United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
REGISTRATION FORM

This form is for use in nominating or requesting determinations for individual properties and districts. See Instructions in How to Complete the National Register of Historic Places Registration Form (National Register Bulletin 16A). Complete each item by marking "X" in the appropriate box or by entering the information requested. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property
historic name  H.W. Butterworth and Sons Company Building

other names/site number  N/A.

2. Location
street & number  2410 E. York Street
not for publication  n/a

city or town  Philadelphia
vicinity  n/a

state  Pennsylvania  code  PA  county  Philadelphia  code  101

zip code  19125

3. State/Federal Agency Certification
As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this _X_ nomination ___ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property _X_ meets ___ does not meet the National Register Criteria. I recommend that this property be considered significant ___ nationally ___ statewide ___ locally. (___ See continuation sheet for additional comments.)

[Signature]
[PA Historical and Museum Commission]
[Date: 4/21/2010]

State or Federal agency and bureau

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

[Signature of commenting or other official]
[Date]

State or Federal agency and bureau

4. National Park Service Certification
I, hereby certify that this property is: ___ entered in the National Register
See continuation sheet.

___ determined eligible for the National Register
See continuation sheet

___ determined not eligible for the National Register

___ removed from National Register

___ other (explain):

[Signature of Keeper]
[Date of Action]
5. Classification

Ownership of Property
(Check as many boxes as apply)

- X private
- __ public-local
- __ public-state
- __ public-federal

Category of Property
(Check only one box)

- X building(s)
- __ district
- __ site
- __ structure
- __ object

Number of Resources within Property
(Do not include previously listed resources in the count.)

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<th>Type</th>
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<th>Noncontributing</th>
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Name of related multiple property listing (Enter "N/A"
if property is not part of a multiple property listing.)

N/A

Number of contributing resources previously listed
in the National Register

0

6. Function or Use

Historic Functions
(Enter categories from instructions)

INDUSTRY/PROCESSING/EXTRACTION/
 Manufacturing facility

Current Functions
(Enter categories from instructions)

VACANT / Not in use

7. Description

Architectural Classification
(Enter categories from instructions)

- LATE VICTORIAN - Italianate
- LATE 19th AND EARLY 20th CENTURY
- AMERICAN MOVEMENTS/
 Commercial Style

Materials
(Enter categories from instructions)

- foundation BRICK
- roof WOOD, SYNTHETIC/rubber
- walls BRICK, CONCRETE
- other METAL/steel

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 National Register Criteria
(Mark "X" in one or more boxes for the criteria qualifying the property for National Register listing)

- A Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B Property is associated with the lives of persons significant in our past.
- C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- D Property has yielded, or is likely to yield information important in prehistory or history.

Areas of Significance
(Enter categories from instructions)

- INDUSTRY

Period of Significance
1870—1942

Significance Dates
1870
1884
1900, 1911, c.1925

Criteria Considerations
(Mark "X" in all the boxes that apply.)

- A owned by a religious institution or used for religious purposes.
- B removed from its original location.
- C a birthplace or a grave.
- D a cemetery.
- E a reconstructed building, object, or structure.
- F a commemorative property.
- G less than 50 years of age or achieved significance within the past 50 years.

Significant Person
(Complete if Criterion B is marked above)

N/A

Cultural Affiliation
N/A

Architect/Builder
Unknown

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.)

Previous documentation of file (NPS)

- preliminary determination of individual listing (36 CFR 67) has been requested.
- previously listed in the National Register
- previously determined eligible by the National Register
- designated a National Historic Landmark
- recorded by Historic American Buildings Survey #
- recorded by Historic American Engineering Record #

Primary Location of Additional Data

State Historic Preservation Office
Other State agency
Federal agency
Local government
University
Other

Name of repository: Free Library of Philadelphia
10. Geographical Data

Acreage of Property  Less than one acre

UTM References
(Place additional UTM references on a continuation sheet)

1  18  489360  4425278  2  Zone  Easting  Northing
    Zone  Easting  Northing

3  Zone  Easting  Northing

4  Zone  Easting  Northing
    See continuation sheet.

Verbal Boundary Description (Describe the boundaries of the property on a continuation sheet.)
See continuation sheet.

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

11. Form Prepared By

name/title  Logan McClintic-Smith
organization  Powers & Company, Inc.
date  October 15, 2009
street & number  211 N. 13th Street, Suite 500
telephone  215-636-0192
city or town  Philadelphia  state  PA  zip code  19107

Additional Information
Submit the following items with the completed form:

Continuation Sheets

Maps
A USGS map (7.5 or 15 minute series) indicating the property's location.
A sketch map for historic districts and properties having large acreage or numerous resources.

Photographs
Representative black and white photographs of the property.

Additional Items (Check with the SHPO or FPO for any additional items)

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

name  See Notification Sheet
telephone ____________________________
city or town ___________________________  state _______  zip code __________________

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Project (1024-0018), Washington, DC 20503.
The H.W. Butterworth & Sons Company Building stands at 2410 E. York Street in the Kensington neighborhood of Philadelphia.¹ This 1-, 2- and 3-story brick and concrete structure is of masonry and reinforced concrete construction. The building was constructed in five phases: 1870, 1884, 1900, 1911 and c. 1925. The first three building campaigns were designed in the Italianate style and the last two building campaigns were designed in the Commercial Style. The H.W. Butterworth & Sons Company Building retains integrity for Criterion A, as both the overall form and defining industrial characteristics remain intact from the turn of the 20th century.

The H.W. Butterworth & Sons Company Building occupies nearly an entire city block, and is bounded by E. York Street to the north, Gaul Street to the east, and Gordon Street to the south; abutting the building on the east side is a group of late nineteenth century brick row houses. The building stands west of Interstate 95 and the Delaware River, about a mile away. The H.W. Butterworth & Sons Company Building is situated on a flat parcel of land that is devoid of any landscape features other than concrete sidewalk. The surrounding neighborhood consists of a mix of late nineteenth century two- and three-story brick row houses and scattered low-rise industrial buildings; an entire city block of late twentieth century row houses stand across York Street. There are a few unimproved large parcels of land to the south and west.

The building has a rectangular footprint and is composed of nine contiguous sections. Section A is a 3-story brick structure designed in 1870 in the Italianate style and facing E. York Street. Section B is a 2-story brick structure designed in 1870 in the Italianate style at the southwest corner of the complex. Section C is a 3-story brick structure designed in 1870 in the Italianate style in the center of the complex. Sections D and E are 3-story brick structures designed in 1884 in the Italianate style and flanking Section A. Section F is a 2-story brick structure designed in the Commercial Style and facing E. Gordon Street. Section G is a 3-story, U-shaped reinforced concrete structure designed in the Commercial style at the east end of the complex. Section H is a 1- and 2-story brick structure designed in 1911 in the Commercial Style and facing E. Gordon Street. Section I is a 2-story brick structure designed in c. 1925 in the center of the west elevation.

¹ There are no defined boundaries for the various neighborhoods in northeast Philadelphia. The building has been determined to be in the Kensington neighborhood from the determined district boundaries for the consolidation of Philadelphia in 1854. At that time, the Kensington District was defined by E. York Street, E. Norris Street and E. Lehigh Avenue to the north, Frankford Avenue to the west, Cohocksink Creek to the south, and the Delaware River to the east.
The roof shape of the various sections is similarly disjointed. Sections A, C, D, E, G and I have flat roofs (Photograph 37, 38). Section B has a gabled roof with a flat section and the remnant of a monitor that spanned from east to west. Section F has a double monitor roof with multi-light industrial steel windows and contemporary corrugated metal infill (Photograph 33, 34, 35). Section H has a shed style roof on its eastern half and a flat roof on its western half, as well as metal cistern support and a rusty metal smokestack (Photograph 35).

The north elevation, facing E. York Street, is thirty bays wide. The four easternmost bays are in Section G and the remainder is in Sections A, D, E. Section G is designed in the Commercial Style with an exposed reinforced concrete frame, red brick spandrels and concrete sills (Photograph 1, 3). There is also a corbelled and bracketed brick cornice in the Italianate style to match that on Sections A, D and E. Each bay contains a multi-light steel industrial window with a centered awning-style window. Sections A, D and E are designed in the Italianate style with 3-story brick piers between the bays (Photographs 1-3) and a corbelled and bracketed brick cornice. All of the segmentally arched window openings contain 1/1 double-hung replacement aluminum windows below aluminum panels, which date to the mid 20th century. On the 1st floor, the westernmost bay contains a single-leaf metal door with a mid 20th century stucco surround and a segmentally arched lintel, which is located up two concrete steps. Bays two through seven from the west contain three contemporary garage-style metal doors (Photograph 2). The eighth bay from the west contains a single-leaf metal door, which is located up two concrete steps with an iron railing. The sixteenth bay from the west contains a contemporary garage-style metal door (Photograph 1). The seventeenth bay from the west contains a single-leaf metal door, which is located up two concrete steps (Photograph 1). On the 2nd and 3rd floors, the westernmost bay contains open fire balconies with segmentally arched brick heads, iron railings and recessed single-leaf metal doors.

The east elevation, facing Gaul Street, is nine bays wide and is entirely in Section G (Photographs 3-6). As with the north elevation, it is designed in the Commercial Style with an exposed reinforced concrete frame, red brick spandrels and concrete sills. On the 1st floor, the third and fourth bays from the north are entirely infilled with stucco, which dates to the mid 20th century. The fifth bay from the north contains a contemporary garage-style metal door. The remainder of the openings contains multi-light industrial steel windows. The windows on the 1st floor are covered with metal security mesh.

The south elevation, facing E. Gordon Street, is twenty bays wide (Photographs 7-8). The four easternmost bays are in Section G (1911), bays five through nine from the east are in Section F (1900), bays ten through fourteen from the east are in Section H (1911), the fifteenth bay from
the east is a driveway leading to Section I (c. 1925), and the sixteenth through twentieth bays from the east are in Section B (1870). Section G is designed in the Commercial Style with an exposed reinforced concrete frame, red brick spandrels and concrete sills. On the 1st floor, the third and fourth bays from the east contain single-leaf metal doors, the western of which is located behind a contemporary garage-style metal door. Section F is designed in the Commercial Style with a minimally corbelled brick cornice. The 1st floor contains paired six-light steel windows with segmentally arched brick heads in each bay. In the ninth bay from the east, the easternmost window was infilled with brick in the mid 20th century. On the 2nd floor, bays five through seven from the east contain rectangular window openings; the windows were removed in the late 20th century. Section H is designed in the Commercial Style with a minimally corbelled brick cornice. The tenth and twelfth bays from the east have segmentally arched brick heads, the eleventh bay from the south has a segmentally arched brick lintel and the thirteenth and fourteenth bays from the east have concrete heads. All of the openings were infilled with cinderblock in the mid 20th century. The 2nd and 3rd floors for Section C (1870) are visible behind Section H. Designed in the Italianate style, Section C contains multi-light industrial steel windows. The fifteenth bay from the east contains a contemporary cinderblock and painted corrugated metal gate that leads to an internal driveway beyond. Section B is designed in the Italianate style with a corbelled brick cornice. The window openings contain paired narrow window openings with segmentally arched heads. All of the windows of Section B have been boarded with plywood except for the easternmost one, which was filled with cinderblock in the mid 20th century. The 2nd and 3rd floor openings of Section I are visible behind Section B. Designed in the Commercial Style, Section I contains multi-light industrial steel windows, brick sills and brick soldier course lintels.

The west elevation is comprised of Sections B, D and I (Photograph 9) and it only partially visible beyond the rowhouses to the west. Section B is clad in brick and contemporary stucco and Sections D and I are clad entirely in brick. There are no openings. The west elevations of Sections C and H are also partially visible. Both are three bays wide and contain multi-light industrial steel windows.

The interior of the building consists of nine interconnected sections. Sections A, D and E were used as drawing rooms, machine, tinsmith, pattern and carpentry shops and for storage. Section B was an iron foundry. Section C was a blacksmith shop. Section F was an erecting shop and a storage space. Section G was used as a machine, tinsmith and pattern shop. Section H was used as storage and office space. Section I was used for storage and loading.
The building has three stairways and one freight elevator. The first stairway is located in the northwest corner of the building in Section D. The U-return stairway has brick walls and wood railings, treads and risers, and newel posts. The second stairway is located in Section C near the center of floor plate (Photographs 14, 29). The U-return stairway has brick walls, textured concrete treads, flush concrete risers and a metal pipe railing. The third stairway is located near the northeast corner of the building in Section G (Photograph 27). The U-return stairway has flush concrete treads and risers, a metal pipe railing and brick walls. The freight elevator is located to the west of the second stairway in Section I and has flush metal doors and a brick enclosure (Photograph 23).

On the 1st floor, Section A functions as office space and has contemporary finishes: square columns clad in gypsum board, a dropped acoustic paneled ceiling, carpeting and flush-mounted fluorescent light fixtures (Photograph 15). It also has brick partitions separating it from Sections D and E. Section B, the original iron foundry, has a monumental ceiling height (Photographs 16, and 17) and is connected to Section I through a series of loading bay openings on the north wall. The east wall provides access to the internal driveway through a large arched opening. Several other window and door openings to this driveway were infilled with cinderblock in the late 20th century (Photograph 12). The interior finishes of Section B consist of exposed heavy wood trusses supported by a few mid 20th century steel I-beams and modern round posts, an exposed wood plank ceiling and newer concrete floors. Section C has original brick structural walls with several man doors to the east, south and west. The northern end of Section G has a concrete beam and girder ceiling, square concrete columns and a concrete floor (Photograph 11). It is utilitarian in nature and devoid of ornamentation. Section F and the remainder of Section G are open double-height spaces (Photographs 19, 20). The finishes consist of exposed steel beam trusses supporting the roof and steel I-beam columns. A structural wall spans the southern end of Sections F and G, which creates a narrow space with exposed wood beams and painted brick walls (Photograph 10).

On the 2nd floor, Sections A, D, E and I, and the northern end of Section G, comprise a large room with no interior partitions (Photographs 21, 24, 25). The finishes in Sections A, D and E are typical of the period with exposed wood beams, painted brick structural walls, strip wood flooring, and original Tuscan style round cast iron columns (Photograph 25). A series of steel I-beams dating to the mid-1920s stands between Section I and Section A. At the southern end of Sections F and G, a mezzanine space overlooks a large open area in the center of the building (Photographs, 19, 20). The mezzanine has an exposed steel truss structural system, a partial wood plank ceiling and wood strip flooring. The outer walls are of painted brick. Section H has
exposed painted steel beamed ceiling, contemporary carpet, painted brick walls and suspended contemporary fluorescent lighting (Photograph 22).

The 3rd floor consists of Sections A, D, E, H and I, and a U-shaped area of Section G. The finishes consist of the original strip wood floors, steel I-beams in Section I (Photograph 30), square wood beams with graduated double wood beam capitals with rounded ends in Sections A, D and E (Photograph 30) and concrete columns in Section G (Photograph 29). There are no interior partitions.

Integrity
The H.W. Butterworth & Sons Company Building retains integrity for Criterion A. Both the overall form and the defining industrial characteristics remain, including its brick masonry sections and reinforced concrete framework, massive window openings with original steel sash, the cast iron columns, and grid of reinforced concrete interior columns. While some of the windows and doors have been replaced, the newer windows do not detract from the overall appearance. The quality, placement and condition of the construction materials, as well as the vernacular architectural style are both highly characteristic of the period and also all remain wholly intact.

The complex remains essentially intact from the turn of the 20th century, with only three small, ancillary buildings demolished in c. 1925. Those portions of the complex that were demolished in the 19th century were primarily ancillary buildings and sheds and therefore do not diminish the ability of the complex to convey its original function as a factory and foundry. Since c. 1925, there have been no substantial changes to the configuration of the complex. Moreover, the primary elevation (north) remains intact from 1884 and the secondary elevation (east) has undergone no alterations since the time of its construction in 1911. Of the buildings that have been demolished during the complex's seventy-two year period of significance, the majority are 1- and 2-story secondary buildings or sheds that were located in the center of the site. The absence of these buildings does not detract from the integrity of the existing complex, but rather serves to illustrate the evolution of the site. On the interior of the building, all of the workspaces remain intact. Although the machinery was removed when the company relocated in the mid 20th century, the overall arrangements and volumes sufficiently relate the function of the spaces.

The location and setting of the building remain intact since the first sections were constructed. The design and materials similarly retain their integrity. Although portions of each have evolved – construction in the 20th century, replacement windows and doors – the changes speak to the evolution of an operating company, one that could not have an effective industrial significance
without that development. The workmanship, while expressed in two architectural styles, was always of good quality and in keeping with the trends of the time, whether those trends be interior wood columns or industrial steel windows. The feeling and associations of the building also have a high level of integrity, in large part because of the integrity of the previous five aspects. Although the equipment, furnishings and people have long since departed, the intact finishes, the voluminous spaces and the periodic building campaigns effectively relay the sense of place and the notable industrial history of a once prominent manufacturer.
The H.W. Butterworth and Sons Company is significant under Criterion A, Industry, as a prominent Philadelphia manufacturer of textile finishing machinery. While located at 2410 E. York Street, H.W. Butterworth and Sons Company produced finishing machinery, such as bleaching, printing, dyeing, drying, mercerizing, singeing, padding, and tentering machines, for textile fabrics using cylinders of tinned sheet iron.¹ The tinned sheet iron cylinders were cheaper and more effective than those of copper, and were patented and exclusively produced by the H.W. Butterworth and Sons Company.² The period of significance begins in 1870 with the construction of the three oldest sections of the building, and ends in 1942, when the company began to manufacture anti-aircraft machine gun parts instead of textile machinery.

**A Brief History of the Kensington Neighborhood**

The H.W. Butterworth and Sons Company Building stands in the working-class neighborhood of Kensington in northeast Philadelphia. The neighborhood was initially settled by six Swedish families on land north of the Cohocksink Creek and marshlands, and in the vicinity of the Great Elm near the Lenape settlement known as “Kachamensi.” The area came to be known as the Shackamaxon Tract, and it was acquired by William Penn in 1683.

In the 1730s, the area was formally planned by Barbadian merchant Anthony Palmer and named “Kensington” after the London neighborhood.³ The rough boundaries were Frankford Avenue to the west, Delaware Avenue to the east, E. Norris and E. York Streets to the north and E. Columbia Street to the south. After 1820, this town became known as the Kensington District of the Northern Liberties, and in 1854, it was annexed by the City of Philadelphia as a result of the Act of Consolidation. The Cohocksink Creek served as the informal boundary between Kensington and Philadelphia, and in 1860, the southern end was buried and made an underground culvert; above ground it was known as Canal Street.⁴

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¹ Mercerizing is the process of imparting a permanent luster to cotton goods. Singeing is the removal of loose threads from the surface of a fabric. Padding is the process of dyeing light colors on cotton cloth. Tentering is the process of stretching fabric to improve elasticity.


In the 19th century, a variety of manufacturing industries settled in Kensington, drawn by the open space and access to the Delaware River. The arrival of the railroads in the mid-19th century spurred even more industrial development and led to the success of the shipbuilding, textile, carpet, tanning and leather-working industries, including the William Cramp Shipyard (Beach Street, Norris Street and Delaware River, partially demolished), the John B. Stetson Hat Company (a complex of two dozen buildings around E. 4th and Montgomery Streets, demolished), the Schoenhut Toy Factory (at the corner of Adams and Sepvita Streets, demolished), the Bromley Carpet Mills (201-263 East Lehigh Avenue, demolished), and Henry Disston’s Keystone Saw Works (Front and Canal Streets, demolished).

The most dominant trade in Kensington, however, was the textile industry, which was complimented by industries such as dye works, yarn factories and textile machinery factories. Textile manufacturing began in Philadelphia as early as 1831 with the issue of prohibitive legislation and was enhanced in 1825 with the establishment of the first knitting mill in the United States in the Philadelphia neighborhood of Germantown. In 1909, Philadelphia’s textile production exceeded $153,000,000 annually, more than double that of Lawrence, MA, the second most productive city. Textile products were not only Philadelphia’s leading industry, but the city was America’s foremost textile center.

The local manufacture of textile machinery was a natural supplement to the growing textile industry: “As an outgrowth of its leadership in textile manufacturing, it is logical that Philadelphia should also lead in the production of textile machinery.” The industry began as early as 1777

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when Oliver Evans manufactured hand-made teeth for carding machines and expanded in 1788 when Giles Richards and Co. manufactured the same product by machine. In 1794, James Davenport was issued one of the earliest patents for textile machinery.¹⁰ By 1860, there were six manufacturers of textile machinery in Philadelphia, employing a total of 397 people.¹¹ As early as 1875, the manufacture of textile machinery was "produced to three times the extent it was five years ago, and in far higher and more costly forms."¹² The number of manufacturers remained consistent through the mid-20th century, although the number of employees more than quintupled to 2,236 people.¹³

During the period of significance, the neighborhood surrounding the H.W. Butterworth and Sons Company Building was dominated by low-scale factories and modest row houses, while heavier industrial development was concentrated around Germantown and Frankford Avenues, as well as along the route of the Reading Railroad. By the mid-20th century, many factories in this area moved or closed, leaving a plethora of empty industrial buildings. Construction of Interstate 95 through Kensington began in the late 1960s and continued through the mid-1970s, causing not only the demolition of many buildings in the neighborhood, but also the separation of Kensington from the Delaware River, the resource from which so much of its income was derived.¹⁴

**Building History**
The H.W. Butterworth and Sons Company Building was constructed in five stages, between 1870 and c.1925, to accommodate the growing demands of the company. Sections A, B and C were constructed in 1870, Sections D and E were constructed in 1884, Section F was constructed in 1900, Sections G and H were constructed in 1911 and Section I was constructed in c. 1925.

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In 1870, the H.W. Butterworth and Sons Company found it to be necessary to "obtain enlarged accommodations and the present buildings were commenced." The first building campaign consisted of six buildings in the center of the block between E. York and E. Gordon to the north and south, and Gaul and Cedar Streets to the east and west. The buildings consisted of the following: Section A along E. York Street, Section B to the southwest of Section A, Section C attached to the south elevation of Section A, as well as one building to the west of Section A (demolished by 1884), which was used as an extension of the machine shop, and four buildings to the south and southwest of Section A (demolished by 1902 and c. 1925), which were used as support buildings. Section A was a 3-story brick building that was used as a machine, tinning and storage shop. Section B was a 1-story brick foundry building. Section C was a 1-story brick blacksmith shop. Sections A, B and C remain intact.

According to an 1878 Hexamer General Survey, eight more buildings were constructed to the west and southeast of the existing complex by this date, which were used as office, support and storage buildings. Nothing was demolished from the 1870 campaign. The 1884 Hexamer General Survey shows that two of the 1870 buildings and three of the 1878 buildings had been demolished. A fourth 1878 building remains intact to this day, but is no longer shown on the 1884 survey as being associated with the complex. This is likely because the 1884 expansion created the necessary office and storage space previously provided by that building. Additionally, Section A was extended to the west (Section D) and east (Section E) with 3-story brick additions that were used for machine, carpenter and pattern shops, as well as for office and storage space. A small 1-story frame woodshed was also constructed to the south of the east addition of Section A (demolished by 1902) and a 2-story brick building was constructed on the site of one of the 1870 buildings that had been demolished.

A 1902 Hexamer General Survey shows that three of the remaining buildings from the 1878 campaign, as well as one building from the 1870 campaign and two buildings from the 1884 campaign, were demolished. Sections A, B, C, D and E remained intact. Additionally, a large brick addition was constructed to the south of Section E and to the north of E. Gordon Street (Section F). It was used as an erecting shop and as storage space. The 1908 Hexamer General Survey shows no changes from the 1902 map.

In 1911, the complex was expanded east to Gaul Street with a 3-story, U-shaped brick and concrete addition that extended from E. York to E. Gordon Streets (Section G). There was also

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H.W. Butterworth and Sons Company Building
Philadelphia County, PA

Section number 8 Page 5

a 1-story brick addition to the west of Section F (Section H). These areas had similar manufacturing and storage functions. In c. 1925, three small buildings from the 1870 and 1878 campaigns were demolished and the area between Sections B and D was infilled with Section I, a 2-story brick section.

History of The H.W. Butterworth and Sons Company

In 1810, John Butterworth came to Philadelphia from England and in 1820, he founded the H.W. Butterworth and Sons Company at 2nd Street, north of Brown Street. The company was named after Henry W. Butterworth (1863-1938), John's son, who was also employed at the company. The company initially manufactured tinwork for cotton and woolen machinery. In 1844, the company moved to 29-31 Haydock Street in Philadelphia, and shortly thereafter began to manufacture drying machinery for cotton and woolen goods and yarn, under the direction of Henry. In 1860, Henry's son James B. Butterworth joined the company and in 1867, he became a partner. In 1870, the company moved to its current location at E. York Street in Kensington. In 1871, Charles C. Butterworth, Henry's other son, joined the company and Henry retired. Henry's remaining sons William B., J. Elbert and Albert W. were also employed in the family business.

In 1875, the company had 70 employees, produced $150,000 in sales that year and had over 400 machines being used throughout the country. In 1876, the company won an award at the International Exhibition and was listed in the Official Catalogue of the International Exhibition of 1867 as manufacturing "drying machine for muslins, prints, tickings, etc. dyeing and sizing machines, calenders and finishing machinery of all kinds. Tinned sheet iron cotton cans, etc." The company was officially incorporated in 1889.

The Butterworth & Sons Company grew significantly in size in terms of number of employees by the 20th century. A 1917 advertisement for the company states that they also had an office in

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17 Philadelphia City Directory, 1869.
19 Robson, 60.
Providence, RI, in the Turk's Head Building. By 1922, the H.W. Butterworth & Sons Company had 322 workers and had the distinction of being the oldest operating machinery manufacturer in Philadelphia. From the late 1920s through the early 1940s, the company shrank some, with 284 employees in 1928, 240 in 1934, 269 in 1941; however, during World War II and shortly thereafter, the firm grew, with 445 persons employed in 1950. During World War II, the company manufactured mounts and other parts for anti-aircraft machine guns.

In 1950, the company entirely relocated to a small suburb north of Philadelphia known as Bethayres, PA “in the interests of efficiency and economy.” At this time, the company also closed the foundry component of its operations as it was also found not to be economical. In 1955, the company was sold to Van Norman Industries, Inc. and was operated as a wholly owned subsidiary. From the time of its foundation until after its sale in 1955, the company was always managed by the Butterworth family, a record that has no equal in Philadelphia manufacturing.

Criterion A: Significance in Industry
The H.W. Butterworth and Sons Company, built between 1870 and c. 1925, is significant under Criterion A, Industry, as a prominent Philadelphia manufacturer of textile finishing machinery, including bleaching, printing, dyeing, and drying machines. All of the company's machinery was manufactured using cylinders of tinned sheet iron as such cylinders were cheaper and more

21 The Textile American 27:5 (May 1917): 29. The Turk's Head Building was completed in 1913 and was the tallest building in Providence until 1922.
effective than those of copper. The process of tinning sheet iron cylinders was patented by the H.W. Butterworth and Sons Company.

The H.W. Butterworth and Sons Company was known as “one of the foremost manufacturers of textile machinery” and held the distinction of “designing and producing the machinery which... advanced the American textile industry to its present place.”\(^\text{29}\) Its “large and very modern factory” on E. York Street had the “newest and most approved models of machinery” enabling the company become “highly prosperous, the business having gradually increased until it [extended] to most of the manufacturing districts of the United States.”\(^\text{30}\)

The products of the H.W. Butterworth and Sons Company were introduced into nearly all factories in Philadelphia and many throughout New England.\(^\text{31}\) An 1867 advertisement for the company states that their machines were located in numerous factories including “Waltham Bleachery, Norwich Bleachery, Victory Manufacturing Company, Monument Mills, Lewiston Bleachery, Bellville Printing”, as well as in over 100 factories in and around Philadelphia.\(^\text{32}\) Additionally, the company was the “first to introduce the drying machine used in the textile mills of the South... [and was] responsible for the first machinery used in the South in making possible the production of mercerized goods.”\(^\text{33}\)

One of the primary reasons for the success of the H.W. Butterworth and Sons Company was their patenting and exclusive production of tinned sheet iron with “a more even coating than [had] hitherto been obtained.”\(^\text{34}\) The process of tinning sheet iron consists of immersing a sheet of iron first in a bath of molten tin, and second in a bath of molten tallow, which prevents the oxidation of the metal and removes any excess tin.\(^\text{35}\) These sheets of tinned iron were then used as machine cylinders in their finishing machines. The advantages of using tinned sheet iron for cylinders instead of the copper counterpart was multifold: the tinned sheet iron eliminated water leakage, facilitated faster drying, was half the price, produced a more even coating, and was better for finishing white, pink and straw colored goods.\(^\text{36}\) The H.W.

\(^{29}\) Stevens, 150.
\(^{30}\) Stevens, 152; Robson, 60.
\(^{31}\) Freedley, 858.
\(^{32}\) Freedley, 355.
\(^{33}\) Stevens, 150.
\(^{34}\) Robson, 60; “H.W. Butterworth and Son,” 191; Freedley, 358.
\(^{35}\) Rudolf Wagner, A Handbook of Chemical Technology (New York: D. Appleton and Company, 1877), 75.
\(^{36}\) Freedley, 359.
Butterworth and Sons Company produced the sheet iron in its own Foundry (Section B), designed the machines and did limited assembly in Sections A, D, E and G, produced the individual machines in the erecting shop (Section F) and managed shipping and loading from Sections H and I.

Products of The H.W. Butterworth and Sons Company
The H.W. Butterworth and Sons Company exclusively produced finishing machinery, such as bleaching, printing, dyeing, drying, mercerizing, singeing, padding and tentering machines, for textile fabrics.

An 1876 advertisement for the company offered drying machines for print works, bleachers, and dyeing establishments, drying warps and finishing cotton cloths, factory cans made of one sheet of tinned iron, with wrought-iron rings and stamped bottoms. A 1919 book published by the company lists over 100 available machines produced at the Philadelphia factory, including hydraulic presses, color kettles and mixers, cell dryers, sprinkling machines, soaping machines, boiling machines, lapping machines, winding machines, crabbing machines, back-washers and spreader rolls. For bleaching, the company offered a squeezer and a washing machine. For drying, there were 9- and 20-cylinder machines, one for printed goods of various diameters, one for hank yarn, as well as the choice of horizontal or vertical frames with any combination of size of cylinders, depending on the textile. For textile dyeing, the company offered color mixers and strainers, jiggers for dyeing solid colors, warp dyeing, sizing and boiling machines, piece dyeing machines, and indigo dyeing machines. The company also produced three-roll, three-roll friction and five-roll calenders that consisted of rollers through which the fabric passed in order to make the fibers parallel, as well as three- and seven-roll water mangles and starch mangles. Starch mangles were used to starch goods and water mangles were used to remove excess water before drying. Oil and gas singeing machines were also produced, which removed any loose threads. The company touted the machines as being economical as they used at least thirty percent less gas than other machines and as the width of the flame could be adjusted to the width of the fabric. They were also seen as producing a higher quality product as the gas and air were mixed at a uniform pressure, insuring a steady flame and as completed combustion ensured the absence of soot. There were also four types of tentering machines – hot air, vibratory, automatic clamp and low platform – to suit any need. The company also provided machinery for cotton goods and yarns, carpets and plushes, and worsted and woolen goods and yarns.

37 Freedley, 355.
One of the company's most publicized products was the drying machine, which consisted of eighteen horizontal and six vertical cylinders on a cast iron frame with cast iron gears. The material is first passed through a brass stretcher, which flattens the edges and smoothes the wrinkles. The material is then passed over and through a series of tinned sheet iron cylinders for drying. Each cylinder within the frame had hollow portions to allow for the transfer of steam and the return of condensation. The machine was unique because while other machines introduce the steam to each cylinder through an exterior pipe, the Butterworth Drying Machine has only one exterior pipe that provides the steam to the rear of the machine. This advantageously allowed for easier access to the machine, greater expansion of the cylinders and increased bearing for the axles. The Butterworth Padder was also another well-publicized product of the company. Padding machines were originally used for dyeing light colors on cotton cloth by passing the cloth over a series of rollers and into a vat of dye (Figures 1 – 12).

The various machinery parts were produced in Sections B and F and assembled in Sections A, D, E and G.

Comparable Textile Finishing Machinery Manufacturers
Although there are many other textile machinery manufacturers in Philadelphia during the period of significance, there are no comparable companies that focused so exclusively on textile finishing machinery. Consequently, the most effective comparisons, in terms of size, product and date, are found elsewhere in the northeastern United States.

The Curtis & Marble Machine Company was founded in Worcester, Massachusetts in 1863 by Albert Curtis and Edwin T. Marble. The company primarily produced textile finishing machinery, such as brushing, gas singeing, steam finishing, spraying and pumicing machines for the finishing of cotton, wool, felt, velvet and corduroy. Not only was the type of products similar to those of the H.W. Butterworth and Sons Company, the Curtis & Marble Machine Company had a comparable range of distribution, including to New England, the South, Canada, Mexico, Russia, India and Japan. Although the company was smaller than the H.W. Butterworth and Sons Company with 120 employees, it still "enjoyed the highest reputation in

the textile industry because of the first-class nature of its output." It also shared a similar range of ancillary buildings, including a machine shop and a foundry, which enabled the company to manufacture "a larger variety of textile finishing machinery than any in the world, covering practically every textile fabric excepting silk." The company closed in 1983.

The Textile Finishing Machinery Company was founded in 1902 in Providence, Rhode Island with the merger of the Granger Foundry and Machine Company, the Phoenix Iron Foundry, the Thomas Phillips Company and the Rusden Machine Company. Similar to the H.W. Butterworth and Sons Company, the Textile Finishing Machinery Company specialized in the manufacture of printing, dyeing, drying, bleaching, mercerizing, and singeing machines, as well as calender rolls and manufactured "seventy percent of the cotton finishing machinery produced in this country." The company additionally manufactured its machinery on site with an iron foundry and had an outpost office in New York City. Its primary distribution was throughout the Northeast and the South. The Textile Finishing Machinery Company was also known for a specific product: the "Portable Oil Singer." The purpose of the machine was to clean the surface of the cloth from any protruding fibers and it was distinct from other machines in that it was very light with self-contained iron fireboxes, and that it produced a more consistent and numerous product than a machine heated with coal. In 1921, the company had 299 employees, compared to the 322 employees of the H.W. Butterworth and Sons Company. In 1944, the company was acquired by the H.W. Butterworth Company.

46 It is also known as the Textile Finishing Machine Company. Transaction of the National Association of Cotton Manufacturers 82, Annual Meeting. 1907, 81; The Foundry: A Trade Journal 21:121 (September 1902), 120.
48 James Chittick, Silk Manufacturing and Its Problems (New York, James Chittick, 1913), 111a.
50 Textile World Record 32 (October 1906-March 1907), 580.
Bibliography


Hexamer General Survey, 1890.


*Philadelphia City Directory*, 1869.


*Textile World Record* 32. October 1906-March 1907: 580.

*Transaction of the National Association of Cotton Manufacturers* 82, Annual Meeting. 1907: 81.


VERBAL BOUNDARY DESCRIPTION

Beginning at the northeast corner of the intersection of E. York and Gaul Streets and running thence westwardly binding on the south side of E. York Street approximately 360 feet; thence southwardly approximately 140 feet; thence eastwardly binding on the north side of E. Gordon Street approximately 360 feet; thence northwardly binding on the west side of Gaul Street approximately 140 feet to the place of beginning.

BOUNDARY JUSTIFICATION

The nominated property includes almost the entire parcel on which the building is situated and historically associated with the nominated property. The only excluded resource is 2408 E. York Street, which was constructed between 1875 and 1878. The structure was associated with the company for less than six years between 1878 and 1884, and was used as office and storage space. The resource has been excluded both because of its limited association and because it is the only structure used by the H.W. Butterworth and Sons Company that was not constructed by the company to facilitate operations.
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H.W. Butterworth and Sons Company Building  
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PHOTOGRAPH LIST  
The following information pertains to every photograph:  

The H.W. Butterworth and Sons Company Building  
2410 E. York Street  
Philadelphia County, Pennsylvania  
Robert Powers  
February 2009  
Powers and Company, Inc.  

Inks Used: Epson Ultrachrome K3 Inks  
Paper Used: Epson Premium Luster Photo Paper  
Printer Used: Epson Stylus Pro 4800  

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<tr>
<td>1.</td>
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<td>2.</td>
<td>North elevation, view south</td>
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<td>3.</td>
<td>North and east elevations, view southwest</td>
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<td>4.</td>
<td>East elevation, view west</td>
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<td>6.</td>
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<td>7.</td>
<td>West elevation, view east</td>
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<td>8.</td>
<td>1st floor in Section F, view east</td>
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<tr>
<td>9.</td>
<td>1st floor in Section H, view south</td>
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<tr>
<td>10.</td>
<td>1st floor at south end, view north</td>
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<tr>
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<td>1st floor at south end, view south</td>
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<td>12.</td>
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<td>13.</td>
<td>2nd floor in Section F, view east</td>
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<tr>
<td>14.</td>
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<tr>
<td>15.</td>
<td>2nd floor in Section H, view southeast</td>
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<tr>
<td>16.</td>
<td>2nd floor in Section I, Elevator, view south</td>
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<tr>
<td>17.</td>
<td>2nd floor in Section D, view east</td>
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<td>19.</td>
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<td>3rd floor in Section C, Stairway, view north</td>
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<td>26.</td>
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<td>27.</td>
<td>Roof in Section B, view west</td>
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<tr>
<td>28.</td>
<td>Roof in Section I, view northwest</td>
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1. 3-story brick office. Constructed by 1878, no longer associated with the company by 1884.
2. 1-story brick machine shop extension. Constructed in 1870, demolished by 1884.
3. 1-story brick core shop. Constructed by 1878, demolished by c. 1925.
4. 1-story brick core oven and cupola. Constructed in 1870, demolished by c. 1925.
5. 1-story brick cleaning shed. Constructed in 1870, demolished by c. 1925.
6. 2-story brick storage building. First building on site constructed in 1870 and demolished by 1884. Second building on site constructed in 1884 and demolished by 1902.
7. 1-story brick blacksmith shop. Constructed in 1870, demolished by 1902.
9. 1-story frame charcoal house. Constructed by 1878, demolished by 1884.
10. 2-story brick storage building. Constructed by 1878, demolished by 1884.
12. 2-story brick stable and hayloft. Constructed by 1878, demolished by 1902.
14. 2-story brick and frame storage building. Constructed by 1878, demolished by 1884.

H.W. Butterworth & Sons Company Building
2410 E. York Street
Philadelphia County, PA
Existing Site Plan with Demolition Chronology
Not to Scale
# National Register of Historic Places

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### Figure # | Description of Figure
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<td>publisher, 1919), 29.</td>
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ONE hundred reasons—each one a year of achievement in the manufacturing of textile finishing machinery—are more than enough to account for the far-sighted manufacturer's preference for Butterworth Finishing Machinery.

Our catalog will be sent on request.

Figure 1 – Advertisement for the H.W. Butterworth and Sons Company.
Alston Hill Garside, ed. and comp. Standard Cotton Mill Practice and Equipment:
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The Classified Buyer's Index (Boston: The National Association of Cotton Manufacturers, 1921) 224.

Bleaching, Dyeing, Dry-
ing, Finishing and
Mercerizing Machinery
For All Textile Fabrics.

"Foxwell" Pneumatic
Guider for Tentering,
Drying and Padding
Machines, Etc.

H. W. BUTTERWORTH
& SONS CO.
ESTABLISHED 1820
PHILADELPHIA
Providence Office, Turk's Head Bldg.
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Figure 2 – *Proceedings of the Twenty-Second Annual Convention of the American Cotton Manufacturers Association, May 1-3, 1918* (Charlotte, N.C.: Queen City Printing Company, 1918), 6.

Figure 3 – H.W. Butterworth and Sons, Iron Founders and Machinists, c. 1875. [Link to Image](http://cgi.ebay.com.my/BUTTERWORTH-IRON-FOUNDERS-MACHINISTS-CDV-PHOTO-PHILA_W0QQcmdZViewItemQQitemZ140291377667), accessed on February 20, 2009.
For Printing, Bleaching and Dyeing Establishments. Also, for Drying Warps and Finishing Cotton Cloths.

Figure 5 – "Tentering and Drying Machine, H.W. Butterworth and Sons." The Commonwealth of Pennsylvania, Department of Agriculture, *Agriculture of Pennsylvania, 1880* (Harrisburg: Lane S. Hart, 1881), 88.
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Figure 6 – "H.W. Butterworth and Sons Drying Machine." "Drying Machines," Scientific American 41:11 (13 September 1879): 162.
Figure 7 – Butterworth’s Bleaching Machine (left) and Butterworth’s Piece Dyeing Machine (right).

Figure 8 – E.A. Posselt, Possell’s Textile Journal 9 (1905), 260, 261.
Figure 9 – Butterworth’s Warp Dyeing Machine (left) and Butterworth’s Washing Machine (right).

Figure 10 – E.A. Posselt, Posselt’s Textile Journal 9 (1905), 258, 262.
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Figure 12 — Starch Mangle with Two Rolls. *H.W. Butterworth and Sons Co.* (Philadelphia: no publisher, 1919), 29.