

**United States Department of the Interior
Heritage Conservation and Recreation Service**

B-1038

**National Register of Historic Places
Inventory—Nomination Form**

See instructions in *How to Complete National Register Forms*
Type all entries—complete applicable sections



1. Name

historic Krug Iron Works (preferred)

and/or common G. Krug & Son, Inc.

2. Location

street & number 415 West Saratoga Street not for publication

city, town Baltimore (city) vicinity of congressional district Third

state Maryland code 24 county Baltimore (independent city) code 510

3. Classification

Category	Ownership	Status	Present Use	
district	public	<input checked="" type="checkbox"/> occupied	agriculture	<input type="checkbox"/> museum
<input checked="" type="checkbox"/> building(s)	<input checked="" type="checkbox"/> private	<input type="checkbox"/> unoccupied	<input checked="" type="checkbox"/> commercial	<input type="checkbox"/> park
structure	both	<input type="checkbox"/> work in progress	<input type="checkbox"/> educational	<input type="checkbox"/> private residence
site	Public Acquisition	Accessible	<input type="checkbox"/> entertainment	<input type="checkbox"/> religious
object	in process	<input checked="" type="checkbox"/> yes: restricted	<input type="checkbox"/> government	<input type="checkbox"/> scientific
	being considered	<input type="checkbox"/> yes: unrestricted	<input checked="" type="checkbox"/> industrial	<input type="checkbox"/> transportation
	N/A	<input type="checkbox"/> no	<input type="checkbox"/> military	<input type="checkbox"/> other:

4. Owner of Property

name G. Krug & Son, Inc.
Theodore Krug

street & number 415 West Saratoga Street

city, town Baltimore vicinity of state Maryland

5. Location of Legal Description

courthouse, registry of deeds, etc. Baltimore City Courthouse

street & number 200 St. Paul Street

city, town Baltimore state Maryland

6. Representation in Existing Surveys

title	Maryland Historical Trust Historic Sites Inventory	has this property been determined eligible? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no
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date November, 1980 federal state county local

depository for survey records Maryland Historical Trust

city, town Annapolis state Maryland

7. Description

Condition		Check one	Check one
<input type="checkbox"/> excellent	<input type="checkbox"/> deteriorated	<input type="checkbox"/> unaltered	<input checked="" type="checkbox"/> original site
<input checked="" type="checkbox"/> good	<input type="checkbox"/> ruins	<input checked="" type="checkbox"/> altered	<input type="checkbox"/> moved date _____
<input type="checkbox"/> fair	<input type="checkbox"/> unexposed		

Describe the present and original (if known) physical appearance

DESCRIPTION SUMMARY

The G. Krug Iron Works is located at 415 West Saratoga Street, in the heart of downtown Baltimore, Maryland. The lot on which the business is located is bounded by Jasper Street on the east, by Welsh Alley on the west, and a combination access road-parking area to the south. The front facade of the business fronts West Saratoga Street and rises in configuration slightly from east to west. The present building complex which now houses the company office and actual operating ironworks consists of three sections: 1) a two story tall, gable roofed building dating from the first quarter of the nineteenth century, which houses the earliest shop, located at the northeast corner of the lot; 2) a four story tall Victorian building which houses a business office on the first floor and storage rooms on the upper floors, situated on the northwest corner of the lot; and 3) a three story tall shed roofed addition dating from 1870-1880, located at the southeast corner of the lot, which houses the expanded shop, and a smaller two story shed roofed addition, which also houses portions of the expanded shop facility.

DESCRIPTION

Section number 1: This common bond (5/1) brick structure is two stories tall, two bays wide, and four bays deep. On the first floor, two paired 6/6 double-hung sash windows have been inserted at the northeast corner. Also two modern iron doors, each with six panes of glass in their upper portions, have been inserted between the bays. A historic photograph, dating from after 1849, in the collection of the company, clearly shows the original front door configuration. Although the door itself is not visible, the opening was simply treated, and was surmounted by a three-light transom. The original opening terminated at a point level to the existing windows. Directly to the right of the doors, at the northwest corner, an original 12/12 double hung sash window can be found. Wrought iron barred window guards now protect the bottom sashes of all first floor windows. Between the first and second stories of this, as well as section #2, a large painted sign reading "Ornamental Misc. Metal Work, G. Krug & Son, Welding and Repair, Custom Metal Work" is found. On the second floor two original 12/12 windows with wooden sills and lintels and corbeled brick cornice provide an indication of how the original fenestration was placed. A single small dormer (with a window with six panes in the upper sash, four panes in the lower sash) is centrally placed on the roof, which appears to be metal painted black.

On the east gable facade, the building is four bays deep. Windows on the first floor are 6/6, with wooden sills and brick soldier courses for lintels and most probably mid-nineteenth century replacements. As with the windows on the main facade, these are also protected by barred window guards. A thin 4" wide wooden strip running across all four bays separates the first from the second floors. Windows on the second floor are 12/12 with wooden sills and lintels. At the peak, paired 12/9 windows provide light to the interior. Lastly, a small 9/6 window has been inserted in the bricked-in area which now exists between the original rear gable roof slope of this building, and section #3.

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DESCRIPTION (Continued)

Section number 2: This four story tall, two bay wide by two bay deep structure originally began as an early nineteenth century residence, and was not associated with the ironworks until later in the business's history. Architectural evidence indicates that this building may possibly have predated section #1 and was certainly originally a two story, gable roofed structure. (Information provided later, describing this section's interior help substantiate this). This structure is also constructed of brick, but is laid in Flemish bond on the first two stories of the main (north) facade, and all stretcher bond above. On the front facade, all windows are aligned and are 6/6 with splayed lintels and plain wooden sills. Above the fourth story windows, projecting rows of bricks define a plain architrave and frieze which in turn supports an ornate painted wooden bracketed cornice.

On the west facade, three windows in various locations can be found. All have been blocked from the interior. On the second floor, the wall is blank in the first bay, but has a modern window which lights a bathroom in the second. On the third and fourth floors, windows are aligned, and identical, but smaller in size than those found on the front facade.

Section number 3: (This section consists of two buildings of different sizes, and will be described as the southeast and southwest sections.)

Southeast section: This three story tall building, added to the rear of Section #1, was built to house the expanding shop operation, steam engine, and power tools, during the 1870-1880 period. On the east facade, the building is five bays wide, with each bay division delineated by projecting buttresses which terminate in a corbeled brick cornice. From the southeast corner, all windows in the first, third, fourth and fifth bays are aligned, are 6/6 double hung sash, and have stone sills and segmental lintels. As with other windows in sections #1 and 2, first floor windows are also protected by barred window guards. In the second bay, access is gained into the first floor interior through a pair of metal fire doors, whose transom is surmounted and protected by curved metal bars. On the second floor, a pair of French doors, whose lower third are also protected by a metal railing, allow access into the second floor. These doors have glass in their upper portions, to allow light into the second floor of the structure. This opening is articulated by a projecting sill and segmental lintel. On the third floor, double doors similar to those one floor below offer access into this section of the shop. A heavy hoist which projects 2-3 feet over the sidewalk below, is placed directly over the double doors.

On the south facade, much of the fenestration on the first and second floors has been covered by a modern application of concrete. A black anvil-shaped advertising sign has been placed between floors. A small window (covered) on the first floor's southeast corner, and 6/6 window on the second floor's southeast corner, remain. On the third floor, all three 6/6 windows remain, protected under plywood panels. These windows have plain brick sills and flat arches. At the southwest corner of the building, a chimney with encircling band of cement, pierces the roof.

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DESCRIPTION (Continued)

Southwest section: This two story tall brick structure appears to have been constructed at approximately the same time as the southeast section, although not in such a sturdy and heavy manner. On the south facade, the original location of fenestration has been all but obliterated through the application of a concrete patch on the first floor, and insertion of a grouping of 20th century industrial windows on the second floor. One important "survival" does exist on the first floor level, southwest corner. Here, one of the firm's ornamental iron gates can be found.

The west facade of this section is five bays long. Windows are identical in bays one, three, four and five, from the southwest corner. On the first floor, the 6/6 windows with stone sills and segmental brick lintels are completely protected by iron guards. A series of diamond shaped tie-rod bolts are found directly above the first floor level, and delineate the interior floor level of this structure. On the second floor, all windows are aligned. Windows and decorative treatment are identical, except for the window at the northwest corner, which has been replaced. Within the second bay, double doors on first and second floor levels were provided for moving stock, heavy machinery, and other products into this area of the business. A hoist, identical to that found in the southeast section, is located above the second floor double doors. Also, like its counterpart, this facade is terminated with a corbeled brick cornice.

INTERIOR DESCRIPTION

Section number 1: This section of the operation from West Fayette Street is entered from the pair of modern double doors. Turning to the right, one steps up to a modern iron landing, which leads through another modern door into section #2 which now serves as the business office. From the landing, one may also turn left and walk up the modern iron stairs to the second floor.

On the workroom floor, a number of varied pieces of equipment and work tables are found. Portable weights and a scale are found near the landing. A large combination punch and shear machine, manufactured by the Long and Allstater Company of Hamilton, Ohio, and purchased by the company in 1888 sits in the center of the room. Company records contain numerous correspondence regarding the purchase of this piece of equipment. Other cutting equipment is found in various locations in the room. A series of cabinets along a large working surface on the east wall exhibits a wide variety of the company's products. Wrought iron hinges of all sizes and shapes can be found on the doors of one cabinet. Cast iron locks of a great variety are also found here. A second cabinet, for example also exhibits wrought iron door pulls, Norfolk and Suffolk latches, and slide bolts for doors. Die blocks, punches, and tools for various machines are placed on the work surface below the cabinets. Below the work shelf, many cabinets contain swage blocks (perforated iron blocks with grooved sides used in heading bolts and swaging it by hand).

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INTERIOR DESCRIPTION (Continued)

This room is open to the south and west, to allow access into section #3 of the building, into which this original shop expanded in the period after 1850.

The second floor of this building is used for heavier fabrication of larger items. Above this a small attic room contains an extensive collection of wooden forms and patterns for many items manufactured during the nineteenth century. This small room contains literally hundreds of examples of the company's wares.

Section 2: Entering this section of the business from a door at the northeast corner, one enters what is now used as a business office and a display for the wares of the ironworks - fences and decorative metal panels, to name a few. Little of the Federal detailing remains, although bits do exist in the stairway and on the second floor. Notable features here include the businesses nineteenth century work desk, situated in the northeast corner, and a pair of decorated marble mantels with cartouches located on the east wall. These mantels give an indication of the major rebuilding of this section of the operation, which took place c. 1870. This section also contains Victorian elements, including a raised four panel door in the southeast corner and a set of pine drawers with ornate pulls, located between the fireplaces. These house an extensive collection of plans and photographs of the firm's work, mostly for the period 1880-1910. Overhead, the ceiling is finished with pressed metal. In the southeast corner of the room, a tightwinder stair leads to the rooms above.

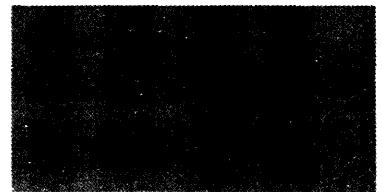
From the stairway, which exhibits a fine plain Federal stair highlighted by a turned newel post and square balusters, one enters through a finely carved six panel door into what originally was a parlor or bedroom. Although now used to store spare parts, punches, rivets and locks in a series of metal cabinets, bits of the original detailing can be seen. Doors appear original, as do mantels located on the north and east walls which were obscured by stored materials. Interior window shutters were also intact. A six panel door on the south wall leads into section #3.

From the original stairway, one walks up to the third and fourth floors. These contain standard Victorian four panel doors with cast iron box locks with porcelain handles, and extremely plain wooden mantels, with at least one exhibiting a four center (pointed) Gothic arch. Rooms here were also used as storage areas.

Section number 3, southwest section: The first floor of this section is the continuation of the original shop, section #1. This also contains larger machinery, including hand shears and mechanical punches. Work tables are also interspersed around this room. Wooden fly wheels patented Mar. 9, 1980 and iron transmission rods are located in various places in the ceiling. According to the present owner, a steam engine was located somewhere along the rear (south) wall, and powered much of the equipment in the nineteenth century. To the west, one walks directly into the second portion of this rear section, which is also used as a fabricating area.

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INTERIOR DESCRIPTION (Continued)

The second floor of this section is also used for fabricationg of larger metal items, and for storage of iron and steel stock.

The third floor contains an impressive array of discarded equipment and examples of this iron work's products, as well as a collection of notable cast and wrought iron from other companies. Equipment includes two varieties of hand forges, specialized anvils, threading machines, nibbing machines, and template guides. Stored examples of manufactured items included iron fencing and railing, balconies, cresting, finials and railing. One notable piece of cast iron includes a circular decorative tree guard, approximately four feet tall.

Section number 3, southeast section: As previously stated, the first floor of this section was used as a fabricatiing area. The second floor here was also used as a storage area for discarded machinery and stock.

8. Significance

Period	Areas of Significance—Check and justify below							
<input type="checkbox"/> prehistoric	<input type="checkbox"/> archeology-prehistoric	<input type="checkbox"/> community planning	<input type="checkbox"/> landscape architecture	<input type="checkbox"/> religion				
<input type="checkbox"/> 1400-1499	<input type="checkbox"/> archeology-historic	<input type="checkbox"/> conservation	<input type="checkbox"/> law	<input type="checkbox"/> science				
<input type="checkbox"/> 1500-1599	<input type="checkbox"/> agriculture	<input type="checkbox"/> economics	<input type="checkbox"/> literature	<input type="checkbox"/> sculpture				
<input type="checkbox"/> 1600-1699	<input type="checkbox"/> architecture	<input type="checkbox"/> education	<input type="checkbox"/> military	<input type="checkbox"/> social/				
<input type="checkbox"/> 1700-1799	<input type="checkbox"/> art	<input type="checkbox"/> engineering	<input type="checkbox"/> music	<input type="checkbox"/> humanitarian				
<input checked="" type="checkbox"/> 1800-1899	<input type="checkbox"/> commerce	<input type="checkbox"/> exploration/settlement	<input type="checkbox"/> philosophy	<input type="checkbox"/> theater				
<input checked="" type="checkbox"/> 1900-	<input type="checkbox"/> communications	<input checked="" type="checkbox"/> industry	<input type="checkbox"/> politics/government	<input type="checkbox"/> transportation				
		<input type="checkbox"/> invention		<input type="checkbox"/> other (specify)				

Specific dates 1810 to present

Builder/Architect unknown

Statement of Significance (in one paragraph)

Applicable Criteria: A

The Krug Iron Works is significant as a unique survival of over a century and a half of metalworking in Baltimore and for its historic role as manufacturer of much of the city's decorative ironwork. Begun in 1810 as a blacksmith's shop, it has occupied the same site and a similar scale despite dramatic technological and organizational change in industry. The quality and variety of its iron grills, railings, and other architectural elements may be seen on buildings throughout the city.

HISTORY AND SUPPORT

In 1810 the blacksmith shop at Saratoga Street and Short Alley was the workplace of Augustus Schwatke, one of numerous blacksmiths in the city. Blacksmiths were almost as plentiful as butchers or tailors in early nineteenth century Baltimore where they provided all metal parts for domestic, commercial and industrial uses. Everything from horseshoes and wagonwheels to nails and fences were the products of local blacksmiths. Schwatke was an immigrant Pole or Czech and no one knows exactly what type of products he made. Chances are that his major customers were located in the immediate neighborhood, an area centered on the Lexington Market. It is likely that the butchers, drovers and liverymen nearby were his most frequent clients. Schwatke had previously been located on Lexington Street in Old Town in 1804. When he moved to Saratoga and Short Alley, the site of present-day Krug & Sons, he was probably anticipating the general westward growth of the city. In any case he established the site as an ironworking shop which it has remained until the present.

In 1830 Andrew Merker bought the shop from Catherina and John Schwatka (sic) who were probably Augustus' children. Merker was a German immigrant from Alsace who is recorded in the records of the Old Otterbein Church beginning about 1840. In 1858 he hired Gustav Krug to help him in the shop.

Krug's arrival in Baltimore coincided with the beginning of large-scale German immigration to the city. The influx of Germans radically changed the nature of the city's cultural and architectural character. In architectural ornament the impact was large and the firm of Merker and Krug and later G. Krug and Sons played an important part. The Germans excelled at ironmaking and their immigration here was a classic example of technological and aesthetic change by geographic diffusion. The great influx brought craftsmen like Merker and Krug but also brought the thousands of their countrymen who would provide a market for their wares. The taste for heavy ornamental ironwork (which we label as "Victorian") really owes much of its popularity to the German influence on popular culture during the middle and late nineteenth century. Krug immediately began to specialize in architectural decoration. Merker had concentrated on church bells, but by the 1860s the firm had become preeminent in the manufacture of "iron fence railings" and grills. The Krug drawings and records at the Maryland Historical Society show the incredible variety of forms that the

9. Major Bibliographical Reference

UTM NOT VERIFIED

ACREAGE NOT VERIFIED

SEE CONTINUATION SHEET #6

10. Geographical Data

Acreage of nominated property less than one acre

Quadrangle name Baltimore East

Quadrangle scale 1:24,000

UMT References

A	<u>1 1 8</u>	<u>3 6 1 0</u>	<u>1 0 1 0</u>	<u>4 1 3 5 1 0</u>	<u>3 1 0 1 0</u>
Zone	Easting		Northing		
C					
E					
G					

B	<u> </u>				
Zone	Easting		Northing		
D					
F					
H					

Verbal boundary description and justification

The property is bounded by Saratoga Street on the north, Jasper Street on the east, Welsh Alley on the west, and an access road on the south.

List all states and counties for properties overlapping state or county boundaries

state	N/A	code	county	code
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state		code	county	code
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11. Form Prepared By

name/title	Dennis Zembala and Mark R. Edwards		
organization	Baltimore Industrial Museum	Maryland Historical Trust	date November 1980
street & number	217 N, Charles St.	21 State Circle	telephone 301-396-1931 301-269-2438
city or town	Baltimore	Annapolis	state Maryland

12. State Historic Preservation Officer Certification

The evaluated significance of this property within the state is:

national state local

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the Heritage Conservation and Recreation Service.

State Historic Preservation Officer signature



3-17-82

title	STATE HISTORIC PRESERVATION OFFICER	date
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For HPO Signature	
I hereby nominate this property for inclusion in the National Register.	
Signature of the State Historic Preservation Officer	
Address	





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HISTORY AND SUPPORT

company made. Their decoration was used on numerous Baltimore landmarks including the ornate Johns Hopkins Hospital, the University Club, the Mercantile Trust Building and the Baltimore Zoo. The firm also shipped its work to other eastern and southern states outside of Maryland, achieving a regional reputation as well.

The Krug output is a fascinating record of the impact of changing metalworking technology on artistic form. The firm used a combination of wrought and cast iron to achieve spectacular effects. Ancient and medieval ironwork was almost all made from wrought iron whether the pattern was floral or geometric. Floral patterns and other naturalistic subjects were difficult to achieve in wrought iron, however, and cast pieces began to play an increasing part in more elaborate designs. The Krugs depended on the Bartlett and Hayward foundry to supply the cast rosettes and finials of many patterns.

The use of cast iron elements and the addition of steam-powered machinery to the shop lowered the cost of Krug's products and made them available to a wider market. Sometime around the Civil War a steam engine was purchased to run drill presses, shears and saws. In 1888 a large punch press (still in use) was added. In this way new techniques could be used to increase efficiency and production.

The Krug Company still persists, adding whatever new techniques are adaptable to their purposes. The business is run today by Theodore Krug and his son Steven, direct descendants of Gustav Krug. Most of the work at the small forge has been replaced by welding process and new, self-powered drill presses have replaced the old belt-driven ones. These changes, however, have been made within the context of the old custom shop tradition preserving the overall scale and character of one of Baltimore's most unique industrial establishments.

Metalworking industries were critical in Baltimore's transformation from a commercial to an industrial city. The replacement of handicrafts by machine production depended largely in the abilities of blacksmiths, brass founders and other metalworkers to build machines. The city's metal craftsmen comprised a pool of skills and knowledge which entrepreneurs relied upon to increase production.

The Krug and Sons Ironworks is significant as a unique survival of over a century and a half of metalworking and for its historic role as manufacturer of much of the city's decorative ironwork. Begun in 1810 as a blacksmith's shop, it has occupied the same site and a similar scale despite dramatic technological and organizational change in industry. The quality and variety of its iron grills, railings and other architectural elements may be seen on buildings throughout the city. The character of many of these is also an example of the influence of German immigrant craftsmen on the city's material culture.

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Dennis Zembala and Mark R. Edwards, surveyors. Annapolis, Maryland