"LACY IRON": NINETEENTH-CENTURY AMERICAN ORNAMENTAL CASTINGS AND ROBERT WOOD OF PHILADELPHIA

By Julia Nash*

CAST-IRON ornamentation was a nineteenth-century expression of the nation's coming of age. In the previous century, iron production had become one of the mainstays of the colonial economy. Many a family fortune was made in the iron furnaces and foundries. As American manufacturers grew increasingly proficient in the processing of iron products for utilitarian uses, it was only natural that they should have recognized another outlet for their skill in the production of ornamental castings. In the nineteenth century a settled and prosperous country could pay more and more attention to ornament and luxury. The nineteenth century, iron about 1840 onward, became marked by its delight in infinitely detailed and lavish ornament. Out of the infinity of Victorian flights of ornamental fancy, cast-iron ornamentation was certainly one of the most lasting and most tasteful.

The nineteenth-century production of cast iron might in some ways be likened to present-day plastics manufacturing. Just as contemporary plastics producers turn out an endless variety of items ranging the gamut of utility and decoration, so the iron monger of the nineteenth century tried to make in iron nearly everything that captured his fancy. But the misgivings of nineteenth-century esthetic critics notwithstanding, greater taste and artistry were characteristic of the nineteenth-century cast products. Of those objects still in existence from the iron manufactories of the middle of the century, most show careful workmanship and quality design.

Mention of nineteenth-century ornamental cast iron usually calls to mind the classic examples of New Orleans and Charleston iron "lace." But there have been few investigations in detail of where this Southern iron was made. Many writers have been fascinated by the study of nineteenth-century structural iron, since structural

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use of cast iron in the 1850's led in time to the far greater advances in steel construction that mark twentieth-century architecture. Yet decorative cast iron also deserves historical notice as an expression of the opulence of the nineteenth century.

From its first popularity, ornamental cast iron did provoke much critical dismay. Cast iron was not a building material to last forever, nor was it altogether fireproof. More than that, it violated the tradition which holds that artistry is inseparable from individual craftsmanship. John Ruskin, in *The Seven Lamps of Architecture*, offered these remarks under "architectural deceits":

But I believe no cause to have been more active in the degradation of our [English] national feeling for beauty,
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than the constant use of cast iron ornaments. The common ironwork of the middle ages was as simple as it was effective. . . . No ornaments, on the contrary, are so cold, clumsy, and vulgar, so essentially incapable of a fine line, or a shadow, as those of cast iron; . . . yet I feel very strongly that there is no hope of the progress of the arts of any nation which indulges in these vulgar and cheap substitutes for real decoration. . . .

An American critic, M. Field, wrote in 1853: "It requires time to demonstrate the relative value and eligibility of this material in the end. . . ."

Despite the critics, ornamental cast iron rose in popular favor. It was produced in quantity from the last quarter of the eighteenth century until the 1880's. The decades between 1840 and 1860 saw the height of cast-iron design, with patterns that prove today the skill and ingenuity of the iron mongers, their artistic designers, and their gifted pattern carvers. As the eighteenth century was marked by the beauty of wrought iron made in the smithy's single-man shop, so the nineteenth century was characterized, in part, by ornamental cast iron made in large multi-man factories in Eastern cities. Outstanding among the manufacturers was Robert Wood of Philadelphia.

Cast iron differs chemically from wrought iron. Their separate properties led thus to different types of designs. Wrought iron could be heated and hammered into airy, delicate patterns. It had great resilience. In contrast, cast iron was heated and poured into molds to make shapes. The patterns could be delicate or heavy according to the wishes of the caster. Above all, raised design was possible with cast iron. Greater mass quantities could be produced with less hand labor. In a word, wrought-iron objects were made by piecework, cast-iron ones by a type of assembly-line process. This is no denial of the pains taken to produce the final cast-iron object in a factory. Many patterns not easily produced from wrought iron could be made in cast iron. The plasticity of the material came as a boon to the nineteenth century, when experi-


\[\text{\textsuperscript{2}}\] M. Field, City Architecture; or, Designs for Dwelling Houses, Stores, Hotels, etc. (New York, 1853), p. 33.
ments were being made in all types of construction and decorating materials.

Fortunately, many good examples of nineteenth-century castings have survived to the present day. Every major war has taken its toll of cast-iron objects. The Second World War was especially hard on many an old country cemetery which was stripped of its picturesque dressing by the scrap drives. But many out-of-the-way old homesteads, public buildings, or cemeteries retained their
nineteenth-century cast iron. Back alleys in Philadelphia may still shelter a verandah or a garden fence in cast iron.

Today, with the desire to use new decorative materials, architects and interior decorators have often turned again to nineteenth-century cast iron. The demand in the 1950's was great enough to warrant reproduction of nineteenth-century iron designs, but this time appearing in aluminum and often lacking in strength and detail. One of the better examples was done for the War Memorial in Bordentown, New Jersey. Atop the gate of the prosaic spike fence surrounding the monument is a motif of doves and a fruit basket reproduced from the magnificent balcony iron of the American House in the same town. In copying, the contemporary casters employed a Robert Wood design. They were using a design from perhaps the most renowned iron factory in nineteenth-century America.

Little remains today to tell of the fame of the Robert Wood iron factory of Philadelphia save for a few written references to the output and, best of all, the existence of marked iron from the factory. Two principal sources of detailed information on this cast-iron factory are Godey's Lady's Book for 1853 and R. A. Smith's Guide to and through Laurel Hill Cemetery.

The July, 1853 issue of Godey's contains an illustrated article on a visit to the "Ornamental Ironworks of Robert Wood." The author of the article, C. T. Hinckley, relates the history of iron from the dim Biblical age to the era of the 1850's, enumerating its virtues and characteristics. He gives a detailed account of the building of a melting furnace, the reduction of iron ore and coke to produce pig iron, and the melting of pig iron to make castings. According to him, two and one-half tons of iron ore in the 1850's produced one ton of metal. Pennsylvania iron production in 1853 represented an investment of $15,000,000.3

As to the actual making of cast-iron ornament, the article contains a description with accompanying engravings of each of the various departments within the iron factory. These were the rooms in the factory: the pattern room, the casting room, the cleaning room, the finishing room, and the drilling room. Skilled

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3 C. T. Hinckley, "A Day in the Ornamental Ironworks of Robert Wood," Godey's Lady's Book, XLVII (July, 1853), 5-12. This article serves as the basis for the following paragraphs on the Robert Wood factory.
wood-carvers were at work in the pattern room carving out the patterns drawn on paper by the designers. From there, the carved wooden forms went to the casting room to imprint specially prepared damp sand held in boxes. Into these molds, molten iron was poured. The iron cooled to produce castings. These were then removed from the sand molds and taken to the cleaning room to be brushed and filed. After all the rough edges were smoothed and the sand cleaned off, the castings were moved on to the finishing room to be put together and fitted. Holes were drilled and nuts and bolts furnished in the drilling room. Any welding was done in the final stages. Each item was checked and carefully approved before it left the Robert Wood iron works.

Many of the iron fences, figures of animals, human figures, and other garden ornamentation contained numerous smaller parts which were welded or bolted together to produce a single unit. A figure of Hebe contained fifty-four parts; a Triton figure, thirty-six parts; a Newfoundland dog, thirty-one parts; a life-size lion, fifty-eight parts; a crouching greyhound, sixteen parts. Even with close inspection of the finished product, the observer could be quite unaware of the intricacies of the work. A garden greyhound, for example, was sold as a firm, solid casting, yet great care had been taken to put the animal together from a series of small integral parts. Interesting proof of how a human figure was constructed in iron was afforded this writer on seeing a broken Negro boy hitching post. His chest had been broken away, revealing an iron rod reaching up through his mid-section. No evidence of the welding of the sections was apparent even on the inside of the body of the iron boy. Incidentally, this hitching boy stood on an iron "cotton" bale imprinted with "Wood and Perot," the later name for a partnership of Elliston Perot with Robert Wood.

Because each figure needed so many parts, patterns for each part had to be prepared and executed in wood. According to the Godey's article, Robert Wood had between three and four thousand patterns for his products. One hundred and fifty of these were fence patterns.

Outside the realm of fences and garden ornamentation, Robert Wood was trying to perfect his casting so as to rival products from the Berlin, Germany, casters. He turned to making life-size
and over-life-size statues for city memorials. At least two of his early attempts attracted widespread nineteenth-century notice. One of these statues was cast in iron, the other in bronze; Robert Wood did not restrict himself to iron casting. The great monument to Henry Clay proposed by the city of Pottsville, Pennsylvania, was to be a fifteen-foot-high iron statue. The Robert Wood Ornamental Ironworks was to make it. An engraving in the Godey's article shows the wood carver working from a small model as he carved the huge statue in wood. According to the text of the article, the over-life-size wooden form was to be cut into 150 pieces before molding. By a system of careful assembling of these cut pieces the casters were attempting to cast the figure in one piece, a feat, the article contended, "never successfully accomplished in this country," and one for which Robert Wood was to become renowned.

In its January, 1853, issue, Gleason's Pictorial Drawing Room Companion, published in Boston, printed a drawing of the finished work, which still dominates the Pottsville skyline from atop its column.

The second figure, this one in bronze, was made at the Robert Wood iron foundry for the Philadelphia Centennial Exposition.

1 Ibid., pp. 10-11.
2 Gleason's Pictorial Drawing Room Companion, January 8, 1855, p. 32.
of 1876. The *Illustrated Historical Register of the United States Centennial Exposition* says of it:

The statue of Dr. [John] Witherspoon is of bronze, twelve feet high, on a pedestal also twelve feet high, constructed of Quincy granite. The site upon which it is placed is an elevated lawn, just east of the Art Gallery, including 475 feet north and south, and 325 feet east and west, around which Lansdowne Drive sweeps in almost three-fourths of a circle. The cost of this monument will be about $25,000.

The Robert Wood Company was a progressive and enterprising concern. About 1849, using a relatively new sales technique, the company issued a free catalog, entitled *Wood's Portfolio of Original Designs of Iron Railings, Verandahs, Settees, Chairs, Tables, and Other Ornamental and Architectural Iron*. A copy of this catalog long existed in Philadelphia's old Mercantile Library, but it has been lost with the library's dissolution. The late Miss Frances Lichten has alluded to the Wood catalogs in her *Antiques* article of August, 1952. The successive reorganizations of the company can be dated approximately by Miss Lichten's chronology of the company: Robert Wood, 1839-1849; Robert Wood, Iron Rail Foundry and Manufacturing, 1849-1857; Wood and Perot, 1857-1865; Robert Wood and Company, 1865-1881.

Robert Wood and Elliston Perot in their combined enterprise of Wood and Perot opened branch stores. One such branch was located in New Orleans. When laymen wax sentimental over "New Orleans iron lace," they are usually admiring ironwork that was the product of Eastern seaboard cities, New York, Boston, or Philadelphia. Wood set up a branch called Wood, Miltenberger and Company in New Orleans, to supply the city with much of its Victorian iron "lace." Miss Lichten's *Antiques* article includes an advertisement of the two outlets, the one in Philadelphia and the one in New Orleans, from Edwin Freedley's *Philadelphia and Its Manufacturers* (1853). In 1861 McElroy's *Philadelphia City

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8 *Ibid.*, pp. 112, 113
Directory included the same advertisement of the company. Miss Lichten also told of finding a "corn stalk" gate in Germantown, Pennsylvania, marked "Wood." This is precisely the corn fencing usually pictured as being Southern in origin, either from Charleston, South Carolina, or New Orleans.¹⁹

More information concerning another aspect of the uses of cast-iron ornamentation is found in R. A. Smith's Illustrated Guide to and through Laurel Hill Cemetery (Philadelphia, 1852). Smith remarks that out of the Robert Wood factory had come several iron enclosures for the Laurel Hill Cemetery in Philadelphia. According to Smith, the Manderson monument was enclosed by a fencing in the "Romanesque style." The plot of A. Kitchen was set apart by a fence in the "decorated Gothic style," complete with a "floriated moulding or band, running around the top-rail." Cited as a work of art was the Townsend monument in South Laurel Hill, done in the Gothic style. Smith included an illustration of this iron monument, which since has rusted into decay.

So the mid-Victorians in America tried to catch the essence of various Old World architectural styles in their revival patterns made in iron. Revival design was not limited to the Romanesque or Gothic, but included supposed ancient inspiration. For Smith said that along with fencing, other appropriate cemetery decoration included arbor chairs and settees, urns and vases "copied from ancient Greek and Etruscan remains."  

A guide to the firms engaged in casting ornamental iron in Philadelphia can be found in M'Elroy's *Philadelphia City Directory*. Generally, the iron manufacturers congregated in the Ridge Avenue, Callowhill section of Philadelphia. For the years 1855 and 1856, a peak period of cast-iron production, the directory lists some twenty-two manufacturers of "iron fencing and railing." Among the most prominent names besides Robert Wood were J. L. Adamson, Ezra Coleman, W. P. Hood, Maurice M'Namee, More and Gallagher, Samuel Macferran, and E. W. Shippen.

By carefully observing out-of-the-way corners of cities and towns in the East and Middle West, one can discover countless examples of the metal caster's art as it was practiced in the prospering America of the past century. One such is the lovely, delicate cast-iron balcony still found somewhat perilously hanging from the American House in Bordentown, New Jersey. Though the building dates from the mid-eighteenth century, the iron dates from between 1839 and 1849. The main section bears this cast in iron: "Robt. Wood AMERICAN HOUSE Phila." The hotel is situated directly across the street from the old Borden homestead, which itself was refurbished in the nineteenth century with cast-iron porch columns, stair railing, and exquisite sheaf-of-wheat fencing. Robert Wood and his fellow ironmongers found a lively market in this seat of many wealthy New Jersey Quakers.

Cast-metal ornamentation served well the romantic and sentimental bent of the nineteenth century. Yet the durability of cast-iron objects, as it has made itself evident to our present era, was not in the least "romantic" or fleeting. Certainly a cast-iron rusticated fence formed by a pattern of intertwined iron "twigs"
was more durable than the wooden rusticated "temple" house suggested by a contemporary architect. But still within the romantic vocabulary was the idea of rustication. It was the technical prowess of the metal caster that brought to fruition the basically romantic flights of fancy. The idea of using natural motifs for architectural members, as exemplified earlier in the nineteenth century in Benjamin Latrobe's corn capitals in Washington, found its popular counterpart in cast-iron corn-stalk fencing.

Cast-iron ornamentation was mass-produced, fairly impervious to decay, and comparatively cheap. It helped to provide a touch of contrast for the Greek revival building with its straight-line design, relief for the austerity of the brownstone town house, and a finishing element for the grand mansion of 1860. Cast iron was found wherever people had extra money for decoration. American buyers took advantage of what had become the most artistic and durable products offered to a large public by ingenious iron mongers of the day.