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# The Evolution of the Rogers Locomotive Company, Paterson, N.J.

**Brian Morrell**

## INTRODUCTION

Since 1973, Great Falls Development, Inc. of Paterson, N.J. has sponsored a salvage archeology project in the city's S.U.M./Great Falls National Historic District. Funding has been supplied by both the State and Federal Departments of Transportation, since the project is the result of the intrusion into the District of a storm drain for both a state and an interstate highway.

Digging and research have centered in the locomotive manufacturing portion of the District--the site of the former Rogers Locomotive and Machine Company, the Grant Locomotive and Machine Company, and the Danforth and Cooke Locomotive Companies (see Fig. 1-2). This type of manufacturing commenced in the area in 1837 and continued until the 1920's.

Archeology was confined to the right-of-way line for the drain construction, which traversed the Grant locomotive erecting shop and the Rogers tender, blacksmith, hammer, boiler, and erecting shops. However, this paper deals with the chronology of all the Rogers Locomotive Company's buildings, past and present, not just those excavated.

## CHRONOLOGY

The Rogers Locomotive Works was the largest of the three Paterson locomotive companies of the 19th and early 20th centuries. Thomas Rogers, founder of the company, came to Paterson ca. 1812 and formed a partnership in a machine manufacturing and cotton-spinning establishment (Trumbull 1882: 111). In 1831, Rogers sold his interests in the firm for between \$36,000 and \$38,000 and went into business for himself, establishing the Jefferson Works (Garber 1968: 61). His new company was located at the then western edge of the city on the upper and middle raceways. At the time, only two small cotton mills and a machine shop were located on the raceway in this otherwise swampy, pine-

forested area (Trumbull 1882: 111-13). The Jefferson Works consisted in one, large, four-story, stone building about 50 by 100 ft. The two lower floors were to be used for machinery manufacture and the upper two for cotton spinning (Clayton and Nelson 1882: 429-30).

In 1832, Rogers formed a partnership with Morris Ketchum and Jasper Grosvenor, both New York capitalists, to form the new company of Rogers, Ketchum and Grosvenor (Forney 1886: 2). In that same year, the total investment in buildings, machinery, and materials of the works was listed at about \$50,000 (Garber 1968: 62), and the early local census (1832) states that 121 employees labored in the works' blacksmith shop and iron and brass foundry (Fisher 1832: 145).

Shortly after the new firm of Rogers, Ketchum and Grosvenor formed, it received extensive orders for machinery. Among these was a request for 100 sets of wheels and axles for Horatio Allen of the South Carolina Railroad, which may have been responsible for Rogers' later entry into the locomotive industry (Forney 1886: 2).

In 1833, the company expanded its works by adding a small foundry on the east side of Spruce Street (Clayton and Nelson 1882: 429-30). Between the years 1832 and 1835, an iron planing shop and an office building were erected. The former was located about 40 to 50 ft. south of the foundry, the latter on the west side of Spruce Street in front of the Jefferson Works building. The office served the company as its administration building until 1881 (*Map of the Town of Paterson, N.J. 1835; Paterson Mills, 1854*).

By 1835, a two-story, stone millwright shop measuring 50 by 75 ft. was added on the southeast corner of Market and Spruce Streets. Finally, in 1836 a locomotive shop was erected just about opposite the present site of the office building on Spruce Street (see Fig. 2-1). It was a two-story brick building, 40 by 100 ft. By 1850, this same structure had been ex- 17



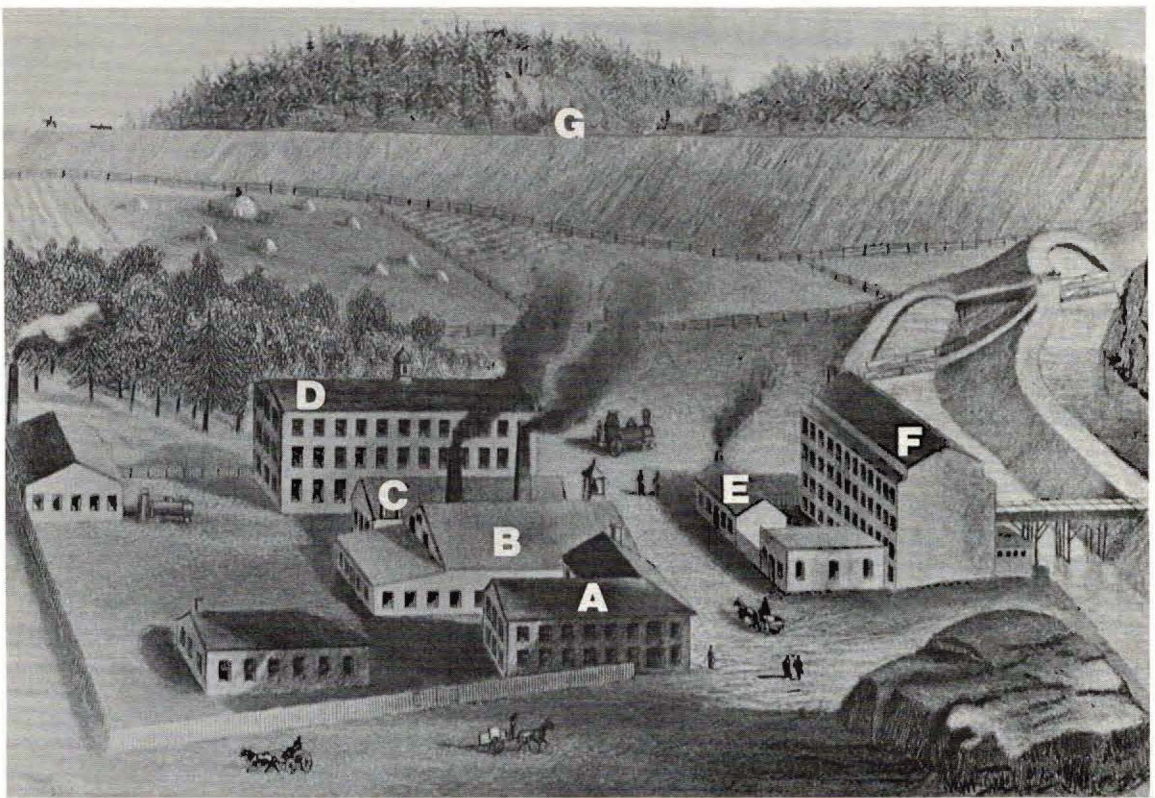


Figure 2-1. An 1836 view of Rogers, Ketchum & Grosvenor. (A) Millwright shop. (B) Foundry. (C) Iron-planing shop. (D) Locomotive shop. (E) Office. (F) Jefferson Works building. (G) Morris Canal. (*The Rogers Locomotive Company, Paterson, New Jersey 1897: 2.*)

tended to 200 ft. long, so that it reached from Spruce to Pine Street. It was designed so that a single track ran through the shop with engines being assembled one behind the other (Clayton and Nelson 1882: 429-30).

The Paterson and Hudson Railroad purchased an English locomotive in 1836, disassembled it, and shipped it to the United States. Rogers, Ketchum and Grosvenor was hired to reassemble it. The task was performed only after Thomas Rogers had carefully studied the parts and made complete drawings and patterns (Nelson and Shriner 1920: 352).

In 1837, the Rogers Works produced its first locomotive, the *Sandusky*, (see Fig. 3-1). It was the first locomotive manufactured in Paterson. A trial run from Paterson to Jersey City and New Brunswick proved its quality (Trumbull 1882: 114).

Between 1836 and 1840, additions were made to the original foundry building and a new blacksmith shop was added south of the locomotive shop. This new structure was also 200 ft. long, extending from Spruce to Pine Street (*Map of the Town of Paterson, New Jersey 1840*). An 1839 ac-

count says that the shop contained 50 forges (Forney 1886: 14).

A boiler shop was constructed between 1840 and 1850 next to the new blacksmith shop. Dimensions of this building were about 200 by 38 ft. At about the same time, extensions were added to the original Jefferson Works building (*Map of Paterson, N.J. 1850; Paterson Mills, 1854*). Added to the works on the east side of Spruce Street by 1854 were a tank shop measuring 100 by 30 ft., a gasometer, another blacksmith shop, and several storage buildings, including lumber and coal sheds. On the west side of Spruce Street had been erected an engine frame shop, 68 by 43 ft., several storage buildings, and a blacksmith shop, 102 by 40 ft., on the corner of Spruce Street and Stoney Road (*Paterson Mills, 1854; see Fig. 2-2*). Annual locomotive production at Rogers had increased from 1 in 1837 to 103 in 1854 (Trumbull 1882: 120). Over 686 engines had been produced since the company had started (Clayton and Nelson 1882: 431).

In 1856, Thomas Rogers' death precipitated the reorganization of the company. His son, Jacob S. Rogers, took over the



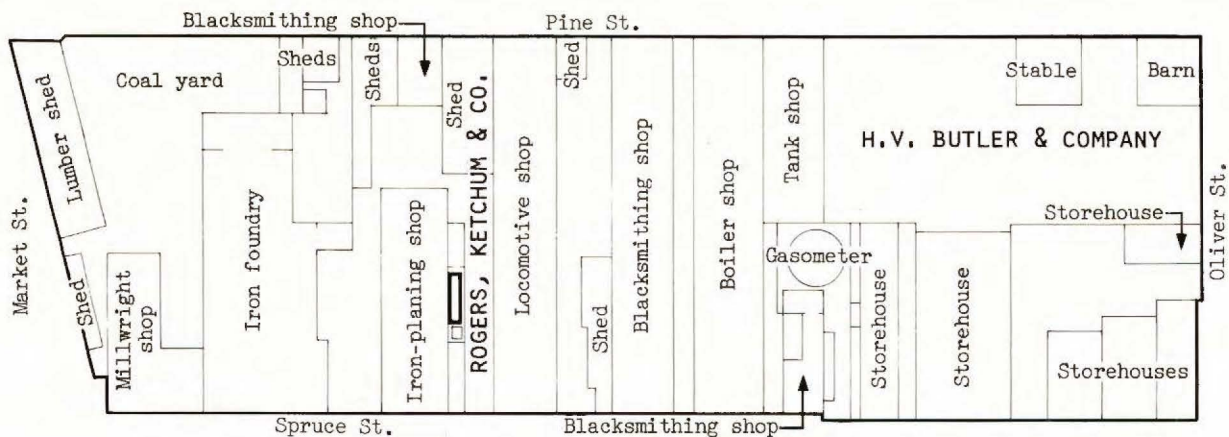


Figure 2-2. Map showing the development of the early Rogers complex. (*Paterson Mills, 1854.*)

firm, renaming it the Rogers Locomotive and Machine Works (Trumbull 1882: 120).

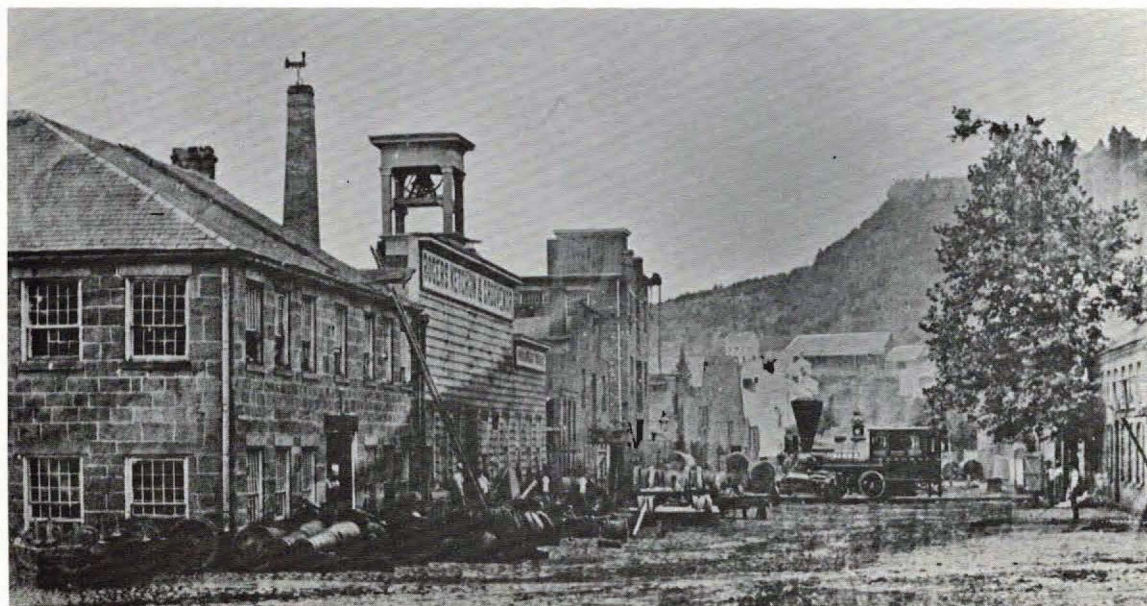
The 1860's brought the prosperous days of Civil War (see Fig. 2-3). In a month, 850 workers turned out 10 to 12 locomotives (Trumbull 1882: 120, 123). In 1869 a millwright and blacksmith shop was erected on the corner of Spruce Street and Stoney Road (Clayton and Nelson 1882: 431), the former location of the Passaic Paper Mill.

During the 1870's, the Rogers Locomotive and Machine Company was totally renovated. The many old buildings had several times been outgrown and added to as technology evolved. Low ceilings held smoke in the rooms and afforded poor lighting (Clayton and Nelson 1882: 431-32). A grand-scale building campaign

leveled all the old structures in the Spruce Street-Pine Street block. In 1871, the millwright shop on the corner of Spruce and Market Streets, the foundry, and the iron planing shop were demolished, and before the end of the year the large new erection shop was constructed on their site. This new structure, still standing, was 200 by 56 ft., with two stories and a large attic for a machine shop (Clayton and Nelson 1882: 431-32).

By the spring of 1873, the 1836 locomotive shop was leveled and a new blacksmith shop was built, running parallel to Pine Street. It was 253 ft. long, 80 ft. wide, and one story high. A hammer shop attached to its southern end fronted on Spruce Street. This one-story shop measured 200 by 53 ft. and contained several 5- to 10-

Figure 2-3. View of the Rogers Locomotive and Machine Company in 1860, looking south down Spruce Street. In the left foreground are the millwright shop, next to the foundry, the iron-planing shop, and the locomotive erecting shop. The locomotive is being taken into the erecting shop. On the right stands the company office. In the background are Garret Mountain and the Morris Canal, just beyond the long shed. (*Original negative, courtesy of G.K. Livitsanos.*)





ton steam hammers (Clayton and Nelson 1882: 431-32).

The next structure erected in this area (ca. 1873-76) was the boiler shop, 127 by 200 ft., with a high, ventilated roof (Clayton and Nelson 1882: 431-32). The last two major buildings to be constructed on the block (also ca. 1873-76) were the foundry and the pattern shop. The foundry measured 145 by 110 ft., with three cupolas. The pattern shop was 30 by 100 ft., two stories high, and fire-proof (Clayton and Nelson 1882: 431-32; see Fig. 2-4).

In 1873, the Rogers Works saw both good and bad times. Until the Panic of 1873, the locomotive works was operating at its greatest capacity, and 1648 workers produced one complete locomotive every second working day (Trumbull 1882: 120, 123). After the panic, about 1600 employees were laid off, leaving only 20 (Clayton and Nelson 1882: 431-32). Prosperous times were to return later.

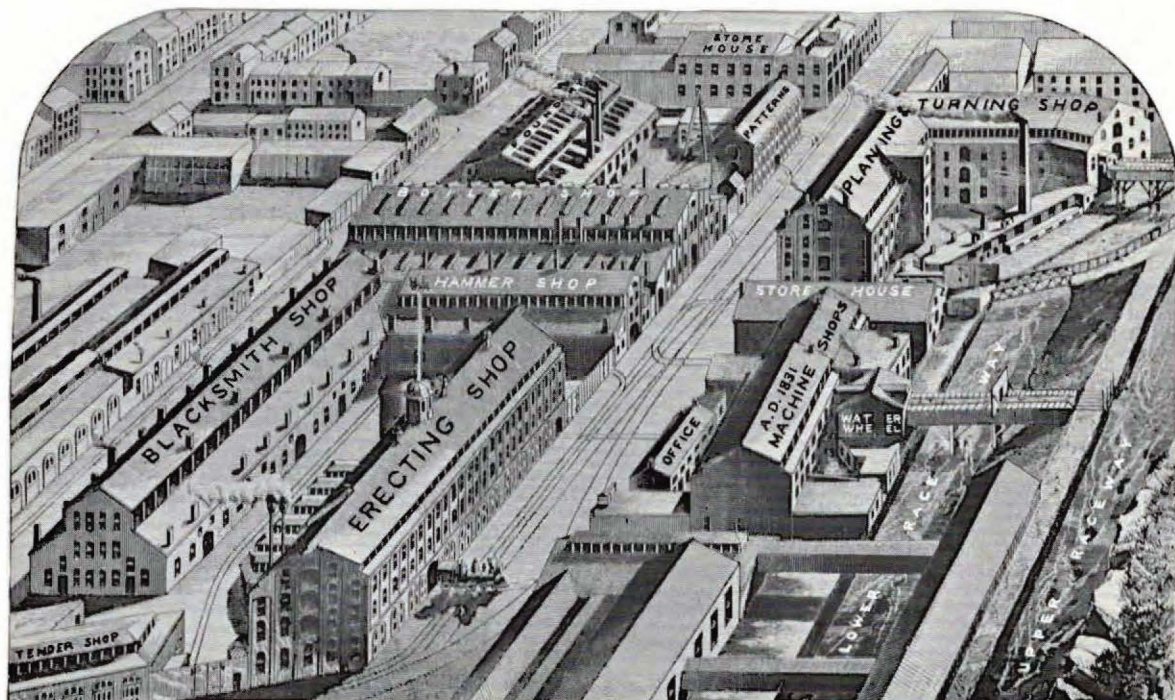
A severe fire on February 13, 1879 destroyed the 1869 millwright and blacksmith shop. It was rebuilt on the site with brick. Records describe the new building as having three stories with a hip roof and running 183 ft. on Spruce Street and 54 ft. deep, with a 183 by 61-ft. "L." A blacksmith shop was built adjoining the raceway measuring 110 by 35 ft. (Clayton and Nelson 1882: 431).

The frame office and drafting room was torn down and replaced by a two-story-with-attic brick building, 25 by 97 ft. The ceilings of the fireproof structure were brick arches laid in iron beams. Offices were located on the first floor; the second story was reserved for the draftsmen. By January 1881, this office building was completed and occupied (Clayton and Nelson 1882: 432).

Also in 1881, the old storehouse and adjacent buildings on the northwest corner of Stoney Road and Spruce Street were removed. A new brick frame-fitting and machine shop was built on the site. It measured 115 by 105 ft., was three stories high, and had a large skylight. Here, large reflectors were placed in such a manner that lights used at night illuminated the floors as brightly as daylight (Clayton and Nelson 1882: 432). Another 1881 addition to the west side of Spruce Street was a new brick storehouse erected over the middle raceway in back of the frame-fitting shop (Trumbull 1882: 123).

The works continued to expand on the east side of Spruce Street also. Between 1880 and 1882, a tank and tender shop was built on the south side of Oliver Street; its dimensions were 200 by 35 ft. A 100 by 24-ft. smith shop was also erected, and was used for blacksmith work on tanks and engines. During the winter of 1881-82, two engine and boiler houses were

Figure 2-4. View of the Rogers Works in 1876, after the major rebuilding of the 1870's. (*Locomotives and Locomotive Building ... 1876: 14.*)





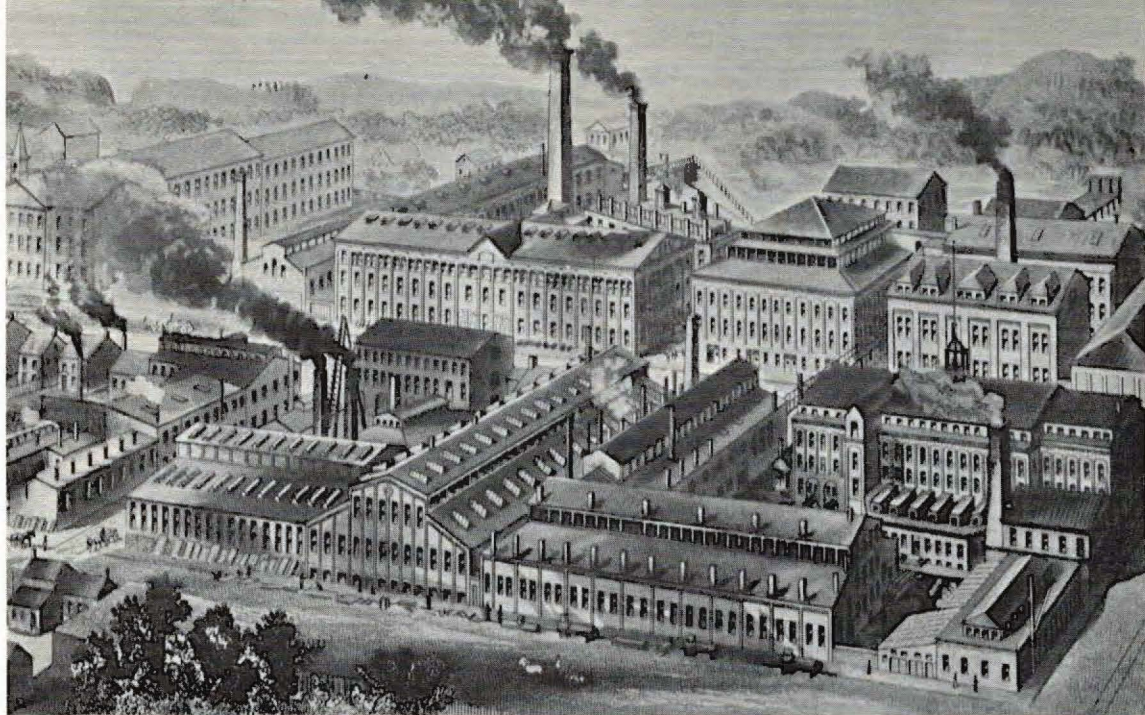


Figure 2-5. View of the Rogers Works in 1897, just a couple of years before Jacob Rogers sold the plant. Note the cramped building complexes, with no room for expansion. (*The Rogers Locomotive Company, Paterson, New Jersey 1897: 3.*)

built, also on the south side of Oliver Street (Clayton and Nelson 1882: 432).

One of the Rogers Locomotive and Machine Company's largest fires occurred January 23, 1888, when the 1831 Jefferson Works building, then used as a machine shop, was totally destroyed. The flames also badly damaged the 1881 frame-fitting and machine shop building, which was adjacent to the Jefferson Works. A large number of bolts, finished brass work, general machinery, old patterns, finished locomotive cabs, and packing were either totally lost or severely damaged. The cost of the fire was estimated at about \$50,000 (*Paterson Daily Press* 1888: 3).

The year 1893 brought financial panic once again, causing the locomotive works to reorganize as the Rogers Locomotive Company (Lucas 1933: 38).

During the 1890's, the Rogers Works slowly succumbed to an ever-evolving technology that made the shops and tools once more outdated and unfit to maintain a reasonable competition within the locomotive industry. Jacob Rogers spent little time at the works, leaving all matters up to his trusted officer Robert Hughes. When Hughes died in 1900, Rogers announced his intention to sell the plant (*Paterson Daily Guardian* 1900: 1, 7; *Paterson Daily Press* 1900: 1; see Fig. 2-5). The city, in the midst of a silk manufacturing lull, went to great lengths to

keep the works open. At the time it was one of the few major sources of employment in Paterson (*Paterson Daily Press* 1900: 1).

After much struggle and legal debate, a syndicate headed by Elliot C. Smith and Francis H. Halloran from New York purchased the works in 1901. The new company continued under the name of the Rogers Locomotive Works (*Paterson Guardian* 1901A: 1; 1901B: 1).

By 1904, several modern additions were made to the Rogers plant, including a new erecting shop on the site of the old Ivanhoe Paper Mill and some extensions on the old boiler and hammer shops into the recently closed-off Pine Street (Shriner 1941: 48; *An Exhibition of Locomotives ...* 1904). Even with these new changes, the works remained unable to update itself sufficiently to be competitive. The surrounding blocks were full, leaving no room for further expansion.

During the fiscal year 1904-1905, the American Locomotive Company bought nearly all the capital stock of the Rogers Locomotive Works (*American Locomotive Company Annual Report* 1905: 12-13). In 1909, the deeds to the Rogers Locomotive Works were transferred to the American Locomotive Company (*Passaic County Deeds Book L-20: 141*). A few special-use locomotives were built until 1913, when all manufacture ceased (Fisher 1937: 44). The Pine Street



22 blacksmith shop, the tender shop, the hammer shop, and the pattern shop were demolished at about this time (*Atlas of the City of Paterson, N.J.* 1915). The remaining buildings served as storage facilities; most of their machinery had been moved to American Locomotive Company's Cooke Plant on the other side of the city. By ca. 1926, all the Rogers buildings had been sold off individually to various businesses (Fisher 1937: 44).

#### PRESENT STATUS OF THE ROGERS WORKS SITE

Great Falls Development archeologists have negotiated with both the State and Federal Departments of Transportation for over two years. Apparently they have been successful in convincing these agencies that what has been revealed is of great significance to Paterson's Historic District and Industrial Archeology as a whole.

For these reasons, the D.O.T. has agreed to preserve part of the underground remnants of the Rogers Locomotive Works. Unfortunately, the area of the best finds--the boiler shop site and the unexplored location of the old foundry--will be lost. Tight Federal funding makes the tunneling of the storm drain beneath all the Rogers remains impossible.

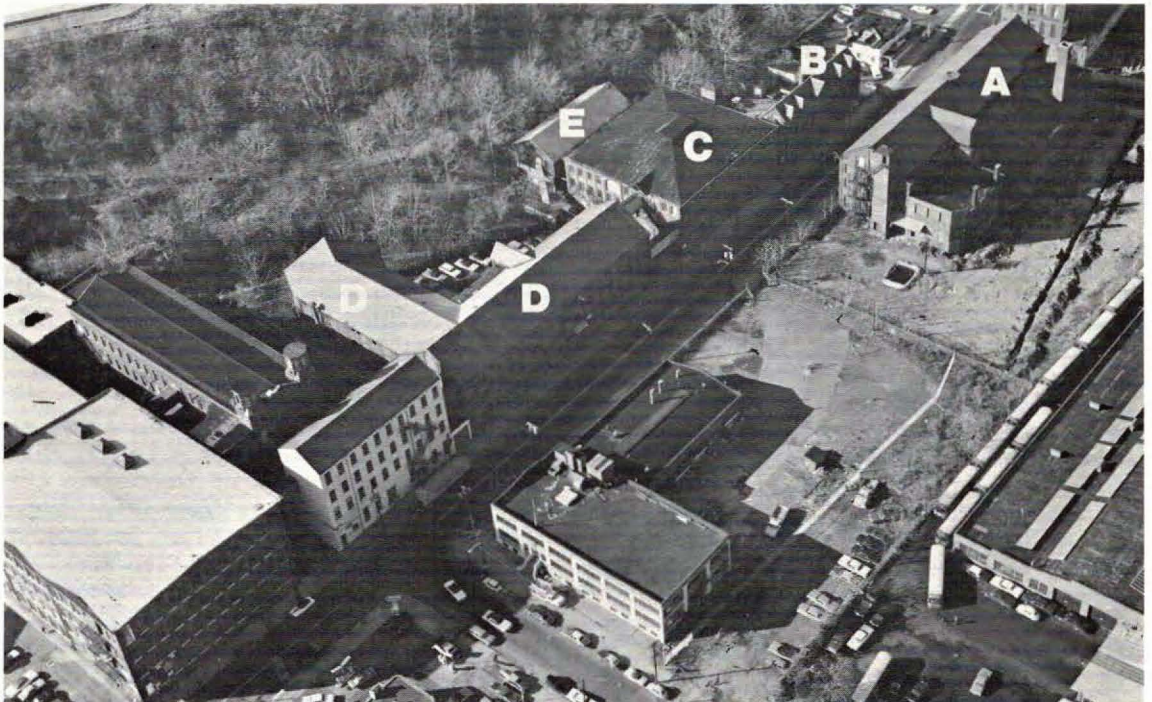
At present, above-ground remains of the Rogers Works include the erecting shop, the office, the frame-fitting shop, the storehouse, and the millwright and turning shop. All these buildings are occupied by textile manufacturers, except for the erecting shop. This historic structure, owned by Great Falls Development, Inc., awaits restoration and adaptive reuse suitable to the Historic District (see Fig. 2-6).

The Rogers buildings are generally in good repair. They should not be viewed as something obsolete or useful only as monuments to an industrial past. In fact, they are stable, useful structures that can be monuments to a great future. If the historical value, beauty, and soundness of these and other surrounding buildings are recognized and utilized, the Historic District and the city can be revitalized.

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Figure 2-6. The remaining Rogers buildings, Spruce Street, 1975. (A) Erecting shop, 1871. (B) Office building, 1881. (C) Frame-fitting and machine shop, 1881. (D) Millwright shop, 1879. (E) Storehouse over middle raceway, 1881. (Courtesy of H.A.E.R., Jack Boucher.)





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