

AUG 21 1989

MASSACHUSETTS HISTORICAL COMMISSION
80 BOYLSTON STREET, BOSTON, MA 02116

NATIONAL REGISTER

Area Letter Form numbers in this Area

C	1
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WALTHAM, MA MRA

Town Waltham

Name of Area (if any) American Waltham Watch Company Historic District

Present Use Variety of high-tech firms

General Date or Period late 1870's-1910's

General Condition good-excellent

Acreage 358,000 sq. ft. 8.21 Acres lot #68-22-2

Recorded by Edward W. Gordon

Organization Waltham Historical Comm.

Date July, 1986

revised by C. Jenkins 2/88

Photos (3"x3" or 3"x5" black & white) - Indicate on back of each photo street addresses for buildings shown. Staple to left side of form.

Sketch Map. Draw a general map of the area indicating properties within it. Number each property for which individual inventory forms have been completed. Label streets including route numbers, if any. Indicate north. (Attach a separate sheet if space here is not sufficient).

see attached sheet

RESOURCE COUNT

BUILDINGS - 30

TM REFERENCE A 19/315 300 / 4692880
B 19/315 200 / 4692900
C 19/315 110 / 4692600
D 19/315 200 / 4692550

SGS QUADRANGLE NEWTON
SCALE 1:25,000

NATIONAL REGISTER CRITERIA STATEMENT

The American Waltham Watch Company complex possesses integrity of location, design, setting, materials, workmanship, feeling and association. Known consecutively as the Boston Watch Company, the American Watch Company, the American Waltham Watch Company, and the Waltham Watch Company, this was the first watch company in America to produce a complete watch under one roof. It may be regarded as the "mother factory" of several U.S. watch manufacturing companies including the Elgin Company in Illinois. It also garnered a strong international reputation. As the largest single employer in Waltham, "the Watch" enjoyed considerable political power in the city in the late 19th and early 20th centuries. It was a pioneer in the provision of safe and hygienic working conditions for employees, and was also actively involved in the creation of housing, thus playing an important role in the development of the South Side. Finally, it is a massive and extremely well-preserved turn-of-the-century factory complex exhibiting well detailed elements of Queen Anne and Romanesque Revival style design. It meets criteria A and C of the National Register.

ARCHITECTURAL SIGNIFICANCE Describe important architectural features and evaluate in terms of other areas within the community.

The American Waltham Watch Company District is an area of approximately 8.2 acres, bounded by Prospect St. on the north, Crescent St. on the east, the line of Robbins Road on the South and the Charles River on the west. The district contains the various masonry components of the former American Watch Company. Stretching nearly 1000 feet along Crescent St. and the Charles River, this plant dates from the late 1870's to the 1910's. Its 5-story buttressed, corbelled, towered and pinnacled segments, with their regimental rows of tall windows form a surprisingly cohesive whole and constitute one of the most memorable industrial complexes in America. "The Watch's" buildings blend elements of the Queen Anne and Romanesque Revival Styles. The American Watch Company's buildings were heralded during the late 1880's as "The Model Factory." Its interior design provided for employee safety and comfort, as well as productivity. This plant's narrow, well-illuminated wings contained long rows of watchmaker work areas adjacent to tall windows. Fireproof construction was utilized throughout the complex. Several rooms were devoted to recreation, first aid and even child day care. The plant river-side location was chosen, in part, for aesthetic reasons. In addition, Crescent and Robbins Parks were developed across the street from the factory to provide a dust-free zone and

HISTORICAL SIGNIFICANCE Explain historical importance of area and how the area relates to the development of other areas of the community.

The American Waltham Watch Company, rechristened as such for the third time in 1885 figures prominently in the annals of late 19th/early 20th century American (and international) watch manufacturing. This company is descended from the Boston Watch Co. Founded on the present watch factory's site in 1854, the Boston Watch Co. was the first watch manufacturing company in the world to produce a complete watch under one roof. By the late 1880's the American Waltham Watch Co. was known as a "model factory" because of the company's commitment to providing safe and hygienic working conditions for its employees.

The American Watch Company's origins are inextricably bound to Aaron L. Dennison's 1840s study of the possibility of making watches by machine instead of by hand using what is now known as the "Interchangeable System." Dennison's interest and improvements in machinery led him to be called the "father of the interchangeable parts." According to Susan Hurly, "watch making by the mid nineteenth century was still a cottage industry. Separate pieces would be contracted out to workers, then assembled together by hand at the factory. Because pieces were made by hand they were not standardized, a main spring or a screw from one watch could not fit another."

The Boston Watch Co. at Waltham was the offspring of Edward Howard's American Horologe Co. at Roxbury, Ma. Between 1849-1853, Aaron L. Dennison, in conjunction with Edward Howard, D.P. Davis and Samuel Curtis lay the groundwork--via the study of English watch factories and experimentation with watch machinery--for the establishment of the Boston Watch Co. in 1854. (continued)

BIBLIOGRAPHY and/or REFERENCES

Maps/Atlases--1854,1874,1881,1886,1898,1900,1911,1923

Henry G. Abbott, A Pioneer History of the American Waltham Watch Co. of Waltham

Gitelman--Labor Force at Waltham During the Civil War ERA, 1965

ARCHITECTURAL SIGNIFICANCE

campus-like setting for the factory (these parks currently serve as parking lots).

The first watch factory on this site was built in 1854, five years after Waltham's purchase of the South Side from Newton. The first plant was known as the Boston Watch Co. It consisted of "the little quadrangle 2-story mud wall factory with a frontage of perhaps 75'. Evidently this building's "mud wall" construction was considered most "up-to-date." The material employed in the wall's construction was a sort of concrete, not composed of crushed stones and hydraulic cement but of common ground as found on the premises in combination with lime mortar. These two "mud wall" buildings were extremely narrow--the average width measuring only 16' with 9' high ceilings. The narrowness of this first watch company's components set a precedent for later watch manufacturing structures on this site and elsewhere in the U.S. Interior work rooms were illuminated by tall, closely spaced windows. In 1864-65, this factory was extensively enlarged by the construction of 2-3 story wood frame mansardic wings. This mid-1860's expansion set the precedent for the format of the present complex, encompassing towered pavillions, long wings, and multiple interior courtyards. Late 19th c. engravings indicate that these courtyards were well-landscaped with paths, trees, shrubs and even a picturesque garden house. "A detailed description of "the Watch's" 1864-1865 expansion is provided in D.H. Hurd's History of Middlesex Co. By the mid-1860's this factory complex consisted of "a short two-story wing build at the front (dating to 1854)--the lower story being devoted to the uses of the gilding department and the upper one to the work of fitting the "trains." Further additions were made by constructing other wings parallel with the street, the original two-story flat roof corridor building giving place to one of brick, with an additional story which was used as a finishing room. A second corridor's building was built, also of brick. This was located about a hundred feet south of the first, and the two connected by a two-story workshop; another similar wing extended about eighty feet to the south of this second corridor. In addition to these, the machine shop wing was extended toward the river, and two wings parallel with the front, but between it and the river, were build. Besides these a second engine house and boiler house were built and equipped. With the exception of the two corridor buildings and the engine and boiler houses, all of these buildings were constructed with wooden frames filled in with solid brick."

The last of the 1854 "mud wall" buildings was demolished in 1879. Wood frame components dating to 1864/65 survived until the early 1900s.

The present watch company complex evolved over the period of roughly the late 1870's-1910's (the watch's earliest components, have been variously dated to 1873, 1876, 1878). The present brick factory complex represents a more permanent form of construction. Its various components averaged an interior width of 24'4". Windows are grouped in a manner which accommodates heavier intervening piers without ~~reducing~~ reducing the total illuminating space. Structured iron employed in the fabric of these buildings insured strength and stability--the supporting walls are both rigid and also made to maintain the floor as well, thereby avoiding the interference of support columns or posts which were necessarily employed in all previous buildings. Fireproof construction was utilized in "the Watch's" post 1870's structural components because of "the immense value of the great number of automatic machines which are grouped so closely in many of the rooms." In 1881, an elaborate executive office building was built at the Prospect St. extremity of the complex. By the late 1880's, this factory encompassed "numerous wings extending toward the river and enclosing three inner spacious courtyards, besides an

ARCHITECTURAL SIGNIFICANCE (cont'd)

elegant suite of offices at one end and an observatory at the other." During the 1890's and early 1900's the factory's riverside property was expanded via land fill to accommodate the construction of wings.

By 1888, this plant possessed 3,300 windows and about 5 acres of floor. Most of the work benches were constructed of cherry plank. The buildings were protected by 1,600 automatic sprinklers. The machinery was valued at over one half million dollars. In addition, the factory was equipped with a complete telephone system, comprising 30 telephones and a central office linked to each of the 23 departments.

By 1903 "The Watch" was in the midst of an extensive expansion program which involved "the removal of the counting room, 105' east, the extension of the east front wing to meet it, the construction of the east octagonal tower and the remodelling of the buildings to gain another story and do away with fire hazardous attics." The octagonal tower between the extended wing and the Counting room was described as being "75' in height with an iron stairway running spirally from the basement to the upper floor." The 1903 factory enlargement also included the construction of "a new brick isolated building 160' x 60' wide for the storage of inflammable supplies." Access to this storage facility was through a "fireproof subway." In addition, a new wing from the "north front to the river" was in the planning stages (completed by 1911). In 1903, efforts were made to organize "The Watch plant" into a systematic arrangement. Production began on the ground floor of the plant. There the raw materials were received and the first operations were performed. The succeeding steps were performed on the upper floors, with final process on the top floor. The goods were then sent to the second floor to be packed and shipped. Organizational efforts evidently collapsed because ultimately the work on the watch dials was distributed on all five floors. The factory complex remained essentially unchanged after 1913, with 56 major sections of floor space. In 1938, the factory was organized into three divisions, each producing a separate line of products, watches; clocks and speedometers, respectively. Today, this complex houses a variety of small businesses and manufacturing ~~companies~~. The factory is remarkably intact and well preserved.

The American Waltham Watch Company Complex does not include any non-contributing components. All of its sections are interconnected except for two large one story, wood-frame sheds on the river side; the southern shed is enclosed by a hip roof, while the northern shed is enclosed by a gable roof. Both appear to date from the early 20th century.

RESOURCE COUNT: 3 contributing (C) buildings

VERBAL BOUNDARY DESCRIPTION & JUSTIFICATION: The nomination is confined to the American Waltham Watch Company Complex and the lot on which it stands. This recognizes its unique contribution to Waltham's historical development.

HISTORICAL SIGNIFICANCE (cont'd)

Aaron L. Dennison was initially interested in a site for his watch factory on Stoney Brook, at the extreme eastern boundary of the town of Weston, but eventually chose the 160 acre "Bemis Farm" on Waltham's South Side for the watch factory's site. Associated with Dennison's factory was the Waltham Improvement Company which was incorporated in March, 1854 with a capital of 100,000. This company purchased most of the Bemis Farm land and laid it out into building lots, with main thoroughfares and intersecting streets. This area, later "The Watch" neighborhood, encompassed the Crescent shaped area west of Moody St. to the Charles River.

Gitelman notes that "Waltham was chosen because of its proximity to Boston, because of the availability of large tracts of relatively cheap land and because the town fathers were willing to invest their funds to attract industry." It should be also added that the South Side site was chosen because it was relatively dust free--an important consideration in watch making.

The Boston Watch Company brought with it to Waltham approximately 50 workers--among the contingent were men recruited from the English watch industry and native born American merchants. For many years "the Watch" in Waltham was the main domestic source of the supply of skilled watch workers--many were to occupy high-level positions in competing companies, notably Elgin Watch in Illinois.

The Boston Watch Co. was not a financial success. In 1857, this factory became the property of the Appleton and Tracy Co. of Philadelphia. On February 8, 1859, this watch factory's name was changed, by act of the Legislature, to the American Watch Co. Aaron L. Dennison was retained as the plant's superintendant, but it was Royal E. Robbins, as treasurer and general manager, who became the main power at the American Watch Co. Mr. Dennison left the company to work in Europe in 1862. Dennison's departure was precipitated by Royal E. Robbins' lack of confidence in Dennison's plan to sell reasonably priced watches to the Union soldiers during the Civil War. Dennison's plan was proven to be highly profitable and he left the company with a \$4,000.00 settlement. Royal E. Robbins would remain treasurer and general manager of the American Watch Co. for 45 years.

Mr. Robbins was born in Kensington, a parish of Berlin, Conn. on March 10, 1824. From 1841-1846 he worked for his uncle, Chauncey Robbins in the Birmingham, England firm of Robbins and Martin. This firm was engaged in the purchase of goods of English manufacture--including a considerable quantity of watches. In 1846, he returned to New York and worked as an importer of English watches. In May 1858, he went to Waltham in the interest of Tracey and Appleton of Philadelphia, who were manufacturers of watch cases. Robbins purchased the Boston Watch Co. for Tracey and Appleton but this firm's ownership of the watch factory was brief. By the early 1860's Robbins controlled American Watch Co.

By 1864 Robbins, the company's chief executive was drawing an annual salary of \$16,000. His own earnings from the company totaled \$275,000 for one year, making the company the most profitable in the world.

The American Watch Co. was so profitable that it experienced only a few months of financial reversals during the Panic of 1873/1874. The steady increase in the volume of business made necessary a corresponding increase of capital. On August 3, 1870, half a million dollars were added--making a total of \$1,250,000.

HISTORICAL SIGNIFICANCE (cont'd)

Only three years later the capital was increased to \$1,500,000. The American Watch Co's display of products at the Centennial celebration in Philadelphia, in 1876, further enhanced this company's reputation. Further improvements in this company's watches, both in quality of workmanship and in mechanical devices, was realized by D.H. Church, a highly skilled Chicago watch maker. He produced a device for still further improving stem-winding watches, involving the elimination of "hand-setting lever, which involved the necessity of opening the case during the operation of setting the hands--this new form of watch construction was called the "pendant set."

By 1885, this company became known as the American Waltham Watch Company--by an act of the state legislature this company was permitted to increase its capital to \$4,000,000. In 1888 this company became the focus of sociologist John Swinton's study--largely as the result of this report. The A.W.W. Co. became known world-wide as a "model factory"--a progressive company that provided its employees with lucrative stock options, comfortable working conditions, and high quality housing.

By the late 1880's control of the town government was fully in the hands of Waltham watch employees. Watch Company employees included three directors of the public library, the fire chief, the postmaster, half its aldermen and even the Mayor (H.N. Fisher, see Form on 120 Crescent St.).

Mr. Robbins' death in 1902 brought a struggle for control of the company. This struggle and increase in competition threatened the financial status of the company and in 1910, the Robbins family sold their interests in the company. In 1906, the word "American" was dropped from the title of the company, and except for a short time between 1923-5, the name Waltham Watch Company was used.

Poor management prevailed in the intervening years, when WWI brought diversified products such as time fuses, speedometers and blood pressure gauges. This made for much activity but little profit. The depression of 1921 found the company in desperate straits. The banks soon took over management and a series of changes resulted until Israel E. Boucher and Frederick C. Dumaine were made general manager and president, respectively. They managed the company for 20 years. It was not an easy 20 years, as it included strikes which created problems in production and hard feelings. In 1926 however the company turned a profit for the first time since 1919. Operations were satisfactory for the next few years until the depression of the 1930's began. Wages were cut, lower-priced models were produced and conditions improved gradually. In 1942, the company again turned to war work.

In 1945, Dumaine retired. His years with the company had been successful. The company was profitable and had cash on hand, but claims were made that these successes had been gained by a loss in the quality of the Waltham Watch.

As ambitious, expensive, national advertising campaign was unsuccessful and heavy losses followed WWII. The company filed for bankruptcy in December, 1948. The company and its 2,500 employees were helped by loans from the Reconstruction Finance Corporation (RFC), but problems with the loans led the RFC to take over the corporation

HISTORICAL SIGNIFICANCE (cont'd)

in 1950. Legal problems plagued the company until 1952, when a private source of capital was found and the management of the company taken away from the RFC. The company continued to produce at least until 1962. The factory buildings are currently owned by the Waltham Precision Instruments Company, and spaces within the complex are leased to approximately 30 tenants.

<u>Street Address</u>	<u>WALTHAM, MA</u> <u>MRA</u> <u>Assessor's #</u>	<u>DISTRICT DATA SHEET</u> <u>Square Ft.</u>	<u>AMERICAN WALTHAM WATCH CO. HISTORIC DISTRICT</u> <u>Historic Name/Inventory #</u>	<u>Date</u>	<u>Style</u>	<u>Status</u>
185-241 Crescent Street.	68-22-2	358,000	Am. Waltham Watch Co.	late 1870-1910	Queen Anne/ Romanesque Revival	C
				early-20th c.	2 sheds	2C

185-241 Crescent Street
 WALTHAM, MA
 02154

United States Department of the Interior
National Park Service

AUG 21 1989

National Register of Historic Places
Continuation Sheet

Section number _____ Page _____

Multiple Resource Area
Thematic Group

Name Waltham MRA
State Middlesex County, MASSACHUSETTS

Nomination/Type of Review	Date/Signature
Cover <i>Substantive Review</i>	Keeper <u>151</u> <u>9/28/89</u>
1. American Waltham Watch Company Entered in the Historic District National Register	Keeper <u>Alvins Byers</u> <u>9/28/89</u> Attest _____
2. American Watch Tool Company Entered in the National Register	Keeper <u>Alvins Byers</u> <u>9/28/89</u> Attest _____
3. Andrews, Joseph, House Entered in the National Register	Keeper <u>Alvins Byers</u> <u>9/28/89</u> Attest _____
4. Baker, Charles, House Entered in the National Register	Keeper <u>Alvins Byers</u> <u>9/28/89</u> Attest _____
5. Baker, Charles, Property Entered in the National Register	Keeper <u>Alvins Byers</u> <u>9/28/89</u> Attest _____
6. Banks, E. Sybill, House Entered in the National Register	Keeper <u>Alvins Byers</u> <u>9/28/89</u> Attest _____
<i>SK</i> 7. Barnes, Thomas, House <i>Substantive Review</i> DOE/OWNER OBJECTION	Keeper <u>Eligible Beth Sarge</u> <u>9/28/89</u> Attest _____
8. Beard, Josiah, House Entered in the National Register	Keeper <u>Alvins Byers</u> <u>9/28/89</u> Attest _____
<i>SK</i> 9. Beth Eden Baptist Church <i>Substantive Review</i>	Keeper <u>Beth Sarge</u> <u>9/28/89</u> Attest _____
10. Boston Manufacturing Company Housing (380--410 River St.) Entered in the National Register	Keeper <u>Alvins Byers</u> <u>9/28/89</u> Attest _____

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES
EVALUATION/RETURN SHEET

REQUESTED ACTION: NOMINATION

PROPERTY American Waltham Watch Company Historic District
NAME:

MULTIPLE Waltham MRA
NAME:

STATE & COUNTY: MASSACHUSETTS, Middlesex

DATE RECEIVED: 8/21/89 DATE OF PENDING LIST: 9/05/89
DATE OF 16TH DAY: 9/21/89 DATE OF 45TH DAY: 10/05/89
DATE OF WEEKLY LIST:

REFERENCE NUMBER: 89001501

NOMINATOR: STATE

REASONS FOR REVIEW:

APPEAL: N DATA PROBLEM: N LANDSCAPE: N LESS THAN 50 YEARS: N
OTHER: N PDIL: N PERIOD: N PROGRAM UNAPPROVED: N
REQUEST: N SAMPLE: N SLR DRAFT: N NATIONAL: N

COMMENT WAIVER: N

ACCEPT RETURN REJECT 9/28/89 DATE

Entered in the
National Register

ABSTRACT/SUMMARY COMMENTS:

RECOM./CRITERIA _____
REVIEWER _____
DISCIPLINE _____
DATE _____

DOCUMENTATION see attached comments Y/N see attached SLR Y/N

CLASSIFICATION

count resource type

STATE/FEDERAL AGENCY CERTIFICATION

FUNCTION

historic current

DESCRIPTION

architectural classification
 materials
 descriptive text

SIGNIFICANCE

Period Areas of Significance--Check and justify below

Specific dates Builder/Architect
Statement of Significance (in one paragraph)

summary paragraph
 completeness
 clarity
 applicable criteria
 justification of areas checked
 relating significance to the resource
 context
 relationship of integrity to significance
 justification of exception
 other

BIBLIOGRAPHY

GEOGRAPHICAL DATA

acreage verbal boundary description
 UTMs boundary justification

ACCOMPANYING DOCUMENTATION/PRESENTATION

sketch maps USGS maps photographs presentation

OTHER COMMENTS

Questions concerning this nomination may be directed to

Phone _____

Signed _____

Date _____



185-241 Crescent St.

American Waltham Watch Area
Waltham MA MRA



185-291 Crescent St

American Waltham Watch Area C
Waltham MA MKA

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PANAMETRICS

TRAFFIC LIGHT
STOP
LEFT TURN
RIGHT TURN

NO PARKING
ANY TIME

185-241 Crescent St.

American Waltham Watch Area C

Waltham MA MRA



185-241 Crescent
St.

American Waltham Watch Area C
Waltham MA MRA

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American Waltham Watch Area C
185-241 Crescent St.
Waltham MA MRA



185-241 crescent st.

American Waltham Watch
Area C

Waltham, MA MKA

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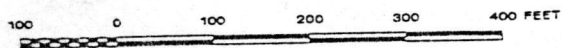
185-241 Crescent St
American Waltham Watch Area
Waltham MA MAIA

© STEVEN GYURINA



76

WALTHAM, MA MRA
 American Waltham Watch Co. H.D.
 Area C
 1975
 Waltham Engineering Dept.
 lot #68-22-2



GRID BASED ON MASSACHUSETTS STATE PLANE COORDINATE SYSTEM

- | | | |
|------------------|--------------|----------------------|
| LEGEND | POLES | CITY BOUNDARY |
| ROADS | UTILITY | RIVERS |
| PAVED | LIGHT | STREAMS |
| UNPAVED | FENCES | DITCHES |
| TRACKS OR TRAILS | WALLS | CULVERT |
| RAILROADS | STONE | LAKES PONDS |
| BRIDGES | SET LINES | SWAMP |
| ROAD | OTHER | TREES |
| RAILROAD | | WEDGE |
| | | UNDER CONSTRUCTION |



Please refer to the map in the
Multiple Property Cover Sheet
for this property

Multiple Property Cover Sheet Reference Number: 64000301