## CONNECTICUT STATE REGISTER OF HISTORIC PLACES
### REGISTRATION FORM

This form is for use in nominating individual properties and districts to the Connecticut State Register of Historic Places (C.G.S. Chapter 184b, Sec. 10-409(2). See instructions in How to Complete the Connecticut State Register of Historic Places Registration Form. Complete each item by marking “x” in the appropriate box or by entering the information requested. If an 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. Use a typewriter, word processor, or computer, to complete all items.

### 1. Name of Property

<table>
<thead>
<tr>
<th>historic name</th>
<th>Stanley P. Rockwell Company Factory</th>
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<tr>
<td>other names/site number</td>
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### 2. Location

<table>
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<th>street &amp; number</th>
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<tr>
<td>city or town</td>
<td>Hartford</td>
</tr>
<tr>
<td>county</td>
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<tr>
<td>zip code</td>
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### 3. State Agency Certification

I hereby certify that this nomination meets the documentation standards and criteria for registering properties in the Connecticut Register of Historic Places. (See continuation sheet for additional comments.)

<table>
<thead>
<tr>
<th>State Historic Preservation Officer</th>
<th>Date</th>
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### 4. Classification

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<td>(Do not include previously listed resources in count.)</td>
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<td>objects</td>
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|                             | 1     |
|                             | Total |
5. Historic Preservation Council

Approval date

Comments

6. Function or Use

Historic Functions
(Enter categories from instructions)

INDUSTRY: Manufacturing Facility

Current Functions
(Enter categories from instructions)

VACANT/NOT IN USE

7. Description

Architectural/Archaeological Classification
(Enter categories from instructions)

20TH CENTURY INDUSTRIAL: Production Shed

Materials
(Enter categories from instructions)

foundation Concrete

walls Brick, concrete block, and wood (plywood) with concrete and stone trim.

roof Tar and gravel, asphalt

other

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

SEE CONTINUATION SHEET
8. Statement of Significance

Applicable Connecticut Register Criteria
(Mark “x” in one or more boxes for the criteria qualifying the property for State Register listing.)

- ☒ 1 That are associated with events that have made a significant contribution to our history and lives of persons significant in our past; or

- ☒ 2 That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

- ☐ 3 That have yielded, or may be likely to yield information important in prehistory or history.

Areas of Significance
(Enter categories from instructions)
Industry, Architecture

Significant Dates
1929-ca. 1970: Period of significance
1929: Construction of school
Ca. 1970: Last significant alterations

Significant Person
Rockwell, Stanley Pickett

Cultural Affiliation (Complete if Criterion 3 is marked)
N/A

Architect/Builder
Buck & Sheldon, Inc. (firm, 1909-1911, 1920-1928)

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

SEE CONTINUATION SHEET
9. Major Bibliographical References

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

SEE CONTINUATION SHEET

10. Geographical Data

Acreage of Property  0.866

Municipal Map, Block and Lot Number and UTM Coordinate (If possible)
(Place additional UTM references on a continuation sheet.)

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<tr>
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</table>

See continuation sheet

Verbal Boundary Description

The boundary of the nominated property corresponds to the parcel identified as Lot 002, Block 195, on Tax Map 176, on file with the City of Hartford, Connecticut’s Assessor’s Office.

Boundary Justification

This boundary encompasses the full extent of the historic resource identified in this nomination. It appears to be consistent with the historic parcel boundary in 1929, when the original plant was completed.

11. Form Prepared By

name/title  Lucas A. Karmazinas, Architectural Historian
organization FuturePast Preservation date 5/6/2016
street & number 940 West Blvd. telephone 860-428-7982
city or town Hartford state CT zip code 06105
Narrative Description:

Summary

The Stanley P. Rockwell Company factory stands on a 0.866-acre parcel located on the north side of Homestead Avenue, roughly 350 feet west of Homestead Avenue’ intersection with Woodland Street, in Hartford, Connecticut. The immediate area is primarily flat and Homestead Avenue runs roughly southeast to northwest along a course that is parallel to the rail line, which is located approximately 225 feet south of the street. The Stanley P. Rockwell Company factory is set back just ten feet from the street and five feet from the concrete sidewalk that extends the full length of the parcel. A short bluestone walkway leads from the sidewalk to the factory’s main entrance, and a poured concrete apron leads from Homestead Avenue to a roughly 100-foot by 100-foot asphalt-paved parking lot located on the west side of the plant. The factory abuts the eastern boundary of the parcel, while a chain link fence frames the north, west, and half of the south sides of the property. Mature deciduous trees line the west and north sides of the parcel.

The neighborhood surrounding the Stanley P. Rockwell Company factory is developed with a mix of residential, industrial, commercial, and institutional buildings, and one of the city’s primary commercial corridors, Albany Avenue, is located along Main Street approximately 0.23-mile to the north. Substantial industrial properties line the south side of Homestead Avenue south and west of the factory, while densely developed residential blocks are located to the north of Homestead Avenue. The majority of the aforementioned development was completed during the first half of the twentieth century and the area retains a high degree of its historic integrity.

The Stanley P. Rockwell Company factory is a brick factory comprised of six adjoining one- to two-story red brick, concrete block, or wood-frame blocks (Photograph 1, Figure 12). The oldest portion of the plant was built in 1929. This consisted of the six-bay production shed with monitor roof at the center of the plant (as viewed from the façade (south elevation)), and the three-bay office and laboratory block located to the west (Figure 5). The one-and-a-half-story manufacturing building is of brick pier construction and has a concrete foundation, red brick walls, large corbelled window bays with stone sills and multi-pane metal windows, a stepped brick parapet with solider-coursed brick cornice and tile coping, and a front-facing pitched roof with a full-length clerestory monitor. The office and laboratory is a two-story red brick block with a concrete foundation, a mix of round-arched and rectangular window openings with detailed brick surrounds and stone sills, six-over-six double-hung wood windows, a gabled brick parapet with a solider-coursed brick cornice and tile coping, and a flat roof.
The original plant was enlarged in 1943 when a three-bay addition was erected adjoining the plant’s east elevation (Figure 6). The details of the addition mimic those found in the original manufacturing block and include a concrete foundation, red brick piers and walls, large corbelled window bays with stone sills and multi-pane metal windows, a stepped brick parapet with solider-coursed brick cornice and tile coping, and a front-facing pitched roof with a full-length clerestory monitor. A covered shipping and receiving area with a shed roof supported by square wood supports was built at the northern end of the addition’s east elevation, however, this was enclosed and enlarged ca. 1970.

A one-story red brick shipping and storage addition was erected adjoining the original building’s west and north elevations in several phases between ca. 1944 and 1946. The combined block wraps around the northwest corner of the office building and extends across the entire north (rear) elevation of the plant. A concrete loading dock built on the west and north sides of the ca. 1944/1946 addition in 1962 can be accessed from the west side of the factory from a driveway and large parking lot on that side of the parcel. Two further additions to the plant were completed in 1966 and ca. 1970. The first is a one-and-a-half-story concrete block manufacturing building with a front-facing gable roof and full-length clerestory monitor, which adjoins the northeast corner of the plant. The second is the aforementioned one-story concrete block and wood-frame addition adjoining the east elevation of the 1943 addition. This has a garage-type door opening on its south elevation and a shed roof running the full length of the block.

The factory remained in continuous use until 2010, when the Stanley P. Rockwell Company ceased operations and the plant fell vacant. Despite over 80 years of service, the overall plan of the building remains true to its original design and the vast majority of its original features remain intact. These include most of the wood or metal windows, wire-glass monitors, concrete floors, exposed red brick or concrete block walls, and various pipes and other infrastructure used in the process of heat-treating metals.

Exterior

The Stanley P. Rockwell Company’s main manufacturing building (including both the original 1929 block and the 1943 addition) measures roughly 75-feet by 70-feet overall and stands one-and-a-half-story tall. As noted, it is of brick pier construction and has a concrete foundation. The nine bays spanning the façade (south elevation) have stone sills and corbelled brick headers. They house eight large window openings and one loading bay. The latter is located at the western end of the block (Photograph 2). It has a pair of paneled wood doors with large rectangular lights in their upper sections, these topped by a 20-light transom. The fenestration in the eight bays located east of the loading bay consists of 30-light metal sash with six-light pivot openings located in the lower half of the window. White plastic lettering locate above the four western bays identifies the plant’s former occupant yet reads “TANLEY P ROCKWELL CO,” as the “S” has been lost.

In the upper section of the façade, a stepped brick parapet with solider-coursed brick cornices and tile coping traces the outline of the paired front-facing gable roofs and two six-foot-tall clerestory monitors run the full depth of the original block. Tripartite windows are located in the block’s two gable ends, these allowing additional light into the plant.
The tripartite windows have stone sills and are framed by brick trim, this forming a round-arched fan above each of the central windows. The interior of the fan is filled with rectangular bricks forming a grid pattern. Fenestration in the manufacturing block’s western gable-end consists of multipane metal sash with pivot-style openings, while that in the eastern gable-end consists of fixed multipane metal sash.

The factory’s office and laboratory block adjoins the west elevation of the main manufacturing building. The former is a two-story, 33-foot by 61-foot red brick block with a concrete foundation, red brick walls, a gabled brick parapet with a soldier-coursed brick cornice and tile coping, and a flat roof. The block’s façade (south elevation) is divided into three bays, with the primary entrance to the factory being located in the westernmost bay. The entry is set in a rectangular opening and is framed by round-arched brick trim similar to that found in the gable-ends of the manufacturing block (Photograph 3). The pass-through door has been boarded up, however, the six-light transom above remains visible. West of the entrance, the central bay has three rectangular window openings on each floor. The first-floor windows share a single stone sill and are framed with rectangular red brick trim. Fenestration consists of six-over-six double-hung wood sash, which is the same as that found on the second floor. The second-story windows are likewise unified by a single stone sill, however, they are framed by round-arched rather than rectangular brick trim. The only opening in the block’s eastern bay consists of a single window opening located on the first floor. This is framed with round-arched red brick trim similar to that on the second story of the central bay, and likewise has a six-over-six double-hung wood window. Unlike the second-story windows, however, this opening also has a grid pattern of rectangular bricks located below the sill, this extending down to the foundation.

The west (side) elevation of the office and laboratory block lacks the detailing found on the façade (Photograph 4). Window openings are found on both the first and second stories of the elevation, these being of both single and paired arrangements. The windows are set in plain rectangular brick openings and they have concrete sills and primarily six-over-six double-hung wood sash. A metal fire escape leads to a pass-through door located near the center of the elevation on the second floor. The door is a paneled metal unit with a large rectangular light in its upper half. A tall, narrow window opening flanks the north side of the entry. This has a concrete sill and four vertically oriented fixed lights.

A one-story red brick shipping and storage addition adjoins the original building’s west and north elevations (Photographs 5 & 6). Erected between ca. 1944 and 1946, the addition wraps around the northwest corner of the office/laboratory block and extends across the entire north (rear) elevation of the factory. The shipping and storage block stands on a tall concrete foundation that was extended beyond the exterior walls in 1962 to form a loading dock on the west and north sides of the block. The loading dock is sheltered by a flat-roofed porch supported by narrow steel columns. The shipping and storage block has red brick apron walls, large rectangular window openings with concrete sills, concrete coping, and a flat roof with a clerestory monitor. The windows consist of multipane metal sash with central pivot openings. A concrete stair leads onto the southern end of the loading dock. At the top of the stairs, a metal pass-through door with a large rectangular light provides access to the southern end of the addition’s west elevation. A loading bay with a roll-up metal door is located roughly ten feet north of the pass-through door.
A one-and-a-half-story, 64-foot by 40-foot addition adjoins the northeast corner of the ca. 1944/1946 block (Photograph 7). Built in 1966, the northeast addition is of concrete block construction and has a concrete foundation and a front-facing gable roof with a gabled clerestory monitor. The only openings in the block’s exterior walls are located on the west (façade) elevation. Here there is a large central loading bay flanked to the south by a smaller loading bay, and to the north by a single window opening. Both of the leading bays have roll-up metal doors, while the window has multipane metal sash with a pivot opening.

The south elevation of the factory is spanned by a one-story wood-frame and concrete block addition with a shed roof. (Photograph 8). The northern half of the block was erected as a wood-frame shed-roof porch in 1943, however, this was enclosed with plywood sheathing and enlarged via the construction of a concrete block addition adjoining its south side around 1970. The resultant addition stands on a concrete foundation and measures roughly 13 feet by 85 feet. It has a garage type door opening with a wood roll-up door on its south elevation, and three small rectangular window openings set in a wood-frame section of the northern end of the block’s east elevation.

**Interior**

The interior floorplan of the Stanley P. Rockwell Company factory consists of largely open areas that roughly correspond with each of the primary blocks. Only the office/laboratory building is subdivided into numerous smaller spaces, as several offices and a stairwell are found on the first floor, and additional offices and lavatories are located on the second floor. The primary entrance to the factory leads into a small vestibule at the southeast corner of the office/laboratory building (Photograph 9). The space has a concrete floor, plain wood mopboards, and a plaster ceiling and walls. Plain wood trim frames both the interior side of the entrance and a door opening leading northwest into the block. A single-run iron stair with a square iron newel post and round wood rails leads to the second floor of the building (Photograph 10).

The first floor of the office/laboratory building is a primarily open space with an asbestos tile floor, both exposed brick and plaster walls, and a fiberboard ceiling (Photograph 11). Two small offices and a storage closet are located at the southeast corner of the block near the entry vestibule. These have plaster walls and paneled wood doors with large lights in their upper halves. The office at the southwest corner of the block also has molded window trim, crown molding, and an acoustic tile ceiling (Photograph 12).

An opening in the east wall of the office/laboratory building leads into the main manufacturing block, this comprised of both the original shop and its 1943 addition (Photographs 13, 14, & 15). The block has an open floor plan that allowed for flexible use of the space. It has a concrete floor with various pits and footings for equipment (some of these still in place), red brick walls, and exposed iron trusswork supporting the roof. Dozens of iron pipes that formerly channeled water, gas, and chemicals throughout the plant crisscross the ceiling and the two full-length clerestory monitors provide the space with copious sunlight (Photograph 16). The roof has wood decking and the monitors have wire-glass fenestration with chain-operated openings.
An opening in the east elevation of the manufacturing block lead into adjoining addition. This has a concrete floor and both concrete block and wood-frame exterior walls (Photograph 17). The block consists of a single open space with an unfinished ceiling and walls.

The shipping and storage block adjoins the west and north elevations of the office/laboratory building, however, the primary access between the two blocks consists of a large doorless opening on the west side of the office/laboratory building. The shipping and storage block has a concrete floor, exposed brick walls, and both plastered and unfinished ceilings (Photograph 18). A clerestory monitor with wire-glass fenestration is located above the western portion of the block.

The addition at the northeast corner of the factory can be accessed via the eastern end of the shipping and storage building or from two roll-up doors on the block’s west elevation. The addition has an open floorplan with concrete floors, concrete block walls, and an unfinished ceiling with exposed iron trusses (Photograph 19). The roof has corrugated metal decking and a gabled clerestory monitor with chain operated, pivot-type, wire-glass fenestration (Photograph 20).

The second floor of the factory’s office and laboratory building can be reached by the staircase in the main entry vestibule or via a metal fire escape on the west side of the block. The interior staircase leads to a narrow corridor that runs along the building’s east elevation (Photograph 21). The corridor has an asbestos tile floor, molded mopboards, plaster walls and ceilings, plain wood door trim, and paneled wood doors. It leads to two lavatories at the northern end of the corridor, while several small offices flank the west side of the corridor. The offices have carpeted floors, wood paneled or sheetrock walls, and acoustic tile ceilings (Photograph 22 & 23).

**Integrity**

Since the Stanley P. Rockwell Company ceased operations in 2010, the former factory has stood vacant. Subsequent deterioration due to a lack of occupants has impacted the interior finishes such as the tile floors, painted walls and ceilings, and any wood paneling or acoustic tiles, however, overall, the facility’s integrity as an industrial plant has been thoroughly preserved. The various blocks retain a vast majority of original materials, although the second-floor offices appear to have undergone superficial changes during the mid-to-late twentieth century. Regardless, the former factory fully expresses the feeling and associations of an early-twentieth century industrial facility that remained operational until the early twenty-first century.
Statement of Significance

Summary

The Stanley P. Rockwell Company factory, located in the Upper Albany neighborhood of Hartford, Connecticut, is significant under State Register Criterion 1 and 2. The period of significance extends from 1929, the construction date of the earliest portion of the plant, to ca. 1970, the date of the last significant alterations to the complex. The property meets Criterion 1 because of the significant contributions that the company’s founder, Stanley P. Rockwell, made to the science of metallurgy and for the important role that his firm played within Hartford’s industrial landscape. A talented engineer and metallurgist, during the 1910s and 1920s Rockwell developed and then refined a groundbreaking device – known as the Rockwell Hardness Tester – used to test the hardness of metals, which would both become an industry standard and the basis of the now universally implemented Rockwell scale of measurement. In 1923, Rockwell established the New England Heat-Treating Service Company in Hartford, Connecticut, which was reorganized as the Stanley P. Rockwell Company in 1924. This business provided heat-treating and metallurgical testing services to many of the significant industrial concerns that occupied Hartford throughout the twentieth century and the company remained in operation until 2010, far longer than many other Hartford manufacturers.

The factory meets the requirements of Criterion 2 as a notable local example of an early twentieth century industrial facility as expressed in a typical brick production shed designed by the notable Hartford-based architectural and engineering firm of Buck & Sheldon, Inc. The Homestead Avenue plant functioned as the home of the Stanley P. Rockwell Company from the time of its construction in 1929 until the firm ceased operations in 2010, making it a significant component of Hartford’s industrial heritage. The core of the factory is largely true to its original form, however, several additions to the plant were erected as needed throughout the twentieth century illustrating both the company’s continued success and the typical manner in which industrial structures were expanded in an effort to accommodate growing firms. The factory is one of a dwindling number of historic industrial structures throughout the city of Hartford and it represents a significant component of the city’s built environment.

Criterion 1: Industry

Stanley Pickett Rockwell

Stanley Pickett Rockwell was born in New Britain, Connecticut on May 3, 1886. The only son of S. Willis Rockwell and Annie (Pickett) Rockwell, Stanley Rockwell attended the public schools of his native city before eventually receiving a graduate education at Yale University’s Sheffield Scientific School, which specialized in science and engineering instruction. After graduating from the Sheffield School with a degree in electrical engineering in 1907, Rockwell found a job at the Lynn, Massachusetts branch of the General Electric Company. He remained in Lynn for one
year before returning to New Britain, where he found employment with the Stanley Rule & Level Company. In 1909, Rockwell took a job with the Stanley Works of New Britain, where he soon developed an interest in the physical metallurgy of steel. Rockwell remained with the Stanley Works until 1912 when he relocated to Bristol, Connecticut in order to take a metallurgist’s position at the New Departure Manufacturing Company.¹

The New Departure Manufacturing Company was organized by brothers Albert F. and Edward D. Rockwell in 1888, however, the two men were of no close relation to Stanley P. Rockwell. By the time that the latter Rockwell found employment with New Departure, the firm had grown into one of the largest and most prominent manufacturers of ball bearings in the United States. Rockwell’s talents as an engineer and metallurgist appear to have rapidly manifested themselves, as just a year after being hired he was transferred to New Departure’s recently acquired West Hartford, Connecticut plant, where he superintended new construction at the facility and then led the plant’s hardening department. Rockwell returned to work at New Departure’s Bristol factory in 1915, yet resigned from the firm a year later in order take a job as a consulting metallurgist with E.F. Houghton & Company of Philadelphia, Pennsylvania. After just months in the employ of E.F. Houghton & Company, Rockwell accepted a commission as an ordinance inspector in the United States Army during World War I. After the war, Rockwell accepted a job as a metallurgist and works manager at the Weeks-Hoffman Company of Syracuse, New York. He remained in Syracuse for two years, and then in 1920 returned to Connecticut after accepting a job as a metallurgist at Hartford’s Whitney Manufacturing Company.²

The Rockwell Hardness Tester

While he was employed with the New Departure Manufacturing Company, Stanley Rockwell worked alongside Hugh M. Rockwell, who was the son of one of the firm’s founders, Albert Rockwell. The two younger Rockwell’s worked in the company’s hardening department, where much of their work centered on the process of evaluating the hardness of bearings and bearing races. The science and engineering behind functional balls bearings is largely dependant on the fact that the metal used in both the bearings and races is not only exceptionally hard, but that the two components are of equal hardness. Otherwise, damage could occur due to overly soft or improperly paired materials that fail or wear down prematurely. In order to complete these evaluations, Stanley and Hugh Rockwell had three tests at their disposal, the Brinell test, the Scleroscope test, and the file test, each having their respective shortfalls. The Brinell test, this established by Swedish metallurgist Johann A. Brinell in 1900, involved driving a steel or tungsten carbine steel ball into a subject product and then measuring the depth of the resultant indent in order to determine hardness. The test was slow, ineffective on small-radius curved or hardened steel surfaces, and left a significant area of damage on the subject material. The Scleroscope test, developed by the American metallurgist A.F. Shore in 1906, was also an indentation test, this consisting of dropping a diamond-tipped hammer on the subject product. The use of diamond as the impact material allowed for smaller indentations and the evaluation of hardened steel, however, the test was both difficult to execute and unreliable.

¹ New Britain Directory, Price & Lee Co., New Britain, CT, various editions.

²
The file test, as the name implies, involves abrading a test product with various files of predetermined hardness. While reliable, the file test was an up or down evaluation that often damaged the tested products.\(^3\)

During the early 1910s, Stanley and Hugh Rockwell began developing designs for an improved hardness tester that could both provide quick results as well as be used on the curved surfaces of bearing race. Their design was based upon the principal of differential-depth measuring; this consisting of the application of minor and major loads as part of an indentation test. This process eliminated many of the errors associated with single-depth impact tests and the frequency with which these could result in inaccurate measurements due to backlash or surface roughness. The pair filed their first patent for the device on July 15, 1914, however, the patent (U.S. Patent No. 1,294,171) was not awarded until February 11, 1919, years after both Stanley and Hugh Rockwell had left they employ of New Departure.\(^4\)

Hugh Rockwell left the company in 1915 and subsequently went on to pursue his passion for aircraft and firearms design working for such firms as the Marlin-Rockwell Corporation of New Haven, Connecticut and the Zuck-Poole Company of Lincoln, Nebraska. Stanley Rockwell, on the other hand, remained transfixed by metallurgy and the details of the Rockwell Hardness Tester. He continued to refine the machine and applied for two additional patents in 1919 and 1921. These were both awarded in 1924, a year after Rockwell had left the Whitney Manufacturing Company in order to establish his own metallurgical consulting and heat treating business, and two years after he presented a landmark paper outlining the principals of his design and how it compared to the Brinell and Scleroscope tests before a convention hosted by the American Society for Steel Treating in Indianapolis, Indiana. Importantly, the resultant patents, U.S. Patent No. 1,516,207 and U.S. Patent No. 1,516,208, contained several improvements that resulted from Rockwell’s collaboration with Charles H. Wilson, an instrument salesmen and partner at the Wilson-Maeulen Company of New York, New York. Wilson had identified the advantages and potential of the Rockwell Hardness Tester as early as 1920 and he suggested numerous improvements to the machine, including standardizing the testing loads and reversing Rockwell’s measurement scale, in which the hardest metals corresponded with the lowest numbers. Once the aforementioned patents were awarded in 1924, Rockwell entered into a contract with the Wilson-Maeulen Company to manufacture the device, as he lacked both the infrastructure and capital to initiate such a venture. The machine was immediately successful and Wilson’s association with the device led to the eventual reorganization of the Wilson-Maeulen Company as the Wilson Mechanical Instrument Company during the early 1930s.\(^5\)

As noted, Stanley P. Rockwell left the employ of the Whitney Manufacturing Company in 1923 in order to establish his own metallurgical consulting and heat-treating business. This was organized as the New England Heat-Treating Service Company, however, the business was reorganized as the Stanley P. Rockwell Company just a year later. The latter firm held sales rights for the Rockwell Hardness Tester until around 1928 when this activity was entirely assumed by the Wilson-Maeulen Company. The Rockwell Hardness Tester eventually reached markets throughout the

\(^4\) Ibid.
world and by 1939 there were between 7,000 and 8,000 units in use globally. That same year, Stanley Rockwell became just the fifth honoree to receive the prestigious Albert Sauveur Achievement Award at the National Metal Congress and Exposition held in Chicago, Illinois. The Sauveur Award, “recognizes pioneering materials science and engineering achievements that have stimulated organized work along similar lines to such extent that a marked basic advance has been made in the knowledge of materials science and engineering.” The Rockwell Hardness Tester and associated Rockwell Scale remain the industry-standard in metallurgical testing to this day regardless of the development of several other methods, among these being the Vickers method (developed ca. 1922) and Knoop method (developed in 1939). As Richard E. Chinn of the National Energy Technological Laboratory noted in 2009, “Neither the Vickers, Knoop, nor various other hardness techniques have replaced the Rockwell method in the last nine decades – the alternative methods merely fill the niches where Rockwell does not apply.”

The Stanley P. Rockwell Company

Stanley Rockwell organized the New England Heat-Treating Service Company in March 1923. The firm occupied a small shop on High Street in Hartford and offered both contract heat-treating services and metallurgical analysis and consulting. The firm’s directors consisted of Rockwell, Isaac D. Russell, Warren D. Fuller, S. Russell Mink, and Horace W. Staples. Rockwell served as the business’s president and treasurer, while Russell held the role of secretary. The firm was reorganized as the Stanley P. Rockwell Company in 1924, and then a year later the stock of the company was increased from $10,000 to $50,000.

The latter move was largely initiated in an effort to finance development of another of Rockwell’s inventions, known as the “Dilatometer,” which was a revolutionary device used to measure the thermal expansion of steel during and after heat-treating. The Dilatometer presented the potential for an analytical measuring device that could accomplish work previously only possible under the observation of a highly trained professional. As an article in the Hartford Courant noted several years after its unveiling, “Until the perfection of this instrument, it was necessary for the operator to judge more or less by his own experience when the quenching should take place, but the Rockwell dilatometer removes this element of personal judgment by signaling to the man in charge exactly when the steel should be taken from the furnace.”

At the time of the company’s stock increase, the Hartford Courant predicted that the Dilatometer presented a large opportunity for sale, however, while the device would garner much attention in the metallurgical community and contributed to the decision to honor Rockwell with the Albert Sauveur Achievement Award, sales of the machine would never comprise a significant percentage of the Stanley P. Rockwell Company’s income. The firm initially manufactured the Dilatometer in house and cramped quarters on High Street led to the decision to move to a new shop on Trumbull Street in Hartford late in 1925. By this time, the firm had also added the sale of heat-treating and metallurgical testing equipment to its other lines of business. Products sold by the company included machinery and raw materials

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6 Chinn, 41.
manufactured by the Wilson-Maeulen Company, American Gas Furnace Company, Rodman Chemical Company, and others. At the end of 1925, commissions from sales of such equipment comprised $16,131.79 of the Stanley P. Rockwell Company’s gross annual income of $24,347.54, this compared with $1,980.00 in total sales of the Dilatometer. By the end of 1926, total sales of the Dilatometer had jumped to $9,068.05, while equipment commissions had risen to a sum of $20,950.51.9

By the end of 1928, the need for a modern heat-treating shop led management at the Stanley P. Rockwell Company to investigate a move from Trumbull Street. At a directors meeting held on December 14, 1928, management complained of their inability to secure suitable or affordable accommodations. A lead had been secured, however, after conversations with representatives at the Hartford Special Machinery Company, one of Hartford’s most prominent industrial entities, unveiled the fact that that firm had been sending all of its heat-treating work to the Pratt & Whitney Company on Capital Avenue in Hartford, which required considerable trucking efforts. Representatives at the Hartford Special Machinery Company stated that the firm would be willing to erect a new building adjacent to its Homestead Avenue plant, which would be designed and built to the requirements of the Stanley P. Rockwell Company by the notable Hartford-based architectural and engineering firm of Buck & Sheldon, Inc. The Stanley P. Rockwell Company would pay rent to occupy the building, yet it would also secure all of the heat-treating work required by the Hartford Special Machinery Company. This arrangement was approved in April 1929, and work on the new building began shortly thereafter.10

Work on the Stanley P. Rockwell Company’s new Homestead Avenue factory was completed in November 1929. The plant totaled roughly 7,500 square feet of floor space and housed chemical, physical, and metallurgical laboratories; sales and administrative offices; and a combined machine shop and heat-treating facility. The Hartford Courant called the heat-treating shop the “most modern in New England,” while an article published by American Machinist Magazine in December 1929 praised the plant as a thoroughly modern and efficient design and noted that, “It was ‘designed’ with the ideal of giving a complete service to manufacturing plants having no heat-treating departments, and to give a consulting service to plants doing their own heat-treating but occasionally running into new and difficult problems.” The magazine argued that the Stanley P. Rockwell Company combined the organizational efficiency of a modern heat-treating department typically found within a larger firm, while also providing the flexibility of a contract shop. The article noted that the attrition rate of contract shops was exceptionally high, however, the author also argued that modern and efficient character of the Stanley P. Rockwell Company’s new heat-treating facility, as well as the firm’s ability to provide affordable metallurgical analysis and consulting services, promised long-term success.11

Regardless of the increased capacity presented by the move, the firm occupied the new plant just as the Great Depression began to be felt by manufacturers. Like many other businesses, the Stanley P. Rockwell Company suffered

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8 “Rockwell Company’s New Plant,” Hartford Courant, November 29, 1929, pg. 3.
9 “Stanley P. Rockwell Co. Increases Its Capital,” Hartford Courant, July 29, 1925, pg. 19; Annual records of the Stanley P. Rockwell Company, “Comparative Income Account for the Years Ended December 31, 1926; December 31, 1925; and December 31, 1924.”
10 Annual records of the Stanley P. Rockwell Company, Director’s Meeting, December 14, 1928.
significant losses not only in 1930, but also in 1931 and 1932. Regardless of the poor financial situation, the firm remained in business through a mix of staff reductions and other cost-cutting measures, and due to the limited profits turned by the heat-treating department. The company rebounded in 1934, however, production of the Dilatometer continued to present a financial drag on the firm. This situation was eventually dealt with in April 1934, when production rights for the device were sold to the Tinius Olsen Testing Machine Company of Philadelphia, Pennsylvania. Under the agreement, the Stanley P. Rockwell Company received an annual payment of $2,000 and a per unit royalty of $25 on sales of the Dilatometer until the product’s patent expired in 1946.

The Stanley P. Rockwell Company experienced a mix of up and down years throughout the 1930s, however, the outbreak of the European theater of the Second World War in 1939 ushered in nearly a decade of profitability. The period during the war saw annual profits that consistently topped the year before, with much of the company’s work coming from contracts with the United States Army Air Force. This capital allowed the company to both hire additional staff and start an employee pension plan, as well make new equipment purchases that had been put off during the lean years. By 1942, the needs of the firm had outgrown the original Homestead Avenue plant and additional space was deemed necessary. The first step in this direction was completed in 1943, when a three-bay manufacturing addition was erected adjoining the factory’s east elevation. This was supplemented between around 1944 and 1946 when further storage and shipping additions were made on the north and west sides of the facility.

Tragedy struck the Stanley P. Rockwell Company on August 11, 1940 when Stanley Rockwell was killed in an explosion on his 50-foot yacht, ‘Chin-Chin.’ The vessel had been moored in the Connecticut River off Middletown, Connecticut, and Rockwell was the only individual on board at the time of the accident as his chauffeur, Charles Savage, who typically accompanied Rockwell, happened to have the day off. The cause of the blast was never determined, however, there was suspicion at the time that a recent fumigation of the boat might have provided the explosive material. The fumigator ensured investigators that the chemicals used were not flammable, thus leaving the case unsolved.

Stanley Rockwell had resigned the role of president of his company and assumed the position of vice-president in 1933. At the time of his death, Rockwell continued to serve in this capacity alongside Joseph Merritt, who was elected president following Rockwell’s resignation. After his death in August 1940, Rockwell was replaced by William A. Stumpf, who would remain employed by the firm until his own passing in 1959.

The Stanley P. Rockwell Company celebrated its 25th anniversary in 1948, a period marked by the post-war downturn that impacted the economy as the nation’s industrial firms retooled in order to serve the civilian market. The company was largely buoyed, however, by increased orders from the Hartford Empire Company, a manufacturer of glass packaging and packaging machinery located along Homestead Avenue just north of the Hartford Special Machinery Company plant. This relationship became increasingly significant by 1950, when the Hartford Special Machinery

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12 Annual records of the Stanley P. Rockwell Company, Director’s Meetings, December 14, 1928; April 18, 1929; December 30, 1930; March 28, 1934.
13 Annual records of the Stanley P. Rockwell Company, Director’s Meetings, December 31, 1939; December 41, 1940; April 30, 1942; April 28, 1943; December 30, 1943; April 28, 1944; April 30, 1945; April 1947.
14 “S.P. Rockwell Killed As Blast Sets Yacht Afire At Middletown,” Hartford Courant, August 12, 1940, pg. 1; “Probe Ends In Rockwell Blast Death,” Hartford Courant, August 13, 1940, pg. 12.
Company announced intentions to build a new facility in Simsbury, Connecticut. This move was not completed in its entirety until 1960, however, operations in Hartford began to be reduced starting in 1954 when 100 of the Hartford Special Machinery Company’s roughly 475 employees began work at the Simsbury plant.  

Anticipation of the Hartford Special Machinery Company’s move to Simsbury resulted in the decision on the part of management of the Stanley P. Rockwell Company to acquire ownership of the Homestead Avenue plant that they had rented from the Hartford Special Machinery Company since its original construction. This transaction was completed in 1951, by which time work levels had rebounded as a result of manufacturing increases associated with the United States’ involvement in the Korean War. It is likely that acquisition of the property was also at least partially warranted by Joseph Merritt’s death in January 1950, which severed the very intimate tie that the two firms had shared since the late 1920s. Following Merritt’s death, William A. Stumpf assumed the role of president of the Stanley P. Rockwell Company, while Stanley Rockwell’s son, Dudley W. Rockwell, was elected as vice president of the firm. Rockwell in turn assumed the role of president in 1959 following Stumpf’s death on November 11, 1959.

The 1960s were a period in which the Stanley P. Rockwell Company made considerable investments in its Homestead Avenue plant, while simultaneously preparing plans for a move to the suburbs. The latter began in 1962 after talks with representatives from the City of Hartford unveiled the fact that preliminary redevelopment plans had identified the Stanley P. Rockwell Company property as a potential site for a new elementary school. The company prepared for such a move by purchasing 2.8 acres of land along Tobey Road in Bloomfield, Connecticut late in 1962, however, the threat eventually lifted in 1968. In the meantime, the company had erected a new manufacturing block adjoining the northeast corner of its Hartford plant and replaced the electrical systems throughout the entire facility in 1966. By the end of 1967, roughly one-third of the company’s heat-treating business could be attributed to the new building.

Family ownership of the Stanley P. Rockwell Company came to an end in 1970 when all of the firm’s stock was acquired by the Connrex Corporation of Plantsville, Connecticut. The Connrex Corporation was a diversified industrial holding company and the Stanley P. Rockwell Company operated as an independent branch of the business until 1974 when it was sold to the Etherington Companies, an investment and holding company based in New Haven, Connecticut. Dudley Rockwell retired from the business following the Etherington acquisition, however, the operations and title of the Stanley P. Rockwell Company – as well as its 32 employees – were retained by Etherington Companies and the firm remained one of New England’s most prominent contract heat treating shops until its eventual closure in 2010.

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15 It is notable that Merritt also served as president of the Hartford Special Machinery Company, and had been one of that firm’s original founders.
17 Annual records of the Stanley P. Rockwell Company, Director’s Meeting, December 11, 1950; April 25, 1951; April 25, 1952; April 1960.
18 Annual records of the Stanley P. Rockwell Company, Director’s Meeting, April 26, 1963; April 7, 1966; April 7, 1967.
Criterion 2: Architecture

The Stanley P. Rockwell Company factory complex is architecturally significant as one of a dwindling number of surviving examples of Hartford’s once thriving industrial economy. The buildings that housed the Stanley P. Rockwell Company heat-treating business are notable both as designs typical of the period of their construction, and as evidence of the persistent growth and resultant physical expansion that many such institutions experienced throughout their operation. The original plant is also noteworthy as a design completed by the prolific Hartford-based architectural and engineering firm of Buck & Sheldon, Inc.

Located along a section of Homestead Avenue that was dominated by industry during the first half of the twentieth century, the Stanley P. Rockwell Company complex exemplifies typical factory design in its standard brick mill construction and functional open floor plan. Its utilitarian design limits the presence of architectural flourishes beyond the use of round-arched brick trim framing several windows on the factory’s façade. The plant grew in several stages as the company responded to financial success and ensuing demands for additional production space. Each of the resultant additions reflects several aspects of general factory design; brick mill or concrete block construction combined with the use of iron roof trusses that allowed for wide open manufacturing space, as well large windows and broad clerestory monitors providing for the admittance of large amounts of natural light and ventilation. These arrangements resulted in relatively large, open, and well-lit and ventilated working environments, as well as provided adequate space for large machinery and on-site storage of raw materials and finished product. The various buildings are largely true to their original form and except for minor interior alterations in one of the blocks have been little changed since their respective construction in 1929, ca. 1940, and ca. 1970.

At the time of its original construction, the Stanley P. Rockwell Company plant was praised as a thoroughly modern and operationally efficient design. The Hartford Daily Times called the facility, “the most modern heat-treating plant in New England,” while a feature published by American Machinist Magazine in December 1929 noted that, “The plant here described, that of the Stanley P. Rockwell Company, at Hartford Conn., may be considered as an example of modernization carried into commercial heat-treating. It was planned as a unit after a thorough study of the field by specialists in the work. Every piece of equipment was chosen for the work that it was expected to do, and only the latest designs in each case were installed.” The design of the building itself was also carefully considered by the company as it was, “planned to give air, light, evacuation of gases, convenient handling, trucking accessibility, easy supervision, and good working conditions generally.” The firm also accounted for the potential need for additional capacity as, “In the general layout, expansion has been planned for on all points, with extra space for additional furnaces, and adequate office space.” Clearly, this capacity had been expended by 1943, however, the flexibility of the original factory’s design allowed for numerous additions throughout the mid-twentieth century.

The original design was completed by the architecture and engineering firm of Buck & Sheldon, Inc., which was

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established in Hartford in 1909 after a partnership was formed between two of the city’s most prominent civil engineers, Henry Robinson Buck (1876-1934) and Paul Sheldon (1881-1931). The two men worked in the Hartford City Engineer’s office under Frederick L. Ford (1871-1940) between 1902 and 1909. Buck was the Assistant City Engineer in charge of all sewer work and Sheldon held the same position with responsibility for all bridge, masonry, heavy foundation, and structural steel construction. Buck and Sheldon left city service to go into private practice as Buck & Sheldon, Inc. in 1909, and Ford joined them to assume the role as the company’s president in April 1911. The trio continued in partnership as the firm of Ford, Buck & Sheldon until 1920, despite Ford’s relocation to New Haven to work as its City Engineer in March 1912. After Ford’s departure the firm reverted to Buck & Sheldon, Inc. and carried on under that name until the men parted ways in 1928.23

Both of the partners in Buck & Sheldon, Inc. were nationally recognized as talented professionals in their field. The various forms of their partnership were responsible for a variety of significant engineering and design work throughout Hartford and beyond. Among their building projects were a substantial expansion to Trinity Church on Sigourney Street in Hartford in 1911; various additions to Pope Manufacturing Company-held factories throughout Hartford in 1912; a new office and warehouse for the Capitol City Lumber Company on Park Street in Hartford in 1914; a factory for the Hartford Special Machinery Company on Homestead Avenue in 1915; a wholesale drug plant – allegedly one of the largest in the country at the time of its construction – for the Walker and Gibson Company of Albany, New York in 1915; a factory for the Arrow-Hart and Hegeman Electric Company on Hawthorne Street in Hartford in 1918; and an office and factory for the M.S. Little Manufacturing Company on New Park Avenue in Hartford in 1917 and 1922. The firm’s engineering projects were similarly notable and included the design and construction oversight of numerous sewer systems, among them being examples in the Connecticut towns of West Hartford, Windsor, Wethersfield, and Newington. The design for the Stanley P. Rockwell Company factory was one of the last collaborations between the two men before they split ways in order to pursue independent ventures, Buck as a civil engineer and land surveyor, and Sheldon as a mechanical engineer.24

22 Ibid.
Bibliography

Texts


Newspapers, Journals, Company Documents, and Online Sources


Atlases and Insurance Maps:


National and Connecticut State Register Nominations:


Figure 1.
Figure 2.
Historic photograph of Stanley P. Rockwell from ca. 1938.  
Figure 3.
Image from the United States Patent number US1516208 for the S.P. Rockwell Hardness Testing Machine, awarded November 18, 1924. Figure 4.
Historic photograph from 1929 showing the recently completed Stanley P. Rockwell Co. Factory. Figure 5.
Historic photograph from ca. 1943 showing the then recently enlarged Stanley P. Rockwell Co. Factory.
Figure 6.
Historic photograph from 1929 showing various hardening equipment within the Stanley P. Rockwell Co. Factory. Figure 7.
Historic photograph from 1929 showing various hardening equipment within the Stanley P. Rockwell Co. Factory. Figure 8.
Historic photograph from 1968 showing a Stanley P. Rockwell Co. employee using a Rockwell Hardness Tester.

Figure 9.
Historic photograph from 1968 showing a Stanley P. Rockwell Co. employee and various hardening equipment. Figure 10.
Historic photograph from 1968 showing a Stanley P. Rockwell Co. employee and assorted hardening equipment. Figure 11.
Phases of Construction:

A. Original Manufacturing Block, 1929.
B. Original office/laboratory block, 1929.
C. Manufacturing addition, 1943.
D. Shipping and storage block, ca. 1944/1946.
E. Loading dock, 1962.
F. Northeast addition, 1966.
Photo Directions:

Exterior.

Figure: 13
Connecticut State Register of Historic Places Continuation Sheet
Stanley P. Rockwell Company Factory; Hartford Co., Connecticut

Figure: 14

Interior.
Façade (south elevation) of the Stanley P. Rockwell Company factory, 1929. Showing loading bay details. Camera facing northeast. Photograph 2 of 23.
West and south elevations of the Stanley P. Rockwell Company factory, 1929, ca. 1940. Camera facing northeast. Photograph 4 of 23.
West and south elevations of the Stanley P. Rockwell Company factory, 1929, ca. 1940. Note details of ca. 1940 addition. Camera facing northeast. Photograph 5 of 23.
Camera facing southeast. Photograph 6 of 23.
Interior of the Stanley P. Rockwell Company factory. Note details of stair leading to the second floor of the office/laboratory building. Camera facing northeast. Photograph 10 of 23.
Interior of the Stanley P. Rockwell Company office/laboratory building. Note details of the offices and storage closet flanking the corridor leading to the entry vestibule (at center). Camera facing southeast. Photograph 11 of 23.
Interior of the Stanley P. Rockwell Company’s east addition. Camera facing southwest. Photograph 17 of 23.
Interior of the Stanley P. Rockwell Company’s shipping and storage addition. Camera facing southwest. Photograph 18 of 23.
Interior of the Stanley P. Rockwell Company’s northeast addition.
Camera facing southeast. Photograph 19 of 23.
Interior of the Stanley P. Rockwell Company’s northeast addition. Camera facing east. Photograph 20 of 23.
Connecticut State Register of Historic Places Continuation Sheet
Stanley P. Rockwell Company Factory; Hartford Co., Connecticut

Interior of the Stanley P. Rockwell Company’s office and laboratory block, second floor.
Camera facing north. Photograph 21 of 23.
Interior of the Stanley P. Rockwell Company’s office and laboratory block, second floor. Camera facing southwest. Photograph 22 of 23.
Interior of the Stanley P. Rockwell Company’s office and laboratory block, second floor. Camera facing south. Photograph 23 of 23.