ADDRESS: 449 LOCUST AVE
Name of Resource: Edwin T. Chase House
Review: Designate
Property Owner: KJB Solutions LLC
Nominator: Preservation Alliance for Greater Philadelphia
Staff Contact: Dan Shachar-Krasnoff, daniel.shachar-krasnoff@phila.gov

OVERVIEW: This nomination proposes to designate the property at 449 Locust Avenue and list it on the Philadelphia Register of Historic Places. The nomination contends that the stone house, built for prominent Philadelphia lawyer Edwin T. Chase in 1861, satisfies Criteria for Designation C, D, and E. The nomination argues that the Edwin T. Chase House is a highly characteristic example of the work of John Riddell, one of the most prolific residential architects in mid-nineteenth century Philadelphia, satisfying Criterion E. Under Criteria C and D, the nomination contends that the three-story, Italianate-style house exemplifies Riddell's own particular brand of the domestic pattern book architecture that defined the era.

STAFF RECOMMENDATION: The staff recommends that the property at 449 Locust Avenue satisfies Criteria for Designation C, D, and E.

Figure 1: South and east elevations, looking northwest from Locust Avenue. Photo taken August 13, 2024.

NOMINATION OF HISTORIC BUILDING, STRUCTURE, SITE, OR OBJECT
PHILADELPHIA REGISTER OF HISTORIC PLACES
PHILADELPHIA HISTORICAL COMMISSION

SUBMIT ALL ATTACHED MATERIALS ON PAPER AND IN ELECTRONIC FORM (CD, EMAIL, FLASH DRIVE)
ELECTRONIC FILES MUST BE WORD OR WORD COMPATIBLE

1. ADDRESS OF HISTORIC RESOURCE *(must comply with an Office of Property Assessment address)*

Street address: 449 Locust Ave

Postal code: 19144

2. NAME OF HISTORIC RESOURCE

Historic Name: Edwin T. Chase House

Current/Common Name:

3. TYPE OF HISTORIC RESOURCE

☑ Building ☐ Structure ☐ Site ☐ Object

4. PROPERTY INFORMATION

Condition: ☐ excellent ☑ good ☐ fair ☐ poor ☐ ruins

Occupancy: ☐ occupied ☑ vacant ☐ under construction ☑ unknown

Current use:

5. BOUNDARY DESCRIPTION

Please attach a narrative description and site/plot plan of the resource's boundaries.

6. DESCRIPTION

Please attach a narrative description and photographs of the resource's physical appearance, site, setting, and surroundings.

7. SIGNIFICANCE

Please attach a narrative Statement of Significance citing the Criteria for Designation the resource satisfies.

Period of Significance (from year to year): from 1861 to 1861

Date(s) of construction and/or alteration: 1861

Architect, engineer, and/or designer: John Riddell

Builder, contractor, and/or artisan: Unknown

Original owner: Edwin T. Chase

Other significant persons: N/A

CRITERIA FOR DESIGNATION:

The historic resource satisfies the following criteria for designation (check all that apply):

- ☐ (a) Has significant character, interest or value as part of the development, heritage or cultural characteristics of the City, Commonwealth or Nation or is associated with the life of a person significant in the past; or,
- ☐ (b) Is associated with an event of importance to the history of the City, Commonwealth or Nation; or,
- ☑ (c) Reflects the environment in an era characterized by a distinctive architectural style; or,
- ☑ (d) Embodies distinguishing characteristics of an architectural style or engineering specimen; or,
- ☑ (e) Is the work of a designer, architect, landscape architect or designer, or engineer whose work has significantly influenced the historical, architectural, economic, social, or cultural development of the City, Commonwealth or Nation; or,
- ☐ (f) Contains elements of design, detail, materials or craftsmanship which represent a significant innovation; or,
- ☐ (g) Is part of or related to a square, park or other distinctive area which should be preserved according to an historic, cultural or architectural motif; or,
- ☐ (h) Owing to its unique location or singular physical characteristic, represents an established and familiar visual feature of the neighborhood, community or City; or,
- ☐ (i) Has yielded, or may be likely to yield, information important in pre-history or history; or
- ☐ (j) Exemplifies the cultural, political, economic, social or historical heritage of the community.

8. MAJOR BIBLIOGRAPHICAL REFERENCES

Please attach a bibliography.

9. NOMINATOR

Organization: Preservation Alliance for Greater Philadelphia Date: August 9, 2024

Name with Title: Kevin McMahon, consultant Email: hstark@preservationalliance.com

Street Address: 1608 Walnut Street, Suite 1702 Telephone: 215-546-1146

City, State, and Postal Code: Philadelphia, PA 19103

Nominator ☐ is ☑ is not the property owner.

PHC USE ONLY

Date of Receipt: August 13, 2024

☑ Correct-Complete ☐ Incorrect-Incomplete Date: September 9, 2024

Date of Notice Issuance: September 9, 2024

Property Owner at Time of Notice:

Name: KJB Solutions LLC

Address: 219 S Carol Blvd

City: Upper Darby State: PA Postal Code: 19082

Date(s) Reviewed by the Committee on Historic Designation: October 16, 2024

Date(s) Reviewed by the Historical Commission: November 8, 2024

Date of Final Action:

☐ Designated ☐ Rejected

5. Boundary Description

All that certain lot or piece of ground with the buildings and improvements thereon erected, described as follows: Beginning at a point on the Northwest side of Locust Avenue at the distance of 273 feet Southwestwardly from the Southwest side of Magnolia Avenue; Containing in front or breadth on said Locust Avenue 90 feet, 7-1/4 inches and extending of that width between parallel lines in length or depth Northwestwardly on the Northeast line thereof 433 feet, 7 inches, and on the southwest line thereof 433 feet, 4-1/2 inches to Woodlawn Street.

Property Boundary Map (Imagery from atlas.phila.gov)

OPA Account# 122070005

6. Physical Description

The Edwin T. Chase House is a 2 ½-story, Italianate-style stone house on the northwest side of Locust Avenue in Germantown, roughly halfway between East Armat Street and Magnolia Street. Designed by the architect John Riddell, the house was built for prominent Philadelphia lawyer Edwin T. Chase in 1861. The house consists of two sections: the main 2 ½-story front block, and the 1- and 2-story rear ell.

The property on which the house stands is narrow and long, measuring about 90'-wide and extending approximately 433' from Locust Avenue to East Woodlawn Street in the rear. The house is located at the Locust Avenue end, about 50' in from the sidewalks, which are concrete. An asphalt driveway, which is accessed via a curb cut on Locust Avenue, extends along the northeast side of the property, roughly to the midpoint of the 2 ½-story main block. Otherwise, the area between the street and the house consists of a grass lawn, which contains a semi-circular asphalt walkway that connects to the driveway. A low wrought iron fence separates the property from the sidewalk. Along the northeast and southwest sides of the property, there are modern, white vinyl fences that extend to the rear (northwest) elevation. At the rear of the house, the property primarily consists of a grass lawn, which slopes down gently toward Woodlawn Street and is lined by medium to large-sized trees on both sides.

Figure 1: South and east elevations, looking northwest from Locust Avenue. Photo taken August 13, 2024.

<u>Main Block</u>

The 2 ½-story main block is roughly square in plan and has exterior walls of quarried stone, a prominent bracketed, painted wood cornice on all four elevations, and a low, pyramidal roof with an original belvedere, which also has a pyramidal roof, in the center.

The south elevation, which faces Locust Avenue, is three bays wide. On the first story, there is an original porch that was partially enclosed with walls clad in vinyl siding and containing vinyl

double-hung windows and a glazed viny-clad door. The roof of the porch appears to be historic, but the one visible column at far left (the south corner), is Colonial in style and is a later replacement. The original entrance in the center bay and the two original windows on either side are not currently visible. On the second story, there are three 1-over-1, double-hung replacement windows with non-historic metal grates or screens in front of them. On the third story, the center bay contains a pair of small, single-light arched wood windows, which are original. The other two bays have matching original window openings, but here the openings have been infilled with painted plywood panels to support air conditioning units.

Figure 2: South and west elevations, looking northeast from Locust Avenue. Photo taken August 13, 2024.

The east and west elevations (the sides of the main block) are both three bays-wide and contain non-historic painted steel fire escapes. On the east elevation, the first story has three 1-over-1, double-hung replacement windows. The second story has a 1-over-1 window in the southernmost bay, but the center bay is blank and the northernmost bay contains a non-historic door that opens to the fire escape. The third story contains another non-historic fire escape door in the southernmost bay, a pair of blind arched openings in the center bay, and a pair of small arched windows in the northernmost bay matching those on the south elevation. On the west elevation, both the first and second stories have 1-over-1, double-hung replacement windows in the southernmost and northernmost bays. The second story also has a non-historic fire escape door between the two windows. A similar fire escape door is found in the southernmost bay on the third story. As on the east elevation, there is a pair of blind arched openings in the center bay and a pair of small arched windows in the northernmost bay matching those on the south elevation.

The north elevation of the main block is largely covered by non-historic enclosed porches at the first and second stories as well as a stucco-clad elevator tower that extends well above the roofline. The only visible historic window openings are the pairs of small arched windows in the

easternmost and westernmost bays, on either side of the elevator tower, which match those on the other elevations at the third story.

The belvedere at the center of the roof is square in plan, framed in wood, and has some type of painted siding. All four elevations have a pair of 1-over-1, double-hung replacement windows with arched upper sashes. The belvedere has a bracketed wood cornice, which is painted, and a low pyramidal roof.

Figure 3: East elevation, looking northwest from Locust Avenue. Photo taken August 13, 2024.

Rear Ell

The rear ell extends northward from the easternmost bay of the main block, and the east elevations of the two are flush. The two-story section of the rear ell has exterior walls of quarried stone, which matches the stone found in the main block. The one-story section that comprises the northernmost bay of the rear ell has wood framed walls, which are clad in non-historic painted siding (material unknown) that sit atop stone walls that form the exposed basement level. On the east elevation, the two-story section of the rear ell has a pair of 1-over-1, double-hung replacement windows on both stories. All three elevations of the one-story section also have the same window type (a single unit on each elevation). The exposed basement level of the one-story section also has windows on all three elevations, but the configuration is not known. The north elevation of the two-story section, which is visible only above the one-story section, consists of a blank stone wall with no openings. On the west elevation of the two-story section, the northernmost bay has 1-over-1, double-hung replacement windows on both stories, but the remainder of the west elevation is covered by the elevator tower.

Figure 4: North elevation, looking south from the rear of the property. This photo is taken from a 2015 real estate listing. The nominator did not gain access to the property.

7. Statement of Significance

The Edwin T. Chase House is a highly characteristic example of the work of John Riddell (1814-1873), one of the most prolific residential architects in mid-nineteenth century Philadelphia. Built in 1861, this three-story, Italianate-style house exemplifies Riddell's own particular brand of the domestic pattern book architecture that defined the era, especially in Germantown, which began to coalesce into one of Philadelphia's first suburban communities beginning in the 1840s. Appearing in Riddell's 1861 pattern book, *Architectural Designs for Model Country Residence*s, which has been called "one of the handsomest American books of architecture published in the nineteenth century," the Edwin T. Chase House illustrates Riddell's practical and market driven approach to suburban house design. Looking past the picturesque ideal promulgated by the influential landscape designer Andrew Jackson Downing in the 1840s, Riddell was more attuned to the realities of the housing market and to client needs. Instead of the rambling and often highly individualistic Gothic Revival and Italianate houses put forward by Downing and others in dozens of pattern books, Riddell produced a catalog of standardized, straightforward plans and a system of interchangeable decorative parts, predominantly in the Italianate style. Riddell's *Architectural Designs*, which was reprinted in two later editions, in 1864 and 1867, appealed more broadly to a market in which houses were often built as speculative investments and to a newly mobile population of homeowners who might only stay in one house for a few years. For this reason, Riddell became one of the most popular architects specializing in suburban houses in and around Philadelphia during the 1850s and 1860s, especially in Germantown where he completed at least twelve commissions.

The Edwin T. Chase House at 449 Locust Avenue merits listing in the Philadelphia Register of Historic Places by satisfying the following criteria as established in the Philadelphia Historic Preservation Ordinance §14-1004 (1):

Criterion C
Reflects the environment in an era characterized by a distinctive architectural style;

Criterion D
Embodies distinguishing characteristics of an architectural style or engineering specimen; and

Criterion E
Is the work of a designer, architect, landscape architect or designer, or engineer whose work has significantly influenced the historical, architectural, economic, social, or cultural development of the City, Commonwealth or Nation.

Overview
The Edwin T. Chase House was designed by John Riddell (1814-1873), a Philadelphia-born builder who became one of the most prolific commercial and residential architects in the city and surrounding region during the mid-nineteenth century. As a partial list of clients in his 1861 pattern book, *Architectural Designs for Model Country Residences,* demonstrates, during the first fifteen years of his career Riddell had at least 137 clients, about half of whom hired him to design suburban or country houses in the Philadelphia region. Despite the success of his practice and the prolific nature of his work, firm attributions to Riddell are scarce, particularly among his residential projects. Until recently, the Edwin T. Chase House had not been attributed to Riddell. However, all evidence points to this Italianate villa as being a highly characteristic example of Riddell's domestic work, one that was among the final residential projects he completed during his relatively brief career.

In nearly every respect, the Edwin T. Chase House matches the plans and elevation of Riddell's Cottage No. 11 in his *Architectural Designs* (Figs. 5 and 6). As a sketch plan from a 1963 zoning permit application shows, the footprint of the house matches Riddell's plans and comes to within mere inches of the dimensions specified by him (Fig. 7). Additionally, the current placement of the windows on the front and side elevations (those visible from Locust Avenue), is the same as in Riddell's plans. Although Riddell's rendered elevation suggests a stucco facade, the written specifications for Cottage No. 11 do not mention stucco, only that the exterior walls were to be "composed of quarried building stone," which matches the extant exterior walls (see Appendix). This discrepancy is probably explained by the fact that reproducing the variegated color and texture of natural stone in a chromolithograph would have added greatly to its expense. In addition to these similarities, the existing cornice brackets along the eaves closely match the profile of those depicted in Riddell's elevation.

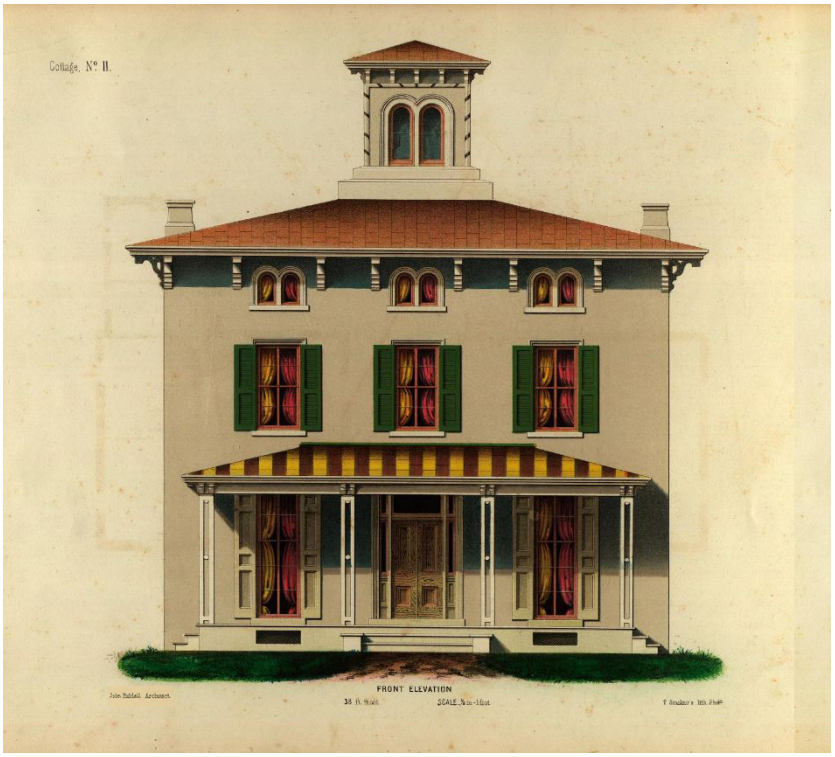


Figure 5: Lithograph elevation of Cottage No. 11 from John Riddell's *Architectural Designs for Model Country Residences*, published in 1861. This design was used for the Edwin T. Chase House.

The attribution of 449 Locust Avenue to Riddell remains compelling beyond its physical appearance. Riddell writes in the explanatory text for Cottage No. 11 that the house "is now nearly finished in Germantown, for a gentleman living in the city of Philadelphia" (see Appendix). While Riddell does not name Chase in the text, the name "Edmund G. Chase" appears in the client list at the end of his book. A misnomer, Edmund G. Chase was almost certainly intended to be Edwin T. Chase, who acquired 449 Locust Avenue (then called Armat Street) in January 1857.[1] Notably, no one by the name of Edmund G. Chase appears in any Philadelphia directory or in U.S. census records from the city during the mid-nineteenth century period. Chase and his family remained at 449 Locust Avenue for several decades as historic maps, city directories, and later deeds demonstrate (Fig. 8).

[1] Horatio S. Stephens to Edwin T. Chase, Deed Book R.D.W.:102, p. 451, January 1, 1857.

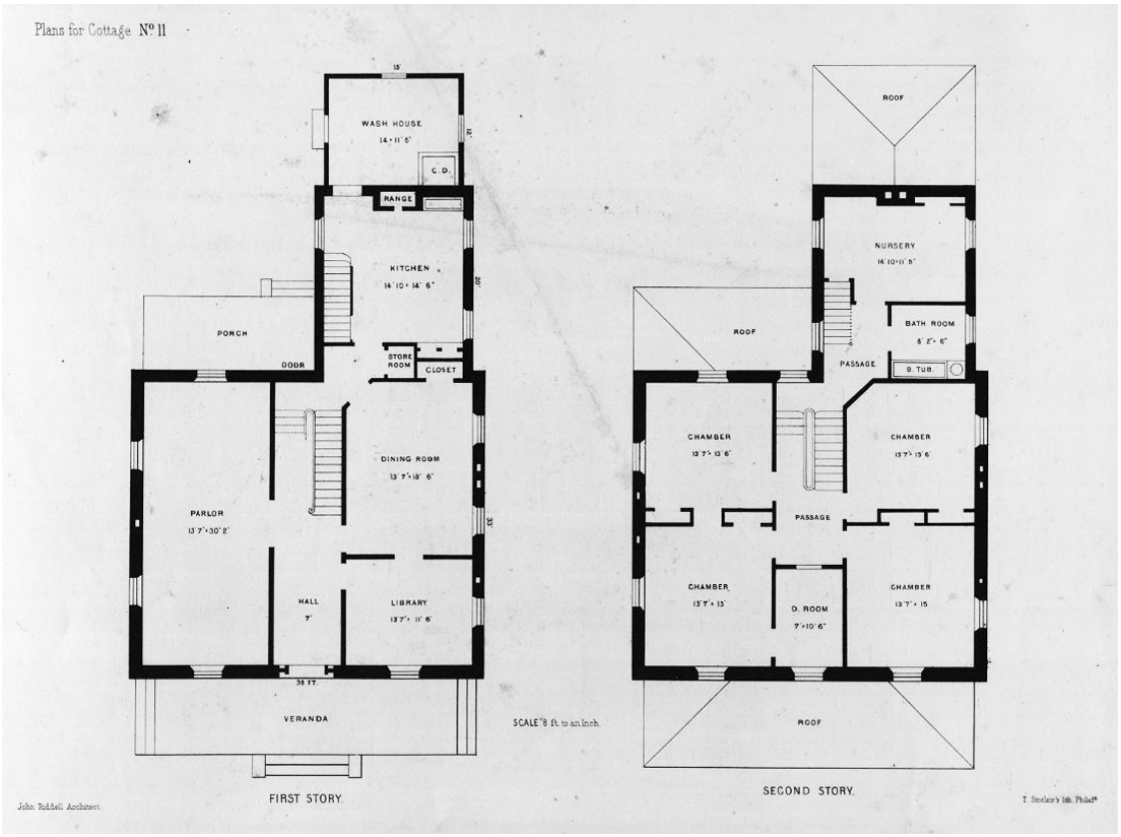


Figure 6: Floor plans of Cottage No. 11 from John Riddell's *Architectural Designs for Model Country Residences*, published in 1861. This design was used for the Edwin T. Chase House.

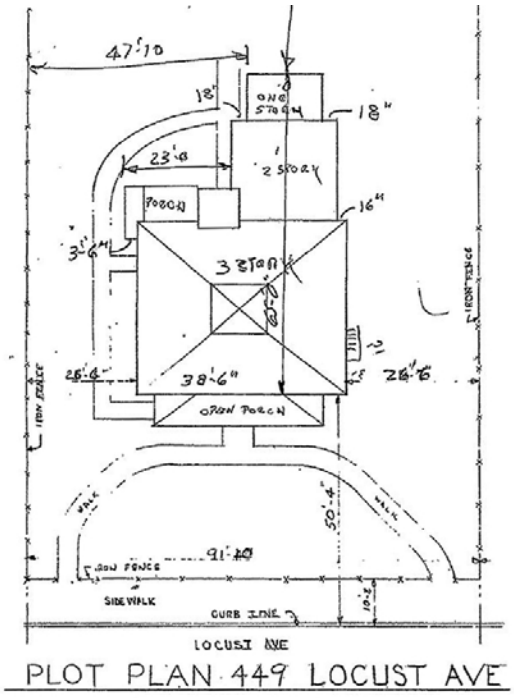


Figure 7: Sketch plan of the property from a 1963 zoning permit application.

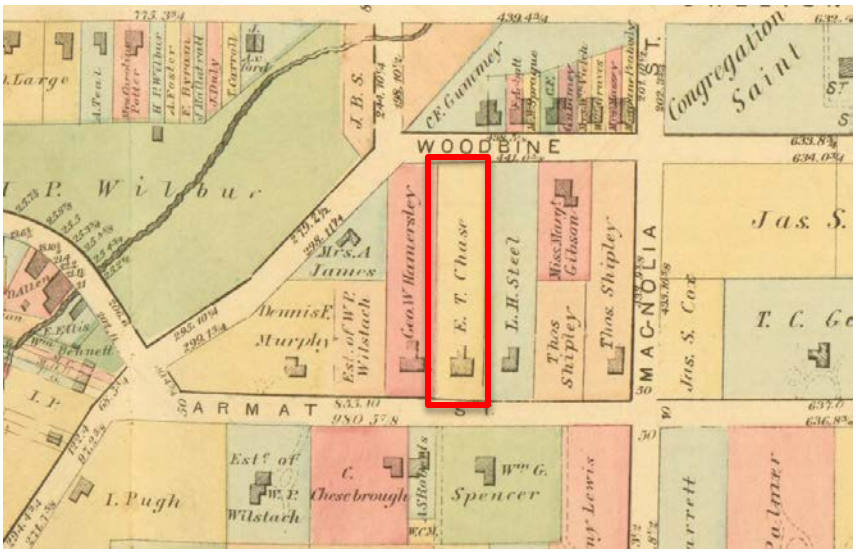


Figure 8: Here the Edwin T. Chase property is seen in the Atlas of Germantown, published by G.M. Hopkins in 1871 (from philageohistory.org). Armat Street was renamed Locust Avenue in 1867, but this change was not reflected in this atlas.[2]

Edwin T. Chase owned 449 Locust Avenue until his death in 1881. The Chase family continued to own and live in the house until 1883, when they sold the property to manufacturer James G. Kitchen.[3] The Kitchen family remained in the house until 1921, when it was sold to a new owner who continued to use the property as a private residence. In 1932, the property was again sold and became a home for elderly women associated with the St. Vincent DePaul Church, a Roman Catholic parish in Germantown. Under this use, the building was known as St. Anne's Home – Villa Laboure. In recent decades, the building continued to be used as a church-related residence but may now be vacant.

<u>Suburban Development in Germantown, 1850-1870</u>

The German Township, a 5,000-acre tract of land about six miles northwest of the City of Philadelphia, was first settled in 1683 after William Penn granted it to a group of German, Dutch, and English settlers. Over the following decades and century, a village known as Germantown developed along the main road that bisected the area from southeast to northwest. Later known as Germantown Avenue, this road was the region's only means of accessing the city. Away from the main road, however, the German Township was sparsely settled. Apart from a number of country houses built by wealthy Colonial merchants during the mid- to late-eighteenth century and a few small pockets of industrial activity, the area was primarily home to artisans, tradesmen, and agricultural workers and remained mostly rural in character. Beginning in the mid-nineteenth century, however, the arrival of new forms of transportation, particularly the steam railroad and horse-drawn streetcar, promised to dramatically transform the region into Philadelphia's first railroad suburb.

Germantown was first connected by rail to the City of Philadelphia in 1832. That year, the Philadelphia, Germantown & Norristown Railroad, one of the earliest railroads in North America, began service from its depot at 9th and Green Streets in the city to a station at Germantown Avenue and Price Street. Primarily intended to haul freight, the new railroad initially had very little impact on residential development in Germantown. By the late 1840s, however, as the railroad

[2] "City Intelligence," *Evening Telegraph*, October 25, 1867.
[3] Estate of Edwin T. Chase to James G. Kitchen, Deed Book J.O'D.:113, p. 508, June 14, 1883.

began to grasp the commercial potential of passenger service to the area, trains became more comfortable for people and service more frequent and reliable. With better transportation connections to the city, prosperous Philadelphians began to build summer and weekend homes in and around Germantown in greater numbers, especially in the vicinity of the train station. On either side of Germantown Avenue, new streets were laid out as property owners subdivided their land into smaller parcels where the newcomers built their seasonal retreats, planting the seeds for what eventually became a true suburban community of permanent, full-time residents.

In 1854, the same year the Act of Consolidation joined the City of Philadelphia with its many outlying districts, including Germantown, the railroad was extended beyond Price Street for the first time. Now, as the railroad reached Chestnut Hill and destinations beyond, the suburbanization of Germantown gained momentum, making the northwestern path of the railroad what historian Kenneth T. Jackson has called the "most important axis of growth" in mid-nineteenth century Philadelphia.[4] For some time, development was largely confined to within the first two blocks on either side of Germantown Avenue, but expanded outward as the years progressed. Some of the most heavily built-up areas by 1860 were East and West Walnut Lane, Tulpehocken Street, and Washington Lane where dozens of large suburban villas in the popular Italianate and Gothic Revival styles had been built over the preceding decade. These houses were no longer intended to be summer or weekend retreats, but rather formed a permanent, year-round suburban community. By and large, those who moved to Germantown during the 1850s and 1860s still worked in the city, taking advantage of the railroad and, beginning in 1859, new horse-drawn streetcar lines, to commute to their jobs. In this way, Edwin T. Chase (c. 1820-1881), who built the house at 449 Locust Avenue in 1861, was fairly typical. A prominent attorney, Chase maintained an office at 6th and Walnut Streets in Center City during the entire period of his residency in Germantown.[5]

Figure 9: This excerpt of the Map of the Township of Germantown, published by A.E. Rogerson and E.J. Murphy in 1851, shows development clustered along the central part of Germantown Avenue and some new suburban houses along the adjacent side streets.

[4] Kenneth T. Jackson, *Crabgrass Frontier: The Suburbanization of the United States* (New York: Oxford University Press, 1987), 23.
[5] A. McElroy & Co., *McElroy's Philadelphia City Directory, Twenty-Fifth Edition* (Philadelphia: E.C. & J. Biddle & Co., 1862), 108; *Gopsill's Philadelphia City Directory for 1879* (Philadelphia: James Gopsill's Sons, 1879), 315.

A variety of social and economic factors influenced the suburbanization of Germantown. During the mid-nineteenth century, as cities like Philadelphia industrialized, they became more crowded, polluted, and unsanitary. These conditions led to a growing hostility toward cities and a corresponding idealization of the family home as a private retreat and a "bastion against society, a place of refuge," in the words of Jackson. Seeking an escape from the perceived ills of urban life, Americans increasingly looked to the periphery. In sparsely settled areas away from the crowded city but still in easy reach of it, those with the means to do so built large homes surrounded by lawns, creating "private wonderland[s] walled off from the rest of the world," as Jackson writes.[6]

The new suburban domestic ideal was shaped in large part by the landscape designer Andrew Jackson Downing (1815-1852). In several influential publications, including *Cottage Residences* (1842) and *The Architecture of Country Houses* (1850), Downing stressed the importance of the relationship between the built and natural environments. In Downing's view, the private family home, when set within spacious, well landscaped grounds, fostered good character, good morals, and good citizenship, a concept that captivated a generation of city-weary Americans.[7] In Philadelphia during the mid-nineteenth century, those with the means to escape the city and pursue the suburban ideal often looked to Germantown because it was now easily accessible by rail and offered abundant land for development. In Germantown as in other early suburbs, the upwardly mobile middle class was guided by Downing's philosophy, which "created a suitable living environment" and "promoted order and culture to the community at large."[8]

To the Philadelphia diarist Sidney George Fisher (1809-1871), however, Germantown in the 1850s was more than just a suitable living environment that promoted order and culture. Recounting a visit to the former borough in July of 1859, Fisher wrote that Germantown's streets were "Now lined with cottages & villas, surrounded by neat grounds, trees, shrubbery & flowers, many of them costly and handsome, all comfortable and pretty." To Fisher, Germantown's new suburban dwellings, among which the Edwin T. Chase House would soon be included, represented a radical, overwhelmingly positive transformation in how Philadelphians were choosing to live. The advantages were obvious, Fisher wrote,

> …that this villa & cottage life has become quite a passion and is producing a complete revolution in our habits. It is dispersing the people of the city over the surrounding country, introducing thus among them, ventilation, cleanliness, space, healthful pursuits, and the influences of natural beauty, the want of which are the sources of so much evil, moral & physical, in large towns.[9]

Architectural Pattern Books in the Mid-Nineteenth Century

The growth of Germantown and other early suburbs in the mid-nineteenth century occurred roughly concurrently with the proliferation of the architectural pattern book. In its most basic form, the architectural pattern book was a published compilation of an architect's designs, usually houses, which were presented in various perspective views and floor plans in the form of engravings or lithographs. Usually, the architect provided some explanatory text for each design, and it was also common for the author to expound more broadly on historical, theoretical, and/or

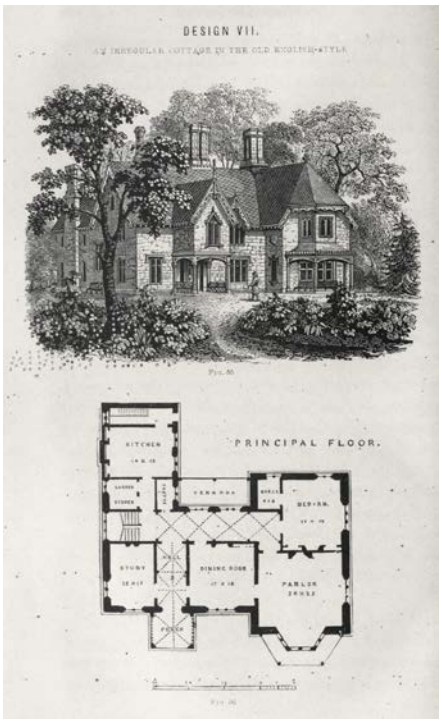
[6] Jackson, 58.
[7] Jackson, 63-66.
[8] Claire Colcord, Louise Strawbridge, and Ilene Blaine, Tulpehocken Station Historic District, National Register of Historic Places Nomination Form, 1984 (NRHP Ref No. 85003564).
[9] Sydney George Fisher, *A Philadelphia Perspective: The Diary of Sidney George Fisher, 1834-1871*, ed. Nicholas B. Wainwright (Philadelphia: Historical Society of Pennsylvania, 1967), 316, 327-28.

philosophical matters related to domestic buildings and their relationship with the surrounding landscape. To most architects who published pattern books, these volumes served as marketing devices by presenting their portfolio of work to a wide audience. As architectural historian Eryn Colleen Boyce argues, architects also frequently used pattern books "to advocate for the professionalism of architecture and to convince the general public of the necessity of hiring these new professionals" at a time when most architecture was still being produced by manual tradesmen.[10]

The first American books of architecture, such as Asher Benjamin's *Country Builder's Assistant*, published in 1797, and John Haviland's *The Builder's Assistant*, published in 1818, were not pattern books aimed at a general audience. Rather, as architectural historian Dell Upton writes, they were "intended to codify and extend the craftsman's knowledge and thus to protect his position in an increasingly competitive building market."[11] With the rise of the professional architect beginning in the early-nineteenth century, however, the nature of American architectural books began to change dramatically. In an effort to persuade the public that their expertise was necessary in the design and construction of a suitable home, architects began to compile and publish volumes aimed directly at the clients who would hire them. These books were abundantly illustrated with views and plans of model homes and featured "extensive theoretical commentary designed to sway the reader's judgment rather than to teach professional skills and attitudes."[12] The first of such pattern books was *Rural Residences*, authored by the New York architect Alexander Jackson Davis (1803-1892) in 1837.

Following Davis' pioneering work, a flood of residential pattern books became available in the United States, especially after 1850. As documented by Upton, between 1797 and 1860, 188 architectural books were issued by American publishers, 93 of which were printed between 1850 and 1860.[13] Among the most influential pattern books were those published by Andrew Jackson Downing during the 1840s and 1850s, including *Cottage Residences* (1842) and *The Architecture of Country Houses* (1850). In each volume, Downing included a number of engraved views and floor plans of houses that he felt best illustrated the domestic ideal for which he was striving. Produced by the New York architects Calvert Vaux (1803-1892) and Alexander Jackson Davis (1803-1892), but also occasionally by others, including the Philadelphia architect John Notman (1810-1865), the model homes that appeared in Downing's pattern books covered a range of styles, from the Gothic cottage to the Italianate villa, and were uniformly picturesque, with irregular, asymmetrical forms that integrated into their natural settings (Figs. 10 and 11). These images became widely influential in the development of the nation's first suburban communities.

[10] Eryn Colleen Boyce, "The Riddell of Modern Architecture: Defining the Profession in the Mid-Nineteenth Century," M.S. thesis (University of Pennsylvania, 2015), 117.
[11] Dell Upton, "Pattern Books and Professionalism: Aspects of the Transformation of Domestic Architecture in America, 1800-1860," *Winterthur Portfolio* (Summer-Autumn 1984), 107.
[12] Upton, 122.
[13] Upton, 108.



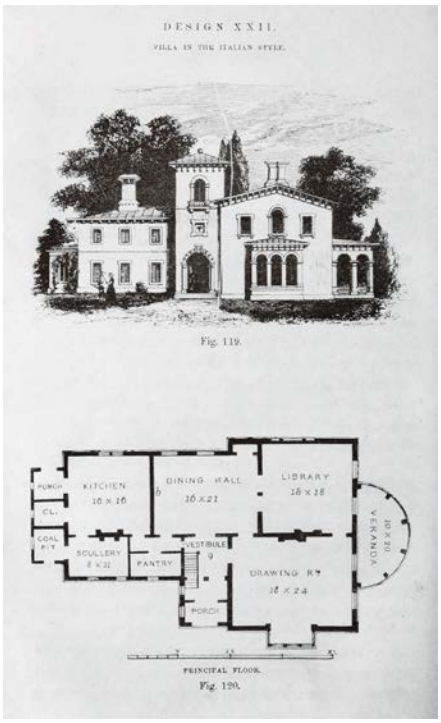


Figure 10: An "Irregular cottage in the Old English Style" from Downing's *Cottage Residences* (1842).
Figure 11: A "Villa in the Italian Style" from Downing's *Architecture of Country Houses* (1850).

Davis and Downing inspired a host of imitators during the 1850s and 1860s, including a number of Philadelphians whose pattern books became some of the most popular nationally during this period. The first Philadelphia pattern book was *Two Hundred Designs for Cottages and Villas*, compiled in 1842 by architect Thomas U. Walter (1804-1887) along with John Jay Smith (1798-1881). Rather than featuring Walter's own work, however, Walter and Smith presented an "unabashed sampling of English pattern books" alongside houses designed by then lesser-known Philadelphia architects, including James C. Sidney (c. 1819-1881) and Gordon Parker Cummings (c. 1809-1889). In 1850, Sidney published his own book, *American Cottage and Villa Architecture*, which depicted numerous completed projects in the Philadelphia region and on Long Island. Like the model homes appearing in Downing's pattern books, many of those in Sidney's volume were picturesque in their effect, featuring irregular massing that neatly tied into the surrounding landscape (Fig. 12).

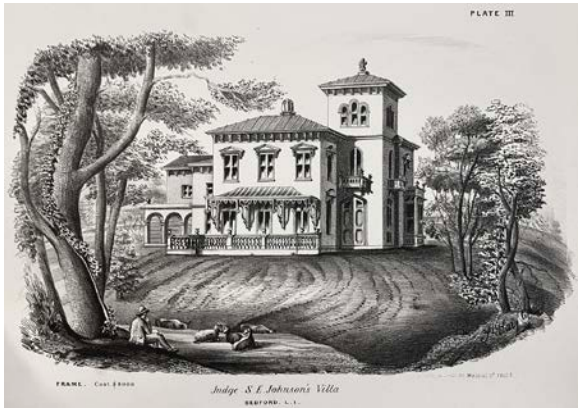


Figure 12: A villa for Judge S.E. Johnson on Long Island, from J.C. Sidney's *American Cottage and Villa Architecture* (1851). This image was taken from a copy in the collection of the Athenaeum of Philadelphia.

The most prolific Philadelphia author of residential pattern books, and the most similar to John Riddell, was Samuel Sloan (1815-1884). Like Riddell, Sloan began his career as a builder, transitioning to architect around 1850. In 1852, Sloan published *The Model Architect*, which set a new standard for pattern books by being both practical and beautiful, a standard which Riddell would later follow in his *Architectural Designs*. Richly illustrated with large-format lithographs and printed on heavy paper, *The Model Architect* was also extremely thorough in a way the pattern books of Davis, Downing and others were not, containing "many scaled details, complete lists of quantities, specifications for materials, and cost estimations."[14] Sloan's pragmatic approach extended to the layout and design of the houses he presented to his readers. Always attuned more to client needs than to theoretical or philosophical ideals, many of the homes illustrated in *The Model Architect* were straightforward in their massing, often symmetrical, and had plans which Sloan contended were more convenient and comfortable for their occupants, not to mention more cost effective to build (Fig.13). With *The Model Architect* and other, later works, all of which were commercially successful, Sloan played a major role in shaping suburban domestic architecture in the Philadelphia region and throughout the nation during the mid-to-late-nineteenth century.

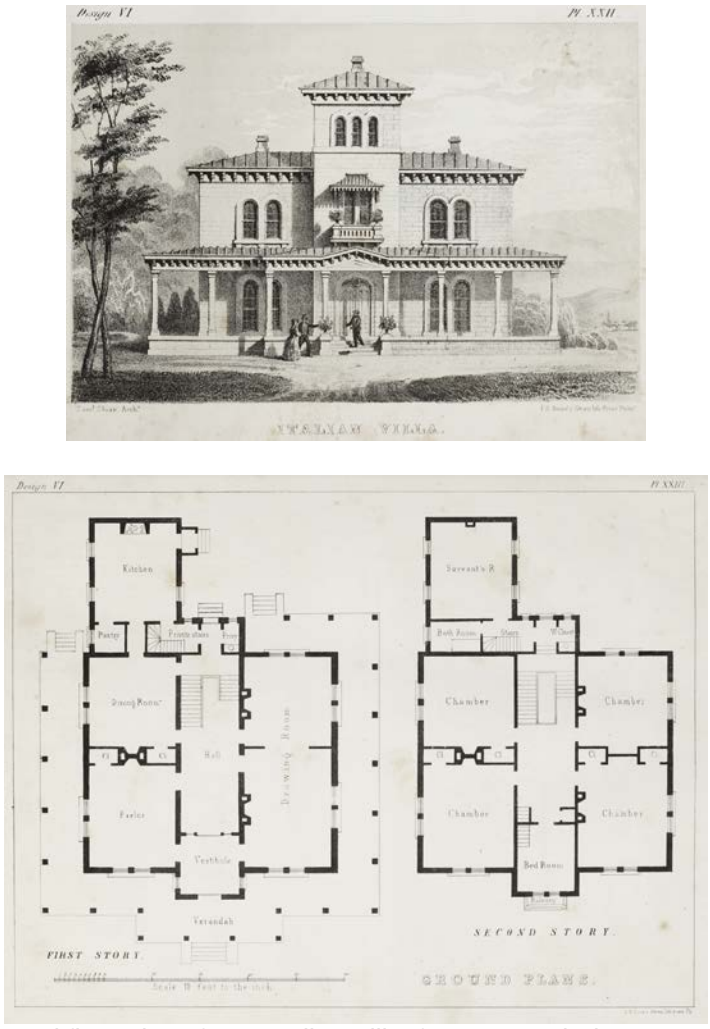


Figure 13: Elevation and floor plans for an Italian Villa, from Samuel Sloan's *Model Architect* (1852).

[14] Howard N. Cooledge, Jr., *Samuel Sloan: Architect of Philadelphia, 1815-1884* (Philadelphia: University of Pennsylvania Press, 1986), 36.

Following in Sloan's footsteps, Riddell's *Architectural Designs* departed even more radically from the standard pattern book format established by Davis and Downing. Riddell himself was "well aware," he wrote,

> that a great many persons have been led astray by various works treating on Rural Architecture, which have given estimates on the cost of dwellings, which, when owners have had completed according to their designs and specifications, far exceeded in cost the price published, and without having the convenience or appearance that was represented.[15]

As Boyce explains, *Architectural Designs* "served the practical purpose of showcasing Riddell's work and advertising his services instead of seeking to provide the American public with a comprehensive architectural education or to advocate for the professionalization of architecture."[16] Rather, *Architectural Designs* contained only the essential information required to complete one of the houses contained therein, with elevations, plans, and detailed written specifications but none of the history, theory or philosophy found in preceding pattern books, including those of Sloan. At the same time, *Architectural Designs* was extremely beautiful, with the elevations being represented in twenty large-format, full-color lithographic plates, an expensive form of illustration that brought the cost of Riddell's book to fifteen dollars, a significant sum in 1861. Not even Sloan's illustrations matched the visual appeal of those in *Architectural Designs*, which the architectural historian Roger W. Moss has called "one of the handsomest American books of architecture published in the nineteenth century."[17]

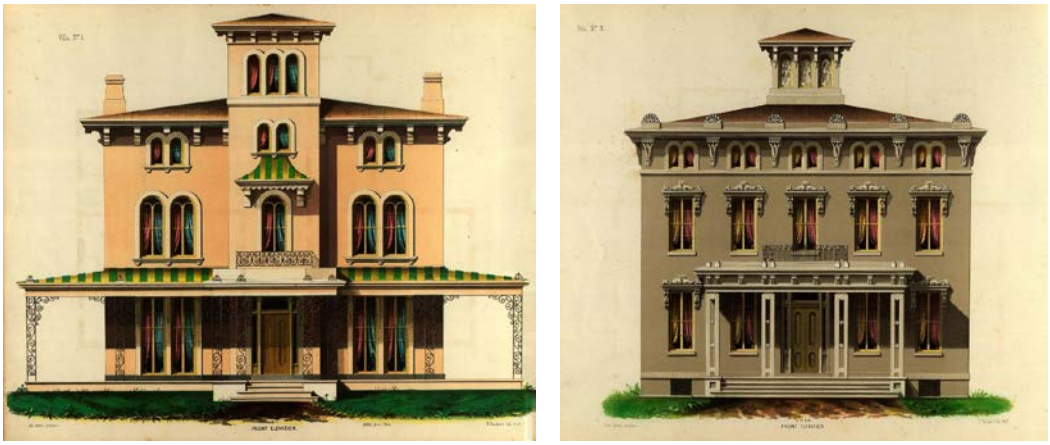


Figure 14: Two Italianate houses, Villas No. 1 and 3, from Riddell's *Architectural Designs* (1861).

Apart from its visual appeal, *Architectural Designs* is significant because it represented a more standardized form of the pattern book house, one that was tailored to the realities of the suburban housing market. As architectural historian Nancy A. Holst explains,

> Because Riddell provided straightforward elevation drawings of his facades, rather than perspective views with the pictorial and narrative qualities more common to pattern books of the era, his drawings provided an easily legible catalog of

[15] John Riddell, *Architectural Designs for Model Country Residences* (Philadelphia: Lindsay & Blakiston, 1861), preface.
[16] Boyce, 116.
[17] Sandra L. Tatman and Roger W. Moss, *Biographical Dictionary of Philadelphia Architects: 1700-1930* (Boston: G.K. Hall, 1985), 660.

> architectural parts, illustrating popular varieties of windows, dormers, porches, towers, observatories, and other ornamental details, many of which appear in various combinations on houses built in Germantown. Most of his plans and facades betray a limited number of basic templates, on which a host of details are used interchangeably.[18]

An example of the interchangeable aspect of Riddell's house designs was the home of leather merchant George W. Hummell at 6201 Wayne Avenue (corner of Tulpehocken Street), built in 1858. As Boyce points out, this house, now demolished, used a variation of the design for Villa No. 4, replacing the square tower with an octagonal observatory and using the interior plan for Villa No. 6 (Figs. 15 and 16).[19]

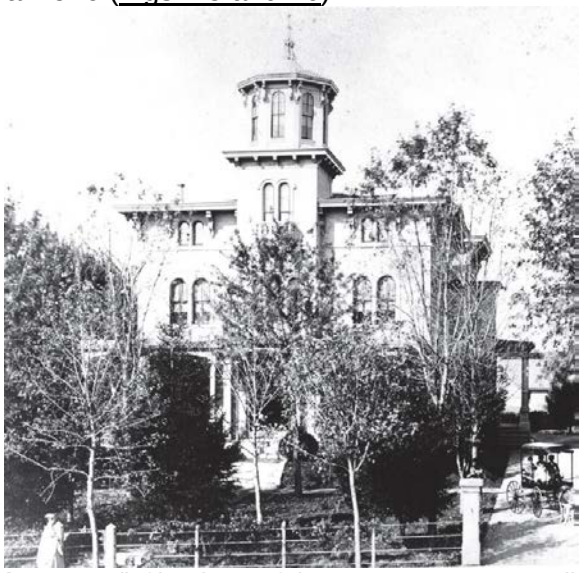


Figure 15 (left): Photo of the George W. Hummell House at 6201 Wayne Avenue, designed by Riddell and built in 1858. Now demolished. Image from the Germantown Historical Society.
Figure 16 (right): Elevation of Villa No. 4, on which the Hummell house was base, from Riddell's *Architectural Designs* (1861).

Stylistically, the houses Riddell featured in *Architectural Designs* were overwhelmingly Italianate in style. Downing and Sloan had already established their preference for the Italianate in suburban rather than rural settings where they favored the Gothic Revival. As Downing wrote, the Italian style "expresses not wholly the spirit of country life nor of town life, but something between both, and which is a mingling of both."[20] Likewise, Sloan suggested that the Italian villa was the most appropriate for "one accustomed to city life" and that it "should not be in the depths of the forest, but near some frequented highway within a few miles of the city."[21] Although Riddell's houses largely conformed to the taste for Italianate villas in the suburbs, they did not replicate the picturesque forms so common in other pattern books. Rather, the majority of the houses in *Architectural Designs* appear to have been influenced by the simpler lines and massing of the urban palazzo of the Italian Renaissance, a type first introduced to the United States by John Notman with the Athenaeum of Philadelphia in 1845 (Fig. 17). Always focused on practicality,

[18] Nancy A. Holst, "Pattern Books and the Suburbanization of Germantown, Pennsylvania in the Mid-Nineteenth Century," PhD diss., (University of Delaware, 2008), 267.
[19] Boyce, 79.
[20] Andrew Jackson Downing, *The Architecture of Country Houses* (New York: D. Appleton & Co., 1850), 286.
[21] Samuel Sloan, *The Model Architect* (Philadelphia: E.S. Jones & Co., 1852), 12.

Riddell demonstrated in his pattern book and built work that the straightforward, symmetrical composition of the urban palazzo, as represented by the Athenaeum, could be adapted to suburban domestic settings, making houses easier and cheaper to build.

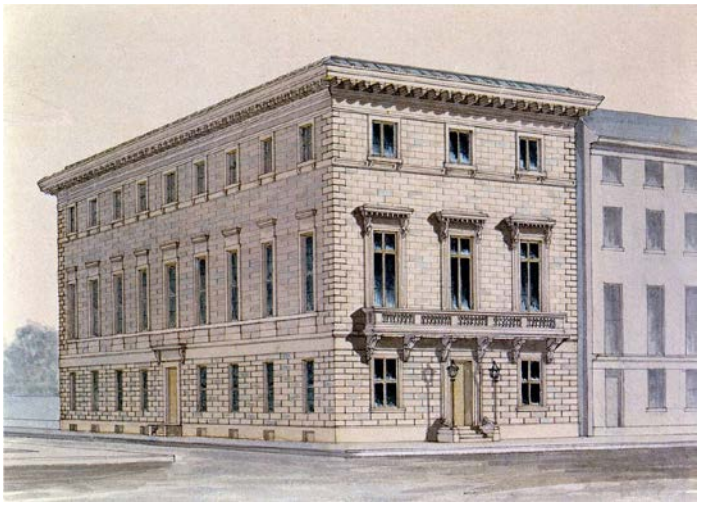


Figure 17: Lithograph illustration of the Athenaeum of Philadelphia (from the Athenaeum).

The practicality reflected in *Architectural Designs* positioned Riddell's pattern book in direct opposition to those by Downing and others. Aware of the realities of the suburban real estate market, Riddell understood that picturesque, irregular forms were impractical to those planning homes as speculative investments, a common practice in Germantown during this period. Similarly, the individuality so common in houses from earlier pattern books did not suit an increasingly mobile population of homeowners. At the time, it was common for a family to occupy a home for only a few years, or an even shorter period, before moving and having to sell it to someone else. Riddell's templates, even when wrapped in fashionable Italianate details, were conventional in their overall forms. With simple, rectangular plans, cubic massing, and symmetry the houses featured in Riddell's *Architectural Designs* reflected an economy of form that appealed broadly to his conservative Philadelphia clients.[22]

Beyond their practicality, the Italianate houses featured in Riddell's *Architectural Designs* may also have appealed to Philadelphians for historical reasons, as Holst suggests. The majority, including the Edwin T. Chase House, had rectangular, center-passage plans that reflected long-established eighteenth-century forms and varied little from house to house. On the exterior, too, despite being strongly oriented toward the Italianate style, Riddell's facades retained the symmetry and cubic form of earlier Georgian and Federal-style houses. In this way, as architectural historian Nancy Holst argues, Riddell's houses "made allusions to Philadelphia's acclaimed history of elite country houses," especially in Germantown where there were so many examples of this type.[23]

Whether for market or historical reasons, or both, the cubic Italianate dwelling became one of the most common and characteristic forms of housing in suburban Germantown in the 1850s and 1860s. Many examples remain standing today, especially along West Tulpehocken Street and West Walnut Lane. Most of these houses have not been attributed to a particular designer. While several well-known Philadelphia architects, such as Thomas U. Walter, are known to have

[22] Holst, 395; Boyce, 144-45.
[23] Holst, 259.

completed similar houses in the area, Holst contends that "none reflected the standardized character of Germantown's new houses as closely as John Riddell."[24] As discussed above, Riddell is known to have completed at least twelve houses in Germantown during the 1850s and 1860s, although only three – the Edwin T. Chase House being one of them – have been firmly established as his works.

John Riddell, Architect

Born in Philadelphia in 1814, John Riddell followed his Irish immigrant father, James Riddell, into the building trades and probably entered into a carpentry apprenticeship as a teenager.[25] Little is known about Riddell's early years. He first appears in local directories as a carpenter, a term then synonymous with builder, in 1835, when he was living at 2nd and Phoenix (now Thompson) Streets.[26] By 1845, Riddell started to advertise himself in the *Public Ledger* as an architect, one "prepared to execute Architectural Drawings and Designs on the most approved style for buildings in town or country."[27] Almost nothing is known about Riddell's transition from a carpenter to an architect, but in redefining himself professionally he was following in the footsteps of a long line of Philadelphia architects, including men like Robert Smith (1722-1777) and Thomas U. Walter (1804-1887), who began their careers in the manual building trades. Like many of his predecessors, Riddell had a limited amount of education in the field. In one 1846 advertisement in the *Public Ledger*, Riddell claimed to have "recently spent two years in Europe in the study of Drawing and Practical Architecture."[28] Riddell's education otherwise remains a mystery, but he apparently felt it was sufficient to try his hand at the practice of architecture following his return to the United States.

Riddell quickly achieved success as an architect. In what may have been his very first commissions, Riddell was hired in 1846 to complete alterations to the Zion Lutheran Church, a late-eighteenth century building at the southeast corner of 4th and Cherry Streets in Old City, and in 1847 to rebuild the St. Paul's German Lutheran Church at North American and Brown Streets in Northern Liberties, which was built in 1840 but had recently been damaged by a lightning strike.[29] Both are now demolished, but Riddell's first full, ground-up church project, the First Presbyterian Church in Gloucester, New Jersey, built in 1848, remains standing today.[30]

Riddell attracted other church commissions in the coming years, but he soon became far better known as a designer of commercial buildings, especially in Old City where his office was located. During the mid-nineteenth century, newspapers like the Public Ledger, North American, and the Inquirer frequently reported on notable building projects in the city, particularly in Old City. At the time, Old City was undergoing a rapid transformation from a neighborhood of low, eighteenth-century houses and stores into a densely packed commercial district of larger, more architecturally formal mercantile buildings. Riddell, as evidenced by the regular mentions of his projects in the local press between 1848 and 1856, designed more than thirty such buildings in Old City, as well as many others in adjoining neighborhoods. Reflecting the standard urban commercial idiom of the period, virtually all were four to six-stories tall and Italianate in style. Most

[24] Holst, 266.
[25] Boyce, 58.
[26] *Desilver's Philadelphia Directory and Stranger's Guide for 1835 & 36* (Philadelphia: Robert Desilver, 1835), 152.
[27] John Riddell, advertisement, *Public Ledger*, April 8, 1845.
[28] John Riddell, advertisement, *Public Ledger*, October 26, 1846.
[29] Building Committee of Zion Lutheran Church, advertisement inviting bids for construction, *Public Ledger*, June 2, 1846; "St. Paul's Church to be Rebuilt," *Public Ledger*, August 21, 1847.
[30] Like Riddell's other church projects, the First Presbyterian Church appears in a list of clients and projects at the end of his 1861 pattern book, Architectural Designs for Model Country Residences.

featured imposing fronts built at least partially of cast iron, which was then gaining in favor as a means of replicating intricate architectural details at a lower cost than in natural stone. Exploiting the structural properties of the material, many of Riddell's cast iron fronts have large expanses of glass. As architectural historian Jeff Cohen writes, Riddell was one of the first architects in Philadelphia to use cast iron in this way, allowing him to "experiment with facades treated as a series of continuous vertical piers rather than as a mural plane into which the windows were cut."[31]

As one of the most represented architects in Old City during the mid-nineteenth century, Riddell played a major role in shaping the commercial streetscapes that remain an essential component of the neighborhood's character even today. There are at least ten extant examples of Riddell's work in Old City. Among the most prominent are the Bunn & Raiguel store, a five-story cast iron and brownstone building at 135-37 North 3rd Street, built in 1851; Johnson & Ely's dry goods warehouse, a five-story cast iron-fronted building at the southeast corner of 3rd and Arch Streets, built in 1852; and the five-story, cast iron-fronted brokerage house of E.W. Clark at 35 South 3rd Street, also built in 1852 (Fig. 18).[32]

Figure 18: Three commercial buildings in Old City, all designed by Riddell. From left to right: 135-37 N. 3rd Street (1851), the S.E. corner of 3rd and Arch Streets (1852), and 35 S. 3rd Street (1852).

While most of Riddell's early commissions were for stores and warehouses, he developed a reputation for being a versatile designer, producing buildings as varied as firehouses, hotels, and private residences. During the early 1850s, Riddell designed fire houses for as many as eight of the city's private, volunteer fire companies, including the Hibernia Engine Company, which hired Riddell in 1851 to design their new building near what is today South 3rd and Locust Streets (Fig. 19)[33]. The Hibernia Engine Company building, which no longer stands, was typical of Riddell's firehouse designs, which in many respects were similar to his Italianate-style mercantile buildings.

[31] James F. O'Gorman, Jeffrey A. Cohen, George E. Thomas, and G. Holmes Perkins, *Drawing Toward Building: Philadelphia Architectural Graphics, 1732-1986* (Philadelphia: University of Pennsylvania Press, 1986), 94.
[32] "Fine Improvements," *Public Ledger*, October 9, 1851; "Improvements," *Public Ledger*, July 1, 1852; "Iron Fronts," *Public Ledger*, October 1, 1852. All three projects appear in Riddell's client list in the 1861 edition of *Architectural Designs for Model Country Residences*.
[33] "Iron Buildings," *Public Ledger*, November 8, 1851.

Figure 19: Lithograph illustration of the Hibernia Engine Company, designed by Riddell in 1851. Now demolished. Image from the Library Company of Philadelphia.

Riddell again relied on the formal and decorative characteristics of the Italianate style in his design for the Bull's Head, also known as the Butchers' and Drovers' Hotel, at 65th and Vine Streets, built in 1855 but now demolished (Fig. 20).[34] This project, one of the largest ever completed by Riddell, was effectively an expanded version of the Italianate-style villas that eventually became the architect's primary focus by the mid-1850s.

Figure 20: The Bull's Head (aka Butchers' and Drovers' Hotel) at 65th and Vine, designed by Riddell in 1855. Now demolished. Image from the Library Company of Philadelphia.

[34] "Handsome Improvement," *Philadelphia Inquirer*, August 25, 1855.

Riddell began to design large houses in West and North Philadelphia as early as 1849, including several for clients for whom he had built stores and warehouses in Old City. Many of the local newspaper reports describing his commercial projects also regularly mentioned one or two residential commissions in outlying parts of the city, although these were always outnumbered by the former. But as Boyce writes, the nature of Riddell's work changed dramatically during the early 1850s "as residential commissions located in Philadelphia's rapidly growing middle- and upper-class suburbs came to dominate his practice."[35] In a self-produced album of his residential work that Riddell compiled in 1853 – it consisted of watercolor illustrations accompanied by handwritten explanatory text – the architect listed no fewer than twenty-eight clients for whom he had designed "country residences."[36] No longer confined to West and North Philadelphia, Riddell's residential work had started to appear in Germantown, Mount Airy, Norristown, Bristol, Wilmington, and even Virginia, demonstrating the broad appeal of his residential designs. While Riddell's clients were still predominantly from the city's expanding class of upper-middle class merchants and industrialists, he designed and built houses for a wide range of prominent figures. Among Riddell's early residential clients were the abolitionist (and later a U.S. Congressman) William Darrah Kelley (1814-90), for whom he built a "Grecian style" villa in West Philadelphia in 1850 (now demolished); the paper manufacturer Edwin R. Cope (1820-95), who hired Riddell to design his home on Tulpehocken Street in Germantown around 1852 (now demolished); and the cabinetmaker and land speculator Michael Bouvier (1794-1874), who commissioned Riddell to draw plans for an Italianate-style brownstone mansion on North Broad Street near Girard Avenue in 1853-55 (now demolished). With one exception – the Bouvier residence – Riddell does not attach clients' names to specific house designs (Fig. 21). Additional research would be required to determine if any of the houses remain standing today.

Figure 21: Michael Bouvier house on North Broad Street, designed by Riddell in 1853 and completed in 1855. Image from Riddell's *Designs for Cottage and Villa Architecture*, compiled in 1853.

[35] Boyce, 58.
[36] John Riddell, "Designs for Cottage and Villa Architecture," 1853. Currently in a private collection. Images from James E. Arsenault & Company: https://www.jamesarsenault.com/pages/books/3577/john-riddell/designs-for-cottage-and-villa-architecture-manuscript-title.

In 1861, Riddell published a pattern book, *Architectural Designs for Model Country Residences*, which was essentially an expanded version of his 1853 album. Riddell's book is discussed in greater detail above. As shown by the client list at the end of the book, Riddell's residential commissions had grown in number from twenty-eight in 1853 to more than sixty by 1861. The location with the greatest number of Riddell-designed suburban villas was Germantown where Riddell had completed at least twelve houses by 1861.[37] Other than the Edwin T. Chase House, which was built in 1861, the only known surviving examples of Riddell's residential work in Germantown are the two houses 149 and 155 West Walnut Lane, which were built for manufacturer and real estate developer Phineas F. Hagar in 1856. The Walnut Lane houses represent designs No. 2 and No. 16, respectively, from *Architectural Designs* (Figs. 22 and 23). Like the Chase house, both are two-and-a-half-story Italianate villas, three bays across, and cubic in their overall form (149 West Walnut Lane has some late-nineteenth-century alterations, especially on the front porch). As discussed above, another known but now demolished example of Riddell's residential work in Germantown was the home of leather merchant George W. Hummell at 6201 Wayne Avenue (corner of Tulpehocken Street).

Figure 22: At left, Villa No. 2 from Riddell's *Architectural Designs*. At right, a current-day photo of the house at 149 W. Walnut Lane, built in 1856. Extant.

Figure 23: At left, Cottage No. 16 from Riddell's *Architectural Designs*. At right, a current-day photo of the house at 155 W. Walnut Lane, built in 1856. Extant.

Despite the publication of Riddell's *Architectural Designs* in 1861 – it was the "monument of his career," as Boyce writes – this year proved to be the beginning of a gradual fade from active

[37] The 1861 client the list is not complete, therefore the number may have been greater.

practice. Because of the Civil War, few commissions came to Riddell in the coming years and his name appeared ever less frequently in local newspaper reports on building activities. Although *Architectural Designs* appears to have met with some success – it was reprinted twice, the later editions appearing in 1864 and 1867 – it is not clear to what extent it actually brought Riddell new commissions. There are no definitive records of Riddell completing any projects following the Civil War. Evidence suggests that Riddell may have experienced some degree of decline in mental health by the early 1870s.[38] Riddell died in Philadelphia in 1873.[39]

[38] John Riddell Death Certificate, June 25, 1873, 004010164, Pennsylvania, Philadelphia City Death Certificates, 1803-1915, Philadelphia City Archives and Historical Society of Pennsylvania, Philadelphia, PA, accessed August 9, 2024, https://familysearch.org/.
[39] Obituary of John Riddell, *Philadelphia Inquirer*, June 28, 1873.

8. Major Bibliographical References

Boyce, Eryn Colleen. “The Riddell of Modern Architecture: Defining the Profession in the Mid-Nineteenth Century.” M.S. thesis. University of Pennsylvania. 2015.

Cooledge, Howard N., Jr. *Samuel Sloan: Architect of Philadelphia, 1815-1884*. Philadelphia: University of Pennsylvania Press, 1986.

Downing, Andrew Jackson. *The Architecture of Country Houses*. New York: D. Appleton & Co., 1850.

Fisher, Sydney George. *A Philadelphia Perspective: The Diary of Sidney George Fisher, 1834-1871*, edited by Nicholas B. Wainwright. Philadelphia: Historical Society of Pennsylvania, 1967.

Holst, Nancy A. “Pattern Books and the Suburbanization of Germantown, Pennsylvania in the Mid-Nineteenth Century.” PhD diss. University of Delaware. 2008.

Jackson, Kenneth T. *Crabgrass Frontier: The Suburbanization of the United States*. New York: Oxford University Press, 1987.

O’Gorman, James F., Jeffrey A. Cohen, George E. Thomas, and G. Holmes Perkins. *Drawing Toward Building: Philadelphia Architectural Graphics, 1732-1986*. Philadelphia: University of Pennsylvania Press, 1986.

Riddell, John. *Architectural Designs for Model Country Residence*. Philadelphia: Lindsay & Blakiston, 1861.

Sloan, Samuel. *The Model Architect*. Philadelphia: E.S. Jones & Co., 1852.

Tatman, Sandra L. and Roger W. Moss. *Biographical Dictionary of Philadelphia Architects: 1700-1930* (Boston: G.K. Hall, 1985.

Upton, Dell. “Pattern Books and Professionalism: Aspects of the Transformation of Domestic Architecture in America, 1800-1860.” *Winterthur Portfolio* (Summer-Autumn 1984), 107-150.

Periodicals (see footnotes):
Evening Telegraph
North American
Philadelphia Inquirer
Public Ledger

Nominator’s Statement: This nomination was prepared by Kevin McMahon for the Preservation Alliance for Greater Philadelphia. It is solely the work of Mr. McMahon and was not supported by his employer, Powers & Company, Inc.

Appendix – Specifications for Cottage No. 11 from John Riddell's Architectural Designs (1861)

THE GENERAL DIRECTIONS

FOR THE

BUILDING OF THE DESIGN OF THE VILLA No. 11.

The following specification is for the Cottage No. 11, which is now nearly finished in Germantown, Pa., for a gentleman living in the city of Philadelphia, and which will apply to almost any building of the character with a few alterations:

SPECIFICATION

Of the different kinds of materials and workmanship intended to be used in building a two-story and a half Cottage in Germantown, Pennsylvania, for Mr. ——, the dimensions, and quality described by the herewith presented plans, elevations, and sections, and working drawings, as given by the Architect, John Riddell.

The lot will be surveyed, and the site for the building given by the owner; the following conditions to apply to all and every part of the work. The Contractor is to provide and find all carriage, labor, machines, &c., necessary for the completion of the buildings, to the full intent, and meaning of the designs, and specification, either expressed or implied; he is to bear all loss from accident, and neglect, during the progress, and until the completion of the buildings; he is to hold the owner free from all blame or loss by neglect of City Ordinances or encroachment on neighbors, or from any other cost or blame; he is to repair, and make sound any damage that may occur to adjoining properties by the erection of this building; he is to leave the building entirely finished and fit for occupancy on or before —— and free from all building liens, or other incumbrances whatsoever. The materials are all to be of a good quality of their respective kinds; and it is to be understood that the owner, shall have full power, to refuse any that he considers unfit for the purpose, or different from those described to be used; he shall have the power to cause any unsound work, to be taken down, and altered at the contractor's expense; it is also understood that the owner shall have full power to make any alterations he may think proper, from the plans bearing this date, —— without in any way infringing or lessening the agreement or contract made upon the said plans, and without additional cost, unless the said alterations, or additions cost more than is here specified, or have been contracted for, the additional expense in such a case, if not satisfactorily to the owner, shall be left to the decision of three referees, one chosen by each party, and those two choosing a third one, their decision shall be based upon the valuation of similar work, done at the building.

GENERAL DIRECTIONS.

The main building shall be 33 feet front, by 33 feet deep, two and a half stories high. The kitchen to be two stories high, 20 feet deep, and 17 feet 6 inches wide. The summer kitchen to be one-story high, and to be of hemlock frame 15 feet wide, 11 feet 6 inches deep. The cellar throughout the main building and kitchen to be 7 feet 6 inches in the clear of joist. The first story of main building will be 12 feet from top to top of joist, the second story to be 10 feet 8 inches from top to top of joist, the third story to be 7 feet 6 inches in the clear. The first story of kitchen to be 9 feet 6 inches high, from top to top of joist, the second story to be 9 feet in the clear of joist. Summer kitchen to be 8 feet 6 inches in the clear. By referring to the plans, the dimensions are accurately marked.

EXCAVATION.

The cellar is to be excavated throughout the main and back buildings, and will be 7 feet 6 inches in the clear. The trenches for the foundations of cellar walls, will be 4 inches deeper than the cellar floor. The thickness of the cellar walls under the main building will be 20 inches, and the cellar walls under the kitchen will be 18 inches. The two walls in the interior of the cellar will be 14 inches thick. The Veranda and porch foundations will be 14 inches thick, and to be sunk a sufficient depth to prevent action of the frost. All the soil is to be removed to such parts of the ground as the owner may direct. There are to be eight cellar windows with wire screens and sash, the frames to be made out of yellow pine, and to be 2 feet 2 inches in the clear, and 2 feet 6 inches in depth, and to be made in plank front style, four lights in the sash of each, and to have brick curb around each frame as is shown on the plan.

MASONRY WORK.

All the exterior walls that are to be of stone will be seen on the plans; they will be composed of quarried building stone of the best quality that can be procured in that vicinity, all to be laid on their broadest beds, and those for the foundations are to be large and solidly bedded in good mortar, the walls in the cellar will be 20 inches thick, up to the level of the ground. The walls from the ground to the cornice will be 17 inches thick. The kitchen cellar walls will be 18 inches thick up to the level of the ground; the wall from the ground to the cornice will be 16 inches thick. All the stone work is to be done in a good workmanlike manner, and the outside to be pointed work with good mortar.

BRICK WORK.

The heater in the cellar to be built of brick. The curbs around the cellar windows to be of brick. The well of water closet to be walled with brick a sufficient depth and domed over on top. The hearth of range to have a brick arch, and the kitchen chimney to be of brick for the range and boiler. All the flues will start from the cellar and be of brick, and be continued up 18 inches above the roof to form a base for the terra cotta chimney tops.

CARPENTER'S WORK.

All the joist, studding, and rafters throughout the buildings are to be of a good quality of hemlock; the rafters are to be spaced 18 inches from centre to centre. All the joist, studding and stripping on the walls, are to be 16 inches from centre to centre. The joist to be 8 by 10 inches backed to a width; one row of lattice bridging in each floor each side of the entry; strips are to be built in the walls 2 feet 6 inches apart, to nail the hemlock lath to for the stripping. Blocks of wood are to be built in the walls to nail the

washboards and architraves to good substantial lintels are to be put over the windows and doors. The rafters are to be covered with good one inch white pine boards, and well nailed to the rafters. The observatory on the roof is to be made as is shown on the plan. The summer kitchen is to be framed out of hemlock and to rest on piers, and to be weatherboarded with one inch white pine boards grooved, tongued, and beaded, and to be as per plan.

The rafters on main building are to be 3 by 7½ inches at the butt end, and 5½ inches at the top.

FLOORING.

All the flooring will be of a good quality of 1¼ inch Carolina mill worked pine, grooved and tongued, and well seasoned, and to average 4 inches wide, and to be well nailed to the joist with tenpenny brads; all the floors are to be smoothed off after plastering. The best boards are to be selected for the first story, veranda and porch floors.

STAIRS.

The main stairs will be constructed with a good quality of 1¼ inch heart yellow pine step boards; the risers are to be one inch white pine grooved and tongued, and all to be well glued and blocked together; the stepboards and risers are to be well fastened to the bearers and let into the wall string; there will be a 1½ inch panel under the stairs with raised panels and mouldings in. There will be a mahogany handrail 3½ inches wide and 2 inches deep, and a 7 inch turned mahogany newel with an octagon base. The balusters are to be maple 2 inches thick turned, and octagon at the base. These stairs are to be finished in a good workmanlike manner, by a man who is perfectly acquainted with stair building. The kitchen stairs are to have one inch yellow pine stepboards, and done in the usual way. The second story of kitchen is to have a mahogany handrail 1½ inch maple balusters turned, and a 4 inch turned newel, and a circular cap on the top of the newel. The cap on the 7 inch newel is to be 5½ inches in diameter.

OUTSIDE WORK.

The joist of veranda and piazza floors, are to be 3 by 8 inches hemlock, 16 inches from centre to centre, ceiling joist and rafters, are to be 3 by 4 inches hemlock rafters are to be 18 inches from centre to centre. The verandah pilasters are to be 12 inches wide, 4 inch space in the centre, and carved roseates in the centre and top; the pilasters are to be framed, and have brackets above them. The piazza posts are to be 4 by 5 inches; the outside steps 1¼ inch yellow pine floors of veranda and porch are to have 2½ inches grade. The rafters are to be covered with one inch white pine boards. The cellar door is to be made to open in folds, and to be hung with good strong strap hinges to the jambs, and to have a swinging bar on the inside with its requisite fastenings. There are to be strong rough steps to lead into the cellar at this door. The cellar floor is to have a gravel and mortar coat 2½ inches thick.

WINDOWS.

All the window frames are to be plank front frames. The pulley stiles are to be 1¼ inch yellow pine. The window sills are to be yellow pine. The show sills are to be white pine 1⅝ inch thick, 5 inches wide. The frames are to be made according to drawings, which will be shown full size. The size of the glass in the two windows of first story front is to be 14 by 22 inches. The six windows in the parlor, library and dining-room, the glass is to be 14 by 20 inches. The glass in the second story of main building will be 14 inches by 17½ inches. The glass in the third story will be 11 by 20 inches; in the stair case window second story, the glass will be 14 by 16 inches; in the third story stair case window, the glass will be 11 by 20 inches, two lights in height. The kitchen, nursery, and summer kitchen, the glass will be 9 by 15 inches. The first story sash of main building is to be 1⅝ inch thick, all the other sash is to be 1½ inch thick. Summer kitchen sash is to be 1¼ inch thick; the first and second story sash are to be double hung with patent sash cord, on patent axle pulleys. The cellar sash are to be hung with butt hinges. The third story sash are to be hung with butt hinges, all the sash are to have their requisite fastenings; two of the sashes in the tower are to be hung with butt hinges; the size of the glass in these sash will be 18 by 25 inches. The six windows in the first story are to have 1½ inch framed paneled backs with raised panels, and 1⅝ inch mouldings. All the window jambs are one inch white pine, free from knots and sap.

DOORS.

The front door is to have side lights and transom, and two carved brackets at the transom, this door will be 4 feet wide, 7 feet 7 inches high, 1⅝ inch thick, mouldings and fillets in front, with bead and butt on back. The side lights are to have shutters 1¼ inch thick, the shutters are to be hung with butt hinges. The back entry door is to be 2 feet 10 inches wide, and 7 feet 6 inches high, 1⅜ inch thick, mouldings and fillets on one side, bead and butt on the back. The folding doors are to be 5 feet wide, and 9 feet high, 1¾ inch thick, mouldings and fillets on both sides. Dining-room and library doors are to be 3 feet wide, 7 feet 9 inches high, 1⅜ inch thick, mouldings and fillets on both sides, closet door in dining-room 2 feet 8 inches wide, 7 feet 9 inches high, 1½ inch thick, mouldings and fillets on one side, raised pannels on the back. Store room door 2 feet 8 inches wide, 7 feet 6 inches high, 1½ inch thick, mouldings on one side, raised panels on both. The kitchen back door 2 feet 9 inches wide 7 feet 6 inches high, 1½ inch thick, raised panels and mouldings on one side, bead and butt on the back. Summer kitchen door same size and style. The door under the main stairs 2 feet 7 inches wide, 1⅜ inches thick, mouldings on one side, raised panels on both, this door is to be 7 feet high. The door going into the cellar 2 feet 8 inches wide, 6 feet high, 1⅜ inch thick, mouldings and raised panels on one side, bead and butt on the back. The kitchen staircase door 2 feet 8 inches wide, 6 feet 6 inches high, 1⅜ thick, mouldings on one side, raised panels on both. Dresser doors 1¼ inch thick, mouldings on one side, raised panels on both; for size of these doors refer to plan. Six doors in the second story 2 feet 10 inches wide, 7 feet 4 inches high, 1⅜ inch thick, raised panels and mouldings on both sides. Four closet doors 2 feet 8 inches wide, 7 feet 4 inches high, 1⅜ inch thick, mouldings on one side, raised panels on both. Bath room and nursery doors, 2 feet 8 inches wide, 7 feet high, 1⅜ inch thick, raised panels and mouldings on both sides; closet door over stairs 2 feet 7 inches wide, 6 feet high, 1¼ inch thick, mouldings on one side, raised panels on both. Four doors in the third story 2 feet 9 inches wide, 6 feet 6 inches high, 1⅜ inch thick, mouldings and raised panels on both sides; two closet doors 2 feet 8 inches wide, 6 feet 6 inches high, 1¼ inch thick, raised panels on both sides, mouldings on one side.

SHUTTERS.

All the shutters and blinds are to be 1½ inch thick; the shutters are to have mouldings on one side, bead and butt on the back. The blinds are to be pivot blinds; all the shutters, and blinds, are to be hung with good strong strap hinges. All the shutters and blinds, are to have their requisite fastenings, rings, staples and turnbuckles.

TRIMMINGS.

The parlor, dining-room, and library doors, and windows, are to be trimmed with a 7 inch architrave resting on plinth blocks. The washboards are to be 9 inches deep, with a 1⅝ inch moulding planted on top, and to have a 2½ inch sub plinth 1¼ inch thick. Kitchen and summer kitchen doors and windows are to be trimmed with a 3 inch Grecian moulding, and to have a 3 inch surbase at the windows. The jamb linings of the windows to be grooved and tongued together in the angles. The washboards in the kitchen and summer kitchen, are to be 6 inches deep, with a 1½ inch moulding planted on top. Nursery and bath room to be finished in the same style. There will be a mantel shelf resting on two brackets above the kitchen range.

SECOND STORY.

All the doors and windows are to be trimmed with a 4½ inch architrave; the windows with a 3 inch open surbase. The washboards are to be 7½ inches wide, with a 1½ inch moulding planted on top. All the jamb linings are to be grooved and tongued together at the angle.

THIRD STORY.

All the doors and windows are to be trimmed with a 3 inch Grecian moulding. The windows are to have a 3 inch open surbase. The washboards are to be 5½ inches wide, with a 1¼ inch moulding planted on top.

All the washboards throughout the building, are to be properly grooved and tongued together at the angles.

All the cornices and brackets, as shown on the drawings full size.

BATH ROOM.

The bath tub will be 6 feet long, and 2 feet wide, 2 feet 2 inches deep, and to be made of 2 inch plank, grooved and tongued at the angles, and put together with white lead, and lined with zinc. The water closet is to have a soil pipe to continue down and empty in the well, and all its requisite plumbing, the cover is to be hung with suitable hinges. The bath tub is to have its requisite plumbing for hot and cold water, also a pipe for the waste water.

KITCHEN RANGE, ETC.

There is to be a range with boiler for the kitchen chimney, and an iron sink, which are to have their requisite fixtures. There is to be a furnace built in the cellar, which is to have all its requisites, pipes, registers, &c., for conveying heat up to the third story. All the hot air flues are to be properly lined with tin, and the smoke flues are to be smoothly parged when building the walls; likewise the kitchen flues are to be prepared in same way.

PLASTERING.

All the interior walls and the ceilings, including those of the veranda and porch, are to have two good coats of good brown mortar, and one good coat of hard white finish. The cornice in the parlor will project on the ceiling 12 inches, and down the wall 7 inches. The centre piece will be 2 feet 8 inches wide, and 4 feet 6 inches long. The cornice in the hall will project 6 inches on the ceiling, and 4½ inches down the wall; in the ceiling of hall there will be a plaster ornament 14 inches in diameter. All the plastering lath is to be of good quality; and the plastering must be done with good mortar, composed of good clean sharp sand, and good wood burnt lime, and slaughtered hair, and the plastering must be free from chip cracks when done.

PAINTING AND GLAZING.

All the wood work, exterior and interior, that is to be painted, is to have three good coats of pure lead and linseed oil, the linseed oil is to be of good quality. The handrails, newels, and balusters, are to have two good coats of good clean varnish; all the glass throughout the building is to be of good quality of thick American glass; and to be well fastened and puttied in the sash. All the tin of the roofs is to receive three good coats of good paint, one on the under side before put on, and two on the upper side; the roof of the veranda is to be striped; all the lower story doors, and front sash, are to be grained in oak, pivot blinds and wire screens to be green, kitchen wood work to be straw color.

HARDWARE.

All the outside shutters, blinds, and cellar doors, are to have substantial wrought iron hinges, also the requisite bolts, rings, staples, turnbuckles, &c. The bolts for the shutters are to be 10 inches, the bolts for the blinds are to be 9 inches. The sashes that are hung with weights, are to have spring sash fastenings; all the outside hinges and bolts are to have one good coat of good paint put on their back, before put on their place. All the doors are to be hung with good suitable butt hinges and screws. The front doors are to have a 7 inch upright lock, with night keys; they are also to have flush bolts, top and bottom; the folding-doors in the parlor are to have flush bolts, top and bottom, and a 5 inch mortice lock. The library and dining-room doors, are to have 5 inch mortice locks; the back entry is to have a knob latch, and two 7 inch barrel bolts; kitchen and summer kitchen doors, are to have knob latches, and two 6 inch round bolts. The dresser doors are to have their requisite knobs and buttons. The second story chamber doors are to have 5 inch mortice locks; the third story chamber doors are to have 4½ inch locks. All the closet doors are to have good closet locks and knobs. All the first and second story locks are to have a good quality of procelain knobs; all the locks are to be of Philadelphia make. All the closets, store-room, and presses, are to be shelved in a proper manner; and to have their requisite fastenings, and clothes pins in presses. There are to be pin rails in the kitchen, and pins screwed on; the windows in the tower are to have their requisite fastenings.

The front and back doors are to have marble sills, and scrapers for each; all the conductors are to have marble spout stones. The parlor and dining-room are to have marble mantels.

TIN WORK.

All the roofs will be covered with a good quality of cross leaded tin, painted on both sides, to have two good coats on the top; all the gutters are to be properly constructed, so as to convey the water to the four conductors on the main building, and the two at the kitchen. All the conductors to be 3 inches in diameter, with a coat of paint inside; and to have shoes at the bottom. The porch and veranda conductors are to be 2½ inches in diameter.

MISCELLANEOUS ITEMS.

There are to be six bells with their requisite hanging and fixtures; gas pipes and fixtures. All the doors throughout the building, are to have yellow pine carpet strips nailed to the floor. There are to be 1½ inch turned door stops let into the washboards to prevent the doors from injuring the plaster.

In the second story there is to be a girder made out of 3 by 12 inch joist pinned together to support the back wall.

A FULL ESTIMATE.

Of the cost in erecting Cottage No. 11, which is completed to the satisfaction of the owner.

This estimate includes all the workmanship, and the materials at Philadelphia prices.

Excavation,	$ 100 00
Stone and Brick, labor and materials,	1200 00
Carpenter work and Lumber,	2100 00
Plastering, labor and materials,	370 00
Painting and Glazing, labor and materials,	360 00
Tin work, labor and materials,	290 00
Hardware,	200 00
Range and Boiler,	78 00
Furnace in cellar,	150 00
Water closet and Plumbing,	120 00
Bells and Hanging,	40 00
Terra Cotta chimney tops,	20 00
Marble sills,	15 00
Parlor mantel,	100 00
Dining-room mantel,	50 00
Carting,	100 00
	$5293 00