Noiseless, Automatic Service: The History of Domestic Servant Call Bell Systems in Charleston, South Carolina, 1740-1900

Wendy Danielle Madill
Clemson University, thewendo@gmail.com

Follow this and additional works at: https://tigerprints.clemson.edu/all_theses

Part of the Historic Preservation and Conservation Commons

Recommended Citation
https://tigerprints.clemson.edu/all_theses/1660

This Thesis is brought to you for free and open access by the Theses at TigerPrints. It has been accepted for inclusion in All Theses by an authorized administrator of TigerPrints. For more information, please contact kokeefe@clemson.edu.
NOISELESS, AUTOMATIC SERVICE:
THE HISTORY OF DOMESTIC SERVANT BELL SYSTEMS
IN CHARLESTON, SOUTH CAROLINA, 1740-1900

A Thesis
Presented to
The Graduate School of
Clemson University and
College of Charleston

In Partial Fulfillment
of the Requirements for the Degree
Master of Science
Historic Preservation

by
Wendy Danielle Madill
May 2013

Accepted by:
Dr. Carter L. Hudgins, Committee Chair
Elizabeth Garrett Ryan
Richard Marks, III
ABSTRACT

Shortly before Europe’s industrial revolution, tradesmen discovered an ingenious way to rig bells in houses to mechanize communication between homeowners and their servants. Mechanical bell systems, now known as house bells or servant call bells, were prevalent in Britain and America from the late 1700s to the early twentieth century. These technological ancestors of today’s telephone were operated by the simple pull of a knob or a tug of a tassel mounted on an interior wall. Bell-pulls increased privacy for both servants and their employers by separating both parties by the length of a bell wire, but they also increased masters’ powers of nonverbal control. Mechanical bell systems undoubtedly played a large role in the operation, maintenance, and communication practices of historic houses. But, like a lost language, surviving bits and pieces of hardware and wire are a puzzle to many modern viewers who are more familiar with technology that usurped the bell-pull—electric doorbells, intercom systems, and telephones. Unfortunately, many mechanical bell systems have been removed from historic houses.

Although domestic servant call bells were ubiquitous across America, and were even installed in the White House, very little has been written about them. This thesis addresses the lack of literature by creating a technical and cultural history of bell systems in the Charleston, South Carolina area. Many historic dwellings in Charleston have retained a remarkable quantity of house bell hardware consisting of copper or iron wire strung through walls and attached to cranks, pulleys, and knobs—all connected to exterior bells. Many private residences and several historic house museums including the Aiken-Rhett House, Heyward Washington House, and the Joseph Manigault House still retain fragments of their original bell systems. These systems undoubtedly shaped the way slave owners communicated with their slaves. Even after the Civil War, Charlestonians continued to use servant bells to communicate with their newly emancipated household servants.

By studying local tradesmen, installation practices, and technological development this report will fit Charleston bell hanging practices into a larger scheme nationally and globally. To accomplish this aim, full-scale mapping of the bell system at Charleston’s Aiken-Rhett House museum was undertaken. As
one of the more complete bell systems in a historic house museum, the Aiken-Rhett House offers an extraordinary opportunity to interpret the daily life of slaves and servants in the Charleston area. This project aims to make the case for preservation of these peculiar old hardware fragments by shedding light on what these systems were, how they worked, and how they can be preserved.
DEDICATION

In honor of Albert Wood Olson, in memory of Anne Weaver Olson.
ACKNOWLEDGEMENTS

Many thanks to the legion of friends, classmates, and colleagues who helped me refine this work.

First and foremost, I extend my warmest gratitude to my advisor Carter Hudgens for encouragement and support throughout my two years in the Clemson Preservation Program. Thank you for leading us all by example. Your kindness, humility, and knowledge are an inspiration to your students. I also appreciate the love and support of my most loyal supporters, proofreaders, and editors, Bryan Kennicott and Shery Marden.

Thank you to the phenomenal instructors and friends of historic preservation whose guidance inspired my work: Dr. Carter L. Hudgins, Elizabeth Ryan, Richard Marks, Katherine Pemberton, Amalia Leifeste, Kristopher King, Ralph Muldrow, Phil Mark, and David Hoffman.

My work rests on the shoulders of Hillary Murtha, Mark Wenger, and the few others who have endeavored to study servant bells in America. Thanks for opening up the dialogue.

Thank you to Historic Charleston Foundation and Charleston Museum for giving preservation students open reign to explore the spectacular historic buildings in your care. Valerie Perry and the friendly staff at the Aiken-Rhett House were incredibly helpful and kind to let me explore and photograph the house for my thesis. Katherine Saunders Pemberton, Karen Emmons, and Bridget O’Brien also earned my appreciation for sharing their knowledge of Aiken household history. Special thanks also to Grahame Long, Melanie Wilson and the staff at the Heyward Washington and Joseph Manigault Houses. I also appreciate the access to Hampton Plantation afforded to me by the wonderful staff of the South Carolina Department of Parks, Recreation & Tourism. Many thanks to Dan Bell, Amelia Millar, Al Hester, and Mary Mikulla for their research and stewardship of Hampton Plantation in McClellanville, South Carolina.

Very special thanks to my new friends Tom and Kotti Brewin, all the way across the pond at The Period Ironmonger shop in Shropshire, UK, for their generous donation of a Victorian door bell-pull for this project. The kindness of strangers is remarkable.
And finally, thank you to Carl Lounsbury and Willie Graham, the proverbial preservation rock stars of Colonial Williamsburg Foundation, for the helpful hints and tips about searching for bell system evidence.
# Table of Contents

**Abstract** ........................................................................................................................................ ii

**Dedication** ........................................................................................................................................ iv

**Acknowledgements** .......................................................................................................................... v

**Table of Contents** .............................................................................................................................. vii

**Table of Figures** ................................................................................................................................. x

**Chapter 1 Introduction** ...................................................................................................................... 1

- A Nearly Silent Subject: Servant Bells in Modern Scholarly Research ........................................... 1
- Telling an Untold Story ......................................................................................................................... 9

**Chapter 2 The English Origins of American House Bells** .................................................................. 12

- Aristocrats and Their Bells—Early Use ............................................................................................. 15
- Popularity of Bell Systems .................................................................................................................. 17
- Technological History and Function .................................................................................................. 20
- Manufacture and Installation Types .................................................................................................. 21
- Installation ......................................................................................................................................... 24
- The Decline of Mechanical Bell Systems .......................................................................................... 27
- Bells in England Today ....................................................................................................................... 28

**Chapter 3 The Rise and Fall of House Bells in America** ................................................................... 30

- From Bells to Telephones: The Bell System at the White House ..................................................... 31
- North and South—Interior and Exterior Installations ....................................................................... 34
- American Inventiveness ....................................................................................................................... 36
BELLS FOR SEPARATE SPHERES: THE SLAVE YARD AND THE MAIN HOUSE ........................................ 142

UPSTAIRS AND DOWNSTAIRS: HIERARCHY OF BELL-PULL HARDWARE INSIDE THE HOUSE .......... 143

SERVANT BELLS FOR ENTERTAINING SPACES .............................................................................. 145

SERVANT BELLS FOR PRIVATE SPACES ....................................................................................... 147

RECOMMENDATIONS .................................................................................................................. 148

INTERPRETATION STRATEGY ....................................................................................................... 149

CHAPTER 7 CONCLUSION ............................................................................................................. 151

PRESERVATION RECOMMENDATIONS ......................................................................................... 151

COMPLETE RESTORATION .......................................................................................................... 151

REMOVAL+DOCUMENTATION ..................................................................................................... 152

PRESERVATION IN PLACE + INTERPRETATION ........................................................................ 152

PARTIAL RESTORATION + INTERPRETATION ............................................................................ 154

MAKING THE CASE FOR PRESERVATION ..................................................................................... 155

APPENDIX A: ILLUSTRATED GLOSSARY OF HOUSE BELL TERMINOLOGY ..................................... 157

APPENDIX B: CHARLESTON ENTRY BELL SURVEY .................................................................... 183

APPENDIX C: INVESTIGATION TIPS: FINDING EVIDENCE OF SERVANT BELL SYSTEMS ............... 188

REFERENCES .................................................................................................................................. 189
<table>
<thead>
<tr>
<th>Figure</th>
<th>Page Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 2-1: A seventeenth-century hand bell</td>
<td>12</td>
</tr>
<tr>
<td>Figure 2-2: A mounted house bell with a pendulum</td>
<td>13</td>
</tr>
<tr>
<td>Figure 2-3: “Company shocked at a Lady getting up to Ring the Bell.”</td>
<td>16</td>
</tr>
<tr>
<td>Figure 2-4: December; The Months. London, 1785</td>
<td>17</td>
</tr>
<tr>
<td>Figure 2-5: Embroidered bell-pull designed by William Morris, ca.1865</td>
<td>19</td>
</tr>
<tr>
<td>Figure 2-6: A simple bell-pull installation</td>
<td>20</td>
</tr>
<tr>
<td>Figure 2-7: Clock Balance Spring</td>
<td>21</td>
</tr>
<tr>
<td>Figure 2-8: House Bell Spring</td>
<td>21</td>
</tr>
<tr>
<td>Figure 2-9: A Parlor Bell Lever</td>
<td>24</td>
</tr>
<tr>
<td>Figure 2-10: Bell board with two bells</td>
<td>25</td>
</tr>
<tr>
<td>Figure 2-11: Decorative Levers and Cranks</td>
<td>26</td>
</tr>
<tr>
<td>Figure 2-12: Pendant bell-pull design</td>
<td>29</td>
</tr>
<tr>
<td>Figure 3-1: Mail-order bell-pull hardware circa 1865</td>
<td>30</td>
</tr>
<tr>
<td>Figure 3-2: A house bell with a check spring</td>
<td>33</td>
</tr>
<tr>
<td>Figure 3-3: Interior servant bells at Kliveden, in Germantown, PA</td>
<td>35</td>
</tr>
<tr>
<td>Figure 3-4: Exterior slave call bells mounted on the porch at Kenworthy Hall.</td>
<td>35</td>
</tr>
<tr>
<td>Figure 3-5: Robert Wing, bell hanger, advertises his services during Reconstruction</td>
<td>36</td>
</tr>
<tr>
<td>Figure 3-6: A hidden foot-operated bell-pull</td>
<td>37</td>
</tr>
<tr>
<td>Figure 3-7: Bell-pulls in a 1905 hardware catalog</td>
<td>39</td>
</tr>
<tr>
<td>Figure 3-8: A listing of bell equipment, priced by set</td>
<td>40</td>
</tr>
<tr>
<td>Figure 3-9: A vintage telephone ad</td>
<td>44</td>
</tr>
<tr>
<td>Figure 4-1: Bird’s eye view of the city of Charleston, South Carolina 1872</td>
<td>45</td>
</tr>
<tr>
<td>Figure 4-2: Site Plan of the Aiken-Rhett House with Dependencies</td>
<td>46</td>
</tr>
</tbody>
</table>
Figure 4-3: A primitive bell system on display at the Miles Brewton House (circa 1765) ......................... 49
Figure 4-4: Bell Hanging Advertisement from 1804. .................................................................................... 52
Figure 4-5: Advertisement for Daniel Henderson, House bell Hanger and Gun-Smith ................................. 53
Figure 4-6: An 1896 ledger from the Richardson family bell hanging business ........................................ 56
Figure 4-7: A two-story Charleston single house with a piazza .................................................................. 60
Figure 4-8: First floor single house plan. ........................................................................................................ 61
Figure 4-9: A typical Charleston servant bell—exterior mounted ................................................................. 63
Figure 4-10: Early bell hardware at Hampton Plantation ............................................................................. 64
Figure 4-11: Close up of a typical bell-pull Hampton Plantation ................................................................. 65
Figure 4-12: Drawing room at the Heyward Washington House ................................................................. 66
Figure 4-13: Bell hardware at the Joseph Manigault House ....................................................................... 67
Figure 4-14: Technology advances: a bell lever at the Aiken-Rhett House .................................................... 69
Figure 4-15: A mid-nineteenth century bell lever at the Aiken-Rhett House ................................................. 70
Figure 4-16: A mid-nineteenth century bell lever at the Nathaniel Russell House ...................................... 70
Figure 4-17: A mid-nineteenth century bell lever at the William Blacklock House ..................................... 71
Figure 5-1: 1860s view the Aiken-Rhett House ............................................................................................. 73
Figure 5-2: Site Plan, 48 Elizabeth Street, Charleston, Charleston, SC ......................................................... 74
Figure 5-3: The rear of the Aiken House in 1958. ......................................................................................... 76
Figure 5-4: The rear of the Aiken House in 2012 ......................................................................................... 77
Figure 5-5: Period I (1820-22) architectural floor plans of the Aiken-Rhett House ..................................... 79
Figure 5-6: Period II (1833-35) architectural floor plans of the Aiken-Rhett House ..................................... 80
Figure 5-7: Period III (1857-58) architectural floor plans of the Aiken-Rhett House ..................................... 81
Figure 5-8: Period IV (1870s) architectural floor plans of the Aiken-Rhett House .......................................... 82
Figure 5-9: Bell system map-first floor ......................................................................................................... 83
Figure 5-10: The Entry Hall as documented by HABS ............................................................................... 84
Figure 5-11: The entrance hall ........................................................................................................ 85
Figure 5-12: Remnants of the front door bell-pull ................................................................. 85
Figure 5-13: Bell system map-cellar ....................................................................................... 86
Figure 5-14: The wires from bell levers ................................................................................. 87
Figure 5-15: The bell line traveling from the lever on the east wall of the chimney .............. 87
Figure 5-16: Bell system map-cellar ....................................................................................... 88
Figure 5-17: Bell wires in the southeast cellar storage room .................................................. 89
Figure 5-18: A bell wire junction in the southeast cellar storage room ................................ 89
Figure 5-19: Bell system map-cellar ....................................................................................... 90
Figure 5-20: Bell crank on the west wall of the relieving arch of the library chimney .......... 91
Figure 5-21: Bell system map-cellar ....................................................................................... 92
Figure 5-22: Bell hardware in the Servant’s Hall .................................................................. 93
Figure 5-23: Bell system map-cellar ....................................................................................... 94
Figure 5-24: Bell system hardware below the Art Gallery ..................................................... 95
Figure 5-25: Bell system map-first floor ................................................................................. 96
Figure 5-26: Fragments of the bell lever in the dining room .................................................. 97
Figure 5-27: Detail of the bell lever fragment in the dining room .......................................... 98
Figure 5-28: Bell system map-first floor ............................................................................... 99
Figure 5-29: Library bell knob on the right .......................................................................... 100
Figure 5-30: Library bell-pull close-up ............................................................................... 101
Figure 5-31: Bell system map ................................................................................................ 102
Figure 5-32: Parlor bell levers .............................................................................................. 103
Figure 5-33: Bell system map-first floor .............................................................................. 104
Figure 5-34: The Art Gallery as documented by HABS in 1958 ............................................. 105
Figure 5-35: Remnant of a bell lever in the Art Gallery ....................................................... 105
Figure A-4: A plate-mounted bell carriage. ................................................................. 160
Figure A-5: A Charleston bell hanger advertises his services. ............................... 161
Figure A-6: A parlor bell lever .................................................................................. 162
Figure A-7: How a parlor bell lever works: diagrams and section ......................... 162
Figure A-8: Several varieties of bell-pull .................................................................. 163
Figure A-9: A common porcelain bell-pull ............................................................... 164
Figure A-10: Single coil and double coil bell springs .............................................. 165
Figure A-11: Zinc bell tubing .................................................................................... 167
Figure A-13: The bell carriage spring ....................................................................... 168
Figure A-14: A complete driven house bell carriage .............................................. 168
Figure A-15: A bell board with check spring ........................................................... 169
Figure A-16: Various types of cranks ....................................................................... 170
Figure A-17: Chain and wheel cranks ...................................................................... 171
Figure A-18: An example of an electric doorbell installation .................................. 172
Figure A-19: A simple bell-pull installation .............................................................. 173
Figure A-20: A complete bell carriage ..................................................................... 173
Figure A-21: An electric bell and indicator system ................................................ 174
Figure A-22: A draw-out bell knob with electrical attachments ............................. 174
Figure A-23: Advertisement, Harry A. Duc, locksmith and hanger of electric bells. 174
Figure A-24: A 2.5 inch house bell, to scale, with a turned edge ............................ 175
Figure A-25: A pendant bell-pull ............................................................................. 176
Figure A-26: A bell carriage with a pendulum pictured at right ............................. 177
Figure A-27: Black’s pneumatic bulb and speaking tube ....................................... 178
Figure A-28: Quadrant bell-pulls ............................................................................ 179
Figure A-29: A quadrant pull .................................................................................... 179
Figure A-30: A bell slide from the 1865 Russell and Erwin Hardware Catalog ........................................ 180

Figure A-31: Speaking tube equipment. Sutcliffe, *Modern Plumber*, 292. .................................................. 181

Figure A-32: A speaking tube mouthpiece at Mark Twain’s Connecticut residence .............................. 181

Figure A-33: Textile bell-pulls advertised in C.A. Schmidt Book of Designs ........................................ 182

Figures B-1, B-2, and B-3: Simple brass bell-pull attached to wood door surround............................... 186

Figures B-4 and B-5: The Miles Brewton House gate and gate bell-pull, detail ........................................ 187
Servant bells are one of the most important historic building trends few Americans have ever heard of. From the late 1700s to the late 1800s, the practice of hanging servant bells in houses was universal in both Britain and America.\(^1\) Although bells were one of the most common sights and sounds of eighteenth and nineteenth century America, very little has been written about the subject.\(^2\) Interior bell systems (often called house bells, call bells, or servant bells) mechanized communication between masters and servants. From the privacy of her bedroom, a mistress could pull a lever in her chamber to summon her servant who worked several rooms away. The force of her pull was transmitted through wall-mounted wires and cranks which jostled a bell near the servant’s quarters or servant’s hall. This mechanical bell system solved the problem of communication between masters and servants who lived and worked in separate areas. In houses with bells, servants no longer had to stand at attention at thresholds. Instead, bell systems allowed them to go about their business outside the presence of their masters.\(^3\) Servant bells provided greater freedom for both masters and servants. But, paradoxically, house bells expressed the master’s desire to appear firmly in control of his servants.

Charleston, South Carolina contains many antebellum-era buildings that still retain fragmentary bell-pull systems. Very little is known about them. Although this now obscure technology—precursor to the telephone, the doorbell, and the intercom system—survives in many historic houses, bell systems have not yet attracted scholarly attention. House bells are an important topic in study of material culture, domestic architecture, and class relations of early America.

A NEARLY SILENT SUBJECT: SERVANT BELLS IN MODERN SCHOLARLY RESEARCH

Few modern sources broach the topic of house bell systems in eighteenth or nineteenth century America. For instance, *Elements of Style*, an extensive guidebook on English and American architectural

---


styles and hardware from the Jacobean Period (late fifteenth century) to the present, devotes a mere two sentences to house bell types. 4 Though specific information is rare, several encyclopedic texts do provide entries on bell-pulls. Carl Lounsbury’s Illustrated Glossary of Early Southern Architecture and Landscape offers a paragraph about house bells. 5 Henry Kauffman’s American Copper and Brass uses patents, catalogs, and newspaper advertisements to explore metallurgical trades in early America. Kauffman acknowledges that house bells were an important part of the architecture and social customs of the eighteenth and nineteenth centuries. Even so, no one knows how they were produced. Kauffman briefly explains use of bell-pull and describes the competitive historic bell hanging trade. He also lists, with an important exception of Charleston, brass founders and bell hangers in early American cities. 6 In a similar vein, Fennimore and Fistovich’s Metalwork in Early America: Copper and its Alloys from the Winterthur Collection offers a succinct encyclopedic entry on house bells. 7 According to the authors, most well-to-do English and American homeowners had bells in their houses during the eighteenth and nineteenth centuries. For a household system that was as widespread as Kauffmann, Fennimore, and Fistovich assert, it is strange that Elements of Style and similar architectural reference books gloss over or omit house bells entirely.

Though specific information is hard to find, several texts bridging the disciplines of history, archaeology, social criticism, and architectural history explore the origin of architectural changes that separated master from servant. American fascination with refinement and gentility is an important theme for the examination of house bell systems. One of the earliest texts that analyzes the use of bell-pulls is Albert Smith’s A Natural History of Stuck-Up People, a satire of the stilted habits of nouveau-riche nineteenth century merchant-aristocrats. Smith describes servants as intermediaries between masters

6 Henry J. Kauffman, American Copper and Brass (New York: Bonanza Books, 1979), 176-179.
7 Donald L. Fennimore, Metalwork in Early America: Copper and its Alloys from the Winterthur Collection (Winterthur, Del.: Henry Francis du Pont Winterthur Museum, 1996), 388.
and the outside world and compares the call of the bell to a signal for servants to drop whatever one is doing to clear the stage and get ready for a performance. The ring of a call bell by the door signals that the stage is set and the drama is about to begin as a guest enters.  

Other authors corroborate the assertion that house bells contributed to the genteel performance art of entertaining. When guests visited a house, careful planning and orchestration utilizing bell-pulls allowed household managers (most often housewives) to appear as if their servants silently anticipated the needs of their guests. In her Civil War-era Diary from Dixie, Mary Boykin Chestnut describes her daily life, including visits to Charleston’s Aiken-Rhett mansion. There she compliments the dinner service and the slaves who, she remembered, were practically mechanical in their silent anticipation of every guest’s want and need.  

Elizabeth Garrett’s thesis, Entertainment of the Most Beautiful Kind: The House of William and Harriet Aiken, 1833—1860, further examines the role of entertainment at the Aiken House. Garrett focuses on how interior domestic spaces served to assert the homeowners’ social identities and establish their home as a place for both comfort and aesthetic enjoyment. Garrett employs Aiken correspondence, newspaper articles, and third-party accounts to flesh out the role of aestheticism and comfort in the home. Although servants and call bells played a significant supporting role in the performance art of genteel entertainment, Garrett and other scholars of the Aiken house focus on interior, non-architectural objects.  

Historian Tim Crowley also pursues this theme of comfortable living in his history of the human desire for comfort, The Invention of Comfort: Sensibilities and Design in Early Modern Britain and Early America. Crowley applies material culture theory as evidence that the concept of comfort is a relatively new one, and that comfort as a cultural construct did not emerge until the late eighteenth century. He notes that most colonial Americans sat in dark rooms on uncomfortable wooden stools. However, the

---

8 Albert Smith, Natural History of Stuck-up People (London: Bogue, 1847), 16-17.
flood of consumer products into the colonies in the 1760s signaled a new way of thinking about how one should live. Fashion-conscious elites discovered discomfort in surroundings they earlier had felt to be satisfactory. Spartan lifestyles were no longer ideal; luxury became a marker of social success.11

Richard Bushman’s The Refinement of America: Persons, Houses, Cities also explores this interesting cultural shift toward refinement. He explores the pursuit of gentility in America from 1750 to 1800. Like Crowley, Bushman believes that colonial gentry embraced a “cultural ideal” of refinement that inspired the treatment of rooms and the conduct of lives. America’s habits were not a simple imitation of British aristocrats. Rather, their habits were a direct result of devotion to a similar ideal that slowly trickled down from European court rituals to American customs and practices. Bushman posits that aristocratic ideals permeated almost every stratum of American society.12

Architectural historian Ed Chappell places house bell systems in the Chesapeake within the grander scheme of the pursuit of refinement in The Chesapeake House. He believes that notions of refinement led to the spatial exclusion of the slave along with notions about appropriate equipage of entertainment. Imported servant bells provided links between workers and their masters, who increasingly wished to control how and when contact occurred.13

Likewise, historian and scholar of British aristocracy Lawrence Stone also believes that the pursuit of refinement that characterized the late eighteenth century led to architectural innovations like bell-pull systems. For Stone, the desire for private space necessitated architectural changes which delineated service and living space. Stone asserts that “it was not until the late eighteenth century that the growing desire for privacy and improved technology led to the removal of all the servant’s bedrooms

Martha Zierden’s A Trans-Atlantic Merchant’s House in Charleston: Archaeological Exploration of Refinement and Subsistence in an Urban Setting provides archaeological evidence to support Bushman’s thesis about the pursuit of refinement.
to a separate attic floor, linked to those of their employers by merely a bell and a bell-wire.” This, according to Stone, “must have been one of the most important innovations in the creation of private space for the owner and his family.” 14

Though many scholars assert that the desire for domestic privacy, like the desire for refinement, did not manifest until the late eighteenth century, Tim Meldrum provides a counterargument to Stone and Bushman in his article, *Domestic Service, Privacy, and the Eighteenth-Century Metropolitan Household*. Meldrum provides significant data from court cases of the era showing that servants lived in separate quarters from their masters prior to the late eighteenth century “age of refinement.” 15 He also cautions against using architectural and probate records to find evidence for privacy, as other documentary evidence is often necessary for proof. Meldrum asserts that technological advances like house bells and separate servant’s quarters arose merely out of a fashionable distaste for shouting. 16 He calls into question the notion that sentiment in and of itself, whether it is a desire for gentility or privacy, can precipitate significant architectural and technological change. In an antebellum context, accounts of slaves sleeping like pets at the foot of their master’s bed supports Meldrum’s thesis that desires for privacy did not necessitate architectural changes like servant bells. 17

Regardless of how, where, or when house bells originated, scholarly research of social control is relevant to any study of a tool that was used in master/servant and employer/employee relationships. In *The Politics of Taste in Antebellum Charleston*, social historian Maurie McInnis interprets Charleston’s houses and their furnishings in the grander scheme of political and social relations of the era. McInnis expands Bushman’s theories of refinement by asserting that the pursuit of a genteel lifestyle was bound up with determined efforts to control the city’s African American majority. Many Charlestonians used

---

slaves as tools to display their own gentility. For example, some owners forced slaves to run errands around town dressed in ornate, English-style livery. This behavior subjugated the slaves but also celebrated the elevated taste of the owner. McInnis views refinement, especially in regards to slavery, as a tool of social control over others.

Other scholars pushed McInnis’s theme of social control even further. Bernard Herman’s examination of African-American material culture and slave housing typology, *Slave and Servant Housing in Charleston, 1770-1820* views slave architecture as a totem of social control. Herman argues that changes in architecture such as off-site slave housing represented efforts to tighten social control over blacks by creating more clearly articulated architectural divisions. In his view, dwellings were specifically designed to codify the precepts of human relationships. John Vlach echoes this sentiment in his examinations of both urban and plantation slave architecture. *The Architecture of Urban Slavery* highlights the attempts of wealthy Charlestonians to cloak slave buildings with ecclesiastical gothic architecture—allegedly to impart positive propaganda on behalf of chattel slavery. Vlach applies this doctrine of social control to plantation architecture as well, stating that many architectural decisions were intended to reinforce the social order.

Could architectural innovations like house bell systems also reinforce this sense of social control? Perhaps, but most scholars of the architecture of servitude overlook house bells and their influence.

University of Delaware scholar Hillary Murtha recognized this gap in the literature and in her examination of the social control of the bell: *Instruments of Power: Sonic Signaling Devices and American Labor Management, 1821—1876*. Murtha uses material culture evidence, first person accounts, women’s

---

advice books, and aural history to illustrate how labor managers used various auditory signals to reinforce class divisions and control their workforce. Like historian Elizabeth Fox-Genovese, Murtha’s perspective is class-conscious and Marxian in analysis.\footnote{Fox-Genovese’s works offer valuable insight into class divisions between mistresses and their slaves in the antebellum South. However, she does not delve into the topic of house bells as Murtha does.} Her dissertation focuses on the labor management of three groups: mill workers, plantation field slaves, and non-slave domestic servants.

Most importantly, Murtha’s final chapters on domestic service represent one of the few detailed scholarly discussions of house bell systems. Murtha draws upon scholarly literature, women’s journals, slave diaries, and women’s guidebooks on household management to paint an informative picture of how housewives controlled their servants and slaves via the call of the house bell. Thanks to Murtha, there is now a succinct social history of house bell use from 1821-1876.\footnote{Hillary Murtha, “Instruments of Power: Sonic Signaling Devices and American Labor Management, 1821--1876” Ph.D., University of Delaware, 2010. 204-246.} Interestingly, Murtha does not explore house bells as an expression of gentility and refinement. More analysis of the interplay of gentility and its base of oppressed labor is necessary.

Like Murtha, other historians explore auditory accounts of American slavery. Mark M. Smith’s \textit{Listening to Nineteenth-Century America} illustrates how sectional consciousness was profoundly influenced by sound. For instance, antebellum overseers used bell and horn signals to exercise private and public authority over others, to establish time and work discipline, and to establish a measure of social control over them. Like other scholars, Smith glosses over the topic of house bells.\footnote{Mark M. Smith, \textit{Listening to Nineteenth-Century America} (Chapel Hill : UNC Press Books, 2001), 28, 113.} Shane and Graham White’s book, \textit{The Sounds of Slavery: Discovering African American History Through Songs, Sermons, And Speech}, offers similar auditory analysis of slave life.\footnote{Shane White and Graham J. White, \textit{The Sounds of Slavery: Discovering African American History Through Songs, Sermons, And Speech} (Boston: Beacon Press, 2005), 1-7.} The Whites, like Smith, overlook call bells for domestic servants.

Another unfortunate gap in the literature of domestic service regards the technological development of house bell systems. No modern literature provides a clear delineation of hardware types
and varieties or traces the shift from house bells to other forms of technology like speaking tubes or the telephone. Though his contribution is brief, Colin Cherry, an English cognitive scientist, discusses bell systems in his article, “The Telephone System: Creator of Mobility and Social Change.” Cherry stresses that domestic communication technology once existed strictly for the purpose of master/servant communications. The telephone, in its early years, was no exception. The first advertisements for telephones stressed the ease of labor management and a great improvement over bell-pull systems and speaking tubes. Unlike the bell-pull, the telephone leveled the social playing field by giving the servant the opportunity to respond back. The invention of the telephone surely played a role in the demise of the bell-pull; however, it will be interesting to examine the years in the late eighteenth and early twentieth centuries when both systems could be found in houses.

Although the literature on bell-pulls is clearly lacking, unpublished literature from architectural historians and employees of historic house museums offers more insight into bell systems in both urban and plantation settings. For instance, architectural historians Mark R. Wenger and John Green have researched house bells in the Chesapeake region. Other unpublished resources like historic structure reports and preservation department correspondence from house museums yield some clues into the world of southern house bells. Though these records of physical evidence can be helpful, it is necessary to place house bell systems in a wider scholarly context.

When more evidence is finally gleaned from contextual research and documentary evidence of bell systems and the bell hanging trade, the question remains—how should we interpret servant bells to the public, especially in historic house museums? For the purposes of this study, the significance of the house bell lies in the interpretive opportunity that the systems offer in exploring another facet of the slave experience in Charleston. Robert Weyeneth’s Historic Preservation for a Living City notes that

---

Charleston’s Aiken-Rhett House museum offers strong potential for interpreting urban slavery. Fleshing out interpretation of the bell-pull system there, which is remarkably about forty percent intact, can take this potential even further.

TELLING AN UNTOLD STORY

Although many house museums tell the story of the wealthy white homeowners who occupied America’s ornate mansions, the last two decades have seen significant strides toward equal representation of minorities and women. Many historians and museum professionals agree that more work still needs to be done. In her examination of the historic house museum movement, Patricia West alleges that Southern house museums have sidestepped slavery interpretation for far too long. Small and Eichstedt’s *Representations of Slavery* echoes West’s sentiment. The book analyzes interpretive strategies at over one hundred plantation museums in the South. The authors conclude that the vast majority of slavery sites construct narratives of history that valorize white elites of the pre-emancipation South and trivialize the experience of slavery for both enslaved people and their enslavers. Small and Eichstedt also recognize the problem of "segregated knowledge" at house museums—trivializing the experiences of African-Americans by telling their stories only in the restored basement or servant’s quarters of the house rather than incorporating that story into every aspect of a museum’s programs and operations.

This thesis is an effort to understand the greater historic context of servant bells. Because of the physical location of bell-pulls within a dwelling (located in nearly every room of a house), bell systems offer an opportunity to highlight the role of slaves in most rooms of a house museum rather than just in servant’s quarters. Notably, no less than four of Charleston’s historic house museums have surviving

---

house bell hardware, but interpretation of this architectural manifestation of master-slave communication is sparse. Between 1730 and 1830, newspaper advertisements show that Charleston had over twenty advertising house bell hangers. This is even before the antebellum era of refinement, when house bells reach their widest appreciation in Charleston. Highlighting the role of these popular building systems in antebellum Charleston life is a fantastic opportunity to open up dialog about the contributions of the minorities and oppressed individuals who had to heed the call of those bells. The carpenter, the bricklayer, the bell hanger, and the domestic servant all played a role in helping wealthy residents create their houses: the domestic performance stages which were “Charleston aristocracy’s greatest temples to itself.” For Charleston’s house museums, the toll of the house bell could be an aural reminder of the oppressed domestics who, like stagehands in a theater, toiled to maintain their masters’ appearances of leisure and gentility.

This text is divided into five parts. First, I will examine the early history of house bells and tell the story of their origin, use, and technical development in England. Due to a significant dearth of information about the American bell hanging trade, I rely heavily on English trade books and construction journals which describe servant bell systems. These texts have added to my understanding of how these systems work, what hardware types are called, and how and where bells were used. English architectural styles and domestic customs spread across the Atlantic, so it is essential to examine the origin of servant bells before delving into a history of American bells. Next, I will trace the overall technological development of bell systems in the United States, highlighting their role in the development of household communication technology. The next chapter will focus on the spread of house bell technology to Charleston, South Carolina. After discussing the history of servant bells in Charleston, I focus on one bell system in Chapter 4’s survey of the bell system at the Aiken-Rhett House. Chapter 5 provides analysis and historic interpretation of the Aiken-Rhett servant bell system. Finally, my conclusion offers broad

32 Museum of Early Southern Decorative Arts Craftsman Database. http://www.mesda.org/research_spritz/mesda_Craftsman_Database.html (accessed on 10/12/12)
33 Maurie McInnis, Ph.D. dissertation (Yale University, 1996).
preservation and interpretation guidelines for these obsolete but still relevant pieces of historic household hardware.  

34 For reference, please refer to Appendix A: Illustrated Glossary of House bell terminology if you encounter any unfamiliar terms related to house bell equipment.
In the late seventeenth century, England’s largest aristocratic estates employed dozens of servants to perform tasks ranging from answering the door to preparing meals for the household. In these houses, wealthy British nobles summoned their servants with vocal commands or by ringing a hand bell. A new contraption invented in the 1700s—mechanized servant bells—revolutionized this communication process. By merely pulling a tassel or cord, a lord or lady could ring for a valet or a maid from any room in the house. The bell cord was connected to copper wire which ran across walls down to a bell board in the servants’ quarters near the basement. Bell cranks—small brass pivots which swung ninety degrees—changed the direction of wire and allowed the force of the pull to be transferred across corners. Bell systems increased privacy and convenience for employers. Servants in houses with mechanical bells no longer had to wait in immediate audible range for commands from their employers; instead, they had to drop their work at a moment’s notice to attend to their masters’ summons. Servant bells projected an image of aristocratic ease and leisure; for nobles had only to pull a cord to summon a servant to do their bidding. Perhaps the desire for leisure and convenience was contagious, because the practice of hanging bells in houses surged in popularity amongst Britain’s upper and middle classes in the Victorian era. This technology dramatically changed the way people communicated with their servants.

According to human geographer and historian Yi-Fu Tuan, the history of house bells began in late medieval Western Europe. Tuan asserts that the late medieval European house was a microcosm of society—with masters and servants dining at the same table in a great hall, united by feudal allegiance. However, the seventeenth century marked major architectural changes in household
arrangement and familial protectiveness. Families in early-modern Europe turned inward and the home became a private haven. Homeowners erected wall partitions to separate servant and master. Lengthy galleries and private entertaining spaces replaced the great hall where all classes once dined together. In country houses, private family spaces and service areas were separated by wide horizontal wings. In city houses, the spheres were divided vertically, with servants occupying attics or basements. Servants who entered the family wing of the house were meant to be invisible—an act made possible by an intricate system of back stairs and corridors. Architecturally, masters and servants occupied completely different social strata. In the eighteenth century house bell systems widened this social gap by the span of a bell wire.\(^{35}\)


\(^{35}\)Yi-Fu Tuan, *Segmented Worlds and Self: Group Life and Individual Consciousness* (University of Minnesota Press, 1982), 80.

Rapid industrialization and a marketplace saturated with new consumer items provided individuals greater access to objects that helped them gain distinction. The flood of consumer products into the marketplace in the late 1700s signaled a new way of thinking about how one should live. Fashion-conscious patricians discovered discomfort in surroundings they previously found satisfactory. Austere lifestyles were no longer considered ideal; luxury became an acceptable and widespread marker of one’s character. Consumer products like mechanized servant bells were one of the many new objects that signified gentility, leisure, and economic success. House bells provided a more civil way to request help from servants. Instead of coarsely yelling across the halls of his house, an employer could quietly pull a cord to summon his employees.  

House bells also allowed owners to exert greater control over their servants. This newfound power was often abused. The Merry Waiter, an eighteenth-century nonsense poem by an anonymous author, satirizes the resentment of servants forced to answer house bells during dinner service. The titular waiter cries, “Damn the bells! / They are all ringing at once! / I’m a coming, coming, coming, coming!” The waiter issues commands to the wait staff like a general on the battlefield, telling them which bells to answer. When a guest requests a napkin during dinner the waiter mutters to himself, “Tell Mr. Napkin to go to the Devil!” His vituperative language in the servant space contrasts with his obedient silence upstairs, where he forces a smile as he pours fine wine into the glasses of grotesquely fat, drunk, and demanding dinner guests who ring for him endlessly.  

Paradoxically, house bells allowed for greater physical distance between master and servant while giving the master greater control over the regimentation of servant behavior. In his mockery of aristocratic habits, A Natural History of Stuck Up People (circa 1847), humorist Albert Smith lampooned the theatrical use of house bells. He conjured up the image of a stage performance, stating:

We have therefore come to the conclusion that these various bells have for their object, not so much the division of labor amongst the domestics, as to announce to the inmates when any one is going to make a call—{rather} a sort of prompter’s signal to "clear," which means that they must get into their places and dispose of all unseemly properties before the drama begins.  

Mechanical bell systems stratified master and servant space while increasing a sense of privacy for both groups. However, this privacy did not increase servant freedom; instead, the very act of noiseless summons increased masters’ control and convenience. This controlled regimentation of servant behavior played into a desire for a refined lifestyle where servants noiselessly obeyed the commands of their superiors. Though they did not have to stand at attention in thresholds waiting for a vocal command, servants were compelled to instantly obey their masters’ summons and behave like puppets on a string—dropping their personal duties to answer a bell at a moment’s notice. Albert Smith questioned the appropriateness of new gadgets that made life easier for masters and tougher for servants. When describing all the bell-pulls one could now see at a front door, he sarcastically noted that these things were “great improvements upon the habits of our forefathers, in whose time the only way to get into a house was to knock at the door.”

Smith was correct in asserting that objects like bell-pulls were part of an elaborate drama—a well-rehearsed social production where nobles used silent, obedient servants as props in the performance art of genteel dining, living, and entertaining.

ARISTOCRATS AND THEIR BELLS—EARLY USE

British aristocrats quickly adopted house bell technology. In a survey of household inventories of eighteenth-century English nobles, historian Tessa Murdoch noted the presence of several types of bell hardware. Many homeowners listed wall-mounted house bell equipment in their probate inventories. For instance, a 1727 inventory listed pulley-operated house bells in the Kiveton House in rural Yorkshire, England. This was quite possibly the earliest recorded usage of mounted house bells. A 1746 inventory of

39Smith, *Natural History*, 18.
Whitehall House in London recorded the presence of a spring-mounted mechanical bell system. These inventories show that mechanical house bells were becoming a fixture of aristocratic life in both rural and metropolitan mansions. Erddig, a large estate in the Welsh countryside, had an early bell system which is still visible today. Spring-mounted bells hung on a board in the basement passage near the servant’s quarters signaled when the masters and mistresses of the house needed assistance.41

Figure 2-3: “Company shocked at a Lady getting up to Ring the Bell.” (London: H. Humphrey, 1805 Nov. 20.), Source: Library of Congress Prints and Photographs Division, http://www.loc.gov/pictures/item/2001695073/ (accessed on 12/12/12).

House bells were not confined to the sprawling estates of the British countryside. Reports from London during the 1750s indicate that house bells were also common in metropolitan areas. An English earl living in London during the earthquake of 1750 recalled the sound of servant bells:

I rang my bell; my servant came in, frightened out of his senses: in an instant we heard all the windows in the neighbourhood flung up. I got up and found people running into the streets, but saw no mischief done: there had been some; two old houses flung down, several chimneys, and much chinaware. The bells rung in several houses.42

English middle classes adopted house bell technology in the first decades of the nineteenth century. As early as the 1820s, middle class farmers installed house bells in their residences. Prosperity and the industrialization of mechanical processes allowed more and more Britons the opportunity to buy consumer goods like servant bells. The *Suburban Gardener and Villa Companion*, an 1838 guidebook on building and decorating suburban homes, included basic instructions for hanging house bells. The book

---

borrowed aristocratic bell hanging practices and distilled them for the masses. The author stated that servant bells should hang in the fashion of those at Erddig: mounted on a board “fixed in the passage between the kitchen and the servant’s hall.” Furthermore, the book recommended that “each bell should have a pendulum attached to the spring, to make known which has rung, for some minutes after the ringing has ceased; and the names of the rooms should be written on the bell board below the bells.”

According to another household guidebook aimed at a middle class audience, house bells were expected in most “ordinary” houses. Cassell’s Household Guide (1868), a detailed instructional book on household operation and servant training, advocated the use of bells in every home. The book offered additional advice for hanging bells on a bell board. The smallest, or highest toned bell, should be at one end of the bell board while the rest of the bells should gradually range up to the largest, or deepest toned bell—giving each succeeding bell a slightly different tone than the last. Differences in bell tone helped servants determine which room needed assistance without having to look at the bell board. Domestic guidebooks like The Suburban Gardener and Villa Companion and Cassell’s Household Guide implied that properly-installed servant bells were a necessity of modern life.

Decorative and literary arts of the Victorian era also speak to the universality of mechanical bells in both middle and upper class houses. Prominent designers like Josiah Wedgewood and William Morris crafted bell-pull tapestries and hardware items. House bells also appeared frequently in popular literature of the era—indicating that most, if not all, Victorians would have been familiar with them.

Sir Arthur Conan Doyle, for example, featured a mechanical servant bell system in the plot of his Sherlock Holmes mystery, “The Speckled Band.” In a suspect’s house the famous detective noticed a bell cord hanging from the ceiling that was mounted on a fixed hook rather than a typical moveable bell crank. Deducing that the bell-pull was phony, he discovered a venomous snake hidden in the ceiling, ready to fall

---

on top of the potential murder victim whenever he rang for a servant with the false bell-pull. The protagonist's knowledge of the mechanics of bell systems saved the day. Like Doyle, other world-famous authors of the era also included bell-pulls in their stories. Charles Dickens, Thomas Hardy, Anthony Trollope, Robert Louis Stevenson, and Hans Christian Andersen are a just few. The ubiquity of house bells in popular literature illustrates the transition of the servant bell system from an aristocratic luxury to a commonplace fixture in Victorian society.

![Embroidered bell-pull designed by William Morris, ca.1865.](http://collections.vam.ac.uk/item/O89269/bell-pull-morris-william/)


47 The following authors mention house bells (often specifically called “bell-pulls”) in their stories or novels. Hans Christian Andersen: *A Cheerful Temper* (1852), *What the Moon Saw* (1840); Charles Dickens: *A Tale of Two Cities* (1874); Robert Louis Stevenson: *New Arabian Nights* (1882); Thomas Hardy: *A Laodicean* (1881) and *Far From the Madding Crowd* (1874); and Anthony Trollope: *The Last Chronicle of Barset* (1867). Bell-pulls—with their connotations of entrances and exits, the closing and opening of stage curtains—were irresistible to authors of the time.
TECHNOLOGICAL HISTORY AND FUNCTION

Though the exact date of invention is uncertain, deconstructing the components of a spring mounted bell system can help date the genesis of this contraption. Bell systems could not function without a coiled spring. The mechanical energy of the user’s pull traveled through bell wire via pivots and cranks and then jogged a large coiled spring on which the house bell was mounted. The spring oscillated and caused the clapper of the bell to swing back and forth and create sound.

![Figure 2-6: A simple bell-pull installation, illustrated by Tom H. Gerhardt. Source: “Old House Intercoms: Buzzers, Beepers, Buttons, and Bells.” Old-House Journal, October 1979.](image)

In the mid-1600s English physicist Robert Hooke discovered the mechanical principles behind the spring’s operation. Though small coiled springs were already being used for simple household devices like locks, Hooke invented several new uses for springs, among them the clock balance spring. The balance spring was a spiral shaped iron ribbon that oscillated back and forth at a regular rate. This piece of equipment revolutionized clock-making practices by increasing the accuracy of portable timepieces. In mechanics and in fabrication, the early clock balance spring was nearly identical to the house bell spring.

---

The invention of the mechanized house bell system closely followed the invention of the balance spring. The earliest recorded usage of spring mounted house bells in Britain was in the mid-1700s. Early bell hanging advertisements indicate that most house bell hangers were whitesmiths—makers of brass and pewter pieces like hardware and brass clock parts. It was perhaps an entrepreneurial whitesmith who observed the reverberation of a balance spring and heard his clock’s bell chime, then had the idea to apply a bell to a balance spring and rig it up as a household communication system.

**MANUFACTURE AND INSTALLATION TYPES**

While the earliest English bell hangers cast or wrought each piece of house bell equipment by hand, tradesmen began ordering bell equipment from builders’ hardware catalogs as early as 1780. England’s second-largest city, Birmingham, was the epicenter of metallurgical trades. Birmingham brass manufacturers published catalogs filled with images of with nails, hinges, doorknobs, curtain rods, and other household items for architects and builders. Birmingham brass catalogs from 1780 to 1822

---

51 Museum of Early Southern Decorative Arts Craftsman Database File on Esaie Brunet, Active Charleston Carpenter and Bell hanger from 1736-1757.
52 Very little is known about the early history of house bells, their inventor, or the earliest incarnations of the technology.
featured an increasing variety of styles, designs, and materials for bell cranks and house bell hardware.\textsuperscript{53} These catalogs helped spread the technology nationwide, and then throughout the British Empire.

Although servant bell systems streamlined household communication practices, their installation harmed the interior finishes of houses. Bell hangers drilled holes into walls and ceilings, ran wires into finely carved wooden paneling, dug out plaster, pulled up flooring, and installed obtrusive hardware on the walls. The best bell hangers disguised their work by running bell wire along cornices and hiding it under molding. Less skilled bell hangers left wire exposed, running it from room to room with staples or nails and visible cranks. Whether the work was finely or poorly executed, British homeowners drilled dozens of holes through their walls to make summoning their servants easier. This willingness to adopt new technology foreshadowed the household modifications that would soon occur with the installation of electricity, gas lighting, telephone lines, and other modern conveniences.

In the 1800s, British technical writers began featuring house bell installation guidelines in construction specifications, builder’s magazines, design books, and building encyclopedias. Early bell systems featured long, floor-to-ceiling length tassel bell pulls. By the mid-1840s, construction publications announced the arrival of a new method of bell hanging invented in Scotland: a “secret” system using hidden wires and cranks. Instructional resources on bell hanging described how these new systems were installed, how much they cost, and how they worked. From the 1840s to the turn of the twentieth century, many construction and builder’s publications provided a glimpse of the bell hanging trade. This inexpensive trade literature made bell hanging even more accessible to the middle classes.

\textit{The Domestic Encyclopaedia} (1845) explained this new “secret” method of hanging bells:

“instead of causing the wires to go along beneath the cornices and across partitions and passages, in the

usual manner, till they reach the bells they are designed to pull, a plan is followed by which not a single wire is seen in any room in the house.” From the top of the bell-pull in each room the wire was carried straight upward in a small metal tube sunken in the plaster, to the vacancy below the roof. There the wires of the whole house would meet and then descend into another tube going back downstairs to the ground level. From there, they would branch off onto the bell board, reaching their respective bells. With this method each bell’s wire had only two cranks (turns), or at most three, in its entire course. All drilling and boring of walls was avoided, along with the unsightly appearance of wires in the rooms.  

This unobtrusive mode of bell hanging quickly replaced the old manner of hanging bells in houses. Construction publications were quick to praise the superior new system, calling the old manner of bell hanging “crude.” Prior to the 1840s, visible wires guided by staples on walls and cranks on cornices were common even in the most opulent houses. The new technology refined the bell hanging trade by hiding its unsightly inner workings from view. Yet again, technology made the act of summoning servants even more silent and out of sight.

Since the new secret system required work to be done before plastering of wall partitions, most building trade literature focused solely on installing bells in new construction. Several construction manuals summarized the bell hanger’s basic methods. The best bell work was the least visible kind, featuring copper wire running through zinc tubes to connect bells to each room. Selection of bell-pull hardware depended on homeowner taste and architect preference, but tassel pulls were more common in bedrooms while unobtrusive lever pulls were preferred in public spaces like drawing rooms or parlors.

When a new building was ready for plastering, having the floors laid and the walls up, the bell-hanger visited the site with bell-tubing and tools in hand. If the building was brick, the bell hanger cut out a brick where the bell-pull was to be located and then plugged it with a wooden block. Next, he bored another small hole into the floor, carefully avoiding floor joists. Using staples and nails, he fastened a vertical metal tube to the wall and ran it through the hole in the floor down to the lower level’s ceiling. He inserted copper bell wire into the tube, then drove a crank for the bell lever into the wooden plug. After plastering, he attached the bell wire to the bell-pull, and then screwed in the pull fixture. He then moved downstairs to connect the wire to the bell board in the cellar.

Figure 2-9: A Parlor Bell Lever—the trademark hardware for tubed bells installed in plaster. Source: G. Lister Sutcliffe, ed. The Modern Plumber and Sanitary Engineer (London: The Gresham Publishing Co., 1907), 285.
After the bell hanger finished installing the system, each bell-pull he installed triggered the ringing of a bell in the basement. A copper wire connected to each bell-pull was run through the house, attached to pivots and cranks. The wire was threaded through walls via zinc or copper tubes which were embedded in plaster and concealed from view. Back at the bell board, the wire exited the wall and joggled a spring upon which the bell was mounted—causing the bell to ring. The bell board was located near the kitchen, preferably in a basement passage between the servant’s hall and the kitchen.

Suspended on a wooden bell board, spring-mounted house bells themselves were cast from bell metal (four parts copper to one part tin). The bells were “usually tuned in peals” from smallest to largest bell (or vice versa) to allow for audible room differentiation. Sometimes a pendulum hung from the bell’s clapper so that it would continue swinging even after the bell stopped ringing. This gave servants another way to identify which bell had been rung.


---

57 Dobson and Allen, *Rudiments*, 245.
Most British construction books recommended two hardware types: bell levers for public rooms and doorbells and tassels for private rooms. A bell-pull or knob located by the door in both the front and back entrance of the house functioned as a doorbell. Bell levers were also located in public spaces including libraries and parlors. According to the manuals, bell hardware was selected to match door hardware. In private spaces like bedrooms, bell-pulling equipment was more embellished. Large embroidered tassel pulls were common in private spaces and chambers.

Choosing the right bell hardware was an important step in finishing and furnishing a house. Early twentieth-century interior decorating books stressed the importance of selecting appropriate bell system hardware. One decorator noted, “if person has taste (and everybody should have some) he should see to it that his knocker and bell-handles are as carefully considered as his clothes.”58 An awkwardly placed pull could be unsightly or unusable, depending on furniture placement. For instance, chamber bell-pulls needed to be located near beds so homeowners could call servants at night. The finest bedchambers had two bell-pulls—one located on each side of the bed. Other rooms like libraries required

---

planning as well. Library pulls were located away from tall objects like bookshelves so they would not be obscured. Meticulous bell hangers consulted the homeowner about furniture placement before choosing the location of all bell levers. Pulls or levers were typically installed about three feet above the floor for easy reach. Most specifications agreed that good taste, careful planning, and quality materials ensured the success of any bell hanging endeavor.

THE DECLINE OF MECHANICAL BELL SYSTEMS

By the 1890s, descriptions of bell systems in construction manuals, specifications, and cost estimator books became sparse and less detailed. An 1897 manual described the fate of the “the old fashioned” bells whose “wires and cranks are fast disappearing.” Further, “the electric bells are the best, if only for the neatness of the furniture, which is so much smaller, mechanical bell systems were becoming less common.” Many specifications favored newer trends in communication technology, including speaking tubes, pneumatic air-powered bells, and electric call bells.

Although other communication systems overshadowed mechanical servant bells, some homeowners held on to old traditions. Perhaps sensing the decline of mechanical bells due to the advent of electric call bell systems, several British architectural encyclopedias offered extensive guidelines on appropriate use and restoration of mechanical bell systems. These texts were geared towards owners of smaller buildings whose mechanical bell systems were still in reasonably good condition. Published in 1907, The Modern Plumber and Sanitary Engineer captures house bells in their final years. The publisher united sixteen trade experts who described best practices for repair and construction of building systems including sanitary work, ventilation, plumbing, heating, lighting, and bell work. The section on mechanical bells contains over fifteen pages on bell hardware, bell hanging practices, and restoration tips.

[60] See Glossary for more detailed explanations of electric bells, speaking tubes, and pneumatic bells.
encyclopedic text, *Modern Buildings* (circa 1921), offers detailed images and installation guidelines for 
house bells. The author, an architect and illustrator, looked favorably upon the old system, stating:

> These bells are still used to a considerable extent, and for small houses are indeed most 
> reliable. When properly constructed they require far less attention than either electric 
> or pneumatic bells. The inferior fittings frequently used for mechanical bells have done 
> much to bring them into bad repute, and if this point is attended to in the first place the 
> bells will remain in good condition for years.  

---

**BELLS IN ENGLAND TODAY**

Though nostalgic building encyclopedias of the early twentieth century attempted to revive the 
old trade with copious illustrations and elegant explanations, wire operated-bell technology soon faded 
into obsolescence. The easy installation and unobtrusive hardware of electric chimes quickly usurped the 
bulky hardware and breakable wires of mechanical systems. Telephones and intercoms also dealt house 
bells a fatal blow. Easy room-to-room vocal communication was no longer a challenge. And as 
widespread employment of household servants fell out of fashion in the twentieth century, so too did bell 
systems.

Currently, some British homeowners retain their bells for history’s sake. Erddig and other 
museums owned by the National Trust preserve their house bells. Several period hardware shops also 
manufacture and restore house bell hardware. Homeowners wishing to repair or install new bell systems 
in their houses need only consult a period hardware website.  

Although bell hanging is a small niche industry in Britain, house bells have gained greater 
exposure through British popular culture. Television shows like *Upstairs, Downstairs* and *Downton Abbey* 
dramatize interactions across the master and servant divide. Both shows feature mechanized servant 
bells. For most modern viewers, these programs are their only exposure to mechanical house bell 
systems.

---

63 For example, see The Period Ironmonger in North Shropshire, UK. http://www.theperiodironmonger.co.uk/
Although the bell hanging trade is nearly forgotten, the rise and fall of mechanical bell systems in Britain tells a fascinating story. A technological innovation constructed greater separation between masters and servants. Masters summoned servants with greater ease while gaining an ability to regiment their behavior according to the toll of bells. House bells surged in popularity in upper and middle classes and created a thriving building trade highlighted in many nineteenth-century construction books. As this technology faded into obsolescence in the late Victorian era, society latched on to house bells in its popular culture through arts and literature. Today, British culture still clings to the memory of servant call bells. Although employing servants is no longer commonplace, servant bells are an emblem of a time gone by in British history. The technology is obsolete but its connection to history is not lost; house bells visually and audibly tell the story of servant life.

Wealthy Americans from coast to coast also embraced the technology that enabled easy, wordless communication with their household servants. From the late 1700s to about 1900, most well-to-do Americans installed mechanical bell systems in their houses.¹ Servant bells were an everyday item in the American built environment.²

² Interestingly, the ever-present house bell played an unexpected, yet important, role in measuring the intensity of natural disasters. Before the technology for the Richter scale existed, the intensity of earthquakes was measured by sight and sound: by observing what swayed, along with listening to what the earthquake shook. According to the circa 1873 Rossi–Forel scale (one of the first seismic scales to measure earthquake intensity), earthquakes of moderate intensity were strong enough to shake house bells, while more severe earthquakes rang church bells. Such
In the late 1800s, the American market responded to the high consumer demand for house bell technology. Servant house bells captured the imagination of many inventors. New communication innovations including electric annunciator bells, speaking tubes, intercoms, and the telephone arose in the last quarter of the nineteenth century. These inventions, like mechanical bells, originated as a tool that wealthy Americans used to communicate with their staff. Bell systems, the technological grandfather of modern household communication technology, began this trend by streamlining communications between masters and servants in the United States.

FROM BELLS TO TELEPHONES: THE BELL SYSTEM AT THE WHITE HOUSE

The story of bells in one of America’s most famous dwellings—the White House—illustrates the trajectory of the technological development of house bells in the United States. Even when the nation was young, the British practice of wiring bells in houses was firmly entrenched in American culture. Like their aristocratic peers across the Atlantic, American presidents desired the convenience of house bells in their private residences. Their sizeable dwellings often boasted a large staff—whether servant or slave. For instance, George Washington had bells installed at Mount Vernon by workman Thomas Fenton in 1788. Many other significant presidential houses had house bell systems including Lindewald, Martin Van Buren’s house in Kinderhook, New York; Abraham Lincoln’s New York cottage; Andrew Jackson’s Hermitage; and Thomas Jefferson’s Monticello.

As for the White House itself, the building was not originally constructed with servant bells. After more than a few complaints from his frustrated wife, John Adams sought after Thomas Fenton to install

a scale would be useless in areas without house bells, so it can be surmised that they were installed in most places. Many accounts of earthquakes such as that published after Charleston’s 1886 disaster shared the story of house bells ringing with each shockwave. Herbert Tiedemann, *Earthquakes and Volcanic Eruptions. A Handbook on Risk Assessment.* (Zurich: Swiss Reinsurance Company, 1992). “A Woman’s Account of the Earthquake.” *The News and Courier,* August 30, 1886.


bells in the newly-constructed presidential headquarters. Thomas Fenton did not respond, as he died suddenly. The staff scrambled to find another bell hanger in the area but did not succeed until Mr. Adams was out of office. White House staffers finally found Mr. William Hedderly, an English bell hanger who installed the system during Thomas Jefferson’s tenure in the house.  

Although the original White House burned in the War of 1812, primary source accounts indicate that bells were reinstalled when the house was rebuilt after the war. When Martin Van Buren redecorated the house in 1837, his receipts recorded the installation of a new bell-pull in the President’s office. Van Buren also purchased yards of silk cord for the tapestry bell-pulls located throughout the house. The presence of silk cords indicates that it was an early nineteenth century bell system that relied on visible ceiling-mounted hardware and long tapestry bell-pulls. There was no mention of bell levers used for tubed “secret” wiring.

Sometime before the 1860s, White House architects reinstalled a tubed-wire bell system. Accounts of Abraham Lincoln’s presidency mention these very bells. In her memoirs of life at the White House, Tad and Willy Lincoln’s nanny told a story of how the young boys climbed into the attic and figured out the mechanics of the house bell system. Hearing a horrible clangor of bells one evening, the servants, secretaries, and assistants envisioned a national disaster. They later discovered the boys giggling in the attic, pulling the wires and ringing all the house bells at once.

If this story is not apocryphal, it indicates that the White House bells were hung in the English manner. Mid-nineteenth-century English construction guidebooks hinted that all bell wire should be run vertically, eventually meeting in the attic where the wires could join together and then run down a chase between the walls down to the servant’s area in the basement. Tad and Willy must have discovered this spot where all the wires came together in the attic before travelling down to the bell board.

7 William Stoddard, Inside the White House in War Times (New York: Charles L. Webster, 1890), 50.
The mechanical system was not there much longer for young pranksters to enjoy. Late nineteenth-century builder’s books indicate that many bell hardware companies, in addition to offering separate lines of electric bells, provided the option of “electrical attachments” for retrofitting mechanical
house bells with electricity. When updating the White House with modern amenities like a telegraph room, President Andrew Johnson electrified the existing bell-pull system in 1866. The turn of the century marked an interesting time when both technologies—mechanical and electrical house bells—existed concurrently. Other communications technologies were soon included in the White House. Johnson also installed the White House’s first telegraph in the late 1860s, while Rutherford Hayes installed the first telephone about a decade later. From mechanical bells to electric bells and finally telephones, the White House was a bellwether for household communication trends in the rest of the country.

NORTH AND SOUTH—INTERIOR AND EXTERIOR INSTALLATIONS

Though there are some exceptions like the White House, most Northern houses had their bells hung in a British fashion: running bell wires from pulls directly to a bell board hung in a basement near the servant’s hall or the kitchen (see Figure 3-3). This was common in residences where kitchens and servant areas were not detached from the main house. In contrast, Southern bell hangers often mounted bells on the exterior of houses on the elevation nearest the detached slave quarters. Photographic documentation from the Historic American Buildings Survey shows that all over the south, from Alabama to Virginia, it was also common to mount bells in a row on the back porch nearest the slave quarters (see Figure 3-4). Ironically, as debates on slavery tore the nation apart, northern and southern elites used similar mechanical bell equipment to summon both servant and slave. The popularity of house bells throughout every region of America illustrates the steep socioeconomic boundaries between well-to-do masters and their household help.

---

Figure 3-3: Interior servant bells on the ground floor in the passage near the kitchen at Kliveden, also known as the Chew House (circa 1763-1767) in Germantown, PA. Source: "Historic American Buildings Survey, Drawings & Photographs of Cliveden, 6401 Germantown Avenue, Philadelphia, Philadelphia, PA," Library of Congress, Call Number HABS PA,51-GERM,64-87 http://memory.loc.gov/pnp/habshaer/pa/pa1100/pa1164/photos/136755pv.jpg (accessed on 12/3/12)

Figure 3-4: Exterior slave call bells mounted on the porch at Kenworthy Hall in Alabama (circa 1830). House bells scattered all over a building’s exterior may be a purely Charlestonian phenomenon. Source: "Historic American Buildings Survey, Drawings & Photographs of Kenworthy Hall, State Highway 14 (Greensboro Road), Marion, Perry, AL," Library of Congress, Call Number HABS ALA,53-MARI.V,5-7.
Debates over slavery and the eventual abolition of the institution did not mark a decline in the popularity of house bells. Servants nationwide still responded to the call of these household machines. Former masters used house bells to summon and regulate the labor of their household employees even after slavery was abolished. In the last decades of the 1800s, bell hangers nationwide continued to advertise their services in local newspapers (Figure 3-5).

Figure 3-5: Robert Wing, bell hanger, advertises his services during Reconstruction. Source: The Charleston Daily News. (Charleston, S.C.) 1865-1873, March 30, 1870.

AMERICAN INVENTIVENESS

During the nineteenth century, the United States Patent Office was swamped with hundreds of bell-related patents. These included noiseless bell-pulls, bell machinery for hotels, machines for making bell wire, and table or call bells. Throughout the century, there were approximately 200 inventions relating to bells of all kinds, eighteen of which were directly concerned with house bell hanging. And from Sacramento to Los Angeles and even Charleston, bell hangers advertised in newspapers of most large American cities. Many wealthy American homeowners simply could not do without bells. The thriving bell manufacturing industry and bell hanging trade responded to consumer demand for seamless household communication.

As American patent applications for house bell equipment skyrocketed, manufacturers responded accordingly by releasing these new gadgets and styles into the marketplace. Hardware became smaller and more refined, and even more varieties of styles were released into the marketplace.

\[12\] Fennimore, American Copper and Brass, 178-179
The secret system of hanging wires in concealed plaster allowed for simpler and more innovative hardware compared to the dusty, moth-eaten tapestry pulls of the past.13

Many American manufacturers distributed system hardware with nationally circulated catalogs.14 Gone were the days of hand made and hand wrought house bell equipment. By the 1860s, large catalogs from companies like Russell and Erwin and Bliven, Mead, and Co. made bell hardware available to most middle to upper class houses that employed servants or needed a doorbell. Some manufacturers like J. Shannon and Sons out of Philadelphia issued full catalogs of house bell equipment. Builder’s books confirm that simple bell hardware items were "staple goods kept in stock by many hardware dealers."15 Even as late as 1905, catalogs like the Hardware Reporter (circa 1905) featured dozens of choices for wire operated bell-pull hardware.16 Bell hangers and builders used these catalogs to match bell hardware to various architectural styles and finishes. From porcelain knobs to gold-plated parlor bell levers, homeowners had a wide variety of hardware types to choose from.

One innovation in particular (Figure 3-6) captures the inventive spirit of the era. If small dining room bell levers on the side of a chimney were not subtle enough for some homeowners, one new invention helped ladies summon their servants.

---

15 Building Age. 222.
in an even more discreet manner. A concealed, foot-operated push button bell-pull was created for installation underneath dining room tables. At a dinner party a lady could summon her servants to bring in new courses without displaying the slightest bit of effort. This new type of bell hardware made her a master of illusion: she could show her guests that her servants were so well-trained that they were practically mind readers. Inventions like this cemented the house bell as a scene setter in the subtle art of genteel entertaining.17

Along with catalogs, trade literature also helped the practice of bell hanging reach a wide American audience. Late nineteenth and early twentieth century builder’s books, specifications, and construction trade manuals illuminated the technical details of house bell hanging. The inclusion of bell hanging instructions in construction handbooks indicates that the trade shifted from a rougher, vernacular trade to a more refined construction practice. Beginning in 1849, builder’s books referred to the “common” or “cheap” older manner of bell hanging—fastening bell wire along ceilings with staples.

An 1849 construction book, Rudiments of the Art of Building, was one of the first American trade books to specify house bell work. Bell hanging, the author said, should be “paid for by the number of bells hung; the price being determined by the manner in which the work is executed. The furniture to the pulls is charged in addition, at per piece.” Rudiments differentiated between superior and inferior types of work, noting “In all superior work, the wires are conducted along concealed tubes, fixed to the walls before the plasterer’s work is commenced.”

Building Age, a construction periodical published from 1879 to 1930, also made this distinction and highlighted the superiority of the new bell hanging method. Issues from 1883, 1884, and 1889 featured detailed articles on the art of bell hanging. Like most British construction literature, Building Age recommended the use of the tube-rigged system. The best bell hanging work concealed unsightly wires, staples, and cranks. Wires were sunken into walls using zinc tubes that were disguised with a finish coat

of plaster. This manner of installation required more planning and skill than the old manner of nailing visible cranks, staples, and wires along cornices. The periodical also recommended installation of a bell board near the kitchen.

Figure 3-7: Many decorative choices for bell-pulls in a 1905 hardware catalog. Source: The Hardware Reporter (New Britain, Connecticut: P & F Corbin Company, 1905), 89.
Figure 3-8: A listing of bell equipment, priced by set. Source: Bliven, Mead & Co.’s Illustrated Catalogue and Price List of American, German, English and French Hardware (New York: C.S. Westcott & Co., 1864).
NEW TECHNOLOGY AND THE DECLINE OF MECHANICAL BELLS

Very little has ever been written about the installation of servant bells in America. However, literature that promoted new types of communication technology often described the old mechanical bells. When new technology entered the market, proponents of “superior” electrical bells systems criticized the old manner of bell hanging. Building trade journals and do-it-yourself handyman manuals urged readers to install newer technologies. They often illuminated the problems inherent in mechanical bell installations and also illustrated the consumerist penchant to denigrate newly obsolete technology.

According to these texts, mechanical bells had several major drawbacks. Many homeowners used bell-pulls too vigorously and accidentally jerked a foot or so of wire out of the wall. Rust and dust were also troublesome because they gummed up cranks and prevented the turning of corners. Gravity and tension also slackened bell wire, resulting in fruitless pulls to silent bells. Many advocates of new communication technology wrote about the superiority of telephones, electric bells, and speaking tubes while criticizing the perceived failings of mechanical bells. As one proponent of electric bells wrote at the close of the 19th century:

The electric bell is much simpler and easier to put in, for the wires can be led anywhere, around corners, or doubled on themselves with perfected ease, and the battery needs but little care. No modern house is now provided with the mechanical bell attachments which were universal forty years ago. This change has had an important influence in diminishing the number of haunted houses .... In the old system of bell ringing, rats creeping under and over the wire often set the bells to ringing. Electricity has changed all this, rats are powerless, and the ghostly bell ringing in haunted houses has disappeared. 18

By the last decades of the 1800s, many builders’ periodicals criticized mechanical bells which were the height of technology only a few decades prior. Authors described the old systems as coarse, unwieldy, difficult to operate, and out of fashion. Trade journals extolled the virtues of electric bells,

pneumatic and speaking tubes, and telephone technology. Authors often used lofty language to promote
the new method of electric bell hanging which "harnessed lightning to do the work of the kitchen maid."\(^{19}\)

This penchant for overstatement characterized trade journals of the era. *Amateur Work
Illustrated* (1883) explained:

"What an immense amount of muscular energy is expended every day in pulling
bells...for I made my arm ache this morning in ringing the bell to wake Mary, and then
had to get out of bed to do it, for I had broken one of the wires."\(^{20}\)

Though the language sounds like sarcasm to a modern ear, it was perhaps akin to a hyperbolic 1890s
infomercial showing how difficult life is without possession of a certain product. The author continued his
article by providing installation instructions for electric bells.

In *Practical Information for Telephonists* (1891), T.D. Lockwood also targeted the failings of old
call bell systems—namely, the weak joints and cranks which came apart as the handle was pulled. He also
criticized the din of “coarse unmusical cowbells” which “announced the stranger at the door, or to
summon Bridget to the presence of her mistress or to notify James to the harness of the horse.” With no
shortage of hyperbole he praised electric bells:

the very acme of quintessence of earthly happiness would be attained if [masters]
would only consent to adopt the press-button as their swift footed Mercury; the battery
in lieu of the muscular force of the arm; and the electric wire in place of the mechanical
wire.\(^{21}\)

As inventors promoted new communicaton technology, many homeowners removed their old
servant bell systems. Old fashioned mechanical bells were eventually replaced by electric bells and
 telephones. Though no longer in use today, speaking tubes and pneumatic bells also came onto the
market and provided stiff competition to the old technology. Pneumatic bells used flexible tubing to send
a puff of compressed air to engage a bell at the other end of the tube. Speaking tubes also used flexible
tubing to carry voices acoustically through walls. One trade magazine claimed that two people, “standing

---


\(^{21}\) T. D. Lockwood, *Practical Information for Telephonists* (New York: W.J. Johnston, 1891), 168
at each end of a tin pipe, 1 inch in diameter, 50 to 100 feet or more long, with several elbows in it, and carried through a half a dozen rooms, can still converse quite readily in a low voice.” Speaking tube installation was less invasive, quicker, and cheaper than mechanical bells. New communication technology could also span a greater distance without the trouble of worrying about loosening of wires and cranks. The telephone took this long-distance communication ability even further.

Although several inventions competed with mechanical bells, the telephone likely led to the obsolescence of wire and crank operated systems. Patented by Alexander Graham Bell in 1876, the telephone revolutionized communications between masters and servants by giving people at the receiving end of a faraway bell toll the opportunity to respond back. Cognitive scientist Colin Cherry notes that the first ever telephone transmission was Bell’s command to a servant: “Mr. Watson, come here. I want to see you.” The telephone eventually democratized communications between masters and employers by creating a dialogue instead of a one-sided summons. However, this democratized form of communication did not dampen telephone manufacturers’ references to the master/servant divide.

Advertisers made this new technology relatable to consumers by comparing the telephone receiver to old mechanical bell technology. For example, a 1930 advertisement (Figure 3-9) from Vogue magazine features a well-dressed English butler answering a telephone, proclaiming, “Everything will be ready when you get here, madam. // Telephone convenience helps to keep households efficient and servants satisfied.” In a time of economic turmoil in the United States when few Americans could afford servants, this advertisement projected a fashionable image of aristocratic ease. This new communication technology, like the bell-pull that came before it, was still depicted as a tool of servant management. The same Vogue advertisement recommended telephone placement exactly where one might find mechanical house bell equipment: beside the bed, by the hearth, and in the kitchen. The scope and power of

THE TELEPHONE: “A BETTER BELL-PULL”

telephone technology expanded exponentially in later years; but originally, it was viewed as a means of controlling and summoning one’s subordinates.  

The evolution of American house bell systems illustrates the story of an elite consumer item that sparked the imagination of American inventors. House bells delivered a wordless summons to servants and slaves, but they evolved into a technology that eventually gave servants a voice. By allowing both servants and masters to communicate better, the telephone did away with the need for house bells. Mechanical house bells shifted from a desirable technology for every large American house to one that, today, exists in very few places in fragmentary condition.

![Figure 3-9: A telephone ad stressing the new technology’s role in master/servant communication. Vogue Magazine, September 1931.](image)

---

24 Vogue Magazine. September, 1931.
Figures

Figure 4-1: Bird’s eye view of the city of Charleston, South Carolina 1872. Drawn and published by C. Drie. Library of Congress Call Number G3914.C3A3 1872.D7, http://hdl.loc.gov/loc.gmd/g3914c.pm008830 (accessed on 2/18/13).

Shortly after bell systems were first used in England, the building tradition appeared in the British colonies. In Charleston, South Carolina, enormously profitable crops like rice and indigo helped transform the walled frontier town into a cosmopolitan city. As the wealthiest colonists in British North America, Charlestonians prided themselves on the cultivation of British manners and educations, along with the accumulation of luxury consumer goods. Wealthy planters and merchants fashioned an aristocracy modeled on English notions of landed gentry. Slave labor made this aristocracy possible, for the comfort of the rich depended on an abundant supply of unpaid labor.¹

Wealthy planters and merchants sharpened distinctions of race and class by collecting and displaying material possessions as an indicator of refinement and gentility.² In their quest for conspicuous wealth, white colonists built houses in the city to hold all of their possessions. The dwellings themselves were the ultimate consumer object. In the politically turbulent years leading up to the Civil War, Charleston elites attempted to reinvigorate their society by rigidly adhering to slavery, material consumption, and the acquisition of an aristocratic, Anglophilic lifestyle.³

Situated on a narrow peninsula between the Ashley and the Cooper Rivers, Charleston was a dense urban area packed with domestic structures, businesses, piers, and markets. Enslaved Africans often outnumbered whites in many city census calculations. On the peninsula, space was severely restricted by geography and settlement density, so slave owners carefully organized separate quarters for slaves organized behind houses in their urban lots.

Many of these lots functioned as what folklorist John Vlach has called urban plantations, with up to thirty enslaved workers in one compound. Some slaves lived in back quarters while others lived “out” on the upper peninsula but reported for daily duty at their owner’s houses. Most house slaves—the South Carolinian equivalent of British household servants—lived in smaller buildings behind their owner’s main house. For slave owners, this separation of spheres presented a communication problem. Owners could not easily summon slaves who lived and worked in the back yard. As the city grew into a cosmopolitan city, Charlestonians adopted English house bell technology to regulate slave behavior and communicate with their house slaves.

Figure 4-2: Site Plan of the Aiken-Rhett House with Dependencies (on left). In his Charleston residence, Governor William Aiken used mechanical bells to govern the behavior of his slaves who served in his house and lived and worked in the dependencies on this lot. Dependencies included privies, cow houses, a stable building, a kitchen, and slave quarters. Source: “Historic American Buildings Survey, Drawings & Photographs of Robinson-Aiken House, 48 Elizabeth Street, Charleston, Charleston, SC,” Library of Congress, Call Number HABS SC,10-CHAR,177, http://hdl.loc.gov/loc.pnp/hhh.sc0023/sheet.00001a (accessed on 12/3/12).

4 McInnis, The Politics of Taste, 8.
Within their households, wealthy slave owners trained their slaves to behave like English servants. Slave butlers, footmen, maids, and waiters were often trained in the image of their English counterparts. In her reminiscences of life at the Miles Brewton House in Charleston, Mary Pringle Frost repeated family recollections of the assigned duties of her family’s slaves. The call bells at her house, she says, rang in the courtyard near the slave quarters. Mack, the family’s the slave butler, often dressed in expensive livery and performed the same duties as an English butler. In British fashion, Mack oversaw the footmen, coordinated meal service, polished silver, answered the doorbell, and cleaned the Brewton’s chandelier. The four slaves who served as footmen were also required to answer the call of the house bells and attend to family needs at all hours.7

Wealthy slaveholding aristocrats viewed their enslaved servants with a curious mixture of affection and contempt. They trained them in the image of English servants, and were horrified when slaves strayed from their roles. Charleston diarist Mary Boykin Chesnut, despite her professed attachment to her own slave butler, wondered if slaves were resentful of their masters. In a Civil War-era diary entry she wonders, “People talk before [the slaves] as if they were chairs and tables. Are they stolidly stupid? Or wiser than we are; silent and strong, biding their time?”8 No matter how well slave-owners “trained” their slaves in English ways and manners, many house slaves were unpaid human property—no more valued by their owners than chairs or tables. In discussions of civil or refined training, it is important not to lose focus of the reality behind the polished exterior of gentility.

SILENT SERVICE: HOUSE BELL ETIQUETTE

American ladies learned about finished training and strict social codes of conduct for house slaves from household manuals and advice books. They may have also learned these habits from their European mothers or grandmothers. Either way, advice books were common reading material for many

7 Mary Pringle Frost, Miles Brewton House Chronicles and Reminiscences (Charleston, South Carolina: Privately Printed, 1939) 11-14.
8 Chesnut, Diary from Dixie, 38.
ladies of the era, and they highlighted appropriate behaviors in relation to servants. Most American
books of this genre glossed over bell systems as if they were too commonplace to explain--albeit
providing brief descriptions of their appropriate use.

Written in 1827 by a Charleston-born African American manservant named Robert Roberts, *The
House Servant’s Directory* outlined servant duties and expectations. Although most slaves would not have
access to this book, Roberts’ advice book lends perspective on how slaves and servants were expected to
behave in Charleston’s finest households. Front door bells were to be answered promptly. A servant was
expected to drop his work immediately if he heard the door bell ring. It was a faux-pas to let a visitor ring
the doorbell more than once; a “person of distinction” might be at the door. The same one-ring rule was
true for parlor and drawing room bells: servants were to immediately drop their work when rung for, so
as not to frustrate their masters. A servant typically was not allowed to touch a bell-pull. However, there
was one exception: to signal for assistance during dinner service (one ring for the first course, two rings
for the second course, etc). House bells signaled a need for immediate, timely response to a master from
a servant or slave.9

Miss Eliza Farrar’s 1836 household manual, *The Young Lady’s Friend*, was written from the
homeowner’s point of view. Farrar highlighted the good training and treatment of domestics via
mechanical house bell systems. The author warned that “the ringing of a bell is the most imperative
command that can be given,” and that masters “…should be very scrupulous about the manner of using
it.” Farrar also warned that “rustic” servants would not be accustomed to mechanical house bell systems.
Farrar urged masters to use bells kindly and sparingly on servants from the country so they would not
become recalcitrant to the ring of the “iron tongued master.”10

Roberts was born in Charleston, he lived as a free man in the North for most of his life. It is not known if he was born
into slavery.
10 Mrs. John Farrar, *The Young Lady’s Friend* (Cambridge, Massachusetts: American Stationers’ Company, 1836), 239-
240.
Figure 4-3: A primitive bell system on display at the Miles Brewton House (circa 1765). Note the simple hardware and the visible wires. Silk tassels flank both sides of the fireplace. Each tassel the wires do not join together. Each tassel of the fireplace would ring a separate bell. Library of Congress Call Number LC-J7-SC-1144, http://www.loc.gov/pictures/item/csas200803532/ (accessed on 2/18/13).

Another antebellum advice book, Eliza Leslie’s Miss Leslie’s Lady’s House-Book; a Manual of Domestic Economy, instructed mistresses on the appropriate use of bells. Miss Leslie’s recommended the use of a bell-pull in every room of a house. The author urged readers to create a code for ringing bells in bedrooms and drawing rooms. For instance, “let it be understood that if a servant is to come up for the
purpose of receiving a message or an order, the bell is to be pulled once: and if fuel is wanted, let it be
pulled twice; if lights, three times; if water, four times.” Leslie also noted that some families preferred to
assign signals for servants, such as “one ring for the waiting-man, two for the boy; three for the chamber
maid, etc.” Miss Leslie’s codes simplified the bell ringing process by wordlessly indicating what was
wanted; this saved the servant a trip and quickly provided the master with what he desired.11

British household manuals also offer clues as to how Anglophile American southerners treated
their slaves. Isabella Beeton’s 1861 Book of Household Management contained over one thousand pages
of household advice for middle and upper class ladies. Beeton detailed specific duties for each servant,
and bell use is presupposed. Like Miss Leslie, Beeton’s bell ringing code assigned particular servants to
particular bells. The butler, lady’s maid, the cook, the footman, and other attendants had to answer
“their bell.” Beeton advised running a house like a finely tuned machine. Bell ringing was highly
regimented according to the time of day. For example, a cook answered the mistress’s morning ring for
breakfast service in the dining room. At the same signal, the housemaid went to the bed chambers to
sweep the floors. Servant life was not easy; they tended to a host of active, timely responsibilities.
Beeton rightly stated that “a methodical arrangement of [a servants’] time will be necessary, in order to
perform his many duties with any satisfaction to himself or his master.”12 Bells helped signal changes in
time and shifts in servant responsibilities.

While advice mavens like Farrar, Leslie, and Beeton offered instructions on the proper use of bell
systems, other ladies’ publications also indicate the popularity of bell-pulls as desirable household
objects. Published in from the 1840s to the 1890s, Godey’s Lady’s Book and Magazine was America’s
most widely circulated magazine prior to the Civil War.13 Patterns and instructions for embroidering bell-
pull tapestries first appear in Godey’s in the 1850s. Long floor-to-ceiling pulls were made from fine silken

threads and beading. A Charleston lady wistfully recalled these tapestry pulls in her house, with “a bell for every room with its special note of call and a bell rope in every room—in a special room there would be an embroidered bell-pull.”

Nineteenth-century women who could afford servants or slaves highlighted their domestic skills and reinforced their authority with ornate bell-pull tapestries in their private rooms. Ornamental bell-pulls exhibited ladies’ sewing ability—a valued domestic skill in the era. Although only one bell-pull per bedroom was strictly necessary, fine rooms sometimes displayed two large bell-pulls—often flanking both sides of the fireplace. These provided symmetry and visual order, but they were also excessive. Even after bell hardware became smaller and hidden from the eye around the middle of the nineteenth century; large bell tapestries were sometimes still used in bedrooms even though the technology existed to make them unobtrusive. Ostentatious bell-pulls in private rooms reinforced ladies’ authority over slaves by providing a visual reminder of their ability to ring for service at any moment. Whether they were ornate tassels or small levers, bell-pulls gave Southern slave owners the luxury and convenience of requesting another person’s services without even having to ask.

Even after emancipation, house bell systems remained popular in Charleston. Bell hangers continued to run ads for bell installation well after the Civil War. In 1885 building contractor Henry Oliver had mechanical bells installed in the newly constructed George Gibbons House on Rutledge Street. In 1886, after a large earthquake, newspapers continued to refer to servant bells as commonplace objects. A lady remembering the quake remarked that the shockwaves were violent enough to shake the house bells around town. Bells were still widely used in reconstruction-era Charleston, and they did not fall out of favor until the close of the century.

---

16 House bell system was intact as of the 2012 Preservation Society Tour of Homes.
17 “A Woman’s Account of the Earthquake” The Charleston News and Courier, August 30, 1886.
AN ENGLISH TRADITION: THE BELL HANGING TRADE

The practice of hanging servant bells in large dwellings is older than the American nation itself. A handful of bell hangers arrived in British North America by the mid-eighteenth century. The bell hanging trade often mirrored the economic climate. The Charleston house bell industry took off shortly after the Revolutionary War as the city regained its economic footing with trade of profitable crops like rice, indigo, and cotton. The antebellum era of refinement and the invention of the new, more discreet mode of house bell installation also favored the industry. From the late 1700s to the close of the twentieth century, house bell hanging was a prominent building trade in Charleston.

Figure 4-4: Bell Hanging Advertisement from 1804.

Newspaper announcements indicate that English bell hardware arrived to the colonies prior to the Revolutionary War.\(^{18}\) English house bell hanger Esaei Brunet advertised his services in South Carolina as early as the 1730s.\(^{19}\) Information about the bell hanging trade prior to the end of the American


\(^{19}\) Museum of Early Southern Decorative Arts Craftsman Database entry for Esaei Brunet.
Revolution is sparse. Although bell hangers advertised along the east coast in the mid-eighteenth century, it is unlikely that house bells were common in this era.\(^{20}\) In the late 1700s, tensions of the American Revolution—embargoes, boycotts, and metal shortages—probably impeded the development of the bell hanging industry.

The late 1700s marked a period of economic recovery for Charleston and the new nation. European merchant ships crowded the city’s docks and announced the arrival of their cargo. A 1792 announcement from the *Charleston Gazette and Daily Advertiser* listed the arrival of a Spanish ship packed with inventory including carpet, clothing, food, medicine, and house bell equipment.\(^{21}\)

![Advertisement for Daniel Henderson, House bell Hanger and Gun-Smith from Dublin. Source: City Gazette And Daily Advertiser; 04-27-1805, Volume: XXIV; Issue: 5536; Page: 4; Charleston, South Carolina. South Carolina Room, Charleston County Public Library.](image)

Newspaper advertisements across the eastern seaboard indicate that many English tradesmen emigrated to America after the war to set up shop as bell founders and bell hangers. Several family bell hanging enterprises reflected the spread of the technology throughout America. In the 1790s, Mr. George Hedderly of New York conducted bell founding and bell hanging as his sole business. In his


\(^{21}\)Advertisement, *Charleston City Gazette And Daily Advertiser*, November 2, 1792.
advertisements, Hedderly announced that his family, lately moved from England, had over three hundred
years of experience in the bell founding and bell hanging industry.\textsuperscript{22}

His business boomed in America, and Hedderly installed bells in many of America’s largest
houses, among them the White House.\textsuperscript{23} He later expanded his business to Philadelphia where he set up
another foundry.\textsuperscript{24} George’s brother and fellow “Bell Founder and House Bell Hanger” William Hedderly
developed the family business even further. William advertised his services in Connecticut, Washington
DC, and finally in Charleston, South Carolina.

In 1804 William Hedderly announced the opening of his bell hanging shop on Queen Street in
Charleston, proclaiming that he was “...the only person in the state who has been regularly bred to the
profession.” His bell hanging supplies were cast in his family’s forges and “imported from Philadelphia
and London.” Hedderly also expressed willingness to travel to rural areas to install house bells, “hung at
any distance from town on the shortest notice.”\textsuperscript{25}

Although they lacked Hedderly’s bell hanging pedigree, other English-born bell hangers opened
shops in Charleston at the close of the eighteenth century. In 1794 Archibald Duncan and his partner with
the surname Murdoch advertised their store at 92 Church Street, where they sold and installed “house
bells and materials compleat; knobs, tassels, and strings.”\textsuperscript{26} Duncan and Murdoch’s business stayed open
for about a decade. In 1803, Daniel Henderson and his partner Abraham Shults announced to Charleston
residents and neighboring planters the opening of their new business at Mr. Duncan’s old shop. They
stocked "a large assortment of house bells and patent bell wire, street door brass pulls, and every other
article in the line of bell-hanging, of the best quality."\textsuperscript{27} Henderson’s business must have been profitable.

\begin{footnotes}
\item[22] Advertisement. \textit{The Daily Advertiser}. New York, April 25, 1794.
\item[23] Abby Gunn Baker “The Erection of the White House” (Records of the Columbia Historical Society, Washington, D.C.
16: January 01, 1913) 120–149.
14, 1804, Volume: XXIII; Issue: 5348, Pg 4.
\item[27] “D. Henderson and A. Shultz...” \textit{Charleston Gazette and Daily Advertiser}, June 25, 1803.
\end{footnotes}
He advertised more than any other bell hanger in city—laying out nearly a dozen large, attractive ads in the *Charleston Gazette* in a six month period in 1805 alone.\(^{28}\)

City directories indicate that house bell hangers often had a side business. Duncan and Murdoch doubled as ironmongers. Henderson and Shults also repaired guns in their shop. This trend continued as the bell hanging industry developed in the city. The bell hanging partnership of Robert and C.Y. Richardson identified themselves as “bell hangers and engineers.” Others like William Tanswell practiced locksmithing along with bell hanging. Although hanging house bells was a side job for many metalworkers, a few bell hangers were well-known for their bell work. C.Y. Richardson’s career spanned an impressive 35 years, and he gained a considerable reputation in the trade. After he passed away, newspapers eulogized him as a well-known bell hanger in the North part of the city.\(^ {29}\) Richardson passed his family business down to his sons, who continued the bell hanging shop that bore his name (Figure 4-6).\(^ {30}\)

From 1795 to 1815, the building industries in Charleston, South Carolina employed approximately 240 people. City directory and census data shows that Charleston had 17 architects and master builders, 33 bricklayers, 155 carpenters, 29 painters and glazers, and 6 carvers and gilders.\(^ {31}\) In this same thirty year span, census listings and directories show 7 bell hangers in Charleston. At least in the number of tradesmen, these figures show that bell hanging was more akin to the specialty trades of carving and gilding.\(^ {32}\) Bell hanging increased in popularity leading up to the Civil War. From 1815 to 1859 13 bell hangers advertised their services. From the birth of the new nation to the outbreak of the Civil

---

28 In a sixth month period in 1805 Henderson placed 10 ads in the *Charleston Gazette* alone.
30 There is some evidence that the bell hanging trade was passed down hereditarily or through apprenticeship. Another Charleston bell hanger named Robert Wing adopted an orphan apprentice named Jacob Fourchier shortly after he installed the bell system at the Charleston Orphan House. Newspaper records show that Fourchier soon became a bell hanger.
32 Museum of Early Southern Decorative Arts Craftsman Database.
War, a total of 27 bell hangers advertised their trade in Charleston. In its employment of house bell hangers Charleston kept pace with other large cities in the rest of the nation.  

Figure 4-6: An 1896 ledger from the Richardson family bell hanging business. Even after mechanical bells went out of fashion, the family continued the bell hanging trade by installing speaking tubes and electric annunciators in houses and hotels. Source: Ebay listing, 1892 Richardson & Son Bell Hangers & Locksmiths Charleston SC Illustrated Bill, http://www.ebay.com/itm/1892-Richardson-Son-Bell-Hangers-Locksmiths-Charleston-SC-Illustrated-Bill-/120831086877 (accessed on 1/3/13).

### Bell Hangers In Charleston: Dates of Active Advertising in Newspapers, City Directories, or City Yearbooks

<table>
<thead>
<tr>
<th>Name</th>
<th>Occupation</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Esaie Brunet</td>
<td>carpenter --bell hanger</td>
<td>1736</td>
<td>1757</td>
</tr>
<tr>
<td>Anthony Furness</td>
<td>carpenter --shipwright or boat builder --bell hanger</td>
<td>1741</td>
<td>1744</td>
</tr>
<tr>
<td>Dudley Inman</td>
<td>carpenter --bell hanger --architect</td>
<td>1751</td>
<td>1751</td>
</tr>
<tr>
<td>Thomas Floyd</td>
<td>clockmaker or watchmaker --gunsmith --musical instr. maker/mender --bell founder --bell hanger</td>
<td>1767</td>
<td>1768</td>
</tr>
<tr>
<td>Samuel Bonsall</td>
<td>whitesmith --blacksmith --gunsmith --bell hanger --locksmith</td>
<td>1768</td>
<td>1797</td>
</tr>
<tr>
<td>Charles Robertson</td>
<td>plasterer --stucco worker --bell hanger</td>
<td>1774</td>
<td>1775</td>
</tr>
<tr>
<td>James Wilkins</td>
<td>carpenter --bell hanger</td>
<td>1776</td>
<td>1794</td>
</tr>
<tr>
<td>Archibald Duncan</td>
<td>blacksmith --bell hanger --machinist</td>
<td>1784</td>
<td>1804</td>
</tr>
<tr>
<td>Peter Bennett</td>
<td>bell hanger</td>
<td>1795</td>
<td>1795</td>
</tr>
<tr>
<td>David Kinmont</td>
<td>blacksmith --cutler --bell hanger --gunstocker</td>
<td>1797</td>
<td>1812</td>
</tr>
<tr>
<td>Daniel Henderson</td>
<td>bell hanger --blacksmith --gunsmith --locksmith --gunstocker --whitesmith</td>
<td>1798</td>
<td>1814</td>
</tr>
<tr>
<td>William Hedderly</td>
<td>bell hanger --bell founder --machinist --gunsmith --locksmith --carpenter</td>
<td>1801</td>
<td>1822</td>
</tr>
<tr>
<td>Abraham Shoultes</td>
<td>blacksmith --bell hanger --gunstocker --whitesmith --tool maker</td>
<td>1803</td>
<td>1819</td>
</tr>
<tr>
<td>Francis D. Beauchee</td>
<td>blacksmith --gunsmith --gunstocker --bell hanger --locksmith</td>
<td>1804</td>
<td>1812</td>
</tr>
<tr>
<td>Benjamin Biggs</td>
<td>bell hanger</td>
<td>1816</td>
<td>1816</td>
</tr>
<tr>
<td>Matthew Muggridge</td>
<td>blacksmith --whitesmith --bell hanger</td>
<td>1818</td>
<td>1836</td>
</tr>
<tr>
<td>Samuel Stephens</td>
<td>bell hanger</td>
<td>1818</td>
<td>1818</td>
</tr>
<tr>
<td>John Thompson</td>
<td>whitesmith --blacksmith --locksmith --bell hanger</td>
<td>1818</td>
<td>1828</td>
</tr>
<tr>
<td>John Gray</td>
<td>bell hanger</td>
<td>1819</td>
<td>1819</td>
</tr>
<tr>
<td>Thomas Muggridge</td>
<td>blacksmith --whitesmith --bell hanger</td>
<td>1820</td>
<td>1824</td>
</tr>
<tr>
<td>William Nicholas Tanswell</td>
<td>locksmith --bell hanger</td>
<td>1829</td>
<td>1829</td>
</tr>
<tr>
<td>Robert Richardson</td>
<td>bell hanger --engineer</td>
<td>1829</td>
<td>1859</td>
</tr>
<tr>
<td>CY Richardson</td>
<td>bell hanger --engineer</td>
<td>1835</td>
<td>1859</td>
</tr>
<tr>
<td>F.W. Thouss</td>
<td>bell hanger</td>
<td>1850</td>
<td>1860</td>
</tr>
<tr>
<td>John Parkerson</td>
<td>bell hanger --engineer</td>
<td>1851</td>
<td>1851</td>
</tr>
<tr>
<td>Daniel Davis</td>
<td>locksmith --bell hanger</td>
<td>1851</td>
<td>1851</td>
</tr>
<tr>
<td>Robert Wing</td>
<td>bell hanger --locksmith</td>
<td>1851</td>
<td>1888</td>
</tr>
<tr>
<td>Jacob Fourcher</td>
<td>bell hanger</td>
<td>1868</td>
<td>1868</td>
</tr>
<tr>
<td>C.E. Richardson</td>
<td>bell hanger --locksmith</td>
<td>1892</td>
<td>1892</td>
</tr>
</tbody>
</table>

---

34 Compiled from City Directory and Census data at the Charleston County Public Library, South Carolina Room along
A visitor to Charleston remarked on the entryways of the domestic structures in 1817:

whatever may be the situation of the house, you will find the knocker or bell at the first gate or door to which you come. It is very rare that you get into a man’s yard, without being shown in by a servant.\(^{35}\)

Many white Charlestonians had a slave on-call, ready to respond to the entry doorbell or the drawing room bell. Timothy Ford, a Charleston diarist originally from New England, marveled that tradesmen, mechanics, and even barbers had slaves following them around and doing their work. \(^{36}\) Slave ownership was not restricted to the upper classes.

In addition to their roles as on-the-job assistants, slaves also played a key role in the domestic life of their owners. Historian Bernard Herman claims that house slaves, like household furnishings and decorative items, were often treated as human backdrops and props in the world of white sociability.\(^{37}\)

House bells played a major role in setting the stage for entertainment in wealthy Charleston households. Household slaves in urban Charleston had to answer two types of bells: door bells and servant bells. The first type of bell—called the porch bell, gate bell, or doorbell—controlled access into houses. A slave butler or footman answered this type of entry bell. Charleston dwellings were packed together in a dense urban landscape, and most of them were mere feet away from the street. Entry bells allowed for space, distance, and a slave intermediary between homeowners and potential guests.\(^{38}\)

Robert Barnwell, a South Carolina senator, epitomized elite attitudes about the role of slaves in a letter he wrote in 1854. He wrote to his aunt describing a rare sight in the city: a household of white German immigrants who did their own chores. Before he described them, he warned his aunt that his


\(^{36}\) Bernard Herman, *Townhouse*, 148.

\(^{37}\) Ibid.

\(^{38}\) Several common entry bell types are photographed and described on page 183, Charleston Entry Bell Survey.
description of their behavior would violate her sense of “gentility and cleanliness.” Perplexed, he asked his aunt:

What do you think of the lady and daughters here being wholly their own servants, making up the fire, bringing the water, cleaning their own rooms, sweeping their own floors, going bareheaded in the streets—going to the market with a basket in hand, coming to the door when the bell rings?  

Despite his disapproval, Barnwell noted that the women “seemed happy.” For Barnwell, white self-sufficiency was an oddity—behavior to be pitied rather than admired. He interpreted self-sufficiency as helplessness, for no one would be there for these women when the entry bell rang. Many homeowners felt the need for an intermediary between the public street and privacy of the household. Slave butlers who answered their doorbells acted as this buffer.

Although entry bells maintained boundaries between homeowners and the streets, masters could not always control their servants’ reactions to the bell. Antebellum socialite Elizabeth Waites Allston used a gate bell and an interior bell system in her Charleston residence, the Nathaniel Russell House. In her diary Allston recalled a harrowing evening when she needed assistance from her slave footman, Nelson. She repeatedly rang the bell for him, but Nelson did not answer her summons. A visitor came to the entry gate and rang the bell there also. But due to Nelson’s absence, Allston’s mother had to answer the door herself. This in itself—a lady answering her own door—was seen as inappropriate and terrifying. Eventually Nelson returned to the house covered in mud and “quite drunk.” Clearly shaken by the experience, Allston described her terror, writing that she felt so “upset and scared” by the ordeal. The family’s reaction illustrates that Nelson was expected to perform one of his essential duties: listening for the house and gate bells. After threatening to send Nelson to be whipped at the Work House

40 Ridout and Graham, An Architectural Analysis of the Nathaniel Russell House. An 1895 photograph confirms that the Nathaniel Russell house also used a mid-nineteenth century bell system like that of the Aiken House.
(Charleston’s city-owned slave penitentiary), Allston reported that Nelson never forgot to answer the bell again.  

![Figure 4-7: A two-story Charleston single house with a piazza and a side privacy entrance. Author’s sketch.](image)

**ENTRY BELL TYPE 1: PORCH BELLS**

In houses that did not face the street, bell hangers often installed a porch bell (Figure 4-7). In the typical Charleston single house, the main entry of the house faced the next-door neighbor rather than the street. Large porches called piazzas were often added to the entrance façade. Doors were added to the street edge of the piazza to increase privacy and enclose the porch area. However, these privacy doors presented a communication problem: residents could not easily hear someone knocking at a porch door that was not connected to the main body of the house. The entry bell solved this problem by extending the audibility of the visitor’s summons. A bell-pull was installed next to the piazza privacy door. Bell wire connected to the door bell-pull ran the length of the piazza and terminated at a bell installed on the far corner of the porch near the back yard. A slave butler or footman would typically answer this doorbell. He would inquire who was calling, then inquire after his master to determine whether or not the guest was welcome. He would then return to the front piazza door and either admit or deny entry. Porch-mounted door bells helped homeowners maintain a boundary between the private realm and the bustling

---


42 See Appendix B for an example of a surviving porch bell. Many, if not most, single houses with privacy entrances have porch bell fragments. However, modern doorbells replaced the outdated bell knobs, so it is difficult to see mechanical bell fragments without being admitted into the piazza.

commercial streetscape. Today, this type of installation is still visible in its original form at 109 Broad Street (circa 1783).  

\[\text{Figure 4-8: First floor single house plan. Adapted from Gene Waddell, The Charleston Single House, Preservation Progress 22 (March 1977): 4-8.}\]

**ENTRY BELL TYPE 2: GATE BELLS**

In houses that were set back from the street, homeowners sometimes installed gate bells. Gate bells were integrated into wrought iron fences and masonry walls or posts. For instance, the Miles Brewton House faces the street, and is set back from the street by a small courtyard. An imposing brick wall and wrought iron gate screens the courtyard from the street. Next to the gate door, a brass knob connected to a lever enabled visitors to ring the bell for entry. The bell wire traveled down through the hollow iron post, then travelled underground towards the house through buried metal tubing, back up, and then finally to a bell mounted in audible range of the slave quarters. Gate bell installation was expensive, labor-intensive, and difficult but many wealthy homeowners chose to bear the expense. Examples of this type of installation are still visible in Charleston streets.

---

44 Author’s 2013 Charleston Entry Bell Street Survey, Appendix B.
45 See Appendix B.
ENTRY BELL TYPE 3: DOOR BELLS

In houses whose front entrances were not set back from the street by a courtyard or screened by a piazza, bell hangers often installed entry bell-pulls to the left or right of the front door. Unlike porch or gate bells, this entry bell type ran directly into the interior bell wiring but also terminated outside near the slave quarters. The Aiken-Rhett House, with its 1850s zinc-tubed bell wiring, had this type of entry door bell-pull. Other residences without gated or piazza entries like 21 King Street (circa 1856) also relied on this type of entry bell.

CHARLESTON TYPOLOGIES: SERVANT BELLS

The primary type of bell that Charleston house slaves answered was the servant bell. Although they were similar in nature to British servant call bells, site configuration and the nature of slavery in Charleston distinguished local bell systems from their English prototypes. Location of slave quarters played a large role in determining where bells should be installed. In most English houses, servants lived and worked in the basement or in an ancillary wing that was connected to the main house. In Charleston, house slaves lived in quarters that were detached from the main house. They performed most of their labor in detached quarters and kitchens or in work yards. As a result, interior bell boards were uncommon in the American South. Most bells were hung outdoors on the rear of a house nearest the slave quarters. While British bell hangers often labeled each bell according to the room to which it was connected, American installers typically omitted this step. Instead, bell hangers in Charleston gave each bell a different size and thus pitch. Slaves had to listen for bell pitch to determine which room needed service.

46 For more details and examples of piazza, gate, and entry bell-pulls, see Appendix B.
47 However, basement-mounted bell boards are not outside the realm of possibility in the American South. Bell system fragments including a bell board can be found in the cellar of the Owens-Thomas House (circa 1819) in Savannah, Georgia. Perhaps the nationality of the architect affected the building layout—in this case, the British architect William Jay adhered to English bell hanging traditions.
Since bells were mounted outside, Charleston bell hangers created unique solutions to run the wire from interior rooms to the exterior façade near the slave quarters. Bells were typically scattered around building exteriors. To a large extent, bell location was determined by which servant was being summoned. For instance, the bell connected to the dining room bell-pull was often installed nearest to the kitchen. Since each household had a different layout of slave and kitchen outbuildings, no two bell systems in Charleston were exactly alike.

![Figure 4-9: A typical Charleston servant bell—exterior mounted. Wrought iron carriage, springs, and shank; copper alloy bell. Author’s sketch.](image)

If one is lucky enough to see an intact house bell in Charleston today, it would look much like the image in Figure 4-9. This type of bell was driven into the masonry of a house, mounted on an iron spike. Two scroll springs controlled the back and forth movement of the bell carriage, which swung when an indoor lever was pulled. The force of the user’s pull jostled the bell to create noise in the work yard.

Unfortunately, few exterior-mounted bells survive. Charleston’s climate aided the corrosion of the thin iron bell springs, causing bells to fall off their carriages. Interior bell lines were also not immune
to climate, either. The slackening of bell wire was a natural consequence of pulling ductile copper bell wires repeatedly. Bell cranks also fell prey to corrosion or were made immovable by dust or interior household debris. Because of these issues, most bell systems were repaired frequently. Within a single dwelling, a servant bell system typically displays a wide variety of hardware types and bell hanging styles since so many repairers touched these systems.

**EARLY SYSTEMS: VISIBLE CRANK AND WIRE (LATE EIGHTEENTH-MID NINETEENTH CENTURY)**

![Image of early bell hardware](image)

**Figure 4-10**: Early bell hardware at Hampton Plantation (circa 1735). Bell system was probably installed in 1790s era renovations. Counterclockwise from top right: a small angled mortise crank, bell wire along the cornice, a stamped brass rose purchase crank. The crank leads the bell wire down through a piece of hollow wood molding (left of fireplace) where it is triggered by a brass lever-pull. At most other places in the house the wire is guided by staples, rather than a bead. Hardware is small but still visible. Author's photo.

Early Charleston bell hangers installed bell-pulls in most public and private rooms. Hampton Plantation in McClellanville, South Carolina retains fragmentary evidence of its late-eighteenth century bell system. Like the earliest British bell systems, the system at Hampton is hung with visible wires, staples, bell-pull hardware, and cranks (see Figure 4-10 and Figure 4-11). Stamped brass slide pulls mounted on the sides of most fireplaces connected bell wire to brass cranks which were driven onto cornices. The wire passed through these visible cranks and traveled through holes bored in the wood.
paneling, finally terminating at several bells on the north elevation exterior near the kitchen and slave quarters. Early systems at the Miles Brewton House (1769) and Heyward Washington House (circa 1785) are similar to Hampton’s hardware and were also installed near the close of the eighteenth century.

![Figure 4-11: Close up of a typical bell-pull Hampton Plantation in McClellanville, SC. Northwest Chamber, Second Floor. Brass bell slide. A small wood stopper was installed underneath this bell-pull to prevent overpulling. Author’s photo.](image)

A few years after the bell systems at Hampton and Heyward Washington were installed, America’s first lady at the time, Abigail Adams, bemoaned the lack of bells at the newly-built White House. Her diary entry illustrates the important role bell systems had assumed for most American homeowners. Despite the White House’s grand appearance, the building was not finished when she and her husband John moved in. Adams had only five servants, but she believed the sprawling mansion needed at least thirty. Budget concerns limited the number of servants and prevented the building from
being completely finished until John and Abigail moved out. The president’s wife lamented, “bells are wholly wanting...[the lack of a bell system] is so great an inconvenience that I know not what to do.”

Though several houses like Hampton Plantation, the Miles Brewton House, and the Heyward Washington house were rigged with house bells in the late eighteenth century, this communication technology became more commonplace for self-styled aristocrats in the early nineteenth century. Many nineteenth century first person accounts, diaries, and ladies’ household advice books illustrate the popularity of slave call bells in the South. Wealthy homeowners like Mrs. Adams viewed mechanical house bells as a necessity.

Figure 4-12: Drawing room at the Heyward Washington House (house circa 1772), complete with a floor to ceiling bell-pull installed near or shortly after the date of construction. Author’s photo, taken with permission from Charleston Museum.

In the early nineteenth century, a more ostentatious style of house bells emerged in Charleston. Hiding bell-pull hardware was no longer fashionable. For example, bell systems like that of the Joseph Manigault House feature embellished tapestry bell-pulls with complicated brass hardware and cranks.

mounted near the cornices and above fireplaces. The highly visible hardware at Joseph Manigault House contrasts with the tiny brass slide-pulls at Hampton Plantation. At the Manigault House, very little exterior bell evidence remains. The location of a single bell crank on the building’s east exterior façade near the cornice indicates that the bell wire was run outside to bells mounted on the house near the slave quarters on the north side of the lot.

Figure 4-13: Bell hardware at the Manigault House, likely from the early 19th century. Note the complicated assortment of visible cranks in one room alone. This hardware was meant to be seen. From left to right along the top of the wall: a mortise crank, a pillar crank, a right angle mortise crank, and two rose purchase cranks connected to ornate tapestry bell-pulls. The ostentatious hardware suggests that this is not a primitive system. It likely hails from the early nineteenth century. Author’s Photo, Taken with permission from Charleston Museum.

LATER SYSTEMS: HIDDEN WIRES (MID TO LATE NINETEENTH CENTURY)

By the mid-nineteenth century, house bells became even more commonplace. Fanny Kemble, a British actress who visited the American South before the Civil War, recalled the peculiarities of rural plantation life in her diary. At a plantation in Darien, Georgia, five house slaves attended Kemble and her
husband: a cook, a dairy-woman, a house maid, and two young footmen. Kemble noted that there was little danger of being “dazzled” by the service. She noted:

our sole method of summoning our [slave] attendants is by a packthread bell-ropesuspended in the sitting room. From the bedrooms we have to raise the windows and our voices, and bring them by power of lungs, or help ourselves—which, I thank God, was never yet a hardship to me.

Kemble’s disdain for the crude hemp bell rope rather than a complete mechanical house bell system indicates that she expected far more in a servant-staffed home. It was inconvenient and uncomfortable to raise her voice for the slaves. In Kemble’s view, a single hemp rope was inadequate and incomplete.

Many wealthy Southerners believed house bells were a prerequisite for genteel interaction with slaves. Charleston diarist Mary Boykin Chesnut recalled an Englishman’s story of a rural plantation mistress’s ghastly behavior. A Southern belle without house bells, the lady of the house often stood on her back porch and yelled for her slaves to assist her. Chesnut interpreted this behavior as vulgar and inappropriate for Southern women noting that “our women are soft, low-toned, indolent, graceful, quiescent.” Mechanical bell systems allowed “low-toned” and “graceful” women to summon slaves with noiseless civility.

Chesnut contrasted this story with her memories of a more pleasant event at an 1863 dinner party at the residence of South Carolina Governor William Aiken, the state’s largest slave owner at the time. Governor Aiken installed a bell system in his residence in 1858, allowing the family to summon slaves from almost any room of the house. Like Aiken, Chesnut was probably accustomed to the convenience of house bells at Mulberry, her home at the time when she wrote her admire description of dining at the Aiken residence:

Those gray-haired darkies and their noiseless, automatic service, the result of finished training—one does miss that sort of thing when away from home, where your own servants think for you; they know your ways and your wants; they save you all responsibility even in matters of your own ease and well doing. The butler at Mulberry


68
would be miserable and feel himself a ridiculous failure were I ever forced to ask him for anything.\textsuperscript{50}

Charleston’s Aiken-Rhett House retains more original bell system fragments than most Charleston dwellings. The 1858 bell system is an excellent example of the “secret system” invented in Edinburgh in the 1840s—with bell wires hidden in zinc tubes concealed with a finish coat of plaster. Bell levers were installed in nearly every room of the house. Several surviving bell carriage fragments on the exterior near the slave quarters indicate which bells served which rooms, and which slaves had to answer their master’s summons. The dining room bell rang near the kitchen, while the doorbell rang near the carriage house so a butler could open the front door and a groom could open the back gates and let visiting carriages into the yard. By the 1850s, many more homeowners elected to retrofit their houses with similar servant call bells.

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{fireplace.jpg}
\caption{Technology advances: the unobtrusive 1858 bell lever in the Library at the Aiken-Rhett House. Only one piece of bell hardware is visible to the right of the fireplace. Cranks and wires were hidden by sinking them into the plaster. Author’s Photo, Taken with permission from Historic Charleston Foundation.}
\end{figure}

\textsuperscript{50} Mary Boykin Miller Chesnut, \textit{A Diary from Dixie} (New York: D. Appleton and Company, 1905), 253.
Figure 4-15: A mid-nineteenth century bell lever at the Aiken-Rhett House. Author’s photo, taken with permission from Historic Charleston Foundation.

Figure 4-16: An early photograph of a mid-nineteenth century bell lever (above wainscot) at the Nathaniel Russell House. Source: Crane and Soderholz, Examples of Colonial Architecture in Charleston, SC and Savannah, GA, 1895.
Though evidence of bell systems in many Charleston dwellings has been removed or has faded away with time, historic photographs show how contemporaries of the Aiken family kept up with trends by also retrofitting their houses with bell-pulls in the mid-nineteenth century. A photograph of the Nathaniel Russell House from 1895 (Figure 4-16) shows bell lever hardware that is identical to those installed at the Aiken House. Likewise, early twentieth century photographs from the Historic American Buildings Survey show similar bell-pulls at the William Blacklock House (Figure 4-17). The hardware at Nathaniel Russell and the Blacklock Houses was removed in the twentieth century, but photographic
documentation offers a glimpse of the technology that once regulated the daily lives of the house slaves who worked in these dwellings.\textsuperscript{51}

From the 1850s to the close of the twentieth century, the secret system of conveying bell wire in concealed zinc tubing remained the most popular choice in domestic communication technology. Mid-eighteenth century household advice books declared that obtrusive tapestry bell-pulls and cords were “tawdry” and old-fashioned.\textsuperscript{52} American pattern book authors like Andrew Jackson Downing also recommended sunk-tubed bell systems with minimalistic hardware.\textsuperscript{53} The following chapter is an in-depth survey of the mid-nineteenth century servant bell system at Charleston’s Aiken-Rhett House—the fashionable stage where Mrs. Harriett Aiken used her servant bell system to perfect the art of refined entertainment.

\begin{flushleft}
\textsuperscript{51} HABS photographers frequently zeroed in on mantelpieces and fireboxes. This is where many bell hangers installed bell-pulls. In historic photographic documentation of antebellum Charleston dwellings, it is more common than not to spot bell equipment.
\textsuperscript{53} Andrew Jackson Downing, \textit{Hints to Persons About Building in the Country} (New York: John Wiley, 1859), xlii.
\end{flushleft}
Situated on the corner of Judith and Elizabeth Streets in downtown Charleston, the Aiken-Rhett House is a four story Greek revival mansion. Built between 1820 and 1822 and significantly expanded in 1833 and again 1858, the Aiken-Rhett house and outbuildings are a remarkably intact antebellum property. Owned by Governor William Aiken and his wife Harriet Lowndes, the house exemplified Charleston building trends of the mid-nineteenth century. For William and Harriet Aiken, the house was a haven for refined entertaining. The couple hosted lavish parties with hundreds of guests. The governor was the largest slaveholder in the state, and his Charleston property housed dozens of slaves to cater to the needs of his family and his guests. Today, his former residence retains most of its antebellum fabric.
including brick privacy walls, a kitchen building, a carriage outbuilding, privies, and slave quarters.

According to the Historic Charleston Foundation, the current steward of the property, nowhere else in Charleston is the potential to interpret urban slavery stronger than at the Aiken House.  

![Site Plan showing outbuildings and street layout.](http://www.loc.gov/pictures/item/sc0023.sheet.00002a/resource/) (accessed on 12/3/12).

Built by merchant John Robinson in 1820, the house was acquired by William Aiken, Sr. as a rental property. Upon his death, the property was inherited by his son, William, Jr. After William married wealthy Charleston heiress Harriet Lowndes, he transformed the rental property into an opulent Greek revival mansion. Aiken reconfigured the original federal-style “double” house in 1833 by adding a marble stair hall entryway on the west facade, while also adding a dining room and a ballroom that occupied a new northeast wing. After becoming governor of South Carolina, Aiken’s architectural ambitions expanded. In 1858, Aiken added an art gallery wing to the northwest corner of the house. In the same

---

year, he outfitted his house with the latest amenities including gas lighting and an intricate servant call bell system. His property became one of the most enviable residences in the city.

The Civil War dealt a blow to the Charleston economy, and subsequently, to the Aiken house. After the Aikens passed away, their daughter Henrietta lived at the house. To save money, Henrietta closed off parts of the house that were not being used. She turned the second story ballroom, for example, into a storage room. Over the years, the portions used for living space decreased as the family fortune dwindled. A few slight improvements were made to the home's functional mechanical systems, but old plumbing and wiring was not removed.

In 1975, the last Rhett family member to live in the house donated it to the Charleston Museum. It has been a historic house museum ever since. The house remains largely unchanged since the 1850s. Walking into the Aiken house today is like stepping into a time capsule of architectural styles and domestic technologies. Rare mechanical systems like lead plumbing, early bathrooms, gas lighting, and wire-operated bell system fragments are still in place for visitors to appreciate and for scholars to examine.  

Today, the house retains a significant percentage of its call bell equipment. Bell levers are visible in nearly every room of the main house. Bell levers mounted near fireplaces triggered bells mounted on the exterior of the house near the work yard and slave quarters. The bell wire was installed in the fashion of the era: in sunken zinc tubes embedded in plaster. The cellar still retains bell wire and bell cranks—small triangular brass pieces installed on a fulcrum and driven into plaster—which were used to change direction of the wire. Most of the bell wire and bell tubing ran northward towards the façade facing the slave quarters. Though there may have been more bells in the past, six bell carriages remain on the exterior of the house near the slave yard, indicating where the bells were originally hung.

Figure 5-3: The rear of the house in 1958, showing the slave quarters and kitchen on the left (along with a now-removed cinderblock addition) and the stables on the right. By this time, the bells had fallen off the house. Source: "Historic American Buildings Survey, Drawings & Photographs of Robinson-Aiken House, 48 Elizabeth Street, Charleston, Charleston, SC," Library of Congress, Call Number HABS SC,10-CHAR,177—5, http://www.loc.gov/pictures/item/sc0023.photos.147676p/resource/ (accessed on 12/3/12).

Physical evidence, particularly the midcentury character of the hardware, indicates that the bell system was installed as a part of the 1858 remodeling completed as the Aikens travelled abroad. Bell system fragments in the dining room and ball room are particularly helpful in dating the system. This northeast wing of the house was added in the 1830s. Worn-away plaster in the dining room in this wing shows a different plaster color near the bell hardware, indicating that the bell system was a later addition.
The ballroom provides additional evidence to support this assertion: worn wallpaper reveals the plaster channel the bell hanger dug out to imbed zinc tubing in the ballroom wall. The Aikens retrofitted their home to include bell hardware, and no portion of the bell system appears to be a part of the original house or its 1830s renovations. Third floor bell system fragments indicate the presence of repairs and additions to the bell system that occurred around or slightly after the alterations performed in the 1870s. Throughout the house, hardware fragments show the hands of several different bell hangers. Hardware styles and installation types do not always match from floor to floor and room to room. The evidence shows that more ornate bell hardware was used in entertaining rooms. More rustic hardware was used in dressing rooms. Evidence of multiple mismatched hardware types and installation styles on the third floor suggests this system was used heavily and repaired several times.

Figure 5-4: The rear of the Aiken House in 2012, where fragmentary evidence still shows where the house bells were driven into the exterior masonry at various locations. Red dots mark where bells were formerly located. Author’s photo.

Today, it is rare to find a bell system anywhere in the nation that is so intact. The technology became obsolete around the turn of the twentieth century. Many homeowners replaced mechanical bells
with electric ones. The fragility of the technology was also problematic for wire-operated bell systems. Even if history-minded homeowners opted to keep their exterior bells, the thin iron ribbon of the bell spring often fell prey to corrosion. Rust ate into the thin spring, causing the bell to fall off, leaving only a bell carriage. Perhaps this is what happened to the bells on the exterior of the Aiken House. To an untrained eye, the bell carriage is a confusing piece of hardware that looks somewhat like a misplaced shutter dog. It is easy to imagine modern homeowners seeing these as unsightly, puzzling, or at best obsolete—and removing them from their house.

Fortunately for historians and visitors of the Aiken House, a large portion of the bell system there is preserved. Preservation of this bell system is important for two reasons. First, a servant call bell system represents one of the first developments in interior communication technology. Second, the call bell system provides an opportunity to open up dialog about the slave experience in nearly every room of the main house—not just in the slave quarters.

The following is an inventory of bell system fragments at the Aiken house. Using British construction texts for guidelines and identification (see Chapter 2), I surveyed the house and mapped out the system. This analysis utilized floor plans and room names from Graham, Lounsbury, and Ridout’s *Architectural Investigations of the Aiken-Rhett House* to show the path of the system. According to remaining physical evidence, the path of some wires is quite clear; the path of other wires is not. For those instances where the wire path is unclear, room function, household advice books about servants, and British construction texts support the conjectural reconstruction of the path of the system.
Figure 5-6: Period II (1833-35) architectural floor plans of the Aiken-Rhett House. Source: Image from Willie Graham, Carl Lounsbury, and Orlando Ridout V, Architectural Investigations of the Aiken-Rhett House, 48 Elizabeth Street, Charleston, South Carolina (Charleston: Historic Charleston Foundation, 2005).
Figure 5-7: Period III (1857-58) architectural floor plans of the Aiken-Rhett House. Source: Image from Willie Graham, Carl Lounsbury, and Orlando Ridout V, Architectural Investigations of the Aiken-Rhett House, 48 Elizabeth Street, Charleston, South Carolina (Charleston: Historic Charleston Foundation, 2005).
Figure 5-8: Period IV (1870s) floor plan of the third floor, where alterations occurred in the 1870s. Source: Image from Willie Graham, Carl Lounsbury, and Orlando Ridout V, *Architectural Investigations of the Aiken-Rhett House, 48 Elizabeth Street, Charleston, South Carolina* (Charleston: Historic Charleston Foundation, 2005).
GROUND FLOOR BELL SYSTEM DESCRIPTION:

ENTRANCE HALL

The Entrance Hall provided a visitor’s first glimpse into the Aiken House. After a visitor pulled the bell knob at the front door on Elizabeth Street, a slave butler or footman would answer the door. The bell knob (now replaced with a modern electric doorbell) was connected to a brass mortise and chain wheel that turned the direction of the pull north towards the Art Gallery. Although the wire’s exact path is not visible due to covering by modern insulation, it likely terminated at a bell carriage mounted on the exterior near the northeast corner of the Art Gallery (Figure 5-73). This was closest to the stables and one of the finest slave quarters—a second story apartment in the stable house with two windows, good lighting, and cross-ventilation. The coachman or groom, one of the top slaves in the servant hierarchy, may have lived here. This bell was also visible from the window of the butler’s room across the yard.

So it follows that the doorbell wire should be run to ring close to the butler’s quarters. If a visitor came by in a carriage, the bell position near the stable was also useful. Upon inviting a visitor in, a butler could ring again for a groom to open up the back gate, let in the visitor’s carriage, and take care of the horses while Aiken guests were escorted into the main house through the entrance hall.

Figure 5-9: The entryway, highlighted in yellow. Image adapted from Willie Graham, Carl Lounsbury, and Orlando Ridout V, *Architectural Investigations of the Aiken-Rhett House, 48 Elizabeth Street, Charleston, South Carolina* (Charleston: Historic Charleston Foundation, 2005).
GROUND FLOOR BELL SYSTEM DESCRIPTION:

ENTRANCE HALL

Figure 5-10: The Entry Hall as documented by HABS, "Historic American Buildings Survey, Drawings & Photographs of Robinson-Aiken House, 48 Elizabeth Street, Charleston, Charleston, SC," Library of Congress, Call Number HABS SC,10-CHAR,177—22 http://hdl.loc.gov/loc.pnp/pp.print (Accessed on 12/10/12).
GROUND FLOOR BELL SYSTEM DESCRIPTION:

ENTRANCE HALL

Figure 5-11: The entrance hall looking down from the first floor landing. Author’s photo, taken with permission from Historic Charleston Foundation.

Figure 5-12: Remnants of the front door bell-pull on the right side of the door trim. A missing bell-pull (exterior) was connected to bell wire that led to a chain inside this brass wheel, which changed the direction of the wire. This is called a mortise wheel and chain style crank—this type of crank was appropriate for acute or obtuse angles. The wire went north towards the Art Gallery. Author’s photo, taken with permission from Historic Charleston Foundation.
Aside from the Entrance Hall and the Servant’s Hall, most of the ground floor at the Aiken house was used as storage. In contrast to the rest of the house, bell wires and cranks are visible here. There was little need for bell hangers to hide cranks and wires since only slaves would see them. The cellar provides an opportunity for visitors and scholars to view how bell wires were run. For example, the southwest cellar contains the wiring from the West Parlor (directly above on the first floor), while the Southeast cellar contains the wiring from the East Parlor (directly above on the first floor).

This ground level space, the southwest cellar storage room, is directly below the southwest parlor. The bell lines which travel below the parlor are still visible. The wires for each bell lever joined together downstairs, indicating that both levers were connected to the same bell. Possible ghost marks on the ceiling in this room indicate that the bell line in this room was connected to the bell wire from the Southeast Parlor. Thus, both parlors served as one room in terms of function and service. The likely termination point for the wire would have been on the north façade near the Northeast Cellar storage room.

Figure 5-13: The southwest cellar storage room, highlighted in yellow. Image adapted from Willie Graham, Carl Lounsbury, and Orlando Ridout V, *Architectural Investigations of the Aiken-Rhett House, 48 Elizabeth Street, Charleston, South Carolina* (Charleston: Historic Charleston Foundation, 2005).
GROUND FLOOR BELL SYSTEM DESCRIPTION:

SOUTH WEST CELLAR STORAGE (Below the Southwest Parlor)

Figure 5-14: The wires from the bell levers upstairs meet along the ceiling joists in front of the relieving arch of the chimney. Author's photo, taken with permission from Historic Charleston Foundation.

Figure 5-15: The bell line traveling from the lever on the east wall of the chimney. This is the wire and crank from the West Parlor lever to the left of the fireplace. See where the bell hanger drilled through the joist. The wire exited the tube, made a 90 degree turn south, made another turn east, and then travelled north where a crank led it upwards into the tube for the lever on the other side of the parlor fireplace. Rather than stapling zinc tubing to the floor joist in common bell hanging practice, this workman drilled a large channel through the floor joist and then shoved the tubing through it. This was an odd decision that made his job more difficult than it should have been. The brass crank changes the direction of the wire, which runs along the chimney to meet an identical pull on the west chimney wall. Author's photo, taken with permission from Historic Charleston Foundation.
GROUND FLOOR BELL SYSTEM DESCRIPTION:

SOUTHEAST CELLAR STORAGE (Below the Southeast Parlor)

Similar configuration as the southwest cellar storage room. The pulls on both sides of the upstairs parlor fireplace are connected downstairs, indicating that a pull from either side would go to the same bell. Although Graham, Lounsbury, and Ridout correctly hypothesized that the two parlor bell lines were connected, they were perhaps too quick to conclude that the bell for the parlors was mounted on the Art Gallery exterior. In fact, the unidentified bell by the Art Gallery (aside from the Art Gallery bell itself) is likely connected to the doorbell.

Although there is no evidence of a bell carriage outside the north cellar passage, the wires from the parlors may have joined there to go outside. The parlor lines likely rung a bell that was mounted near the north cellar passage, or they may have joined with the library bell wires to ring the bell outside the northeast cellar storage room. Lounsbury, Rideout and Graham believe that 1-inch diameter coiled metal eyelets located on the ceiling in the north and south cellar passages may have been used to guide the wire outside, but evidence of this is inconclusive. Elsewhere in the house wires directly driven into the masonry were guided by staples.

![Diagram of the southeast cellar storage room](image)

Figure 5-16: The southeast cellar storage room, highlighted in yellow. Image adapted from Willie Graham, Carl Lounsbury, and Orlando Ridout V, Architectural Investigations of the Aiken-Rhett House, 48 Elizabeth Street, Charleston, South Carolina (Charleston: Historic Charleston Foundation, 2005).
GROUND FLOOR BELL SYSTEM DESCRIPTION:

SOUTH CELLAR STORAGE (Below Southeast Parlor)

Figure 5-17: Southeast cellar storage: east chimney wall, looking up at ceiling. Blue line represents the bell tube which is run through the joist, red line represents visible wires. Author’s photo, taken with permission from Historic Charleston Foundation.

Figure 5-18: Southeast cellar storage: west chimney wall, looking up at ceiling. A complete junction—evidence of repair and several bell lines joining crossing and then travelling north towards the exterior of the building. Green line represents conjectural bell wire direction of the lines from the adjoining cellar room (the Southeast Parlor line). Blue line represents the zinc tubing which would have been stapled to the joist, while the red line represents the bell wire that is still partially visible. Author’s photo, taken with permission from Historic Charleston Foundation.
GROUND FLOOR BELL SYSTEM DESCRIPTION:

NORTHEAST CELLAR STORAGE (Below the Library)

One bell crank is visible on the east chimney wall of this storage room, which lies directly below the library. The crank aligns with a bell that was once mounted on the exterior, so it is likely that the library bell line travelled downwards along the chimney, made a horizontal transition, and then ran north to the exterior of the building where it rang the library bell.

Figure 5-19: The northeast cellar storage room, highlighted in yellow. Image adapted from Willie Graham, Carl Lounsbury, and Orlando Ridout V, Architectural Investigations of the Aiken-Rhett House, 48 Elizabeth Street, Charleston, South Carolina (Charleston: Historic Charleston Foundation, 2005).
GROUND FLOOR BELL SYSTEM DESCRIPTION:

NORTHEAST CELLAR STORAGE (Below the Library)

Figure 5-20: Bell crank on the west wall of the relieving arch of the library chimney. Author’s photo, taken with permission from Historic Charleston Foundation.
GROUND FLOOR BELL SYSTEM DESCRIPTION:
S E R V A N T ’ S  H A L L (Below the Dining Room)

The visible wiring in the Servant’s Hall offers the clearest picture of how the bell system works. The wires from both bell-pulls in the dining room travelled downstairs into the Servant’s Hall. The wire from the southerly pull travelled downstairs, made a westward turn on the ceiling, and then turned again going north. There it turned right to connect to the wire and crank from the more northerly bell-pull. The wire travelled north and then through a hole in the wall to an exterior bell. This bell location was important, because it had to be near the kitchen within audible range of the cooks and household slaves.

Figure 5-21: The cellar-level servant’s hall, highlighted in yellow. Image adapted from Willie Graham, Carl Lounsbury, and Orlando Ridout V, Architectural Investigations of the Aiken-Rhett House, 48 Elizabeth Street, Charleston, South Carolina (Charleston: Historic Charleston Foundation, 2005).
GROUND FLOOR BELL SYSTEM DESCRIPTION:
SERVANT’S HALL (Below the Dining Room)

Figure 5-22: Bell hardware in the Servant’s Hall. East wall. Blue lines denote the invisible wires that travelled from the Dining Room through the ceiling joists here. Red lines denote where bell wire was once hung on the ceiling. Unlike the rest of the house, this cellar wiring would have been visible. The bell hanger took no trouble to conceal it. Author’s photo, taken with permission from Historic Charleston Foundation.
GROUND FLOOR BELL SYSTEM DESCRIPTION:
ART GALLERY CELLAR (Below the Art Gallery)

The Art Gallery bell wiring is visible in this cellar storage space, which contains a large cistern. The Art Gallery wire travels downward, makes a horizontal turn to the east, exits the building, makes an upward turn, and then travels north for about fifteen feet where it terminates at one of the bell carriages on the northeast corner of the Art Gallery.

Another crank is visible near the Art Gallery line, and it is likely connected to the doorbell-pull. Although the wire is covered by modern insulation, the wire connected to the crank was travelling in an east/west line that ran closer to the doorbell than any other line. This proximity indicates that the wiring was probably connected to the doorbell.

Figure 5-23: The cellar below the art gallery, highlighted in yellow. Image adapted from Willie Graham, Carl Lounsbury, and Orlando Ridout V, Architectural Investigations of the Aiken-Rhett House, 48 Elizabeth Street, Charleston, South Carolina (Charleston: Historic Charleston Foundation, 2005).
GROUND FLOOR BELL SYSTEM DESCRIPTION:
ART GALLERY CELLAR  (Below the Art Gallery)

Figure 5-24: Below the Art Gallery: bell system hardware. At the top of the cellar-level relieving arch for the Art Gallery fireplace, one can still see the Art Gallery wire (left crank) and the doorbell wire (right crank). Author’s Photo, taken with permission from Historic Charleston Foundation.
FIRST FLOOR BELL SYSTEM DESCRIPTION:

DINING ROOM

The dining room was an essential space for entertaining guests of the Aiken household. Waiting staff signaled other slaves to bring in courses or to clear the table by discreetly pulling on one of the bell levers mounted on both sides of the fireplace.

Today, the bell levers are fragmentary: only the brass drum portion of the hardware remains. Worn away plaster on the left side of the dining room chimney offers a rare glimpse into the inner workings of the bell system: the zinc bell tubing is visible. Zinc tubing guided the wire downstairs to the servant’s hall, where the wire was held to the ceiling using cranks driven into the plaster with brass spikes or screwed in with brass t-plates. The cranks led the wire towards the north elevation of the house and then terminated at a bell carriage driven into the exterior masonry of the wall. This bell was mounted near the kitchen, allowing slaves who were cooking in the kitchen outbuilding to know when to come in to serve the next course.

Figure 5-25: The first floor dining room, highlighted in yellow. Image adapted from Willie Graham, Carl Lounsbury, and Orlando Ridout V, Architectural Investigations of the Aiken-Rhett House, 48 Elizabeth Street, Charleston, South Carolina (Charleston: Historic Charleston Foundation, 2005).
Figure 5-26: Fragments of the bell lever in the dining room located on the left side of the chimney. A matching bell lever flanks the fireplace on the right side, but the plaster is still intact there. This view provides an interesting glimpse of the zinc tubing. Author’s photo, taken with permission from Historic Charleston Foundation.
Figure 5-27: Detail of the bell lever fragment in the dining room located on the left side of the chimney. Zinc tube was stapled into lath and hidden by a finish coat of plaster. This room was added to the house in 1833. Workers in 1858 dug out a channel in the 1833 plaster to install this hardware. Note the bright white plaster to the right of the bell tubing compared to the darker color of the 1833 scratch coat. This indicates that the bell system is part of the 1858 alterations to the house. Also take note of the semicircular wear mark to the left of the hardware. This is a wear mark from a waiter pulling the lever arm of the bell-pull from left to right. Author’s photo, taken with permission from Historic Charleston Foundation.
FIRST FLOOR BELL SYSTEM DESCRIPTION:

LIBRARY

The library was a well-lit, comfortable space suitable for reading or for small gatherings. An intact mineral bell knob is visible next to the fireplace. The bell wire which was connected to the porcelain bell-pull travelled through an embedded zinc tube downstairs into the cellar. Cranks took the wire northwards toward the slave quarters. The bell was likely mounted below the large library window, where bell carriage fragments remain.

Figure 5-28: The first floor library, highlighted in yellow. Image adapted from Willie Graham, Carl Lounsbury, and Orlando Ridout V, Architectural Investigations of the Aiken-Rhett House, 48 Elizabeth Street, Charleston, South Carolina (Charleston: Historic Charleston Foundation, 2005).
FIRST FLOOR BELL SYSTEM DESCRIPTION:  
L I B R A R Y

Figure 5-29: Fireplace in the Library. Porcelain bell knob on the right. Author’s photo, taken with permission from Historic Charleston Foundation.
FIRST FLOOR BELL SYSTEM DESCRIPTION:

LIBRARY

Figure 5-30: Library bell-pull close-up. This 1850s bell-pull is very different from any other hardware in the house--a draw-out Bennington-style glazed porcelain knob and brass trim. Author’s photo, taken with permission from Historic Charleston Foundation.
FIRST FLOOR BELL SYSTEM DESCRIPTION:

EAST AND WEST PARLORS

The large double parlors were an entertaining space and sitting room. A part of the original federal-style house, the rooms are symmetrical and equally proportioned. Identical porcelain parlor bell levers flank both sides of each fireplace. Although this seems like a lot of bell-pulls, it was essential for Harriet’s slaves to quickly place calls for service without drawing any attention to the act of asking for help. Four bell-pulls in the parlors gave her hosting skills an appearance of “noiseless, automatic service” that her contemporary, Mary Boykin Chestnut, so admired.

Remaining bell levers are fragmentary aside from the left pull in the East Parlor, which was dismantled and incorrectly put back together at one point but is nonetheless complete. At each fireplace, zinc tubes led the wire downstairs into the cellar. Each fireplace had two bell-pulls, whose wires were connected downstairs. No exterior parlor bell evidence remains.

Figure 5-31: The first floor double parlors, highlighted in yellow. Image adapted from Willie Graham, Carl Lounsbury, and Orlando Ridout V, Architectural Investigations of the Aiken-Rhett House, 48 Elizabeth Street, Charleston, South Carolina (Charleston: Historic Charleston Foundation, 2005).
Figure 5-32: These porcelain knobs flank both sides of the fireplace wall in each parlor. Author’s photo, taken with permission from Historic Charleston Foundation.
FIRST FLOOR BELL SYSTEM DESCRIPTION:

THE ART GALLERY

Built in 1858 while the Aikens travelled abroad, the Art Gallery housed their collection of European art and finery. Sculptural niches flanked three corners of the room which was lit by a large skylight in the ceiling. The addition of a bell-pull and gas lighting made the room one of the most impressive spaces in the house. The presence of an ornate brass and porcelain bell lever indicates that the Aikens also entertained guests here. The bell wire travelled downward into the cellar underneath the gallery. The wire made a 90 degree turn east, then ran upwards through a mortise crank. Traveling about a foot upwards again, the wire connected to a driven crank and then made a 90 degree turn to the north—terminating at a bell carriage at the northeast corner of the Art Gallery. Fragments of this bell carriage are still visible today.

Figure 5-33: The first floor art gallery, highlighted in yellow. Image adapted from Willie Graham, Carl Lounsbury, and Orlando Ridout V, *Architectural Investigations of the Aiken-Rhett House, 48 Elizabeth Street, Charleston, South Carolina* (Charleston: Historic Charleston Foundation, 2005).
FIRST FLOOR BELL SYSTEM DESCRIPTION:
THE ART GALLERY


Figure 5-35: Remnant of a bell lever in the Art Gallery, located on the right side of the fireplace. Lever arm is missing. A tube embedded in plaster guided the wire down into the cellar where the wire turned outwards to the east. Traveling through a mortise crank, the wire went up the façade, to the north again, and finally terminated at a bell at the northeast corner of the Art Gallery. Author’s photo, taken with permission from Historic Charleston Foundation.
The ballroom is the highlight of the 1833 additions. A large room suitable for dancing or large gatherings, the ballroom was another important entertaining space. It was an impressive space for parties; imported red and silver printed wallpaper would have reflected the soft light of the gas light fixtures.

Today, the wallpaper is worn away. This provides a glimpse of the horizontal channel that the bell hanger dug into the plaster 1858 to install the bell tubing. Just like downstairs in the dining room, the plaster that covers the tubing is a bright white color compared to the rest of the plaster. One bell-pull is located on the left side of the fireplace. The bell wire runs northward towards the outside of the house, then down to a bell that is no longer there.

Figure 5-36: The second floor ballroom/withdrawing room, highlighted in yellow. Image adapted from Willie Graham, Carl Lounsbury, and Orlando Ridout V, Architectural Investigations of the Aiken-Rhett House, 48 Elizabeth Street, Charleston, South Carolina (Charleston: Historic Charleston Foundation, 2005).
SECOND FLOOR BELL SYSTEM DESCRIPTION:
WITHDRAWING ROOM/BALLROOM

Figure 5-37: Fragments of the bell lever on the east wall of the ballroom, located to the left of the fireplace. Author’s photo, taken with permission from Historic Charleston Foundation.
SECOND FLOOR BELL SYSTEM DESCRIPTION:
WITHDRAWING ROOM/BALLROOM

Figure 5-38: Evidence of bell hanger’s work on the east wall of the ballroom. He dug a horizontal channel through the plaster, inserted zinc tubing, and ran the wire through it. The wire travelled outside to its bell carriage. The finish coat of plaster that was used to cover the tubing is visible today (highlighted in red). Author’s photo, taken with permission from Historic Charleston Foundation.
SECOND FLOOR BELL SYSTEM DESCRIPTION:

NORTHWEST DRESSING ROOM

The northwest dressing room is a small space that adjoins the southwest bedchamber. A small bell lever is located on the right side of the fireplace here. The bell wire was run between the floor joists. Possible point of termination is a bell located beneath the northeast dressing room window on the exterior of the house. Slaves who answered this bell were probably valets or ladies’ maids who helped their masters dress or bathe.

Aside from the ballroom and the northeast dressing room, no other bell evidence exists on this floor. However, the possibility of their use in the past is not to be ruled out.

Figure 5-39: The second floor northwest dressing room, highlighted in yellow. Image adapted from Willie Graham, Carl Lounsberry, and Orlando Ridout V, Architectural Investigations of the Alken-Rhett House, 48 Elizabeth Street, Charleston, South Carolina (Charleston: Historic Charleston Foundation, 2005).
SECOND FLOOR BELL SYSTEM DESCRIPTION:

NORTHWEST DRESSING ROOM

Figure 5-40: Brass bell lever to the right of dressing room mantle. Tube leads wire down. Wires travel an unknown path between floor joists to terminate in an exterior bell on the second floor near this room. There is a bell directly under the adjoining dressing room’s window, so it is the likely connection. This was not an entertaining space, so the bell hanger’s selection of more utilitarian bell-pull hardware was an appropriate choice. Zinc tube and bell wire direction marked in red. Author’s photo, taken with permission from Historic Charleston Foundation.
The third floor was primarily a family living space, so the bell hardware here is less refined than the hardware in the entertaining spaces. The third floor has the mark of the hands of many different bell hangers who repaired the systems and also reconfigured them after remodeling. Unfortunately, no exterior bell hardware shows on the exterior of the third floor, so it is difficult to tell where the bell (or bells) for the third floor were located.

This room, the northwest dressing room, has evidence of bell hardware on its south wall. A wheel and chain mortise crank can be seen on the wall. Wire travels down a zinc tube to a strange iron plate connected to a crank. The wire travels through the floor joists and then turns in an unknown direction.

It was probably simplest for the bell hanger to connect the lines for the Southwest and Southeast Bedchambers, just as he did in the first floor parlors. It is probable that all four of these rooms (the Northwest Dressing Room, the Northeast Dressing Room, the Southwest Bedchamber, and the Southeast Bedchamber) were connected to one bell because room differentiation was not necessary for service in family chambers.
THIRD FLOOR BELL SYSTEM DESCRIPTION:
NORTHWEST DRESSING ROOM

Figure 5-42: Mortise chain and wheel crank located on south wall. Tube leads down to strange contraption seen in the next figure. This was likely covered by a porcelain plate and was intended as a service connection to the bell-pull in the adjoining room, which is no longer present. For an example of a more complete type of this hardware, see Back Passage. Author’s photo, taken with permission from Historic Charleston Foundation.

Figure 5-43: Large crank and plate contraption that changes the wire direction as it travels through floor joists. Wire direction unknown. Author’s photo, taken with permission from Historic Charleston Foundation.
THIRD FLOOR BELL SYSTEM DESCRIPTION:
NORTHWEST DRESSING ROOM ENTRY

According to Graham, Lounsbury, and Rideout, small entryway with a curved wall partition was added in the 1870s. As a result, any bell hardware in the southwest chamber was likely moved, reinstalled, and rerouted to the current bell-pull here.

Figure 5-44: The third floor dressing room entryway, highlighted in yellow. Image adapted from Willie Graham, Carl Lounsbury, and Orlando Ridout V, Architectural Investigations of the Aiken-Rhett House, 48 Elizabeth Street, Charleston, South Carolina (Charleston: Historic Charleston Foundation, 2005).

Figure 5-45: Cast iron drum—fragment of a bell lever. Author’s photo, taken with permission from Historic Charleston Foundation.
THIRD FLOOR BELL SYSTEM DESCRIPTION:
SOUTHEAST BEDCHAMBER

This bedchamber has a fragmentary bell lever near the room’s entrance. It may have run along the same path as the wires in the next room, due to their proximity.

Figure 5-46: The third floor southeast bedchamber, highlighted in yellow. Image adapted from Willie Graham, Carl Lounsbury, and Orlando Ridout V, Architectural Investigations of the Aiken-Rhett House, 48 Elizabeth Street, Charleston, South Carolina (Charleston: Historic Charleston Foundation, 2005).
THIRD FLOOR BELL SYSTEM DESCRIPTION:
SOUTHEAST BEDCHAMBER

Figure 5-47: Remnant of bell lever and chain. Author’s photo, taken with permission from Historic Charleston Foundation.

Figure 5-48: Close up of bell lever fragment and chain. Author’s photo, taken with permission from Historic Charleston Foundation.
THIRD FLOOR BELL SYSTEM DESCRIPTION:
NORTHEAST DRESSING ROOM

There are no bell lever fragments in this room. But removing a loose piece of molding on the south wall reveals zinc bell tubing, so a pull was once located in this dressing room.

Figure 5-49: The third floor northeast dressing room, highlighted in yellow. Image adapted from Willie Graham, Carl Lounsbury, and Orlando Ridout V, *Architectural Investigations of the Aiken-Rhett House, 48 Elizabeth Street, Charleston, South Carolina* (Charleston: Historic Charleston Foundation, 2005).
THIRD FLOOR BELL SYSTEM DESCRIPTION:

NORTHEAST DRESSING ROOM

Figure 5-50: Bell-pull on the south wall was removed, but a cutout in the baseboard shows evidence of zinc tubing under the plaster. This indicates that there was formerly a bell-pull here. Author’s photo, taken with permission from Historic Charleston Foundation.
THIRD FLOOR BELL SYSTEM DESCRIPTION:

BACK PASSAGE

The bell hanger drilled large holes into the east wall of this space. He installed bell-pull equipment and covered up his work in this room with removable porcelain plates. The bell-pulls were located in the adjoining rooms—the south bedchamber and the north bedchamber—while equipment visible in the back passage was there only for easy access and repairs. The pull in the north chamber was removed to install bookcases, but the pull for the south chamber still remains (in fragments). The bell hardware in this wing of the house was likely connected to the same bell on the exterior.

Figure 5-51: The third floor back passage, highlighted in yellow. Image adapted from Willie Graham, Carl Lounsbury, and Orlando Ridout V, Architectural Investigations of the Aiken-Rhett House, 48 Elizabeth Street, Charleston, South Carolina (Charleston: Historic Charleston Foundation, 2005).
THIRD FLOOR BELL SYSTEM DESCRIPTION:

BACK PASSAGE

Figure 5-52: East wall. Porcelain plate used to cover the inner workings of a bell-pull in the adjoining room—the North Bedchamber. Approximately 8 inches tall and 3 inches wide. Author’s photo, taken with permission from Historic Charleston Foundation.

Figure 5-53: Similar configuration with porcelain plate removed. Mortise chain and wheel style crank—brass wheel and chain connected the bell wire to the bell lever in the adjoining room. Zinc tube imbedded in plaster traveled downward and then between floor joists, terminating outside. Author’s photo, taken with permission from Historic Charleston Foundation.
THIRD FLOOR BELL SYSTEM DESCRIPTION:
SOUTH BEDCHAMBER, EAST WING

This bedchamber still shows the remains of a bell lever on the west wall. If it broke, the lever could be repaired on the opposite side of the wall where a movable porcelain plate hid the inner workings—the mortise wheel and chain crank—of the lever.

Figure 5-54: The third floor south bedchamber (east wing), highlighted in yellow. Image adapted from Willie Graham, Carl Lounsbury, and Orlando Ridout V, Architectural Investigations of the Aiken-Rhett House, 48 Elizabeth Street, Charleston, South Carolina (Charleston: Historic Charleston Foundation, 2005).
THIRD FLOOR BELL SYSTEM DESCRIPTION:
SOUTH BEDCHAMBER, EAST WING

Figure 5-55: This bell-pull fragment was connected to the mortise chain and wheel in Figure 5-53. This may have been a bell-pull similar to that seen in the second floor dressing room. Notice the fresh looking white plaster surrounding the hardware. This indicates that this piece was not a part of the original 1833 addition. Since this bell hardware does not have a drum sunken into the plaster, it is not a traditional bell lever. Author’s photo, taken with permission from Historic Charleston Foundation.
 Figure 5-57: North elevation of Aiken-Rhett House showing bell system locations. Author’s photo.
Figures 5-58: Close up of bell location underneath the window of the northeast dressing room. These wires probably connected to the pull in the northwest dressing room, or perhaps one of the bedchambers on this floor. The presence of another wire indicates that this was connected to another bell-pull, so it may have been connected to a (now missing) bell-pull in one of the bedrooms. Since this was the dressing room bell, it probably called the attention of a lady’s maid or a valet who could assist the Aikens with dressing and bathing. Author’s photo.
EXTERIOR BELL SYSTEM FRAGMENTS:
Main Body of House

3. DRIVEN CRANK

Figure 5-59: Driven crank on the corner of the house where the main body of the house (north elevation) meets the west elevation of the 1830s addition. A bell wire from second floor travels down the corner and meets this bell crank. Destination of the wire is unknown; it probably travelled to a missing bell. Author’s photo.
Figure 5-60: Bell carriage mounted on the exterior of the north elevation by the Northeast Cellar door. Author’s photo.

Figure 5-61: Close-up of the bell carriage. On a N/S axis, this bell aligns with the library bell-pull and was probably connected there. Author’s photo.
EXTERIOR BELL SYSTEM FRAGMENTS:
Northeast Wing (1833 Additions)

EXTERIOR BELL SYSTEM FRAGMENTS:
Northeast Wing (1833 Additions)

Figure 5-63: Although the bell carriage no longer exists, the mortise and driven cranks were connected with the dining room. Since this hardware is closest to the kitchen, it’s likely that the bell formerly located here was used during meal service. The driven crank on the upper level ran a wire from the ballroom down to an undisclosed bell. Author’s photo.
Figure 5-64: This bell crank took wire from an upper story and transferred it downwards. Perhaps its eventual destination was the ballroom bell (now missing). Author’s photo.
EXTERIOR BELL SYSTEM FRAGMENTS:
Northeast Wing (1833 Additions)

2. DRIVEN CRANKS AND MORTISE CRANK

Figure 5-65: The leftmost driven crank was connected to a missing bell; since a similarly positioned crank exists on the 2nd floor, this may have run to the ballroom bell. The driven crank and mortise crank set at the right connect to the bell-pull in the dining room. The dining room bell would have been nearby. Author’s photo.
Figure 5-66: North elevation of the house: several visible mortise cranks, driven cranks, and a bell carriage. Note that the bell carriages on this portion of the house are often installed below shutters. Perhaps this protected them from rain—preventing corrosion. Author’s photo.
Figure 5-67: Bell carriage with partial spring. Unknown wire direction. Possibly connected to 1st floor parlors due to its location on the first floor. Author’s photo.
Figure 5-68: This mortise crank is located above the exit from the cellar service and stair passage. It was connected to a bell that is no longer present. Author’s photo.
EXTERIOR BELL SYSTEM FRAGMENTS:
Northwest Wing—Art Gallery (1858 Additions)

Figure 5-70: East elevation of Art Gallery showing where bell wire was run. Blue lines simulate bell wire. Two bell wires (one from the Art Gallery and one from the doorbell) came out of the mortise crank, travelled up to the driven crank, and then travelled the horizontal distance to the bell carriages mounted at the northeast corner of the gallery. When travelling a long span outdoors, small staples held the wires in place. Author’s photo.
Figure 5-71: Art Gallery Cranks. Two brass cranks driven into the masonry of the Art Gallery. Copper wire fragments. These lines connected to the front door and the Art Gallery pulls. Author’s photo.
2. MORTISE CRANK

Figure 5-72: A double-mortise crank. Two brass cranks and a screwed-in cast iron plate. This contraption transferred the direction of the wire in the Art Gallery cellar towards the exterior of the house. The wires traveled from the Art Gallery cellar upwards to the cranks in the previous figure. Author’s photo.
Figure 5-73: These bell carriages were once connected to the Art Gallery bell-pull and the front door bell-pull. The carriage on the right seems to have been ordered from a catalog (note the cast copper alloy rose on the right), while the rest of the bell carriages on the house are made from wrought iron. Author’s photo.
CHAPTER 6  INTERPRETING SLAVE LIFE THROUGH SERVANT BELLS AT THE AIKEN HOUSE

What does the Aiken-Rhett house’s surviving bell system hardware tell modern viewers about slave and servant life in the past? Slave schedules show that the Aiken-Rhett compound housed nineteen slaves just a few years after the bell system was installed in 1858.\(^1\) The presence of bell-pulls in nearly every room of the main house indicates that the Aikens relied heavily on the bell system when training slaves, maintaining the house, and entertaining guests. Although historic archives do not yield many specifics about how Harriett Aiken ran her household, accounts of similar households, census listings, architectural evidence of the slave hierarchy, and servant training manuals yield important clues.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Slaves or Servants</th>
</tr>
</thead>
<tbody>
<tr>
<td>1845</td>
<td>22</td>
</tr>
<tr>
<td>1846</td>
<td>13</td>
</tr>
<tr>
<td>1850</td>
<td>7</td>
</tr>
<tr>
<td>1859</td>
<td>12</td>
</tr>
<tr>
<td>1860</td>
<td>19</td>
</tr>
<tr>
<td>1874</td>
<td>13</td>
</tr>
<tr>
<td>1880</td>
<td>9</td>
</tr>
</tbody>
</table>

Table 6-1: Aiken household slaveholdings compiled from slave schedules and census information. Source: Margretta Childs Archive, Historic Charleston Foundation.

A young contemporary of the Aikens, Huger Smith, recalled the slaves who lived at his grandmother’s house on Meeting Street in Charleston. Smith remembers nineteen slaves living in this household during the antebellum years: a butler, a cook, a coachman, two footmen, a fly-brusher (a slave

\(^1\)1860 U.S. Federal Census, Slave Schedule in Ward 5 City of Charleston. South Carolina Room, Charleston County Public Library, Main Branch.
who wielded a fan at mealtime to keep pests away), three maids, one maid-in-training, three seamstresses, and two washerwomen. Additional personal slaves included a male house servant, another washerwoman, a child’s nurse, and a maid.²

Elite Charleston slave holders had an overwhelming amount of domestic help. The sheer amount of servants often came as a shock to visitors. After visiting Charleston, British author William Makepeace Thackeray proclaimed that Charleston slave owners had 12 servants performing the duties that 2 servants in Britain could do. Most whites did not touch domestic work, and they assigned slaves to complete singular, mundane tasks like washing dishes or laundry.³ Abolitionist Angela Grimke recalled her mother summoning a slave to close a window rather than allowing her daughter to close the window herself. Calls for petty service were a part of the exercise of power that was a constant reminder of the racial hierarchy. Slaves were literally always on-call, ready to respond to the summons of the house bell.⁴

Figure 6-1: An idealized representation of a slave butler dressed in livery, drawn by a slavery apologist after the Civil War. Source: Thomas Nelson Page, Social Life in Old Virginia (Scribener: New York, 1898), 65.

² D. E. Huger Smith, A Charlestonian’s Recollections, 1846-1913. (Charleston: Carolina Art Association, 1950) 58. Quoted in McInnis, Politics of Taste, 244.
³ McInnis, Politics of Taste, 244-247; Lerner, Grimke Sisters, 70, Gerda Lerner. The Grimké Sisters from South Carolina: Pioneers for Woman’s Rights and Abolition. (Oxford University Press, 1998), 70. Quoted in McInnis, 244.
⁴ McInnis, Politics of Taste, 244.
EVIDENCE OF THE SERVANT HIERARCHY IN THE AIKEN OUTBUILDINGS

Favored ‘key’ slaves in the antebellum South often sat atop the hierarchy of domestic servants. The favoring of key slaves had the important role of allowing a slaveholder to tell himself or herself that he or she treated slaves well. By considering that they treated ‘worthy’ and ‘more sensible’ slaves well, slave owners could treat the rest with racial indifference and still maintain a self-image of benevolence.

Trusted slaves ran errands, delivered messages, and performed important household duties. Key slaves came from the ranks of house servants, who had better food and clothing than slaves who toiled outdoors or in service areas. Higher-ranking slaves often lived and worked in closer proximity to the white family. Many times a favored slave was the childhood friend or companion of a member of the white family. Out of respect for that relationship, he or she was sometimes given a special job in household management, such as a butler, valet, or carriage driver. Key slaves like the butler at the Miles Brewton House in Charleston were highly trusted by the family. The Brewtons entrusted their butler with unsupervised care of their downtown house for months at a time.

The Aikens also adopted this hierarchy of slaves. Existing architectural evidence of amenities in the rooms of their preferred household slaves points to this rigid servant hierarchy. The best slave quarters were located at each end of the outbuildings. These quarters had the best ventilation, lighting, and amenities. The butler lived in the best quarters of all the outbuildings in the second floor room directly above the kitchen. Most of the servant bells on the back of the house were clearly visible from this room. The butler’s proximity to the kitchen was also important for his role in coordinating dinner service. Recent architectural analysis discovered evidence of carpeting, curtains, and a hook to hang a

---


looking glass in the butler’s room.\textsuperscript{7} A well-lit butler’s quarters with a mirror bespoke the slave occupant’s high status within the enslaved members of the household.

For servants who were lower on the hierarchy, their care, accommodations, and physical appearance perhaps mattered less. The worst slave quarters in the Aiken outbuildings were dark, windowless, and nearest to the sights and smells of the slave work yard. Slaves who worked outdoors or in rough environments probably lived in these stifling rooms. Their daily duties were not pleasant—some butchered animals or tended to livestock; others toiled over boiling hot pots of laundry or cooked meals over a stove. Middling house slaves—maids, fly-swatters, laundresses, or young waiters in training—may have also lived in the poorer quarters. Simplified architectural features and a lack of lighting and ventilation reinforced the servant hierarchy of the servants on the lower end of the scale.\textsuperscript{8}

**BELLS FOR SEPARATE SPHERES: THE SLAVE YARD AND THE MAIN HOUSE**

Ringing the front door bell-pull would have been the first act in a visit to the house of William and Harriet Aiken. The slave butler or footman would answer the door and then see if the presence of the guest was desired. If so, the guest was admitted indoors. The visitor walked into the stunning marble entryway while his slave carriage driver drove to the back gate. The Aiken’s butler would then ring the front door bell again to signal the groom or stable boy in the rear yard to open the back gate to let in the carriage and tend to the visitor’s horses. The installation of the entry bell on the northwest corner of the Art Gallery—nearest the stables—was a strategic choice because it was in immediate audible range of the stable slaves. This entry bell prevented wealthy Aiken guests from traveling through the slave yard. Instead of driving past cows and privies and entering through the back of the house, the guest experienced an ornate front entrance that was the height of domestic interior fashion. The manner of


\textsuperscript{8} McInnis, Politics of Taste, 202; Blassingame, John W., ed. *Slave Testimony: Two Centuries of Letters, Speeches, Interviews, and Autobiographies* (Baton Rouge: Louisiana State University Press, 1977), 379. Many of Aiken’s contemporaries referred to him as a kind master.
entry into the house drew a sharp distinction between slave spaces and the domain of white owners.

White slave owners and their visitors could only see the slave work yard from a distance.

UPSTAIRS AND DOWNSTAIRS: HIERARCHY OF BELL-PULL HARDWARE INSIDE THE HOUSE

The retrofitted bell system varies in quality from floor to floor. The first floor of the Aiken Rhett House contains the most ornate bell hardware (Figure 6-2). The bell hanger carefully hid his work with by meticulously replacing woodwork and covering up bell tubing with finish coats of plaster. Fresh wallpaper also covered any evidence of bell hanging work. Aside from the bell-pulls, the bell hanger left behind no hints of the wires embedded in the walls on the first floor. All bell-pulls on the first floor are of the finest quality. Each bell-pull is a stylized lever made from porcelain and brass.

On the upper floors, the bell hardware is of mixed quality. Though the second floor ballroom has a porcelain bell lever, utilitarian spaces like dressing rooms contain simpler hardware (Figure 6-3). On the third floor, the bell hanging style changes drastically. Quality of installation is poor and often haphazard (Figure 6-4), and bell-pull hardware from room to room is mismatched.

Figure 6-2: An ornate bell lever in the first floor parlor. Author’s photo, used with permission from Historic Charleston Foundation.

Figure 6-3: A utilitarian, simple brass bell-pull in the second floor dressing room. Author’s photo, used with permission from Historic Charleston Foundation.
Figure 6-4: Haphazard bell work on the third floor. In the third floor NW dressing room, the bell hanger cut out a large chunk of baseboard to install bell tubing. In contrast to the rest of the house where bell-pull installation was carefully disguised with wallpaper and plaster, this installation is very obtrusive. On the first floor especially, the bell hanger meticulously avoided harming any woodwork. This is a marked departure in installation style between upper and lower floors.
The distinction between hardware types in entertaining spaces and private spaces illustrates the distinct roles of slaves who operated and answered to the summons of each bell-pull. In entertaining spaces, it is likely that upper-tier slaves themselves used bell-pulls to ring for assistance while the Aikens were hosting visitors. For example, the dining room at the Aiken House was a premier entertaining space. In the mid-1800s, lavish dinners with multiple courses and a dining room table packed with food were the height of social fashion. Household slaves stood at attention along the perimeter of the room, attending to the guests and pulling one of the bell levers when it was time to clear the table or bring in the next course (see Figure 6-5). By the late 1800s, when buffet-style service à la russe became fashionable, dinner was less of a production. Servants still maintained well-stocked platters and cleared plates, but diners
could serve themselves any array of foods from a sideboard.9 Regardless of dining style, it was the dining room slave’s job to silently anticipate the needs of the guests and pull the bell lever for assistance to clear tables or bring in food. The dining room slaves were silent sentries, making sure that every small detail of dinner service ran smoothly. These slaves stood at each side of the dining room fireplace, ready to pull the bell lever for assistance when it was time to clear the table or call for replenishments.

Antebellum servant training manuals advocated that waiters practice drills like soldiers, rehearsing steps and clearing tables with precise, deliberate motions.10 Tunis Campbell’s 1848 guidebook, Hotel Keepers, Head Waiters, and Housekeepers Guide, focused on service in fine hotels and restaurants. His advice for small-scale parties was relevant for domestic parties at opulent dwellings like Governor Aiken’s house. Campbell advocated running squad drills, organized quite like a military march, around dining rooms to perfect dinner service. Campbell illustrated these dining room squad drills and advocated that waiters practice their “marches” daily, except for Sundays. In another antebellum servant training manual, Robert Roberts advised waiters to stand at attention after placing food on the table:

“take your station and keep your eyes and ears open, to see what the company may want, or ask for. Do not wait to be asked everything by the company; for if you keep a sharp eye on the table, you will see many things wanted, by persons who, perhaps bashful, will not ask for themselves”11

Other non-dining areas at the Aiken house were also essential for entertaining. The double parlors, the art gallery, and the withdrawing room had identical bell-pulling hardware—ornate ceramic and brass bell levers. These showy bell levers were well-suited to the rooms whose every detail was crafted to impress. Slaves at the upper end of the servant hierarchy served the Aikens in these public rooms and stood at attention around the perimeter. They likely took their stations around bell-pulls. These slaves used bell-pulls to call for assistance at a moment’s notice. Perhaps Mrs. Aiken ordered the

10 Tunis Campbell, Hotel Keepers, Head Waiters, and Housekeepers Guide (Boston: Coolidge and Wiley, 1848) 67-90. 
butler to ring for tea in the parlor when entertaining friends; and perhaps Mr. Aiken told his footman to ring for a carriage via the bell-pull in the library when he decided to take a trip into town.

Outside in the work yard, after hearing the parlor or drawing room bell ring, slaves were expected to immediately answer their masters’ summons and drop their work, “and never let the bell ring twice if you can possibly avoid it.”

The bell levers in the entertaining spaces of the house were part of an elaborate social scheme that helped the Aikens and their favored slaves request assistance without appearing to expend any effort in doing so.

**Figure 6-6**: Depiction of an antebellum Virginia dining room with multiple slave attendants. A slave woman and a male waiter serve food and drinks while another female slave (left) operates fans to keep flies away. Source: Sketchbook of Landscapes in the State of Virginia by Lewis Miller, Virginia, 1853-1867, watercolor (Colonial Williamsburg Foundation).

**SERVANT BELLS FOR PRIVATE SPACES**

Compared to the fixtures in the entertaining rooms of the house, the bell hardware in private family rooms was far simpler. For example, the plain brass bell-pull in the second floor dressing room has no stylized metallic flourishes like the bell levers in the entertaining spaces. In the third floor especially,

the bell system is even less refined. Large chunks of baseboard and floorboard were removed to install bell tubing, and were then loosely replaced without the benefit of repainting or re-nailing. In contrast, the bell hanger meticulously avoided harming the woodwork in the entertaining spaces. Third floor bell hardware also stands out because it does not match from room to room. Some bedrooms had bell levers, while other rooms display fragments that look similar to the utilitarian brass bell-pull in the second floor dressing room. The bell hanger repaired the system several times. In the third floor’s northwest dressing room, the repairman dug out floorboards to install large, unsightly iron plates and cranks (Figure 5-43). Perhaps functionality was more important than appearance in these family spaces, for only the Aikens used these bell-pulls.

The Aikens themselves likely used these bell-pulls when they needed direct assistance from a personal slave. Slaves who answered these bells were body servants or maids who assisted their masters in dressing and bathing. Other upstairs slave duties included opening and closing shutters and windows, airing out rooms, kindling fires, sweeping, washing floors, and changing linens. One of the upstairs bell-pulls was surely used for the specific purpose of calling a slave nurse to tend to the young Aiken children.

RECOMMENDATIONS

The servant bell system offers a new opportunity to interpret slave life at the Aiken House. Antebellum census data indicates that slaves living on-site consistently outnumbered the Aikens. Interpreting the bell system could help paint a more historically accurate picture of the role of house slaves in the operation, maintenance, and hospitality of the house. From available data, three conclusions about the Aiken slaves can be drawn. First, the Aikens consistently housed many slaves—up to nineteen at a time—while they occupied the house. Second, many antebellum Charlestonians including the Aiken family imitated English habits when training their slaves. Third, physical evidence in the outbuildings suggests the presence of a clearly drawn hierarchy of servants. The significance of the bell system lies in its ability to remind modern visitors of the servant presence in nearly every room of the main house.
Delving deeper into the history of the butler or the carriage driver, the ladies’ maid or the waiter, can illuminate history as it was and not what we imagine it to be. Increasing coverage of slave history can show modern visitors the herculean tasks that slaves performed to support the well-rehearsed, refined lifestyle of the Aikens and their guests. Describing the bell system to the modern-day guests of the Aikens can aid in comprehension of how the household operated. The Aikens’ penchant for grand parties with hundreds of guests necessitated strict training of house slaves. This training required a great deal of practice and discipline. Though practices varied from house to house, general duties of each household servant can be gleaned from various antebellum servant training and household operation manuals, including:


**INTERPRETATION STRATEGY**

To aid in interpretation of the servant bell system, Historic Charleston Foundation should remove the existing exterior bell carriages for conservation and replace them with reconstructed servant bell mock-ups. Restoration servant bell hardware can be purchased from British vendor, The Period Ironmonger, via their website at theperiodironmonger.co.uk. The existing fragmentary bell carriages are foreign-looking to a modern eye and are quite easy to overlook. It is difficult to understand the impact of a servant bell system without seeing any bells. Bell reinstallation would enliven interpretation of the slave yard. Auditory interpretation, complete with the recorded sounds of ringing house bells, could also
supplement the audio tour. Visitors could hear the sounds of the slave yard—once quite a loud and bustling place—while they walk in the footsteps of the Aiken slaves and servants.

In effect, the entire back of the Aiken House was equivalent to an English bell board. Bell placement scattered around the exterior of the house was a customized solution to a common communication problem between masters and servants. The bells allowed the Aikens to communicate more easily with their slaves who lived in the outbuildings. After emancipation, the Aikens still used these bells to communicate with their newly freed servants. Bells were a large part of the daily life in this household both before and after the Civil War. The Aiken Rhett bell system was a prop in the performance art of genteel living. This unique material link to the past should be highlighted and shared with all of the museum’s modern visitors.
CHAPTER 7

CONCLUSION

In spite of their obsolescence, servant call bells and bell system hardware warrant adequate treatment from preservation professionals and other stewards of historic properties. Servant bells are the first interior household communication technology, and should not be overlooked by architectural historians or museum professionals. Complete or partial restoration, preservation, and documentation+removal are the various options for preservation treatment.

PRESERVATION RECOMMENDATIONS

Figure 7-1: A screenshot of NPS Preservation Specialist Jeff Finch restoring the bell system at Lindewald, Martin Van Buren's New York Estate. Source: http://www.youtube.com/watch?v=swccKdUfVxs (Accessed 11/2/12).

COMPLETE RESTORATION

In historic houses where a bell board was used, restoration is a viable option. Since all bell wires ultimately terminated at the same point, it is not difficult to imagine the shortest route from a bell-pull to the bell board. English publications including construction specifications, builder’s books, and encyclopedias offer excellent tips on methods of bell hanging and would be very helpful in any restoration endeavor. Even so, restoring a bell system is a challenging, time consuming, and costly process.

For bells that are hung in the English manner (with a row of interior bells on the ground floor level), complete restoration has been done successfully. The National Park Service, caretaker of Martin Van Buren’s family estate in New York, restored the bell system at the Lindewald House. Preservation
Specialist Jeff Finch restored the original call bell system as part of an ongoing effort to understand and interpret the lives and work of the Irish servants in the employ of the Van Buren Family.

Martin Van Buren's New York house is an excellent example of a successful bell system restoration. Using a historic structure report as a guide, Jeff Finch mapped out the path of the original bell system on a floor plan. He then found old bell tubing using a wire probe. He ordered the custom-made replacement parts—copper bell wire, new bells, and reproduction nineteenth-century parlor bell levers. He then reinstalled the system to functionality. The National Park Service features a documentary of the entire servant bell restoration process on its website, making the whole endeavor viewable to anyone with an internet connection.\(^\text{13}\)

**REMOVAL+DOCUMENTATION**

When retaining or restoring bell system hardware is not a viable option, documentation and removal is a solution. Photographic documentation and thorough drawings are important components of this process. Labeling floor plans with bell hardware locations is also necessary for mapping out the path of bell wires. When documenting a system, historic structure reports should be consulted, as should historic records of construction or remodeling. For instance, Mount Vernon staffers removed bell system hardware from the interior of the mansion in the early 1990s but documented its former locations in a series of reports. Although removal is not the best option, everything cannot always be saved. Documentation can help preserve a dwelling’s history even when bell system evidence has been removed.

**PRESERVATION IN PLACE + INTERPRETATION**

Some house museums elect to retain their bell hardware without restoring it. For dwellings like the Hampton National Historic Site in Maryland, a complete set of bells near the kitchen helps tell the story of slave and servant life. Though the system is not completely functional, the visible bells help viewers interpret the past and imagine the sights and sounds of life at Hampton.

In other house museums where the bells have not survived, interpretation is more challenging. At Hampton Plantation in McClellanville, South Carolina, only small fragments of its late eighteenth-century bell system survive. Thus, the site must rely on interpretive strategies for highlighting the role of the bell system in the lives of its former residents. Family accounts, household advice books, and construction texts can help interpreters flesh out the history behind its fragmentary bell system. Further investigation and archival research could be performed to find the exact location of the bells. Bells may have been located underneath the back porch or on the exterior façade nearest the slave quarters. This should be explained to visitors to help them understand the role of the foreign-looking bell hardware in the interior of the house. Bell-pull hardware has the potential to be an interesting talking point for interpreters to discuss slave life and the hierarchy of household slaves in Charleston plantation houses.
PARTIAL RESTORATION + INTERPRETATION

In houses without a bell board, restoration is difficult but has not yet been done successfully (on record). Since bells in this type of installation were mounted outside, they were highly susceptible to corrosion. Extremely thin iron bell springs did not often survive the centuries, especially in climates with heavy precipitation. Bell hardware is also invasive to exterior cladding since it requires that many holes be driven into outside walls. As bells became obsolete many homeowners removed exterior bell hardware. Unfortunately this removes a great deal of evidence: it is difficult to surmise where bell wires were run if the exterior bell carriages do not survive. This makes a full scale restoration difficult, but not impossible.

Staffers at Mount Vernon attempted to restore the bell system there in the early 1990s. The bells were hung in the Southern fashion—on the exterior of the house near the slave quarters. According to the historic structures report, the system was restored to operability. However, remaining physical evidence tells a different story. Exterior mounted bells were improperly rigged. Bell wire was tied to the bell springs instead of the bell carriages. Further, most interior bell system hardware was removed. Despite these mistakes, the project team did take the time to document bell-pull locations. So even though the evidence is gone, historians now know where pulls were located in the past. The mistakes at Mount Vernon illustrate the importance of doing thorough research and hiring a professional who knows how to install bell hardware properly.

For dwellings with exterior mounted bells like those at Charleston’s Aiken-Rhett House, partial restoration is perhaps the best option. It is difficult for visitors to imagine a house bell system without seeing any bells. I recommend a partial restoration where existing bell carriages on the building exterior are repaired. These reattached bells would not be functional, but would be in place for display purposes only. Seeing bells would help visitors make the connection between the unfamiliar levers in the interior of the house and the bells they rung on the outside of the dwelling.
Figure 7-3: Poorly executed restoration of bell system at Mount Vernon. Bell wire was attached to bell spring instead of bell carriage. This limits the motion of the bell and prevents it from being rung properly. (Laurel Bartlett, Photographer).

MAKING THE CASE FOR PRESERVATION

Throughout America, only a few servant call bell systems were fortunate enough to escape the usual fate of obsolete technology—the dumpster. Examination of these historic mechanical systems is important for two reasons. First, examining this early technology helps historians understand the genesis of interior household communication systems. The spring-mounted servant bell was the first domestic mechanical system that facilitated communication across physical spaces and between disparate classes. House bells are the technological grandfather of the doorbell, household intercom, and the telephone. Although this technology was once universal across America, it is on the verge of extinction. Preserving the memory of servant bells can aid in historians’ understanding of the development of domestic communication technology.

Second, call bells offer a new, relatively unexplored perspective of slave and servant life in America’s past. Bell systems provided a material and auditory connection between the dominant class and their help. In today’s representation of history in many house museums, that connection is often lost. Large antebellum dwellings are displayed as paragons of good taste and fine furnishings. The removal of bell systems in such dwellings is a bit like editing history. Though fragmentary bell hardware might not be lovely, its retention is important in telling the story of a controversial chapter in America’s history. Bell
levers in the interior of historic houses can help visitors look past material splendor into the world of the slaves and servants who made opulent antebellum lifestyles possible. If preserved and interpreted, servant bell systems can illuminate the slave and servant experience in nearly every room of a historic house, not just in the service quarters.
The following is an illustrated glossary of terminology related to servant bells. This is a supplementary tool for anyone wishing to learn more about this historic communication technology.
BELL SYSTEM
(synonym: mechanical bells, servant bells, call bells, bell-pull system, or house bells)
a mechanical communication system comprised of spring-mounted bells that were used for summoning household servants or slaves in a dwelling. Connected by copper or iron wires to activating devices (pulls) located throughout the house, one or more bells was often mounted on a wall near the kitchen. In dwellings with attached kitchens, bells were typically mounted near the kitchen or the servant’s hall. In dwellings with detached servant work areas, bells were mounted on the exterior elevation of a house nearest the slave or servant quarters. Initially, lines and pulleys were used to connect the bells to their pulls, but these were replaced in favor of wires and cranks. In the better installations, wires and cranks were hidden in hollow wooden molding and later in zinc tubing embedded in plaster. For installations with more than one bell, bells of varying size and tone helped to assist in distinguishing calls from different parts of the house.¹

How it works:
“When the handle A is drawn out, the crank I is pulled forward at B, and this lowers the crank II at c, and thus moves III forward, which moves the spring D, and the spiral spring E is also drawn out. The motion of the spring rings the bell. When the handle is let go the spiral spring will return to its former state and the cranks and wires will assume their former positions. The bell, however, will continue to ring until the flat spring D comes to a state of rest.”

Figure A-1: Bell diagram and description. Source: Joseph Hassell, Common Things and Elementary Science in the Form of Object Lessons (London: Blackie and Son, 1883), 46.

BELLS BOARD

A board hung in dwellings with basement servant spaces—usually hung in a passage near the servant’s hall and kitchen. Primarily found in British houses, but occasionally seen in America in Northern regions in houses with attached kitchens. Typical bell boards are molded on the edges, painted, stained, or finished in any other way according to the quality of the work. This board is screwed to plugs driven into a wall in any convenient position where the bells are required to ring. According to *Modern Buildings* (1921):

To this board all the bell wires are brought. It will be found that in most houses many of the bells will have to pass round so many corners that a large number of cranks will have to be used, and a considerable effort will be required to make the bell ring. It will then usually be more convenient to carry the wires direct from every pull to the roof, and then to concentrate them by the use of cranks, or wheels and chains, fixed to any convenient woodwork, and to bring all the wires down close together against the wall upon which it is proposed to fix the bell board, where they are attached to cranks fixed on its face.

*Figure A-2: Parlor bell levers (left) connected to the bell board by means of cranks and wire. Source: Middleton, *Modern Buildings*, 191.*
BELL CARRIAGE

An object used to connect the wire or pull with the house bell itself. Bells are hung upon springs attached to the bell carriage. There are two varieties of bell carriages categorized by how they are affixed to walls or bell boards: 1) attached to an iron spike for driving into walls, and 2) attached to an iron or brass plate for screwing onto surfaces.

Figure A-3: A Driven Bell Carriage. Source: Sutcliffe, Modern Plumber, 288.

Figure A-4: A plate-mounted bell carriage. Source: Middleton, Modern Buildings, 193.
BELLS HANGER
A tradesman who installed house bells. This was often a sideline to another trade like ironwork, whitesmithing, or locksmithing. Bell hanging advertisements first began to appear in American newspapers around 1750. Newspaper ads increased after the Revolutionary War, especially in urban areas. A few bell hangers also hung church, ship, and plantation bells.²

Figure A-5: A Charleston bell hanger advertises his services.
Source: The Carolina and Georgia Almanac (WP Young, Charleston: 1812).

BELL LEVER
(synonym: Parlor bell lever)
A type of bell-pull chiefly used indoors and affixed to walls as a part of tubed bell wire installations. Exposed portions are made of brass finished or plated in various ways. Levers and mountings can be of boxwood, china, ebony, or cut glass to match interior room hardware. The box and chain drum, being hid from view, were usually made from cast iron. Lever pulls were sometimes sold in pairs (one left “handed” pull and one right “handed” pull) and were mounted on each side of a fireplace. In this installation type, levers were supposed to be pulled away from the direction of the fire.

Figure A-6: A parlor bell lever. Source: Russell & Erwin, 1865 Illustrated Catalogue of American Hardware, 75.

Figure A-7: How a parlor bell lever works: diagrams and section. Source: Sutcliffe, Modern Plumber, 285.
**BELL-PULL**
*(synonym: bell handle)*
a cord or handle attached to a bell-wire. Pulling the bell-pull created tension in the wire. When the tension was released, a spring-mounted bell rang near the servant’s quarters.

![Figure A-8: Several varieties of bell-pull. Source: Middleton, Modern Buildings, 191.](image-url)
**BELLS KNOB**

*(synonym: knob pull or draw-out pull)*

A variety of bell-pull. The knobs for these pulls are made from many materials including iron, brass, copper, bronze, china, cut glass, etc. and may either project from the plate or the plate may be sunk or dished. The spindles are usually iron or brass and are connected either directly to bell wire, or by means of a crank, or a wheel and chain, where the change of wire direction is necessary. A pin passing through the spindle prevents overpulling. This variety of pull is relatively similar in construction to a doorknob.

---

Figure A-9: A common porcelain bell-pull with a hole for wire and threading to affix wire, plus a metal stop to prevent the wire from being drawn out too far. *Source:* Clarence Blackall Howard, *Builder’s Hardware; A Manual for Architects, Builders and House Furnishers* (Boston: Ticknor and Company, 1890), 252.

http://catalog.hathitrust.org/Record/011202776 (accessed on 10/12/12)

---

**Bell Spring**

thin steel or iron spring used for connecting a house bell to the lever arm of a bell carriage. One end of the spring was secured to the lever arm by a nut, the other end being riveted to the bell. Bell springs were made from iron or steel, bent to scrolls of one or two convolutions, and varying from 4 to 5 inches across. They were ordinarily single coil, but larger and stronger springs with a double coil were used as well. The object of hanging a bell onto this spring was to cause it to continue ringing for some time after the wire was pulled.

---

Figure A-10: Single coil and double coil bell springs. *Source: Image adapted from Sutcliffe, Modern Plumber, 289.*

---

4 Sutcliffe, Modern Plumber, 289.
5 Middleton, Modern Buildings, 222.
**BELL TUBING**

zinc or tin tubes used to protect bell wire as it travelled through plaster. First used in Britain in the 1840s and America in the 1850s. In some instances, bell tubing was buried underground to transmit wire from gate pulls to bells mounted near the main house.

Figure A-11: Zinc bell tubing. *Source: Building Age, Vol. 6: Carpentry and Building* (New York: David Williams Company, 1884) [http://hdl.handle.net/2027/mdp.39015080129052](http://hdl.handle.net/2027/mdp.39015080129052) [accessed on 9/25/12].
**BELL WIRE**

drawn copper or iron wire used to connect bell-pulls, knobs, and levers to servant bells. In early systems, wire was kept in place with staples that were driven into walls. Staples were driven into walls with about a .5 inch gap so wires could still move freely. In more advanced systems (mid 1800s), the wire was conveyed in metal tubes that were sunken into plaster and hidden. Staples were also used to affix the tubing to joists. Sometimes bell wires for different bells were carried together along the same bell lines—via the same staples or tubes. Larger tubes or staples were necessary for multiple wires to guarantee easy movement.

![Figure A-12: Bell hanging staples. Source: Sutcliffe, Modern Plumber, 281.](image-url)
CARRIAGE SPRING
a small spring located on the bell carriage that set the apparatus in motion when the bell wire was tugged. This is not to be confused with the larger bell spring (upon which the bell itself is mounted).

As seen in Figure A-14, the action of the pull (in the direction of the arrow) presses the horizontal lever arm of the bell carriage against the free end of the carriage spring and causes it to move slightly. When released the vibration causes the carriage to swing back and forth—sending this motion to the larger bell and making it ring.\(^6\)

---

\(^6\) Sutcliffe, *Modern Plumber*, 288
CHECK SPRING

A spiral tension spring used to maintain tautness in bell wire. A check spring was sometimes attached to one arm of a crank to keep it in position when the wires had stretched, and to give elasticity to the pull.⁷

---


---

Figure A-15: A bell board with check spring (red highlight). Source: Sutcliffe, *Modern Plumber*, 289.
CRANK
(synonym: pivot)
This small device enabled bell wire to turn 90 degree corners while remaining taut. There are many different varieties of crank. Some are mounted on brass t-plates which can be screwed into a wall while others are mounted iron spikes which can be hammered into walls.

Figure A-16: Various types of cranks. Arrows indicate the change of wire direction. No. 6, the rose purchase crank, was primarily used with textile bell-pulls. The roof purchase crank was used to transmit wire from attic spaces to lower stories. Source: Sutcliffe, Modern Plumber, 286.
CRANK (continued)

Figure A-17: Chain and wheel cranks were used where wire direction needed to change in an obtuse or acute angle. Hardware of this type (left) can be seen in the Entry Hall of Charleston’s Aiken-Rhett house. Source: Sutcliffe, Modern Plumber, 286.
DOOR BELL (electric)
the technology that eventually replaced the wire-operated entry bell. A push button activated a circuit of wires that connected to a gong-style bell which rang and alerted homeowners of visitors.

DOOR BELL (wire-operated)
a simple mechanical bell installation that linked a knob at the entrance of a dwelling to a single bell. This was the historic (1750s-1900) equivalent of a modern doorbell.

Figure A-19: A simple bell-pull installation, illustrated by Tom H. Gerhardt. 

Figure A-20: A complete bell carriage. This is a complete bell installation set for a doorbell. Source: Russell & Erwin Manufacturing Company, 1865 Illustrated Catalogue of American Hardware, 75.
ELECTRIC BELLS

Invented in the late 1800s, electric bells came into common use in America by the twentieth century. They quickly came into universal use. Many users found this technology to be superior to mechanical bells because the wires which conducted the currents could be carried behind molding, or under floors in any direction, and round any angles however acute or obtuse. Some mechanical bells were retrofitted into electric systems. Hardware catalogs sometimes offered mechanical bell equipment with electrical attachments.

Figure A-21: An electric bell and indicator system suitable for ordinary domestic purposes, consisting of pushes, batteries, bells, indicator, and electrical wires. Source: Middleton, Modern Buildings, 193.

Figure A-22: A draw-out bell knob with electrical attachments. Source: Middleton, Modern Buildings, 193.

Figure A-23: Harry A. Duc, a Locksmith and hanger of electric bells, advertises his services in the 1889 Charleston Business Guide. Source: Lowcountry Digital Library.

8 Sutcliffe, Modern Buildings, 193.
HOUSE BELL

A small bell composed of one part tin to three or four parts copper. Usual sizes are a diameter of 3 inches, 3.5 inches, and occasionally 2.5 or 4 inches. Bells are sometimes described by weight, such as 6, 8, 10, or 12 ounces. The best quality bells had a turned edge and were lacquered to prevent corrosion.⁹

Figure A-24: A 2.5 inch house bell, to scale, with a turned edge. Source: Sutcliffe, Modern Plumber, 279.

⁹ Sutcliffe, Modern Plumber, 279.
PENDANT PULL
a more ornate version of a bell slide, this type of pull was common for signaling from the outside of an entrance door.

Figure A-25: A pendant bell-pull. Source: Middleton, Modern Buildings, 192.
PENDULUM
Pendulums were sometimes affixed to bell carriages to provide a visual cue to help servants or household slaves determine which bell had been rung. Even after the sound stopped, the pendulum would continue to swing.

Figure A-26: A bell carriage with a pendulum pictured at right. Source: Sutcliffe, Modern Plumber, 288.
PNEUMATIC BELL SYSTEMS

an interior communication technology that competed with mechanical servant bell systems in the late 1800s. A pneumatic bell installation consisted of airtight tubing run from bedrooms or offices connected to service spaces. Compressed air was the motive power: a rubber bulb on one end, being pressed by direct contact or by means of a bell-pull, actuated a small bellows which sent a puff of air through the tubing to activate a bell in the servant’s area. Since this type of tubing was not susceptible to corrosion, pneumatic bells were sometimes installed in ships. Occasionally, pneumatic bells were combined with speaking tubes.

Figure A-27: Black’s pneumatic bulb and speaking tube. Source: Sutcliffe, Modern Plumber, 295.

---

10 Sutcliffe, Modern Plumber, 295.
QUADRANT BELL-PULL
(synonym: lever pull)
a sturdy variety of bell-pull used almost chiefly for outdoor work. Often affixed to front doors, stone columns, or entry gate posts, these pulls are suitable for carrying both vertical and horizontal wires.

Figure A-28: Quadrant bell-pulls. Source: Sutcliffe, Modern Plumber, 284.

Figure A-29: A quadrant pull. Source: Howard, Builder’s Hardware, 252.
http://catalog.hathitrust.org/Record/011202776 (accessed on 10/12/12).
SLIDE BELL-PULL
(synonym: bell slide or bolt pull)
a simple, easy-to-install type of bell-pull used for vertical pulls.

Figure A-30: A bell slide from the 1865 Russell and Erwin Hardware Catalog
SPEAKING TUBES
an interior communication technology that competed with mechanized house bell systems in the late 1800s. Users spoke into a mouthpiece fitted with a whistle to alert the attention of servants. They then spoke directly into the mouthpiece. Their voices traveled acoustically through flexible tubing to a service area where the sound exited the tube in audible range of servants. This technology was popular in offices, hotels, and on ships.

Figure A-31: Speaking tube equipment. Sutcliffe, Modern Plumber, 292.

Figure A-32: A speaking tube mouthpiece at Mark Twain’s Connecticut residence. He was a noted early adopter of communication technology, including speaking tubes and telephones. Source: “Historic American Buildings Survey, Drawings & Photographs of Mark Twain House, 351 Farmington Avenue Hartford, CT. INTERIOR, FIRST FLOOR, MAHOGANY GUEST ROOM, EAST WALL, DETAIL OF SPEAKING TUBE MOUTHPIECE (TUBE TO KITCHEN). Library of Congress, Call Number HABS CONN,2-HARF,16-70.
TEXTILE BELL-PULL
(synonym: tassel pull, beaded pull, or embroidered pull)
Tapestry, beaded, or embroidered fabric bell-pulls which were almost always mounted near fireplaces. They ranged from about 3 feet long at their shortest to floor-to-ceiling length at their longest. These pulls connected to the bell-pull system by means of a rose purchase crank or a spring mortise crank. Early bell systems relied heavily on long, floor-to-ceiling textile pulls since it was easier to hide bell hardware along the ceiling. Textile bell-pulls fell out of fashion for most rooms in the late 1800s: by this time most bell hanging experts of the era agreed that they were appropriate for bedrooms only. Even after mechanical bell-pulls became obsolete, the early twentieth century revival of colonial American style reinvigorated the popularity of these bell-pulls as collector’s items.


The following is a brief survey of entry bell types in Charleston, South Carolina. This survey is not comprehensive, but represents three distinct types of entry bells found in Charleston from the late 1700s to the early 1900s. Keep your eyes open and you may see one or more of these types on the streetscape today.
109 Broad Street with its original 1783 piazza. Author’s photo.

Victorian-Era bell-pull. Original Porch bell still visible at 109 Broad Street

1 Jonathan Poston, *The Buildings Of Charleston* (Columbia, SC: University of South Carolina Press, 1997), 204. An identical porch bell on another original piazza can be seen at 49 South Battery (built in 1795). Reference to the age of the piazza at 49 South Battery can be found on page 274.
Remnants of a gate pull imbedded in stucco on masonry gate on the north side of Lamboll Street. Cast iron plate with missing draw-out pull. Would have rung a bell near slave quarters in rear of house. Mid 19th Century. Author’s Photos.
Figures B-1, B-2, and B-3: Simple brass bell-pull attached to wood door surround. Mid-nineteenth century bell-pull, wired into the house. Author’s photos.
Figures B-4 and B-5: The Miles Brewton House gate and gate bell-pull, detail. Wrought iron railing with brass bell-pull. Bell wire is tied to this bell-pull. Wire travels down into the ground via metal tubing. Wire would have terminated at a bell mounted on the exterior of the house near the slave quarters.
If you suspect your historic house (built roughly between 1750 and 1900) may have utilized a servant call bell system, look carefully around interior fireplaces for evidence, especially in the most ornate rooms of the house. Bell-pulls were most commonly installed on the left or right side of a fireplace. In entertaining spaces, symmetrical pulls often flanked both sides of a fireplace. Evidence of early bell systems can be found near ceilings. Cranks, bell wire, and ghost marks of previous hardware on walls and cornices are the signifiers of a pre-1850 bell system.

Evidence of post-1850s “secret” bell systems is more difficult to spot because most inner workings of the system are disguised by a finish coat of plaster. If bell levers have been removed, it is even more difficult to find evidence. Check baseboards around fireplaces to see if the bell hanger carved into floorboards to install bell tubing and wire. If you spot a section of floorboard or baseboard near a fireplace that has been cut out and replaced, pull it up and see what you find underneath. You may find hidden bell tubing.

For both varieties of bell system, the bells themselves can be found near servant or slave workspaces. The best places to search for outdoor bells are along whichever exterior façade of a main that faces the servant’s quarters. Look for cranks, wires, bell carriage fragments, and bells. Exterior cranks and fragments of wire are often hidden in corners or along cornices. In contrast, interior bells were mounted in basements, cellars, servant’s quarters, or in the servant’s hall. No matter where you look, a glossary of bell hardware, binoculars, a flashlight, and a camera are essential tools for finding evidence of a bell system.
## REFERENCES

### PRIMARY SOURCES


Canton Hardware Company. *General Catalog.* Ohio, 1896.


*Charleston City Directory and Census,* various years. South Carolina Public Library, Charleston Branch.

*Charleston City Gazette And Daily Advertiser.*
Charleston Daily Advertiser.

Charleston Daily News. (Charleston, S.C.) 1865-1873

Charleston News and Courier.


*Godey’s Lady’s Book and Magazine*, “Bead Bell-Pull.” June 1867.

*Godey’s Lady’s Book*, “Bell-Pull.” February 1873.


Historic American Buildings Survey Floor Plans and Photography Pages. Memory.loc.gov


SECONDARY SOURCES


Herman, Bernard L. “Slave and Servant Housing in Charleston, 1770-1820.” Historical Archaeology 33, no. 3 (January 1, 1999): 88–101.


Zierden, Martha. “A Trans-Atlantic Merchant’s House in Charleston: Archaeological Exploration of Refinement and Subsistence in an Urban Setting.” Historical Archaeology 33, no. 3 (January 1, 1999).