mill Complex are significant as the location of the world's first commercially successful manufacturer of machine-made files, a critical element in the Industrial Revolution. Founded in 1864 by William T. Nicholson, this company dominated the market for files for a century. In the decades following the Civil War, Nicholson invented and perfected a number of processes and products which gave his company a leading position in the market—in 1901, Nicholson File products accounted for fully 80 percent of the national market. Additionally, the Nicholson File buildings are significant as good examples of industrial architecture from the late 19th through the early 20th centuries. Nicholson File Company built, altered, adapted, and used this complex over a period of ninety years, and created here a complex which documents well the evolution of building for metal tool manufacture.

History

William T. Nicholson was born in Pawtucket, Rhode Island, in 1834. At age 14 he joined his father at the machine shop of Paul Whitin in Whitinsville, Massachusetts, where he learned the machinist's trade. After three years with this company, he removed to Providence to work for Halsey Hadley in the manufacture of screw machines for Eagle Screw Company, also of Providence.

By 1852 Nicholson was working for Joseph Brown (later of Brown and Sharpe) in the manufacture of surveyors' instruments, watches, clocks, and rules and gauges for precision measurement. By 1856 he was mechanical manager of Brown's works. Two years later, Nicholson set off on his own to form a partnership with Isaac Brownell (Nicholson and Brownell) in the manufacture of jeweler's tools and light machinery. He became sole proprietor of this company in 1859.

With the outbreak of the Civil War, Nicholson began furnishing tools and machinery to armories involved in the production of small arms. Soon after, he purchased Foster, Luther, and Company and began the production of rifling machines, lock plate edging machines, six-spindle drills, milling machines and revolving head lathes (see Figure 1). Nicholson soon entered into another partnership with H.A. Munroe under the name Nicholson and Company. This company manufactured various parts for Springfield rifles, including rear sights, eventually producing 10,000 sights per month.

By 1864 Nicholson had been granted a number of patents for machine manufacture of files and rasps. A number of companies had attempted, with little success, to produce quantities of files that could compete in quality with the best imported, handmade files.³ Nicholson set about to develop the machinery and the physical plant necessary to mass produce what he called the "increment cut file." The machine capable of producing these

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files and the difference between hand-cut and machine-made files were described in an 1889 article in *Manufacturer and Builder*:

A file machine, it should be understood, is a machine that moves a “blank” quickly upon a bed, with a chisel rapidly falling upon the blank as it moves, and making teeth or indentations. The clearest description that could be given of it, is that it is hand-work operated by machinery, for one hand of the machine slides the blank along, while the other sets the chisel and strikes the blow with the hammer. The objection to machine work, however, by those who claim to entertain any objection, is that it is so accurate that the teeth are cut regularly in rows, and of a uniform depth, a thing to be avoided in making a perfect file. In making them by hand, however, this accuracy or regularity, could not be obtained by the most skilled workman, even if it was desirable, for the force of his blows cannot always be the same, nor can he always place his chisel exactly in the same position.

The article went on to explain the peculiarities of the machine made file and its superior cut.

In speaking of the variance between their increment files and files with the regularly cut teeth, the Nicholson File Company very clearly explain by saying that the difference between this and the perfect regularity of the old machine-makes must be apparent, particularly in the double-cut files, as in the one case the files cut with such extreme regularity, when put in use, will in the first inch of its movement produce channels or grooves, and the grooves will continue to be made deeper as the file shoved along, thus producing that “grooving” and “chattering” so often complained of, while in the “increment-cut file” the grooves made by the movement of the file for the first inch will have their sides cut away as the file is moved toward the “tang” or handle, and vice versa; and while it is cutting as fast as its points will permit, it is also said to cut smoother than the best hand-cut of the same coarseness. The irregularity spoken of consists not only in the spaces between each tooth, but also in the heights of the teeth themselves, thereby completely removing the objections hitherto argued against machine files.⁴

The plant, located on the south bank of the Woonasquatucket River north of downtown Providence (see Figure 2), consisted of several distinct shops for file drawing, grinding, and cutting of files as well as a machine shop and packing area. By the mid 1880s, Nicholson had expanded this operation to include an enlarged packing building, detached office, factory building, and machine room (see Figures 3 and 4). Nicholson held twenty-eight patents by this time. A contemporary article in Greene’s *The Providence Plantations* (1886) describes the plant’s output:

Here are manufactured when in full blast, 1500 dozens of files and rasps per day, ranging in size from the largest “rubbers” weighing ten pounds each, to the finest files used by watchmakers, having 300 teeth to the inch, and requiring 430 files to equal one pound.⁵

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As a means of eliminating competition, in the 1890s Nicholson File Co. began acquiring file manufacturers around the country and re-outfitting them for specialized manufacture. These included the American Works (Pawtucket), the Great Western Works (Beaver Falls, PA), the Eagle Works (Middletown, NY), the McClellan Works (Saginaw, MI), the Kearney and Foot Co. (Paterson, NJ, and Kent, OH), the Arcade File Co. (Anderson, IN). Nicholson File also acquired the file business of the J. Barton Smith Co. (Philadelphia). Through these acquisitions, by 1901 the various Nicholson plants were producing 120,000 files per day and employing 2,500. This output accounted for 80% of the national market for files.

William T. Nicholson died in 1893 holding 98 patents for various aspects of file manufacture. In the same year, three thousand varieties of Nicholson files and rasps were displayed at the World's Columbian Exhibition in Chicago.

The turn of the 20th century saw significant expansion at the Providence plant (see Figure 5). This included the erection of a new forge shop (Building 19) at the south end of the complex. A 1916 *Providence Journal* profile of the company offered a rare look at the inner workings of Nicholson File Company's Providence plant. By this time the Acorn Street complex employed 1200 men, processing thousands of tons of steel into 700 different types of files ranging in size from smaller than a toothpick to 20" in length. The article described a process whereby rolled steel strips furnished by steel suppliers were cut to required lengths, forged to a file shape, and sent to annealing ovens. From this point the annealed blanks were ground smooth and draw-filed to ensure that all edges were true before the mechanical cutting process--as invented by Nicholson some fifty years earlier--rendered a finished file.⁶

Early 20th-century expansion, facilitated by the purchase of a roughly 3-acre parcel of land to the west of Ashley Street in 1919,⁷ included the erection of a grinding shop (Building 28), an annealing shop (Building 24), and three concrete frame-cutting buildings (Buildings 29, 24, and 35).

The final significant expansion of the Nicholson plant was the erection of a moderne power house in 1943 (Building 38).

During the post-World War II era, Nicholson File struggled with labor disputes and steel shortages. In June 1958 Paul C. Nicholson, great-grandson of the company's founder, announced that the Providence plant would be phased out over the coming year, transferring manufacturing operations to its plants in Anderson, IN, and Philadelphia, PA. Nicholson stated that the company had been unable since World War II to serve its foreign market effectively. He also cited "slightly higher labor rates, fringe benefit costs and higher indirect labor costs" as well as high unemployment compensation rates and property taxes.⁸ Then-Governor Dennis J. Roberts took issue with much of Nicholson's formulation. He pointed out in a radio address that the situation had not been

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helped by a persistent recession, federal policies that had done great damage to Rhode Island's industrial base, and the company's decision to build a manufacturing plant in Holland the year before. This European plant effectively eliminated 65% of the Providence plant's production.⁹

Thirteen years after it closed the Providence plant, the Nicholson File Company was acquired by Cooper Industries, an international manufacturer of tools, hardware, and electrical products. After ninety-four years, the Providence plant was closed in November 1959. It was purchased by Licht Properties in 1960 and has been leased to a variety of commercial and industrial tenants since that time.

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MAJOR BIBLIOGRAPHICAL REFERENCES

Articles:

“Building in Rhode Island.” *Providence Journal* (28 December 1865): 1.

“Providence Invention Becomes World Leader.” *Providence Journal* (29 October 1916): S5, p. 7.

“Nicholson File Plant Here will be closed.” *Providence Journal* (27 June 1958): 1.

“Steel Shortage Cause Plant to Shut Down.” *Providence Journal* (25 June 1952): 1.

“Text of Governor Roberts’ Statement on Closing.” *Providence Journal* (30 June 1958): 22.

Books:

Biographical History of the Manufacturers and Businessmen of Rhode Island.
Providence, J.D. Hall & Co., 1901.

Nicholson, William T. *Treatise on Files and Rasps.* Providence: Nicholson
File Company, 1878.

Greene, Welcome Arnold. *The Providence Plantations for 250 Years.*
Providence: J.A. and R.A. Reid, 1886.

Electronic Sources

“File Making by Hand and Machinery,” *The Manufacturer and Builder* (1889)
as reproduced at <http://www.netris.org/RIToolmakers/FILEMAKING/File-making-H-M.html> (accessed 12/04).

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Government Documents

Kulik, Gary and Julia Bonham. *Rhode Island: An Inventory of Historic Engineering and Industrial Sites*. Historic American Engineering Record, 1978.

Providence Industrial Sites. Providence: Rhode Island Historical Preservation Commission, 1981.

Maps and Engineering Drawings

Factory Mutual drawing. Licht Properties. Surveyed November 2, 1960 by C.L. Schwaab, Jr.

Providence plat maps: 1875, 1882, 1918, 1926, 1937

Everts and Richards Topographical Atlas map: 1895

Sanborn Fire Insurance maps 1889, 1900, 1904, 1921, 1951, 1970

Richards Atlas map 1908

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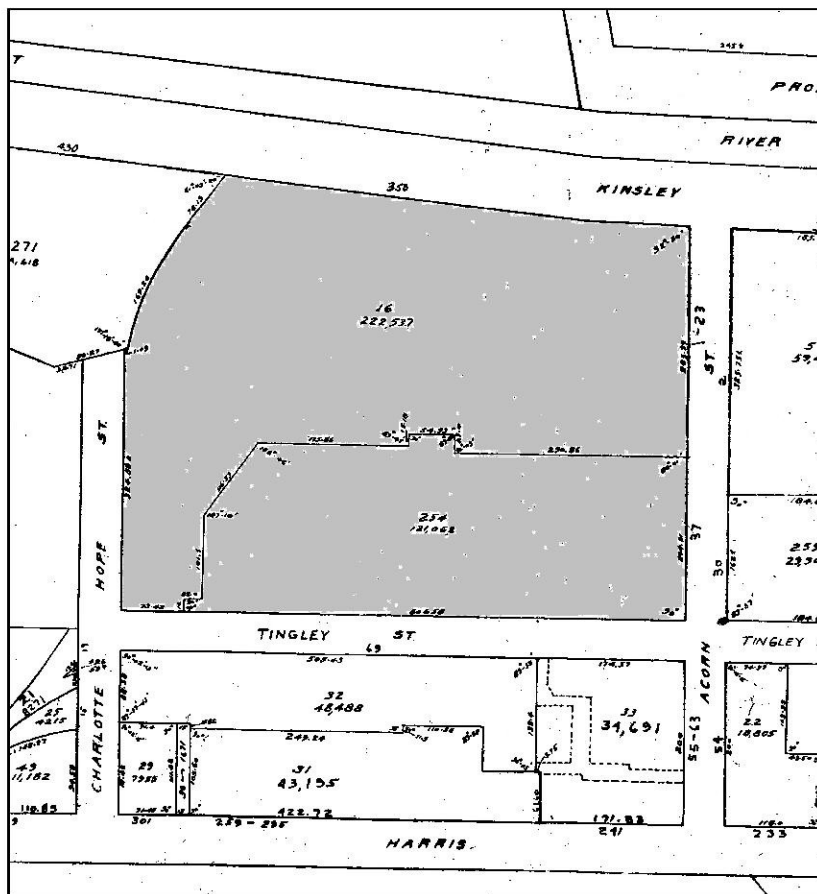
GEOGRAPHICAL DATA

Boundary Description

The boundaries of the Nicholson File Company Mill Complex are contiguous with Providence Tax Assessor's Plat 27, Lots 16 and 254.

Boundary Justification

These boundaries, comprising about seven acres, define all of the land historically associated with the Nicholson File Company during ninety-four years of industrial operation.



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Nicholson File Company Mill Complex
Vicinity of Acorn St., Kinsley Ave., and Tingley St.
Providence, R.I. Quadrangle
Scale: 1: 24,000



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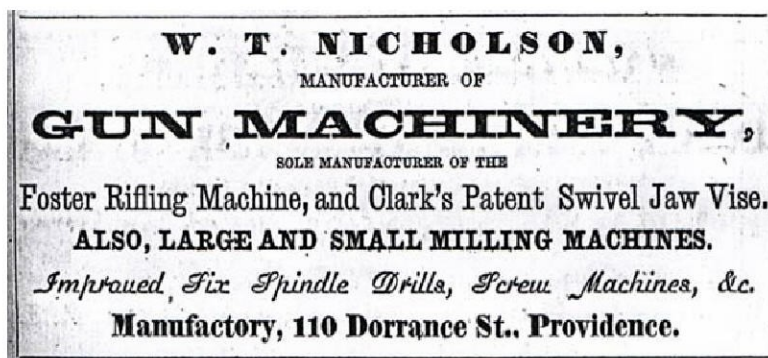


Figure 1
W.T. Nicholson advertisement (1862)

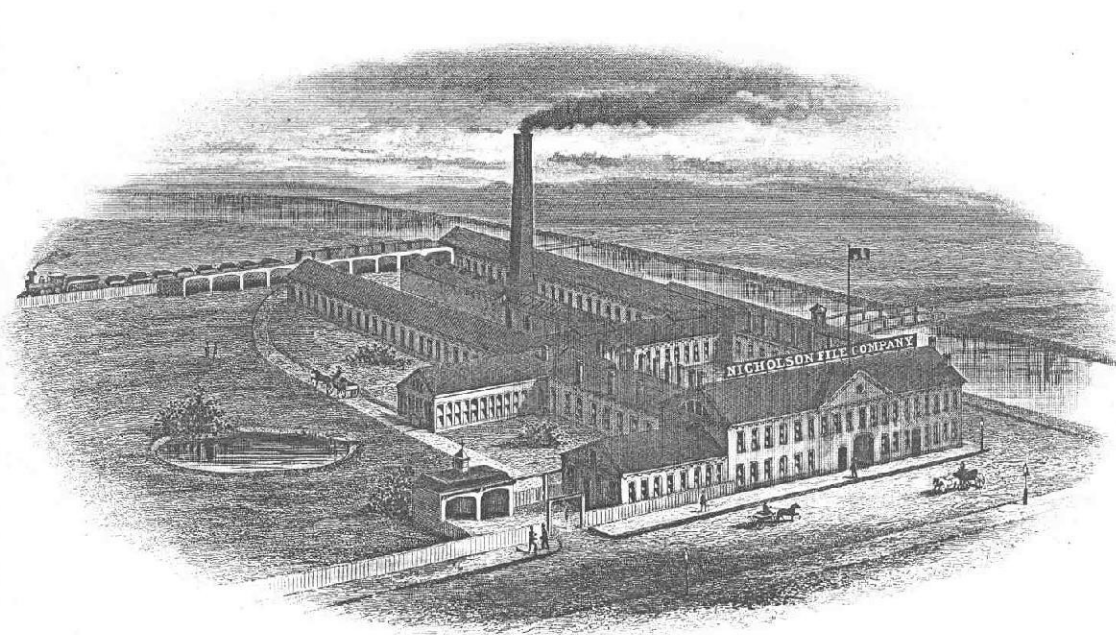


Figure 2
Original layout of Nicholson File plant
Showing Buildings 1, 2, 8, Boiler/engine Rooms and Straightening Room (1878)

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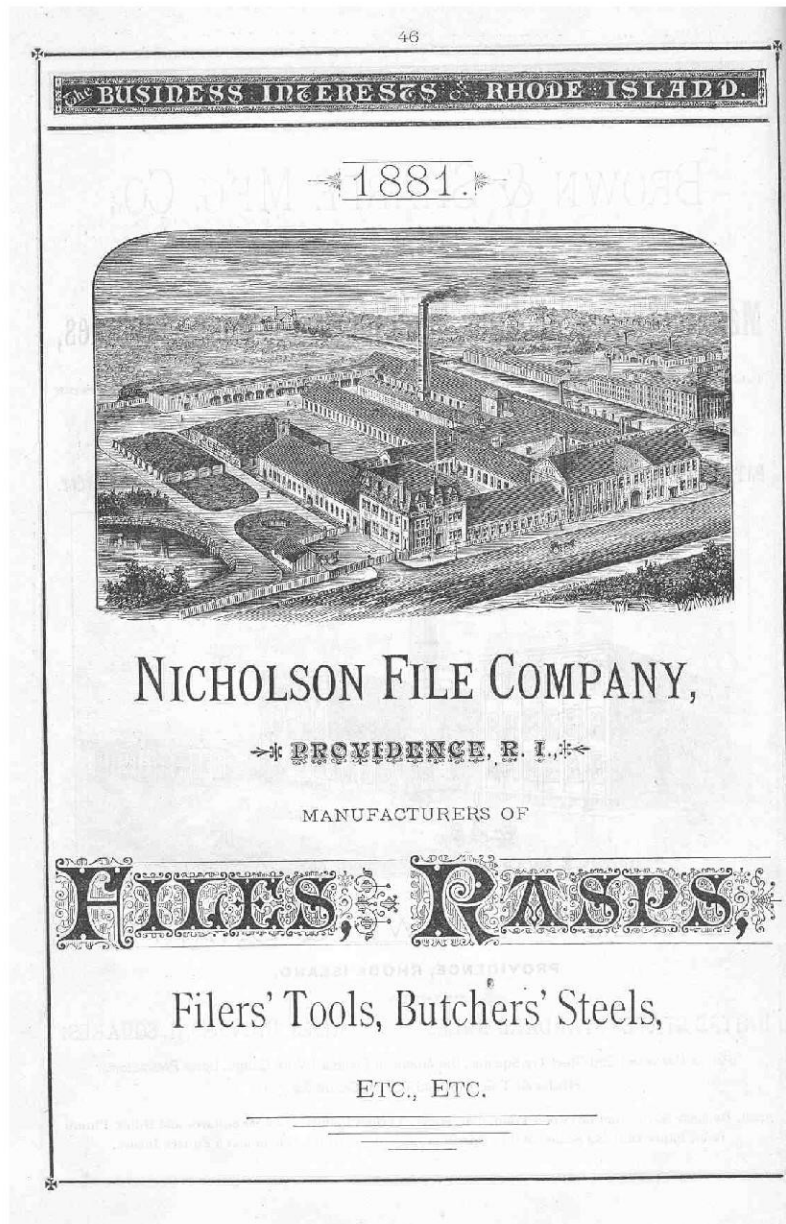


Figure 3
Nicholson File Company Advertisement (1881)

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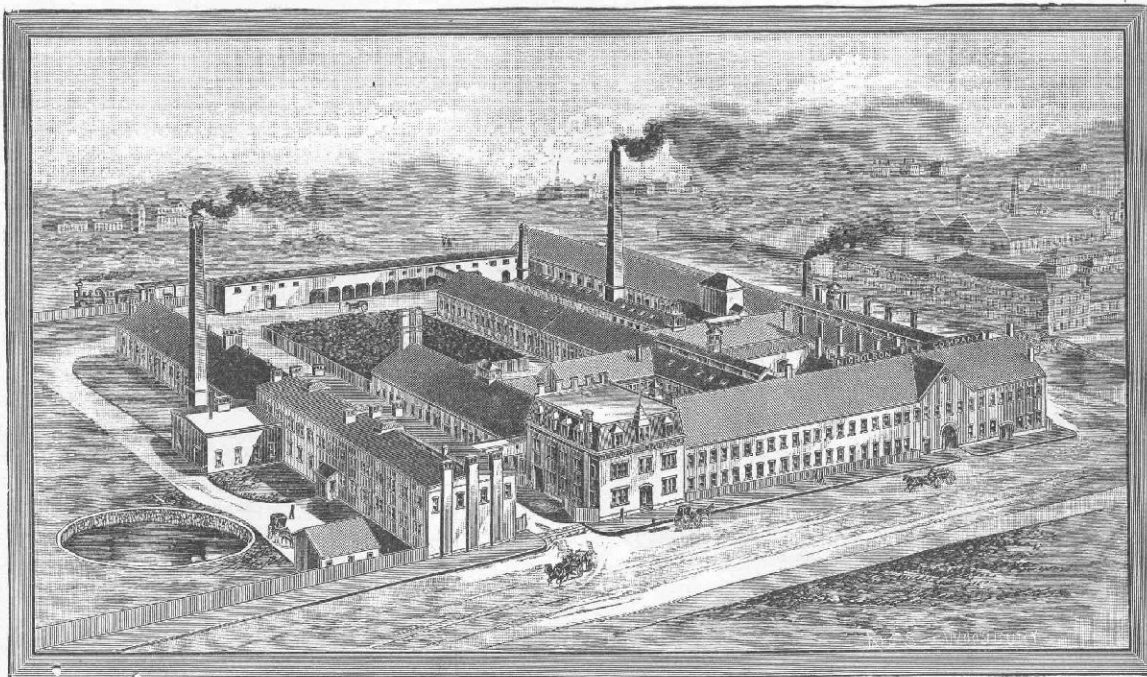
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WORKS OF THE NICHOLSON FILE COMPANY, PROVIDENCE.

Figure 4
Engraving of Nicholson File Company (1886)

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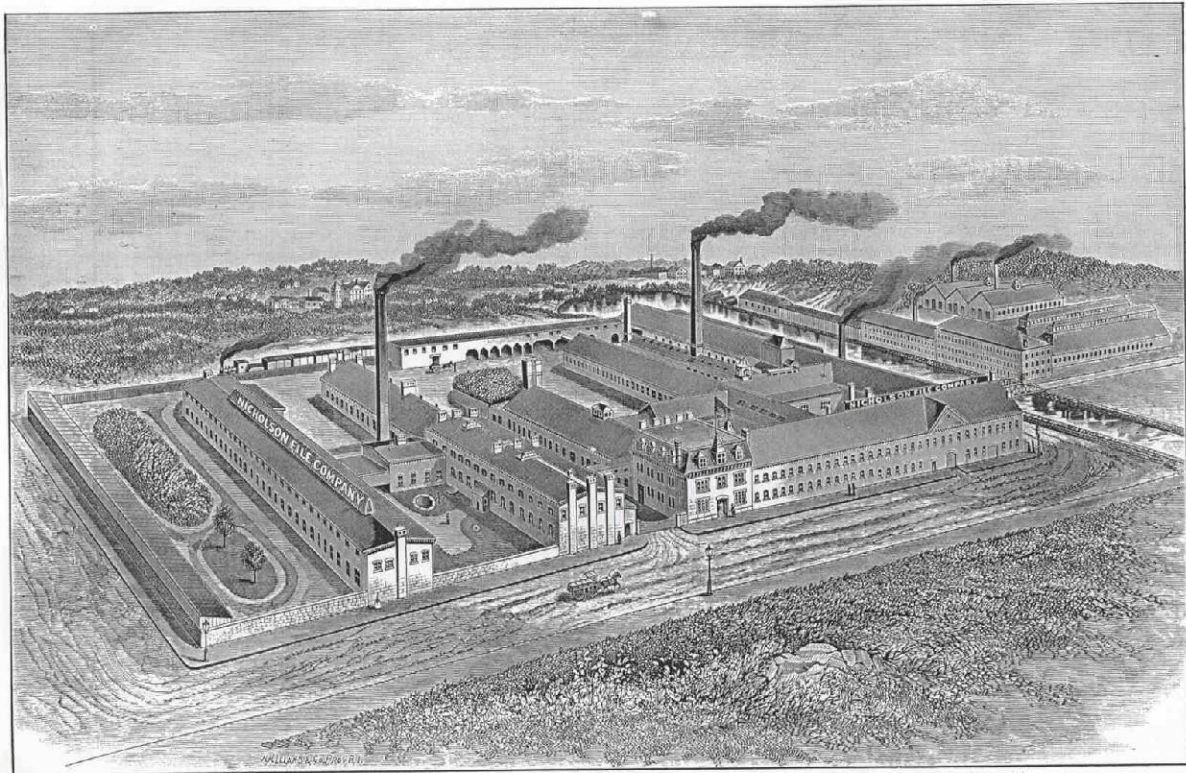
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WORKS OF THE NICHOLSON FILE COMPANY—PROVIDENCE FACTORIES.

Figure 5
Engraving of Nicholson file Company (1895)

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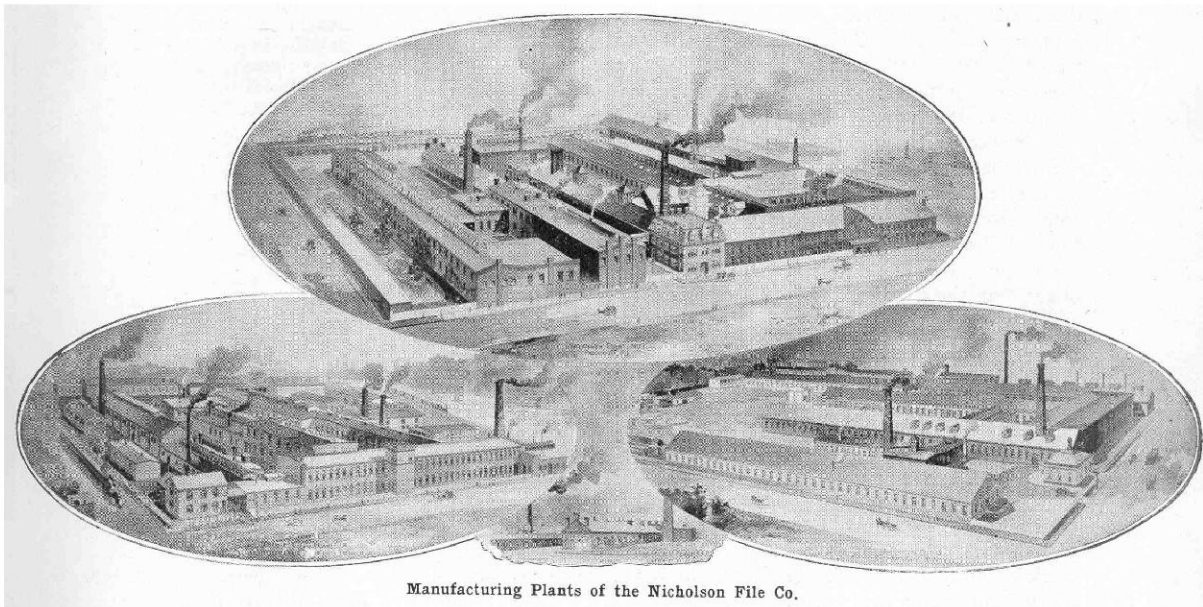


Figure 6
Plants of the Nicholson File Company (1901)

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NOTES

- ¹ This may have been accomplished by adding a story to an early neighboring building to match its height and detailing. This can be seen in a comparison of Figures 2 and 4.
- ² A color detail of this building raised to two stories can be seen in the 1881-2 O.D. Bailey bird's eye illustration of Providence.
- ³ These companies that attempted to produce machine-made files included The American File works (Ramapo, NY), the Whipple File Works (Ballard Vale, MA), and others. Source: "File Making by Hand and Machinery," *The Manufacturer and Builder* (1889) as reproduced at <http://www.netris.org/RIToolmakers/FILEMAKING/File-making-H-M.html> (accessed 12/04).
- ⁴ *ibid*
- ⁵ Source: Welcome Arnold Greene, *The Providence Plantations for 250 Years* (Providence: Reid, 1886), p. 270.
- ⁶ "Providence Invention Becomes a World Leader." *Providence Journal* (29 October 1916): S5 p.7.
- ⁷ See Providence Plat Cards 1046 and 1049.
- ⁸ See "Nicholson File Plant Here Will be Closing." *Providence Journal* (27 June 1958): 1
- ⁹ See: *Providence Journal* articles, "Roberts Blames File Co. Closing on White House" (30 June 1958, p.1) and "Governor's Text on Nicholson File Closing" (30 June 1958, p. 22).

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INDEX TO PHOTOGRAPHS:

(The information in numbers 1-5 is the same for all photographs)

1. Nicholson File Company Mill Complex
2. Providence County, Rhode Island
3. Photographer: Edward Connors
4. January 2005
5. Original Negatives on file at: Rhode Island Historical Preservation & Heritage Commission
150 Benefit Street
Providence, Rhode Island 02903

6. Building No. 2, Machine and Packing Shops: view northwest
7. #1

6. Building No. 12, Office Building: view northwest
7. #2

6. Building No. 14, 2nd Office/Factory Building: view west
7. #3

6. Building No. 19, Forge Building: view northwest
7. #4

6. Building No. 20, Steel Storage/Machine Shop: view northwest
7. #5

6. Buildings No. 29, 34, and 35, Cutting Shops: view southeast
7. #6

6. Building No. 38, Power House: view west
7. #7



THE OCEAN CHURCH

ONE BEAKS STREET

5111



25

CAUTION
LOW CLEARANCE
11' - 7"

RESIDENTIAL AREA
NO LOADING
UNLOADING

NO PARKING
EXCEPT
PERMITTED

NO
PARKING
EXCEPT
PERMITTED

NO
PARKING
EXCEPT
PERMITTED

NO
PARKING
EXCEPT
PERMITTED

25

NO PARKING
ANYTIME

NO PARKING
ANYTIME

CAPCO STEEL
OFFICES
2ND FLOOR
40 TINGLEY ST

CAPCO
CELVARS
ELEVATOR

CAPCO
STEEL CORP.
40 TINGLEY ST
PROVIDENCE RI

CAPCO
EQUIPMENT



CAPCO







JCTECH
INDUSTRIES
Specialty Packaging
1834-61

43

BFI
1834-61

RESTAURANT

1834-61



SWEET
1897-1910

TAYLOR MACHINING, INC.

Nicholson File Co. Building Key

approximate scale 1" = 100'

