

2020

Docile by design: commercial furniture and the education of American bodies 1840-1920

<https://hdl.handle.net/2144/39911>

Boston University

BOSTON UNIVERSITY
GRADUATE SCHOOL OF ARTS AND SCIENCES

Dissertation

**DOCILE BY DESIGN:
COMMERCIAL FURNITURE AND THE EDUCATION
OF AMERICAN BODIES, 1840–1920**

by

PHILIP CARLINO

B. A., Rutgers University, 1989
B. F. A., Parsons School of Design, 1997
M. A., Parsons School of Design / Cooper Hewitt Museum 2012

Submitted in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

2020

© 2020 by
PHILIP CARLINO
All rights reserved

Approved by

First Reader

William D. Moore, Ph.D.
Associate Professor of American Material Culture

Second Reader

Kim Sichel, Ph.D.
Associate Professor, History of Photography & Modern Art

Third Reader

Brooke L. Blower, Ph.D.
Associate Professor of History

ACKNOWLEDGEMENTS

This dissertation would not have been possible without the help of many people over many years and I am pleased to be able to thank them.

The dissertation was written under the auspices, and with the financial support of the American and New England Studies Program (AMNESP) at Boston University where I was privileged to study with a supportive cohort of excellent scholars— C. Ian Stevenson, Sam Palfreyman, Emma Thomas, Aaron Ahlstrom, Sean Case, Daniel DeFraia, Christine D’Auria, Emma Newcombe, Jordan Pouliot, Sam Shupe, Rachel Kirby, Kelsey Gustin, and Alex Yen made B.U. a collegial and stimulating place to engage with history. I was fortunate William D. Moore served as my adviser. His infectious excitement for material culture, openness to new ideas and methods, insightful critique, and unflagging enthusiasm for my scholarship profoundly changed how I think about design history. Kim Sichel guided me through the writing with patience, fortitude, and a consistent focus on my contribution to scholarly discourse. Brook Blower’s scholarship, advice, and probing disagreements focused the work. Marilyn Halter greatly expanded my thinking about the strengths of American Studies and the importance of consumer culture and social history. Rebecca Noel, (AMNESP Ph.D., 1999) graciously shared with me advice on sources for thinking about schools and the body.

The seeds of the project were planted during a summer spent cataloging furniture for the Boston Furniture Archive, a digital database created and managed by Winterthur Museum & Library. Brock Jobe and Sarah Parks encouraged my investigation of the inception of nineteenth-century factory-made furniture. That summer was one of

adventure and discovery alongside colleagues Amber Wingerson and Dan Sousa. Several objects we studied appear among the illustrations. Through Winterthur, I was introduced to Robert Mussey, Jr, eminent furniture scholar and historian with whom I had many stimulating discussions about the translation of craft into industrial practice. A dissertation fellowship from Winterthur gave me the space to begin the writing, and the opportunity to receive critical feedback from Catharine Dann Roeber, Tom Guiler, Greg Landry, and from other fellows and staff. Travel grants from the Decorative Arts Trust permitted me to engage in stimulating discussions about furniture and history with a broad audience.

The assistance of librarians, archivists and curators was essential. Rhoda Bilansky and the ILL staff at Boston University, Emily Guthrie and Jeanne Solensky at the Winterthur Library, Jim Roan at the Smithsonian NMAH, and Lucas Clawson at the Hagley Museum and Library pointed me toward valuable sources. I am grateful that Terri Rae Smith, curator of the 1869 Schoolhouse Museum in Eastham, Massachusetts, and Jesus MacLean, at the Brookline Historical Society allowed me to crawl under the furniture in their historic schoolhouses. I am thankful Alex Forist, Collections Curator at the Grand Rapids Public Museum, was so willing to wander the storage collection with me and pull-out dozens of fascinating examples of commercial furniture for analysis.

I am grateful to the community at the New School, Parsons School of Design, and the Cooper Hewitt, Smithsonian Design Museum master's degree program in the History of Design and Curatorial Studies. I thank and honor the memory of my adviser, mentor, and dear friend Barry Harwood, who had faith in me, and drove me to stretch and grow

as a scholar. I am indebted to David Brody, (AMNESP Ph.D. 19996) and Parsons colleague, for directing me to Boston University; and Marilyn Cohen, Sarah E. Lawrence, Lorraine Karafel, and Ethan Robey who insisted I pursue an advanced degree. In the Product Design program, Tony Whitfield, Robert Kirkbride, and Rama Chorpash allowed me the space to develop syllabi around my scholarship. I have been inspired by the creativity of my students, and grateful for their questions and prodding that have honed my arguments.

Without the support of my mother Frieda and my brother Chris, and my wonderful extended family, I would not have had the time to undertake this project. The years of focused writing would have been more difficult without the laughter and creative inspiration of my cherished friend John, “JP” Forrest.

Finally, I owe my deepest gratitude to my partner, Arno Puskar, for his patience, for his unwavering support even as my life went in unforeseen directions, and for sharing in the curiosity and excitement of our many adventures. This dissertation is dedicated to him.

**DOCILE BY DESIGN:
COMMERCIAL FURNITURE AND THE EDUCATION
OF AMERICAN BODIES 1840–1920
PHILIP CARLINO**

Boston University Graduate School of Arts and Sciences, 2020

Major Professor: William D. Moore, Associate Professor of American Material Culture

ABSTRACT

Whether we inhabit a desk in a classroom or office or occupy a seat on a train or in a theater our bodies are enveloped, supported, manipulated, and controlled through the form and operation of furniture that is seldom noticed. Ubiquitous, intimate, and often compulsory, commercial furniture (institutional furniture used outside the home) is a powerful resource for elucidating politics in the public sphere. This dissertation demonstrates that between 1840 and 1920 manufacturers produced commercial furniture intended to teach postures, behaviors, and interactions suited to competencies expected of occupants as compliant citizens and industrious workers. In response to the overwhelming social, economic, and demographic changes that accompanied industrialization and urbanization furniture constructed new psycho-social and physical borders between individuals and groups in public space that defined identity. The furniture and interior design of schools, offices, theaters, and trains are analyzed using an interdisciplinary material culture methodology to elucidate the constraints of manufacturing and recover the sensory experience. Material evidence is evaluated alongside visual culture and textual sources to show that manufacturers mediated among

the expectations of educational and occupational theorists, executives, administrators, experts, civic leaders, and furniture users to determine furniture form and function.

Standard furniture forms emerged out of a web of influences and were sent across the nation to realize a corporatist vision of America that elevated white men and the wealthy, accommodated white immigrant and native-born members of the middle class, and distanced members of the working class, the poor, and African Americans.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	iv
ABSTRACT.....	vii
TABLE OF CONTENTS	ix
LIST OF TABLES	x
LIST OF FIGURES.....	xi
Introduction: A Culture on the Move	1
Chapter 1 Schools: Uneasy bodies, uneasy minds.....	26
Chapter 2 Offices: The brain in the box	187
Chapter 3 Theaters: Gallery gods and bleacherites.....	386
Chapter 4 Trains: Make room for the ladies.....	549
Conclusion: There was no place for them	683
Appendix A.....	698
Appendix B	701
Sources Consulted	703
CURRICULUM VITAE.....	756

LIST OF TABLES

Table 1 High School and College Graduates..... 701
Table 2 Stenographers & Typists by Gender 701

LIST OF FIGURES

- Fig. 1.1** Putterham School, Brookline, Massachusetts, 2019. Boston-made chair and desk, circa 1850 (© Philip Carlino, all rights reserved.) 143
- Fig. 1.2** The plan of Jeremy Bentham’s proposed Panopticon prison (circa 1791) included cells around the perimeter (k), facing a cylindrical gallery (c) from which guards could view cells, but prisoners could not see guards [detail]. (Drawn by Willey Reveley, Bentham Papers, Box 119, Folio 120, Image 001, University College, London.)..... 144
- Fig. 1.3** Late nineteenth century caricatures show exaggerated illustrations of poorly behaved children that do not stray far from memoirs. (a. Union School Furniture Co., *School, Hall and Opera Furniture*, 1885, ifc; b. *The Village School in Repose*, Print, engraving, George Parker, engraver; Henry James Richter, painter, Boston, 1834-68, Ink on woven paper, 1982.0048, Museum purchase, Courtesy of Winterthur Museum) 144
- Fig. 1.4** American educators adopted Joseph Lancaster’s method of education in the 1820s with some modifications. Each group was assigned a bench, and a semicircular recitation area marked on the floor (a). Lancaster illustrated monitors instructing younger pupils in the semicircular zone marked on the floor (b). (Lancaster, *The British System of Education*, 1810, np.) 145
- Fig. 1.5** The editor of *The American Journal of Education* published William Fowle’s modified monitorial plan in 1826. Fowle proposed individual seats. It was the first step towards more individual furniture in the American classroom. (Russell, *Manual of Mutual Instruction*, 1826, 7.)..... 145
- Fig. 1.6** William Adams broke apart the long desks into double-occupancy desks with individual seats. The box seat was open at the front with a hook for hanging a hat, and a board that extending up to support the child’s back. Renderings based on descriptions and measurements included in Adams, “On the Construction and Furnishing of School Rooms,” Boston, 1831 (© Philip Carlino, all rights reserved.) 146
- Fig. 1.7** The Alcott desk (a) was adapted from designs already in use such as the section view of a desk from an agreement between John Cooper and the Selectmen of Newburyport from a March 1830 (b). Alcott proposed modifications that included lidded storage at the front of the desk instead of a shelf beneath or below the seat box, and a flat, rather than a sloped top. (a. Rendering based on Alcott, “Construction of School Houses,” 1832, © Philip Carlino, all rights reserved; b. Col 268, Miscellaneous Legal Agreements, Joseph Downs Collection, Winterthur Library.) 147

- Fig. 1.8** Alcott considered individual desks separated by aisles “indispensable.” (a. Alcott, “Construction of School Houses,” 1832, 258-259; b. Rendering based on Alcott, “Construction of School Houses,” Boston, 1832, © Philip Carlino, all rights reserved.)..... 148
- Fig. 1.9** Samuel Wales, Jr. of Boston designed the first mass manufactured school furniture produced in the United States in 1839. Originally offered in three sizes, by 1850 he sold the chairs in 8 sizes in one-inch height increments to address educators and physician’s concerns for about curved spines. Comfortable chairs also helped students maintain the restrained, focused upright behavior expected of them. (a. © Brookline Historical Society, Boston Furniture Archive, <http://bfa.winterthur.org/object/485>, accessed August 26, 2019, DAPC_2014-0245[Detail]; b Samuel Wales, Jr., *The Guide*, 1850, np.) 149
- Fig. 1.10** An unmarked Wales-type pedestal school chair. Wales designed a chair that leveraged the strength and moldability of cast-iron to compensate for low skilled but relatively weak screwed joinery. The rearward lateral force of a sitter leaning on the seat back could potentially tear out the screws securing the seat to the pedestal and the back to the seat. To compensate, the long center back splat acted as a lever to transmute rearward force into a forward force counteracted by the pedestal. (a. © Brookline Historical Society, Boston Furniture Archive, <http://bfa.winterthur.org/object/485>, accessed August 26, 2019, DAPC_2014-0245[Detail]; b. Construction details, © Philip Carlino, all rights reserved.)..... 149
- Fig. 1.11** a. Traditional Boston-area Windsor chairs made with angled mortises that connected the back and leg spindles to the seat. Brace-back versions (b) had one or two additional spindles to reinforce the back, like the central back splat in the pedestal chair. (a. Windsor Chair, 1800-1900, Courtesy of the Duxbury Rural and Historical Society 1954.002.002, www.duxburyhistor.org and The Boston Furniture Archive, DAPC_2014-0136; b. Windsor armchair, Charles Chase, Nantucket, 1790-1805, Pine, birch, ash, oak, 1959.1637, Bequest of Henry Francis du Pont, Courtesy of Winterthur Museum.) 150
- Fig. 1.12** Detail of joinery showing the prominent screw heads. (© Philip Carlino, all rights reserved.)..... 150
- Fig. 1.13** Illustration of curved spine and uneven shoulders, 1830 (“Foster’s Carstairian Penmanship,” *American Journal of Education*, August, 1830, 377.)..... 151
- Fig. 1.14** Wales named later models after Boston schools to associate the chairs with the city’s leading reputation in education. The Bowdoin chair had a vase-shaped back splat characteristic of Queen Anne-style chairs made in Boston in the mid-1700s (b). The style was not in fashion for domestic furniture in the 1850s

when Wales made these chairs. Rather than a forward-looking aesthetic, the ornamental splat was a conservative symbol that raised the slightly more ornamental chairs above his plain “American School” model. (a. Samuel Wales, Jr., *The Guide*, 1850, np; b. Side Chair, Dedham Historical Society and Museum, 1886.03 Courtesy of the Boston Furniture Archive, DAPC_2014-0064.)..... 151

Fig. 1.15 Primary-school chairs designed by James W. Ingraham and made by William G. Shattuck. The chairs, for 4 to 7-year old children who had yet to begin writing, were mainly used for reading. (Barnard, *School Architecture*, 1848, 201.)..... 152

Fig. 1.16 James Ingraham, designer of the first mass-manufactured primary-school chairs, also helped to design the first primary schools in Boston, built in 1848. (Barnard, *School Architecture*, 1848, 179.)..... 152

Fig. 1.17 Wales designed a primary school version of his pedestal chair, advertised in the 1850 Boston directory. (*Boston Directory*, 1850, 40.)..... 153

Fig. 1.18 Section view of Boston Latin School desk with Wales pedestal chair, 1847. The desk was designed by Epes S. Dixwell, principal of the Boston Latin school. (Barnard, *School Architecture*, 1848, 201.)..... 153

Fig. 1.19 The first factory-made school desks were manufactured in the Boston area in 1847/1848 by Samuels Wales, Jr., Joseph L. Ross, and James Kimball. (Barnard, *School Architecture*, 1848, 203, 205, and 222.)..... 154

Fig. 1.20 Manufacturers decorated cast iron standards on Boston Latin desks for protection from mischievous scratching and carving, and for distinction in the marketplace. (a. Joseph L. Ross, *The Directory of the City of Boston*, Boston, 1850-51, 45.; b. Joseph L. Ross, *Illustrated Catalogue*, 1864; c. Samuel Wales, Jr., *The Guide*, 1850, np.) 154

Fig. 1.21 Double Boston Latin desks eliminated half the aisles in an urban classroom to increase capacity, often in response to rapid enrollment growth. (© Brookline Historical Society, Boston Furniture Archive, <http://bfa.winterthur.org/object/485>, accessed August 26, 2019, DAPC_2014-0245-001.)..... 155

Fig. 1.22 William G. Shattuck display advertisement published one year before he submitted furniture to the Crystal Palace Exhibition in Great Britain. (*Directory of the City of Boston*, Boston, 1852-53, 43.) 155

Fig. 1.23 A German illustrated newspaper contrasted American individual pedestal seat desks with typical multi-seat German furniture. The legible text translates as

“Americans really have the simplest, best and cheapest... [illegible] the most beautiful and elegant in the world... [illegible] intended for girls... [illegible] American Two-Seat Desk for Girls.” Another indication of the American obsession with the bodies of white girls. (“Geschichte der Schulbank,” *Illustrierte Zeitung* no. 1488, January 6, 1872, 16.) 156

Fig. 1.24 a. The interior (a) and exterior (b) of a model school built by U. S. Secretary of Education on the grounds of the Universal Exhibition in Vienna in 1873. The sign over the left interior door reads “Boys Entrance.” (a. J. Löroy, *Universal Exhibition of Vienna, 1873: American rural schoolhouse, interior*, Library of Congress, LC-USZ62-59649; b. J. Löroy, “Universal Exhibition of Vienna, 1873: American rural schoolhouse, exterior,” Library of Congress, LC-USZ62-59648.)..... 156

Fig. 1.25 Village school desks made by Joseph L. Ross of Boston in 1848 (Barnard, *School Architecture*, 1848, 205.) 157

Fig. 1.26 Top view diagrams show the relationships of a child seated in rural combination desk (a) and the greater isolation of Boston Latin desks and pedestal chairs in (b). The photograph of children seated in combination desks (c) is from 1938 in Missouri (a. and b. © Philip Carlino, all rights reserved; c. Negro school children studying near Southeast Missouri Farms, August 1938, Schomburg Center for Research in Black Culture, Photographs and Prints Division, The New York Public Library, <https://digitalcollections.nypl.org/items/510d47df-f942-a3d9-e040-e00a18064a99>) 158

Fig. 1.27 Combination desks were designed to pack flat for inexpensive shipping and assembly by yeoman laborers using minimal tooling, often provided by the manufacturer. (Sidney School Furniture Co., *Patented T-Head School Furniture*, Sidney, OH, ca. 1881, 8-9.) 159

Fig. 1.28 In 1872 the A. H. Andrews Company introduced the Triumph Desk with a folding seat. The desk also came with a footrest BAR to encourage quiet feet. (a. A. H. Andrews Company, *School Furniture and Hall Settees*, Chicago, 1873, 6; b. A. H. Andrews Co., *Illustrated Catalogue of School Merchandise*, Chicago, 1881, ifc.)..... 159

Fig. 1.29 Special folding seats fostered more upright posture and allowed seats to be placed closer together. (Union School Furniture Co., *School, Hall and Opera Furniture*, New York, 1885, 4-5.)..... 160

Fig. 1.30 Open work storage offered opportunity for surveillance of student belongings, and a space for ornamentation and branding (Courtesy of the Eastham Schoolhouse Museum, © Philip Carlino, all rights reserved.) 160

- Fig. 1.31** Rural schools often installed more affordable combination desks: (a) African-American School, Anthoston, KY, 1916; (b) Rural school in Oregon (circa 1893). (a. Lewis Hine, “Colored School,” 1916, Library National Child Labor Committee collection, Library of Congress, Prints and Photographs Division, <https://www.loc.gov/pictures/item/2018678394/>; b. Interior view of the Bear Creek Township School showing class in session, Brooklyn, Iowa. ca. 1893, Used with permission of the State Historical Society of Iowa, Des Moines). 161
- Fig. 1.32** Manufacturer’s promotional materials contrasted exaggerated illustrations of poorly behaved children on crude furniture with self-disciplined children on manufactured desks. (M. W. Chase trading card, 1876.) 162
- Fig. 1.33** The plan for Boston’s Quincy Grammar School, opened in 1848, set a nationwide standard urban grammar school class size of 56 students arranged in a grid format. (Barnard, *School Architecture*, 1848, 209.) 162
- Fig. 1.34** Manufacturers printed floor plans in their catalogs that communicated the standard grid layout. (a. Samuel Wales Jr., *The Guide*, 1850; b. Joseph L. Ross, *Illustrated Catalogue*, 1864, 6.) 163
- Fig. 1.35** Gender segregation was common practice in the early years of the common school movement as seen in this village school-house plan split longitudinally into boys and girls seats, 1831. (William Woodbridge, “Plane of a Village School-House,” in *The Introductory Discourse and the Lectures ... 1831*, 1832, 288.) 163
- Fig. 1.36** Teachers sometimes placed children who misbehaved in a chair on the rostrum, seen in the foreground of these images of Boston classrooms from 1892 (a. Grammar school, class VI. Dwight District, 1892: Photos by A. H. Folsom, Boston public schools, Boston Public Library, Print Department; b. Sixth grade-Gaston School, 1892: Photos by A. H. Folsom, Boston public schools, Boston Public Library.) 164
- Fig. 1.37** Race and gender integrated classrooms, Boston, 1892 (a. Augustine H. Folsom, Primary school, Class II. Dwight District, Boston Public Library, https://www.flickr.com/photos/boston_public_library/6198193580/in/album-72157627787153962/; b. George Putnam School, Boston. Grade 7 - class 3. Observing, drawing, and describing minerals. June, 1892, Boston Public Library, https://www.flickr.com/photos/boston_public_library/6197671975/in/album-72157627787153962/.) 165
- Fig. 1.38** Integrated class photo published in *The Chicago Defender* that according to the caption is proof “that the races and their children can dwell together in

- harmony.” (“Jim Crow School in Chicago,” *The Chicago Defender*, November 12, 1910.)..... 166
- Fig. 1.39** Physical education manuals included diagrams that presumed the Boston Latin school desk or combination desk securely screwed to the floor was available in most school rooms. (a. Monroe, *Manual of Physical and Vocal Training*, 1869, 10-11; b. Morris, *Physical Education in the Public Schools*, New York, 1892, 136-137.)..... 167
- Fig. 1.40** In the 1860s and 1870s manufacturers experimented with height adjustable furniture. (a) Amos Chase of New Hampshire received U. S. patent 30,020 for an adjustable desk Sept 11, 1860. A. H. Andrews Company sold a height adjustable combination “Graduated Desk” (b) in 1873 b. (a. “Chase’s Adjustable School Desk and Seat,” *American Journal of Education* 13, 1863, 656; b. A. H. Andrews Company, *School Furniture and Hall Settees*, Chicago, 1873, 10.)..... 168
- Fig. 1.41** School hygienists surveyed and documented children in schools in the 1890s. (Charles L. Scudder, *Seating of Students in the Public Schools*, 1892, 21-27.) 168
- Fig. 1.42** Boston Grammar schools provided small wooden “crickets,” as footrests rather than install different sized desks in the classrooms, shown indicated by white arrows in the details on the right. (a. Augustine H. Folsom, Grammar School, class VI. Eliot District, Boston Public Library; b. Augustine H. Folsom, Grammar School, Class V, div. II Wells District, Boston Public Library, https://www.flickr.com/photos/boston_public_library/6198192726/in/album-72157627787153962/.)..... 169
- Fig. 1.43** Complicated adjustable desks by Boston manufacturers G. A. Bobrick and F. A. Chandler had a brief popularity from 1895 to 1902. A section view (a) shows the complicated gears and rack and pinion mechanisms of his initial version of the desk. A photograph from Bobrick’s 1887 catalog (b) shows the same desk in use by three different age students. A classroom in Washington, DC (c) outfitted with Bobrick furniture. The Chandler desk (d) had a retractable top that could be adjusted by the student. (a. Gabriel A. Bobrick, “Desk and Chair for Schools,” US Patent 370,923, October 4, 1887; b. G. A. Bobrick *School Furniture*, 1887, ifl; c. Frances Benjamin Johnston, “Classroom scenes in Washington, D. C. public schools: general classroom scenes, 1st Division, Library of Congress, Lot 2749, no. 128 [item] [P&P], <http://hdl.loc.gov/loc.pnp/cph.3a39509>, (d), “Another Step in the Direction of the Adjustable Feature in School Desks,” *School Board Journal* X, 1895, 397.) 170

- Fig. 1.44** In his 1892 catalog, G. A Bobrick used drawings and data from school hygienists to show deformed bodies, and a stock image of a hunched over young man that appeared in other manufacturer catalogs. (G. A. Bobrick, *Hygienic Requirements of School Furniture*, 1892, 19.)..... 171
- Fig. 1.45** The wood Rettig desk shown in this 1903 catalog (a) was the most popular desk in Germany and remained in use in various forms through the first half of the twentieth century. In an early twentieth century school architecture treatise, the individual Boston Latin desk introduced in 1848 was defined as typical for American education; the long benches and desks typical of German education. (a. Durm, *Handbuch der Architektur*, 1903, 50-51; b. and c. Wheelwright, *School Architecture*, 1901, 128-129.) 172
- Fig. 1.46** Furniture measurement tools from the Bobrick (a) and Chandler (b) systems. Janitors or manufacturers’ representatives transferred the heights to furniture (c). The Boston school commission built a bizarre measuring chair (d) to record student proportions. (a. G. A. Bobrick (The Bobrick School Furniture Co.), *School Furniture and Supplies*, 1895, 9; b. Boston School Committee, *Documents of the School Committee*, Boston, 1895, 214; c. Grand Rapids School Furniture Works, “New ‘Ball Bearing’ School Furniture, Broadside, 1895-1899, d. Boston School Committee, *Documents of the School Committee*, Boston, 1895, 232) 173
- Fig. 1.47** The simple version of the Chandler adjustable desk was based on the Boston Latin desk and pedestal chair. The desk was one of the most widely installed adjustable desks of the late nineteenth and early twentieth century. (Edward E. Babb & Company, *Illustrated Catalogue of School Supplies*, 1897-1898, bc.) 174
- Fig. 1.48** Log benches typical in the 1820s continued in use in a rural black school seventy-five years later (b). As late as the 1940s, two schools in Georgia appeared unchanged from one-room schools a century earlier. (a. Jack Delano, “Veazy, Greene County, Georgia, the one-teacher Negro school in Veazy, south of Greensboro,” October, 1941, Library of Congress, LC-USF34-046248-D [P&P] LOT 1559 <https://www.loc.gov/pictures/item/2017796657>; b. Unknown photographer, Photo Album, Civil War Battlefields photograph album, ca. 1895, William L. Clements Library, University of Michigan, 4-454.4; c. Jack Delano, “Interior of Negro schoolhouse in Heard County, Georgia,” April, 1941, Library of Congress, LC-USF34-044089-D [P&P] LOT 1564, <https://www.loc.gov/item/2017794462/>.)..... 175
- Fig. 1.49** A romantic vision of a country school with rustic furniture, 1900, and photographs of school furniture in the turn of the twentieth century in rural schools. (a. Edward Lamson Henry, *A Country School*, Yale University Art Gallery, Mabel Brady Garvan Collection, 1948.98; b. “The Worst School in

Wisconsin,” *World’s Work* 8, June 1904, 4890; c. Clifton Johnson “A district schoolroom in Maine,” ca. 1928, New York Public Library Digital Collections, <http://digital.gallery.nypl.org/items/510d47d9-b774-a3d9-e040-e00a18064a99>.)..... 176

Fig. 1.50 Proper writing position for a clerk as illustrated by noted penmanship author Platt R. Spencer, 1869 (Spencer, H. C., and Platt R. Spencer, *Spencerian Key to Practical Penmanship*. New York: Ivison, Phinney, Blakeman, 1869, 29.) 177

Fig. 1.51 Pedestal chair and Boston Latin style desk, and combination desk, Heywood-Wakefield Company, 1937 (Heywood-Wakefield, *School Furniture*, 1937, 8 and 12, Image courtesy of Levi Heywood Memorial Library, Gardner, Mass) 177

Fig. 1.52 The photograph (a) is part of a series that shows Boston Latin desks virtually identical in form to those introduced in 1848 in use in most Boston classrooms in 1892. Desks were designed to be durable — to resist scarring, scratching, carving and breakage — a coat of varnish could bring combination desks back to “Good as New” in 1819 (b). (a. A. H. Folsom, “Paper cutting and pasting,” Yeoman Street Primary School, Dearborn District.,” Boston, 1892, Boston Public Library, https://www.flickr.com/photos/boston_public_library/6280049882/in/album-72157627787153962/; b. *The American School Board Journal* LIX, no. 1, July 1919, 26.)..... 178

Fig. 1.53 The Grand Rapids School Company exaggerated the harms possible with competitor’s desks, emphasized threatened retaliation for patent infringement, and wrapped its image in the flag to emphasize its bureaucratic bona fides in this promotional flyer. (Front and back of flyer, Grand Rapids School Furniture Company, 1886-1906 Courtesy of the Grand Rapids Historical Commission.) 179

Fig. 1.54 a. Moveable chairs in the classroom of a school for underprivileged students, circa 1925; b. detail of a prop on the wood version to allow the desktop to be horizontal for craft work, c detail of the rotating chair. (a. The Marsh Foundation School, *First Yearbook*, 1927, 15; b. and c. Eastham Schoolhouse Museum © Philip Carlino, all rights reserved.) 180

Fig. 1.55 The Universal desk skidded across the floor, but still enforced a rigid posture, for young women. A 1930 poster (a) intended for display in the classroom used characters from Frank L. Baum to shame young women into sitting up straight like the universal girl, a non-ethnic white girl being the universal; b. and c. the updated version from 1940 prominently displayed a young woman with a claim that the seat would help her meet a “Desire to Appear Well, and to make

the most of one's self." (a. Advertising poster, American Seating Company, Grand Rapids, Michigan, 1930, Grand Rapids Public Museum; b. and c. American Seating Company, *These Sitting Americans: Some Science of Sitting, Seeing and Seating*, Grand Rapids, MI, circa 1940.)..... 181

Fig. 1.56 Design intent of movable furniture was likely frustrated by cultural practice as these images from 1937 to 1956 seem to suggest. Most rooms are so full of furniture that rearranging would seem impossible. In (c), rather than move the desks out of the grid pattern, the teacher has created an alternative area where she sits more informally with students. (a. Grammar school, Eastham, MA, 1937, Nickerson Cape Cod History Archives, Cape Cod Community College; b. Arthur Vitols, Aquinas High School #26, 1940, Byron Company / Museum of the City of New York. 93.1.3.235; c. American Seating Company, *School Furniture*, 1956, 12.)..... 182

Fig. 1.57 A raised teacher's platform was a consistent feature of American grammar school classrooms from the start of the common school movement in 1830 through the end of the century. In Horace Mann's Plan from 1838 (a) the teacher's desk [A] sits on a platform [B] raised two steps [C] above the main floor. Henry Barnard (1848) republished Horace Mann's plan from 1838 which was nearly identical to William Alcott's plan published in 1831. The plan, represented by the Quincy School, became standard for grammar schools through the 19th century in Boston (b) and other cities, as well as in rural schools. (a. Barnard, *School-Architecture*, 1848, 65; b. A. H. Folsom, "Grammar School, Class V, Rice District," photograph, 1892, Boston Public Library, https://www.flickr.com/photos/boston_public_library/6197676605/in/album-72157627787153962/.)..... 183

Fig. 1.58 Manufacturers simultaneously marketed many of the same desks and chairs for teachers and office clerks (A. H. Andrews, *School Furniture and Apparatus, Church, Hall and Office Furniture*, 1873, 19, 21, 35, and 41.)..... 184

Fig. 1.59 Typical minimally upholstered twentieth century teacher's chairs (A. H. Andrews Co. *Furniture & Supplies for Schools & Colleges*, 1924, 18-19.).. 185

Fig. 1.60 Office Chairs entered classrooms for teachers at roughly the same time the chairs entered offices. (a. Robert Paton, *Illustrated Catalogue of School Furniture*, 1872, 39; b. DETAIL Augustine H. Folsom, "Paper cutting and pasting. Yeoman-street Primary School," Boston, 1892. Boston Public Library.)..... 186

Fig. 2.1: Another view of pre-industrial offices furniture. The simple yet monumental standing counting-house desk on the right served the limited record-keeping required by most business offices through the first quarter of the nineteenth

- century. (“Old Baltimore and Its Merchants,” *Harper's New Monthly Magazine* January 1880, 178.) 312
- Fig. 2.2** The desk on the left is an especially luxurious version of a single counting-house desk with cross banded mahogany veneer, elaborately ring turned legs and splayed feet. The desk was used by a minister. The desk on the right closely resembles the standard form, set upon a simple frame of turned legs. (a. Standing Desk, Alden Spooner, 1810-1830 in the vicinity of Boston. Courtesy of the Duxbury Rural and Historical Society, www.duxburyhistory.org, Gift of Mrs. Marie Moore Forest, 1916.185 and the Boston Furniture Archive, DAPC 2014-0103, Winterthur Museum; b. Courtesy of Bourgeault-Horan Antiquarians & Associates, LLC.) 312
- Fig. 2.3** Windsor Chair, 1810-1816, Gore Place Society, received as a bequest in 1951, F. 296.01, courtesy of the Boston Furniture Archive, DAPC_2014-0020-001.) 313
- Fig. 2.4** The massive piano desk with oversized legs made visual allusion to the piano to imbue the form with the weight and cultural capital inherent in the expensive musical instrument. (a. John Sewell, “Roll-top desk worth \$4,000,” *Windsor Star* June 14, 2008; b. Jones, *The Illustrated American Biography*, 1854, 310.) 313
- Fig. 2.5** Counting-house desks made in New York in the 1870s. (a. T. G. Sellew, *Designs of Office Desks and Tables*, 1871-1876, 6-7; b. J. Brewi & Co., *Designs of Writing Desks*, 1871, 6.) 314
- Fig. 2.6** Assessor’s Office, New York City, 1862 (*Frank Leslie’s Illustrated Newspaper* XV, no. 370 (November 1, 1862), 89.) 314
- Fig. 2.7** Floor plan of the new office building of the Dixon Crucible Company, Jersey City, NJ, 1892. The first floor right office contained the cashier, bookkeepers, typewriters and stenographers; the first floor left office the shipping, receiving and other clerks not named, the second floor left office was the corporate secretary’s desk, filing cabinets, and various other clerks, and in the office on the second floor right, the president and vice president, as well as a table for periodic director’s meetings. One quarter of all the office space was devoted to the executive suite. (“A Spacious Office Building,” *Business Magazine*, May 1892, 92.) 315
- Fig. 2.8** Smith’s annual display advertisement in the Boston directory changed from a typical counting-house desk in 1868 to a roll-top desk in 1869. By 1874 Smith had changed his letterhead from a collection of counting-house furniture in-use since the 1840s, to the lower engraving of a roll-top desk, reflecting his association and specialization in the form. (a. *Boston Directory*, 1868, 1036; b. *Boston Directory*, 1869, 1247.) 316

- Fig. 2.9** Domestic precedents for the roll-top desk. (a. Bureau table, Boston, 1740-75, Mahogany, pine, 1955.0136.097, Bequest of Henry Francis du Pont, Courtesy of Winterthur Museum; b. Thomas Sheraton, *The Cabinet-maker and Upholsterer's Drawing-Book*, 1793, plate 47 c., Fig. 48; c. Cylinder Secretary with tambour lid, 1798-1808, attributed to John and Thomas Seymour of Boston. (Robert Mussey, Jr. *The Furniture Masterworks of John & Thomas*, 2003, 168. Photo by David Bohl.) 316
- Fig. 2.10** Roll-top desks quickly spread from Boston to other major cities. School furniture manufacturer A. H. Andrews also made commercial furniture for offices including this nearly identical desk the company acknowledged was a form that originated in Boston. Item no. 458-462 were offered with several different arrangements of storage. Other desks in the catalog were mainly counting-house forms. (A. H. Andrews & Co., *Illustrations of Plain and Elaborate Office Desks*, Chicago, 1874, np.) 317
- Fig. 2.11** High roll top desk showing finished and carved back, circa 1894. A photograph of a nearly identical desk appears in A. Cutler & Son, *Catalogue, no. 12*, 1894. (Courtesy of Manhattan Restorations, <http://www.manhattanrestorations.com/>.) 317
- Fig. 2.12** Interior of the National Fire Insurance Company 1896, and the Metropolitan Life Insurance Company 1907, showing roll top desks set upon raised platforms with finished backs facing subordinate clerks.[Arrows added by author] (a. National Fire Insurance Co *A Quarter-Century's Fire Underwriting, 1871-1896*, New York: The National Fire Insurance Co, 1897; b. Byron Company / Museum of the City of New York. 93.1.1.6922.) 318
- Fig. 2.13** High roll-top desks placed back to back as room dividers in the mid-sized office of the stock department at National Cash Register. Businesses that installed roll-top desks en-masse were unusual. The desks obscured sightlines across the department. Note the female clerk in the upper left also seated at a roll-top desk. Both she, and the clerk next to her have no papers stored in their cubbies, perhaps indicating a lower status. ("Battlefields of Business," *System: The Magazine of Business* 10, no. 3, 1906, 311.) 319
- Fig. 2.14** Privacy and security were less important features of roll-top desks in the small offices of Ryerson Steel, (circa 1900), and the Columbia Phonograph Company payroll and (1906). (a. Ryerson Steel, Milwaukee Avenue, Chicago, Circa 1900, Courtesy of the Chicago History Museum; b. "Battlefields of Business," *System: The Magazine of Business* 10, no. 3, 1906, 313.) 320
- Fig. 2.15** Single and double pedestal low-rise roll-top desks, and a version with hinged sides from the Union Desk Company of Boston, 1887. The catalog noted that the desks "Can be seen over while sitting." Red cherry, antique oak, and black

- walnut were stock woods, ash and mahogany were special orders. Mahogany was more expensive and required a 25 percent advance. (Union Desk Company, *Illustrated Catalogue*, 1887, 3, 9 and 10.)..... 321
- Fig. 2.16** Illustration of imagined office space outfitted by the Union Desk Company of Boston, 1887. (Union Desk Company, *Illustrated Catalogue*, Boston, 1887, bc.)..... 322
- Fig. 2.17** Interior of the Connecticut Fire Insurance Company, 1887 showing low roll-top desks set upon raised platforms for supervisors set to the side of standing desks for clerks. (Connecticut Fire Insurance Company, *Photo-views of the home Office* 1887, 7.) 322
- Fig. 2.18** Counting-house sitting desk, circa 1877 (T. G. Sellew, *Designs of Office Desks*, 1877, 9.)..... 323
- Fig. 2.19** In 1856, an office partner desk (a) was identical to a teacher’s desk (b). Both made in Boston. (a. Mahogany Partner's Desk, stenciled label of Stephen Smith & Co., Courtesy of Neal Auction Company, New Orleans, <http://www.nealauction.com/> ; b. J. L. Ross ad, *The Teacher and the Parent* (New York: A. S. Barnes, 1867, 335.) 323
- Fig. 2.20** Single and double pedestal desks and coordinating roll top desk manufactured (Derby & Kilmer Desk Co., *Derby Roll-top Desk*, 1889, 5,12, and 13.) 324
- Fig. 2.21** The mapping of standard locations for work processes onto a pedestal desk. Note that the lower two drawers on either side are not programmed. (Harry Dwight Smith, “A Training Course in System: The Principles of Good Desk System” *System: The Magazine of Business* 7, no. 6, 1905, 531.) 324
- Fig. 2.22** Managers kept clerks at their desks by transferring responsibility for trafficking correspondence to less expensive office boys. In 1918, W. H. Leffingwell suggested roller-skates or bicycles to speed the movement of correspondence in offices, especially those spread over a single floor. (Leffingwell, *Making the Office Pay*, 231.) 325
- Fig. 2.23** Diagram of workflow in a railway office. The large rectangle represents a plan view of the chief clerk’s desktop, heavy lines represent a high volume of papers delivered by messenger boys who move information from the desk of the clerk to the desk of the department head secretary. The stenographer also moves a high volume of papers, but only as far as his or her own desk, before processing and returning them to the chief clerk. The chief clerk’s desk was a trafficking center from which he rarely stirred. The executive desk on the lower left receives very few documents, represented by the very light lines. On the right, the chief clerk of the Chicago & Alton Railroad maintained a flat-top

desk as set up as in the diagram with a series of bins across the front to sort correspondence. He also maintained a roll top desk for his other written work. (Arthur L. Lynn, “The Desk System of a Detail Man,” *System Magazine* 7, no. 1, 1905, 42-44; b. “Battlefields of Business,” *System: The Magazine of Business* 10, no. 6 1906), 572.)..... 326

Fig. 2.24 “The Office Boy,” a board game by Parker Brothers of Salem Massachusetts. In the game the office boy spiraled about the board avoiding laziness, intemperance, and carelessness and moving up in the firm to mail clerk, shipping clerk, salesman, before going off on his own to become head of the firm. Over multiple editions the office boy was always represented as a white boy in middle-class garb. (Parker Brothers, Inc, and Marian S. Carson Collection. *The Office Boy*. Salem, Mass.: Parker Bros, 1889. Library of Congress, <https://www.loc.gov/item/97196328/>.) 327

Fig. 2.25 Seth Luther, Alleviating writing desk, U.S. Patent no. 786. June 19, 1838.).. 328

Fig. 2.26 Unsuccessful designs for height adjustable clerical desks. (a). Ottoway Partridge of Boston, Duplex Desk; b. Mechanical sitting and standing desk, D. L. Ransom, Buffalo, NY (a. Massachusetts Charitable Mechanic Association, *Report of the Sixteenth Triennial Exhibition*, 1888, 176-177; b. Advertisement, *The Globe: An Illustrated Magazine* 3, April 1876, np.) 328

Fig. 2.27 The term “Office Chair,” originally referred to a lightweight, inexpensive, spindle backed chair with low or no arms for use at or near a desk. The handhold cut into the crest rail of many of the chairs was used to move the chair about the office when fluid movement of clerks was the norm. The chairs were used in both offices and by teachers in classrooms. The chair on the right in illustration (b) has a patented wood seat, probably a Gardner & Company plywood seat. A perforated plywood seat may have been cooler for use in warmer climates. Typically, a solid wood seat was critical to the rigidity and stability of a Windsor chair since the superstructure and substructure both attached to the seat. In the “Patent wood seat” version, iron rods have been added to stiffen the substructure and compensate for the flexibility of the plywood seat. (a. A. H. Andrews & Co., *School Furniture and Apparatus*, 1873, 35; b. Heywood Bros. & Co, *Chairs, Rattan Furniture and Chair Cane*, 1878, 7.)..... 329

Fig. 2.28 a. First office chair patent illustration, 1867 and b, c. chair as illustrated in early manufactured versions. (a. Robert Fitts, Jr., “Improved Office chair,” U. S. Patent no. 67,034, July 23, 1867, 1; b. and c Heywood Bros., *Chairs, Rattan Furniture and Chair Cane*, 1878, 4, and 7.)..... 329

Fig. 2.29 One of the earliest illustrations of a manufactured office Chair, 1871. (J. Brewi & Co, *Designs of Writing Desks*, 1871, 16.) 330

- Fig. 2.30** The rotating, tilting chair was initially promoted for use in both home and office. This selection of domestic uses included two nursing chairs and a dining chair. The chairs were identical to designs later specified as office chairs. The group on this page was situated among dozens of domestic rocking chairs in the catalog. A small number were specified elsewhere for the office. (Heywood Bros. & Co, *Chairs, Rattan Furniture and Chair Cane*, 1878, 4.) 330
- Fig. 2.31** Relaxed but controlled tilting position possible in an office chair. (A. H. Andrews & Co., *Illustrations of Plain and Elaborate office Desks*, 1874, np.) 331
- Fig. 2.32** Factory-made office chairs expressed fine gradations in comfort and ornamentation to serve more stratified management hierarchies. (Composite of images taken from Heywood Bros. & Co., *Chairs: Cane and Wood Seat*, 1897, 76-92.) 332
- Fig. 2.33** 19th century Americans were adept at reading subtle differences in status in highly ornamented furniture. The chair on the left is decorated with a scene from the hunt, a masculine symbol of nobility, and an acorn, representative of the strength of the oak in its generative phase. Although the chair appears complicated, the predominantly planar elements were designed for machine production, cut with scrolls and bandsaws, and decorated with machine pressed leather, spindle carving for incised decoration, and lathe turned elements. The chair on the right is a less ornamented versions, made using many of the same manufacturing processes. (a. The Globe Company, *Catalogue of Office Appliances*, ca. 1884-1889, 568; b. Swivel Chair, accession 129510, 1875-1890, Gift of Mrs. John J. Ruthven, Grand Rapids Public Museum, © Philip Carlino, all rights reserved.) 333
- Fig. 2.34** Women seated at long tables in the stenography department at National Cash Register, 1907 The magazine noted that “sunlight and fresh air are in abundance,” to emphasize separation from the smoky male work area. (“The Battlefields of Business,” *System: The Magazine of Business* 12, no.1, 1907, 53.)..... 334
- Fig. 2.35** One option for supporting a typewriter was to place the machine on a repurposed letter press stand. (a. The Globe Company, *Office Appliances*, Cincinnati, 1896, 113; b. Office of Abbott Bros, 1908, Courtesy of the Chicago History Museum.) 334
- Fig. 2.36** Retractable typewriter desk, 1891. (Derby & Kilmer Desk Company, *Fifteenth Illustrated Catalogue* 1891, np.) 335

- Fig. 2.37** Typewriter desks manufactured by The Fred Macey Company of Grand Rapids, Michigan, and advertised on opposite pages of their 1903 Christmas Gifts catalog. The desk on the left was marketed as a gift for female stenographers, the desk on the right, for those (men) who “are their own stenographers.” Both desks also came in roll-top versions. (The Fred Macey Co., *Christmas Gifts*, 1903, np.).....335
- Fig. 2.38** Catalogs invariably portrayed center-lift typewriter desks as female. In this image the two women are seated adjacent to male counterparts in a standard arrangement shown in photographs in the early twentieth century. (The Globe-Wernicke Co., *Filing Cabinets*, Cat. no. 807, Cincinnati, 1907, 10.).....336
- Fig. 2.39** Typewriter desk, A. Cutler & Son, 1884. (A. Cutler & Son, *Catalogue no. 12*, 1894, 45.).....337
- Fig. 2.40** Side lift typewriter desk. When closed, the tambour replaced just two of the desk drawers. (The Fred Macey Co., *Office and Library Furniture*, ca. 1904, 20.).....337
- Fig. 2.41** Women seated adjacent to supervisors at C. M. McClung & Company, a hardware and stove manufacturer, 1908. Note that there are few or no papers on the women’s desks, but various tools of business on the men’s desks. (“The Battlefields of Business,” *System Magazine* 14, no. 4, 1908, 409.).....338
- Fig. 2.42** Women are turned to share their male counterparts work surface at Swift & Company the meat processing conglomerate, circa 1904. The image was published in the *System: The Magazine of Business* April 1904. (Illustrated Post Card and Novelty Co., NY).....339
- Fig. 2.43** Advertisement revealing gendered differences in the function of seating in the office. The male “handsome” office chair “gives ease and comfort all the time,” while the description of the female stenographer chair implies active physical engagement as it helps the sitter achieve “better work without that tired feeling.” (Display Advertisement – The Davis Chair Company, *System: The Magazine of Business* 4 no. 4, 1903, np.)340
- Fig. 2.44** Typewriter chair, circa 1887 The seat rotated, and seat and back were height adjustable. The same type of bent wire that formed the legs formed the spring back. A. H. Andrews wire frame spring-back chair was a popular item for stenographers for decades. An 1893 trade card from the Chicago World’s Fair (at The Chicago History Museum) described the chair as ideal both for “your daughter’s piano,” as well as a “perfect joy for the *Typewriter*.”(a. Herbert L. Andrews, “Type Writer’s Chair,” U. S. Patent, no. 552,502, January 7, 1896; b. A. H. Andrews Co., *Office Furniture*, ca. 1905, 67).....340

- Fig. 2.45** Two advertisements for spring-back chairs equating work and play and emphasizing the relationship between body and productive work in the office. The admonition “Don’t Grow Old!” played off the youthful fears of female typewriters. (a. *System: The Magazine of Business* 2, no. 1, 1901, np; b. *System: The Magazine of Business* 2, no. 7, 1902, np.) 341
- Fig. 2.46** The upright posture of the spring-back chair introduced in the late 1880s by A H Andrews, continued to be a standard for typists and stenographers into the twentieth century. (a. Photograph, Chase and Sanborn Company, Chicago, IL, circa 1900, Courtesy of the Chicago History Museum; b. Shaw-Walker Co., *Filing Cabinets: Steel and Wood*, 1916, 79.)..... 342
- Fig. 2.47** Spring back chairs did not have arms that might interfere with typing or impede rapid entry and exit from the chair into the office to take dictation. The stenographer in the image on the left has moved from her typewriter desk (a) to share the work surface of the male clerk, shown in (b) the detail on the right. The gridded arrangement of desks has placed the men and women in direct visual sight lines, facilitating two-way surveillance. (a. and b. Machinery Department, Chicago office of Ryerson Steel, 1913-1914, Courtesy of the Chicago History Museum.)..... 343
- Fig. 2.48** The stenographer seated in a side chair, often leaning upon the writing extension of a male clerk’s desk was a standard posture shown in illustrations and photographs. (a. Brown’s Business College, *The Student Hand Book of Brown’s business College*, 1902, 20; b. Rand McNally, “The Battlefields of Business,” *System: The Magazine of Business* 7, no. 1 ,1905, 54; c. Rosenbaum Brothers, *System: The Magazine of Business* 3, no. 4 ,1903; d. Freight office of the Chicago, Rock Island and Pacific Railway, Chicago. “Battlefields of Business,” *System: The Magazine of Business* 8, no. 2, 1905, 145.)..... 344
- Fig. 2.49** The outdated letter press shown versus the rolling copier. (Yawman & Erbe Mfg. Co., *Rapid Roller Letter Copier*, 1905, 3-4.) 345
- Fig. 2.50** Folded document filing systems. (a. National Office Furniture, *Catalogue of National Office Furniture*, 1883, cvr; b. U. S. Desk & Office Fitting Co., *Letter and Document Files*, 1892, 36-37.)..... 345
- Fig. 2.51** Amberg Cabinet Letter File. The advertisement emphasizes that letters are filed “rapidly and cheaply,” and available for “*instantaneous*” reference. (Emphasis original). Letter file systems were part of a movement toward systematic management that pre-dated Taylor’s scientific management by nearly 40 years. (a. Amberg File & Index Co. (Cameron, Amberg & Co.), *Amberg’s System of Letter Filing*, 1881, np; b. *Publisher’s Weekly* 233, no. 1, 1876, 97; c. “Oak Amberg’s Imperial Letter File Cabinet,” Lot 54, March 28, 2015, Invaluable,

- <http://www.invaluable.com/auction-lot/oak-amberg-s-imperial-letter-file-cabinet-54-c-06e4068b6f> Accessed 2/16/2017.) 346
- Fig. 2.52** Early image of a female file clerk. (Library Bureau, *Classified Illustrated Catalog*, 1900, 112-113.)..... 346
- Fig. 2.53** Full extension drawer slide technology (a), and modular construction (b). (a. Library Bureau, *Furniture, Equipment and Supplies*, 1902, DETAIL), 87; b. Library Bureau, *Unit Vertical Files*, ca. 1903, 38.) 347
- Fig. 2.54** The portrayal of a woman, girl, or even a toddler demonstrating convertible and mechanical furniture was a trope that developed in furniture advertising materials in the late nineteenth century. In a catalog of filing equipment, the imagery takes on a deeper resonance. The girl or baby stood in for the young female file clerk, implying fragility and innocence. (a. Shaw-Walker Company, *Filing Cabinets: Steel and Wood*, 1916, 7, Yawman & Erbe Mfg. Co., *Record Filing Cabinets*, 1920, 63.)..... 347
- Fig. 2.55** From their inception in the office in 1900, manufacturers consistently represented filing clerks as well dressed, white, middle-class women in marketing materials, whether the representation was a posed photograph, a candid photograph of a workplace, or an illustration. (a. Library Bureau, *Library Bureau Vertical Filing*, 1904, 10; b. The Globe-Wernicke, *Steel Filing Equipment*, 1931, 2.) 348
- Fig. 2.56** Filing room, Willard Storage Batter Co., Cleveland OH, 1917 (Library Bureau, *Vertical Filing*, 1917-18, 8.) 348
- Fig. 2.57** Men working at the files of the Naturalization Bureau in Washington D. C. (The Globe-Wernicke Co., *Filing Cabinets*, no. 808, 1907, ifc.) 349
- Fig. 2.58** Card transcription and checking departments, (a) Yawman & Erbe Mfg. Co., circa 1900, and (b) a filing school run by furniture manufacturer The Globe-Wernicke of Cincinnati, 1921. (a. Yawman & Erbe Mfg. Co., *Suggestions*, ca. 1898-1902, 64; b. The Globe-Wernicke Co., *Filing and Finding*, 1921, 10). 349
- Fig. 2.59** Detail from illustrated invoice of the Amberg Company demonstrating how file cabinet manufacturers considered their indexing systems to be the brains of the filing system, and by extension, of the organization, 1910. (Amberg Company Invoice, 1910) 350
- Fig. 2.60** Trade catalogs associated male clerks with inefficient, outdated methods and women with modern filing methods. The Fred Macey Catalog described the letter file, here portrayed with a male clerk, as “surpassed by the vertical file,” for “its quickness of operation and other advantages.” To contrast with the

outdated letter file, the vertical file was portrayed with a female clerk. The Library Bureau used the same image in its catalog several years later, but with a slightly different portrayal of a modern woman. The catalog asked the reader to compare the frazzled male clerk, with “the modern rapid-fire methods” portrayed by the female clerk. (a. The Fred Macey Co. *Business System*, 1901, 34-35; b. Library Bureau, *Unit Vertical Filing*, 1904, 13.)..... 351

Fig. 2.61 Male Clerk waiting for service file clerk, 1910. (Yawman & Erbe Mfg., *Record Filing Cabinets*, 1910, 11.)..... 352

Fig. 2.62 A demonstration of filing cabinet strength can be read as an illustration of male aggression toward the filing cabinet. (a. Fire-Proof Furniture & Construction Co., *The Security Steel Line Cat. no. 92* (Syracuse, NY, 1916, 12; b. The Globe-Wernicke Co., *Filing Cabinets Wood and Steel*, 1921, 21; c. Yawman & Erbe Mfg. Co., *Record Filing Cabinets*, Cat. No. 3220, 1920, 62.) 352

Fig. 2.63 In 1919 the Shaw Walker Company adopted a logo of a man jumping into one of the drawers. The image may have symbolized ongoing tension between male employees reliant upon female file clerks with the filing cabinet standing in for the female clerk. If so, the strength and resilience of the filing cabinet reinforced the manufacturer’s belief in the resilience of its female operators. Shaw-Walker and Yawman & Erbe frequently illustrated their catalogs with images of women actively engaged in office work. (Shaw-Walker Co., *Filing Cabinets*, 1919, cvr, 7.) 353

Fig. 2.64 Shaw-Walker Co., *Filing Cabinets*, 1919, 68-69.)..... 353

Fig. 2.65 Filing Cabinets designed to be ganged together encouraged long alleys and challenged rearrangements. (Amberg File & Index Co., *Vertical Filing Cabinets*, 1906, 7.) 354

Fig. 2.66 Segregated banked filing areas. The filing area on the left has a gate between the unites in the foreground and a door in the background to ensure controlled access to the files. (Library Bureau, *Unit Vertical Filing*, 1904, 36 and 40.) 354

Fig. 2.67 File consolidation behind a wall and locked door, O. W. Richardson Company of Chicago, a wholesaler of rugs, carpets, and furniture, 1920. (“Over the Executive’s Desk,” *System: The Magazine of Business* 38, no. 1, 1920, 52-53.) 355

Fig. 2.68 Filing cabinets used to separate female file clerks from the rest of the office. (a. Amberg File & Index Co., *Vertical Filing Cabinets*, 1909, 52; b. Library Bureau, *Filing as a Profession*, 1919, 12.)..... 355

- Fig. 2.69** Filing department from a prospectus for the New York School of Filing, 1918. Schools and manufactures maintained a close working relationship. The Library Bureau used the same photograph to illustrate its 1917 vertical filing cabinet and identified the company as Cleveland Metal Products. (New York School of Filing, *Sixth Year*, 1919, 7; also, The Library Bureau, *Vertical Filing*, 1917, 20.)..... 356
- Fig. 2.70** Filing room. The reference to excellent “air conditions,” contrasted with smoke-filled masculine environments. (New York School of Filing, *Sixth Year*, 1919, 21.)..... 356
- Fig. 2.71** Postcards published by the Metropolitan Life Insurance Company based on a series of 1907 photographs, clockwise from upper left – the filing department, the actuarial department, the ordinary department, and the women’s lunch room. (Metropolitan Life Insurance Co., circa 1907). 357
- Fig. 2.72** Images of the floor-to-ceiling Metropolitan Life Insurance card files. The department was all female, under the supervision of a male chief filing clerk, seen in the center of the room standing in front of his low roll-top desk in the picture on the right. Though the male supervisor did not appear in the postcard version of this photograph. The women sit at lightweight bentwood chairs (a. Detail of Postcard, 1907; b. The Metropolitan Life Company, 1907, Byron Company / Museum of the City of New York. 93.1.1.6910.) 358
- Fig. 2.73** Filing Card System, Montgomery Ward. Note the simple wooden table and chairs to support card drawers. *System Magazine*, V 14, no. 01,1908, 36.)... 359
- Fig. 2.74** Following the strict conservation of motion of Taylorism, The Library Bureau catalog described the card desk as “A NEW appliance for efficiency in the world of business,” that put “an immense number of cards... within arm’s reach.” (Library Bureau, *Unit Filing Cabinets in Wood*, 1914, 68.)..... 359
- Fig. 2.75** Library Bureau charging desk used by librarians to manage client information on cards stored in a large well at the center of the desk. (Library Bureau, *Furniture, Equipment and Supplies*, 1902, 98, 102.)..... 360
- Fig. 2.76** Women at this shoe manufacturing firm worked at both card handling desks and operating computational machines, under the watchful eye of a female supervisor at the rear of the room. (Library Bureau, *The New Method for Indexing Cards*, circa 1915, 8.)..... 360
- Fig. 2.77** Some corporations replaced tall card catalogs with tub desks to reassert surveillance on their female file clerks. (Leffingwell, *Scientific Office Management* 1917, 187.)..... 361

- Fig. 2.78** Executive office of George W. Child’s, Philadelphia Newspaper Publisher, 1885. (“Private Office of Geor. W. Childs, Philadelphia,” *The Decorator and Furnisher* 8, no. 1 (1886), 6-7.) 362
- Fig. 2.79** Executive office of Columbian National Life Insurance, Boston, 1910. The room was furnished by Doten Dunton, a manufacturer of commercial furniture. The roll-top desk hints at a productive space; the remainder is set up to look like a home. But the company supplied all the furniture. (Doten-Dunton Desk Co., *Commercial*, ca. 1910, 12.) 362
- Fig. 2.80** Metropolitan Life Insurance Boardroom and executive offices, 1906-1909. Not only was the ornamentation palatial, Metropolitan Life arranged its executive offices enfilade, an arrangement used at Versailles and Renaissance European palaces as a way of intimidating and impressing visitors. Your status was determined by how many rooms deep you were able to penetrate the inner sanctum. (a. Wurts Bros. / Museum of the City of New York. X2010.7.2.24660; b. “Battlefields of Business,” *System: The Magazine of Business* 9, no. 5 1906, 522.) 363
- Fig. 2.81** Director’s furniture was larger, more richly ornamented and luxurious than the furniture for subordinates and encouraged much more relaxed postures that emphasized status difference. (The Globe Company, *Catalogue of Globe Office Desks, Tables, Chairs, Couches, &c.*, 1897/1898, 100, 114, and 117.) 363
- Fig. 2.82** Executives primary methods of conducting business was conversation and interpersonal interaction, the opposite of the methods to general clerks, typists, stenographers and file clerks who were supposed to avoid distracting conversations. *System Magazine* highlighted the three primary locations, all furnished with domestic-like furniture. (Kendall Banning, “Driving the Engines of Business,” *System: The Magazine of Business* 14, no. 5, November 1905, 551)..... 364
- Fig. 2.83** Office of the president of Curtis Publishing Company, publishers of the *Ladies’ Home Journal*, *The Saturday Evening Post* and *The Country Gentleman*, circa 1909. (Postcard, 1909)..... 364
- Fig. 2.84** (a) Directors' Room of the Eisenstadt Manufacturing Company, St. Louis, 1908; (b) Directors’ room of the Glazier Stove Company, Chelsea, MI 1900-1910 (a. *System Magazine* 13, no. 6, 1908, 643; b. Detroit Publishing Company, Library of Congress, LC-DIG-det-4a20557) 365
- Fig. 2.85** Office furniture display in Wannamaker’s Department Store in New York City showing an executive suite with partners desk and low roll-top desk. (*The Grand Rapids Furniture Record*, February 1915, XXVIII.) 365

- Fig. 2.86** Window display of Macey Company office furniture, complete with mannequins in appropriate gender roles. Loveman’s was a chain of department stores in Alabama. (*The Grand Rapids Furniture Record*, May 1915, LXIX.) 366
- Fig. 2.87** Cover of the Grand Rapids Furniture Manufacturing Company catalog, circa 1900. The company illustrated the female oriented parlor with leather “Turkish” furniture, also marketed to the executive suite. On the right, a man works in a new space, a home office, at a complex roll-top desk, seated at a pivoting office chair. (Grand Rapids Furniture Mfg. Co., *Grand Rapids Furniture Mfg. Co.*, Grand Rapids, MI, ca. 1900) 366
- Fig. 2.88** Office furniture manufacturers marketed the same furniture for home offices. (The Fred Macey Co., *The Bookcase for the Home*. Advertising brochure, ca. 1907, cvr)..... 367
- Fig. 2.89** Around 1900 manufacturers began to market office furniture for the home. (a) The Fred Macey Company illustrated the cover of its 1903 catalog with a woman sitting at its fashionable and very domestic “Mission” desk, but on the interior the company advertised a roll-top home desk, (b), along with a small line drawing of a woman seated at the desk, (c). The company sought to market furniture to women as clerks within the household that needed to manage information. (a. The Fred Macy Company, *Christmas Gifts*, Grand Rapids, MI, 1903 cvr, np.)..... 368
- Fig. 2.90** Home desk from the circa 1902 Christmas Gifts catalog. The desk was smaller, with ormolu mounts and claw feet. (The Fred Macey Co. *Christmas Gifts*, ca. 1902, np.)..... 369
- Fig. 2.91** Easy chair, A. H. Andrews Company of Chicago, 1895. To allow for a flexible imaginary in both home and work the chair was illustrated with no interior context. (A. H. Andrews & Co., *The Evolution of the Chair*, 1895 62-62.) .. 369
- Fig. 2.92** Office chairs for executives were larger and more heavily ornamented but had the same mechanical functions as the office chairs of clerks. Marshall D. Wilber was president of the Wilber Mercantile Agency, a multi-branch collection company. (a. The A. H. Andrews Company, *Business Furniture*, ca. 1896, 66; b. *System: The Magazine of Business* 9, no. 4, 1906, 374.) 370
- Fig. 2.93** Executives at roll top desks as portrayed in *System* in the early 1900s, a. Isidor Sakes owner of department store Isidor Saks, (b) Harry Selfridge, owner of a department store chain; c. an illustration from *System* magazine. (a. “Successful Through System,” *System: The Magazine of Business* 7, no. 6, 1905, 651; b. “The Man-Power in Business,” *System: The Magazine of*

- Business* 6, no. 3, 1904, 7; c. “Three Hours Grace,” *System: The Magazine of Business* 9, no. 6, 1906, 587.) 370
- Fig. 2.94** Douglas Malloch, “My Troubles.” (*System: The Magazine of Business* Volume XV, no. 2, 1909, np.) 371
- Fig. 2.95** Wooton no. 10 Rotary Desk, Extra Grade. The opposite of showing the distance from work was to have one of these lavish machines for office work. Made in luxurious materials these desks announced the striking difference between the executive and the clerk. The executive with this desk had private communications that only he was to control. The desk is illustrated in the 1876 Wooton Catalog and was their top-of-the-line model. (Courtesy of Neal Auction Company, New Orleans, <http://www.nealauction.com/>.) 372
- Fig. 2.96** Display Advertisement, Valley City Desk Company, Grand Rapids, 1912. (*Furniture Record*, July 1912.) 372
- Fig. 2.97** Executive office plan, showing close relationship of secretary and executive. (George E. Turner, “How I Handle My Personal Work,” *System: The Magazine of Business* 15, no. 1, 1909, 71.) 373
- Fig. 2.98** “Anonymous” manager and secretary in close working conditions. (“Now I Get Twice as Much Done,” *System Magazine* 40, no. 3, 1921, 295.) 373
- Fig. 2.99** In the private office of the executive, the postural relationship between female assistants and male supervisors was more powerful. The corresponding secretary at The Michigan Stove Company and an assistant (a), and at the offices of the Salvation Army (b). (a. *System: The Magazine of Business* 12, no. 6, 1907, 625; “The Salvation Army’s Business Side,” *System: The Magazine of Business* 5, no. 3, 1904, 193.) 374
- Fig. 2.100** Covers office furniture catalogs from 1916-1923 highlighted the presence of women in the executive office. (a. Art Metal Construction Co., *Steel Office Furniture and Filing Equipment*, Cat. no. 758, 1916, cvr; b. Yawman & Erbe Mfg. Co., *The Executive’s Workshop*, 1921, cvr; c. Yawman & Erbe Mfg. Co., *Wood Filing Equipment*, 1923, cvr.) 374
- Fig. 2.101** Salesman’s desks evolved remained miniscule for decades to discourage loafing in the office. (a. A. H. Andrews, *Business Furniture*, 1896, 23; b. Yawman and Erbe Mfg. Co, *The Executive’s Workshop*, 1921, 26.) 375
- Fig. 2.102** Interior of a floor of the Globe-Wernicke Co. furniture store at 382 Broadway, New York City, circa 1910. Manufacturers reduced the number of forms to the basics seen here - a pedestal desk, known in the industry as an efficiency desk, a low roll-top desk for managers, and executive furniture. Filing equipment

continued to be complex, although most organizations used vertical files, card files, or a combination of the two. Document files were phased out. (Byron Company / Museum of the City of New York. 93.1.1.1941.)375

Fig. 2.103 Illustration of a systematized desk, 1909. An identical illustration was published in *Desk System*, 1907, page 26. The illustration of the systematized desk first appeared in a 1905 article by Harry Dwight Smith in *System Magazine* described as “How the office executive or clerk may so arrange his desk as to do the greatest possible amount of work with the least room, in the shortest time and with the greatest accuracy.”(Fig. 2.21) The only change was the programming of the lower right drawer as a vertical file. (A W Shaw Company, *How to Double the Day’s Work*, 1910, 24.).....376

Fig. 2.104 The Amco line of desks from Art Metal Construction Company stripped away personal storage along hierarchical lines, from the general clerk, to lesser positions. The least amount of storage was given to the salesmen, who was supposed to be out on the rode glad-handing customers. (Art Metal Construction Co., *Filing Cabinets and Furniture*, 1916, 59-60.)377

Fig. 2.105 The efficiency desk becomes a standard throughout all levels of the corporate organization. (Yawman & Erbe Mfg. Co., Broadside, 1918.).....378

Fig. 2.106 By the end of the second decade of the twentieth century executives were no longer portrayed seated at roll-top desks (a). Henrita F. H. Ried (b) was an early female executive seated at her flat desk. She was the secretary of the Bush Terminal Company, a shipping conglomerate operating out of Sunset Park, Brooklyn. (a. “Builders of Business” *System: The Magazine of Business* 35, no. 3, 1919, 409; b. Cutler display ad, *System: The Magazine of Business* 35, no. 3, 1919, 409.).....379

Fig. 2.107 These illustrations from *System Magazine* for an executive desk illustrated the “Wrong Way” and the “Right Way” in which “the desk itself is scarcely more than a table of small dimensions... a flat-topped desk is kept cleared of all details except such as require immediate attention.” Note the change in form as well as function, the roll top desk and bent wood chair giving way to the modern flat top pedestal desk and mechanical office chair. (Edward Mott Woolley, “The Business Man’s Desk,” *System: The Magazine of Business* 21 no. 3, 1921, 306-307.)380

Fig. 2.108 Yawman & Erbe solution to the inefficient executive - reduce the size of the office, remove file storage, and replace a roll top desk with one of their efficiency desks “Specially built for Modern Executives.” (Yawman & Erbe, Mfg. Co., *The Executive’s Workshop*, 1921, 8 and 16-17.).....381

- Fig. 2.109** General offices of the National Life Insurance Company, 1907. The company defined a private zone for each of its “sub-departments” by arranging desks facing outward and furnished matching roll-top desks for women typists who supported managers. (“Battlefields of Business,” *System: The Magazine of Business*, Vol 12, no. 4, 1907, 375.) 382
- Fig. 2.110** Metropolitan Life Insurance, 1907 (Byron Company / Museum of the City of New York. 93.1.1.6925.) 382
- Fig. 2.111** Gridded office systems mimic schoolrooms, 1913. These two images taken from Globe Wernicke catalogs show the ways in which promotional materials reinforced office hierarchy and surveillance. Managers’ desks face rows of clerks’ desks in a parallel to the standardized school room. The walls of the central filing room were built from counter height filing cabinets with access controlled by gates. The image on the right shows how filing cabinets were used to demarcate and create semi-private space. (a. The Globe Wernicke Co., *Filing and Finding*, 1921,7; b. Globe Wernicke Co., *Filing Cabinets*, ca. 1917, 17) 383
- Fig. 2.112** Shorthand dictation rooms, Eastman Business College, 1898. (Eastman Business College, *Catalogue and Prospectus*, 1898, 55 and 71.) 383
- Fig. 2.113** Sales employee training, National Cash Register. Salesmen sit at cast-iron school desks arranged in schoolroom fashion. (Kendall Banning, “Getting Employees in Line,” *System: The Magazine of Business* 15, no. 4, 1909, 379-382.)..... 384
- Fig. 2.114** Several offices arranged using standard desks in a grid layout. The offices of the Thos. A. Edison Company are arranged with all the desks for the female clerks facing forward, subject to male supervision. (Art Metal Construction Co., Inc. *Steel Office Equipment*, Cat. no. 765, 1926, 11.)..... 385
- Fig. 3.1** The basic opera chair form spread from theaters to most public venues by the end of the nineteenth century. (American Seating Company, *Opera Chairs*, 1907, 1.) 499
- Fig. 3.2** (a) Park Theatre, New York, ca 1805 and (b) Chestnut Street Theatre, Philadelphia, ca 1794. (a. “The Old Theatres of New York, 1750-1827,” *Appleton’s Journal* 8, no. 191, 1872, 577; b. *New York magazine; or Literary Repository* 5, no. 4, April 1794, 194.)..... 500
- Fig. 3.3** “Box at the Theatre,” from Frances Trollope’s *Domestic Manners of the Americans*, 1832 (Frances Trollope, *Domestic Manners of the Americans*, 116-117.)..... 501

- Fig. 3.4** Interior of the Park Theatre and details. Lower right. Several members are standing in the pit, and one member in the second row is seated facing backwards engaged in conversation. The narrow red-plush covered bench can be seen in the center of the first row. In the first tier of boxes a woman at center displays her shawl draped over the box front while a man next to her attempts to engage her in conversation. Upper right. A series of women sit in the first row of the gallery. Although appearing engaged by the performance, their attention is drawn as much to the audience of potential clients in the pit. Men lurk in the open doorways at the back, in the doorway on the left, a man strikes up a conversation with a woman. John Searle, *Interior of the Park Theatre*, 1822 (Interior of the Park Theatre, NYC by John Searle, 1822, Courtesy of New-York Historical Society, 1875.3.)..... 502
- Fig. 3.5** (a). Fourth century amphitheater(a) and eighteenth-century gallery benches (b) show little change in form. (a. The Theater at Epidaurus, 4th century B. C. E., Richard S. Ellis, Bryn Mawr College: Richard S. Ellis Photographs, 1985, https://library.artstor.org/asset/SS7730437_7730437_8636052; b. Izenour, *Theater design*, 1977, 23.)..... 503
- Fig. 3.6** Color lithograph of the Astor Place Riot, 1849 showing protestors hurling stones, the smoke from gunshots into the crowd, and numerous spectators (N. Currier, “Great Riot at the Astor Place Opera House, New York,” Library of Congress, LC-DIG-pga-09042.)..... 503
- Fig. 3.7** The theater in 1854 on opening night. The back of the opera chairs designed by Augustus Eliaers appear in the dress circle as well as the balcony, although other sources claim that only the balcony had mechanical seats and the remainder of the dress circle sat on sofas. The low wall can be seen encircling the balcony and separating it from the rest of the dress circle. (“Boston Theatre- Rachel’s Debut,” *Ballou’s Pictorial* 9, no. 19, 1855, 296.)..... 504
- Fig. 3.8** Detail from the ground floor plan of the Boston Theater, circa 1852. The plan matches a contemporary description of the opening of the theater - “Our New Theatre,” Boston Daily Atlas reprinted in *Dwight’s Journal of Music* 4 no. 23, March 1854, 179-180. Annotations added by author. (Boston Theatre: plan of first floor, by Preston & Emerson, Courtesy of the Bostonian Society, 67.19.5) 505
- Fig. 3.9** Boston Theatre in 1896 showing the arrangement of seats and separation of tiers. The seats are replacements installed in 1896. The wire fronted first tier balcony can clearly be seen, but seats in the top tier gallery are almost invisible. Private boxes are limited to six boxes on the sides of the proscenium, seated with moveable parlor chairs. (Tompkins, *The History of the Boston Theatre 1854-1901*, 1908, 431) 506

- Fig. 3.10** Main lobby of the Boston Theatre, showing the grand staircase designed by Augustus Eliaers, the designer of the mechanical theater seats. (Tompkins, *The History of the Boston Theatre 1854-1901*, 1908, 3.).....506
- Fig. 3.11** (a) Interior of the Boston Theatre, 1892/1893 season decorated for Columbus Day. (b) Detail of the seats in the parterre. These were the original chairs installed in 1854 and removed two years later. (Tompkins, *The History of the Boston Theatre 1854-1901*, 396-397.)507
- Fig. 3.12** Dress circle and balcony ticket holders arriving in the lobby via the grand staircase. (Tompkins, *The History of the Boston Theatre 1854-1901*, 1908, fl)507
- Fig. 3.13** Boston Theatre Auditorium Elevation, M. G. Rohelock, circa 1852. (a) Longitudinal section, (b) Detail of balcony seating. The theater as built differed slightly from this drawing: The architects specified settees on the ground floor parquette and opera seats in the second-tier family circle, but a contemporary description of the theater upon its opening described the reverse -settees in the second tier, and opera chairs on the parquette. The drawing also shows wire grille railings on all three tiers, but the contemporary description and a late nineteenth century photograph show the top two tiers were faced with solid plaster decoration. The balcony was built with two rows of seats (not one as in this drawing), the second row elevated slightly above the first. Although a grand staircase on the left is shown reaching both the first and second tier, the contemporary descriptions indicate that the second tier was only reached via a spiral staircase. (Boston Theatre – Auditorium Elevation, Courtesy of the Bostonian Society, 67.19.8).....508
- Fig. 3.14** Boston Theatre, 1854. (a) Occupants of the third tier were barely visible to those below. (b) The theater was lit by gas, including a large cut-glass gasolier made by Cornelius & Baker of Philadelphia installed in 1860. Unlike candles, gas lighting did not drip on the expensive clothes of women and men seated below and the manager could turn the lights up and down at will to focus attention on the stage. (a. Douglas Shand-Tucci, *Built in Boston: City and Suburb, 1800-2000*, 1978, Fig. 25; b. Eugene Tompkins, *The History of the Boston Theatre 1854-1901*, 1908, 13).....509
- Fig. 3.15** Settee with cast iron arms made by Samuel Wales Jr., 1850. The settee could be customized with different subdivision. (Samuel Wales, Jr., *The Guide: A Description of the Modern School Furniture Manufactured by Samuel Wales, Jr.* (Boston, 1850)509
- Fig. 3.16** Opera chair installed in the Boston Theater and Opera House in 1854. Eliaers’ patent describes these chairs in general terms as a “Seat for Public Buildings” and titled the drawing “Car Seat and Couch” implying the design was be

- suitable for public transportation as well. (Augustus Eliaers, “Seat for Public Buildings,” US Patent 11,991. November 28, 1854) 510
- Fig. 3.17** Two French rococo revival furniture pieces designed by Augustus Eliaers. Eliaers was among a handful of French craftsmen centered in New York, but working in other major cities, who designed ornate, richly carved furniture. (*The World of Science, Art, and Industry Illustrated from Examples in the New-York Exhibition, 1853-54*, New York: G. P. Putnam & Co, 1854, 114 and 164.)..... 510
- Fig. 3.18** The Eliaers opera chair (b) has a formal relationship to his design for a library chair (a) patented one year before the opera chair. The library chair unfolds to become a set of steps, (U. S. Patent no. 10,151, October 25, 1853). The library chair has its original upholstery – the same enameled cloth that was used in the parterre of the Boston theatre. The style of the opera chair also relates to more feminine oval-backed French neo-classical chairs (c). (a. Library Step Chair, Augustus Eliaers, Boston, 1854-60, © Museum of Fine Arts, Boston, 1976.762, H. E. Bolles Fund; b. A. Eliaers, “Seat for Public Buildings,” U. S. Patent no. 11, 991, November 28, 1854; c. Armchair (Fauteuil à la reine), Georges Jacob (France), ca. 1785, Metropolitan Museum of Art, Gift of J. Pierpont Morgan, 1906, 07.225.106.) 511
- Fig. 3.19** Eliaers’ reclining chair. (a) Although the chair was made in a version for ladies, he chose to illustrate the ad in multiple sources with a man, and title the advertisement “The Gentleman’s Reading Chair” or an invalid chair. (a. Charles B. Norton, *Norton’s Literary Letter*, 1857, np; b. Reclining chair, marked “Augustus Eliaers,” circa 1857, missing its footrest. Chairish, Inc. <https://www.chairish.com/product/574823/antique-american-victorian-renaissance-augustus-eliaers-mahogany-chair>, Accessed 06/22/2018) 511
- Fig. 3.20** Opera chair installed in the Boston Theater and Opera House in 1854 have a structural similarity to European choir stalls. Both rely upon shared upright supports with seats designed to be raised to provide an area within which to stand. (Choirs Stalls, French, 15th Century, Metropolitan Museum of Art, Acc. 16.32.15, Gift of J. Pierpont Morgan, 1916.) 512
- Fig. 3.21** Eliaers based the folding seat mechanism on technology used in French secretaries. Although not frequently used in the United States, the technique was known through Thomas Sheraton’s 1792 drawing book and was used by Duncan Phyfe. (a. Thomas Sheraton, *The Cabinet-Maker and Upholsterer’s Drawing-Book in Four Parts*, London, 1802, no. 22 Pl. 1; b. “Secretary Abbattant, 1835-45, Possibly from the Workshop of Duncan Phyfe, Metropolitan Museum of Art, The Manney Collection Gift, 1983, 1983.225; c. Augustus Eliaers, “Seat for Public Buildings,” US Patent 11,991, November 28, 1854)..... 512

- Fig. 3.22** A seated patron leaned forward to provide additional space for a person passing behind, or stood in the space of the seat to permit someone to pass in front. But as the text of this catalog entry indicates, a major advantage was being able to increase the capacity of the theater. The text reads: *Our Photographic Illustrations serve to show better than the subjoined cut, the very compact manner in which our Tilting Back Chairs fold together. Please Note that when folded the chair occupies as shown only about six inches space, thus allowing free ingress and egress, and permitting the placing of the chairs much nearer together than could otherwise be done. The compact manner in which these chairs fold, permits of giving to a room the greatest possible seating capacity.* (Thomas Kane & Company, *Assembly Chairs*, 1887, 27.).....513
- Fig. 3.23** Clarence B. Blackall, “The American Theater II: The Plan,” *The Brickbuilder* 17, no. 1, 1908, 2.)513
- Fig. 3.24** A few additional models of A H Andrews Opera Chairs, 1886 (A. H. Andrews & Co., *Catalogue of Improved Opera Chairs*, 1886, 10R, 11L, 6L, and 16R.)514
- Fig. 3.25** Women were encouraged to attend the opera in their best finery. (a) Four young women are illustrated attending the Philadelphia Academy of Music in 1870 in full evening dress: shawls, casually draped over furniture with complementary fans, hair ornaments, flowers and fans; (b) A detail from a rare interior photograph, staged for a souvenir in 1884, shows women in fashionable white opera bonnets at the Gillis Opera House in Kansas City, Missouri. (a. Shinn, *A Century After*, 1875, 85.); b. J. H. Scottford, “Souvenir Photograph of the Interior of the Gillis Opera House,” The Harvard Theatre Collection, Bequest of Evert Jansen Wendell, 1918, Prints-Theatres-U.S.-States-M, [detail].)515
- Fig. 3.26** Popular aesthetic movement design of opera chairs for highbrow theaters with built in racks for umbrellas, canes and hats, and a wire coat and shawl holder attached in the back. The text beneath (a), the Boston-Back Chair by A H Andrews Company, reads: *The frame of back of iron or of wood, as preferred. The form of back widening toward the top, and general style of this handsome chair render it less conventional and more like a drawing room chair than usual. Both seat and back are upholstered in any style chosen. Folding arms may be applied to this chair if required, making it “the most complete chair in the world,” some say. Adopted in new Hollis Street Theater, Boston, Academy of Music and Standard Theater, New York, Grand Opera House, Washington, etc.* (a. A. H. Andrews & Co., *Improved Opera Chairs*, 1886, 10L; b. Thomas Kane & Company, *Assembly Chairs*, Chicago, circa 1887.).....516
- Fig. 3.27** Especially ornate cast iron chairs were imitative of fine carved French furniture, especially when coupled with tufted plush upholstery in rich colors. (a. A. H. Andrews & Co., *Improved Opera Chairs*, 1886, 4R; b. Thomas Kane &

Company, *Assembly Chairs*; ca. 1887, 9; c. Chair, John Henry Belter, New York, 1845-60, Rosewood, silk, 1988.0117.001, Gift of the Richard and Gloria Manney Foundation, Courtesy of Winterthur Museum.) 516

Fig. 3.28 Under seat storage was both a convenience and a control measure to stop patrons from fidgeting with personal items and from leaving early. (a. A. H. Andrews & Company, *Improved Opera Chairs*, 1886, 6R; b. American Store Stool Company, display advertisement, Jeffery, *Guide and Directory to the Opera Houses, Theatres, Public Halls*, 1882, np). 517

Fig. 3.29 Two images of fully laden chairs demonstrating their intended use and the controls instilled in them. The Thomas Kane Company chose to show only one chair in-use with a male occupant, a strong indication that controls were targeted at restless men, especially since a respectable woman would be unlikely to sit in such an open legged posture. The text in (b) reads: *It is the little things in life which make or mar one's comfort. A wet umbrella between the knees is not desirable. It is not pleasant to sit upon an overcoat, nor is it well for the coat; neither is the hat improved by being set on a dusty floor, nor in an aisle to serve as a foot-ball. As shown above, we provide all these little essentials of peace and comfort.* (a. and b. Thomas Kane & Company, *Assembly Chairs*, ca. 1887, 5, and 34.) 517

Fig. 3.30 Veneer chairs were cheaper alternatives to upholstered seats. Highbrow theaters and opera houses typically placed the seats in the upper tier inexpensive seats. The chairs were also frequently used in variety theaters and early cinemas. Perforated veneer chairs were sold as cooler than upholstered chairs, which may have been helpful in the top tier where the theater tended to get very warm. But the total lack of upholstery on backs, seats or arms made the chairs hard, slippery, and not particularly comfortable for a three-hour opera. (a. A. H. Andrews & Co., *Improved Opera Chairs*, 1886, 15R; b. Thomas Kane & Company, *Assembly Chairs*, ca. 1887, 17.) 518

Fig. 3.31 Hollis Street Theatre, 1935 detail of seats parterre, balcony, and upper tier. The opera chairs are 1900 replacements without the built-in cane and umbrella rack. Rather than wire they seats have a woven cable coat and shawl hanger. The seats in the lower tier have mahogany trim and red leather upholstery, those in the upper tier seat remain un-upholstered veneer chairs. (Historic American Buildings Survey, Creator. Hollis Street Theater, Hollis Street, Boston, Suffolk County, MA. Boston Massachusetts Suffolk County, 1933, <https://www.loc.gov/item/ma0905/>.) 518

Fig. 3.32 The New York Academy of Music installed A. H. Andrews no. 6 model of ornate upholstered opera chairs (a) into the orchestra and first tier, and A H. Andrews no. 35 model of plain veneer chair in the gallery. (a. and b. A. H.

- Andrews Co., *Catalogue of Improved Opera Chairs*, Chicago, 1886, 6R 13R)
519
- Fig. 3.33** Ventilated opera chair, 1894 installed in the Castle Square Theatre and B. F. Keith's New Theatre in Boston. (Kidder, *Churches and Chapels*, 1910, 162.)
519
- Fig. 3.34** Interior images of the elaborately decorated B. F. Keith New Theatre, Boston, 1894, clockwise from upper left: the Loggia, Grand Reception Room, and auditorium. (Keith, *B. F. Keith's New Theatre, Boston, Mass*, 1894, np.)
520
- Fig. 3.35** (a) Interior photograph of the Columbia Theatre, San Francisco, circa 1907, and (b) plan and elevation of one of the 122 private boxes of the Metropolitan Opera House, New York City, 1883. (a. "San Francisco's Theatrical Rehabilitation," *The Theatre Magazine* 16, no. 138 (1912), 51; b. "The Opening of the Metropolitan Opera House Last Night," *The Daily Graphic* (October 23, 1883), 830.)520
- Fig. 3.36** Three of the eighteen chairs Heywood-Wakefield Company described in their catalog as "Box Chairs," intended for private theater boxes. (Heywood-Wakefield Co., *Theatre and Assembly Chairs*, ca. 1921, 37.)521
- Fig. 3.37** Individual seats were installed in the 1884 People's Church in Boston instead of the more traditional pews. The plan (a) from the seat manufacturer catalog shows the theater like arrangement of the first floor. The manufactured emphasized the importance of clear sightlines in its marketing. The caption reads: "*The cut shows the seating of the main floor, each chair giving perfect sight lines. The aisle system is suggestive. Four exits are shown, also the pulpit, platform, and stairs. Seated with our Veneer Chairs. The gallery is seated similarly, with ten rows from front to rear, chairs extending clear around on main floor, and number of aisles the same.*" (a. A. H. Andrews and Co., *Catalogue of Improved Opera Chairs*, 1886, 11; b. Hamilton, *The People's Church*, 1885, fl.)522
- Fig. 3.38** A. H. Andrews & Co, no. 7 Veneer Chair installed in the Boston People's Church in 1884. A portion of the text reads: "*It remains to add that were an upholstered chair is not wanted, and this is generally the case, no chair ever made has given the satisfaction afforded by our no. 7. Moreover, we shall be glad to refer parties in want of such sittings to those who have bought and made trial of these chairs. Architects are recommending the adoption of our chairs in the latest and most elegant churches, which, as they think, ought not to be behind the well-appointed opera house in beauty and comfort of the sittings.*" (A. H. Andrews & Company, *Improved Opera Chairs*, 1886, 7R.)
523

- Fig. 3.39** Interior Trinity Church Boston, circa 1888 (a. Arthur H. Chester, *Trinity Church in the City of Boston: An Historical and Descriptive Account with a Guide to Its Windows and Paintings*, Cambridge, MA: John Wilson and Son, 1888, 22; b. Kidder, *Churches and Chapels*, 1910, Plate VII).....523
- Fig. 3.40** Meetinghouse plan and elevations. Asher Benjamin drew a tiered balcony of pews in the section drawing at the center. (Benjamin, *A Country Builder's Assistant*, 1798, 39.).....524
- Fig. 3.41** First Church of Christ (Old Meeting House), Interior towards pulpit, Charles Bulfinch, 1816-1817, Lancaster, Massachusetts. (Charles Bulfinch, First Church of Christ, Interior towards pulpit, Lancaster, MA, 1816-1817, The Carnegie Arts of the United States Collection.).....524
- Fig. 3.42** Interior of the Chatham Theatre, New York City, 1825 (he Miriam and Ira D. Wallach Division of Art, Prints and Photographs: Print Collection, The New York Public Library. "Interior of the Chatham Theatre, New York 1825" New York Public Library Digital Collections. Accessed October 7, 2019. <http://digitalcollections.nypl.org/items/510d47da-239b-a3d9-e040-e00a18064a99>.).....525
- Fig. 3.43** Radial plan church, First M. E. (Lovely Lane) church, Baltimore, MD, 1884. Stanford White, architect. Seating Capacity, 1400. (a. Kidder, *Churches and Chapels*, 1900, Plate XIII; b. and c. Richard Guy Wilson, Fiske Kimball Fine Arts Library Image Collection, University of Virginia [details].).....525
- Fig. 3.44** A. H. Andrews & Co. spread highlighting their chairs for church use. The image on the left is captioned "*In churches, where they have been extensively used, the Book-Box is found very convenient.*" and at center "*Architects are recommending the adoption of our chairs in the latest and most elegant churches, which, as they think, ought not to be behind the well-appointed opera house in beauty and comfort of the sitting.*" In the page at right the caption reads "*The new Book-box, attached for church use, is a feature of this Chair and is very neat. It meets a want never before supplied.*" The design replaced a coat/shawl holder for storing elaborate outer clothing with a box for a religious book set. (A. H. Andrews, *Catalogue of Improved Opera Chairs*, Chicago, 1886, 7L, 7R, 8R.).....526
- Fig. 3.45** More ecclesiastical chairs manufactured by the Harwood Chair Seat Company, Boston, 1883 and Andrews Demarest Company, New York, 1900. (a. F. E. Kidder, *Churches and Chapels* (New York: W. T. Comstock, 1900), 50; b. Harwood Chair Seat Co., *Catalogue of Assembly Chairs and Settees for Churches, Vestries, Halls, Opera Houses, Lodge Rooms, Depots, Offices, and all Public Places* (Boston, 1883), 9.).....526

- Fig. 3.46** A. H. Andrews Advertisement, 1882. The advertisement lists 35 installations in opera houses, legitimate theaters, variety theaters and music halls. Jefferey, *Guide and Directory to the Opera Houses, Theatres, Public Halls*, 1882, np.)527
- Fig. 3.47** Harry Davis opened one of the first Nickelodeon theaters in 1905. The Pittsburg theater sat all patrons in opera seats at the same level in an intimate setting that did not support segregated seating for African Americans. (“The First Neckelodeon [sic] in the States,” *Motion Picture World* 1, no. 39 (November 1907), 629.).....527
- Fig. 3.48** Veneer opera chairs, 1912 (Heywood Brothers and Wakefield Co, *Opera Chairs Public Hall Seating*, 1912, 41.)528
- Fig. 3.49** Opening night at the Rex Theater, April 4, 1912, Hannibal, MO. All the African American patrons are seated in the balcony. (Steve Chou, Hannibal Free Public Library, <http://hannibal.lib.mo.us/digital/afram/B7321.htm> accessed 07/03/2018.).....528
- Fig. 3.50** Ornate seats designed to fit with the French Empire interior of the Mastbaum Theatre, Philadelphia, 1929. (Mastbaum Theatre, Stanley Company, 43-P-129B-004A, Irvin R. Glazer Theater Collection, Athenaeum of Philadelphia.)529
- Fig. 3.51** Fantastic Mayan inspired seat designed by interior architects Grayven and Mayger for the Fisher Theatre, Detroit Michigan, 1928 and manufactured by the Heywood-Wakefield Company. (a. Detail of a Heywood-Wakefield advertisement, *Motion Picture News* 38, no. 22 December 1, 1928, 1662, Image courtesy of Levi Heywood Memorial Library, Gardner, Mass; b. Walter P. Reuther Library, Archives of Labor and Urban Affairs, Wayne State University.)529
- Fig. 3.52** (a) Theater row ends, Heywood-Wakefield Company, ca 1937 and (b) theater chairs 1920-1930 made by the American Seating Company. Plain ends suited ecclesiastical applications, while ornate, elaborately decorated standards were applied to movie theaters. Standards faced the aisles to cap rows of identical seats. (a. Heywood-Wakefield Co., *Auditorium Chairs* ca. 1937. 12-13, Image courtesy of Levi Heywood Memorial Library, Gardner, Mass; b. American Seating Co., *World Wide Seating Service for Theatres*, ca. 1930, np.).....530
- Fig. 3.53** The New York Polo Grounds, 1905 World Series, New York Giants versus the Philadelphia Athletics – (a) on the corner of Eighth Avenue and East 155th Street looking toward Coogan’s Bluff in New York City. By 1914, the wooden stadium was replaced with a steel and concrete version. In the foreground

detail (b) fans watch the game from carriages and automobiles. (Pictorial News Co., Boston Public Library, Michael T. “Nuf Ced” McGreevey Collection.)531

Fig. 3.54 Fans gathered around the perimeter of fields (a) on the outskirts of cities to watch the first games. The detail of (b) implies women were fans from the earliest days of the game, watching from carriages as well as on the field (a. and b “The American National Game of Base Ball. Grand match for the championship at the Elysian Fields, Hoboken, N.J.” Currier & Ives, 1866, Library of Congress, LC-DIG-PGA-00600.).....532

Fig. 3.55 Union Grounds, Brooklyn, 1865 (*Frank Leslie’s Illustrated Newspaper*, November 4, 1865, 104-105.).....533

Fig. 3.56 Bleacher seats, circa 1888. Uncovered stands for spectators were referred to as “bleachers” or “bleaching Boards,” a reference to long hours sitting in the sun. The least expensive seats in the stadium offered very little in the way of conveniences but fostered camaraderie. (“Our National Game,” *Cosmopolitan Magazine* 5, no. 6, 1888, 455.)534

Fig. 3.57 Standing room only fans lined the perimeter of Boston’s Huntington Grounds in this image from 1911 ([COMPOSITE] “Huntington Avenue Grounds.” Photograph. 1911. Boston Public Library, <https://ark.digitalcommonwealth.org/ark:/50959/sf268662b> and “Huntington Avenue Grounds.” Photograph. 1911. Digital Commonwealth, <https://ark.digitalcommonwealth.org/ark:/50959/sf268664w>.)535

Fig. 3.58 (a) This image of American League Park, Washington, DC (Philadelphia vs. Washington, May 6, 1905) shows the simple wood construction for bleachers. Located far from the action, some of the men in the bleacher audience are standing on the seats and hanging off railings to get a better view. (b) View of the bleachers at Huntington Avenue Grounds, 1911 (Detail). No aisles are visible for circulation. The grandstand and bleachers of the South End Grounds where the Boston Braves played is visible in background center. (a. ([DETAIL] Geo. R. Lawrence Co., Library of Congress Prints and Photographs Division); b. [DETAIL] Michael T. “Nuf Ced” McGreevey Collection, Boston Public Library.)536

Fig. 3.59 Bleachers at the Huntington Avenue Grounds, Boston, 1903 World’s Series, overall and detail. (Boston Public Library, Print Department, Michael T. “Nuf Ced” McGreevey Collection.)536

Fig. 3.60 Newspaper reports often describe bleacher fans as unruly and fervent fans. While that may have been the case during intense moments of competition, images of bleachers frequently show well-dressed men and boys, black and white, calmly attending games. (a) Forbes Field, 1909 (b) New York Polo

Grounds, May 20, 1905, (c) Huntington Avenue Grounds (Boston), June 17, 1903 (d) Chicago South Side Grounds, July 2, 1908. (a. DETAIL from Detroit Publishing Company, Library of Congress, LC-DIG_det-fa10306; b) [DETAIL] Geo. R. Lawrence Co.; Library of Congress, PAN SUBJECT – Sports no. 83; c. Boston Public Library, Michael T. “Nuf Ced” McGreevey Collection; d. R. W. Johnston Studios, Library of Congress Prints and Photographs Division, PAN SUBJECT – Sports no. 5.).....537

Fig. 3.61 Ball clubs hired local police to keep the peace, and added fences, sometimes topped with barbed wire, to keep bleacher fans off the fields, and to keep them from throwing objects on to the fields. Some clubs stationed policemen adjacent to bleachers: (a) Philadelphia police in front of the bleachers at Shibe Park, 1914 World Series, and (b) Braves Field 2nd game of World Series, 10/9/16 showing fences and stationed police. The owners of Pittsburgh’s Forbes Field (c) faced bleachers with an approximately seven foot high fence, topped with barbed wire to prevent fans from interfering with the game, 1909; d. (a. Bain News Service, Library of Congress Prints and Photographs Division Washington, LC-B2- 3260-8; b. Detroit Publishing Company, Library of Congress, LC-DIG_det-fa10306); c. Bain News Service, Library of Congress Prints and Photographs Division, LC-B2-4018-1.).....538

Fig. 3.62 a. West Side Park, Chicago, 1905, and b. 1906 World Series Game. Arrows added to indicate intentional breaks in the seating to keep fans from mixing. (a. SDN-004185, Chicago Sun-Times/Chicago Daily News collection, Chicago History Museum; b. George R. Lawrence Company, Boston Public Library, Print Department.).....539

Fig. 3.63 Early twentieth century baseball seats, Heywood Wakefield Company, Gardner, MA. The more elaborate standard has a baseball glove, baseball, and bat woven into its swirling iron work. (a. Heywood Brothers and Wakefield Co., *Opera Chairs Public Hall Seating*, 1912, 44; Ebbets Field Stadium Seat, circa 1913, Brooklyn, NY, circa 1915. National Baseball Hall of Fame Museum / Milo Stewart.)540

Fig. 3.64 Decorated standards. (a. Braves Field end Standard, Boston Braves Stadium, 1915 circa, National Baseball Hall of Fame Museum / Milo Stewart; b. Heywood Brothers and Wakefield Co., *Opera Chairs Public Hall Seating*, 1912, 43.).....540

Fig. 3.65 Forbes Field, opened in 1909, one of the earliest concrete and steel constructions. Left field bleachers (in image (a) on the right side) were considerably closer than right field bleachers and sold for fifty cents rather than the usual twenty-five cents. The detail (b) shows the concrete and steel construction, and at lower left auxiliary benches and a line of laundry. (a. Detroit Publishing Company, 1909, Library of Congress, LC-DIG-ppmsca-

- 40087; b. Detroit Publishing Company, Library of Congress, LC-DIG_det-4a10303.) 541
- Fig. 3.66** (a) Forbes Field grandstand. The area indicated is the location of the detail showing eight-seat private boxes (b) indicated. The chairs were made by Heywood Wakefield Company and closely resembled their chair (c). (a. and b. Detroit Publishing Company, 1909, Library of Congress, LC-DIG_det-4a10304; c. Heywood Brothers and Wakefield Company, *Opera Chairs Public Hall Seating*, Boston, 1912, 29.) 542
- Fig. 3.67** (a) Forbes Field grandstand seats. The area indicated is the location of the detail (b) private boxes with moveable seats (c). (a. and b. Detroit Publishing Company, Library of Congress, LC-DIG_det-4a10304; c. Heywood Brothers and Wakefield Company, *Opera Chairs Public Hall Seating*, Boston, circa 1912, 45.) 543
- Fig. 3.68** (a) Forbes Field grandstand seats. The area indicated is the location of the detail (b) private boxes with moveable seats (c). (a. and b. Detroit Publishing Company, Library of Congress, LC-DIG_det-4a10304; c. Heywood Brothers and Wakefield Company, *Opera Chairs Public Hall Seating*, Boston, circa 1912, 45.) 544
- Fig. 3.69** (a) Forbes Field lower level grandstand seats. The area indicated is the location of the detail (b) showing seven rows of partially occupied reserved seats, followed by twenty rows of unreserved seat. The chairs were flat backed slat wood with decorative cast iron standards arms (a. and b. Detroit Publishing Company, Library of Congress, LC-DIG_det-4a10304; c. Detail, Forbes Field demolition, June 19, 1970, Ross A. Catanza, *The Pittsburgh Press*, <http://www.post-gazette.com/gallery/June-28-1970-Last-day-at-Forbes-Field>, Access 07/18/2018.) 545
- Fig. 3.70** Baltimore Orioles and New York Giants, Temple Cup Series, 1894, Printed in Paris in 1896 by Boussod Valadon & Co., In the lower left men and women appear seated in domestic chairs in private boxes. (Boston Public Library, Print Department.) 546
- Fig. 3.71** The Rooters on the field at the Huntington Avenue Grounds, 1903 World Series, (Detail) with arrows added pointing to women seated in the grandstand. (Boston Public Library, Print Department, Michael T. “Nuf Ced” McGreevey Collection.) 546
- Fig. 3.72** The least expensive bleacher seats were often placed far away from the grandstands with separate entrances to visually and psychologically push immigrant bodies to the margins: (a) Polo Grounds, New York (1905); (b) Forbes Field, Pittsburg (1909); (c). Huntington Avenue Grounds, Boston

(1911); (d) Fenway Park, Boston (1912); (e) Braves Field, Boston (1916). (a. Library of Congress, LC-DIG-ppmsca-40087; b. Library of Congress, LC-DIG-ppmsca-40087; c. Huntington Avenue Grounds, 1911, Boston Public Library Print Department, Michael T. “Nuf Ced” McGreevey Collection; d. <i>Boston Daily Globe</i> , October 4, 1912, 7; e. Bain New Service, “Boston bleachers, Braves Field 2nd game of World Series, 10/9/16,” Library of Congress, LC-B2- 4018-1.)	547
Fig. 3.73 Detail from a photograph of the big crowd at Braves Field to see Red Sox and Phillies in World Series. Several African American men are integrated into the crowd, 1915. Modified by author. (Leslie Jones, “Big crowd at Braves Field to see Red Sox and Phillies in World Series, “Boston Public Library, Leslie Jones Collection.)	548
Fig. 4.1 “American Stage Coach” (Captain Basil Hall, <i>Forty Etchings, from Sketches Made with the Camera Lucida in North America in 1827 and 1828</i> , 1829, np.)	648
Fig. 4.2 The first American passenger cars built in the early 1830s used stage coach bodies set upon flanged wheels. The photograph (a) is likely from the 1876 Philadelphia Centennial showing the De Witt Clinton locomotive and cars, built in 1831. The drawing (b) illustrates the 1831 stagecoach cars used on the Mohawk & Hudson (a. Library of Congress, Wittemann Collection, LC-USZ62-73422; b. Cooley, <i>The American Railway</i> , 1889, 139.).....	648
Fig. 4.3 Camden and Amboy, Lithograph, 1831 (John H. White, Jr. Railroad Reference Collection, Archives Center, National Museum of American History, Smithsonian Institution, negative 25012-E.)	649
Fig. 4.4 Baltimore & Ohio coach, 1835 (Deutsches Museum, Munich Germany, White, <i>Railroad Passenger Car</i> , Figure 1.70.)	649
Fig. 4.5 Standard sofa seats with wood arms, cast-iron standard, and foot rest (Forney, <i>The Car-Builder’s Dictionary</i> , 1879, 383.)	650
Fig. 4.6 a. Standard arrangement for a day coach; b. An English illustration subtitled “Interior of an American Railway Car”; and c. an American illustration of similar postures subtitled “General View of a Night-Car on the Central.” (a. Harlan & Hollingsworth, <i>Semi-Centennial</i> 1886, 206-207; b. “Travelling in the United States,” <i>The Illustrated London News</i> , April 10, 1852, 285; c. General View of a Night-Car on the Central, <i>Harper’s Illustrated Weekly</i> , October 2, 1858, 632.)	650
Fig. 4.7 Davenport & Bridges ladies’ car, 1845 section, plan and perspective views showing reversible back car seats and a separate seating area with privacy	

- curtains, a wash stand and two sofas for ladies at the top left in section and right in Fig. 21 in plan. Circles indicated by author (*American Railroad Journal*, July 24, 1845, 467, 478.) 651
- Fig. 4.8** Growth of the American railway system, 1830-1860 (Cooley, *The American Railway*, 1892, 430.) 651
- Fig. 4.9** a. One of the first sleeping cars, the *Chambersburg*, first used in 1837; and b. a crudely drawn illustration by a French traveler of the women’s section of a similar car on a Georgia railroad in 1847 (a. From an exhibit in a patent suit, *George M. Pullman and Pullman’s Palace Car Co. Versus The New York Central Sleeping Car Company and Webster Wagner*, United States Circuit Court, Northern District of Illinois, 1881; exhibit book, 377; b. *L’Illustration*, July 22, 1848, 317.)..... 652
- Fig. 4.10** Interior of Theodore Woodruff’s patented sleeping car showing the seats converted for sleeping (left) and for daytime use (right) (*Scientific American*, September 25, 1858, 17.)..... 652
- Fig. 4.11** Interior of a Wagner Sleeping car on the New York Central, 1859 (*Frank Leslie’s Illustrated Newspaper*, April 30, 1859, 1.)..... 653
- Fig. 4.12** Mann Boudoir Car, circa 1885. a. Plan includes a separate Gentleman’s smoking room at left, and a bedroom behind a separate door described as a “Ladie’s Boudoir 2-beds” at right, 6 compartments in the center slept 2 to 4 passengers. The car has two basins and a larger washroom for men, and a single basin and a smaller washbasin for women. Most manufacturers of sleeping cars provided more toilet capacity for men because they made up most travelers. b. Illustrations of the interior of a compartment; and c. the smoking buffet room (a. *The Car-Builder’s Dictionary*, 1888, fig. 212 E95; b. and c. Lucian Beebe, *Mr. Pullman’s Elegant Palace Car*, 1961, 255)..... 654
- Fig. 4.13** “He was a Traveling Man – How a New York Wife Trapped Her Husband Aboard the Cars of the Erie Line – Love in a Palace Boudoir,” *Police Gazette*, 1885 reprinted in Lucius Beebe, *Mansion on Rails*, 254.) 655
- Fig. 4.14** a. Interior of a Woodruff sleeper, circa 1875, three berths are made up at using a mechanical arm to elevate the seat backs into berths, at right a fold down berth at the top (a. White, *American Railroad Passenger Car*, fig 3.17; b. *Car Builder’s Dictionary*, 1879, 367.) 655
- Fig. 4.15** The American railway system achieved regular through traffic among most major cities and more than one coast-to-coast connection by 1880 (Cooley, *The American Railway*, 1892) 656

- Fig. 4.16** Images of rail cars published in a theater seating guide by the Union Pacific Railroad (Union Pacific Railroad Co., *Diagrams Chicago Theaters, 1900*, 1900, np)..... 657
- Fig. 4.17** Pullman Palace Sleeping Car Interior, 1870-1875 with one berth made up and removable panels and curtains in place (Carleton Watkins, Pullman Palace Sleeping Car (Interior), 1870 - 1875, 2000.53.1, The J. Paul Getty Museum, Los Angeles, Digital image courtesy of the Getty's Open Content Program.) 658
- Fig. 4.18** In these measured section-drawing details, the foot well distance between the seats of the sleeper (a) was six or more inches greater than the distance between seats in a day coach (b), making ingress and egress more comfortable and elegant, and giving occupants more leg room. Circled areas called out by the author (Forney, *The Car-BUILDER's Dictionary*, 1879, Figs. 215 & 296.) 658
- Fig. 4.19** a. An 1869 engraving of one of the first Pullman sleeping cars; and b. a photograph circa 1890 of the Pullman sleeping car "Anton" showing the basic form remained the same throughout the nineteenth century. In the photograph the partition at the foot of the berth has yet to be bolted in place, by the porter and the rod for the curtains appears at center. (a *London Illustrated News*, October 2, 1869, 336; b. Pullman Palace Car Company Photographs, Archives Center, National Museum of American History, Smithsonian Institution, Pullman negative 2827.)..... 659
- Fig. 4.20** Interior views of a Wagner Silver Palace car, a. 1870 with most seats in day mode and partitions showing between the columns; b. an 1873 engraving taken from a photograph of the same car with berths partially made down for night mode (a. *Interior View of Silver Palace Car*, Lawrence & Houseworth, 1870, LH1494, Courtesy of The Society of California Pioneers; b. E. Malézieux, *Travaux Publics des États-Unis d'Amérique en 1870*, Paris: Dunod, 1873.) . 659
- Fig. 4.21** Standard plan for a twelve section Pullman sleeper, 1910. Lockers for storing linens are at either end of the open section are circled A private drawing room is at center right with its own toilet, a women's lavatory is at the right end is with two basins and a smoking room with three basins and a larger men's lavatory is at the left end. ("All Steel Pullman Cars," *American Engineer and Railroad Journal*, October 1910, 385.) 660
- Fig. 4.22** Illustrations of the Pullman Porter making up a berth. (a. *Frank Leslie's Illustrated Newspaper*, August 25, 1877, 420; b. *The National Magazine*, March 1898, 546.) 661
- Fig. 4.23** "Pullman porters were paid low wages and relied upon tips which generated a comfortable income in the 1870s, but by 1901 had diminished considerably. In

the foreground of this illustration from the cover of *Puck*, a porter carries a whisk broom to represent his pleas for tips (brushing the clothes of a passenger was commonly known to represent an unspoken request for a tip), but wears patched and tattered pants and jacket to indicate his financial strain. To highlight his plight, the scene is set inside the supreme luxury of a railroad president's private car (presumably George Pullman). The president is seated at a roll-top desk and over his shoulder, a secretary tabulates at an adding machine to hint at the profitability of the enterprise and thereby the stinginess of its pay. The porter looms over the president pointing to a ten-year account showing rapidly diminishing daily income from tips while the executive trains his terrified gaze on the visage of the porter and ignores the accounts. The sub-caption reads, "SAY, BOSS, IF THE PUBLIC WON'T PAY ME MY WAGES ANY LONGER I GUESS THE COMPANY 'LL HAVE TO DO IT!" The inset at top left shows the same porter in the past, in a proud, dignified pose, brandishing his whisk brush. He appears well-fed and rotund in fresh clothes, with rings on his fingers, a gold watch chain, and cash protruding from his pockets. The image and inset caption "As we used to know him," intended to communicate to readers that porters had received a comfortable income from tips in the past. (S. D. Erhart, "The Pullman Porter's "Kick," *Puck* 50, no. 1279, September 4, 1901, cover, Library of Congress, LC-DIG-ppmsca-25560.)..... 662

Fig. 4.24 Day coach seats were not designed for nighttime travel. An 1870s day coach (a) closely resembled (b) a day coach in 1898 (a. Jackson and Sharp Company of Wilmington Delaware, circa 1870, Delaware Public Archives; b. Waite, *The Car Builder's Dictionary*, 1895, fig. 90.)..... 663

Fig. 4.25 "Across the Continent," *Frank Leslie's Illustrated Newspaper*, February 9, 1878, 389.)..... 663

Fig. 4.26 Day coach sleeping braces (a. *American Railway Review*, April 16, 1860; b. *American Railroad Journal*, August 25, 1866, 804.)..... 664

Fig. 4.27 Humorous illustrations of the mad rush to eat at a trackside refreshment house. The "Limited Express," a pun on an express train and the rushed time for eating. (a. Currier & Ives, and Thomas Worth, *A limited express: five seconds for refreshments!*, New York: Currier & Ives, 1884, <https://www.loc.gov/item/97507578/>; b. The Great American Tea Co., *Ten Minutes for Refreshments*, New York: 1886, Library of Congress, <https://www.loc.gov/pictures/item/2003688790/>.) 665

Fig. 4.28 Interior of the hotel car "Huron" in dining mode circa 1870. (Lawrence & Houseworth, Courtesy of The Society of California Pioneers, LH1538.) 666

- Fig. 4.29** “Restaurant Car,” 1879 with black wait staff, and a separate bar saloon on the right for men. (Forney, *The Car-Builder’s Dictionary*, 1879, 192)..... 666
- Fig. 4.30** a. Interior of the Pullman dining car *Cosmopolitan* built in 1869 and b. plan of the Dining Car “Kansas City” in 1888 showing individual opera seats. (a. Courtesy of The Society of California Pioneers, LH1489; b. Forney, *The Car-Builder’s Dictionary*, 1888, Figs. 191-194.)..... 667
- Fig. 4.31** Interior of Pullman Parlor Car 2129 (“Interior of Pullman Parlor Car 2129,” New York, New Haven & Hartford Railroad Glass Negative Collection, Courtesy of Archives & Special Collections, University of Connecticut Library.)..... 668
- Fig. 4.32** Plan of a Pullman parlor car, 1888. Circles with overlapping dotted lines indicate rotating fixed chairs. Solid circles labeled “Rattan Chairs,” were light weight repositionable seats that floated in the space. A smoking compartment is at the left, along with a men’s’ toilet. A ladies’ toilet is at the right. The car had bay windows that emphasized an outward facing posture (Forney, *The Car-Builder’s Dictionary*, 1888, Fig. 210.)..... 669
- Fig. 4.33** Corseted and bustled women could find some comfort in the support of a parlor car seat. (a. Pennsylvania Railroad, *Summer Excursion Routes*, circa 1890; b. Forney, *The Car-Builder’s Dictionary*, 1888, E235- Figs. 1159-1166.)..... 670
- Fig. 4.34** Parlor Car promotional advertisements (Chicago & Alton Railroad Poster, 1880-1900, Library of Congress, LC-USZC2-4891.)..... 671
- Fig. 4.35** Parlor car with individual seats (Pennsylvania Railroad Co., *Summer Excursion Routes*, 1878, v.) 672
- Fig. 4.36** Plan of a Pullman baggage and smoking car (1889), with a wine locker, desk, bookcase (library), barber shop, and bathroom including bathtub. (“The ‘Montezuma Special’ – Some New Ideas in Passenger Cars,” *The Railway Review* 29, no. 45, 1889, 645-646.)..... 673
- Fig. 4.37** Buffet, smoking and library cars (1895), “A veritable club-house on wheels,” (a. Daniels, *Health And Pleasure*, 1895, 441; b. Pennsylvania Railroad Co., *Summer Excursion Routes*, 1891, 269.) 674
- Fig. 4.38** (a) smoking section within a day coach, Union Pacific Railroad, 1900; b. Smoking, library and buffet car, 1910-1920, c. DETAIL of (b). showing attentive porter at attention with a drink on a tray (a. Union Pacific Railroad, *Chicago Theatres*, 1900; b. & c. Detroit Publishing Co., *Library of Congress*, LC-D41-140 [P&P].)..... 675

- Fig. 4.39** Illustration from a story in *System: The Magazine of Business*, 1908 (Daniel Casey, “The Wider Horizon,” *System: The Magazine of Business* 14, no. 6, 1908, 557-561)..... 676
- Fig. 4.40** Black women were both threatened and a threat in popular culture (Currier & Ives, “A Kiss in the Dark,” Museum of the City of New York, 56.300.558.)676
- Fig. 4.41** “Interior of a Palace Hotel Car Used on the Pacific Railroad. – Sketched by A. R. Waud.” (*Harper’s Weekly* May 29, 1869, 348.)..... 677
- Fig. 4.42** a. “Work on the Last Mile of the Pacific Railroad – Mingling of European with Asiatic Laborers. – Sketched by A. R. Waud.” B. (Detail) The simian features were a Victorian pictorial convention that communicated non-white status. The text describes the workers as European and Asiatic laborers—geographic terminology that displaced them outside the borders of American citizenship. (*Harper’s Weekly* May 29, 1869, 348.)..... 678
- Fig. 4.43** The first emigrant trains were merely box cars with benches and a stove. Immigrants were treated as freight, and when necessary, decoupled and “switched off” to a siding to wait for the next train, often with no accommodations. (*Harper’s Weekly*, January 24, 1874, 76.)..... 678
- Fig. 4.44** Emigrant landscapes from ship, to processing center to emigrant car were consistent in materiality and comfort, hard wood, and close bodies. (a. *London Illustrated News*, May 10, 1851, 387; b. “Immigrants at Ellis Island, New York” 1913, From The New York Public Library <https://digitalcollections.nypl.org/items/510d47e2-8e9d-a3d9-e040-e00a18064a99>; c. *Harper’s Weekly*, November 13, 1886, 728.)..... 679
- Fig. 4.45** Emigrant waiting room on the Union Pacific Railroad Depot at Omaha (Ogden and Yeager, *Frank Leslie’s Illustrated Newspaper*, August 18, 1877, 404.) .680
- Fig. 4.46** Immigrant Sleeping Car, ca 1889. (Cooley, *The American Railway*, 1889, 251.) 680
- Fig. 4.47** Standard emigrant sleeper, Union Pacific Railroad, 1888. a. The elevation at top left shows the facing berths, the top of the plan view at the bottom left shows the berths made down for night travel. A car heater, and ladies’ toilet are on the left, and a men’s toilet is on the right. b. Berth details. The section at the left shows a severely upright back that would not have been comfortable for extended periods of time without a cushion of some kind (Forney, *The Car-Builders Dictionary*, 1888, Figs 196-198.)..... 681

Fig. 4.48 “Emigrant’s Friend,” cooking stove especially designed for emigrant cars. It could be expanded to include 3 ovens. (Forney, *The Car-Builders Dictionary*, 1888, Fig. 1483).....682

Introduction: A Culture on the Move

The United States in the nineteenth century was a culture of bodies on the move. Settlers leap-frogged westward into unfamiliar lands, farmers migrated to chaotic cities, former slaves and their descendants trekked north to escape oppression; immigrants arrived from across the oceans. Steam-powered and electric trains, streetcars, ferries, and ships moved masses of people at unprecedented speed. Dislocation reduced the role of religion, the family, and the community in instilling and policing behavioral norms and limited traditional markers of identity that had lubricated social interaction. Underneath the exciting promise of mobility lay a threat of unknown, unpredictable, and unbounded individuals. In rapidly growing cities, Americans lacked the behavioral scripts for safe and productive interactions as people who had rarely mixed in public were brought into proximity within public space – men and women, black and white, wealthy, and poor, immigrant and native born. “The United States had always been a collection of ethnically, racially, culturally, and religiously diverse peoples,” urban historian Maury Klein explains, but in the late nineteenth century “the mix was fast becoming much larger, more complex, and more volatile as well as being more crowded together than ever before.”¹ The modern city transformed the way in which individuals established

¹ Maury Klein, *The Genesis of Industrial America, 1870-1920* (New York: Cambridge University Press, 2007), 136. Immigrants transformed cities into “complex and cosmopolitan places,” according to urban historians Klein and Kantor and “helped make the city an alien place even to those who had always lived in it, see Maury Klein and Harvey A. Kantor, *Prisoners of Progress: American Industrial Cities, 1850-1920* (New York: Macmillan, 1976), 175. On the social transformation that accompanied urbanization and industrialization in the second half of the nineteenth century see Charles Nelson Glaab and A. Theodore Brown, *A History of Urban America* (New York: Macmillan, 1968), 112-151; Gunther Barth, *City People : The Rise of Modern City Culture in Nineteenth-century America* (New York: Oxford University Press, 1980); and Jon D.

trust, Lynn Lofland argued in *A World of Strangers* (1973).² Unlike rural communities where character could be deduced from first-hand knowledge of an individual's family and the few strangers were conspicuous, cities were filled with strangers of unknown and potentially dubious morals. In a world of strangers, city dwellers learned to read and enact culturally constructed "coding schemes" based in appearance, location in interior space, and behavior.³

All of this was manipulated by furniture. For the bourgeois and emergent middle classes, standard furniture installed in public interiors ameliorated social anxiety over the increasing likelihood of unpredictable encounters with unknown individuals by ordering social space. Furniture defined physical, spatial, and psychological boundaries that fixed bodies into hierarchical patterns to simplify complex mixtures of people into legible groupings.⁴ In structuring public gathering spaces, furniture redistributed power and competence, opened possibilities for some to greater participation in civic life, and inhibited the participation of others.

The following four chapters are case studies of interiors where Americans of

Wisman and Matthew E. Davis, "Degraded Work, Declining Community, Rising Inequality, and the Transformation of the Protestant Ethic in America: 1870-1930," *The American Journal of Economics and Sociology* 72, no. 5 (2013): 1075-105. Stuart Blumin provides a concise summary of the technological and economic forces driving urbanization in a global context in Stuart M. Blumin, "Driven to the City: Urbanization and Industrialization in the Nineteenth Century," *OAH Magazine of History*, 20 no. 3 (2006): 47-53.

² Lyn H. Lofland, *A World of Strangers: Order and Action in Urban Public Space* (New York: Basic Books, 1973), 96-117. Karen Halttunen explored middle-class manners and culture as a response to the urban stranger in antebellum America. See Karen Halttunen, *Confidence Men and Painted Women: A Study of Middle-Class Culture in America, 1830-1870* (New Haven: Yale University Press, 1982).

³ Lofland, *A World of Strangers*, 118-135.

⁴ In her call to historians to revisit the legacy of the West in American culture, Patricia Nelson Limerick noted that "the encounter of innocence with complexity is a recurrent theme in American culture," see Limerick, *The Legacy of Conquest*, 29.

diverse race, class, gender, and ethnicity occupied furniture in shared spaces for set periods of time: schools, offices, assembly halls, and trains. In each space, commercial furniture evolved from simple forms that supported flexible sociability to complex machine-like objects that controlled bodies and interactions. Each chapter examines the power of commercial furniture to categorize individuals and generate new rules of public behavior.⁵ Whether we inhabit a desk in a classroom or office, or occupy a seat in a theater or on a train, our body is enveloped, supported, manipulated, and controlled through the form and operation of furniture that is seldom noticed. Ubiquitous, intimate, and often inescapable, commercial furniture (furniture used outside the home by multiple users) is a powerful resource for elucidating politics in the public sphere. Between 1840 and 1920, American manufacturers produced furniture for the public sphere designed to teach behaviors conducive to productive workers and lucrative consumers.

Commercial furniture is a loosely defined industry term. The word ‘commercial’ derives from the Latin *commercium* for trade and describes a transactional function absent from retail furniture installed in the home. Institutions and businesses leased access to commercial furniture to occupants in exchange for monetary payment, taxes, or work. Although retail and commercial furniture often have cognate forms, the exchange function subjects the design of commercial furniture to additional political forces. This study focuses on four spaces emblematic of cultural innovation in the nineteenth century:

⁵ Owners and managers used furniture to identify, categorize and stereotype individuals by race, class, and gender, though their categorization was often incorrect and resisted by furniture occupants. On the challenges of using identity as an analytical framework see Rogers Brubaker and Frederick Cooper, “Beyond ‘Identity’,” *Theory and Society* 29, no. 1 9 (2000): 1-47.

public education, office work, commercial leisure, and rail travel. Several of the larger manufacturers produced furniture for two or more of these venues.⁶ Americans of diverse class, race and ethnicity engaged with commercial furniture in parks, libraries, restaurants, and a host of other venues.

Manufacturers designed didactic furniture that mediated among expectations of social reformers, executives, administrators, managers, users, and experts. Furniture regulated bodies, restrained behaviors, and put bodies on display to minimize social friction and maximize profit. Through variations in function, form, and arrangement, furniture divided the public commons along ethno-race, class, and gender lines that were often accepted but on occasion resisted. Commercial furniture became a culturally productive location where individual and groups negotiated new scripts for how to live, love, work, and play, and who was, and was not, deserving of full citizenship on the seats. By 1920, standard forms installed across the nation broadcast a negotiated vision of a modern American society in which the wealthy had nearly free reign, middle-class white men were restrained, middle-class white women were engaged, and immigrants, the working class and African Americans were marginalized.

The primary objective for this dissertation is to elucidate how furniture acted as an agent of cultural production. It seeks to answer questions of power and resistance that

⁶ Commercial furniture also operated in hotels, dormitories, department stores, libraries, restaurants, subways and buses, parks, rail stations, penitentiaries, hospitals and asylums, and in professional offices of lawyers and doctors. Though some of the manufacturers in this study also made furniture for one of those settings, there was less cross over. Schools, theaters, offices, and trains also followed a similar trajectory from sociability toward isolation. For an example of commercial furniture used in the professionalization of medicine see PJ Carlino, “The Art and Science of Examination Furniture.” *Modern American History* 2, no. 2 (2019): 237–47.

surround commercial furniture. How did executives, administrators, and managers of public interiors attempt to instantiate power through furniture selection and installation? How did social reformers influence the production of furniture designed to change behavior and shape bodies? Did users co-opt and contest power in the built environment? Why did individual manufacturers design furniture with similar functional characteristics for multiple venues in which the service provided (education, a job, entertainment, worship, and transportation) seemed so different? Was it primarily the impersonal pursuit of profit that created hierarchies of form and function in commercial furniture or did certain groups wield outsized power in the design process to craft interiors that met their own peculiar needs? Did users find personal expression in the seats of schools, offices, theaters, and trains, or did the furniture primarily control and tamp down individuality?

The secondary objective was to complicate simplistic notions of industrial design as a linear process from conception through use overseen by an individual with hegemonic power. Readers are encouraged to consider design a recursive process negotiated among a complex political field that includes multiple stakeholders that influence form and function. This aim originated from a fascination with objects manufactured in high volume before the twentieth-century advent of design as a profession. Every man-made object we use was designed by someone, and in industrial production, more likely designed within the consideration of a constellation of parties whose interests did not always align. Individuals encounter thousands of manufactured things every day that influence their sense of self and mediate their interactions with the world around them, yet they know little about the complex processes that led to their

creation. This dissertation asks readers to de-center the professional designer within design and open new spaces for additional agents, including the potential for users to challenge encoded messages by engaging with designed objects in unintended ways.

Historiography

In taking the object as a starting point of investigation, this dissertation falls within the broadly defined field of material culture. In the 1970s, the analysis of material culture as a specialization for historians coalesced from several disciplines: anthropology, archaeology, social history, and art history.⁷ Since the early twentieth century, anthropologists had closely analyzed, observed, and recorded things and their use to better understand social structures of primarily non-Western and non-elite cultures.⁸ Scholars interested in vernacular architecture and cultural landscapes of the United States applied the anthropological methods of close observation and detailed record keeping to describe repetitions and patterns of use that represented cultural norms among common folk.⁹ Pre-historic archaeologists had always studied objects as cultural signifiers, but the new field of historical archaeology contextualized the analysis of more recent objects using written records that tested and refined object-based theories, adding a new tool to

⁷ On the development of the field of material culture in the United States see Thomas J. Schlereth, *Material Culture Studies in America* (Nashville, TN: The American Association for State and Local History, 1982), 1-78; Thomas J. Schlereth, *Cultural History and Material Culture: Everyday Life, Landscapes, Museums* (Charlottesville: University Press of Virginia, 1992), 377-415; and Ann Smart Martin and J. Ritchie Garrison, *American Material Culture: The Shape of the Field* (Knoxville, TN: University of Tennessee Press, 1997), 1-20.

⁸ Franz Boaz, *Primitive Art* (New York: Dover, 1955), Clifford Geertz, *The Interpretation of Cultures* (New York: Basic Books, 1973), 412-453.

⁹ Dell Upton and John Michael Vlach, eds., *Common Places: Readings in American Vernacular Architecture* (Athens: University of Georgia Press, 1986), 3-26; and Henry Glassie, *Pattern in the Material Folk Culture of the Eastern United States* (Philadelphia: University of Pennsylvania Press, 1968).

the material culture scholar's toolbox.¹⁰ Moving in the opposite direction, the discipline of history had traditionally used archival and written records as sources, but in the 1970s, social historians used material culture to recover the histories of women, African American, ethnic Americans, and the working class – groups whose written records were less likely to have been preserved.¹¹ Finally, art historians assembled all of these tools into a loosely defined methodology for material culture studies. E. McClung Fleming introduced an analytical method later refined by Jules David Prown that encouraged scholars to deduce meaning directly from the object through observation, description, and speculation, and to test theories and hypothesis through archival and textual research.¹²

In their common interest in the lives of everyday people, many of the early practitioners of material culture studies focused on objects made by hand in low volume. Until the 1980s decorative art historians generated most of the scholarship on the products of industrial manufacturing. They found meaning in tracing innovation, authorship, and provenance, and establishing hierarchies of connoisseurship of low volume production that biased the field toward the visual interpretations of elite objects in museums and private collections.¹³ Because non-elite mass produced objects are not

¹⁰ James Deetz, *In Small Things Forgotten: The Archaeology of Early American Life* (Garden City, NY: Anchor Books, 1977), 30-31.

¹¹ See Thomas Schlereth, "Material Culture Studies and Social History Research," *Journal of Social History* 16, no. 4 (Summer 1983): 1111-144. Leo Marx, *The Machine in the Garden: Technology and the Pastoral Ideal in America* (New York: Oxford University Press, 1964); Ruth Schwartz Cowan, *More Work for Mother: The Ironies of Household Technology from the Open Hearth to the Microwave* (New York: Basic Books, 1983); and Ann Smart Martin, "Makers, Buyers, and Users: Consumerism as a Material Culture Framework." *Winterthur Portfolio* 28, no. 2/3 (1993): 141-57.

¹² E. McClung Fleming, "Artifact Study: A Proposed Model." *Winterthur Portfolio* 9 (1974): 153-73. Jules David Prown, "Mind in Matter: An Introduction to Material Culture Theory and Method," *Winterthur Portfolio* 17, no. 1 (1982): 1-19.

¹³ Some examples include: Metropolitan Museum of Art, *19th-Century America: Furniture and Other Decorative Arts* (New York: Metropolitan Museum of Art, 1970); Brooklyn Museum, *The*

typically considered art, approaching the manufactured object through an art historical lens de-emphasized or overlooked technologies of production and function-in-use and rarely investigated objects like commercial furniture - objects considered aesthetically unsophisticated, objects that could not be assigned to an individual author, and objects used outside of the home.¹⁴ In the late 1970s design historians formed a subset of material culture scholars with an interest in the study of the mass-produced object. The founding of the Design History Society in 1977 and the publication of the *Journal of Design History* in 1988 marked the scholarly initiation of the field. In 1980, economist John Heskett published *Industrial Design*, the first design history survey to include more than museum objects.¹⁵ Heskett argues against a canon of designed objects and emphasis on formalism and iconology and advocated design historians integrate the spheres of production and consumption. Following Heskett's initial foray, design historians began to

American Renaissance, 1876-1917 (Brooklyn: Brooklyn Museum, 1979); Jonathan L. Fairbanks and Elizabeth Bidwell Bates, *American Furniture, 1620 to the Present* (New York: Richard Marek Publishers, 1981); and Luke Beckerdite and Chipstone Foundation, *American Furniture* (1993-2015). *American Furniture*, the only journal devoted to American furniture history, primarily covers furniture made before 1850 by well-known designers for domestic use.

¹⁴ A few works appeared on common furniture. In the exhibition catalog *Chicago Furniture*, curator Sharon Darling linked an increase in the number of firms and amount of furniture manufactured in Chicago to growth of the city's industrial base and the development of new corporate occupations in skyscraper offices. In *Death in the Dining Room* (1992), Historian Kenneth Ames examined furniture used in Victorian homes to argue gendered postures structured power relations to align with new ideals of nationalism and gentility. In *Culture and Comfort* (1988), Katherine C. Grier examined mass-produced parlor furniture was used to constitute a middle-class identity. See Sharon Darling, *Chicago furniture: Art, Craft, & Industry, 1833-1983* (New York: W. W. Norton & Co., 1984), 123-139; Kenneth L. Ames, *Death in the Dining Room and Other Tales of Victorian Culture* (Philadelphia: Temple University Press, 1992), and Katherine C. Grier, *Culture & Comfort: Parlor Making and Middle-Class identity, 1850-1930* (Washington, DC: Smithsonian Institution Press, 1988).

¹⁵ John Heskett, *Industrial Design* (New York: Oxford University Press, 1980).

publish surveys that examined a broader range of objects and contexts.¹⁶ Design surveys introduced a general readership to the links between industrial design and social history, but lacked the space for detailed investigations of the politics surrounding creation and use and were hamstrung by pressure to include the traditional canon of designers and objects and an interest on sudden innovation over incremental development. For example, this dissertation demonstrates that nineteenth century commercial furniture manufacturers located measurements of the human body at the center of design decades before the 1930s identified by design surveys. Because commercial furniture did not rise to an aesthetic or technological level of interest and because there was no individual treatise on the human body and design, historians have presented nineteenth century design solely as a practice geared toward profit. The elision overlooks the agency of industrial design within nineteenth century social reform movements — to assimilate immigrant and non-white individuals, to empower women, and to foster a modern efficient society. The design evolution of quotidian objects in the nineteenth century remained an under-theorized subject in American design history.¹⁷

¹⁶ Arthur J. Pulos, *American Design Ethic: A History of Industrial Design to 1940* (Cambridge, MA: The MIT Press, 1983); Adrian Forty, *Objects of Desire: Design and Society Since 1750* (New York: Pantheon Books, 1986), Jeffrey L. Meikle, *Design in the USA* (Oxford: Oxford University Press, 2005).

¹⁷ On methods of design history see John Albert Walker and Judy Attfield, *Design History and the History of Design* (London: Pluto Press, 2013); Peter Dormer, *The Meanings of Modern Design: Towards the Twenty-first Century* (New York, NY: Thames and Hudson, 1990); Tony Fry, Clive Dilnot and Susan C. Stewart, *Design and the Question of History* (London: Bloomsbury Academic, 2015); and Kjetil Fallan, *Design History Understanding Theory and Method* (Oxford: Berg Publishers, 2010). In 1988 engineer and cognitive scientist Don Norman published *The Design of Everyday Things* a text on the psychological relationship between humans and objects. Though his text incorporated history of objects, it was not a systemic examination of the origins and relationship to culture but an appeal for the design of products that were more understandable and usable, see Donald Norman, *The Design of Everyday Things* (New York: Doubleday, 1990)

More recently, material culture scholars have addressed the power dynamics of vernacular furniture within specific environments outside of the home. In *Masonic Temples* (2006), William D. Moore investigates the performance of masculinity in architectural space. Moore analyzes furniture, trade literature, photographs, and building plans to argue Freemasons created didactic rooms for the education of initiates into masculine archetypes through the selection and arrangement of designed artifacts.¹⁸ The design of didactic spaces packaged notions of how to perform masculinity for reproduction in future generations. In *Building Power: Architecture of Surveillance in Victorian America* (2008), Anna Andrzejewski also explores the designed interior as a tool for shaping character and interaction.¹⁹ Andrzejewski identifies four dominant objectives of visual surveillance that operated through furniture arrangement in interior space: discipline, efficiency, hierarchy, and fellowship. Surveillance had more than a punishment function; Andrzejewski finds it also was used as a reciprocal force to bring individuals closer together in communion. Jessica Sewell extends the discourse on power in the built environment from interiors to public venues through an examination of sidewalks, streetcars, ferries, department stores, and public amusements in *Women and the Everyday City* (2011).²⁰ Sewell concludes that between 1880 and 1920, as women increasingly came into contact with men in public places they redefined the boundaries between feminine and masculine spheres and expanded the geography of domesticity.

¹⁸ William D. Moore, *Masonic Temples: Freemasonry, Ritual Architecture, and Masculine Archetypes* (Knoxville: University of Tennessee Press, 2006).

¹⁹ Anna Vemer Andrzejewski, *Building Power: Architecture and Surveillance in Victorian America* (Knoxville: University of Tennessee Press, 2008).

²⁰ Jessica Ellen Sewell, *Women and the Everyday City: Public Space in San Francisco, 1890-1915* (Minneapolis: University of Minnesota Press, 2011).

This material culture study uses the methods of vernacular architecture, cultural landscapes, and design history to reveal the mechanisms through which furniture shaped cultural norms from its conception, production, installation, and use. Rather than composing a descriptive or narrative history, it examines specific arenas and objects. The intent is not a narrowly focused investigation of form, rather it is to start from something concrete and work outward from close analysis of objects to their agency within complex networks of culture and technology — what design historian Kjetil Fallan defines as “a web of socio-design.”²¹ Conclusions are drawn within a multi-disciplinary framework using the theories of economics, social psychology, sociology, and anthropology.

The flow of power in architecture cannot be discussed without engaging with the work of philosopher and social historian Michel Foucault. In *Discipline and Punish*, Foucault describes a set of institutions that developed architectural forms and practices intended to regulate bodies in space.²² Foucault outlines the concept of “disciplinary technology” to explain how the design of schools, factories, asylums, and prisons epitomized the operation of power in modern society. Disciplinary technology, according to Foucault, molded individuals into the productive, restrained bodies demanded by industrial capitalism. Institutions used enclosing, partitioning, distributing, ranking, and surveillance to condition a new body. “Discipline produces subjected and practiced bodies, ‘docile’ bodies,” Foucault explained. By docility Foucault does not mean an

²¹ Kjetil Fallan, *Design History Understanding Theory and Method* (Oxford: Berg Publishers, 2010).

²² Michel Foucault, *Discipline and Punish: The Birth of the Prison* (New York: Vintage Books, 1995), 25-28. See also: Keith Hoskins, “Foucault under examination: the crypto-educationalist unmasked” in *Foucault and Education: Disciplines and Knowledge*, ed. Stephen J. Ball (London: Routledge, 2012), 29-56.

energated body but instead a body that was available to be trained. Subjugation through architectural design was intended as a tool for teaching new ways of being in the world.²³ In *The Body and Society*, Bryan S. Turner situates Foucault's theory of spatial discipline within a broader theory for the social construction of the body.²⁴ "Urban bodies were politically dangerous without the web of institutional regulation and the micro-disciplines of control," Turner clarifies.²⁵ Extrapolating from the architectural theories of Foucault and Turner, the following chapters show that furniture categorized and controlled bodies through five mechanisms: restraint, regulation, presentation, sensory experience, and ownership.

To clarify the power of furniture to manage social interaction I engage with theories developed by sociologist Erving Goffman. Goffman describes how individuals read sociability from non-verbal culturally specific messages encoded in body gestures and appearance.²⁶ For example, eye contact signals a willingness to engage while slouched shoulders signal disinterest or boredom. Actions — the way they walked, stood, sat, and behaved — were not merely symbolic, but constituted social hierarchy: "they are the shadow *and* the substance," Goffman argued.²⁷ But the universe of possible behaviors

²³ According to the *Oxford English Dictionary*, the primary meaning of docile is "apt to be taught; ready and willing to receive instruction, teachable." See "docile, adj.," *OED Online* (Oxford University Press, June 2019).

²⁴ Bryan S. Turner, *The Body & Society: Explorations in Social Theory*. 3rd edition (Los Angeles: SAGE, 2008).

²⁵ Turner, *The Body & Society*, 120.

²⁶ Erving Goffman, *The Presentation of Self in Everyday Life* (New York: Random House, 1959); and Erving Goffman, *Encounters; Two Studies in the Sociology of Interaction* (Indianapolis: Bobbs-Merrill, 1961). For a related discussion of how adjacencies operate in social interaction see Edward T. Hall, *The Hidden Dimension* (Garden City, NY: Anchor Books, 1966). Imogen Tyler, "Resituating Erving Goffman: From Stigma Power to Black Power," *The Sociological Review Monographs* 66, no. 4 (2018): 744-765.

²⁷ Erving Goffman, *Gender Advertisements* (New York: Harper & Row, 1979), 6.

and gestures was circumscribed by the design of commercial furniture to which individuals were assigned. Anthropologist Edward Hall examines the biological roots of social interaction in *The Hidden Dimension* (1966). Hall describes how humans adapt to complex problems by negotiating acceptable personal distances determined through the physical and visual separation of bodies, what was in the field of vision, and what was within the olfactory space.²⁸ Henri Lefebvre moves fluidly between concrete space and space as an abstract metaphor for social structure. In *The Production of Space*, Lefebvre explains the multiple aims of spatial strategy in a capitalist economy to sort and classify in the service of class formation: “to force worrisome groups, the workers among others, out towards the periphery; to make available spaces near the centres scarcer, so increasing their value” and “to find allies for the hegemonic class within the middle strata.”²⁹ All of these mechanisms came to the fore through the production and installation of commercial furniture.

Historians of technology provided guidance on explicating the multiplicity of agents that influenced manufacturer’s design decisions and the politics of furniture installation and use. Practitioners investigate the agency of artifacts to contribute to social change and the processes by which those artifacts succeed one another and diffuse through society. Drawing on his work in cognitive psychology, Donald Norman writes about design as a process for empowering objects to manipulate behavior through subconscious affordances and cognition. Norman defined affordance as “a relationship

²⁸ Edward T. Hall, *The Hidden Dimension* (New York: Random House, Inc., 1990).

²⁹ Henri Lefebvre, *The Production of Space* (Malden, MA: Blackwell Publishing, 1991), 373.

between the properties of an object and the capabilities of the agent that determine just how the object could possibly be used.” A simple bench illustrates Norman's definition of affordances: without a back or divisions between users a bench permits multiple postures and behaviors, the lack of separation allows flexibility to vary the number of occupants, and a bench is lightweight which permits rearrangement of space and therefore multiple uses of space. Having been trained in the affordances of furniture in one sphere, the user transfers learned behavior to related forms through subconscious cognition.³⁰ The identification of affordances and constraints is a means to revealing design intent – the hoped-for outcome for how furniture would operate on occupants. Manufacturers determined affordances influenced by a political field of actors best examined through links between science, technology, and culture. Historians Trevor Pinch and Wiebe Bijker encourages historians to exercise “interpretive flexibility,” when examining an artifact. For example, the wheels incorporated into an office chair may have been added to keep the occupant seated, to quiet the shuffling of feet, to facilitate office rearrangement, to make it easier to enter and exit a desk, to roll about the office and engage in conversation. The same design feature could fulfill the needs of owners, managers, and occupants. Individuals can have widely divergent expectations for an object and take away very different meanings from its features and use. A nuanced understanding of power dynamics requires the consideration of formal and functional elements within the desires and needs of manufacturers, institutional leaders, purchasers,

³⁰ Norman, *The Design of Everyday Things*, 11 and 28.

social reformers, managers, and occupants.³¹

This study adapts material culture methods by starting analysis with the formal characteristics of the object, followed by suppositions on how it operated and the means of production before moving on to research its role in shaping the social experience in the interior. Though aesthetics were an important signifier, it is also critical to understand how furniture was used to manipulate space, time, and motion to overcome disorder.³² I include an outline of the analytical procedure I applied to each object (**Appendix A**).³³

Where possible, I examine extant historic interiors and objects, but many everyday objects and interiors were not preserved. The few that do end up in museums are out of context anomalies, or pastiches assembled in railroad museums and historic schoolhouses. For objects that I could not examine directly, I derived evidence from a proprietary archive assembled from thousands of images published in journal and book illustrations, trade catalogs, advertisements, patents, architectural plans, and photographs of interiors and objects. I paid close attention to the biases inherent in visual culture –

³¹ Trevor Pinch and Wiebe Bijker, “The Social Construction of Facts and Artifacts,” in *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology* ed. Wiebe Bijker, Thomas Hughes, and Trevor Pinch (Cambridge, MA: The MIT Press, 2012), 11-44.

³² Space, time, and motion were the fundamental parameters engineers later used to analyze efficiency and bring order to chaotic practices through scientific management. Efficient practices of scientific management developed in conjunction with commercial furniture design. The ties are more explicitly examined in Chapter 2, though the importance of order and efficiency was important in all the venues in this study. The seminal work on the roots of scientific management in industrial design is Siegfried Giedion, *Mechanization Takes Command a Contribution to Anonymous History* (New York: Oxford University Press, 1948).

³³ Jules David Prown, “Mind in Matter,” 1-19. Also see Jules David Prown, “The Truth of Material Culture: History or Fiction,” in *American Artifacts: Essays in Material Culture*, ed. Jules David Prown and Kenneth Haltman (East Lansing, MI: Michigan State University Press, 2000), 11-28, and for another material culture approach to the designed object see W. David Kingery, *Learning from Things: Method and Theory of Material Culture Studies* (Washington, DC: Smithsonian, 1996).

staging, cropping, focus, lighting, and perspective. In *The Interpretation of Cultures* (1973) anthropologist Clifford Geertz advises scholars that to confidently deduce the meaning users derived from semiotic signs required contextualizing texts within the human environments in which they were used. To communicated meaning, I assembled evidence of artifacts and interiors into what Geertz called “thick descriptions” of lived experience that link the object to patterns of use.³⁴ I compare reconstructed experiences of use with the published prescriptions of manufacturers, government regulators, and experts, and firsthand accounts in newspapers and memoirs in search of dissonance that indicates resistance to the operation of power embedded in the object. Close reading recovered sensory infused environments of social interaction, adjacencies, postures, comforts, tactility, sound, smell, taste, and visual disturbances and delights — a world of everyday rituals through which individuals were socialized into or excluded from groups.

Though American Studies does not have a prescribed method, the dissertation shares some prevalent characteristics of recent American Studies scholarship.³⁵

Commercial furniture, the primary object of this study, is vernacular, in the sense it is common, shared, and used by every-day Americans, an interest of American Studies

³⁴ Clifford Geertz, “Thick Description: Toward an Interpretive Theory of Culture,” in *The Interpretation of Cultures* (New York: Basic Books, 1973), 3-30. See also Henry Glassie, “Meaningful Things and Appropriate Myths: The Artifact's Place in American Studies,” *Prospects: An Annual Journal of American Cultural Studies* 3 (1977): 1-49, Daniel Miller, *Material Culture and Mass Consumption* (New York, NY: B. Blackwell, 1987), and Christopher Tilley, “Objectification” in Christopher Tilley, *Handbook of Material Culture* (London: SAGE, 2006), 62.

³⁵ For a discussion of methods and historiography in American studies see Philip Deloria and Alexander I. Olson, *American Studies: A User's Guide* (Berkeley: University of California Press, 2017).

scholars. I do not ignore more expensive and exclusive versions, but I have placed equal or more emphasis on understanding the ordinary and everyday existence of non-elites who speak quietly in the historical record. The frontier, once a central theme of American Studies, has faded as a heuristic concept, replaced by an interest in borders: internal and external, local, regional, and national. I apply the analytical framework of bordering to furniture as a tool for the creation, internalization, and resistance of physical boundaries (personal space) and psychological boundaries (group affinity). Scholars consider borders and borderlands (spaces adjacent to borders) liminal spaces that instill a sense of inclusion and exclusion through conflict and spatial practices. “Borders are set up to define the places that are safe and unsafe, to distinguish *us* from *them*, a narrow strip along a steep edge. A borderland is a vague and undetermined place created by the emotional residue of an unnatural boundary,” Gloria Anzaldua, wrote of the U.S. – Mexican border.³⁶ Though most studies engage with geographically defined national borders, furniture was used in interior space to create similar “unnatural” boundaries between people that distinguished group affiliation.

The dissertation appears to move against the flow of recent American Studies scholarship in positing a kind of national culture of manufactured objects when the idea of a monolithic American identity has come under increasing scrutiny. Though furniture was standard across the nation in many of the spaces studied and therefore had a

³⁶ Gloria Anzaldua, *Borderland / La Frontera: The New Mestiza* (San Francisco, CA: Aunt Lute Books, 1987), 3. For additional examples of the border and borderlands as a site of cultural production see Lissa Wadewitz, *The Nature of Borders: Salmon, Boundaries, and Bandits on the Salish Sea* (Seattle: University of Washington Press, 2012), 122–43; and Nicole M. Guidotti-Hernández, “Borderlands Scholarship for the Twenty-First Century,” *American Quarterly* 68, no. 2 (June, 2016): 487-498.

nationalizing effect, I am sensitive to regional differences in spatial practice and meaning. Much of American Studies scholarship has also moved past a tendency to situate Puritan New England as the fountainhead of a monolithic national character, yet this dissertation focuses more on the Northeast than other areas of the nation. The regional focus is not because I believe social relations in New England can stand in for the nation, but because industrial manufacturing of many of the objects in this study originated in New England. Understanding its regional history is one of the keys to decoding the agency embedded in furniture.³⁷

1840–1920: The modernization era

The limiting dates of this dissertation are 1840, when mass-production of commercial furniture began, and 1920, when standardization of commercial furniture solidified. Between 1840 and 1920 the United States transformed from a dispersed, primarily rural and agriculture society split into slave-holding and non-slave-holding factions to an ostensibly unified, free, urban, and industrial society. Education, work, entertainment, health care, and worship moved from private homes to public locations where individual behavior was subject to public scrutiny. Vast corporations, colossal cities, and national bureaucracies arose. Middle-class white men, previously permitted behavioral freedom in public, were constrained; while middle-class white women, previously confined primarily to domestic spaces achieved greater independence to

³⁷ Boston was the home to the first centralized national market place for machine-made furniture. The Boston Furniture Exchange (also known as the New England Furniture Exchange) was established in 1874 with a membership of about 150 manufacturers. Until the late 1880s when the industry moved West, Boston was the center of wholesale distribution of furniture in the United States. *The Furniture Record*, January 1928, 42-45.

participate in public life. Immigrants, the working class, and African Americans were exploited and marginalized. Instead of the voluntary association of equal men espoused by Jacksonian rhetoric, civil society became the subject of commercial and economic forces that formed distinct economic classes.³⁸

Widening income inequality that accompanied modernization was a primary driver of class formation. In a study of historic income distribution in the United States, economic historians Peter H. Lindert and Jeffrey G. Williamson identified the era between 1800 and 1860 as the first major period of rising income inequality in the United States. In 1800, the United States was the most income egalitarian nation in the world; by 1860 its egalitarianism had been replaced with a wide income gap between the wealthy and poor in the rapidly growing cities. In the 19th century, the period of widening inequality reached its peak between 1850 and 1860, a decade that coincides with the initial mass-manufacturing of most of the forms of furniture in this study. A middle-class consciousness arose in coordination with concern over a growing underclass and a more distant aristocratic class. Aware of the potential for class conflict and the opportunity to draw greater income from growing urban populations, institutions and manufacturers developed new forms of furniture that grouped and separated individuals in the public sphere.³⁹ The goal of elites who controlled the venues such as theaters, trains, and offices

³⁸ On the disruption and transformation of civil society in the nineteenth century see Joel Shrock, *The Gilded Age. American Popular Culture through History* (Westport, CT: Greenwood Press, 2004), 1-25; Charles Nelson Glaab and A. Theodore Brown, *A History of Urban America*, 3rd ed. (New York: Collier Macmillan, 1983), 74-93; and Don Slater, *Consumer Culture and Modernity* (Cambridge, U.K.: Polity Press, 1997), 8-33.

³⁹ Peter H. Lindert and Jeffrey G. Williamson, *Unequal Gains American Growth and Inequality Since 1700* (Princeton: Princeton University Press, 2016), 1-12, 96-141. Unlike previous economic historians that have focused on either the production side or the expense side to determine GDP,

was to accommodate the rapidly expanding bourgeois middle-class without alienating working class and wealthy patrons. In *The Emergence of the Middle Class*, Stuart Blumin described a lack of terminology in antebellum America for those who would later compose the middle class.⁴⁰ Lacking a name or a clearly defined cultural history, Blumin argued that the American middle class came to be defined and constituted through differences in social context. Management historian Sean Wilentz identified a similar class consciousness in the first half of the nineteenth century among laborers whose self-understanding of being part of a working-class developed simultaneously and in reciprocity with the middle- and upper-class as people of different ranks came together in increasingly predictable ways.⁴¹

In public spaces, Americans repeatedly came together in interiors arranged with groups of standard furniture designed to foster a predictable experience. To inhabit a spatial zone demarcated by furniture form and function was a context in which individuals came to know themselves and at times to resist their assigned place in the hierarchy of civic society.

Chapter outlines

The following four chapters explore the use of furniture in schools, offices, theaters, and trains. We will see how classroom furniture was designed to prepare

Lindert and Williamson build “social tables,” that aggregate income by occupation and location. They assert that “the income approach exposes how income was distributed by socio-occupational class, race and gender, as well as region and urban rural location.”

⁴⁰ Stuart M. Blumin, *The Emergence of the Middle Class: Social Experience in the American City, 1760-1900* (New York: Cambridge University Press, 1989), 4-7, and 285-290.

⁴¹ Sean Wilentz, *Chants Democratic: New York City and the Rise of the American Working Class, 1788-1850* (New York: Oxford University Press, 2004), 11-17.

children for future occupations in the new economy, how office furniture came to be gendered and classified to maximize efficient practices, how the furniture in the interstitial spaces of theaters, churches, and stadiums segregated, restrained, and supported bodies to maximize income. Finally, we will conclude with an examination of inter-city trains in which furniture supported all the functions of living in a manner that revealed clear ethnic, class and racial prejudices.

The chapters are not intended as complete histories of education, work, leisure, and transportation in nineteenth-century America. Laws, finance, and corporate practice shaped those institutions, but I only describe political controversies, economics, and business history to contextualize the power of the objects and interiors to shape cultural practices. It is not because I think those aspects unimportant, but because other scholars have investigated those areas more thoroughly in this period. Footnotes at the beginning of each chapter provide a brief historiography of key texts with a broader perspective on the history of the institution. I hope this study provides a new perspective that reinforces and challenges those investigations.

The first two chapters examine schools and corporate offices, institutions where furniture was used by an individual for one year or more and only indirectly situated within capitalist exchange. Users did not pay for access monetarily but were awarded access to furniture in exchange for work deemed satisfactory by supervisors. Chapter one examines the history of school furniture and complex power relationships among education reformers, physicians, manufacturers, civic leaders, teachers, parents, and children. School furniture designed to meet the prescriptions of reformers for focused,

healthful bodies also educated the bodies of American children in preparation for roles expected of them in the developing industrial society. Different forms marketed for rural and urban schools reproduced social divisions fundamental to American society. Standardized furniture eased integration of girls, immigrants, and African Americans but challenged the success of poor black and white students in the South and frustrated the attempts of twentieth-century progressive education reformers to reformulate teaching methods for the new century. Furniture in schools operated on children's bodies mainly through physical restraint, separation, and visibility, subjecting students to the surveillance of teachers and teachers to the surveillance of students. Chapter one spends the most time in Boston because it was the seat of both the common school movement, the place where mass produced commercial school furniture originated, and the epicenter for debates over school integration. In the 1850s, the first generations of school children graduated from manufactured desks of common schools with knowledge and discipline to enter a burgeoning corporate economy.

Chapter two explains how manufacturers designed office furniture that gendered, racialized, and class-stratified clerical office environments in pursuit of efficiency and profit. As Victorian moral strictures on middle-class white women in public loosened, furniture helped corporations feminize clerical work. Manufacturers authored and published textbooks and journals and standardized systems to undermine local and vernacular knowledge that had preserved the domain of clerical work for white men. To reduce the potential for friction in the office, manufacturers designed a hierarchical selection of desks and seats that differed in the amount of personal storage, material, and

ornamentation: the most domestic appearing and least functional for executive suites; and the least domestic and most machine-like in female dominated file rooms. Furniture operated through differences in form and function between men and women, and managers and clerks, which gendered and classed furniture forms. While furniture design eased the entry of middle-class white women into the clerical workforce, manufacturers produced promotional materials that contributed to the conceptualization of office work as a white-only occupation. By 1920, standard furniture established practices and demographics that lasted through the twentieth century.

The second half of the dissertation examines theaters and trains, institutions that rented furniture for a few hours to a few days to a broad public. Individuals paid different prices for the same basic service with value attenuated by differences in the sensory experience. Chapter three discusses theaters, defined expansively to include dramatic theaters, opera houses, musical and variety theaters, movie palaces, churches, and stadiums. Manufacturers produced chairs designed to attract and retain a middle-class audience by appealing to the needs and desires of white women. Seats physically supported the body of corseted well-dressed woman and provided storage for the showy accoutrements of theater attendance. Differentiated by amount and type of upholstery, seating capacity, ornamentation, movability, access pathways, and vertical and horizontal location, seats signaled a spatial and psychological separation of bourgeois and wealthy patrons from the working class, immigrants, and African Americans.

Chapter four examines railroad passenger cars, the interior in this study with the greatest potential for tensions around race, class, and gender mixing as unlike the other

spaces studied, the rail car interior traveled through different regions with different value systems. Like theater owners, the proprietors of railroads sought to increase ridership by appealing to middle-class white women while retaining a separate space for their elite clients, and the potential for income from working-class and African American passengers. Seating and fixtures with a range of seating capacities, upholstery types, postures, degree of privacy, surveillance, flexibility and freedom of movement segregated middle-class women and their companions from non-white and lower-fare passengers, and from men traveling without a female companion. Long-distance immigrant and second-class cars offered only the most minor comforts for a population with little choice. Theater seats and railcar passenger seats that segregated people and regulated bodies along ethno-racial and class lines became powerful locations for resistance to stigmatization and protest of social boundaries.

The design developments in the following chapters fascinate me, but I am particularly interested in how the lessons of design history can be applied to address contemporary social challenges. Political, racial, and economic polarization within the public commons has garnered much recent attention. Twenty-first century institutions, both physical and virtual, impose multiplicity: categorizing individuals within ever narrower gradations of class, gender, and race. Much of the blame for social fracturing has been placed on changes in the structure of work, communication, globalization, and a shift from manufacturing to an information and service centered economy – changes that parallel the causes of nineteenth century disruption of social structures. Understanding how and why inequality and oppression were ingrained into the fabric of the twentieth-

century commons, as well as how homogenizing institutions and groups attempted to resist, counter, and ameliorate the effects of social fracturing, offers lessons for rebuilding the commons in the twenty-first century.

Chapter 1 Schools: Uneasy bodies, uneasy minds

Tucked away among the rolling hills of a park in Brookline Massachusetts stands the tiny red one-room Putterham school museum, and inside its centuries-old school room (in use from circa 1800 until 1920), sits the peculiar child-size desk and chair that launched me upon this investigation (**Fig. 1.1**). Initials etched and inked across the scratched wooden desktop, the seat eroded by the restless rubbing of generations of fidgety bodies, with a peculiar pipe for a pedestal, rigidly bolted to the floor, these enigmatic objects ignited a barrage of questions: Who sat it in it and what did it feel like to use for hours on end? Why make it out of such unusual materials, and why bolt it to the floor? Who made it and when? The school desk and chair seem insignificant artifacts for the study of American history, mute compared to explicit messages in teaching manuals, lesson plans, and textbooks; embedded in its quotidian form, however, is the hidden history of a powerful technological system — the classroom — designed to prepare the bodies of children for participation in the emergent American industrial democracy.

The United States experienced profound changes in the pattern of life in the second half of the nineteenth century. The nation expanded from a handful of states with close ties to England into a world power that reached across the Western hemisphere from coast to coast. Radical changes in the structure of work, from farm to factory, from seasonal to hourly, and from handcraft to machine production drew migrants from abroad and from the American countryside to the promise of prosperity in cities. To address many of the unforeseen circumstances of rapid urbanization, immigration, and

technological change — poverty, crime, disease, and racial discrimination — Americans expanded government bureaucracies and institutions. Poorhouses, prisons, hospitals, asylums, and schools took over responsibility from the family and religion in providing charity, discipline, health care and education. Classroom furniture became a tool to establish structures and boundaries suited to future occupational roles in manufacturing and corporate work. In making design decisions of form and function, school furniture mediated between the desires of school reformers, physicians, administrators, parents, teachers, politicians, and civic leaders. Furniture physically manifested social forces of inclusion and exclusion, freedom and control, protection, and punishment.¹

This chapter analyzes a series of classroom furniture forms and interior arrangements in roughly chronological order from the early nineteenth century to the 1920s. The history of education in New England figures prominently in the chapter because both the common school movement to provide a universal education for all American children and the factory-made school furniture industry originated in the region and spread to the nation. Classroom design was critical to Horace Mann, one of the

¹ In *Discipline and Punish*, Michel Foucault located nineteenth-century public schools among institutions that sought to regulate bodies through spatial and temporal controls. In his analysis, Foucault emphasized the power of government institutions. A close examination of the history of school furniture will show that the power of government institutions to shape bodies was mediated by furniture manufacturers, physicians, parents, teachers, and local and national demographics. See Michel Foucault, *Discipline and Punish: The Birth of the Prison* (New York: Vintage Books, 1995), 25-28, and Michel Foucault, "Governmentality," in *Power: The Essential Works* 3, ed. James Faubion, Trans. Robert Hurley (New York: New York Press, 1994), 201-238. See also Keith Hoskins, "Foucault Under Examination: The Crypto-educationalist Unmasked" in *Foucault and Education: Disciplines and Knowledge*, ed. Stephen J. Ball (London: Routledge, 2012), 29-56; and Bryan S. Turner, *The Body & Society: Explorations in Social Theory* 3rd edition (Los Angeles: SAGE, 2008), 1-16. The chapter also builds on a foundation of the theories of Edward T. Hall and Henri Lefebvre on the intersection of physical and social space. See Edward T. Hall, *The Hidden Dimension* (Garden City, NY: Anchor Books, 1966) and Henri Lefebvre, *The Production of Space* (Malden, MA: Blackwell, 2009), 53-59.

architects of the common school movement. In his first report as Massachusetts Secretary of Education in 1838, Mann blamed poor student concentration on generally disorganized classrooms. “In rooms of the common construction, I do not believe that more than one half of the time is available for study,” he worried. Mann called for new classroom designs that would instill in children the capacity to perform quiet, disciplined, and focused work for extended periods of time. “Not only, therefore, ought the desire of strengthening this power to be inspired, but the arrangement of the room and the tactics of the school should be made to contribute, unconsciously to the children, to the same effect,” he recommended.² Through the twentieth century, mass-manufactured school furniture stubbornly resisted pedagogical change and produced bodies prescribed by Mann in the nineteenth century: interchangeable workers accustomed to the upright posture conducive to passive, focused, and synchronized work. In 1915, seventy-five years after Mann called for school furniture that would create docile bodies, progressive educators Evelyn and John Dewey lamented the dismal success of American mass-produced school furniture. The Deweys wanted children to work in a collaborative, creative, active, and expressive manner suited to the entrepreneurial twentieth century, not by rote, in lockstep, isolated from one another. In *Schools of Tomorrow*, the aggrieved Deweys wrote that “to the great majority of teachers and parents the very word school is synonymous with “discipline,” with quiet, with rows of children sitting still at desks and listening to the teacher, speaking only when they are spoken to.”³ Uncovering

² Horace Mann, *Report of the Secretary of the Board of Education on the Subject of School Houses* (Boston: Dutton and Wentworth, 1838), 27.

³ John Dewey and Evelyn Dewey, *Schools of Tomorrow* (New York: E. P. Dutton & Company, 1915), 132.

how and why classroom furniture came to wield unassailable power over pedagogy reveals inescapable structures that continue to shape the landscape of American education and the nature of work.

This opening chapter draws heavily upon the paradigmatic example of disciplinary institutional architecture — the Panopticon.⁴ A prison design proposed by philosopher Jeremy Bentham in the eighteenth century, the Panopticon arranged prisoners in a cylindrical grid facing a central guard tower (**Fig. 1.2**). Guards held an unobstructed view of prisoners' cells, but prisoners could see only a small window through which the guards *might* be watching. Bentham theorized that the design encouraged prisoners to internalize a feeling of continuous surveillance that would continue after release to ensure socially acceptable behavior. Foucault argued prisons moved away from public discipline applied to the body and toward psychological discipline typified by the Panopticon. Schools also reduced corporal punishment but did not standardize a Panopticon arrangement because surveillance in schools was intended to flow in both directions. Children were to internalize discipline and become comfortable with visible supervision in future occupations. The facilitation of two-way surveillance – to encourage scrutiny and emulation of ideal behavior and bodies and make evident and discourage inappropriate behavior and problematic bodies – was a function of commercial furniture later adapted to offices, theaters, stadiums and on trains.

⁴ Foucault, *Discipline and Punish*, 201-203.

The Bench

Common schools began within the Puritan culture of Massachusetts in a civic society predicated on educated clergy and literate citizens. In 1789, legislators in Massachusetts enacted the first state law to provide near-universal access to education for boys and girls between the ages of seven and fourteen.⁵ In the first schoolrooms, students sat on shared backless benches in rudimentary structures — drafty log cabins in rural areas, and multipurpose commercial spaces, churches and meetinghouses in larger towns (**Fig. 1.3**). Schools seldom provided desks. If work surfaces were provided, they were crude boards. Students often wrote on slates balanced on their laps or bench tops. Dame schools sometimes educated girls separately within a room in the home of a school mistress. Children are portrayed actively running amok in late-nineteenth century caricatures of early school rooms, but the images do not display the painful suffering on poor furniture described in memoirs. In 1860, the president of Amherst College recalled the school he attended in the 1790s:

They had writing-desks, or rather, long boards for writing, on two or three sides, next to the wall. The benches were all loose; some of them boards, with slabs from the saw-mill, standing on four legs, two at each end. Some were a little lower than the rest, but many of the smaller children had to sit all day with their legs dangling between the bench and the floor. Poor little things nodding and trying to keep their balance on the slabs, without any

⁵ To every town containing fifty or more families, the legislature provided funding for a schoolmaster to teach reading, writing and arithmetic, as well as “piety, justice, and a sacred regard to truth, love to their country, humanity and universal benevolence, sobriety, industry and frugality, chastity, moderation and temperance.” Massachusetts law established a minimum length for a school year (typically six months) but empowered civic and religious leaders to design each town’s curriculum and school environment. “Recommendations to School Masters... October 15, 1789,” *The American Museum or Universal Magazine* VII, Appendix II, 1790): 44. *Acts and Laws of the Commonwealth of Massachusetts* (Boston: Adams & Nourse, 1894), 417.

backs to lean against, how I pity them to this day.⁶

Teachers did not lecture but assigned individuals and groups of students passages to read, copy, memorize, and recite. Inexpensive benches were adequate for self-directed reading, but also fostered sociability and distraction. Uncomfortable to sit upon for hours at a time, children were tempted to recline and stand on benches, and to converse and move about the room in a manner that violated the rules of the classroom.⁷

In 1800, slightly more than twelve percent of school aged children (aged four to fifteen) attended the seven grammar schools (traditionally Latin, Greek, and Hebrew) and writing schools Boston had erected. Several factors discouraged more widespread enrollment: the state law required children be literate to enter grammar schools, but working-class parents lacked the inclination, ability, or time to teach their children to read and write; many families suffered when income from a child's labor was lost to time spent in school; and wealthier children traditionally attended private academies or met with private tutors rather than mix with less well-off children. Consequently, only a sliver of mainly middle-class children attended the public schools. Nearly eighty percent of Boston children were taught through apprenticeship or received no formal education.⁸

⁶ Letter to Henry Barnard from Herman Humphrey, December 12, 1860, in Henry Barnard, "Schools as They Were Sixty Years Ago," *American Journal of Education* 13 (March 1863): 126. Memoirs of intellectuals may have been biased, as they may have exaggerated the poor conditions to emphasize how far education had evolved in New England. For a similar account of the same era from a woman's point of view see Sarah Anna Emery, *Reminiscences of a Nonagenarian* (Newburyport: William H. Huse & Co., 1879), 20, 48.

⁷ Barnard, "Schools as They Were Sixty Years Ago," 136, 138, 142. Henry Barnard also published several similar reminiscences in a history of American education. See Henry Barnard, *First Century of National Existence; The United States as They Were and Are* (Hartford: L. Stebbins, 1875), 376, 381, 525.

⁸ After the age of fourteen, only students who demonstrated scholarly excellence, and whose parents could afford the tuition, went on to the Latin High School. Stanley K. Schultz, *The Culture Factory: Boston Public Schools, 1789-1860* (New York: Oxford University Press, 1973), 23-24. Schulz's

As the city grew, civic leaders worried that uneducated children would grow into an impoverished, dangerous, and permanent underclass. Boston's population swelled from 24,937 in 1800 to 43, 298 by 1829, a seventy-four percent increase. Though the percentage of poor citizens did not increase, their numbers grew apace with the population. The strain on the city's charitable institutions forced philanthropic citizens to open a new almshouse to care for the indigent. The city became crowded and dense, filled with an increasing number of poor foreign immigrants.⁹

A group of wealthy Bostonians, concerned over the ramifications of demographic change, organized the Boston Society for the Moral and Religious Instruction of the Poor in 1816. The society organized schools to teach poor 5- to 7-year old children the basic literacy needed for entry into public grammar and writing schools alongside the upright morals and values they believed the children lacked. They met Sundays (the one day of the week likely to be free from work obligations) in churches, rented halls, and public-school rooms. Sunday schools were the first systemic attempt at bringing universal access to education in Boston. The society hoped to remove children from the "corrupting" environment of Boston's West End and North End neighborhoods where, they believed, children spent their days at work in stores and small factories or at play in dirty, crowded crooked streets.¹⁰ In a letter published in a local Boston newspaper in 1817, a concerned

book is a history of the development of public schools in Boston and how the city served as a model for schools across the nation.

⁹ Almost twelve percent of the new arrivals between 1800 and 1829 were immigrants, see Schultz, *The Culture Factory*, 23-24.

¹⁰ *Boston Recorder*, October 7th, 1817. Moralists assumed parents who worked twelve to sixteen-hour days six-days-per week had little time to supervise their children and preferred to spend their off hours on Sunday in saloons and gambling dens. See Edwin Wilbur Rice, *The Sunday-School Movement, 1780-1917, and the American Sunday-School Union, 1817-1917* (Philadelphia:

Bostonian predicted Sunday schools would protect citizens from mischievous and boisterous urchins and be “the means of saving his house from the midnight robber, or some valuable life from the midnight assassin...so that neighborhoods are still and quiet, which before were disturbed by the noise and profane language of many of these unrestrained and vicious children.”¹¹

Massachusetts’s state law charged both urban and rural schools with education of responsible and productive citizens, but only urban schools were additionally mandated to protect civil society. As one Sunday school leader explained in 1818, “Our objects in attending to Sunday schools, are, to reclaim the vicious, to instruct the ignorant...we believe in this way we strike at the foundation of the evils incidental to society...through the children, not unfrequently the parent is reclaimed.”¹² The additional burden on city schools contributed to a veneer of control and protection overlaid on the project of urban education absent from rural schools that did not face the burgeoning working-class population collecting in Boston.

Sunday school instructors discovered that once-weekly meetings were insufficient to teach basic literacy and moral values. Overwhelmed, within one year 186 citizens

American Sunday-school union, 1917), 40-55.

¹¹ “Sunday Schools,” *Boston Recorder*, April 29, 1817. Among United States cities, Boston was slow to institute Sunday schools. In Philadelphia in 1791, physician Benjamin Rush and economist Matthew Carey were among the founders of the first Sunday school for poor children based on English models. A physician and an economist were well suited to prepare the bodies and minds of young Americans for their future as productive citizens. The society was part of an international Sunday school movement charged with saving the moral lives of children.

¹² William Thurston in behalf of the Committee of Boston Society for the Moral and Religious Instruction of the Poor to Turner Phillips, Esq., Chairman of the Honorable Board of Selectmen, Boston, March 18, 1818 in Joseph M. Wightman, *Annals of the Boston Primary School Committee* (Boston: Geor. C. Rand & Avery, 1860), 13.

petitioned the Boston town meeting for the creation of publicly funded primary schools. The signatories included prominent social reformers William Ellery Channing, Thomas Dawes, Samuel T. Armstrong, and William Ladd. The petitioners called for primary schools to prepare children between the ages of four and seven to meet the admissions requirements for public grammar schools.¹³ The selectmen granted the petition and in one year added twenty public primary schools. The new schools opened a wider gateway to education.¹⁴ In 1820, 1,666 children attended 34 primary schools across the city.¹⁵ Primary schools met several days per week, though there were no compulsory attendance requirements. Teachers paid for rented classroom space and rudimentary benches from their meager salaries.¹⁶

In 1817, Charles Bulfinch, noted architect and chair of a subcommittee on primary schools, boasted that children in Boston schools became “qualified to engage in mercantile and mechanical professions, are disciplined in the principles of moral and religious truth, and are formed to make valuable members of the community.”¹⁷ When Bulfinch made that declaration, most of the children in the city did not attend its schools.

¹³ All the petitioners were male, see “Petition to the town Selectmen May 25, 1818,” in Wightman, *Annals of the Boston Primary School Committee*, 30.

¹⁴ Wightman, *Annals of the Boston Primary School Committee*, 33; and Schultz, *Culture factory*, 39-41.

¹⁵ Wightman, *Annals of the Boston Primary School Committee*, 46-49, 54, and 303.

¹⁶ Other than the Latin School, a kind of high school, and seven existing grammar schools, Boston did not build another school until 1834. See Schultz, *Culture Factory*, 84-86; Wightman, *Annals of the Boston Primary School Committee*, 42.

¹⁷ Charles Bulfinch, “Primary Schools,” November 3, 1817, in Wightman, *Annals of the Boston School Committee*, 22-27. The statement was made in denial of an 1817 petition for primary schools. Bulfinch, writing for a subcommittee, believed the petition would require too many individual schools at too great an expense. He also wrote that when parents had to pay a small stipend, they were more invested in their child’s education. Finally, he and the members of the subcommittee believed most parents had the ability and the leisure to educate their children to the level necessary for entry into the grammar schools.

However, the taxpayer-funded primary schools instituted three years later put in place a system designed to transform all the children of Boston into the valuable members of the community Bulfinch envisioned. In his 1823 inaugural address, Mayor Josiah Quincy celebrated two decades of Boston's efforts at public education:

Be it the endeavor of this metropolis to educate better men, happier citizens, more enlightened statesmen; to elevate a people thoroughly instructed in their social rights, deeply imbued with a sense of their moral duties; mild, flexible to every breath of legitimate authority; unyielding as fate to unconstitutional impositions.¹⁸

As primary school graduates poured into grammar schools, members of the Boston school committee grew concerned about the increase in cost required to pay additional teachers. In 1824 a subcommittee recommended adoption of the monitorial system to minimize the added expense. The system was developed in England by Joseph Lancaster to educate a high volume of poor children at low cost.¹⁹ In the monitorial system, a single paid schoolmaster assigned more advanced students as unpaid monitors who each guided eight to ten students of varying age, grouped by level of knowledge. New York (1805), Philadelphia (1817), Washington, DC (1812) and most of the largest cities in the United States experimented with the monitorial system in the early nineteenth century.²⁰

¹⁸ Josiah Quincy, "The Mayor's Inaugural Address, May 1823," in *A Municipal History of the Town and City of Boston During Two Centuries: From September 17, 1630, to September 17, 1830* (Boston: C. C. Little and J. Brown, 1852.), 377.

¹⁹ "Semi-Annual Report of the Standing Committee to the Primary School Committee, April 20, 1824," in Wightman, *Annals of the Boston Primary School Committee*, 82-95. Joseph Lancaster, *The British System of Education* (London: Royal Free School, 1810).

²⁰ Dell Upton, "Lancasterian Schools, Republican Citizenship, and the Spatial Imagination in Early Nineteenth Century America," *Journal of the Society of Architectural Historians* 55, no. 3 (September 1996): 238-253.

The Table

In a monitorial classroom, a master supervised one hundred or more students through division of labor and furniture arranged to organize space and control circulation (**Fig. 1.4**).²¹ Monitors reported to schoolmasters who supervised from a raised platform. Students faced one another seated on benches on either side of a long table. Tables that spanned the width of the room restricted student circulation to the side wall of the room where each group was assigned a semi-circular space marked on the floor.²²

In 1826, the editor of *The Journal of Education* published William Fowle's recommendations for an improved monitorial plan (**Fig. 1.5**). Fowle, schoolmaster for the first monitorial school in Boston, found two "defects" with Lancaster's plan.²³ The first fault was that closely spaced tables and benches restricted monitors to outside aisles from which they could not effectively supervise students seated on the interior of benches. The second fault was that the double-sided tables oriented half the students away from the front of the room and towards one another – "a serious evil, were one sex only present, but much more serious, when, as in most of our country schools, both sexes are in the

²¹ Henry Oliver proposed 250 to 300 students per school master for "crowded cities and in extensive manufacturing districts." See Henry K. Oliver, "Lecture VIII: The Advantages and Defects of the Monitorial System" in *The Introductory Discourse and Lectures Delivered in Boston Before the Convention of Teachers and Other Friends of Education Assembled to Form the American Institute of Instruction, August, 1830* (Boston: Hilliard, Gray, Little and Wilkins, 1831): 209-212. At Boston's Boylston School, one schoolmaster was teaching 200 students via the monitorial method, but the average number of scholars per schoolmaster in Boston was thought to be 100 per teacher. See *Report of a Sub Committee of the School Committee Recommending Various Improvements in the System of Instruction* (Boston: Press of Nathan Hale, 1828), 32-33.

²² For an analysis of the spatial relationship of the Lancasterian system as it related to republicanism and citizenship see Upton, "Lancasterian Schools," 238-253.

²³ William Russell, *Manual of Mutual Instruction Consisting of Mr. Fowle's Directions for Introducing in Common Schools the Improved System Adopted in the Monitorial School* (Boston, 1826), 5.

same room, and placed opposite to each other,”– Fowle warned.²⁴ In his revised plan, Fowle separated desks and seats to open a pathway for monitors to reach interior students. To help the master “keep a vigilant eye on the whole school,” single sided desks oriented all children toward the front of the room.²⁵ Individual seats nailed to the floor replaced long benches to assign each child a precise location isolated from other children. Fowle claimed a school master could teach three hundred or more students with controls built into his plan.²⁶ In 1828, Mayor Quincy recommended the school committee gradually shift all grammar and primary school classrooms to Fowle’s low-cost monitorial plan.²⁷

By 1829, Boston had opened twelve primary schools and several grammar schools that followed the Fowle modified monitorial plan, but the system came into disfavor for ineffective instruction, insufficient oversight and discipline, and disorderly and noisy environments.²⁸ Teachers resisted the additional students under their care and

²⁴ Children attended Fowle’s school for 5 hours each day. Fowle lists several other schools, including the new girl’s high school as set up on a monitorial plan. See William Russell, *Manual of Mutual Instruction Consisting of Mr. Fowle’s Directions for Introducing in Common Schools the Improved System Adopted in the Monitorial School* (Boston, 1826), 7, 85. For a description of the operation of another New England monitorial school see Leah Wellington, *History of the Bowdoin School, 1821-1907* (Manchester, NH: The Ruemely Press, 1912), 8-11.

²⁵ Russell, *Manual of Mutual Instruction*, 17.

²⁶ Though he believed his plan could scale up to 300 children, Fowle taught one hundred students in his monitorial high-school and presented a plan for thirty-five students.

²⁷ Josiah Quincy, Report of a Sub-Committee of the School Committee Recommending Various Improvements in the System of Instruction in the Grammar and Writing Schools of this City (Boston: Nathan Hale, 1828), 33-34. For a biography of Fowle see “William Bentley Fowle,” *The American Journal of Education* (June, 1861): 597-610.

²⁸ Monitorial schools continued in some cities for another two decades. Henry Barnard published plans for an adapted monitorial school for New York Public School 17 in 1847. “School-Houses” *Journal of the Rhode Island Institute of Instruction* Vo. 2, no. 5 (September 15, 1847): 93-96; Henry K. Oliver, “Lecture VIII: The Advantages and Defects of the Monitorial System,” 217-218. Also see Robert L. Osgood, *For “Children Who Vary from the Normal Type”: Special Education in Boston, 1838-1930* (Washington, DC: Gallaudet University Press, 2000), 70; Wightman, *Annals of*

diminished teaching positions, and parents worried the system undermined individualism. In monitorial schools, Americans had “set aside the old method of spontaneous effort and individual exertion,” a writer in *The New England Magazine* protested. “All responsibility lost; every generous feeling crushed; and the whole body taught to march on like a platoon of soldier,” the author wrote.²⁹ A former student remembered that the “chief business,” of the monitors was “to report any whispering or sly winks,” not to carry on instruction.³⁰ Though abandoned by mid-century for weak outcomes, Fowle’s monitorial plan permanently changed the organization of American classrooms. In earlier classrooms individual students floated on unassigned movable benches that provided few controls over student interaction. The Fowle plan assigned each student a specific seat in a permanent location. Seats and tables that oriented student bodies toward the teacher and away from one another broke peer-to-peer eye contact and thereby reduce social interaction that educators believed undermined the efficiency of learning. Before the introduction of the monitorial system, schools mixed children by age and knowledge in the same classroom with little control over how they interacted; the Fowle system assigned children with similar levels of knowledge to geographic zones defined by furniture. The Fowle monitorial classrooms established three fundamental mechanisms of power associated with furniture in public venues: disaggregation, restraint, and supervision.

the Boston Primary School Committee, 31; and Quincy, *Report of a Sub-Committee*, 1828.

²⁹ “Common Schools,” *The New England Magazine* (September, 1832): 197-198.

³⁰ Remembrance of William Winchester Hubbard in Arthur Brayley,” in *Schools and Schoolboys of Old Boston* (Boston: Louis P. Hager, 1894), 216.

In 1830, Boston schoolteacher William J. Adams, called on attendees to the inaugural meeting of the American Institute of Instruction to consider the design of classrooms.³¹ “Among the means of instruction hitherto deemed but secondary, or overlooked as insignificant, may be mentioned the construction, furniture, and apparatus of school-houses,” Adams argued. School leaders were to blame for classrooms Adams described as “monstrously inconvenient and without unity of design” because they had been constructed for maximum occupancy, not fundamental principles.³² Adams proposed the members of the institute codify “certain rules and fixed principles” for the design of schools and classroom furniture that would address shortcomings of the current system.³³ His lecture, widely disseminated through the conference proceedings, launched a two decade project among education reformers to establish standards for American classroom interiors.

The Box Desk

Adams designed the plan to increase supervision and mitigate distractions to improve learning. Place windows high on walls, he suggested, to maximize ventilation and in a location where “the attention of the children is less liable to be diverted.”

³¹ William J. Adams, “On the Construction and Furnishing of School Rooms; and on School Apparatus,” in *The Introductory Course and Lectures Delivered in Boston Before the Convention of...the American Institute of Instruction*, August 1830 (Boston, Hilliard, Gray, Little and Wilkins, 1831), 335-346. The institute was a clearinghouse for educational theories. The first enduring interstate association of American educators, the institute initially had 200 members primarily from New England, but with broad membership from the rest of the nation. It was a long-lived precursor to the National Education Association. The institute published seventy-five volumes of annual proceedings. See Richard B. Michael, “The American Institute of Instruction,” *History of Education Journal* 3, no. 1 (Autumn, 1951): 27-32.

³² Adams, “On the Construction and Furnishing of School Rooms,” 336.

³³ Adams, “On the Construction and Furnishing of School Rooms,” 336.

Replace long benches that had “no precise length of seat appropriated to each individual” with comfortable seats and desks adapted “to the best modes of preserving order and communicating knowledge.” Eliminate monitors and increase the elevation of the master’s desk. Adams sat students side-by-side at double desks seated on low-backed boxes secured to the floor with a passage behind (**Fig. 1.6**). “In this way each child is *insulated*, is perfectly accessible, and can leave his place at any time without interrupting his class-mates,” and students would be relieved of the “painful durance,” of sitting in the center of a crowded bench Adams explained.³⁴ Earlier plans had no location for a student’s personal belongings. To better organize space, Adams directed students to store their books, slates, and other materials in a storage area under a hinged sloped desktop, and hats on a hook inside chair boxes. Perched atop an eighteen-inch high platform, a teacher in Adams’s classroom would have “a free inspection of the whole school.”³⁵ Transverse passages behind students and aisles that extended outward from the platform permitted the teacher to “readily place himself at the side of any individual.”³⁶ The design was neat, organized, legible, navigable and easily controlled by a single instructor through visual surveillance and physical intervention.

As the American Institute of Instruction prepared for its second meeting in 1832, organizers issued an essay competition on the design of schoolhouses. In the opening of his prize-winning essay, William A. Alcott stressed “the condition of those

³⁴ Adams, “On the Construction and Furnishing of School Rooms,” 342.

³⁵ In some early schoolrooms, desks were arranged on risers or a sloped floor so the instructor could see the entire class, but Adams described the challenges to effective heating and ventilation in such classrooms. Adams, “On the Construction and Furnishing of School Rooms,” 340-341.

³⁶ Adams, “On the Construction and Furnishing of School Rooms,” 336.

objects... which surround a collection of children, whether the number of those children be five, fifty, or one hundred, must of necessity have a very considerable influence in forming their dispositions, and giving a determination to their future character.”³⁷ His sensitivity to the effects of classroom design on behavior derived from challenges Alcott faced as teacher in a classroom in which younger students squirmed on backless benches and older students faced the walls at desktops arranged around the perimeter.³⁸ The furniture caused him to use excessive corporal punishment to achieve “silence and submission and passivity,” Alcott believed.³⁹ Furniture provided no boundaries to separate bodies. “Too many pupils are confined to a single desk or bench, where they are constantly jostling or otherwise disturbing each other,” Alcott wrote.⁴⁰ To separate bodies, make the student more comfortable, and therefore more focused and less likely to need punishment, Alcott proposed an individual box desk for each student (**Fig. 1.7**). “*Uneasy bodies* render the mind uneasy and restless,” Alcott explained.⁴¹ A box seat was built into the front of the desk of the student behind, an adaptation of a modestly

³⁷ William A. Alcott, “Essay on the Construction of School-Houses” in *The Lectures Delivered before the American Institute of Instruction in Boston August, 1831* (Boston: Hillard, Gray, Little and Wilkins, 1832), 241-259. In the same volume of proceedings William Woodbridge, the first principal of the Phillips Exeter Academy, penned an essay on the construction of schoolrooms that included recommendations virtually identical to Alcott’s, though his design was not as frequently cited by later reformers. Woodbridge indicated that desks like Alcott’s design were in use at the Andover and Exeter academies.

³⁸ Early schools commonly hung writing surfaces on walls around the perimeter. The wall replaced the back legs of a desk or table. It was a simple cheap solution but usually resulted in poorly illuminated desktops and students forced to turn away from the center of the room.

³⁹ Alcott described the challenges of his 1820s classroom in a memoir. See William A. Alcott, *Confessions of a School Master* (New York: Gould, Newman and Saxton, 1839), 128-129.

⁴⁰ Alcott, “Essay on the Construction of School-Houses,” 6.

⁴¹ Alcott, “Essay on the Construction of School-Houses,” 37.

comfortable desk in use in some New England schools.⁴² The rear desk edge was to be installed directly over front seat edge to “compel the person occupying it to sit in an erect position.”⁴³ To understand the influence Alcott hoped classroom surroundings would have on children, its revealing to step back and look at his word choices. “Compel,” “silence,” “submission,” “passivity,” reveal the goals of early educators to prepare a student body receptive to learning.

Alcott presented a plan with a student-teacher ratio of fifty-six to one that established a standard class size for urban American classrooms through the nineteenth century (**Fig. 1.8**). The number of students was based on his estimate that most schools had fifty to sixty students in the winter.⁴⁴ Although Alcott left the rationale for the array of eight rows of seven desks unstated, the geometry was the only arrangement for fifty-to-sixty individual desks that approximated a square of rows of equal numbers of desks. The proportions minimized the distance of the farthest scholars from the teacher to reduce the time it took for a teacher to get to the farthest student desk and to facilitate learning. In a classroom with a single teacher, maximum classroom dimensions were determined by the greatest distance a student could legibly read the blackboard behind the teacher and audibly understand the teacher on the platform. To help teachers maintain order among many students, the plan inhibited social interaction and provided enhanced visibility for

⁴² Alcott’s design, presented in August of 1831, closely approximated the drawing of a desk included in an agreement between John Cooper and the Selectmen of Newburyport from March 1830. The agreement was for “forty writing benches & seats for the use of Scholars” all the same dimensions. See Col 268, Miscellaneous Legal Agreements, Joseph Downs Collection, Winterthur Museum & Library.

⁴³ Alcott, “Essay on the Construction of School-Houses,” 10.

⁴⁴ Alcott, “Essay on the Construction of School-Houses,” 8.

the teacher. Aisles bordered either side of each student to make it “rather difficult for one to communicate freely with another; at least without the knowledge of the instructor,” Alcott emphasized.⁴⁵ He explained that placement of lowest desks closest to the teacher and tallest desks farthest away ensured the youngest students received the most instructor aid and “because the view of the school from the platform will be more complete.”⁴⁶ “To *prevent* is easier than to *rectify* disorders in a school,” Alcott insisted, and recommended that “no scholar should be out of his teacher's eye five minutes in a day.”⁴⁷ To minimize disorder classroom furniture maximized visual surveillance of the student body. Flat desk tops would not obstruct the view of the instructor from the platform, were cheaper to construct and more common in “daily business life,” than traditional sloped desk tops, he claimed.⁴⁸ Alcott acknowledged single desks would be more expensive to construct than double desks but claimed increased control would reduce time wasted on discipline and therefore be of long-term financial benefit to taxpayers.⁴⁹

Any potential distraction in and around a child's desk could lead to “much trouble,” Alcott warned, and suggested “it is to prevent the possibility of evils of this kind, in part at least, that a different construction is recommended.” “How much better is it to prevent evil than to expose them to unnecessary temptation, and then punish them for offending,” he asked.⁵⁰ Alcott specified hard oak for school furniture because it would

⁴⁵ Alcott, “Essay on the Construction of School-Houses,” 20.

⁴⁶ Alcott, “Essay on the Construction of School-Houses,” 10.

⁴⁷ Alcott, “Essay on the Construction of School-Houses,” 37.

⁴⁸ Alcott, “Essay on the Construction of School-Houses,” 37.

⁴⁹ Alcott peppered his essay with several references to the long-term cost savings of investing in well-made schoolhouses: “My purpose has been to keep economy in view in every suggestion.” Alcott, “Essay on the Construction of School-Houses,” 19.

⁵⁰ Alcott, “Essay on the Construction of School-Houses,” 20.

“probably be less exposed to injury,” than softer woods.⁵¹ Under-seat and under-desk storage areas included in the Adams desk were eliminated to prevent “indolent or vicious students,” access to playthings. Storage only large enough for a slate and one or two books was located at the front of the desk, where access would be obvious to teachers. Outer clothes, food, and other belongings were to be stored out of reach in a cloakroom. Physically isolated from peers, forced to sit upright, and with distracting playthings out of reach, children had little choice but to pay attention to the teacher at the front of the room.

Box desks radically changed the social space of school. The long benches children shared in the early schoolrooms did little to discourage social interaction. Students learned from one another as they memorized passages in small groups graded by ability. Education reformers designed box desks to undermine that sociability as the pedagogy changed toward individualism. Henceforth, American classroom would support teaching in which each child was to learn on their own in synchronicity with the rest of the class. Furniture constructed barriers that dampened peer-to-peer sociability in favor of prescribed interactions between teacher and pupil.

The Adams and Alcott box desks appear crude and uncomfortable by modern standards, but for students who suffered days or weeks balanced atop wobbly benches pressed against classmates, the new designs were a luxury. A former Boston school student fondly recalled the arrival of box desks to replace the backless seats and long

⁵¹ No specifications for the type of wood used in plank school desks and benches prior to 1830 has been found, but since Alcott felt it imperative to specify hard wood, it can be inferred that plentiful and inexpensive soft woods such as pine and poplar were commonly used for school furniture, though oak, cherry and maple were also prevalent in the region.

splintery unpainted boards that previously served as desks: “When returning after one of these holidays in 1833, the children found, to their boundless admiration, things quite revolutionized; comfortable chairs and separate desks had replaced the boxes and long forms.”⁵² Schools that allotted each student their own piece of furniture awarded ownership of personal space—a revolutionary concept during an era when only the wealthiest of American children could claim a chair or even a bed of their own at home. Sovereignty came at the expense of freedom and surveillance, however, for the student was now fixed to a precise location in the classroom.

Like prisoners jailed in the identical cells of Bentham’s Panopticon, Alcott’s plan assigned students a space within a grid defined by the perimeter of furniture from which he or she was not expected to wander.⁵³ Classrooms needed to be designed to support supervision, Alcott argued. “Vigilance is essential to order,” the reformer wrote, “it is a first principle in the teacher’s art, the first in school tactics.”⁵⁴ The martial language of supervision, vigilance, and tactics links education to the type of discipline expected of soldiers. Students needed to know inappropriate behavior, no matter how “slily” [sic] accomplished, would be detected immediately.⁵⁵ Desks that isolated students from one another and put their bodies on display compelled adherence to postural norms and prevented unwarranted fraternization possible in more condensed arrangements.⁵⁶ Alcott

⁵² A “form” referred to a long desk. Brayley, *Schools and Schoolboys of Old Boston*, 88.

⁵³ No evidence that Alcott intentionally adopted a Bentham-like arrangement has been found, though it is entirely possible considering the close ties between Boston and England, and Bentham’s writing on education as well as prisons.

⁵⁴ Alcott, “Essay on the Construction of School-Houses,” 37.

⁵⁵ Alcott, “Essay on the Construction of School-Houses,” 37.

⁵⁶ Alcott warned that in the current system of dense seating a half dozen students could huddle together, and “They *may* be engaged in study; but they may, too, be doing mischief.” Alcott, “Essay

designed the strictures of furniture to replace corporal punishment with longer-lasting internalized discipline. “The child who is ruled by the rod will be kept in subjection only while that is before him” an advocate for the elimination of corporal punishment wrote in the American Institute proceedings of 1842. Students were to internalize discipline, to “self-educate,” and “self-govern” so that personal boundaries and appropriate behavior would continue when the threat of punishment was no longer apparent.⁵⁷ “How few have the patience thus to sit down and labour day by day for years! It is neither a small nor an easy part of education to cultivate this trait of character,” the author of an 1835 student manual noted.⁵⁸ After years of study within the controlling boundaries of school furniture children were accustomed to behavioral constraints that would be expected of them in their future personal and occupational lives.

Classroom furniture that minimized corporal punishment had to simultaneously shape healthy bodies if children were to become productive adults. Unlike standard-sized adult furniture generally suitable for all adults, children grow at different rates. An average size would only fit a very narrow percentage of students and threaten to deform the bodies of most. To minimize the potential for harm, Alcott and Adams specified furniture tailored to individual student measurements: seat heights constructed at knee height so feet rested squarely on the floor, and desk height constructed at seated elbow

on the Construction of School-Houses,” 20.

⁵⁷ A. B. Muzzey, “The School-Room as an Aid to Self-Education,” in *The Lectures Delivered Before the American Institute of Instruction...August 17, 1842* (Boston: William D. Ticknor, 1843), 128.

⁵⁸ John Todd, *The Student's Manual: Designed, by Specific Directions, to Aid in Forming and Strengthening the Intellectual and Moral Character and Habits of the Student* (Northampton, MA: J. H. Butler, 1835), 31.

height for correct writing posture.⁵⁹ The recommendations drew on ergonomic principles from the nascent field of physical education (PE).⁶⁰ Beginning and evolving concurrently with the common school movement, PE specialists, many of them medical doctors, believed training a disciplined and vigorous body was as fundamental to the development of an industrious society as intellectual education. “It is not the amount of knowledge which is obtained at school, which constitutes education,” a PE specialist wrote in 1840, “but the mental and bodily discipline, the habits of attention and study, the ability to acquire knowledge.”⁶¹ Furniture custom fit to students would help them acquire the necessary discipline for life-long learning, but the expense was prohibitively large for most schools and the management overly complicated. Though the basic form of the box desk was instituted widely, ongoing complaints by education reformers over inappropriately sized furniture imply schools rarely heeded recommendations to tailor desks to individual students.

Through the 1830s and 1840s, school inspectors discovered classrooms full of inappropriately sized and poorly made furniture.⁶² In an 1837 lecture, Horace Mann

⁵⁹ Adams made the same ergonomic height recommendations in his lecture published in the prior-year proceedings. Adams, “On the Construction and Furnishing of School Rooms,” 343.

⁶⁰ Some early pamphlets and essays on physical education include: “Progress of Physical Education,” *American Journal of Education* 1, no. 1 (January 1826): 19; “Suggestions to Parents: Physical Education,” *American Journal of Education* 2, No 5 (May 1827): 289-292, and 2, No 8 (August, 1827): 466-467; and, Samuel R. Hall, *Lectures on School-Keeping* (Boston: Richardson, Lord and Holbrook, 1829). For a discussion of the collaboration of educators and physicians in the protection and medicalization of the student’s body see Rebecca Noel, “Schooling the Body: The Intersection of Educational and Medical Reform in New England, 1800-1860” (PhD diss., Boston University, 1999).

⁶¹ Abel L. Pierson, M. D., *Physical Education: A Lecture Delivered Before the American Institute of Instruction, at its Annual Session, August 1839* (Boston: Marsh, Capen, Lyon and Webb, 1840), 24.

⁶² Horace Mann, “Report of the Secretary of the Board of Education on the Subject of Schoolhouses,” *The Common School Journal* I, no. 18 (September 16, 1839): 283; Letter from Samuel B. Woodward (Superintendent of the State Lunatic Hospital at Worcester) to Horace Mann, March 14,

described his disappointment with school furniture as he prepared to become the first Secretary of Education in Massachusetts:

I have seen many schoolhouses, in central districts of rich and populous towns, where each seat connected with a desk, consisted only of an upright post or pedestal, jutting up out of the floor, the upper end of which was only about eight or ten inches square, without side-arms or back board; and some of them so high, that the feet of the children sought after the floor, in vain. They were beyond soundings. Yet, on the hard top of these stumps, the masters and misses of the school must balance themselves, as well as they can, for six hours in a day. All attempts to preserve silence in such a house are not only vain, but cruel.⁶³

“Beyond soundings” was a nautical phrase to describe immeasurably deep water. In this context it meant inexcusably tall. Mann worried discomfort unfairly challenged a student’s ability to adhere to expectations of bodily control.⁶⁴ “High and narrow benches, and seats without backs...are not only extremely uncomfortable for the young scholar, tending constantly to make him restless and noisy, disturbing his temper and preventing his attention to his books,” a physician wrote in a letter Mann published in his first report as Secretary of the Board of Education of Massachusetts in 1838.⁶⁵ In his state-level

1838,” *The Common School Journal* I, no. 19 (October 1, 1839): 297; Thomas Palmer, “Palmer’s Prize Essay,” *The Common School Journal* II, no. 18 (September 15, 1840): 282; “Mistakes of Teachers,” *American Annals of Education* (July, 1838): 25; “Young Teachers,” *Connecticut Common School Journal* I, no. 2 (September 1, 1838): 11, 14; Barnard, *Report and Documents ... For 1848*, 107.

⁶³ Mann first delivered the lecture in 1837 to a convention of Massachusetts educators, then to the Legislature in 1838, and to other “large and intelligent assemblies,” before publishing it in 1840. Horace Mann, *Lectures on Education* (Boston: Marsh, Capen, Lyon, and Webb, 1840), 4, 21.

⁶⁴ Alcott also expressed frustration with prevalence in neighborhood schools of “improper benches,” and “desks which are too high” that threatened to destroy the health of students, see William Alcott, *The Library of Health and Teacher on the Human Constitution* I (Boston: George W. Light, 1837), 301. “The racks, the torturing machines, called benches, forms, or seats, are to be banished from the school room,” an 1839 letter writer to *The Common School* journal demanded, *The Common School Journal* I, no. 8 (April 15, 1839): 122.

⁶⁵ “Samuel B. Woodward, Superintendent of the State Lunatic Hospital, at Worcester to Horace Mann, March 14, 1838” in Mann, *Report of the Secretary* (1838), 57.

position, Mann had the political power to pressure local school boards to install better furniture. As Massachusetts entered a two-year period of rapid school building, school boards desperate for high volumes of affordable furniture that met PE specialist's recommendations relied on innovative furniture manufacturers.⁶⁶

Pedestal Chair

Boston-area entrepreneurs established mechanized furniture shops that specialized in school furniture. In 1839, Samuel Wales, Jr. produced the "Patent American School Chair," the first mass-manufactured school furniture made in the United States (**Fig. 1.9**).⁶⁷ Schools in Boston, New Haven, and other New England cities immediately installed the chair.⁶⁸ The design responded to a widely disseminated critique by Mann a year earlier. In his first report as Massachusetts Secretary of Education, Mann asked "whether the seats shall be conformed to the children or the children deformed to the seats?"⁶⁹ Wales's response was to offer a comfortable chair in three sizes that by 1850

⁶⁶ Massachusetts built more schools in 1839 and 1840 than the entire previous decade. See Horace Mann, "Schoolhouses," in *Fourth Annual Report of the Secretary of the Board of Education* (Boston: Dutton and Wentworth, 1841), 29.

⁶⁷ No patent for the Wales pedestal chair has been found. "Patent," in the name signified to buyers a new and innovative product but not necessarily a legal protection. Boston school furniture manufacturers Joseph L. Ross, William G. Shattuck, and A. G. Whitcomb sold nearly identical versions of the Wales chair in later years helping to establish the design as a standard. Wales's furniture was probably made by the chair maker William O. Haskell in Lebanon, New Hampshire, a city with an industrial mill district along the Connecticut River. Haskell took over the school furniture business from Wales in 1857. See, William O. Haskell & Son, *Illustrated catalogue of the Boston School Furniture Manufactory* (Boston, 1870), 1-7.

⁶⁸ Samuel Wales, Jr., Broadside, 1841. In a testimonial printed on the broadside, the father of children's author Horatio Alger, then Chairman of the School Committee of Chelsea, endorsed the chair as "favorable to the ease, comfort, and health of the scholars." Other cities listed on the Broadside include Cambridge, Roxbury, Plymouth, Brighton, and Lexington.

⁶⁹ Horace Mann, *Lectures on Education*, 4, 21. Mann's statement on children deformed by chairs appears in his first report of 1838 on schoolhouses, republished in the *Common School Journal*. See Horace Mann, *Report on Schoolhouses*, 23, and Horace Mann "Report of the Secretary of the Board

expanded to eight sizes with seat heights graduated in one-inch increments.⁷⁰ The first advertisement for the chair appeared in the June, 1840 edition of *The Common School Journal* edited by Mann. In an editorial footnote to an article with advice for teachers of summer school, Mann seemed to endorse the Wales chair: “it is quite convenient for every student in school, however small, to have a seat of his own, with a back to it, and a desk in front; and each seat and desk should be independent of, and separate from, every other.”⁷¹ The Wales ad appeared five pages after the footnote.

The pedestal chair resembled the top half of a Windsor chair bolted to a section of plumbing pipe (**Fig. 1.10**). Made from just six major parts, Wales designed the chair to replace hand craft with innovative machine-based methods suited to high volume production of nearly identical objects. Technicians cut and shaped batches of identical parts on steam powered planers and saws. Steam bending jigs quickly reproduced a subtly curved crest rail to support the child’s back. Novel dowel and screw joints replaced the work of skilled joiners. Wales reserved the high-cost labor of skilled carvers for the most intimate connection between the body and the chair — the sculpted saddle

of Education,” *Common School Journal*. 1, no. 18 (September 16, 1839): 282. As an alternative to box seats, Adams proposed a crude pedestal chairs in his first 1830 treatise: “a piece of plank, nine inches by twelve, with the corners rounded off nailed on a firm pedestal,” though no indication has been found that the seats were constructed. Adams, “On the Construction and Furnishing of School houses,” 348.

⁷⁰ Seat heights ranged from 10 inches for a small child through an adult-sized 17 inches. See Samuel Wales, Jr., *The Guide: A Description of Modern School Furniture* (Boston, 1850/1855). Wales reissued the 1850 trade catalog in an 1855 wrapper that included testimonials.

⁷¹ “Modes of Instruction in Common Schools,” *The Common School Journal* II, no. 11 (June 1, 1840): 170, 176, a reprint from *The Connecticut Common School Journal* 2, no. 12 (May 1, 1840): 183. edited by Henry Barnard, another influential educator. The Wales advertisement does not appear in the Connecticut journal.

seat.⁷² To incorporate a cast-iron base into indoor furniture was revolutionary.⁷³ The cylindrical pedestal utilized the immense compression strength of iron a decade before James Bogardus pioneered the architectural use of cast iron for store fronts in New York City.⁷⁴ Using a lathe and chisels, a skilled patternmaker shaped a single wooden pattern for each of the eight sizes of chair from the smallest child to an adult size. Relatively low-skilled, low-wage foundry workers sand-cast hundreds or thousands of identical bases from each of the eight patterns.

Inundated with migrant and immigrant children in the 1840s, schools quickly received orders Wales filled from a stockpile of interchangeable parts and shipped in knock-down form.⁷⁵ Chair parts stacked efficiently to ship at low-cost locally on carts or to distant locations in rail cars. Wales transferred the cost of assembly to school personnel and local carpenters who possessed the minimal skills necessary to screw the

⁷² Wales 1850 catalog emphasizes the use of steam powered machinery from its founding, see Samuel Wales, Jr., *The Guide*, np.

⁷³ Cast-iron had been used for stoves and fencing in eighteenth century, but its use in indoor furniture was new. The technology for high-volume casting of iron, developed in Britain in the 1790s, had only recently been imported into the United States to produce machinery parts for railroads and pipes for expanding urban water and gas lines. Cast iron was illustrated in-use as a standard for benches and desks in English schools in 1835, but it is unclear whether Wales would have been aware of those designs. No comparable furniture in the United States in the 1830s has been found. See J. C. Loudon, *Encyclopaedia of Cottage, Farm, and Villa Architecture and Furniture* (London: Longman, Rees, Orme, Brown, Green & Longman, 1835), 734. Furniture historian Clive Edwards dates the first use of structural cast iron in interior furniture to Parisian and Austrian firms in the late 1820s, and to a rocking chair exhibited at the London Polytechnic Institute in 1839, the same year Wales first produced his chair. Though the “Winfield Rocker,” Edwards specified was made from iron tubing adapted from bed construction and not cast iron. See Clive Edwards, *Victorian Furniture* (New York: Manchester University Press, 1993), 119-120.

⁷⁴ Bogardus used the compression strength of cast iron to support the floors of the first skyscrapers. He patented his construction method in 1850, See James Bogardus, “Construction of the Frame, Roof, and Floor of Iron Buildings,” U. S. Patent 7,337 (May 7, 1850). For a history of cast iron in America see Margot Gayle and Carol Gayle, *Cast-iron Architecture in America: The Significance of James Bogardus* (New York: W. W. Norton, 1998), Chapter 1.

⁷⁵ In the 1840s the immigrant population of Boston jumped from 22 percent to nearly 46 percent. Schultz, *Culture Factory*, 210-217.

seat to the base and the base to the schoolroom floor.⁷⁶ Should the wooden seat get damaged, a replacement was easily screwed on top, saving the cost of an entirely new seat.⁷⁷ Wales' rational design for a graduated-height chair lowered the price for bureaucrats sensitive to cost concerns. The chairs retailed for \$1.50 in 1839, about the price of box desk in 1830.⁷⁸ The price was a considerable percentage of the \$11 per-student cost of education in Boston, however the initial expense of the durable chairs was off-set by decades of maintenance-free use. Schools could now afford to provide students with a more comfortable seat that encouraged stillness and lessened the risk of physical deformity.⁷⁹

Wales followed a fundamental strategy for the industrial manufacture of high volumes of nearly identical objects: judicious use of highly skilled specialists to create patterns that could be reproduced in high volume by low-skilled workers exploiting labor-saving jigs, molds and machines.⁸⁰ Manufacturers adapted the cast iron base of school seats to school desks (1848) theater and train seats (1850), stadiums (1880s) and

⁷⁶ A later competitor, Joseph L. Ross, specified his version sold in knockdown form for inexpensive shipping and easy assembly. See Joseph L. Ross, *Illustrated Catalogue of Ross' Improved School Furniture* (Boston, 1864), 13.

⁷⁷ Windsor chairs also had easily replaced parts. Manufacturers frequently supplied replacement parts in bulk to general stores, and peddlers carried spare parts from town-to-town.

⁷⁸ Samuel Wales, Jr., Broadside, 1841 lists the price, including screws to fasten them to the floor, at \$1.50 for the large size and \$1.12 ½ for smaller Primary-school chairs. On the price of Alcott-type desks, see Sam S. Duford, Henry Merrill and Ebenezer Stone, agreement with John Cooper March 1830, Col 268, Miscellaneous Legal Agreements, Joseph Downs Collection, Winterthur Library.

⁷⁹ The annual cost to educate a student was \$11 in Boston and \$7 in Salem, Massachusetts in 1839; see "Public Schools in Salem," *The Common School Journal* I no. 9 (May 1, 1839): 133-135.

⁸⁰ Similar strategies were used in ceramics, most notably by Josiah Wedgwood, and in textile and wallpaper printing. For an overview of design and industrial production see Adrian Forty, *Objects of Desire: Design and Society Since 1750* (London: Thames & Hundson, Inc., 2005), 17-60. In furniture see Philip Carlino, "Enduring Furniture at an Affordable Price" (M. A. thesis, Cooper Hewitt Museum, 2012)

other public venues. The design lowered the cost of production but with a caveat – the furniture had to be bolted to the floor. Once installed, Wales’ furniture was virtually immovable. The pedestal bolted to the floor to avoid the “confusion, irregularity and noise that accompanied movable chairs,” Wales claimed in his catalog.⁸¹ Neither users, nor teachers nor administrators could easily rearrange classroom interiors. Any teacher who attempted to experiment with teaching methods was forced to work with the arrangement.

The design of the pedestal chair derived from all-wood Windsor chairs Americans commonly installed in town halls, courtrooms, churches, libraries, taverns, and other public venues (**Fig. 1.11**).⁸² Equivalent in cost, Windsor chairs would seem to have been a logical choice to outfit classrooms, but Windsor chairs were not as durable and did not provide the same behavioral controls.⁸³ The elegant organic lines, open spaces and material harmony of Windsor chairs suggested relaxed sociability, while the heavy, geometric, and plain pedestal chair connoted focused work. Wales chose not to camouflage the machine-like qualities of the chair with painting, stenciling, carving or other common techniques of furniture ornamentation.⁸⁴ “*Every thing* being done for

⁸¹ Wales, Jr., *The Guide*, np.

⁸² Windsor chairs were used in some schools in the eighteenth century. On Americans’ use of Windsor chairs in public venues see Nancy Goyne Evans, *Windsor Chair Making in America: From Craft Shop to Consumer* (Lebanon, NH: University Press of New England, 2006), 397-430. On the relationship between the Wales Pedestal chair and other Windsor forms see Nancy Goyne Evans, *American Windsor Furniture: Specialized Forms* (New York: Hudson Hills Press, 1997), 170-171.

⁸³ Evans identified mid-range Windsor prices in 1841 at \$1.00 to \$1.33; see Evans, *Windsor Chair Making in America*, 129-131.

⁸⁴ The similarities to Windsor chairs include the saddle-shaped plank seat, and a back made from individual elements joined to the seat. In more expensive chairs, the back uprights typically continue to become the back legs, and the seat rests on rails that provide rigidity. Windsor chair making was a specialty of Boston and central Massachusetts, see Evans, *Windsor-Chair Making in*

comfort and strength, and *nothing* for ornament” an early advertisement proclaimed – a phrase strikingly similar to the adage of twentieth century Modern designers that *form follows function*.⁸⁵ Wales completely rejected any decoration. A carefully considered utilitarian aesthetic reinforced the role of the chair as technology for training and restraining bodies. Prominent screw heads that secured the chair back to the seat and anchored the heavy cast-iron pedestal to the floor communicated immovability to users and articulated strength and durability to purchasers (**Fig. 1.12**).⁸⁶ Aligned with the seated child’s spine, a central splat thrust from the floor through the seat back to the top rail. “Face Forward! Sit Straight! Don’t Move!” the chair appeared to command.

Beginning with the advent of common schools and lasting well into the twentieth century, doctors and education leaders worried the sedentary life of children forced to inhabit poorly fitted furniture caused childhood deformities. Spinal curvature destroyed the physical and mental health of children, educators and PE specialists warned (**Fig. 1.13**).⁸⁷ Experts considered girls particularly susceptible to injury from school attendance.

America, 16.

⁸⁵ Wales Advertisement, *The Common School Journal*, June 1, 1840, 176. Louis Sullivan coined the Modernist phrase “form ever follows function” about the tall unornamented shafts of his skyscrapers in 1896. Twentieth-century Modern designers popularized Sullivan’s words in the 1920s and 1930s. Louis Sullivan, “The Tall Office Building Artistically Considered,” *Lippincott’s Magazine*, March 1896. 403-409.

⁸⁶ The design required screwing into the end grain of the seat, normally a fragile joint. Large threaded screws and a central back splat compensated for the weak connection. In traditional Windsor chair construction, the back uprights and legs were joined to the seat by round angled mortises passing into or through the seat to form a strong joint. For a description of Windsor chair joinery techniques see Evans *Windsor-Chair Making in America*, 119-130.

⁸⁷ For a representative sample of writers worried school furniture harmed children see: “School Seats, and the Teachers’ Attention to Them,” *Connecticut Common School Journal* I, no. 4 (November, 1838): 34; “Female Teachers of Common Schools,” *Connecticut Common School Journal* I, no. 5 (December 1838): 34; Mann, *Report of the Secretary* (1838), 23-24; *Fourth Annual Report of the Board of Commissioners of Common Schools in Connecticut* (Hartford: Case, Tiffany & Burnham, 1842): 16; “Report of the Primary School Committee,” *The Common School Journal* VII, no. 18

“Children under fourteen should not be kept in school more than six or seven hours a day;” Dr. J. C. Warren cautioned, “and this period should be shortened for females.” Warren, a Harvard surgeon and advocate of physical education, delivered his recommendation in a lecture to the first meeting of the American Institute of Instruction in 1830. Warren did not outright question whether women should be educated, but he observed throughout his lecture that girls were primarily susceptible to health problems caused by long hours of stillness in school desks. Boys compensated for an unnatural stillness in school through vigorous play, Warren observed, however during girls’ time outside of school “the lively motions of the body and limbs must be checked, the spirits must be restrained.” Warren partially blamed corsets and stays that restrained young women from the relief men received in their activities outside of the classroom. Spinal curvature caused girls to be listless and engage in “frivolous and useless amusements,” he warned, and worried that “should she be called on to be a mother, then comes the trial of her strength.” Warren calculated half of the educated women he knew had deformed spines from continually raising their right arms in writing and drawing in school. Without a change “I much apprehend we shall see a degenerate and sinking race” Warren ominously concluded.⁸⁸

(September 15, 1845): 284; Severence Burrage and Henry Bailey, *School Sanitation and Decoration: A Practical Study of Health and Beauty in Their Relations to the Public Schools* (Boston: D. C. Heath, 1899), 131; and Henry Barnard, *School Architecture* (New York: A. S. Barnes & Co, 1848): 54 and 106. Alcott also blamed inadequate furniture (compounded by girls’ tight clothes) for mental exhaustion, nervousness, and eating of chalk and charcoal. See Alcott, *The Library of Health*, 300-301 and 391.

⁸⁸ J. C. Warren, “Lecture I: On the Importance of Physical Education,” in *The Introductory Discourse and Lectures Delivered in Boston before the Convention of Teachers...August 1830* (Boston: Hilliard, Gray, Little and Wilkins, 1831), 29-30; See also Catherine Beecher, “Health of Teachers and Students,” *The American Journal of Education* II, no. VI (September 1856): 404; “Foster’s

A latent question of the value of education for girls was compounded by a fear of infertility among the Anglo-white population of New England in the face of fecund immigrants.⁸⁹ “Now this education seems a noble, a grand, a magnificent thing for the female; but in obtaining it, what are the effects on her physical system, and what are to be the results on posterity?” Dr. Nathan Allen of Amherst College asked in 1868. Allen observed that harms to “*that organ* in women which has most do with reproduction,” were “unknown to our grandmothers, and are but little known now with the English, German or Irish; they are peculiarly prevalent with the New England women.”⁹⁰ Allen was referring to English, German, and Irish immigrants in New England. Native born women had become so bent on getting an education and devoted to fashion, Allen argued, that they had given up domestic labor and any other form of exercise that maintained healthy bodies. Immigrants in New England were having three times as many children as native-born women, he claimed, presumably because they were strengthened by the activity of menial labor.⁹¹ School furniture that supported and protected women’s bodies was one tool used by an ensemble of governmental institutions that sought to maintain population demography through control of reproductive capacity. By the mid-nineteenth century, police, governing bodies, experts, and lay people replaced knowledge of a person’s character developed through years and generations of social contact with a belief

Carstairsian Penmanship,” *American Journal of Education* I (August, 1830): 377, and E. W. Duffin, *The Influence of Physical Education in Producing and Confirming in Females, Deformity of the Spine* (London: George Swire, 1829), 111-112.

⁸⁹ Concern over possible diminishment of the white race was exasperated by a much higher birthrate among nineteenth century immigrants in Boston; see Schultz, *The Culture Factory*, 212.

⁹⁰ Nathan Allen, *The Law of Human Increase or Population Based on Physiology and Psychology* (New York: Moorhead, Simpson & Bond, 1868), 27-28.

⁹¹ Allen, *The Law of Human Increase*, 9.

in phrenology — a quasi-scientific assessment of character based on the measurements and appearance of bodies.⁹² Educators that adhered to the tenets of phrenology believed moral fitness was tied to physical fitness. Shaping a child’s body served to improve morals, they believed; and conversely, damaging the body would lead to moral derangement.⁹³ Physicians worried furniture that maimed a girl’s body would not only inhibit her ability to have children, physical deformity would corrupt her morally and thereby threaten the morals of the children she produced.⁹⁴ Wales designed his ergonomic, height appropriate, rigidly upright chair within elite Anglo-American concerns over white girl’s future roles as mothers and as guardians of the morals of future children.

Schools installed thousands of pedestal chairs in the 1840s. Wales’s catalogs included extensive testimonials from principals, educators, school committee chairs, and building committees that celebrated the furniture for beauty, elegance, convenience, as well as contributing to “good order,” and “establishing discipline.”⁹⁵ As an exemplar of

⁹² Character was determined by appearance of body as much as clothes, manners, gestures, hygiene, and speech. For an analysis of the history of phrenology and physiognomy as it pertained to the development of photography, see Allan Sekula, “The Body and the Archive,” *October* 39 (Winter, 1986): 3-64.

⁹³ Horace Mann, “Sixth Annual Report of the Secretary of the Board of Education,” *The Common School Journal* V, no. 15 (August 1, 1848): 235; William B. Fowle, “Lecture II: On the Best Method of Exercising the Different Faculties of the Mind,” in *The Lectures Delivered Before the American Institute of Instruction, at Boston, August 1841* (Boston: William B. Ticknor, 1842), 45-46.

⁹⁴ Bureaucratic concern for the bodies of white girls were a tool through which governments sought control over population. In *Power*, Foucault outlines government controls exercised through “things” to meet economic needs through population control, see Foucault, “Governmentality,” 201–22, and Turner, *Body & Society*, 3. For more on the history of posture in America, see David Yosifon and Peter N. Stearns, “The Rise and Fall of American Posture,” *The American Historical Review* 103 (1998): 1057–95.

⁹⁵ Joseph Striver, Secretary of the Board of Trustees of the Cumberland Academy, July 23, 1850, and William Smyth, Chairman of the Board of Agents of the Village School District, Brunswick Maine,

modern school furniture Henry Barnard reproduced three pages taken directly from Wales circular in *School Architecture* (1848).⁹⁶ Barnard's endorsement carried the weight of his experience as Secretary of the Connecticut Board of Commissioners of Common Schools (1838-1842), State Superintendent of Rhode Island (1843-1849) and Connecticut (1850-1855), and editor of the *Journal of Rhode Island Institute of Instruction* (1845-1848) and later the *American Journal of Education* (1855-1860).⁹⁷ A New England pedigree elevated the reputation of Boston-made furniture. Wales crowned his initial model "The American Chair" and named later versions "New England," and "Washington," "Hancock," and "Bowdoin" after Boston schools (**Fig. 1.14**). Through the endorsement of prominent bureaucrats and mass production the pedestal chairs broadcast New England educators' philosophy on classroom discipline and protection of children's bodies to the nation's early schools.

Primary-school Chairs

Soon after Wales produced his first pedestal chairs for grammar school children aged eight to fourteen, another manufacturer introduced primary school chairs for four- to seven-year old children (**Fig. 1.15**). Closer to a Windsor chair in appearance and comfort, the domestic-looking chair suited a more nurturing classroom environment for younger children. Rather than expensive carved seats, rush seats were sufficiently comfortable for the short bouts of sitting required of younger children. A shelf beneath the seat, or basket

December 29, 1849. See "Testimonials" in Samuel Wales, Jr., *The Guide*, np.

⁹⁶ Henry Barnard, *School Architecture*, 202-204. Barnard also illustrated and endorsed the chair in the journal he edited, see Henry Barnard, "School Houses," *Journal of the Rhode Island Institute of Instruction* II, no. 1 (July 1847): 99, 108.

⁹⁷ Bernard C. Steiner, *Life of Henry Barnard* (Washington, DC: Government Printing Office, 1919).

on the side held books. Unlike Wales pedestal chairs for older students, the primary-school chairs had arms to discourage twisting and sideways movement and, like training wheels on a bicycle, guide young bodies toward the balance and posture needed for grammar school seats. James Ingraham designed the chairs which were installed in three primary schools in 1842 and most of the remainder of the schools by 1848.⁹⁸ A close friend of Horace Mann, Ingraham was embedded in the local school bureaucracy as chairman of Boston's Executive Committee on Primary Schools and Chairman of the Primary School Committee on School Houses.⁹⁹ Ingraham also collaborated on the architectural design of the first purpose-built primary schools in Boston. The classroom plan indicates a schoolroom outfitted with seventy-two Ingraham chairs, considerably more than Alcott's plan of 56 grammar school students. A single teacher's desk was placed on a raised platform (**Fig. 1.16**).¹⁰⁰ Considering the number of young students, it would seem advantageous for control to have the furniture fixed, but the Ingraham chairs were initially movable to meet reformers more relaxed expectations for the behavior of the youngest children. "The seats for small scholars, without desks, if needed, to be moveable," Horace Mann specified in his design for an urban school room in 1838.¹⁰¹ "Even though the seats are as comfortable as can be made, young children cannot and

⁹⁸ William G. Shattuck, a former chair painter, manufactured the Ingraham primary-school chairs just outside of Boston in the town of Weston.

⁹⁹ Wightman, *Annals of the Boston Primary School Committee*, 208, 222. See also *Address delivered in Christ Church at the Funeral of Joseph W. Ingraham* (Boston: J. H. Eastburn, 1848). Ingraham was a printer educated in the Boston grammar schools. He served on the Primary School Committee from 1821 until his death in 1847.

¹⁰⁰ Similar size classrooms were located on three floors with a playground outside the first floor. Barnard, *School Architecture* (1848), 176-187.

¹⁰¹ Mann, *Report of the Secretary* (1838), Explanation of Plate I; also published in Henry Barnard, "District School Houses," *American Annals of Education*, June, 1838, 259.

should not be kept still on them long at a time,” Henry Barnard warned in *School Architecture*. Barnard recommended classrooms for smaller children be unencumbered with fixtures of any kind to allow for frequent and varied movement. “They are *not* fastened to the floor,” Barnard emphasized in his praise of the Ingraham chairs in *School Architecture*, “but can be moved whenever necessary; and this is found to be a great convenience, and production of no disadvantage.”¹⁰²

Teachers faced with a classroom of seventy-two rambunctious four- to seven-year old children were less enthusiastic about the freedom of movement Barnard and Mann recommended. In 1844, two years after the introduction of moveable primary-school chairs, teachers reportedly wanted greater control over their young charges. The prize committee of the Massachusetts Mechanic Fair lauded the design of the Ingraham chairs, but in an aside agreed with some teachers who preferred the chairs be fastened to the floor.¹⁰³ By 1850, Samuel Wales, Jr. offered a pedestal version of the primary-school chair designed to be fixed to the floor (**Fig. 1.17**). In 1851, the manufacturer of the original Ingraham chair retrofitted the design with iron fittings to secure the legs to the floor.¹⁰⁴ School administrators’ and teachers’ desire for order and control in the face of rapid change prevailed over education reformers’ recommendations for greater freedom

¹⁰² Barnard, *School Architecture* (1848), 57, 181.

¹⁰³ Massachusetts Charitable Mechanic Association, *The Fourth Exhibition of the Massachusetts Charitable Mechanic Association...September 16, 1844* (Boston: Crocker and Brewster, 1844), 146-147.

¹⁰⁴ Boston Manufacturer William G. Shattuck sent Ingraham primary-school chairs and pedestal chairs to England to represent American education ingenuity at the 1851 Exhibition of Industry of All Nations. The Ingraham chairs were described as having “iron cramps” to screw them to the floor. See “The Great Exhibition,” *Exhibition Supplement to The Illustrated London News* (Saturday August 23, 1851), 250.

of movement for young children.¹⁰⁵ Even the youngest child was corralled by furniture between 1845 and 1850, years when Boston and other cities saw the fastest influx of immigrants from France, England, Germany, Scotland, and Ireland. In Boston, the foreign-born population increased from 33 to 53 percent. Education reformers worried the dramatic influx of uneducated poor immigrants unfamiliar with American ways threatened the institutional stability of the city and its school system.¹⁰⁶

The Boston Latin Desk

To cope with the potential chaos of rapid demographic change, reformers called for furniture more supportive of organization and order in the classroom. Some enjoined female teachers to maintain a neat classroom as if it were their parlor, the public manifestation of a moral home.¹⁰⁷ In *School Architecture*, Henry Barnard itemized “common errors,” that included lack of “seats and desks, properly made and adjusted to each other...so arranged that each scholar can go to and from his seat, change his position, have access to his books, attend to his own business, be seen and approached by

¹⁰⁵ Some Four and five-year old children would be emancipated from fixed furniture when the kindergarten movement became popular in the United States in the 1870s. Based on the theories of Friedrich Froebel, who advocated for play, movable chairs became learning tools. Elizabeth Peabody, Horace Mann’s sister-in-law, popularized the movement. Freedom was limited, however. According to Peabody, classroom play was not to be spontaneous but structured to prevent “disagreeable romping.” She also advocated a desk for children in which they had to keep their belongings neatly organized. See Mrs. Horace Mann and Elizabeth Palmer Peabody, *Moral Culture of Infancy, and Kindergarten Guide* (Boston: T. O. H. P. Burnham, 1863), 25-27, 34-38. Kindergarten was not, at first, universal, but mostly reserved for the wealthy, see Marvin Lazerson, *Origins of the Urban School: Public Education in Massachusetts, 1870-1915* (Cambridge: Harvard University Press, 1971), 36-56.

¹⁰⁶ Schultz, *Culture Factory*, 212-214.

¹⁰⁷ On the classroom as parlor see Mann, Report of the Secretary (1838), 40, and “Boston Primary Schools,” *American Annals of Education* (March 1838), 123. Barnard, *Report and Documents ... For 1848*.

the teacher, without incommoding any other.”¹⁰⁸ To encourage teachers, administrators and school committees to adopt their recommended furniture and arrangements, Barnard, Mann, and Alcott edited journals and authored textbooks with detailed illustrations, critiques, and endorsements.¹⁰⁹ The publications set national standards against which school systems measured local classrooms. Investigators reported horrendous conditions. “If any one doubts the intimate connection between good school-houses and good schools,” an Ohio School Commissioner reported in 1856, “let him enter an outdated school and “note their diminutive size, rough and filthy floor, low ceilings, dilapidated desks, slab seats, dingy walls, and their unhappy and cheerless inmates; and after he has observed the slovenliness, disorder coarseness, vulgarity, and the marks of obscenity on the very wall of the building, let him listen to the recitations, and observe how perfectly they correspond with the condition of things already noticed.”¹¹⁰ In response to a stream of similar reports, manufacturers, reformers and educators contributed to the design of the first mass-manufactured school desk.¹¹¹

¹⁰⁸ Henry Barnard, *School Architecture; or Contributions to the Improvement of School-Houses*, 2nd edition (New York: A. S. Barnes & Co., 1849), 40, 53.

¹⁰⁹ The *Annals of Education* (1826) edited by William Russell and later by William Alcott, the *Connecticut Common School Journal* (1838) and *The American Journal of Education* (1855), edited by Henry Barnard, and *The Common School Journal* (1839) edited by Horace Mann, disseminated recommendations for classroom furniture nationwide.

¹¹⁰ “Public Schools in the United States,” *The American Journal of Education* II (September, 1856): 532.

¹¹¹ Inspectors reported similar conditions in surveys conducted in Massachusetts (1838), Connecticut (1841), Rhode Island (1846), and Michigan (1847). See *Report of the Secretary of the Board of Education on the Subject of School Houses* (Boston: Dutton and Wentworth, 1838), “Report of the Secretary of the Board,” *Connecticut Common School Journal* III, no. 16 (September 1, 1841): 242-256; Henry Barnard, *Report on the Condition and Improvement of the Public Schools of Rhode Island* (Providence: B. Cranston & Co, 1846); Ira Mayhew, *A Compilation from the Annual Reports of the Superintendent of Public Instruction of the State of Michigan, For the Years 1845 and '46, with Important Additions, Embracing the Report for the Year 1847* (Detroit: Bagg & Harmon, 1848).

In his first report as Secretary of the Massachusetts Board of Education in 1838, Horace Mann enumerated detailed criteria for school desks: individual, with a fixed top flat at the front for three to four inches sloping at one-and-one-half-inches to the foot, a raised board at the edge to prevent objects from sliding forward, and an open storage box beneath. Mann disfavored hinged lids with locks; instead, he promoted unsecured storage to teach children values of honesty and justice. If desks were locked, Mann predicted devious scholars would be tempted to intentionally lose the keys. Mann based his specifications on an award-winning desk submitted to a competition in Hartford, Connecticut in which a fixed desk top was placed over a storage box open at the sides “to the view of the teacher and scholars.”¹¹² Orderly belongings and an attenuated expectation of privacy were characteristic elements of commercial furniture developed for schools, offices, theaters and on trains. Neatness communicated efficiency and control among large groups of people gathered in a confined space, and limited privacy reassured individuals that no nefarious activity was occurring. “Neatness in regard to books, desks, &c... will require to be constantly insisted on, if exact habits are to be formed and carried into daily business,” a lecturer recommended to the audience of the American Institute of Instruction in 1840.¹¹³ In 1844, Epes S. Dixwell, principal of the Boston Latin School, designed a desk to Mann’s specifications for the use of students in the Latin School (**Fig.**

¹¹² Mann, *Report of the Secretary* (1838), 20-22. Mann republished the section of his report on schoolhouses in *The Common School Journal* see Horace Mann, “Report of the Secretary of the Board of Education on the Subject of Schoolhouses, Supplementary to His First Annual Report,” *The Common School Journal* 1, no. 17 (September 2, 1839): 270-272, and 1, no. 18 (September 16, 1839): 273-288.

¹¹³ T. Cushing, Jr., “Lecture II: On the Results to Be Aimed at in School Instruction and Discipline,” in *The Lecture Delivered Before the American Institute of Instruction, August, 1840* (Boston: William D. Ticknor, 1841), 44.

1.18).¹¹⁴ Dixwell set a wooden desk top with a fixed-lid and side-entry storage boxes atop cast-iron standards screwed to the floor. The Dixwell desk was the prototype for what later became the epitome of American school desks: the “Boston Latin Desk.” Designed by educators familiar with classroom practice, the Boston Latin Desk became the standard for nineteenth century urban classrooms. The basic form with modifications in materials continued to be installed through the early twentieth century as other desks and chairs came in and out of favor.

The maker of the Dixwell desk installed in the Boston Latin School was not specified, but a diploma from The Massachusetts Charitable Mechanic’s Fair brought the design to the attention of manufacturers in 1844.¹¹⁵ In 1847 and 1848 cabinetmakers Joseph L. Ross and Samuel Wales, Jr. of Boston, and James Kimball of Salem marketed single and double occupant revised versions of the desk (**Fig. 1.19**). The composition echoed the pedestal chair: a simplified traditional wood desktop married to cast-iron standards firmly screwed to the floor. The same efficient, minimally skilled techniques and distribution strategy kept production costs low.¹¹⁶ Manufacturers offered the desks in a range of sizes to match the height distribution of pedestal chairs.

¹¹⁴ The Boston Latin School opened a new building in 1844, the same year the desk was shown at the manufacturer fair, see Massachusetts Charitable Mechanic Association, *The Fourth Exhibition*, 146-147.

¹¹⁵ Ross, *Illustrated Catalogue* (1864). James Robinson, principal of the Bowdoin School also submitted a desk and chair to the Massachusetts Charitable Mechanic Fair that the judges considered an improvement on “those commonly used,” most likely a reference to the box desks designed by Alcott nearly 20 years earlier. Like the Dixwell desk, the Robinson desk was set on cast iron pedestals, but the committee considered it possibly unstable, see Massachusetts Charitable Mechanic Association, *The Fourth Exhibition*, 147. No record of manufacturing of the Dixwell desk has been found.

¹¹⁶ Ross highlighted the low-cost knock-down versions of his furniture in his catalogs with the term “Portable.” The furniture was designed to be fixed to the floor, the term portable described furniture that shipped in knock-down form, see Joseph L. Ross, *Illustrated Catalogue* (1864), 13.

Close ties between manufacturers, school officials and civic government contributed to the widespread adoption of manufactured school furniture. Kimball was active in civil government and served on the school committee of Salem; Ross had close relationships with the superintendent of buildings in Boston and the school superintendent; and Wales served on the Primary School Committee, Boston's common council and as a representative to the Commonwealth.¹¹⁷ Through the knowledge gleaned from their connections to education, manufacturers developed furniture that mediated among their own need to generate a profit and the expectations of administrators, teachers and pupils. For administrators, furniture fixed to the floor reinforced tenuous claims to educational space. As in many growing cities, the Boston city council pressed the school board to use school buildings for non-educational activities.¹¹⁸ Schools were used as government meeting houses, watch houses for police, fire stations and other public uses.

¹¹⁷ In Salem, Joseph Kimball served on the school committee of the city council and as school supervisor for the years 1839 through 1843 and again in 1855. He was also president of the Salem Charitable Mechanic Association from 1856-1859. Kimball's desk was probably the first school desk manufactured with iron standards, but no records or sales catalogs have been located. The earliest published image of Kimball's desk appeared in *The Practical Educator and Journal of Health* (July 16, 1847), 226. An extract from a Kimball's circular was also published in *The Journal of the Rhode Island Institute of Instruction* (September 15, 1847) 100. See also James Kimball, "Notes on the Richardson and Russell Families" in *Essex Institute Historical Collections XVI* (Salem: Essex Institute, 1879): 186; and "James Kimball, 33^o *Proceedings of the Supreme Council of Sovereign Grand Inspectors-General of the Thirty Third and Last Degree Ancient Accepted Scottish Rite* (Binghamton, NY: George J. Reid, 1881), 188. Joseph L. Ross was influential in advising on the building of city schools. In an 1853 advertisement he listed the endorsement of two chairmen of the Committee on Public Buildings, the superintendent of public buildings, and the superintendent of public schools. His political connections helped him to secure large contracts for the Boston school, see his display advertisement in *The Massachusetts Register for the Year 1853* (Boston: George Adams, 1853), 34-35. Ross petitioned for the building of the Mayhew School in 1841, see *Boston Post*, January 28, 1841, 1; and Samuel Wales served as Boston Representative to the Commonwealth 1842-1848, and on the Primary School Committee 1848-1849.

¹¹⁸ "Should it be said, that *the room thus constructed, cannot be used with so much convenience for meetings or other purposes*, - my reply is, that it was *designed* for other purposes, but for a *school-room*," Alcott wrote in 1830. Alcott, "Essay on the Construction of School-Houses," 19.

Portions were rented for commercial use. Noises, smells, and sights from alternative activities distracted students.¹¹⁹ City councils pushed school boards to place more students in each classroom than was ideally suited to avoid the expense of additional schools. Classroom fixtures, all-but-permanently arranged, subverted alternative uses and discouraged overcrowding. The designs also lowered production costs to provide manufacturers a profit at a low sales price. Chairs and desks screwed to the floor recruited floorboards as structural elements that stabilized otherwise weak, top-heavy forms. Manufacturers replaced expensive, complicated, robust hand-made mortise-and-tenon joints with inexpensive but weaker screwed joinery.¹²⁰ Comfortable fixed desks, like chairs, assisted children in focused study and helped teachers maintain an orderly and tidy classroom. A cursory interpretation might assume the primary reason to screw furniture to the floor was to control student bodies, but the design served multiple stakeholders. The new fixed furniture mediated among the desire of teachers and reformers for control, administrators for enhanced ownership of school buildings and low-priced furniture, manufacturers for profit, and students for comfort and protection.

Manufacturers enhanced controls advocated by education reformers when they

¹¹⁹ In the 1840s, newly built schools – the Franklin, Brimmer and Otis schools – though purpose built, also housed commercial space and other activities unrelated to education. Schultz, *Culture Factory*, 88-90.

¹²⁰ The connection to the floor prevented diagonal forces (racking) from tipping over top-heavy furniture or tearing out inexpensive screw joints, mechanical dovetails and pins that connected uprights to tops and seats. Manufacturers did not invent school furniture secured to the floor—box desks and tables with wooden legs secured to the floor had been used in school rooms since the 1830s. Barnard described the turned legs of the desks used in the East School at Salem Massachusetts as “secured in the floor by tenons.” Unlike those earlier forms, however, the new mass-produced school furniture was not, in and of itself, durable enough to be free-standing; see Barnard, *School Architecture*, 1848, 114.

adapted the Boston Latin desk for high-volume production. The Dixwell desk forced students to stand to access side storage — a potential disruption to nearby students. Manufacturers relocated the storage opening to the desk front to permit students immediate access to the storage area while seated. The change reduced the immediacy of inspection by teachers, but they could still inspect unoccupied desks for neatness through open fronts or through filigreed cast iron sides. To deter mischief, no desk maker offered secure storage or hinged lids on grammar school versions of the desks. “The boy himself, perhaps, is tempted to take his luncheon, concealed by the open lid,” an educator warned in an 1841 lecture to the American Institute, “or to arrange some apparatus for play, to be introduced to his fellow at a convenient time, when it may be done with impunity.”¹²¹ High-school and normal school versions had lidded storage, presumably because older students had learned to be neat and orderly and less prone to surreptitious misbehavior.

To encourage better behavior and minimize repair costs, manufacturers began to decorate the standards of desks and chairs with fluting, floral motifs and scrolling (**Fig. 1.20**).¹²² Education reformers believed children appreciated and respected beautiful

¹²¹ G. F. Thayer, “Lecture V: On Courtesy and the Connexion with School Instruction,” *The Lectures Delivered Before the American Institute of Instruction, at Providence (R. I.) August, 1840* (Boston: William D. Ticknor, 1841), 102. Education reformers and teachers echoed the sentiment, see Thomas Burrowes, *Pennsylvania School Architecture: A Manual of Directions and Plans* (Harrisburg: A. Boyd Hamilton, 1855), 195-196; *The Sixth Annual Report of the Vermont Board of Education* (Burlington: Free Press Printers, 1862), Appendix 129-130; and Jacob Abbott, *The Teacher: Or, Moral Influences Employed In the Instruction And Government of the Young* (Cooperstown: H. & E. Phinney, 1844), 111.

¹²² The standards by sometimes appear awkward and over reinforced. One of the Ross desks is shown to have a curving cross brace to reinforce the desktop support that was included in the Dixwell desk. The standards became more refined as manufacturers better understood the capabilities of the material. As opposed to the box desks, Boston Latin desks facilitated cleaning and allowed air and heat to circulate in poorly insulated and ventilated classrooms. Decoration was added through low-cost cast techniques used to ornament cast-iron fences.

objects, and therefore students would not damage ornamented furniture. Beautiful furniture would therefore, educators claimed, reduce corporal punishment and save taxpayers the cost of repair and replacement. “There will be no danger of the wanton desecration of beautiful objects,” James Johonnot wrote in his 1859 treatise on schoolhouse architecture.¹²³ Thomas Burrowes proclaimed that well-made school furniture served an educational purpose to instill in children “a love for the beautiful... a most desirable and happy feature in the character,” and habits of preservation and care.¹²⁴ A boy, forced to occupy poorly-designed furniture in a disorganized classroom, would “care little for a beating,” a lecturer to the American Institute explained in 1848. Boys did not intentionally mutilate furniture but were drawn to express themselves with graffiti on the unadorned broad surfaces of box desks, the lecturer claimed. Ornamented cast iron was a less appealing canvas for expression and more impervious to scratching and carving.¹²⁵

Ornamentation would seem to conflict with the serious, machine-like aesthetic of Wales pedestal chair introduced ten years earlier, but at that time, Wales was the only high-volume manufacturer. By the late 1840s, competition drove new considerations. Decoration served to differentiate nearly identical designs in a competitive

¹²³ James Johonnot, *School-Houses* (New York: Ivison and Phinney, 1859), 19. See also J. R. Freese, “Report of School-Houses,” *Paris Universal Exposition, 1867* (Washington: Government Printing Office, 1868), 8.

¹²⁴ For other examples see Burrowes, *Pennsylvania School Architecture*, 189. Charles Northend, “Appendix C: Schoolhouses,” in *The Teacher & Parent* (New York: A. S. Barnes & Co, 1867), 328-329.

¹²⁵ Jacob Batchelder, “The Cooperation of Parents and Teachers,” *The Lectures Delivered Before the American Institute of Instruction at Bangor, Me., August, 1848* (Boston: William D. Ticknor & Co., 1848), 25-61. Jacob Batchelder was president of the Essex County Teachers’ Association and the first principal of the high school in Lynn Massachusetts.

marketplace.¹²⁶ Ross and Wales adorned standards with classical Greek imagery – anthemions, acanthus leaves and fluted columns.¹²⁷ The motifs, drawn from the sophisticated empire style, reinforced the teaching of democratic ideals while setting products apart from competitors. Decoration encouraged future purchases of matching models from the same manufacturers. Highly ornate gothic and rococo furniture standards emblazoned with company names, logos, and patent warnings appeared in the 1870s and 1880s.¹²⁸

Dual versions of the Boston Latin desk served school administrators overwhelmed by enrollment growth (**Fig. 1.21**). Political and economic turmoil in Europe at mid-century drove waves of immigrants to crash on the shores of Philadelphia, New York, and Boston. Approximately six thousand children were added to the rolls of Boston schools between 1840 and 1855 – an increase of thirty percent.¹²⁹ Double desks eliminated nearly half the aisles to increase the capacity of a typical classroom from sixty students to eighty. In an 1851 report, Boston’s school superintendent Nathan Bishop explained that individual desks were desirable because they “diminish the temptations to such intercourse as will divert the mind from study.” But a greater consideration was the

¹²⁶ School records in several Massachusetts towns list purchases from multiple manufacturers for school desks and chairs, an indication that they were bidding competitively for jobs. Having identifiable furniture helped to tie the manufacturers to his furniture when future orders were placed during school expansion.

¹²⁷ Ross apprenticed with cabinetmaker Nehemiah Adams in Salem Massachusetts, and later Solomon Loud in Boston. In 1839 the Massachusetts Charitable Mechanics Association awarded him a silver medal for a rosewood French Secretary and a diploma in 1841 for a mahogany French Secretary. French signified an ornate rococo design.

¹²⁸ Manufacturers ornamented heavy manufacturing equipment with gothic, rococo, and Greek-revival imagery, as did many sewing machine manufacturers, out of pride in the work, to elevate the consumer’s value of the product, and for brand differentiation. See Adrian Forty, *Objects of Desire*, 90-99.

¹²⁹ Schultz, *The Culture Factory*, 110, 210-217.

expense as Boston struggled to build schools to keep up with a. Bishop estimated the cost of two single desks at thirty percent greater than one double desks and concluded that individual desks were “very desirable luxuries,” rather than “real necessities in good teaching.”¹³⁰ To justify less-than-ideal double desks, Bishop stressed that “obedience in school depends so much on the teacher.”¹³¹ Double desks added more students for each teacher to monitor and provided no boundary between the bodies of occupants to discourage undesirable interaction among students, but for superintendents forced to respond to unpredictably rapid enrollment growth, saving cost and conserving space multiplied over thousands of new students was often a more significant factor. The burden of extra supervision rested on the shoulders of teachers, though by the end of the nineteenth century cities relieved teachers by building additional schools and returning to individual desks. The Boston Latin desk quickly became a national standard that augmented the comfort and control of pedestal chairs.¹³² The desk symbolized the American project of public-school education at international exhibitions. “The universal

¹³⁰ Nathan Bishop, *First Semi-Annual Report of the Superintendent of Public Schools of the City of Boston* (Boston: J. H. Eastburn, 1852), 21-23. Bishop’s estimate is supported by an 1859 price list of Joseph L. Ross reproduced in James Johonnot, *Country School-Houses* (New York: Ivison and Phinney, 1859), 182, 156-183. Schultz, *The Culture Factory*, 280. John M. Gregory, Michigan Superintendent of Public Instruction, expressed a similar preference for individual desks and classes of fifty-six, rather than double desks and classes of 80. See John M. Gregory, *School Funds and School Laws of Michigan* (Lansing: Hosmer & Kerr, 1859), 393.

¹³¹ Bishop, *First Semi-Annual Report*, 21-23.

¹³² The desk was widely endorsed in journals. Barnard published a detailed drawing of the Boston Latin School desk in Barnard, *School Architecture* (1848), 201; Barnard also included the drawing in editions published in 1849, 1850, 1854, 1860, and the *Journal of the Rhode Island Institute of Instruction*, July 1847, 108. The desk was later called the Boston High School Desk - but continued to be closely associated with the city and its pioneering public education program. 31 states, the District of Columbia, and Constantinople are listed as installations sites for Boston-made school furniture in the 1864 catalog of Ross furniture. Joseph L. Ross, *Illustrated Catalogue* (1864), 63-70.

education afforded in the common schools of the United States is a sort of useful industry which cannot be exhibited in competition for a medal, and yet it is a system which we might imitate in many respects with much advantage,” a reviewer in *The Illustrated London News* wrote of Boston-made school furniture exhibited at London’s Exhibition of Industry of All nations in 1851 (**Fig. 1.22**).¹³³ The critic considered school desks and chairs the most interesting furniture shown in the American display – simple, cheap, space saving, and a great improvement on the long desks and benches still in use in Britain.¹³⁴ At later international exhibitions, reviewers from France, Austria and Britain identified single and double Boston Latin desks as “American School Furniture,” in contrast with the shared wooden benches and boxes typically used in European public schools (**Fig. 1.23**).¹³⁵ In Vienna, one dozen Ross individual desks and chairs in a range of sizes were displayed surrounded by reports and texts celebrating the entrepreneurship of urban education. The Boston school superintendent proudly presented a Ross seat and

¹³³ “The Great Exhibition,” *Exhibition Supplement to The Illustrated London News* (Saturday August 23, 1851), 250. Although the article does not name the manufacturers, William G. Shattuck of Boston is the only name listed in the U. S. section of the official catalog as a school furniture maker, and the furniture description matches his furniture catalog. *Official Catalogue of the Great Exhibition of the Works of Industry of All Nations, 1851* (London: Spicer Brothers, 1851), 319.

¹³⁴ For a description of the standard British classroom layout in 1851 see “Memorandum Respecting the Organization of Schools in Parallel Groups of Benches and Desks,” *The Committee of Council on Education: Correspondence, Financial Statements, &c. and Reports by Her Majesty’s Inspectors of Schools* (London: George E. Eyre and William Spottiswoode, 1851-52), 78-90.

¹³⁵ At the 1873 Vienna and 1878 Paris international exhibitions Ross furniture was employed as an exemplar of American education. In Paris, the furniture was used to illustrate a “*matériel scolaire*” lecture to French teachers at the Sorbonne University. See *Reports of the United States Commissioners to the Paris Universal Exposition, 1878 I* (Washington: Government Printing Office, 1880), 94 and *Annual Report of the School Committee of the City of Boston, 1873* (Boston: Rockwell & Churchill, 1874): 161. Newspapers and European distributors of school furniture also described the desks as “American Desks.” Some examples include R. M. Cameron, *Catalogue of School Furniture & Fittings for Board Schools*, (Edinburgh Scotland); “Geschichte der Schulbank [History of the School Desk],” *Illustrirte Zeitung* (Berlag: Leipzig, 1872); and A. Riant, *Hygiene Scolaire* (Paris: Librairie Hacette & Cie, 1874), 122-123.

desk to the emperor of Austria to emphasize that each student in Boston was allocated an individual desk and chair to match their body size.¹³⁶ On the grounds of the Vienna fair an American school was built at the behest of the U. S. Secretary of Education (**Fig. 1.24**). Within the two-room rural schoolhouse, the commissioners installed an alternative to the Boston Latin desk and pedestal chair. Known as a village or combination desk, the form united seat and work surface in a single fixture – the seat of forward students attached to the desktop of students behind.¹³⁷ Compared to urban school furniture, the combination desk was compact, cheaper, and less isolating for rural children considered more self-disciplined than urban youth.

The Combination Desk

A Jeffersonian pastoral ideal suffused common school education in the nineteenth century. Educated in New England village schools, Horace Man, William Alcott, Henry Barnard, and other school reform leaders revered the yeoman farmer family. In essays and lectures, they maintained an ideological boundary between city and country children. In 1861, Henry Barnard espoused a belief that “rustic” boys and girls were more disciplined than urban children whose parents allowed them greater free will. “Self-

¹³⁶ “The Boston Collective Exhibition at the Vienna Exposition, 1873,” *Annual Report of the School Committee of the City of Boston, 1873* (Boston: Rockwell & Churchill, 1874), 163-165; and “Education at the Vienna Exposition,” *Pennsylvania School Journal* 22, no. 7 (January, 1874): 225.

¹³⁷ The National School Furniture Company sent 48 student desks patented by John Peard of New York in 1869. The seats and desktops folded into a compact form and were moveable for use in multipurpose rural and Sunday school rooms. See John Peard, “Improved School Desk,” U. S. Patent 86,440 February 2, 1869. John W. Hoyt, “Report on Education,” *Reports of the Commissioners of the United States to the International Exhibition Held at Vienna, 1873* (Washington: Government Printing Office, 1876), 11-15; “The Boston Collective Exhibition at the Vienna Exposition, 1873,” *Annual Report of the School Committee of the City of Boston, 1873* (Boston: Rockwell & Churchill, 1874), 163-165.

control and a certain measure of self-reliance” resulted from work alongside parents in the fields since infancy, he explained.¹³⁸ A tendency to idealize rural life was present in the writings of Emerson and Thoreau and has been a continuous force in American culture becoming more resonant in the face of urbanization and industrialization.¹³⁹

Within the geographic dialectic, education reformers considered rural children physically and morally stronger than urban children susceptible to the vices of the city — sickly from inactivity, selfish, unsupervised and accustomed to having their own way.¹⁴⁰

In an 1872 statement on the relationship of schools to American society, John Eaton, U. S. Commissioner of Education, expressed his views on urban versus rural discipline: city schools required greater discipline because children escaped family influence at a young age, whereas children in agricultural areas learned from a continued close association with a nurturing family. Immigrant families in cities were singled out for criticism of home discipline. “In a room of fifty pupils there may often be found six or

¹³⁸ Henry Barnard, “Education and Educational Institutions,” in *First Century of National Existence* 1 (Hartford: L. Stebbins, 1861): 380, 393. See also Alcott, *The Library of Health*, 332. Catherine Beecher also believed that urbanization had weakened discipline learned from constant parental supervision in agricultural families. See Beecher, “Health of Teachers and Students,” 401-403 and Schultz, *The Culture Factory*, 72-75.

¹³⁹ Leo Marx, a historian of technology and culture, identified pastoralism as a “distinctively American theory of society,” that maintained significance through the twentieth century. See Leo Marx, *The Machine in the Garden: Technology and the Pastoral Ideal in America* (London: Oxford University Press, 1964), 3-10 and 174-226.

¹⁴⁰ Horace Mann, “Boston Schools,” *The Common School Journal* I, no. 3 (February 1, 1839): 41. Barnas Sears, “Annual Report,” *American Journal of Education* II, no. 7 (December, 1856): 502; *Fourteenth Annual Report of the Board of Education* (Providence, RI: E. L. Freeman & Co), 1884, “Discipline,” 33; Burrowes, *Pennsylvania School Architecture*, 195. On attitudes toward the role of schools in disciplining urban youth see Melvin Yazawa, *From Colonies to Commonwealth: Familial Ideology and the Beginnings of the American Republic* (Baltimore: The Johns Hopkins University Press, 1985), 61; and Barry Alan Shain, *The Myth of American Individualism: The Protestant Origins of American Political Thought* (Princeton, NJ: Princeton University Press, 1994), 39.

eight nationalities. Many of these children come from homes of vice and crime. In their blood are generations of iniquity,” a Boston school committee reported in 1889.¹⁴¹ The view that immigrant children needed to be rescued from unwholesome families mirrored nineteenth century social welfare institutions urgent concerns with slum life.¹⁴² As a substitute for a perceived lack of behavioral training in the urban family, Eaton argued that city children required “corrective” and “retributive” discipline in classrooms to teach “(1) punctuality, (2) regularity, (3) attention, and (4) silence as habits necessary through life for successful combination with one's fellow men in an industrial and commercial civilization.” In the schools of the agricultural countryside, however, children needed only “the family form of government,” Eaton believed.¹⁴³

For rural schools, manufacturers produced a combination desk and chair designed with less behavioral controls than the Boston Latin Desk and pedestal chair. Joseph L. Ross of Boston introduced a combination “Village Desk,” for rural schools in 1848, approximately the same year as the Boston Latin School desk was put into production (**Fig. 1.25**). Ross sold single and double version of the desk in eight heights. The form

¹⁴¹ Samuel Capen, “Corporal Punishment,” *School Document no. 19: Committee on Rules and Regulations, 1889* (Boston: Rockwell and Churchill, 1889), 4-5. Capen wrote that the amount of corporal punishment needed in a school “depends upon the homes from which these children come,” and noted that in one school there were 280 boys from Russia and Italy.

¹⁴² Lazerson, *Origins of the Urban School*, 48.

¹⁴³ Eaton’s views were part of a statement intended to be presented to an international audience at the 1872 Vienna exhibition. John Eaton, *A Statement of the Theory of Education in The United States of America as Approved by Many Leading Educators* (Washington: Government Printing Office, 1874), 13-14. A similar attitude toward lack of discipline in poor urban children was expressed by the Peabody sisters, see Mary Tyler Peabody Mann and Elizabeth Palmer Peabody, *Moral Culture of Infancy, and Kindergarten Guide: With Music for the Plays*, 4th ed. New York: J. W. Schermerhorn, 1870, 107-108. On the perceived corruption of immigrant homes and the relationship of education to industrialization see David B. Tyack, *The One Best System: A History of American Urban Education* (Cambridge: Harvard University Press, 1974), 74-75.

reflected education reformers different approach to village children. Though they often critiqued the inferior quality of furniture in rural schools, reformers did not seek to reproduce the strict bodily and behavioral control designed into Boston Latin desks and pedestal chairs. Unlike the single desks prescribed for urban schools, manufacturers and educators accepted and sometimes encouraged the use of double desks for rural schools.¹⁴⁴ In his 1855 manual of Pennsylvania school architecture, Burrowes endorsed single desks as “the more desirable in all cases,” but illustrated all of the floor plans in his book with double seat desks and observed that double combination desks were still in use in the “interior of the state.”¹⁴⁵ James Johonnot also illustrated all of the plans for “country school-houses,” with double desks in his 1859 school architecture book.¹⁴⁶ Double combination desks physically connected a student to five other children one of whom shared both seat and desk, whereas in a double Boston Latin desk and pedestal chair, a child shared a work surface with one other child, and in a single desk was fully isolated (**Fig. 1.26**). Recommendations of individual desks for cities fit a narrative of control, discipline, and disaggregation of bodies in the face of immigration and urbanization. Individual desks would train a worker for the close confines of a synchronized factory, clerical and corporate work, while a more intimate arrangement in country schools presumed rural children would continue in agricultural work that did not demand the restraint necessary for coordinated work within a management hierarchy.

¹⁴⁴ Broadside MW Chase (Buffalo, NY, ca. 1871); J. A. Bancroft & Co., *Descriptive and Illustrated Catalogue of School Furniture, Church, Hall and Lecture Room Seating, &c.* (Philadelphia, 1871); George & C. W. Sherwood, *Catalogue of School Furniture* (Chicago, 1864), 8.

¹⁴⁵ Burrowes, *Pennsylvania School Architecture*, 194-195.

¹⁴⁶ Johonnot, *Country School-Houses*, 1859.

The permissibility of a more intimate seating arrangement freed manufacturers to design a very low-cost desk. Two cast-iron standards provided all the support necessary for the seats and desks of two students, compared to four to six cast-iron pieces needed to support two students in Boston Latin desks and pedestal chairs.¹⁴⁷ Like urban furniture, the desks were designed to be screwed to the floor. In *School Architecture* (1848) Henry Barnard noted the Ross combination desks had been introduced extensively in the rural schools of Rhode Island and wherever “a rigid economy” must be observed.¹⁴⁸ Manufacturers lowered the production cost of the desks through innovative construction techniques that further de-skilled labor. Nearly all the joinery of the desk was molded into the iron standards. Metal dovetails and pins fit into machine cut mortises and dadoes in wooden parts that eliminated all high-cost traditional cabinetmaking techniques. Packed in tight bundles of nearly flat parts, the desks shipped via train at low cost. Maintenance staff snapped together parts and secured the desk with a few bolts (**Fig. 1.27**).¹⁴⁹

More closely situated to the agricultural interior of the United States, mid-Western manufacturers specialized in the production of combination desks installed in

¹⁴⁷ Rural schools that installed dual combination desks spent sixty percent less for the same number of seats than if they installed individual combination desks — twice the savings of dual versus single Boston Latin Desks and pedestal chairs. Savings calculated based on the 1881 A. H. Andrews catalog, one of the largest manufacturers of school desks in the second half of the nineteenth century.

¹⁴⁸ Barnard, *School Architecture* (1848), 205.

¹⁴⁹ The catalogs of J. A. Bancroft, A. H. Andrews, Sidney School Furniture, and W. A. Choate / Union School Furniture published detailed illustrations of innovative and proprietary molded hooks, keyed dovetails, and other clever metal to wood joinery that de-skilled manufacturing and assembly and lowered costs of shipping. Manufacturers’ catalogs promoted screwless versions that prevented students from disassembling desks.

rural schools through the mid-twentieth century. Whereas New England manufacturers named furniture after Boston schools and founding fathers, Midwest manufacturers gave combination desks active names that implied the furniture would autonomously perfect the child: *The Perfect Automatic*, *The Perfect Favorite*, *The Fashion*, and *The Paragon*. A. H. Andrews, the son of a Connecticut schoolteacher, brought the design for Ross's village desk to the mid-West. The A. H. Andrews Company, launched in Chicago in 1864 to produce combination desks, became the largest manufacturers of furniture for schools, offices, theaters, and churches in the last quarter of the nineteenth century.¹⁵⁰

In 1872, the popular *Triumph* combination desk by the Andrews Company was offered with an innovative folding seat that was more comfortable and compact (**Fig. 1.28**).¹⁵¹ To write comfortably at a desk, most people pull out the chair, sit, and then shift the chair forward and under the desk; but in fixed-seat furniture screwed to the floor a space between seat and desk had to be maintained to allow easy entry and exit.¹⁵² Too great a space between desktop and seat caused considerable discomfort — like eating at a diner booth where the bench seat is too far from the table edge. Educators and physicians

¹⁵⁰ The company began producing cast-iron school furniture around 1870, and by 1873 it published its first catalog of furniture for schools, offices, churches, and halls. J. A. Bancroft of Philadelphia distributed the furniture of A. H. Andrews in the East beginning in 1872. See J. A. Bancroft & Co., *Catalog of School Furniture* (Philadelphia, 1872), 6; A. H. Andrews & Co., *School Furniture and Hall Settees* (Chicago, 1873); "Historical Sketch of the Furniture Trade of Chicago," *American Cabinet Maker and Upholsterer* 35, no. 15 (August 13, 1887): 21; Alfred Andrews, *Genealogical History of John and Mary Andrews* (Chicago, IL: A. H. Andrews & Co, 1872), 212, 374-375; Vermont Board of Education, *First Annual Report of the Secretary of the Vermont Board of Education* (Ludlow, VT: Rufus S. Warner, 1857), 79-81.

¹⁵¹ A. H. Andrews, *School Furniture*, 1873. A primarily mid-West market for Andrews' combination desks is suggested by testimonials from the 1873 and 1881 catalogs limited to schools from Ohio west to Colorado.

¹⁵² Nineteenth-century American educators required students to sit and stand periodically either in unison or in groups to recite lessons.

worried the gap strained students' back and shoulders as they bent forward to write. A folding seat could be placed much closer to the desk front. In its upright closed position, a student could move into their desk, then unfold the seat and sit in one motion. The proximity reduced the distance necessary to lean forward to write (**Fig. 1.29**).¹⁵³ Folding seats also packed students more closely together than Boston Latin desks and pedestal chairs. The Andrews Company promoted the *Triumph* desk for its silent hinged seat and another innovation — a footrest— adapted from railroad seats and advertised as a comfort for students' feet, and a place to “keep them there” to prevent the noise and distraction of scraping them on the floor.¹⁵⁴

Like Boston Latin desks, the storage area for most combination desks was viewable through open cast-iron standards to compel students “to be neat and orderly, and prevent the introduction of contraband articles,” according to one manufacturer's catalog (**Fig. 1.30**).¹⁵⁵ Ornamentation was also used to articulate moral messages. The pointed arches that ornamented the *Triumph* desk expressed an early use of Gothic-revival style recently developed in mid-West educational architecture. A signifier of

¹⁵³ Ariel Parish, “Management of the School Room” *Practical Educator and Journal of Health* 1, no. 6 (June, 1847): 163-205, 202. Educators continually stressed the importance of a quiet classroom: in an 1846 lecture to the Massachusetts Teacher's Association teacher Ariel Parrish expected students to refrain from smacking their lips, squeaky shoes, shuffling, scuffling and any other noisy activities.

¹⁵⁴ A. H. Andrews, *School Furniture and Hall Settees*, 1873. In double folding-seat versions, both seatmates had to enter and exit simultaneously, so some manufacturers offered double desks with individually folding seats so a scholar could stand and sit without disturbing a seatmate. Broadside, Perfect desk, Grand Rapids Furniture Company, American Antiquarians Society, ca. 1885.

¹⁵⁵ Combination desks intended for intermediate and high school grade students trusted to have learned to keep their desks neat and contraband-free had fully enclosed boxes with lids inset into the iron standard. *The New York Teacher and American Educational Monthly: Devoted to Popular Instruction and Literature* 5, no. 17 (July 1868): 248. J. W. Schermerhorn & Co., *Our Illustrated Catalogue of School Material for 1869 and 1870* (New York: J. W. Schermerhorn & Co, 1869), 7.

upright morals associated with ecclesiastical architecture, the style came to dominated American school design in the first half of the twentieth century.¹⁵⁶ Another company embossed the inspirational sayings “Time Flies,” “Knowledge and Truth,” “Aim High,” and “Strive and Win” on its standards.¹⁵⁷ Open-work cast iron also significantly reduced the volume of iron and weight to facilitate handling, storage and shipping, and lower production cost. Rural schools could more easily afford combination desks that provided the postural training of urban school furniture without the rigid separation and controls of the individual pedestal chair and desk (**Fig. 1.31**).

The Grid

Demographics, furniture, and discipline differed, but one feature was sacrosanct to both rural and urban classrooms – the grid. Children everywhere faced the teacher secured in evenly spaced boxes to regularize and fix chaotic bodies. Architectural historian Dell Upton argues that nineteenth century planners considered the grid “an intellectual program for the subordination of the landscape to republican life.”¹⁵⁸ The grid was used for the surveying of farmland, the platting of city streets, the arrangement of museums and shops, the management of prisons, and, as early common school furniture shows, the education and control of children’s bodies. As later chapters will demonstrate,

¹⁵⁶ See Calder Loth and Julius Trousdale Sadler, *The Only Proper Style: Gothic Architecture in America* (Boston: New York Graphic Society, 1975), 90-91.

¹⁵⁷ Thomas Kane & Company, *School Furniture* (Chicago, 1880-1889).

¹⁵⁸ Dell Upton, *Another City: Urban Life and Urban Spaces in the New American Republic* (New Haven, CT: Yale University Press, 2008), 136-137. James C. Scott also investigated the relationship between republicanism, control and the grid in James C. Scott, “Part 1. State Projects of Legibility and Simplification,” in *Seeing Like A State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven: Yale University Press, 1998), 9-53.

once standardized for schools, the classroom grid was reproduced through commercial furniture installed in public spaces as disparate as offices, baseball stadiums and railroad cars.

The classroom grid resulted from a decade of efforts by common school advocates and manufacturers to design an interior that reliably shaped children into moral, productive citizens. Prior to the grid, semi-autonomous neighborhood schools had widely divergent interiors and uneven success. Education reformers sought to codify the best educational practices, but in classrooms that varied in arrangement, number of students, and teaching methods, school leaders could not identify what factors contributed to success or failure. Frustrated by unpredictable outcomes and expense, an 1837 Boston school committee report suggested “schools should be so nearly alike in respect to classification as well as numbers, that we may ascertain, with ease and accuracy their comparative merits.”¹⁵⁹ “In organizing a system of popular education, the same practical judgment is to be exercised in making special adaptations of means to ends, as in any manufacturing or other business enterprise,” Boston School Superintendent Bishop wrote in his 1852 report.¹⁶⁰ Bishop outlined three manufacturing-like criteria for the Boston school system: “to every child in the city *an education of the best quality, in the shortest time, and at the smallest expense.*”¹⁶¹ To achieve measurability

¹⁵⁹ Boston School Committee, *School Committee Report on the Distribution of the Students in the Grammar Schools of the City of Boston* (Boston: John H. Eastburn, 1837), 7.

¹⁶⁰ Bishop, *First Semi-Annual Report*, 6.

¹⁶¹ Bishop, *First Semi-Annual Report*, 8. To achieve standardization, the Boston School Committee wrested control of children’s education from parents and local teachers. The committee assigned students to schools and instituted standardized testing in 1845 to compare teachers and schools. See “Reports of the Annual Examining Committees of the Boston Grammar and Writing Schools, “republished in *The Common School Journal* VII, no. 19 (October 1, 1845): 289-291.

and increase efficiency members of the Boston school committee turned to the organizational methods of a local success story —manufacturing.¹⁶²

Developed in New England concurrently with common schools, the “American System of Manufacturing” used a sequence of processes performed on special-purpose machines to produce interchangeable parts assembled into finished products.¹⁶³ Manufacturers used the strategy to produce guns, shoes, watches, bicycles, and other products in high volume at low cost. Within the manufacturing model, educators assumed schools were factories within which teachers transformed children from raw material into interchangeable parts – workers for the industrial based economy of New England. “Children,” school principal and educational theorist G. F. Thayer wrote in 1840, “are brought into life plastic, and for a time, passive; ready to receive those mouldings and impressions, which the training of a mother may produce.”¹⁶⁴ Thayer’s production metaphor extended from motherhood to teachers as surrogate mothers who would shape children to suit national aspirations. Edmund Loring wrote in the 1846 annual report of the Boston school committee that “our children are to be trained for this community in

¹⁶² For a detailed explanation of the stages and major figures who participated in restructuring Boston schools on an efficient manufacturing model see Schulz, *The Culture Factory*, 82, 103-131. Abram de Swaan noted standardization and discipline were important to both schools and factories in the nineteenth century; see Abram de Swaan, *In Care of the State: Health Care, Education, and Welfare in Europe and the USA in the Modern Era* (New York: Oxford University Press, 1988).

¹⁶³ The term “American System of Manufacturing,” was applied by later historians to a particularly American approach to manufacturing. In the 1850s, there was awareness among industrialists in Britain and the United States, that Americans had systematized manufacturing to their advantage. David Hounshell outlines the principles of the American System in David A. Hounshell, *From the American System to Mass Production, 1800-1932* (Baltimore: Johns Hopkins University Press, 1984), 15-65.

¹⁶⁴ G. F. Thayer “A Lecture,” *The Common School Journal* II, no. 24 (December 15, 1840): 378.

which most of them are to live and labor.”¹⁶⁵ Industrial America needed machine tenders and office workers comfortable with regularity, synchronicity, and supervision. “The first requisite of the school is *Order*: each student must be taught first and foremost to conform his behavior to a general standard,” to sacrifice “arbitrary control over his body,” and be trained in established standards of sitting, standing, and speaking, the St. Louis superintendent of schools maintained in an 1871 report.¹⁶⁶

Female teachers acted as machine operators within the school-as-factory metaphor. Like factory owners, school boards shifted from men to lower-waged women to minimize labor costs. Between 1850 and 1900 female teachers in urban schools earned only about one third the salary of their male counterparts.¹⁶⁷ By the 1850s a female teacher was assigned to a room of more than four dozen children. To maximize the productivity of her labor, schools provided the specialized machinery of school furniture designed to automate production and reduced the skill and labor of teaching. An 1868 manual of school architecture described how furniture made teaching easier through increased control:

Each student is separated from every other one. It leaves him less exposed to temptations to disorder and relieves the teacher of the severest part of that exacting care which exhausts the strength and wastes the nervous energies of the stoutest constitutions.¹⁶⁸

¹⁶⁵ Boston School Committee, *Reports of the Annual Visiting Committees of the Public School of the City of Boston, 1846* (Boston: J. H. Eastburn, 1846), 8

¹⁶⁶ The superintendent, William T. Harris, became the U. S. Commissioner of Education from 1889-1906. William T. Harris, “Annual Report of the Superintendent, August 1, 1871” in *Seventeenth Annual Report of the Board of Directors of the St. Louis Public Schools* (St. Louis: Plate, Olschusen & Co, 1872), 31-32.

¹⁶⁷ Tyack, *Learning Together*, 84.

¹⁶⁸ C. Thurston Chase, *A Manual on School-Houses and cottages for the People of the South* (Washington: Government Printing Office, 1868), 14.

Aisles and desks defined the boundaries of personal space and separation for native and immigrant children from families and cultures in which definitions of social space varied.¹⁶⁹

A pattern of regularly spaced furniture drew the teacher's attention to aberrant bodies — move out of alignment with those in front and a teacher quickly identified your errant body for correction.¹⁷⁰ Teachers dashed down aisles so quickly they could arrive before students were aware of detection. Supervision for instruction was inseparable from surveillance for control. “Be sure to know how your students proceed in their work” an educator recommended in 1848, “either visit them at their seats, while they are writing, or call them to your desk with their books, sufficiently often to keep them in the right course.”¹⁷¹ Classroom furniture was designed to automate discipline. Whereas teachers beat wild boys to get them to behave in the early nineteenth century, factory-made school furniture effortlessly molded the child into a model of well-behaved restraint that needed no supervision — at least that was the implication furniture manufacturers illustrated in promotional materials (**Fig. 1.32**). According to one furniture catalog, poorly designed furniture led to harsh, brutal “semi-barbarous” treatment of students, while elegant

¹⁶⁹ New England was the epicenter of a radical restructuring of American society that occurred with industrialization. By the 1820s, New England was home to thriving industries in paper, textiles, shoes, and furniture. In the 1840s, immigrants unfamiliar with industrial work were added to rural workers streaming into cities. The transition to an industrial society required the breaking of old habits, a process historian Kenneth T Jackson described as a dissolving of the pre-industrial life in the solvent of the factory system. See Kenneth T. Jackson and Stanley K. Schultz, *Cities in American History*. (New York: Knopf, 1972), 109. On changes in the pace of life as manufacturing changed from craft to industry see E. P. Thompson, “Time Work Discipline and Industrial Capitalism,” *Past and Present*, no. 38 (December, 1967): 56-97.

¹⁷⁰ For a seminal discussion of the influence of interior arrangements of furniture on social interaction in institutions see Humphry Osmond, “Function as the Basis of Psychiatric Ward Design” *Psychiatric Services* 8, no. 4 (April, 1957): 23-28.

¹⁷¹ “School Keeping,” *The Massachusetts Teacher* 1, no. 22 (November 15, 1848): 343.

manufactured furniture served “to inculcate habits of order and carefulness.”¹⁷²

Marketing materials claimed furniture instilled self-discipline in children not through barbaric corporal punishment but through the modern science of ergonomics and medicine.

School systems also divided the labor of education among teachers to lower costs and improve learning, another characteristic of the American System of Manufacturing. New, age-graded classrooms focused each teacher on a limited curriculum to deskill the work of teaching. “Mixed or ungraded Schools, by imposing instruction in all the branches on their teachers, exclude hundreds of such from the profession,” Thomas Burrowes wrote of the challenges he thought female teachers faced; “the grading of Schools will correct this mere practical evil, and restore them to their proper position and to a large degree of usefulness; thus increasing merely by systematizing, the teaching force of the system.”¹⁷³ School leaders believed a female teacher would need only master those pedagogies relevant to the age she taught. Students would enter primary schools as raw material and move on an annual basis from grade-to-grade teacher-to-teacher like parts passing through the workstations of a factory. The student would emerge from each grade more refined until graduation as an interchangeable, perfected body and mind. Normal schools would train lower-paid female teachers in an unwavering pedagogy. Along with centralized oversight, testing, and worker training was a need to standardize the interior design of the classroom, the equivalent of the factory floor. In 1852, Boston

¹⁷² Baker Pratt & Co., *Improved Plans for Modern School Houses* (New York, ca. 1878), 4; A. H. Andrews, *Catalogue of School Merchandise* (Chicago, 1881), 45-46.

¹⁷³ Burrowes, *Pennsylvania School Architecture*, 12.

school superintendent Bishop called for “*one general plan*,” and inaugurated the Quincy school plan, the newest in Boston, as the standard.¹⁷⁴

Designed to convert foreign and native born into interchangeable citizen-workers, the Quincy School institutionalized an arrangement for American classrooms that continued through the twentieth century. It was reported that Mayor Quincy, at the dedication of Boston’s Quincy Grammar School in 1848, announced that he believed nearly half of the 400 students in the school were not Americans. “Many of their parents were not fitted for the duties of a republic. But these children, educated side-by-side with our own, would learn self-government, and be trained to become worthy citizens of this free country,” Quincy predicted.¹⁷⁵ He put his confidence in the literal side-by-side arrangement of desks and seats in all the school’s classrooms. The interior design of Quincy grammar school classrooms completed a trend toward ever greater isolation and regulation of urban student bodies that began with the Adams and Alcott classrooms of the 1830s. Previously, teachers organized a classroom into mixed age “grades,” by ability. Each classroom contained multiple grades with separate lesson plans tailored by a teacher who instructed the full grammar school curriculum. Students of different maturity levels and life experiences mixed freely. The organization was complicated, the teaching and discipline labor intensive and inconsistent. Classroom arrangements did not align with student groupings: furniture of different heights ranged from lowest in the front, to highest in the rear, or from lowest in the center to highest on the outside. To improve

¹⁷⁴ Bishop, *First Semi-Annual Report*, 6-44.

¹⁷⁵ Barnard, *School Architecture* (1848), 172.

effectiveness and efficiency, the school committee graded students at the Quincy Schools by age instead of ability. Referred to as “the experiment” by superintendent Philbrick, the Quincy School building was divided into twelve identical classrooms each assigned a single teacher to instruct a class of fifty-six students of similar ages. The school committee outfitted the rooms with identical pedestal chairs and individual Boston Latin desks arranged in eight rows of seven desks each (**Fig. 1.33**).¹⁷⁶ Education reformers judged the prototype school a success in efficient and effective teaching. The school committee instituted the arrangement in all Boston grammar schools in 1849 and all primary schools in 1860.¹⁷⁷ Philadelphia immediately adopted the Quincy School classroom plan, followed by St. Louis (1850s), Chicago (1866), New Haven, Louisville and Cincinnati.¹⁷⁸ The arrangement of the Quincy School classroom became a national standard for class size, arrangement and management in urban public schools.

Standardization of the classroom grid reassured anxious native-born parents that common schools had the controls in place to achieve a central tenet of their mission – the Americanization of immigrants collecting in cities. In the midst of massive Irish

¹⁷⁶ Barnard, *School Architecture*, 1848, 209. Brayley, *Schools and Schoolboys*, 116.

¹⁷⁷ “Model Primary School House in Boston, with Illustrations” *American Journal of Education* XLV, no. 20 (December, 1866): 704.

¹⁷⁸ In 1866 Boston adopted a standard classroom that was described in the *American Journal of Education*: a square 28 feet by 28 feet with 56 individual Joseph L. Ross desks and pedestal chairs arranged in eight rows of seven seats each. “School Architecture,” *American Journal of Education* 24 (Oct. 1873): 557-59, 563, 567-71, and 593-99. Philbrick repeated his endorsement of the Quincy School as the standard in his 1885 survey of urban schooling, see John Dudley Philbrick, “City School Systems in the United States,” *Circulars of Information of the Bureau of Education no. 1-1885* (Washington: Government Printing Office, 1885), 158-160. Segregating students into classes by age and ability and assigning a single class to each teacher was modeled on the Prussian system and popularized by Horace Mann in a review of European methods of education. See Mann’s *Seventh Annual Report* republished in *The Common School Journal* VI, no. 7 (April 1, 1844): 115-116. Thomas Burrowes justified graded schooling as “Division of Labor,” in pursuit of economical and efficient education; see Burrowes, *Pennsylvania School Architecture*, 10-11.

immigration from Ireland in 1846, the Boston School Committee acknowledged “fears are, at times, entertained by him, that the rapid influx of a foreign population, ignorant of our laws and hostile to our institutions, may debase our morals and overthrow our government,” but then posited that “in the education of the people, a barrier is erected against which the waves of foreign ignorance and vice may break and foam in vain.”¹⁷⁹ School furniture operated on the frontier where American culture came into contact with foreign cultures, with the hope that foreignness would be conquered. In an 1848 article in the *Common School Journal*, Horace Mann emphasized the power of public-school education to erase differences between foreign- and native-born children. “The value of educational institutions and influences, having this assimilation and uniting tendency...can not be easily exaggerated in their relation to our native population, and especially in their relation to our immigrant population,” Mann explained.¹⁸⁰

“The tide of pauper emigration to this country, and to this City is of alarming extent,” the Boston School Committee reiterated in 1849. “If we let them run wild, we shall feel the effects ten years hence,” the report warned, “in the insecurity of property, in the records of our criminal courts, in the expenses of our houses of punishment, and in our taxes for pauperism.” The committee believed “lectures and text book instruction in morals,” were lost on non-native children; immigrant children would learn by example from native-born children “to train and form correct habits.”¹⁸¹ Educators had faith

¹⁷⁹ Boston Board of Education. *Ninth Annual Report of the Board of Education Together with the Ninth Annual Report of the Secretary of the Board* (Boston: Dutton & Wentworth, 1846), 6.

¹⁸⁰ Horace Mann, “The Proposed Substitution of Sectarian for Public Schools,” *The Common School Journal* X, no. 11 (June 1, 1848): 168-169; See also Edmund G. Loring, *School Report*, 1846, 34.

¹⁸¹ John Codman, *The Report of the Annual Examination of the Public Schools of the City of Boston*, 1849 (Boston: J. H. Eastburn, 1849), 28-32.

formative years spent within the strict confines of the gridded classroom beside classmates would instill in children from diverse backgrounds identical lifelong habits of self-discipline. Schools would “domesticate them,” and “give them American feelings, and identify them with ourselves as one people, with common interests,” Boston school examiners argued.¹⁸²

Furniture arrangement fashioned a social space for group production as individuals came into contact and interacted with one another in increasingly predictable and prescribed ways.¹⁸³ It was hoped that schooling would also bridge the increasing class separation. “The social effect of so grading the Schools as to detain the youth of all conditions in a state of common and associated apprenticeship to republican equality and simplicity,” Thomas Burrowes wrote in 1856 of the value in mixing children from wealthy families with those less well off.¹⁸⁴ Though Burrowes used the language of imprisonment – “to detain the youth,” – he was not advocating containment in a punitive sense, but to nurture good will toward the wealthy of the lower classes in pursuit of social stability.

Because furniture that trained bodies correlated with pedagogy that trained minds, furniture manufacturers and education advocates logically coordinated efforts to disseminate standards. In *School Architecture*, Henry Barnard reproduced dozens of engravings and descriptions of school furniture provided by Boston school furniture manufacturers from their advertisements and catalogs. It was not a coincidence that

¹⁸² Codman, *The Report of the Annual Examination*, 28-32.

¹⁸³ Henri Lefebvre, *The Production of Space*, 53-59.

¹⁸⁴ Burrowes, *Pennsylvania School Architecture*, 13-19.

Barnard published the first edition of *School Architecture* in 1848, the same year the Quincy school opened and within one year after manufacturers promoted the first mass-produced school desks in Boston.¹⁸⁵ *School Architecture* contained dozens of architectural plans and specifications for schools Barnard designed in Rhode Island, and plans recommended by leading education reformers Horace Mann, George Emerson and Nathan Bishop. Barnard vigorously endorsed the new standard furniture and arrangements. “The schools of Boston are the best jewels in her crown,” Barnard boasted, “If I were asked by an intelligent stranger to point out to him our most valued possessions... I would carry him to one of our public schools...I would tell him that here was the foundation on which our material prosperity was reared, that here were the element from which we constructed the state.”¹⁸⁶ Thousands of educators and administrators received copies of Barnard’s treatise published in five editions between 1848 and 1854 and excerpted in *The American Journal of Education*. The widespread distribution of his book drove sales of the Boston school furniture he canonized. After Barnard became the first United States Commissioner of Education in 1867, he issued a report on school architecture that included plans for urban schools. For five of the schools he identified the Boston-made furniture of Ross and Wales, the only manufacturers named in the report.¹⁸⁷ In his 1859 manual *Country School-Houses*, James Johonnot, a

¹⁸⁵ The makers and years each began manufacturing the desk included: Samuel Wales, Jr. (1847), Joseph L. Ross (1848), and William G. Shattuck (1847). Henry Barnard faithfully reproduced sections of Wales and Ross catalogs in Barnard, *School Architecture*, 1848, 202-205.

¹⁸⁶ Barnard, *School Architecture*, 1848, 170.

¹⁸⁷ Barnard, *School Architecture*, 1848, 1849, 1850, 1854; an abridge version complete with furniture endorsements was published in 1851 as Henry Barnard, *Practical Illustrations of the Principles of School Architecture* (Hartford, CT: Tiffany and Company, 1851); Henry Barnard, “School Architecture,” *American Journal of Education* XLII, no. 17 (March, 1866): 720; Burrowes,

follower of Mann and Barnard, sought to codify “principles of universal application” which included Boston-made school furniture.¹⁸⁸ In conjunction with endorsements in academic journals and architecture books, furniture manufactures disseminated the standard arrangements and spatial practices in sales catalogs and advertisements. At the forefront of new techniques of mass-marketing, furniture manufacturers were well suited to broadcast and reinforce educational standards. They reproduced model renderings and floor plans in their catalogs (**Fig. 1.34**).¹⁸⁹ Catalog descriptions encouraged age-graded schooling, advised buyers on appropriate class size and furniture for each age, and suggested the ideal grid arrangement.¹⁹⁰

Pennsylvania School Architecture, 193-197, Johonnot, *Country Schoolhouses* 1859, 39, 158-166. In the report Barnard identified Ross and Wales furniture at Bowdoin School (Boston), Quincy School (Boston), Prescott Grammar School (Boston), Norwich Free Academy (Norwich, CT), and the 12th Street Grammar School (New York City), see Henry Barnard, *Report on School Architecture and Plans for Graded Schools by the Commissioner of Education* (Washington: Government Printing Office, 1871), 526, 528, 540, 553, 641.

¹⁸⁸ Barnard, *Report on School Architecture*, 542-543; Johonnot, *Country School-Houses*, 1859, iv, 159-166; Johonnot endorsed and published several pages of Boston school furniture. Thomas Burrowes also published Boston school furniture in his manual. He did not identify the Boston manufacturers by name, but the engravings are identical to those from the Wales and Ross catalogs, see Burrowes, *Pennsylvania School Architecture*, 194-197.

¹⁸⁹ Some were generic plans drawn by architects, some plans were of specific schools, and some were taken from reference resources. In its 1881 catalog, The A. H. Andrews Company described in detail how to arrange different size desks from their catalog into rows and republished 28 pages of illustrated construction plans for six school houses from a pamphlet written by the superintendent of Public Instruction of the State of Wisconsin. A. H. Andrews, *A. H. Andrews & Co's Illustrated Catalogue of School Merchandise. Also Plans, Specifications and Estimates for the Construction, Heating and Ventilation of Modern School Houses* (Chicago, 1881), 129-157.

¹⁹⁰ Wales contracted New England church architect J. D. Towle to draw six floor plans of single- and double-desks for his 1850 catalog that reflected the Quincy School ideal. The first published plans included high-capacity rooms of up to 140 students but arranged in the grid format, an acknowledgement of enrollment pressures and a way of retrofitting larger classrooms that still used the monitorial system. See Samuel Wales, Jr., *The Guide*, np. Other manufacture catalogs with school plans include: Joseph L. Ross, *Illustrated Catalogue* (1864), 6; George & C. W. Sherwood, *Catalogue of School Furniture* (Chicago, 1864), 24-32; William O. Haskell & Son, *Illustrated Catalogue of the Boston School Furniture Manufactory* (Boston, 1870), 71-76; Joseph L. Ross, *Illustrated Catalogue*, 1872, 6; J. A. Bancroft & Co, *Descriptive and Illustrated Catalogue* (1872), 30-31; and Union School Furniture Co., *School, Hall and Opera Furniture* (Albany, 1885), 7. The Bancroft Company and the Baker Pratt Company prescribed a layout for mixed age schools in

A classroom grid of manufactured furniture was a tool used to both protect and discipline students. Manufacturers claimed the design of furniture lessened temptations to misbehaviors associated with boys (scratching and carving, noise making and disassembly), thereby reducing the frequency of corporal punishment.¹⁹¹ In 1886 a Boston grammar school principal reported corporal punishment had created “perfect order,” and “prompt obedience,” in classrooms of Russian, Italian, and Swedish boys “from homes, many of them of filth, wretchedness, intemperance and awful sin.”¹⁹² Scholar of masculinity E. Anthony Rotundo asserts nineteenth century boys in the city lived in a “boy culture,” with greater freedoms from supervision for longer periods of time than girls. Classroom furniture, however, was a location where educators targeted what they perceived as the excessive freedom of boys.¹⁹³ Furniture was designed to

rural areas with lower desks in the center rows. See Baker Pratt & Company, *Improved Plans* (1878), 3-5; and J. A. Bancroft & Co, *Descriptive and Illustrated Catalogue* (1871), 31.

¹⁹¹ “Nothing is more fascinating to a boy than a knife,” an educator warned in 1893, “and what pleasure can there be in possessing a knife, if one may not use it.” Lecture on “Courtesy” by G. F. Thayer, principal of the Chauncey Hall School in Boston delivered to female elementary teachers, January 23, 1839, repeated August, 1840 at the American Institute of Instruction. Published in *The Common School Journal* II, no. 24 (December 15, 1840): 388. A typical entry from a manufacture’s catalog claimed, “There is nothing about the desk that even a mischievous boy can tamper with or loosen.” From William Peard, Pennsylvania School Furniture Company, *The ‘Perfect Favorite,’ School Desk* (Philadelphia, 1890), 2. Other references to boys’ proclivity for carving furniture include, Charles Northend, *The Teacher & Parent* (New York: A. S. Barnes & Co, 1867), 328-329, Johonnot, *Country School-Houses*, 1866, 157.

¹⁹² The successful transformation was described by members of the Boston school committee as justification to continue corporal punishment in a report debating its continued use in the Boston schools. *School Document no. 19, Committee on Rules and Regulations on the Subject of Corporal Punishment, 1889* (Boston: Rockwell and Churchill, 1889), 18.

¹⁹³ Ken Parille examined the gendered views of Mann, Alcott and other reformers on corporal punishment and their recommended methods for its replacement with internalized discipline. Parille shows that in sentimental nineteenth-century culture mothers and teachers had sympathy for daughters, but little for sons. He questions E. Anthony Rotundo’s assertion that boys had greater freedom than girls. See Ken Parille, *Boys at Home: Discipline, Masculinity and the Boy-Problem in Nineteenth-Century American Literature* (Knoxville, TN: The University of Tennessee Press, 2009), xvi-xxi, and 17-40; On “boy culture,” and the freedom of boys versus girls see E. Anthony Rotundo, *American Manhood: Transformations in Masculinity from the Revolution to the Modern*

constrict stereotypically boy-like misbehavior including defacement and disassembly of seats and desks. Educators believed furniture that prevented boys' bad behavior would avoid the socially indelicate situation of a female teacher executing corporal punishment on a boy, a role normally reserved for male teachers.¹⁹⁴ Manufacturers and school administrators did not expect furniture to protect girls from corporal punishment — using bodily punishment on girls in school was virtually nonexistent by the nineteenth century — but some teachers twisted the function of the grid into a tool to shame girls by stripping them of its protections.¹⁹⁵

Desks in a grid separated the bodies of girls, presumed to be morally refined by nature, from unacceptably close adjacency with boys, frequently characterized in educational materials as immoral or depraved.¹⁹⁶ Gender integration had been an ongoing debate for American public schools since Massachusetts enacted its 1789 law to financially support public education for boys and girls. The equal education of women would “make them fit wives for well-educated men, and enable them to exert a salutary influence on the rising generation,” the editor of the *American Journal of Education*

Era (New York: Basic Books, 1993), 31-55.

¹⁹⁴ “Quincy School House,” *Annual Report of the School Committee of the City of Boston, 1860* (Boston: Geo. C. Rand & Avery, 1860), 90. Following a growing trend, the Quincy school (an all boy's school) employed a large proportion of women teachers. David Tyack argues that more women were hired as school bureaucracy expanded; see Tyack, *The One Best System*, 61.

¹⁹⁵ The only mention Mann makes of girls in the 1845 publication of his lecture on school discipline is a footnote in which he claims that “in ninety-nine towns in every hundred, in the State, the flogging of girls even where it exists at all, is an exceedingly rare event.” Horace Mann, *Lectures on Education* (Boston: Wm. B. Fowle and N. Capen, 1845), 319. “Boys require considerable discipline, girls almost none,” female educator Frances H. Turner wrote in a letter to the Boston School Committee about gender integrated schools. See Boston School Committee, *Majority and Minority Report of the Special Committee on Subject of Co-education of the Sexes* (Boston: Rockwell and Churchill, 1890), 80.

¹⁹⁶ See Ken Parille, *Boys at Home*, xvi-xxi, 17-40.

advised in an 1826 instruction manual.¹⁹⁷ The first common schools were temporally segregated by gender: girls attended for a few months of summer school, usually taught by women, and boys for six months of winter taught by men. As girls began to attend school for longer duration, schools sometimes spatially segregated boys and girls through separate buildings, entrances, floors, and into separate zones within the same classroom (Fig. 1.35). The practice of educating boys and girls in the same room was common enough in rural schools that Henry Barnard defined a district school as “a public school open to all the children of the district, of both sexes.” It was in the middle of the nineteenth century when Americans began to debate coeducation in urban public schools, the time manufacturers produced the first school desks.¹⁹⁸

Teachers gendered furniture when they assigned boys and girls into separate zones within a classroom. Though the forms were identical, location in the room and the gender of the surrounding occupants denoted furniture as male or female. Once gendered

¹⁹⁷ William Russell, *Manual of Mutual Instruction*, 39. Though women’s voting rights were curtailed, reformers viewed the education of girls as critical to maintenance of the civic fabric. Girls would become mothers of the next generation of men to lead the republic. See Wightman, *Annals of the Boston Primary School Committee*, 7; On the role of women in raising the next generation of selfless male leaders see Hilary J. Moss, *Schooling Citizens: The Struggle for African American Education in Antebellum America* (Chicago: The University of Chicago Press, 2009), 134. Henry Barnard describes Boston’s complicated machinations to schedule boys and girls at separate times in the same grammar school buildings. See Barnard, *School Architecture* (1848), 169.

¹⁹⁸ Henry Barnard, *Reports and Documents Relating to the Public Schools of Rhode Island, For 1848* (Providence, 1849), 280. In 1857, Boston had 213 one-room coeducational primary schools, six coeducational grammar schools, six grammar schools for girls alone, and six grammar schools for boys alone. In 1890, as Boston debated full gender integration, the school committee reported that 36 percent of scholars in their normal, high and grammar schools attended mixed gender classrooms, though coeducation was more prevalent in smaller towns and cities, see Boston School Committee, *Co-education of the Sexes*, 5. On coeducation in rural and urban schools, including Boston see David Tyack and Elizabeth Hansot, *Learning Together: A history of Coeducation in American Public Schools* (New York: Russell Sage Foundation, 1992), 46-50, 78-113. For an overview of co-education in nineteenth century America, see Cornelius Riordan, *Girls and Boys in School: Together or Separate* (New York: Teachers College Press, 1990), 28-34.

through the spatial practice of seat assignments, some teachers used dislocation as a punishment tool.¹⁹⁹ “Boys were made to sit in the girls’ seats, amusing the school with their grinning awkwardness;” a Boston memoirist wrote of his early nineteenth century education, and “girls were obliged to sit on the masculine side of the aisle, with crimsoned necks, and faces buried in their aprons.”²⁰⁰ The practice was prevalent enough in early public education that Horace Mann felt the need to decry it in his published lectures. “To inflict a wound on the instinctive feelings of modesty and delicacy, by making a girl sit with the boys,” Mann warned in 1839, was to inflict a “wound of the spirit” equivalent to “one in the flesh.”²⁰¹ The use of gender discomfort in the classroom as punishment instilled stronger distinctions between the sexes in the years after the Civil War as Americans came to idealize a primitive and passionate masculinity, distinct from a sensitive and sentimental femininity.²⁰² Writing in 1888, Thomas Wentworth Higginson encouraged Bostonian men to “tramp, for a whole day, across hill, marsh, and pasture, with gun, rod, or whatever the excuse may be, and camp where you find yourself at

¹⁹⁹ Schultz, *The Culture Factory*, 123. In an appendix of the same 1830 proceedings as Alcott’s essay on classroom arrangement two censors of the American Institute of Instruction published a second floor plan for a “Village School-house.” The designers, teachers in the Boston schools, split the classroom longitudinally into boys’ and girls’ sections. “Plan of a Village School-house” in *The Lectures Delivered before the American Institute ... 1831*, 285-289. For another example of a similar gender-divided classroom from 1824 in Rhode Island see Barnard, *Report and Documents... 1848*, 44; Horace Mann endorsed the principles of the plan and reproduced it in his first report as Secretary of the Board of Education of Massachusetts, *On the Subject of School Houses*, 46. One letter writer remembered a “squinting-board” erected at a local school to separate boys’ and girls’ sides of the classroom to prevent any “casting of sheep’s eyes.” See Abstract of the Report of William A. Stearns, March 3, 1846 in Boston School Committee, *Co-education of the Sexes*, 12-13.

²⁰⁰ Warren Burton, *The District School as it Was* (Boston: R. R. Marvin, 1852), 20, 39, 66.

²⁰¹ Mann, *Lecture on Education* (1840), 46-47. For another remembrance see Clifton Johnson, *The Country School in New England* (New York; D. Appleton and Company, 1893), 50.

²⁰² Rotundo, *American Manhood*, 227.

evening, and you are as essentially an Indian on the Blue Hills as among the Rocky Mountains.²⁰³ As an ideal, separate and complementary male and female spheres continued through the nineteenth century, but as schools and venues in later chapters demonstrate, the separate ideal did not correspond to reality for most men and women in public spaces.²⁰⁴

Gender definition was one power enabled by the geography of fixed furniture, teachers also relocated students to inculcate values of social inclusion and accomplishment. School reformers consistently championed the power of education to unify individuals of disparate backgrounds into a benevolent democratic body politic, but unification did not mean socio-economic leveling. American education developed within a maturing capitalist industrial economy in which meritorious achievement was to be recognized and rewarded.²⁰⁵ Teachers used the grid to classify and spatially redistribute students based on performance and behavior. Students who achieved higher standing were placed at a greater distance from the teacher; those who fared poorly were placed closer. Nearer students were subjected to increased surveillance and supervision by the teacher. Unlike prisoners within the Panopticon, however, underachieving students also

²⁰³ Thomas Wentworth Higginson, *Out-Door Papers* (Boston: Lee and Shepard 1886), 138. For a discussion of primitive passion as a fundamental quality of the male sex in the late nineteenth century see Rotundo, *American Manhood*, 222-232. Rotundo explains that until the middle of the nineteenth century boys and girls lived very similar existence.

²⁰⁴ See Linda Kerber, "Separate Spheres, Female Worlds, Women's Place: The Rhetoric of Women's History," in *No More Separate Spheres*, ed. Cathy N. Davidson and Jessamyn Hatcher (Durham, NC: Duke University Press, 2002), 29-66, and Peter G. Filene, *Him/Her/Self: Gender Identities in Modern America*, 3rd ed. (Baltimore, MD: The Johns Hopkins University Press, 1998), 6-41.

²⁰⁵ Michael Katz argued school reformers sought to counteract the social decay of industrialization and urbanism through the "inculcation of restraint as a trait of character." See Michael Katz, *The Irony of Early School Reform: Educational Innovation in Mid-Nineteenth Century Massachusetts* (Boston: Beacon Press, 1968), 115-116.

suffered the shaming gaze of better performing students seated behind as a deterrent to future misbehavior.²⁰⁶ Ownership of a school seat was subject to a social contract between teacher and students, a privilege for good behavior and learning that could be rescinded if the student misbehaved. Teachers revoked the seat from children who misbehaved and sometimes banished them from communion. “She kept order; for her punishments were horrible, especially to us little ones,” one former student remembered, “she dungeoned us in that windowless closet just for a whisper.”²⁰⁷ The empty seat of an exiled child was a void in the regular pattern of bodies, a conspicuous example that served as a lesson to remaining students that inclusion mattered and to be cast out from the body politic was punishment. Some teachers created an alternative punishment by severing the child from the grid and putting their body and behavior on display in a punishment chair atop the teacher’s rostrum (**Fig. 1.36**).²⁰⁸

In 1890, when the Boston School Committee decided to mix boys and girls in all of its public schools, those in favor claimed the social controls of the classroom would protect girls.²⁰⁹ In the 1840s when mass produced school furniture was first designed in Boston, a majority of the school committee had worried continued gender-segregated

²⁰⁶ F. W. Dallinger, *Recollections of an Old Fashioned New Englander* (New York: Roundtable Press, Inc., 1941), 16-17.

²⁰⁷ Burton described the punishment as “the fearful dungeon for the immuring of offenders.” Burton, *The District School as It Was*, 20, 39, 66. In 1830, Alcott had proposed a separate room “as an appropriate retirement for reproof or discipline,” see Alcott, “Essay on the Construction of School-Houses,” 12.

²⁰⁸ Gladys Hasty Carroll, “Schooling in the Early Nineteen Hundreds,” *The New England Galaxy* XIV, no. 2 (Fall 1972): 15, *The Daisydingle Sunday-School* (Philadelphia: American Sunday-School Union, 1849), 20.

²⁰⁹ For A selection of letters written in support see Boston School Committee, *Co-education of the Sexes*, 18, 27, 15, 38, 43, 49, 53, 55, 58, 60, 78, 85, 90, 91-92 94, 105.

classes hampered “the rightful advance of girls,” and lessened their “refining influences on boys.”²¹⁰ By the 1890s, parents accepted gender integrated schools seated in mass produced furniture designed to protect student bodies as an alternative to a long walk to distant schools for their children, especially their daughters.²¹¹ Those in favor argued “impure boys and girls can never associate under more favorable conditions than when surrounded by the restraints of a well-ordered school-room.”²¹² A minority of the committee was less sanguine and worried “the association in school of impure girls and boys would lead to disastrous consequences.”²¹³ Couched within expressed concern over gender integration was elite white anxiety over a fundamental goal of common school education – the unification of classes, ethnicities and races.²¹⁴ In an 1890 report, the headmaster of the Boston Girl’s Latin School outlined arguments against gender integration based not on gender anxieties, but on geography and demographics:

In towns and small cities having a substantially homogeneous population, co-education works well in the main; for there the conditions approach in simplicity the conditions of family or neighborhood life. In large cities, however, the case is different. There the population is not homogeneous, the families represented in the school are not known to one another, the numbers brought together in a single school are much larger, and the

²¹⁰ Letter of W. A. Stearns to the Cambridge School Committee in Massachusetts Board of Education. *Abstract of the Massachusetts School Returns for 1845-46* (Boston: Dutton and Wentworth, 1846), 61-62.

²¹¹ Schultz, *The Culture Factory*, 119. An 1890 report estimated that only thirty-six percent of Boston students were in mixed gender classrooms, Boston School Committee, *Co-education of the Sexes*, 5.

²¹² Letter of Frances H. Turner of the Emerson School to the Boston School Committee, May 5, 1890 in Boston School Committee, *Co-education of the Sexes*, 79-80. A minority of the committee disagreed, not with the general principles and benefits, but whether “the judicious supervision and the proper conditions,” were generally in place, and whether certain “evils” of association outweighed the advantages.

²¹³ Boston School Committee, *Co-education of the Sexes*, 80.

²¹⁴ Schools are a public institution that heightens anxieties of life among what urban historian Lyn Lofland calls “the world of strangers.” Lynn Lofland, *The World of Strangers: Order and Action in Urban Public Space* (Prospect Heights, IL: Waveland Press, Inc.), 19.

proportion of coarse natures among the students is apt to be somewhat greater.²¹⁵

Another girls' schoolmaster wrote that "I am not in favor of mixed classes in large schools, representing, as they do in large cities, many nationalities."²¹⁶ Educators idealized gender integrated ethnically homogenous white rural schools, though co-education in sparsely populated villages was often tolerated more for economic reasons because towns could not afford separate facilities for boys and girls.²¹⁷

The professed faith urban educators had in the controls of the classroom to restrain and separate girls and boys also served to alleviate tensions over too intimate an association of immigrant and native-born children and mores surreptitiously, the integration of black and white children. In the 1840s and 1850s, Manufacturers standardized the design of the school classroom in the midst of intense debate in newspapers, journals and courtrooms over school desegregation in the North.²¹⁸ Protests

²¹⁵ Letter from John Tetlow, master of the Girls' High and Latin Schools, Boston in Boston School Committee, *Co-education of the Sexes*, 60.

²¹⁶ Letter from Lewis H. Dutton, master of the all-girls Hancock School, Boston in Boston School Committee, *Co-education of the Sexes*, 83.

²¹⁷ Nationwide responses to an 1883 survey on co-education the Bureau of Education described justifications as "economical," "convenience," and "cheap," as often as "natural," "customary," and "beneficial." No respondent was as overt in tying an objection to co-education to demographics as the respondents in the Boston School Committee report. Bureau of Education, *Coeducation of the Sexes in the Public Schools of the United States* (Washington, DC: Government Printing Office, 1883). Integrated, rural one-room schools commonly separated boys' and girls' desks. See Riordan, *Girls and Boys in School*, 28.

²¹⁸ The debate is encapsulated in two reports of the Boston school committee, the majority report contains the school committee's justification for maintaining segregated schools, and a dissenting opinion of the minority; see William Crowell, Joseph W. Ingraham, and David Kimball, *Report of the Primary School Committee, June 15, 1846 on the Petition of Sundry Colored Persons for the Abolition of the Schools for Colored Children* (Boston: J. H. Eastburn, 1846), and Edmund Jackson and H. I. Bowditch, *Report of the Minority of the Committee of the Primary School Board, on the Caste Schools of the City of Boston* (Boston: A. J. Wright's Steam Press, 1846). Hillary Moss contrasts the experience of African Americans in Baltimore, Boston, and New Haven in the early common school era. See Hilary J. Moss, *Schooling Citizens*, 5.

for and against integration took place in many American cities in the middle of the nineteenth century, but it was in Boston, the center of school furniture innovation, where debates over classroom integration resulted in the first state law prohibiting racial segregation in schools in 1855.²¹⁹

Most Northern black children attended segregated schools prior to the Civil War.²²⁰ Like most American cities, Boston never legally limited education to white children but in the 1790s black parents asked to remove their children from classrooms where they were poorly treated.²²¹ In 1806, Boston acquiesced to the petitions of black parents for a separate school. Two-hundred dollars per year was spent by the city to support a black school house; white benefactors and parents of black students provided the remainder of financial support.²²² In a precedent that became the norm for future segregated institutions in the United States, separate did not mean equal.²²³ The

²¹⁹ Legal scholar Davison M. Douglas provides a detailed study of desegregation efforts in the North, drawn from copious evidence in black and white newspapers, legal decisions, personal papers, and memoirs. He describes the ambivalence of white and black reformers and parents toward integration. Although ultimately unsuccessful, the fight to maintain segregation in Massachusetts resulted in the legal doctrine of separate but equal being enshrined in law, a justification for racial oppression that lasted until the civil rights laws of the 1960s. Davison M. Douglas, *Jim Crow Moves North: The Battle over Northern School Segregation, 1865-1954* (New York: Cambridge University Press, 2005).

²²⁰ Most Midwestern states unofficially banned black children from schools in the antebellum era. Douglas, *Jim Crow Moves North*, 31.

²²¹ Luther S. Cushing, *Reports of Cases Argued and Determined in the Supreme Judicial Court of Massachusetts* V (Boston: Little, Brown and Company, 1853), 199. Prior to 1829 no state had legislation barring black children from schooling. On the views of black parents in Boston see Moss, *Schooling Citizens*, 10; and Richard Archer *Jim Crow North: The Struggle for Equal Rights in Antebellum New England* (New York: Oxford University Press, 2017), 7-8.

²²² Crowell, et al., *Report of the Primary School Committee* (1846), 16-17.

²²³ The first school set up in the African Meeting house was overcrowded and the Boston School Commission confirmed in 1833 that the greatest objection to it was the “contrast between the accommodations of the coloured, and other children.” The school committee recommended a suitable building be provided at the expense of the city. The school committee spent \$2,500 from the city council to build a new school along with some of the funds donated by Abiel Smith. The Abiel Smith School opened March of 1835. There’s no indication in the records that the school

conditions of classrooms in the black school lagged far behind white schools. In the 1840s, black Bostonians complained the interior of the black schoolhouse was “not only in an unsatisfactory, but in a deplorable condition.”²²⁴ An 1848 examination by the school committee found it “discreditable to the City” only functioning because students and instructors had become habituated to the conditions.²²⁵ One year later the examiners reported the deportment of the scholars discouraging, lacking self-respect and reverence toward the instructors. During the visit, the committee claimed the space so disorderly they had to reprimand individuals for being noisy and for their improper postures.²²⁶

The school committee renovated the black school and replaced the teacher, but some black parents continued to insist on integrated schools. Their children had to walk past nearby neighborhood schools to reach the black school, black parents complained, whereas white children attended the school of their choosing. Black parents did not call for the elimination of black schools for those black parents who desired segregated schooling, but instead argued for the same right as white parents to send children to the school nearest their homes. One former student remembered that when they walked past schools their white peers “took particular notice of our situation; and we were looked on,

was outfitted with furniture any different than the other Boston public schools. See Kathryn Grover and Janine V. da Silva, “Historic Resource Study: Boston African American National Historic Site” 79-82.

²²⁴ Boston School Committee, *Reports of the Annual Visiting Committees of the Public Schools of the City of Boston* (Boston: J. H. Eastburn, 1845), 22.

²²⁵ Boston School Committee, *Report of the Annual Examination of the Public Schools of the City of Boston* (Boston: J. H. Eastburn, 1848), 57.

²²⁶ Boston School Committee, *Report of the Annual Examination of the Public Schools of the City of Boston* (Boston: J. H. Eastburn, 1849), 42-43.

by them, as unworthy to be instructed in common with others.”²²⁷ Black parents based their claim for redress on the school committee’s imposition of a spatially-based alienation. The petitioners for integration also highlighted a contradiction with the fundamental philosophy of common schools to unite a diverse community. “It is rather annoying to our feelings,” black parents declared, “when we perceive not only *all other* citizens in enjoyment of the right of common schools, but foreigners of all kinds, too, who are *white*, are not rejected.”²²⁸

The petition was rejected by a majority of the school committee who justified segregated schools based on a claim of innate racial inferiority, a supposed indifference to education by black parents, and a fear that Irish immigrants would pull their children from the schools and cause the system to collapse. Authors of the denial argued their case using spatial language. They first presented the argument of integrationists that black children had “the right to be mingled in, and crumbled up with, the mass of society in which he lives.” They then refuted that argument based not on their own views, but on the supposed racist views of the white working class. The committee claimed “many parents would not allow their children to associate with colored children; and these, too, from among the class who most need instruction: for the prejudices against color are strongest among the most ignorant.”²²⁹ They claimed that legal arguments could not

²²⁷ At the time of the petition there were 117 primary schools for white children, and two schools for black children. On the geography of complaints see David Martin Ment, “Racial Segregation in the Public Schools” (PhD diss., Columbia University, 1975), 37-39; Benjamin F. Roberts, *Report of the Colored People of the City of Boston on the Subject of Exclusive Schools*, 1850.

²²⁸ John T. Hilton, B. F. Roberts, Lemuel Burr, “Appeal of the Colored People of the City of Boston, to the Honorable, the Mayor and Alderman of Said City,” *The Liberator*, August 10, 1849.

²²⁹ Crowell, et al., *Report of the Primary School Committee* (1846), 7-11.

overcome the “physical, mental and moral,” distinctions of the races.²³⁰ If the underlying purpose of common schooling was to improve the underprivileged to strengthen the republic, the argument of the petition deniers went, admitting a small number of black students would undermine the larger project if white working-class immigrants withdrew their children.²³¹

School board members in favor of integration dissented and based their rebuttal on the mission of common schools to fuse all classes. “From a childhood which shares the same bench and sports, there can hardly arise a manhood of aristocratic prejudice, or separate castes and classes,” the authors wrote.²³² As evidence, they printed a letter from a New Bedford Massachusetts educator who wrote that in the city’s integrated schools he had known, “*one or two* instances during the last three years where parents have sent to the teachers a request that their child should not be required to sit at the same desk with a colored child...The white children do not object to associate with the children of color, or ill-treat them, to my knowledge.”²³³ Another integrationist highlighted the hypocrisy of

²³⁰ Crowell, et al., *Report of the Primary School Committee* (1846), 7. On nineteenth-century American theories of a biological distinction between races see Davidson, *Jim Crow Moves North*, 21. “The more that schooling came to be preserved for whites only,” Hillary Moss writes, “the more its racial exclusivity increased its perceived value.” Moss, *Schooling Citizens*, 9.

²³¹ Through the eighteenth-century education had primarily been reserved for wealthy white male children. In the 1830s and 1840s, reformers convinced taxpayers that public schools would protect the fabric of society by transforming marginal children of poor and immigrants into productive citizens. Boston had considered separate Catholic schools in the 1840s but decided to integrate Irish immigrants into the mainstream Protestant culture. The fear parents would pull their students from the public schools was enflamed by the efforts of Irish and German immigrants to obtain funding for separate Catholic parochial schools in the early 1850s. Douglas, *Jim Crow Moves North*, 58. In Boston, poor Irish workers competed with poor black workers for jobs and housing and agitated for legislation in the early 1820s that would have excluded black people from Massachusetts, see Davidson, *Jim Crow Moves North*, 22-23.

²³² Jackson and Bowditch, *Report of the Minority* (1846), 13.

²³³ Thomas A. Greene, “Letter to the minority of the school committee, 4 mo. 10th, 1846,” in Jackson and Bowditch, *Report of the Minority of the Committee* (1846), 24-25.

the committee's celebration of Boston schools for overcoming religious, class and ethnic differences in classrooms in which they claimed rich and the poor "sit on the same form [bench], yield to the same discipline, and participate equally in the struggle for the same honors."²³⁴

Northern segregationists and anti-segregationists did not argue against black education; they argued about the proximity of black and white bodies. Segregationists wanted bodies in separate buildings, integrationists wanted bodies on the same bench. Education reformers Horace Mann and Henry Barnard tried to stay above the fray. Mann, who worried his whole project of common schools would collapse if a few black children were integrated, received criticism for his measured official response. "Horace Mann represents quite a large class who think they worship Truth, but honestly deem it best to sacrifice one half of their deity to secure the rest," a critic wrote in the abolitionist newspaper *The Liberator* in 1847.²³⁵ Barnard was teaching in Connecticut when protestors violently shut down Prudence Crandall's school for black girls in 1834.²³⁶ Rather than fight overtly, Mann and Barnard helped to ensure manufactured classroom furniture would be designed to separate and control student bodies enough to ease racial integration. During the decade, the Boston school committee struggled with the debate over integration, officials prepared plans for the construction and furnishing of the model Quincy school and Boston manufacturers developed the design of the Boston Latin and

²³⁴ Charles Russell, *Report of the Minority of the Committee on the Petition of John T. Hilton* (Boston: J. H. Eastburn, 1842), 6-13.

²³⁵ "Horace Mann and Colored Schools," *The Liberator*, December 24, 1847.

²³⁶ He later lobbied for "colored departments," in schools when he worked in the state bureaucracy. Steiner, *Life of Henry Barnard*, 29.

village desks. Civically engaged manufacturers maintained close relationships with school administrators and participated in the deliberations over racially integrated schools.²³⁷ The strong probability of racial integration more than likely factored into the manufacturer's design decisions. Though never outrightly stated as a goal of classroom design by Mann and Bernard, the furniture they helped to design and later endorsed eased the placement of black children within formerly all-white classrooms.

In 1855, Massachusetts passed the first law prohibiting racial segregation in schools.²³⁸ Wendell Phillips located the victory squarely on access to school furniture, "colored people would never obtain equality in the Senate-house until they got it on the school-bench."²³⁹ In his celebratory speech abolitionist Charles W. Slack repudiated the idea, "rigidly entertained by a large portion of the community, that there was something

²³⁷ In 1845, Joseph Ingraham, the designer of the first mass produced primary-school chairs and primary classroom interiors co-authored a petition to the committee for access to white schools on behalf of black parents; see "Meeting of the Primary School Committee," *The Liberator*, June 27, 1845; and Crowell, et al., *Report of the Primary School Committee* (1846). Cabinetmaker James Kimball, an anti-slavery free-soiler, designed one of the first mass produced, bolted down school desks in 1847. Kimball served as school supervisor in Salem and on the town Common council in the years leading up to the integration of the town schools in 1844. For a biography of Kimball that discusses his civic engagement see Benjamin Dean and Zephania H. Thomas, *Proceedings of the Massachusetts Council of Deliberation* Boston: Alfred Mudge & Son, 1880), 63- 69. Manufacturer Joseph L. Ross claimed the endorsement of Boston's Chairmen of the Committee on public buildings in the years 1847-1852 and Samuel Wales, Jr., served on the Boston Common Council in 1847 and 1848. Ross and Wales supplied furniture to most Boston schools, including the model Quincy School. See *The Connecticut Commons School Journal* X, no. 12 (December, 1855): display advertisement; George Adams, *The Boston Directory* (Boston, 1847), 16; and George Adams, *The Boston Directory* (Boston, 1848), 17.

²³⁸ The Massachusetts Supreme Court rejected a legal challenge to segregation in 1850, but after a fresh round of petitions to legislators and new sympathies for free black citizens arising from a new version of the Fugitive Slave Act, integrated schools became legally mandated. For the act integrating Massachusetts schools see "Report of the Board of Education, no. 2," in *Public Documents of Massachusetts, 1860* I. (Boston: William White, 1861), 134-135.

²³⁹ "Speech of Wendell Phillips, Esq." in *Triumph of equal school rights in Boston: Proceedings of the presentation meeting held in Boston*, Dec. 17, 1855 (Boston: R. F. Wallcut, 1856), 14.

repulsive in having the little children of color sit side by side with those of white parents in the public schools.”²⁴⁰

Despite apocalyptic predictions, Boston desegregated its schools without incident. Irish immigrants did not pull a significant number of children out of the schools.²⁴¹ Though integrationists arguments portrayed a romanticized association of black and white children on a shared bench, by the date the law was passed, individual pedestal seats were the norm in Boston and other large cities. The closest physical association between students would typically have been a shared double Latin desk.²⁴² Other cities followed Boston’s lead and eased integration through the controls of school furniture. The School Committee in Detroit did everything in its power to avoid it, but when finally forced to integrate in 1871 the superintendent proposed sawing in half existing double desks rather than spend any money on the integration of students. His fantasy of violent separation of the races shows how Northern civic leaders expressed virulent Jim Crow segregation years before the end of reconstruction in the South. Later chapters will show that commercial furniture was a frequent ignition point for racial conflict in the North

²⁴⁰ “Speech of Charles W. Slack,” *The Liberator*, December 28, 1855, 1. “Triumph of equal school rights in Boston,” 11. By 1868 all New England states had passed anti-segregation legislation. The first state outside of New England to enact legislation was Michigan in 1867, followed by Iowa (1868) and Minnesota (1869), and Illinois (1874). Douglas, *Jim Crow Moves North*, 85.

²⁴¹ “Speech of Charles W. Slack,” *Liberator*, December 28, 1855. “Meeting of Colored Citizens,” *The Liberator*, December 28, 1855. The *Roberts* decision that rejected integration in 1850 was an important precedent other state supreme courts used to uphold segregated schools and other public venues, and the decision ultimately served as a primary justification for *Plessy v. Ferguson* in 1896. For the *Roberts* decision see Luther Cushing, *Reports of Cases Argued and Determined in the Supreme Judicial Court of Massachusetts V.* (Boston: Little, Brown and Company, 1852), 206; cited in *Plessy v. Ferguson*, see J. C. Bancroft Davis, *United States Reports* 163 October Term, 1895 (New York: Banks & Brothers, 1896), 544.

²⁴² Jackson and Bowditch, *Report of the Minority of the Committee* (1846), 13. Faced with rapid enrollment growth, cities installed double Boston Latin desks in many schools in the 1840s, but the seats were almost always individual.

throughout the nineteenth century.²⁴³ The Detroit superintendent's facetious proposal to split desks would not have worked as each resultant individual desk would only have one of the two legs necessary for support. The city replaced double desks with individual desks. A Detroit school inspector noted that the new integrated schools "had to furnish seats for colored children from all parts of the city and the case absolutely required single seats."²⁴⁴

Some teachers used furniture within racially integrated classrooms in unintended ways to instill their personal beliefs in racial separation. An 1872 New York newspaper article titled "Using a Black Boy as A Disgrace," described a teacher who ordered an eight-year-old white boy to sit next to a black classmate as punishment. She beat the white boy when he refused. The teacher was arrested for thrashing the white child, not for her unsanctioned racist punishment practices.²⁴⁵ A similar report from a Cleveland newspaper in 1885 described a teacher who sat white children at the side of one of the two black children in the class as punishment.²⁴⁶ There are no indications among education reformers or in journals that segregation and punishment in the classroom was the norm, however. Newspaper reports of these two cases imply the practice was exceptional.²⁴⁷

²⁴³ For in depth analysis of Northern racism in schools see Davison M. Douglas, *Jim Crow Moves North*, and Judy Jolley Mohraz, *The Separate Problem: Case Studies of Black Education in the North, 1900-1930* (Westport, CT: Greenwood Press, 1979).

²⁴⁴ "Board of Education," *Detroit Free Press*, July 14, 1871, 1. On the integration of Detroit schools see David M. Katzman, *Before the Ghetto: Black Detroit in the Nineteenth Century* (Chicago: University of Illinois Press, 1973), 86-91.

²⁴⁵ "Using a Black Boy as a Disgrace," *Poughkeepsie Daily Eagle* (Poughkeepsie, NY), June 22, 1872, 3.

²⁴⁶ "Personal and Social Notes – An Outrage," *Cleveland Gazette*, October 3, 1885, 1.

²⁴⁷ Several historians have asserted it was a common practice for teachers in Northern schools in the

Manufactured school furniture broadened access to a democratic space that flattened class, ethnic and racial hierarchies. To occupy identical furniture subjected all students – the children of middle-class native-born Yankees, working-class Irish immigrants, and African Americans –to the same set of behavioral expectations that emphasized their inherent equality yet maintained physical separation that assuaged parental concerns of race, class, and ethnic mixing. Seated in indistinguishable chairs, at indistinguishable desks, learning the same lessons, the technology of the classroom united children from diverse backgrounds into a cohesive disciplined student body. Photographs of urban classrooms from around the turn of the twentieth century portray the classroom operating in agreement with the intent of school reformers (**Fig. 1.37**). As if to emphasize the uniformity and unity of the classroom, photographers posed students identically, hands on the desk, holding a book, or engaged in a simultaneous craft activity. Often the photographer placed the teacher in the background to de-emphasize

mid-nineteenth century to separate black and white students in the classroom and punish white students by having them sit in a “nigger seat” near black students. Most cite Easton Hosea’s *Treatise on the Intellectual Character* (1837) as the source. Hosea was a black abolitionist angry over the backsliding of New England states on black rights in the 1820s and 1830s. He claimed white parents threatened their children with monstrous definitions of black people, and named a “nigger-seat,” in schools as a “frequent,” threat. See Easton Hosea, *A Treatise on the Intellectual Character and Civil and Political Condition of the Colored People of the United States and the Prejudice Exercised Towards Them: With a Sermon on the Duty of the Church to Them* (Boston: Isaac Knapp, 1837), 41. Integrated schools sometimes placed black students as a group into a segregated classroom, but beyond the two newspaper reports, no other references have been found in black and white newspapers, memoirs and educational journals to a spatial segregation of black and white children within integrated classrooms. The dearth of evidence of spatial segregation does not mean it did not occur, or that black students were not harassed by white classmates or treated poorly in other ways, but it does imply that it was not a common practice. Also see Stanley K. Schultz, *The Culture Factory*, 160; Douglas, *Jim Crow Moves North*, 49, n75. For a brief biography of Hosea, see Richard Archer, *Jim Crow North*, 1-16, James Horton and Lois Horton, *In Hope of Liberty Culture, Community, and Protest among Northern Free Blacks, 1700-1860* (New York: Oxford University Press, 1998), 153, Carleton Mabee, *Black Education in New York State* (Syracuse: Syracuse University Press, 1979).

the need for oversight and emphasize her class's self-discipline. Staged photographs of schools in Northern cities portray a peaceful co-existence of black and white children evenly distributed. In the caption to a picture of a mixed-race class, the integrationist *Chicago Defender* insisted that "this group is no Jim Crow group and that colored children are found at every angle of the picture" (**Fig. 1.38**).²⁴⁸ According to the Chicago school superintendent, black children had miraculously advanced in 1915, "years ago they were lolling around in their seats and laughing, with no purpose of mind. Now they sit erect and tense. They pay attention and understand."²⁴⁹ The school leader was able to see past his prior demeaning racist view to observe the inherent equality of black children who presented themselves in the correct (white) postures afforded by school furniture.²⁵⁰ Seated within the boundaries of an assigned school desks in supervised classrooms black children may have been safer from harassment, but often suffered isolation and bullying from white peers outside of the classroom. In Chicago in 1909, white students harassed two black children so intensely that the principal invited them to arrive to the safety of the classroom ten minutes early and dismissed them ten minutes early to avoid their peers.²⁵¹

The Adjustable Desk

Bureaucrats believed the Americanization of children through the dynamics of the classroom could only occur if children attended school. Beginning in the 1850s,

²⁴⁸ "Jim Crow School in Chicago," *The Chicago Defender*, November 12, 1910, 1.

²⁴⁹ "No more 'Jim Crow' Social Affairs at Wendell Phillips," *The Chicago Defender*, April 17, 1915, 1.

²⁵⁰ Mohraz, *The Separate Problem*, 103.

²⁵¹ *Chicago Record-Herald*, November 11, 1909, quoted in Mohraz, *The Separate Problem*, 100.

compulsory schooling laws in Boston, Chicago, San Francisco and Philadelphia increased the required time in school, while child labor legislation put pressure on business owners to free children from the demands of work.²⁵² Massachusetts extended compulsory schooling from twelve to twenty weeks in 1876, thirty weeks in 1890, and eight months in 1898. Meanwhile, an 1866 child labor law prohibited children under age 10 (raised to 12 in 1883 and 13 in 1888) from working in manufacturing, mechanical or mercantile establishments during the days the public schools were in session and limited work hours for those under fourteen to eight hours-per-day.²⁵³ By 1890, twenty-seven states and territories had similar compulsory attendance laws. Over the last quarter of the nineteenth century, states increased the number of truant officers, imposed greater fines, and made parents equally liable with employers for violations of school attendance laws.²⁵⁴

As children spent more of their lives in school furniture, physicians increased concern over possible physical harm. Since the early nineteenth century, doctors had raised alarm over spinal injuries, but in the 1870s and 1880s physical education specialists, in their quest for professional recognition, reinforced claims of frequent spinal

²⁵² In 1852, Massachusetts enacted the first compulsory schooling law in the nation requiring children between ages eight and fourteen to attend school twelve weeks per year, with at least six of those weeks continuous. Other states followed. School committees were required to report truant cases in their annual reports, and to refer violations to city treasurers who fined parents. "Chapter 240 - An Act Concerning the Attendance of Children at School," *Laws and Resolves Relating to Public Instruction in Massachusetts* (Boston: William White, 1853), 240-241. On justification for compulsory schooling in Boston see Schultz, *The Culture Factory*, 299-302, and Lazerson, *Origins of the Urban School*, 136-137.

²⁵³ In Boston, 963 of 1066 truants had foreign born parents in 1849, see Schultz, *The Culture Factory*, 299.

²⁵⁴ On compulsory education in American cities see Forest Chester Ensign, "Compulsory School Attendance and Child Labor" (PhD diss., Columbia University, 1921); Tyack, *The One Best System*, 66-71; and Michael Katz, *A History of Compulsory Education Laws* (Bloomington, IN: Phi Delta Kappa Educational Foundation, 1976).

defects with a new scientific precision. Medical literature popularized causes beyond character to blame modern indoor civilized life.²⁵⁵ Social concern for the health of children grew from increased awareness of the appalling conditions in industry and recognition of childhood as a phase of life separate from the demands and expectations of adulthood.²⁵⁶ To compensate for sitting in a school desk for six hours per day, five days per week, physical education manuals recommended callisthenic drills executed with fixed desks as support (**Fig. 1.39**). In the 1860s and 1870s, PE specialists designed exercises that taught children polite behavior: how to sit with hands folded, chest up, eyes front and mouth closed. Exercises also aligned with future occupational needs: to strengthen postures needed for deskwork, how to take a seat, and how to stand up from one without disturbing peers, and how to maintain a quiet body.²⁵⁷ “The last three exercises teach careful foot management under the desks...we must have polite feet, that do not strike the desks and make a noise,” one textbook explained.²⁵⁸ Footrests on seats in schools, theaters and trains offered a target to train the restless feet of children and adults.

By the 1890s, physicians worried calisthenics was not effective enough to correct the injurious effects of long hours in poorly fitted school furniture. “What can you expect

²⁵⁵ David Yosifon and Peter Stearns explain how physicians, and the newly Physical Education specialists used spinal deformity to bolster claims to professionalism. See Yosifon and Stearns, “The Rise and Fall of American Posture,” 1068-1072.

²⁵⁶ On the attention to childhood and health see James Allen Young, “Height, Weight, and Health: Anthropometric Study of Human Growth in Nineteenth-Century American Medicine,” *Bulletin of the History of Medicine* 53, no. 2 (Summer 1979): 214-233.

²⁵⁷ Lewis B. Monroe, *Manual of Physical and Vocal Training: For the Use of Schools and for Private Instruction* (Philadelphia: Cowperthwaite & Co, 1869), 10-11.

²⁵⁸ R. Anna Morris, *Physical Education in the Public Schools* (New York: American Book Company, 1892), 53.

of sixteen minutes of the most rational and well carried out gymnastics in the world, if anywhere from fifteen to twenty percent of the children are required to sit in chairs or occupy desks for several hours a day under conditions which lead to wearying and deforming or awkward position?” Dr. Edward M. Hartwell, Director of Physical Training in Boston Schools asked rhetorically in *The School Journal* in 1895.²⁵⁹ Hartwell was a prominent American physician and proponent of the field of *anthropometry* – the statistical science of body measurement to identify norms and guide decision making. He was disturbed to discover that while in school, children spent more than eighty percent of their time in “sedentary occupations.”²⁶⁰ “Under our compulsory education acts, neglect of school-seating practically amounts to condemning large numbers of students to deleterious ‘confinement with hard labor’ without due process of law,” Hartwell protested.²⁶¹

Beginning in 1830 with the specifications for box desks proposed by Adams and Alcott, PE specialists repeatedly implored schools to supply furniture customized to the body measurements of individual children. Construction of desks to Alcott’s plan required a precisely measured relationship between the desk and the occupant that was

²⁵⁹ Edward M. Hartwell, “Proper School Desks,” *The School Journal* 50, no. 19 (May 11, 1895): 504-505.

²⁶⁰ Edward M. Hartwell, “Report of Dr. Edward M. Hartwell, Director of Physical Training,” in *Documents of the School Committee of the City of Boston for the Year 1895* (Boston: Rockwell and Churchill, 1895), 184.

²⁶¹ Hartwell published a bibliography of American contributors to anthropometry in which he expressed frustration that the anthropometric work of his Boston colleague Dr. Bowditch had “not been sufficiently recognized as yet by school authorities in this country,” see Edward M. Hartwell, “A Preliminary Report on Anthropometry in the United States,” *Publications of the American Statistical Association, 1892-1893* 3 (Boston: W. J. Schofield, 1893), 554-68.

not practical for the transient population and short school year of the 1830s.²⁶² When the school year was extended, pedestal chairs, Boston Latin desks, and combination desks manufactured in a range of sizes were designed to address the problem, but administrators rarely outfitted classrooms with a sufficient distribution of furniture sizes to meet physician's recommendations. Through the nineteenth century journal articles authored by PE specialists warned of curved spines caused by poorly fit school furniture. Manufacturers saw opportunity in the critiques and experimented with height-adjustable desks and chairs. In 1863 the *American Journal of Education* published a full-page illustrated description of an adjustable desk and chair patented by Amos Chase of New Hampshire. Chase added mechanical height adjustment and a footrest to the basic form of the Boston Latin school desk and pedestal chair (**Fig. 1.40**). In 1873, A. H. Andrews Company offered a height-adjustable "Graduated" version of its popular "Triumph" combination desk which the company claimed in its catalog was for the child "who is compelled to sit almost continuously for six hours each day, without the privilege of leaving or changing his seat, however uncomfortable."²⁶³

Few school systems adopted the Chase and Andrews adjustable furniture in the 1860s and 1870s.²⁶⁴ School administrators did not heed physicians' recommendations

²⁶² In his 1830 essay on school architecture Alcott, a medical doctor, called for box desks set so that "in writing, the arms will hang naturally by the side, while the flexure at the elbow will be such, that the lower portion of the arm, with the hand, will form a right angle with the upper portion, and rest lightly on the desk." Alcott, *Essay on the Construction of School-Houses*, 10.

²⁶³ A. H. Andrews & Co., *School Furniture and Hall Settees* (1873), 6.

²⁶⁴ No record has been found of the Chase desk in production. An 1874 Andrews price list included nearly all the desks in the 1873 catalog but did not include an entry for the graduated desk, which may indicate the desk had already been removed from the market. The Andrews Company did not include an adjustable desk in its 1881 catalog. In 1895, the Boston school committee noted that Chase pioneered adjustable furniture decades earlier but that the public was "unappreciative." On

because medical experts held minimal power among the nexus of stakeholders that contributed to school furniture design and installation after 1850. The lack of influence was partly due to the general population's weak faith in trained physicians. Medical treatments by physicians rarely had better outcomes than herbalists, faith healers, homeopaths, and midwives with whom they competed. Embryonic state and national bureaucracies lacked the political power to enforce recommendations. The concern of school administrators, teachers and manufacturers trumped the concerns of physicians. "Old Style...uncomfortable and inconvenient," may seem a surprising selling point to promote school furniture, but it was how one manufacturer in 1870 described their pedestal chairs and Boston Latin desks, "yet many School Officers have long endured this style of Furniture" the manufacturer explained.²⁶⁵ Manufacturers introduced adjustable desks into a divisive social atmosphere of race, labor and class strife, of war, riots, and financial panics. Fixed height furniture was cheaper, familiar, and proven – desirable characteristics during decades of economic, social, and political turmoil.²⁶⁶

In the 1870s, ascendant state and national school bureaucracies sanctioned

the history of the Andrews graduated desk, see A. H. Andrews & Company, *Illustrated Price list of School, Church and Hall Furniture* (Chicago, 1874); and A. H. Andrews & Co., *Catalogue of School Merchandise* (Chicago, 1881). Other manufacturers experimented with adjustable furniture. For example, Joseph L. Ross licensed a patent for an adjusting desktop in 1864, and William O. Haskell & Son, another Boston manufacturer exhibited a desk at the 1874 Mechanics Fair in with a "fly-leaf which will hold a book to the comfort of the young student." On the Ross desktop see Ross School Furniture Works, *Illustrated Catalogue of Ross' Improved School Furniture* (Boston, 1864). On the Haskell desk see Massachusetts Charitable Mechanic Association, *Twelfth Exhibition of the Massachusetts Charitable Mechanic Association* (Boston: Alfred Mudge & Son, 1874), 105.

²⁶⁵ J. W. Schermerhorn & Co., *Our Illustrated Catalogue* (1869/1870), 9.

²⁶⁶ In his history of nineteenth-century capitalism in New York, Sven Beckert identified the 1870s as a turbulent decade when race and class conflict solidified oppositional identities. See Sven Beckert, *Monied Metropolis*, 207-235.

physicians in their quest to improve school furniture. The appointment of Horace Mann as the first United States Commissioner of Education in 1867, and the formation of state boards of health in the 1860s and 1870s, increased oversight of American education.²⁶⁷ The same impetus to bureaucratic expansion elevated physicians within the medical field. The American Medical Association policed quacks, strengthened licensing requirements and advocated an effective, scientific germ-based theory of medicine.²⁶⁸ The maturation of the field of anthropometry, driven by the assessment of Civil War recruits, provided physicians tools for measurement and statistical analysis of bodies.²⁶⁹ State boards of health contracted physicians to inspect classroom conditions, measure students, tabulate data, and make recommendations.²⁷⁰ In school board reports that resulted from surveys,

²⁶⁷ The bureaucratization of education in the 1870s was part of a general trend toward larger institutions in prisons, asylums, hospitals and related to the growth in large corporate management structures. See Michael B. Katz, *The Irony of Early School Reform* (Boston: Beacon Press, 1968), 206-207.

²⁶⁸ Several scholars have investigated the professionalization of American medicine in the nineteenth century. See Paul Starr, *The Social Transformation of American Medicine* (New York, 1982), 61–78; David A. Johnson and Humayun J. Chaudhry, *Medical Licensing and Discipline in America: A History of the Federation of State Medical Boards* (Lanham, MD, 2012), 47; Barbara Rosenkrantz, “The Search for Professional Order in 19th-Century American Medicine,” in *Sickness and Health in America: Readings in the History of Medicine and Public Health*, 3rd ed., ed. Judith Leavitt and Ronal L. Numbers (Madison, WI: University of Wisconsin Press, 1997), 219–32; Bernice A. Pescosolido and Jack K. Martin, “Cultural Authority and the Sovereignty of American Medicine: The Role of Networks, Class, and Community,” *Journal of Health Politics, Policy and Law* 29, nos. 4–5 (Aug.–Oct. 2004): 735–56.

²⁶⁹ The Union army measured thousands of men and developed a statistically based strategy for efficiently supplying and distributing better fitting uniforms and other resources during the Civil War. See John S. Heller, “Civil War Anthropometry: The Making of Racial Ideology,” *Civil War History* 16, no. 4 (December, 1970): 309-324. A study of college age men at Amherst was published in 1889. Dr. E. Hitchcock, *An Anthropometric Manual, Giving the Average and Mean Physical Measurements and Tests of Male College Students* (Amherst, MA: J. E. Williams, 1887). On the history of anthropometry in medicine see Young, “Height, Weight, and Health,” 214-233.

²⁷⁰ See Boston School Committee, *Fifteenth Annual Report of the Superintendent of Public Schools of the City of Boston* (Boston: Rockwell and Churchill, 1895), 197. Other surveys include Prof. T. W. Chittenden, “Our School Houses,” *Annual Report of the State Board of Health of the State of Wisconsin* (Madison: David Atwood, 1878), 55-56. A. G. Young, M. D., “School Hygiene and School Houses,” *Report of the State Board of Health of the State of Maine* (Augusta: Burleigh &

physicians blamed school furniture for spinal injuries, concave chests, myopia, dyspepsia and other ailments.²⁷¹ Despite the conclusion of an 1874 report in Boston that school furniture harmed students, the author did not recommend adjustable furniture. Instead, he suggested the school system distribute to teachers, photographs “illustrating the effects of any chair and desk when in faulty relations to each other.”²⁷² Teachers were assigned the additional labor of policing posture to ensure no harm came to students.

In 1890, instigated by renewed critiques of medical professionals within the emergent school hygiene movement, the Boston School Committee formed a department of “Physical Training,” to revisit the health of children in classrooms.²⁷³ PE specialists had trained a new generation of physicians active in school hygiene who sought to

Flynt, 1892), 270-282; L. F. Andrews, “Lighting and Seating School-Houses,” *Biennial Report of the Board of Health of the State of Iowa* (Des Moines: George E. Roberts, 1885), 494-496. The bureaucratization of medical interventions into the classroom was the culmination of a process with roots in the physical education movement; see Noel, “Schooling the Body.” For other examples of health surveys see *Seventh annual Report of the State Board of Health of the State of New Hampshire* (Manchester, NH: John B. Clark, 1888), 288; and *Report of the department of Child Study and Pedagogical Investigation, 1900-1901* (Chicago: Blakely Printing, 1902).

²⁷¹ See Frederick Winsor, “School Hygiene,” in *Fifth Annual Report of the State Board of Health of Massachusetts*, January, 1874 (Boston: Wright & Potter, 1874), 393-448, and Edward Hartwell, *Report of the Director of Physical Training School Document no. 8 – 1894* (Boston: Rockwell and Churchill, 1894), 131.

²⁷² Winsor, “School Hygiene,” 394, 403.

²⁷³ The report opened with an explanatory note that the after sixty years of experimentation with physical education, the successes and failures of improving student health was conditioned on “the extent to which its promoters and managers give heed to the lessons of experience; and the degree of fidelity with which they follow the plain teachings of proven science.” In other words, failures resulted from school managers and education leaders ignoring physician’s recommendations. See Hartwell, “Report of the Director of Physical Training,” (1894), 3. A doctor conducting a similar survey for the New Hampshire Board of Health in 1888 implicated desks and seats with the usual causes of spinal distortion, contracted chests and other conditions; but he also linked the furniture to the concerns over the teaching of restrained behavior warning that “an ill-fitting seat and desk also injures the deportment of the school, as they render the student restless and fidgety and necessitate a frequent change of posture.” D. M. Currier, M. D., “Sanitary Conditions of School Life,” *Seventh Annual Report of the State Board of Health of the State of New Hampshire* (Manchester, NH: John B. Clarke, 1888), 238.

establish more stringent standards for school buildings.²⁷⁴ The committee commissioned Dr. Charles Locke Scudder, orthopedist and chief of surgery at Massachusetts General Hospital, to conduct a survey of the effects of school seating. Scudder investigated the posture of 3,500 girls in 34 grammar and high school classrooms and found 21 rooms with only one size of desk, and 13 with 2 sizes of desks which he believed was an insufficient distribution of sizes for classes where the difference in height between girls was sometimes greater than sixteen inches.²⁷⁵ Using the bodies of girls as the subject of study reflected the ongoing bias that women were weaker and in need of protection, and that boys were strong and able to recover. Photographs and detailed drawings of children in static Boston Latin desks and pedestal chairs illustrated the problematic postures he identified (**Fig. 1.41**). Hartwell, the author of a report on the Scudder survey, chided state and local school boards he believed were “content to ignore or misapply the principles of school-hygiene.”²⁷⁶ The Boston School Committee had left the “designing, selection, and distribution of the school-furniture now in use...too largely in the hands of interested and inexpert persons,” Hartwell claimed, and reiterated Scudder’s description of an opaque and arbitrary process for outfitting a new school room:

The manufacturer, knowing approximately the ages of the children who will attend a school of the given grade, provides desks and seats as he sees fit, furnishing one, two, or three sizes to a single room, as he is inclined, or as may have been suggested by the head master of the school. How does the manufacturer determine the sizes that shall be sent to meet the requirements of certain ages? After corresponding and talking with those who have supplied for many years large cities and Boston with school

²⁷⁴ Carita Constable Huang, “Making Children Normal: Standardizing Children in the United States, 1885–1930” (PhD diss., University of Pennsylvania, 2004), 21 and 74-112.

²⁷⁵ Charles L. Scudder, *Seating of Pupils in the Public Schools*, School Document no. 9-1892 (Boston: Rockwell and Churchill, 1892), 13.

²⁷⁶ Hartwell, “Report of Dr. Edward M. Hartwell,” (1895), 182.

furniture, I find it impossible to learn how the standard of the height of desk and chair has been determined.²⁷⁷

Hartwell's recommendation, based on citations of Swiss and Austrian PE specialists, was to medicalize and bureaucratize school furniture design through a "Massachusetts Expert School-Desk Commission" that would wrest control over design and specifications from manufacturers. He believed it was "hardly likely that the manufacturers and vendors of school furniture will ever engage in an undertaking so purely scientific."²⁷⁸ New York and Chicago set up similar projects.²⁷⁹ Chicago undertook a similar study of 7,000 school children, but the investigator chose a school attended by American-born, "children of people in comfortable circumstances," where there were "no large percentages of any foreign nationality," intentionally avoiding recording the physical ailments that may have affected less affluent communities.²⁸⁰ In 1892, the Boston School Committee appointed three physicians to a Special Committee on the Seating of Students. The committee successfully installed adjustable furniture in one primary school, but rather than expand the use of adjustable desks, the committee recommended schools ensure each classroom had three sizes of fixed static desks. The committee may have felt the adjustable furniture was not adjustable enough. As Hartwell stated in a report one year later, the new furniture was "rude and undeveloped and could only be adjusted vertically and not adjust depth of

²⁷⁷ Hartwell, "Report of Dr. Edward M. Hartwell," (1895), 184, 220. For the original quote see Scudder, *Seating of Pupils*, 4.

²⁷⁸ Hartwell claimed to have already recommended changes directly to manufacturers based on his observations. See Hartwell, *Report of the Director of Physical Training* (1894), 43-44, 109-110, 211, 235.

²⁷⁹ Huang, "Standardizing Children in the United States," 97.

²⁸⁰ See Chicago Board of Education, *Report of the Department of Child-Study and Pedagogic Investigation* (Chicago, 1899-1900), 1-2, 25-26.

seat, desk slope, or the back height.²⁸¹ Three desk sizes would reduce or eliminate poorly-fitting of desks, Hartwell believed. The recommendation for a three-height range of desk heights in each room was met with negligible response by administrators

Classrooms outfitted with three sizes of fixed desks conflicted with the demand of administrators for management and labor efficiency.²⁸² Each year workers faced the daunting task of unscrewing shifting and re-screwing thousands of desks of different sizes within and among classrooms to suit changes in distributions of students. Photographs of Boston classrooms taken in 1892 show most students seated in same-sized Boston Latin desks. Rather than introduce more than one desk size, administrators compensated for seats that were too high by providing *crickets* – portable light-weight wooden platforms that sat on the floor below the desk as a foot rest (**Fig. 1.42**).²⁸³ It was a simple and inexpensive solution so teachers could quickly move students within the grid, but crickets did not address physicians’ perceived problems with the *distance* –

²⁸¹ Hartwell, “Report of Dr. Edward M. Hartwell,” (1895), 190-198, 235. Hartwell and other American school hygienists closely followed the work of Swiss and Austrian doctors. In his report he cited expert school desk commissions in Frankfurt, Prague, Vienna and Zurich, and the publications of Dr. Adolph Lorenz of Vienna (“Die Heutige Schulbankfrage,” 1888) and Dr. Felix Schenk of Bern (“Zeitschrift für Schulgesundheitspflege”, 1894), see Hartwell, “Report of Dr. Edward M. Hartwell,” (1895), 224-225, 180-184. Before the expansion of University education in the United States many Americans, and especially doctors, studied in Europe and naturally turned to experts there for precedent. For a contemporary explanation of German school hygiene published in English for American readers see Ludwig Kotelmann, *School Hygiene* (Syracuse, NY: S. W. Bardeen, 1899). On American physicians’ and educators’ ties to Europe see Richard Hofstadter, *American Higher Education: A Documentary History* (Chicago: University of Chicago Press, 1961).

²⁸² On the resistance to significant change see Huang, “Standardizing Children in the United States,” 80-81.

²⁸³ Hartwell, Report of the Director of Physical Training (1894), 110-128, Edward Shaw, “Vertical Script and Proper Desks as Related to Education,” in *Report of the Tenth Annual Meeting of the American Association for the Advancement of Physical Education*, 1895 (Concord, NH: Republican Press Association, 1896), 112-113.

space between the front of the chair seat and the rear of the desk top that if improperly set forced children to lean too far forward. A negative distance close enough to make writing comfortable and safe, obstructed easy and quick entry and exit because the leading edge of the seat was fixed beneath the desk.²⁸⁴ A rotating seat would have made a fixed desk and chair both accessible and close enough for comfortable writing posture, but rotating school seats, though introduced periodically, were not widely adopted. Installation of a cast-iron rotating student chair produced in the 1840s did not spread far beyond some schools in New York City where it was made and faded by the 1850s.²⁸⁵ Manufacturers also chose not to apply rotation hardware installed on their teacher and office chairs beginning in the 1870s.²⁸⁶ In 1895, two models of swiveling chairs advertised in *The School Journal* failed to achieve a significant market.²⁸⁷ The additional expense of rotation hardware may have been prohibitive; more likely the postural benefits were

²⁸⁴ Physicians cited European specialists for their ergonomic arguments. See A. G. Young, "School Hygiene and School-Houses," in *Seventh Annual Report of the State Board of Health of the State of Maine, 1891* (Augusta, ME: Burleigh & Flynt, 1892), 273. William Burnham, "Outlines of School Hygiene," in *The Pedagogical Seminary* II, ed. G. Stanley Hall (Worcester, MA: J. H. Orpha, 1892), 43-46. Scudder, *Seating of Pupils*, 8; E. M. Hartwell, "Proper School Desks," *The School Journal* 50, no. 19 (May 11, 1895): 504-505.

²⁸⁵ J. L. Mott, a specialist in cast iron and zinc garden furniture, sculptures and fountains in New York made the chair in the 1840s. Barnard republished several pages of his sales circular with details of its advantages, but included a brief note that he did not like the cast iron back because it chilled the child's spine, and claimed to have seen a better version with "an ordinary shaped chair seat" atop the rotating pedestal. See Mott-Ville Iron Works, *School and Garden Furniture* (New York, 1845 ca.), and Henry Barnard, *School Architecture*, 1st edition (1848), 105-108.

²⁸⁶ Two examples of major manufacturers who sold both rotating teachers chairs and static pedestal chairs for students in the 1870s include Fortescue, Harritt, & Co, *Illustrated Catalogue of the Most Approved Styles of School, church, Hall and Office Furniture* (Philadelphia, ca. 1871), A. Robert Paton, *Illustrated Catalogue of School Furniture, Church and Lecture Room Settees, &c., &c.*, New York: S. D. Affleck, 1872.

²⁸⁷ The Durant School Desk Company of Racine Washington advertised a rotating tablet arm chair, and The Globe School Furniture Company of Northville Michigan advertised a chair with a rotating screw mechanism similar to the mechanism of a piano bench. See *The School Journal* (February 16, 1895), 173.

outweighed by the potential distraction of restless children swiveling about at their desks.

In the 1890s, adjustable desks made inroads into the classroom. The formation in 1885 of the American Association for the Advancement of Physical Education, a group devoted to the development of American children, empowered physicians in the educational bureaucracy.²⁸⁸ In 1889, a well-known pediatrician called on physicians to engage with the designers of schools and school furniture to fix schools that had become “establishments organized to produce nearsightedness, scoliosis, anæmia, and physical and intellectual exhaustion.”²⁸⁹ Influenced by hygienists’ reports and school board mandates, manufacturers introduced several improved models of adjustable furniture in the 1890s.²⁹⁰ Boston installed an estimated 1,400 seats of adjustable furniture into its schools between 1892 and 1895. Seventy-five percent of the furniture was simple pedestal furniture with vertical adjustment and twenty-five percent of the desks and chairs were complex mechanical furniture made by Boston manufacturers F. A. Chandler and G. A. Bobrick (**Fig. 1.43**).²⁹¹ The designs of Bobrick, a Russian-born engineer, employed complex mechanisms to adjust seats and desktops vertically and horizontally to match student dimensions.²⁹² In his 1892 catalog, Bobrick included customary

²⁸⁸ Young, “Height, Weight, and Health,” 234.

²⁸⁹ “Pediatrics and Public Hygiene,” *The Annals of Hygiene* IV, no. 11 (November 1, 1889): 578-579.

²⁹⁰ Hartwell recommended adjustable furniture over fixed in 1895, and outlined specific recommendations for how to design the furniture based on European precedents. He endorsed the Chandler and Bobrick furniture, see Hartwell, “Report of Dr. Edward M. Hartwell,” (1895), 190-198.

²⁹¹ Hartwell, “Report of Dr. Edward M. Hartwell,” (1895), 168. Hartwell estimated another 2,600 to 3,000 desks would be installed in new construction in the following year. A version of the Chase height adjustable desk was advertised in 1893 by the Hygienic School Furniture Company of New York, see *Education* XIII, no. 10 (June 1893): xi.

²⁹² A monthly “School Furniture,” column in *The American School Board Journal* in the 1890s lists dozens of city school systems installing adjustable desks by Bobrick, Chandler and others. Bobrick’s 1895 catalog lists 63 towns and cities that have installed adjustable desks, the

illustrations and descriptions of deformities caused by fixed static school furniture: images of white girls whose destiny as “wives and mothers,” was threatened by their “knock-kneed and flat footed” deformities and a stock image of a stooped, myopic concave-chested enfeebled white boy (**Fig. 1.44**). Bobrick described why his furniture was critical to classroom supervision: “the now practiced custom of assigning uncontrollable scholars, whether tall or short, to desks in the front or last row is a mistake and should be abolished, if the desks and seats are not capable of regulation.” Schools should purchase his adjustable furniture, Bobrick insisted, or eliminate the custom and benefits of relocating scholars in the classroom based on achievement and behavior. The catalog, *Hygienic Requirements of School Furniture*, was a dissertation on the history of physical education in which he claimed to have “closely followed the details recommended by the most prominent American and European scientists” in the design of furniture.²⁹³ Bold names of more than two dozen physicians and prominent educators who had written on the subject of “School Hygiene,” were cited in the catalog. Though based in European theories, Bobrick furniture maintained the individual form closely associated with American urban education when urban European schools sat multiple students in static furniture well into the twentieth century (**Fig. 1.45**).²⁹⁴ Like the

overwhelming majority in New England; see “Adjustable School Desks,” *The American School Board Journal* (November, 1895), 12.

²⁹³ G. A. Bobrick, *Hygienic Requirements of School Furniture* (New York: Exchange Printing Co, 1892), 39-40. The 1892 catalog was an expansion of a five-page essay included in his 1887 catalog. Bobrick republished sections of hygienists’ reports published by the Boston School Committee — statistical tables, charts, and a reproduction of line drawings of seated children. See G. A. Bobrick, *School Furniture: A Treatise on the Construction in Compliance with Hygienic Requirements* (Boston: Rockwell and Churchill, 1887).

²⁹⁴ For a survey of European classroom seating see Thomas Müller and Romana Schneider, *The Classroom: From the Late 19th Century Until the Present Day* (Tübingen, Germany: Wasmuth,

educators who permitted close associations of children in rural American classrooms, the educators of ethnically and racially homogenous European nations accepted a more intimate arrangement of bodies.²⁹⁵

Proper installation and use of complex adjustable furniture required considerable labor. Experts provided by the manufacturers or school janitors used proprietary tools to transfer a child's measurements into seats and desks (**Fig. 1.46**). Mathematical formulas converted knee height or overall height into settings for seat height, desk height, and distance from the seat back to the desk front.²⁹⁶ In the 1890s, the Boston School Committee commissioned a mechanical chair to evaluate each student. Body measurements were recorded on preprinted cards given to janitors to set desks.²⁹⁷ Graduated and telescoping iron standards, intricate worm gears, and rack-and-pinion mechanisms made the desks precision machines to perfect the child. Without the proper wrenches and measurement tools, teachers and students could not adjust desks

2010); for a contemporary discussion of single versus double desks in Europe and the United States see Edmund Wheelwright, *School Architecture* (Boston: Rogers & Manson, 1901), 126-127. A comparison of German and American desks was published in "The School Desk Question," *Scientific American*, January 21, 1911, 64.

²⁹⁵ The association of American education with individual desks was prevalent both in Europe and in the United States. When Detroit integrated its schools, the Superintendent stated that "it was desirable and preferable always to have single seats for each student as under the American Idea." "Board of Education," *The Detroit Free Press*, July 14, 1871, 1.

²⁹⁶ The Chandler system measured seated knee height to calculate seat and desk height. In his advertisements, Chandler cited the "Personal Endorsement of Dr Scudder and Many Other well-known Men." Scudder was the Boston physician who criticized existing fixed furniture in his 1895 report. See *American School Board Journal* XI, no. 6 (December, 1895): Ad pages; "Adjustment of School Desks," *The American School Board Journal* X no. 2 (February, 1895): 12. Frederick W. Hill, "Measuring and Regulating Device for Adjustable School Furniture," U. S. Patent 535,287 March 5, 1895.

²⁹⁷ Hartwell, "Report of Dr. Edward M. Hartwell," (1895), 80-81. A nearly identical measuring chair was illustrated in the German trade journal *Das Schulzimmer [The Classroom]* by Dr. Stephani-Mannheim in 1907, see "Patentschau, Technische Neuheiten," *Das Schulzimmer* 5, no. 1 (1907): 87-91.

themselves.²⁹⁸

Physicians had only limited success in getting schools to install adjustable furniture. Though superior in ergonomic support, the mechanical desks with fantastically complex horizontal and vertical adjustments had only a brief window of popularity in the late 1890s.²⁹⁹ Engineers lacked the intimate knowledge of the school support systems. In their inexperience, they designed precision mechanical desks that burdened school administrators with considerable cost, labor, and coordination. The effort to measure and adjust thousands of desks annually (or more often for rapidly growing children) was prohibitive. By comparison, the additional labor to manage the installation of different sized Boston Latin desks was small because it had been created by the principal of the Boston Latin School and put into production by manufacturers with professional and social connections to the local school bureaucracy and school reformers. The design of the Boston Latin desk mediated between the expectations of reformers for appropriately sized desks, and the financial and labor constraints of school administrators. Instead of complicated, expensive, mechanical desks, between 1895 and 1920 schools installed simple height adjustable versions of the Boston Latin desk that provided comfort midway

²⁹⁸ “No part of my desk and chair can be adjusted without the use of a wrench or a screw-driver; and, therefore, when the desk or chair is adjusted, it will stand in the position given it for an indefinite time, and all fear of annoyance from its being altered by the student is dispelled,” G. A. Bobrick, *School Furniture*, 1887.

²⁹⁹ A monthly column on school furniture contracts published monthly in *The American School Board Journal* in the 1890s lists dozens of city school systems installing adjustable desks. “Supplies and Equipment,” *The American School Board Journal*. In 1898 the Bobrick company went out of business, overwhelmed by its debts. Another maker, the Hygienic School Furniture Company closed in 1902. The Grand Rapids School Furniture Company continued to make a combination desk that was height adjustable only. On the failure of the Bobrick Company see *School Board Journal*, 13. On the Grand Rapids School Furniture desk and the failure of the Hygienic School Furniture Company see “Supplies and Furniture,” *American School Board Journal*, May, 1902.

between the ideal tailor-fit desk desired by reformers and the least expensive fixed height desks preferred by administrators (**Fig. 1.47**).³⁰⁰ Once set to personal dimensions the desk became a material extension of the body. The adjusted desk pinned down the individual tightly to that space, but also strengthened and defended a child's ownership of space in the classroom. As an individual within a collective, adjustable desks reinforced the right of each child — regardless of gender, race, or class — to participate within the peer group.³⁰¹

Height adjustable school furniture culminated decades of innovation and experimentation, but schools did not replace older fixed models with the latest innovations. Each innovation did not completely erase earlier iterations from the marketplace.³⁰² Offerings evolved through a process of diversification and elaboration, accretion and decay, a process anthropologist Arjun Appadurai refers to as “the social life of things.”³⁰³ Products continued to be made long after the initial impulse that led to their innovation had passed, even when newer designs had been created. The persistence of

³⁰⁰ Desks in Boston were only to be adjusted at the beginning of the year, see “School Furniture,” *American School Board Journal*, April, 1895, 12.

³⁰¹ Frustrated in attempts to exert control over classroom design, physicians turned to measurement and the establishment of statistical norms of height and weight as a tool to expand their hegemony over children in the twentieth century. See Huang, “Standardizing Children in the United States.” On examination and recording as a mechanism for introducing individuality to “pin down” the individual within the group, see Foucault, *Discipline and Punish*, 189-192.

³⁰² The concept of the model year or changing minor aesthetic or functional details (“fashion”) and eliminating prior year versions to drive consumption did not function as powerfully in the commercial furniture industry as it did in domestic furnishings. The use of fashion as a driver of consumption in durable, industrially-made products was primarily a development in the 1920s and 1930s popularized by Earnest Elmo Calkins's theories on “Consumer Engineering,” and “Artificial Obsolescence.” See Earnest Elmo Calkins, “What Consumer Engineering Really Is,” in Roy Sheldon and Egmont Arens, *Consumer Engineering; A New Technique for Prosperity* (New York: Harper and Bros, 1932), 1-14.

³⁰³ Arjun Appadurai, *The Social Life of Things: Commodities in Cultural Perspective* (New York: Cambridge University Press, 1986).

previous iterations was especially true in commercial furniture. Schools and other institutions that held many pieces of identical furniture were more likely to replace single defective pieces or parts than incur the expense of wholesale replacement.³⁰⁴ Over the years, offerings in the market layered atop each other: as new designs were added, previous products considered innovative, then standard changed to out-of-date and inferior. For financial and political reasons, poor rural districts and African American schools often managed with second-rate classroom furniture.

Southern school committees, forced by post-Civil War laws to educate black children against their wishes, retaliated through minimal investment in black schools.³⁰⁵ Georgia had 122 white high schools and no high schools for African Americans in 1916, though black children of secondary school age made up 46 percent of its population; North and South Carolina had no publicly-funded four-year African American High Schools. As overall spending on schoolhouses increased in the South between 1900 and 1920, spending on African American schools dropped precipitously. Many African American communities created black schools from their limited personal finances.³⁰⁶

³⁰⁴ At least one manufacturer offered a trade-in policy on furniture, which they then resold to less financially secure districts. J. W. Schermerhorn, *Our Illustrated Catalogue* (1869/1970), 9. A Boston manufacturer offered a similar service. See *First Annual Report of the Superintendent of Public Instruction of Virginia...August 31, 1871* (Richmond: C. A. Schaffer, 1871), 18.

³⁰⁵ In 1904, Booker T. Washington claimed Southern states developed a private academy system rather than common school education that denied enslaved children, poor black children, and poor white children an education. See Booker T. Washington, "Education of the Negro" in *Monographs on Education in the United States*, ed. Nicholas Butler (U.S. Department of Education, 1900), 15-16. On the struggles of black Southerners to educate their children see James D. Anderson, *The Education of Blacks in the South, 1860-1935* (Chapel Hill: The University of North Carolina Press, 1988).

³⁰⁶ Nationwide, state spending per child averaged \$99.00 in 1930. 11 southern states spent \$44.31 to educate each white child, but only \$12.57 for each black child. See Valinda Littlefield, "An Open-ended Education," in *Silences & Images: The Social History of the Classroom*, ed. Ian Grosvenor, Martin Lawn, & Kate Rousmaniere (Boston: Peter Lang, 2014), 148.

Photographs of schoolroom interiors, some as late as 1940, appear unchanged from descriptions of one-room schools a century earlier (**Fig. 1.48**). One black teacher described her classroom interior in 1886 as “a one room log cabin with only benches made from a split log with holes bored in the end and small trees sawed so as to make legs – no backs and no desks.”³⁰⁷ Inferior schools provided a vivid awareness of second-class status. “Our seedy run-down school told us that if we had any place at all in the scheme of things, it was a separate place, marked off, proscribed, and unwanted by the white people,” a former student recalled of her time attending a black school in Durham North Carolina in the 1910s.³⁰⁸ Into the twentieth century some black school children had only simple benches with no support for written work. Poor white school children often faced similarly poor classroom conditions. While early twentieth century paintings and reminiscences portray white country schools as romanticized scenes of rustic simplicity, photographs show many suffered on sub-standard furniture (**Fig. 1.49**).³⁰⁹ In 1896, the Maine State Superintendent of Schools described his vision of a rural school room:

³⁰⁷ P. F. Dame, *An Autobiography of My Life*, Summer 1944, Pauli Murray Papers (Boston: Radcliffe College, Schlesinger Library), 13; quoted by Littlefield, “An Open-ended Education,” 151. In 1863 a black teacher from the Georgetown Orphan School visited Boston where she purchased about 30 second-hand school desks of unspecified design; see Henry Barnard, *Special Report of the Commissioner of Education on the Condition and Improvement of Public Schools in the District of Columbia...June 13, 1870* (Washington, DC: Government Printing Office, 1871), 237. Henry Barnard criticized the furniture in a black schoolhouse in the Washington, DC in 1870: “It is to be regretted that the commissioners allowed so good a house to be furnished with such very poorly shaped and made pine furniture. Such desks and seats are not evidence of enlightened ideas, and it is safe to say do not meet the full approbation of all the commissioners.” See Barnard, “Special Report of the Commissioner of Education,” 278.

³⁰⁸ Pauli Murray, *Proud Shoes: The Story of an American Family* (New York: Harper & Row, 1956), 269-270.

³⁰⁹ See also William Ladd Taylor, *A District School*, 1900, Library of Congress. In 1913, over two hundred thousand one room country schoolhouses continued to be used in the United States. See Andrew Gulliford, *America’s Country Schools* (Washington, DC: The Preservation Press, 1984), 35.

The interior will, probably, show evidences of having been occupied by both the young and the old barbarian. The walls are dingy, the blackboards are mutilated, the stove is rusty and refuses to do service, the stove pipe has a broken back, the chimney is stained with creosote, the desks are made of planks, and of a pattern that shows great ingenuity in their construction, the seat being fitted to produce the largest amount of torture and the least amount of comfort possible.”³¹⁰

Children educated on out-of-date or poorly constructed furniture were at a disadvantage should they migrate to urban areas in pursuit of new occupations dependent on a disciplined sedentary posture to provide clear and efficient writing. To lack portable skills as migration and movement became a powerful means to achieve economic success in the nineteenth century, was to lessen participation in the excitement and energy of urbanization, and to weaken a sense of belonging and citizenship.

Steam powered the machines of industrialization, but writing powered the banks, insurance companies, and accounting firms that serviced them. Legible, rapid, accurate penmanship was critical to future success for legions of children who came of age in the late nineteenth century, but professional writing demanded specific postures and training. “Position gives power,” Platt Spencer wrote in 1868 in his influential textbook on penmanship in which a young man seated at a Boston Latin desk and pedestal chair illustrated a posture reliant on the proportions and comfort of furniture (**Fig. 1.50**). Spencer warned teachers that “the greatest difficulty will be found in teaching the student to remain long in *any* position.”³¹¹ Desks and seats adjusted to the body helped children

³¹⁰ W. W. Stetson, “Training of Rural Teachers,” in *Sixtieth Annual Meeting of the American Institute of Instruction Addresses, Discussions and Proceedings, Bethlehem, N. H. July 9-13, 1896* (Boston: American Institute of Instruction, 1896), 127.

³¹¹ H. C. Spencer, *Spencerian Key to Practical Penmanship* (New York: Ivison, Phinney, Blakeman & Co, 1868), 24.

acquire the required training. Appropriately slanted desktops, pen and pencil coves, places for storage of books, slates and inkwells paralleled future workstations. Denial of appropriate furniture inhibited social advancement for poor children.

The classroom in the twentieth century

School furniture innovation stagnated between 1900 and 1920. Many of the initial school furniture forms designed in the 1840s continued to be sold in the 1930s (**Fig. 1.51**). School bureaucracies avoided the cost and labor to discard old desks and seats and set up new ones, as long as the highly durable older models met the basic needs of teachers and students (**Fig. 1.52**). “For the ordinary school official is more of a politician than anything else and gives more attention to cost of furniture than to its desirability,” A. H. Andrews company explained in 1905. The Andrews Company claimed to be “only too glad,” to produce fully adjustable furniture if school administrators could be educated by doctors to spend additional funds for the improvements.³¹² The market for school furniture exhibited inelastic demand: neither price reductions, nor improvements increased sales. Innovation was challenged by comparative bid requirements that forced manufacturers to submit quotes based on the grade of the desk – a number two desk or a number four desk for example, had to be substantially the same form as other manufacturers. Companies might change the quality of the materials or some aspect of its appearance, but school administrators did not desire wholesale innovation in form and function.

³¹² “School Equipment and the Educational Trade,” *The School Journal*, December 2, 1905, 596.

Manufacturers turned to defensive means to maintain profit margins. In advertisements and in court proceedings, competitors cudged one another with accusations of patent infringement and exaggerated claims that competitors' furniture risked catastrophic harm to children.³¹³ The Grand Rapids Seating Company, a large producer of commercial furniture, illustrated an advertising flyer with a cut-away of a rural school house in a state of pandemonium labeled "Seated with 'child-killer' desks" and located beside a cemetery (**Fig. 1.53**). In the subtext, the company described the "toe-pincher, leg breaker, hand amputator, automatic (?) school desks" of their competitors. A group of well-dressed white children maimed by the inferior school furniture seek refuge in a schoolhouse of neatly arranged combination desks, free from the troubling, poorly behaved children in the other school. The school is titled "U. S. Government School Building," to imply official endorsement, and the school marm is draped in the U. S. Flag as she welcomes them into a classroom of desks that are "the choice of government experts." On the obverse of the flyer, a teacher lectures a rapt audience of healthy, well behaved white children with rosy cheeks on the definition of counterfeit. Presumably, the lecture was also intended to warn an audience of school administrators not to purchase "counterfeit" desks.

Threats of patent infringement, graft, and collusion stifled competition. When Bobrick pitched the "public benefit" of his innovative adjustable desk to the Boston

³¹³ The American School Furniture Company, a large conglomerate in Grand Rapids, sued many smaller competitors. For example see "In Re Starkey," *Decisions of the Commissioner of Patents* (Washington, DC: Government Printing Office, 1904), 607-61; *Grand Rapids School Furniture Co. v. Haney School Furniture Co*, 92 Mich. 558, 1891, *Chandler Adjustable Chair & Desc Co. v. Town of Windham*, Circuit Court, D. Connecticut, October 11, 1899, *Lamb v. Grand Rapids School Furniture Company*, 39 Fed. 474 (1889).

Superintendent of Public Buildings in 1889, he claimed the official responded, “We don’t look at such things from the standpoint of public benefit, but from the standpoint of personal profit.” The Superintendent considered the manufacturing cost of the Bobrick desk too high to generate enough profit for him to receive a kick-back. Instead, he preferred to stay with the simple fixed Boston Latin desks produced by a “friendly” long-time supplier.³¹⁴ Corrupt bureaucratic gatekeepers that controlled lucrative contracts inhibited the success of new models. Innovative manufacturers not only had to outdo competitors in the classroom, they had to outbid them in graft. A trust further undermined competition. Like other mass-production industries with high fixed costs, school furniture manufacturers had increased their production levels to benefit from potential economies of scale. Competition in a glutted market lowered the price of school furniture to unsustainable level leading to the formation of a cartel. In 1892, the United States School Furniture Company coordinated the sales of sixteen of the major manufacturers across the country.³¹⁵ The company bought most of the patents of competitors, set prices, and used businesses under its influence to submit low-ball straw bids.³¹⁶ In 1907, the chairman of

³¹⁴ “Corruption Charged,” *The Boston Globe*, June 15, 1889, 2.

³¹⁵ John W. Arnold, “Report of the Senate Committee to Investigate the United States School Furniture Company,” in *Journal of the Senate of the Thirty-Eight General Assembly of the State of Illinois* (Springfield, IL: H. W. Rokker, 1893), 940-941.

³¹⁶ “Controls the Trade: School Furniture Trust Considered a Gigantic Evil,” *Chicago Tribune*, March 23, 1893, 9. Also see *The Furniture Trade Review and Interior Decorator* XVII, no. 6 (April 10, 1897). A fire insurance trade journal implied that in two cases independent manufacturers holding large city contracts joined the trust after burning down their factories. The manufacturers collected on the fire insurance, new bids were issued by the trust at higher prices, and the shareholders of the burned-out company were rewarded with stock in the trust. The Manitowoc School Furniture Manufacturing Company held the bid for 200,000 Chicago desks at \$1.95 but before shipment was made, the factory burned. The company joined the trust and the new bid was raised to \$2.40. Not long after, the Union School Furniture Company, also in the possession of large contracts, was destroyed by fire after joining the trust. “School Furniture Trust,” *Black and White* V, no. 3 (December 15, 1893): 158.

the school desk trust was arrested under the Sherman anti-trust law and the company disbanded, but for fifteen years the trust quashed competition that might have led to new furniture forms.³¹⁷ The industry had consolidated into a few large producers part of a trend in manufacturing between 1895 and 1904 dubbed by historians the “Great Merger Movement.”³¹⁸ During the years of anti-competitive practices and consolidation, educational bureaucracies solidified standards in pedagogy and efficient classroom management reliant on established classroom furniture.³¹⁹ Attempts to deviate from the standard to meet new teaching methods met with limited success.

The standard grid of fixed identical furniture was anathema to twentieth-century education reformers John Dewey and Maria Montessori. Dewey and Montessori wanted children to learn to work with others through personal interaction and cooperative activity; skills that would prepare them for occupations within interconnected modern American organizations.³²⁰ What was required in modern America was an understanding

³¹⁷ The trust was reported to control eighty to ninety percent of the school furniture business in school desks, church pews and opera chairs. Judge Kenesaw Mountain Landis, the famous trust-buster, ruled against the company.

³¹⁸ On cartels and the great merger mania in the United States between 1895 and 1904 see George Bittlingmayer, “Did Antitrust Policy Cause the Great Merger Wave?” *The Journal of Law & Economics* 28, no. 1 (1985): 77-118; and Donald Smythe, “A Schumpeterian View of the Great Merger Movement in American Manufacturing.” *Cliometrica* 4.2 (2010): 141-70.

³¹⁹ The companies indicted for violations of the Sherman anti-trust act included three of the largest manufacturers of school, church, theater, and office furniture: American Seating Company, A. H. Andrews Company and E. H. Stafford Manufacturing Company. All were based in Chicago. “School Furniture Trust is Indicted,” *The Grand Rapids Furniture Record* (March, 1907), 481; “Desk Trust Head is Under Arrest,” *The New York Times*, February 17, 1907; Kenesaw M. Landis, “The United States of American vs. American Seating Company et al.,” in *Decrees and Judgments in Federal Anti-Trust Cases, July 12, 1890-January 1, 1918* (Washington: Government Printing Office, 1918), 14-149; “School Furniture Manufacturers Indicted,” *The American School Board Journal* XXXIV, no. 4 (April, 1907): 12.

³²⁰ Education reforms at the turn of the twentieth century was about more than pedagogy, Tracy Steffes argues, it was about augmenting the role of education to include broader social aims and responsibilities. The “new education,” was not a consensus, but an amorphous term to describe

of the interdependence of society, they believed. The traditional grid arrangement isolated children, subjugated sociability and cultivated self-centered individualism when they believed people needed greater social competence. Routine, mechanical, factory-like work of the nineteenth century classroom alienated students from one another.

Montessori described how in standard classrooms “children are repressed in the spontaneous expression of their personality till they are almost like dead beings. In such a school the children, like butterflies mounted on pins, are fastened each to his place, the desk, spreading the useless wings of barren and meaningless knowledge which they have acquired.”³²¹ In less colorful terms, Dewey expressed a similar frustration in 1915:

If we put before the mind’s eye the ordinary schoolroom, with its rows of ugly desks placed in geometrical order, crowded together so that there shall be as little moving room as possible, desks almost all of the same size, with just space naught to hold books, pencils, and paper...It is all made ‘for listening’³²²

The Deweys and Montessori considered movable furniture in a variety of forms essential to new child-centered, socially oriented pedagogical methods. In 1912, Montessori complained classroom furniture resisted any changes to pedagogy and claimed fixed desks proved “slavery” still pervaded the school.³²³ She wrote that:

It is all so arranged that, when the child is well-fitted into his place, the desk and chair themselves force him to assume the position considered to be hygienically comfortable. The seat, the foot-rest, the desks are arranged in such a way that the child can never stand at his work. He is allotted only sufficient space for sitting in an erect position. It is in such ways that

dissatisfaction with the “old education” focused on basic skills. See Tracy L. Steffes, *School, Society, and State: A New Education to Govern Modern America, 1890-1940* (Chicago: The University of Chicago Press, 2012), 28-31.

³²¹ Maria Montessori, *The Montessori Method* translated by Anne Everett George (New York: Frederick A. Stokes Company, 1912), 14.

³²² John Dewey, *The School and Society* (Chicago, IL: University of Chicago Press, 1915), 31-33.

³²³ Dewey, *The School and Society*, 31-33. Maria Montessori, *The Montessori Method*, 15-16.

schoolroom desks and benches have advanced toward perfection. Every cult of the so-called scientific pedagogy has designed a model scientific desk. Not a few nations have become proud of their “national desk,”—and in the struggle of competition these various machines have been patented.³²⁴

Dewey believed society needed to shape the child, while Montessori believed children were natural learners that needed space and play to learn through experience. Dewey was particularly focused on group work and focused problem solving, whereas Montessori stressed the natural development of an individual’s skills. Though their philosophies differed, they agreed on several principles.³²⁵ Learning was to be active and engaged, not passive and receptive; objects-oriented learning was more powerful than abstract ideas, interaction with surroundings was the core of learning. For both Dewey and Montessori, the standard classroom designed for rote learning prevented the peer-to-peer interactions and engagement with the environment that was fundamental to learning. When Dewey opened his laboratory school in Chicago in 1894, he brought progressive education reform ideas to the geographic center of high-volume school furniture manufacturing in the United States, but his ideas had little effect on furniture design. Unlike the designers of the progenitor school furniture Ross and Wales, who had worked in conjunction with educators and reformers, the entrenched school furniture monopoly resisted Dewey’s calls for change. In a 1915 treatise on school and society Dewey grumbled that no

³²⁴ Montessori, *The Montessori Method*, 17.

³²⁵ The first American Montessori school opened in 1911, seventeen years after Dewey opened what would become the Chicago Lab School. When Montessori arrived in the United States from Italy in 1913, there were already 100 Montessori schools in the United States, and she was world famous. For a comparison of Dewey and Montessori see Barbara Thayer-Bacon, “Maria Montessori, John Dewey, and William H. Kilpatrick,” *Education and Culture*, 28 (2012): 3-20.

alternatives existed to the fixed seats and desks designed in the previous century.³²⁶

Education in the progressive era between 1900 and 1930 was not a unified movement but numerous parallel reform efforts. Promoters of free public kindergartens, middle-class women engaged in settlement work, vocational education, and a coalition of business, labor, settlement workers and moral reformers who agreed schools should instill skills and a strong work ethic advocated for broadened aims of education. Most wanted to reform society into a more democratic ideal, but shifting coalitions approached an improved social order differently. Though Dewey and Montessori had considerable differences, both sought to democratize education by developing self-governance in children – to empower children to truly form a government by the people for the people through socialization, and not the lock-step rigidity of the nineteenth-century classroom.³²⁷ Their child-centered pedagogy tailored to individual student interests and proclivities required considerably more intellectual labor, disciplinary oversight and training of teachers than a universal synchronized curriculum. Another progressive faction wanted to forge a unified equitable society from a diverse population in the face of continued enrollment growth from immigration and urbanization. Made up primarily of corporate executive school board members, the unification faction emphasized reform of school administration and endorsed a controlled standard environment with maximum teaching and learning efficiency that would Americanize every child in burgeoning

³²⁶ Dewey, *Schools of Tomorrow*, 132.

³²⁷ Also see Charles W. Eliot, "Educational Reform and the Social Order," *The School Review* XVII, no. 4 (April, 1909): 217-219. Steffes, *School, Society, and State*, 24.

schools.³²⁸ These school board members expected the same organization and efficiency in schools as they did in their businesses. In education, efficiency meant large class sizes, proven educational methods, and unit measurable outcomes, but to assume capitalists were the sole power in determining the standard classroom furniture and arrangement would be too simplistic. No single individual, group or manufacturer fully controlled the design process. The interior design of the twentieth century American classroom was the product of decades of individual and group initiatives with different goals — school reformers, furniture manufacturers, architects, parents, teachers, school administrators, government officials, medical experts, and students. The result was a functional space in which teachers mediated individualization and collectivization, protection and control, inclusion and exclusion.

The Universal Desk

With few exceptions, the flexibly seated classrooms of Dewey and Montessori remained privileged spaces available to the children of the wealthy elite in well-funded public and private schools through the twentieth century.³²⁹ Public schools, however, made some small steps toward a more flexible classroom. The largest commercial furniture manufacturer in the United States introduced the first mass produced moveable

³²⁸ One study found that in 1916, merchants, manufacturers, bankers, brokers, doctors, lawyers, and real estate investors made up more than three fifths of American city school committees. See Steffes, *School, Society, and State*, 24.

³²⁹ For a survey and historiography of education in the progressive era see David Levine, “Chapter Three: Reform and Conflict in U.S. Urban Education During the Early Twentieth Century: Reflections on the Interpretive Struggle,” *Counterpoints* 218 (2003): 29-47, and Tyack, *The One Best System*, 197-198.

school desk in 1922 (**Fig. 1.54**).³³⁰ Though movable furniture would not become commonplace in American classrooms until the 1930s, the “American Universal Desk” was designed to glide along a tiled floor.³³¹ The desk was made from hollow steel tubes to minimize its weight. The term “Universal” in its name derived from its height adjustable seat and desk – administrators could place it in any room. Seats swiveled to close the gap between seat and desk for better posture. Initially adopted by alternative schools, public schools began to install the desk in large numbers by the end of the 1920s, but the new form did not create the kind of interactive environment sought after by the Deweys and Montessori.³³² The desks had the potential to free children and teachers from the rigidity of the grid, but the structure still imprisoned a child’s body into a cockpit-like apparatus through a thick central tube that locked seat and desk at a set distance. Footrests, seats, and desks defined a specific upright, face forward, restrained body. Advertisements asked children to mimic the posture of the “Universal Girl” – a young white woman (**Fig. 1.55**). Seats swiveled “enabling the occupant to rise easily,” but

³³⁰ There was an earlier movable desk made by the Langslow Fowler Company in 1912. The chair-desk as it was known was advertised for use in open air Tuberculosis schools (*Bulletin of the National Tuberculosis Association* (May, 1919), 5. It was also advertised in the *Proceedings of the National Conference of Charities and Correction* (Fort Wayne, IN: Fort Wayne Printing Co, 1914, 387), and *The Rural Educator* (July, 1914), 76.

³³¹ In 1927 seventy-four percent of American school desks sold were designed to be fixed to the floor, by 1933 only thirty five percent sold were designed to be fixed. Ray L. Hamon, “Equipment and Apparatus,” *Review of Educational Research* 2, no. 5 (December, 1932): 388; R. W. Hibbert, “Equipment, Apparatus, and Supplies,” *Review of Educational Research* 8, no. 4 (October, 1938): 381, on the evolution of the classroom in the 1930s see Larry Cuban, *How Teachers Taught: Constancy and Change in American Classrooms 1890-1990* 2nd edition (New York: Teachers College Press, 1993), 24.

³³² The desk was sold by the American Seating Company. The earliest use found is in the residential Marsh Foundation School for underprivileged children. The school had a curriculum that “promoted individual responsibility and effort,” tailored to each student’s needs and progress. See American Seating Company, *School Furniture and School Supplies* Cat. no. 55, 1923 (Chicago, 1923); first advertisements appeared in June 1922.

rotated only sixty degrees to either side, not far enough to turn fully sideways or to the back to interact with neighboring children.³³³ Though the desk was popular, photographs show classrooms so densely packed with these made-for-movement desks that rearrangement was unlikely. Schools and teachers conformed to the rigid grid well into the 1950s whether furniture was movable or not (**Fig. 1.56**). The design intent to support a more flexible learning environment was subverted by structural challenges: ingrained teaching methods, student-teacher ratios and the size and proportions of classroom architecture.

Teacher's desks and chairs

Students locked into a classroom grid influenced by ideals of efficiency and control faced a teacher whose furniture was designed to reinforce the business model. Throughout the nineteenth century, the teacher's desk was located on a raised platform, an arrangement that paralleled managers on corporate clerical floors (**Fig. 1.57**). Initially a small rostrum or dais of several square feet, the teacher's platform expanded to span the front of the room. Hovering above the class, the teacher maintained a "view of the persons of the students above their desks," Mann wrote in 1838.³³⁴ Students could also more easily see the teacher on a raised platform, for "when children cannot see their teacher," Barnard advised in *School Architecture* (1848), "they frequently think he cannot see them, and conduct accordingly."³³⁵

³³³ "The American Universal Desk," *Journal of Education* XCVI, no. 3 (July 20, 1922): 80.

³³⁴ Horace Mann, "District School Houses," *American Annals of Education* (June 1838): 267, reprinted from Mann, *Report of the Secretary* (1838), 25.

³³⁵ Henry Barnard recommended desks arranged to "admit of the constant and complete supervision of the whole school by the teacher." Barnard, *School Architecture*, 1848, 34, 54.

Nearly every floor plan, photograph, and illustration of nineteenth century public grammar school classrooms shows student desks facing a teaching platform, but authors occasionally recommended alternative arrangements. To maximize the effectiveness of surveillance at capturing student misbehavior, some teachers dissented from orthodoxy and sat behind students.³³⁶ Though he endorsed the location of the teacher in front, Horace Mann recommended that for the first week of classes teachers conduct recitations at the rear of the classroom so that “he will then see, without being seen.” “Every scholar would be convinced...that he had no power of violating rules without detection,” Mann suggested, and thereafter gives up misbehavior.³³⁷ “When the students sit with their backs to the teacher, they have the impression all the time that he is looking at them...keeping him in his place and at his work” a New Jersey disciplinarian similarly suggested in 1855.³³⁸

Experimentation with arrangements that clearly drew upon Bentham’s Panopticon did not become popular in the United States. Unlike the hidden-away guards proposed by Bentham, teachers were intended to be models for instruction in appropriate behavior, “*an elevated standard...placed before the mind of the student, that he may the better*

³³⁶ In 1847, Fowle tried “a new plan, that of placing the teacher’s desk behind the children, and after a fair experiment, I gave it up as having few benefits and many disadvantages. “William Fowle, *The Teachers’ Institute* (Boston: William B. Fowle, 1847), 58.

³³⁷ Mann, *Report of the Secretary* (1838), 27-28.

³³⁸ Rev. Samuel M. Hamill, “Discipline; School Government,” *American Journal of Education* 1, no. 1 (August, 1855): 127. Another educator suggested in 1888 “a plan which has been tried with great satisfaction is to place it [the teacher’s desk] behind, and when the students are seated at their tasks to have their backs to the teacher. I think good order could much more easily be maintained with this arrangement.” See D. M. Currier, “Sanitary Conditions of school Life,” in *Seventh annual Report of the State Board of Health of the State of New Hampshire* (Manchester, NH: John B. Clark, 1888), 288.

judge of his own attainment, and correct whatever defects he may perceive in his own performance” the editor of *The Massachusetts Teacher* wrote in 1848.³³⁹ Educators believed the strongest means for teaching right behavior was for the teacher to be observable, not an invisible disciplinary force lurking and waiting to strike. The platform put the teacher under the surveillance of the children, to accustom children to the watchful eye of a future manager, and to teach postures and behaviors that would form children into productive citizen-workers. Teachers were to model behavior for an imagined future in clerical and management work in the blossoming corporate culture of industrial America — upright posture, neat desktops, carefully organized storage, quiet restrained bodies focused on work.³⁴⁰

The design of teacher’s furniture mirrored desks and chairs used by clerks. In the 1830s, teachers lectured from a standing-height plank desk made of a box with a hinged sloping lid. In the 1850s, common school advocates recommended teachers change to sitting desks and office chairs concurrent with similar changes in offices. In *Pennsylvania School Architecture* (1855), Burrowes advised the “old fashioned ‘Master’s desk,” be replaced with a clerical desk that would not only “add dignity to the teacher’s position,” but provide a place for all of his materials, reduce confusion and increase his efficiency.³⁴¹ Burrowes also recommended “one large comfortable and sedate looking

³³⁹ Ariel Parish, “The Recitation: Its Value and Object,” *The Massachusetts Teacher* 1, no. 16 (August 15, 1848): 243-244.

³⁴⁰ Sekula makes the point that the metaphor of Bentham’s Panopticon often breaks down when faced with the “multiplicity of material devices,” in actual architecture of disciplinary institutions. See Sekula, *Body and the Archive*, 9 note 13.

³⁴¹ Burrowes, *Pennsylvania School Architecture*, 201.

chair...to add to the decencies of his position and the dignity of his office.”³⁴²

Makers of school furniture that also made office chairs and desks listed identical furniture in catalog sections for offices and teachers (**Fig. 1.58**).³⁴³ The design of teacher’s desks evolved in parallel with the desks of clerks to continually present the teacher in the guise of clerical worker. Teacher’s chairs, however, never reached the level of upholstered comfort of office chairs (**Fig. 1.59**). In *School Architecture* (1849), Henry Barnard warned teachers should keep moving or “mischievous scholars will shape their devices for concealment accordingly.”³⁴⁴ “The standing, moving instructor, as a general rule, is the best instructor,” Burrowes advised in *Pennsylvania Architecture* (1855).³⁴⁵ The minimally upholstered teacher’s chair was designed to encourage transient usage. Swiveling her body and gaze from side-to-side, the teacher monitored student behavior. The rotating chair facilitated easy and quick entry and exit from the desk. When not seated, the teacher walked back and forth to the chalkboard, wrote neatly on the board, spoke clearly, and sat upright in her chair, her behavior and body movements a guide for her students.³⁴⁶ Seated in a mechanical chair with arms at a flat-topped desk on a raised

³⁴² Burrowes, *School Architecture*, 30-31, 201-203. Similar recommendations were made by Jhonnot, *Country School-Houses*, 1859, 173-174.

³⁴³ Robert Paton described the Heywood Brothers chair in his 1872 catalog as a teacher’s chair. Robert Paton, *Illustrated Catalogue of School Furniture, Church and Lecture Room Settees, &c., &c.* (New York: S. D. Affleck, 1872), 39. Fortescue, Harritt, & Co., *Illustrated Catalogue of the Most Approved Styles of School, Church, Hall, and Office Furniture* (Philadelphia, 1872), 15; McClees & Warren, *School, Church, Hall and Office Furniture* (Philadelphia, ca. 1879); Andrews Manufacturing Company, *Teachers’ Desks and Chairs* (Broadside) New York, ca. 1875.

³⁴⁴ Barnard, *School Architecture*, 1849, 58.

³⁴⁵ Burrowes, *Pennsylvania Architecture*, 203.

³⁴⁶ Sociologist Marcel Mauss explained that the child “imitates actions which have succeeded and which he has seen successfully performed by people in whom he has confidence and who have authority over him.” On the power of the teacher to instill behavior on students see Marcel Mauss. “Techniques of the Body.” *Economy and Society* 2, no. 1 (1973): 70-88. Schilling refers to the education of the body as physical capital, which aligns with Bourdieu’s theory of social

platform, a teacher performed behavior appropriate for potential clerks and reinforced her status as executive in the classroom (**Fig. 1.60**).

As the nineteenth century progressed children were often presented white women teachers as models.³⁴⁷ Both boys and girls envisioned themselves in a similar professional role, as a teacher, or in clerical occupations. But as the likelihood of seeing a white woman on the teacher's platform increased to near certainty by the end of the nineteenth century, the likelihood of seeing a black woman diminished. Integrated Northern schools forbade black teachers from teaching white children. "Negroes gave up their teachers when they gave up separate schools," the Cincinnati school Superintendent claimed in 1888, explaining that "no Negro should teach white children."³⁴⁸ The absence of black role models reinforced the limitations of occupational opportunities for black children. Though clerical work in black owned companies was a possibility, most white corporations did not hire black office workers.

Sitting for years at a fixed desk, upright on a hard seat, not moving, not shuffling feet, focused on work, not looking out the window, not talking to neighbors under the supervision of an authority figure prepared children for both office and manufacturing work. Classroom furniture also taught children to keep a tidy desk, to read and write for

reproduction. See Schilling, *The Body and Social Theory*, 121-124, Pierre Bourdieu, *Distinction: A Social Critique of the Judgment of Taste* (New York: Routledge, 2010), 339.

³⁴⁷ By 1850 ninety percent of teachers were women. Judith Gappa & Barbara S. Uehling, *Women in Academe: Steps to Greater Equality* (Washington DC: The American Association for Higher Education, 1979), 5.

³⁴⁸ *Indianapolis Freeman*, June 18, 1892 cited in John Squibb, "Roads to Plessy: Blacks and the Law in the Old Northwest, 1860-1896" (PhD diss., University of Wisconsin, 1992), 195. On the declension of black teachers see Douglas, *Jim Crow Moves North*, 109-111; Mohraz, *The Separate Problem*, 87 and 101. Chicago resisted calls for segregated schools, though it meant fewer black teachers. See "Jim Crow School in Chicago," *The Chicago Defender*, November 12, 1910, 1.

hours, to conform to accepted behavior in close quarters in an impersonal environment with limited privacy where intimacy was discouraged. In short, school furniture effectively perfected an American student body for work in the corporate office. The discipline and restraint learned in school moved from child to adult, from student to worker, from classroom to office.

Chapter 1 Figures

Fig. 1.1 Putterham School, Brookline, Massachusetts, 2019. Boston-made chair and desk, circa 1850 (© Philip Carlino, all rights reserved.)

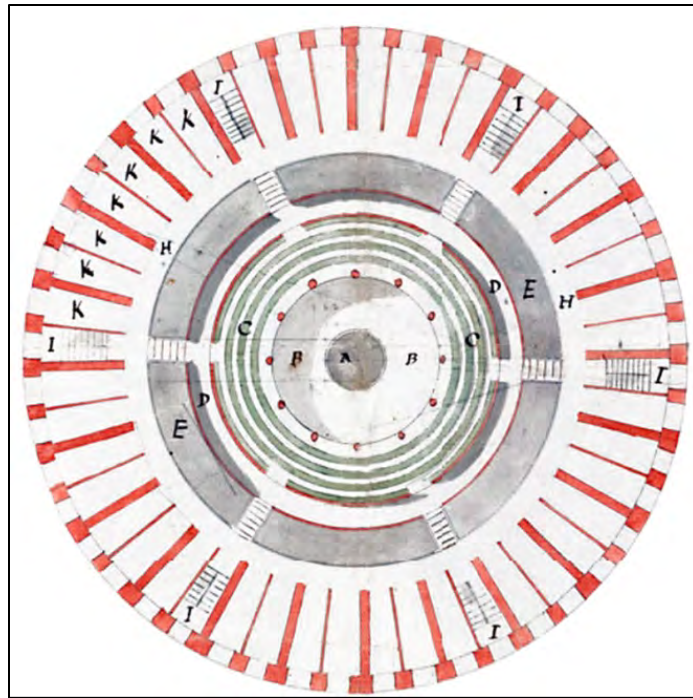
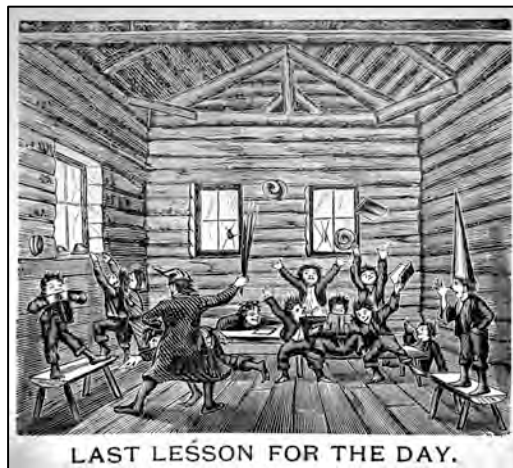


Fig. 1.2 The plan of Jeremy Bentham's proposed Panopticon prison (circa 1791) included cells around the perimeter (k), facing a cylindrical gallery (c) from which guards could view cells, but prisoners could not see guards [detail]. (Drawn by Willey Reveley, Bentham Papers, Box 119, Folio 120, Image 001, University College, London.)



(a)



(b)

Fig. 1.3 Late nineteenth century caricatures show exaggerated illustrations of poorly behaved children that do not stray far from memoirs. (a. Union School Furniture Co., *School, Hall and Opera Furniture*, 1885, ifc; b. *The Village School in Repose*, Print, engraving, George Parker, engraver; Henry James Richter, painter, Boston, 1834-68, Ink on woven paper, 1982.0048, Museum purchase, Courtesy of Winterthur Museum)

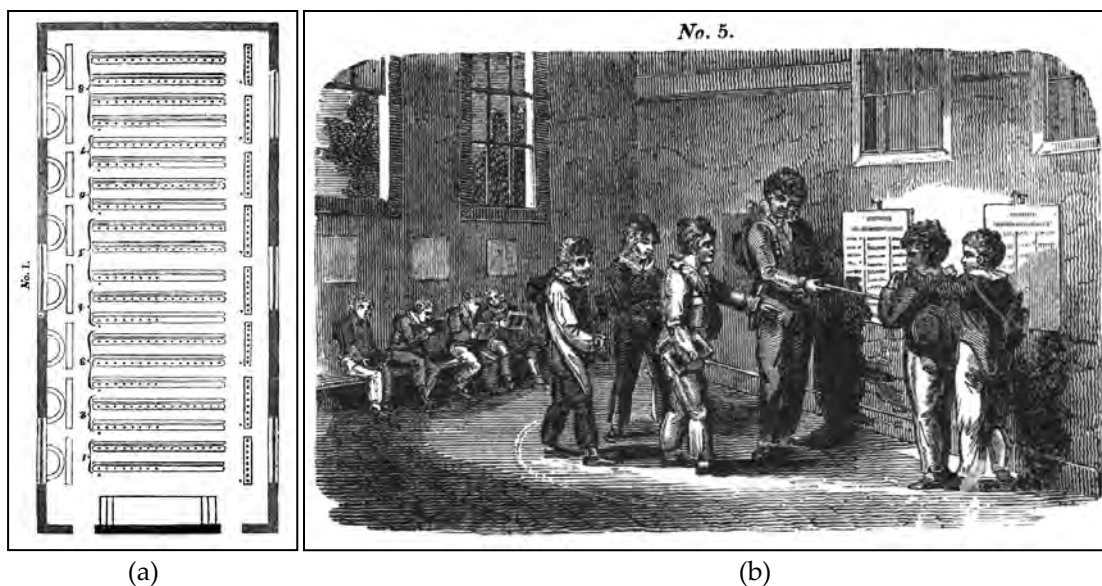


Fig. 1.4 American educators adopted Joseph Lancaster's method of education in the 1820s with some modifications. Each group was assigned a bench, and a semicircular recitation area marked on the floor (a). Lancaster illustrated monitors instructing younger pupils in the semicircular zone marked on the floor (b). (Lancaster, *The British System of Education*, 1810, np.)

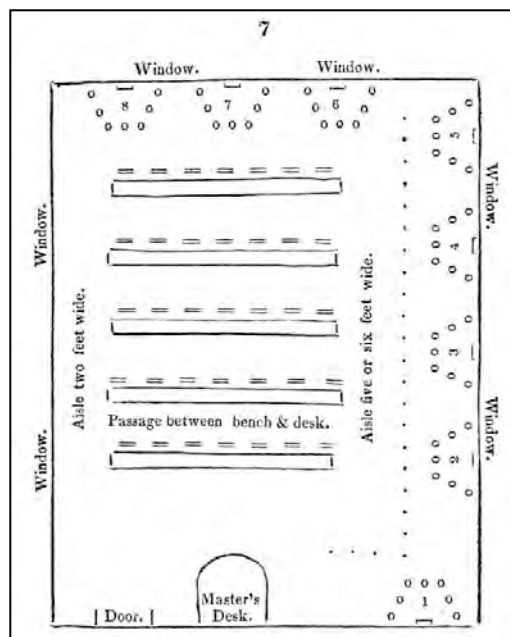


Fig. 1.5 The editor of *The American Journal of Education* published William Fowle's modified monitorial plan in 1826. Fowle proposed individual seats. It was the first step towards more individual furniture in the American classroom. (Russell, *Manual of Mutual Instruction*, 1826, 7.)

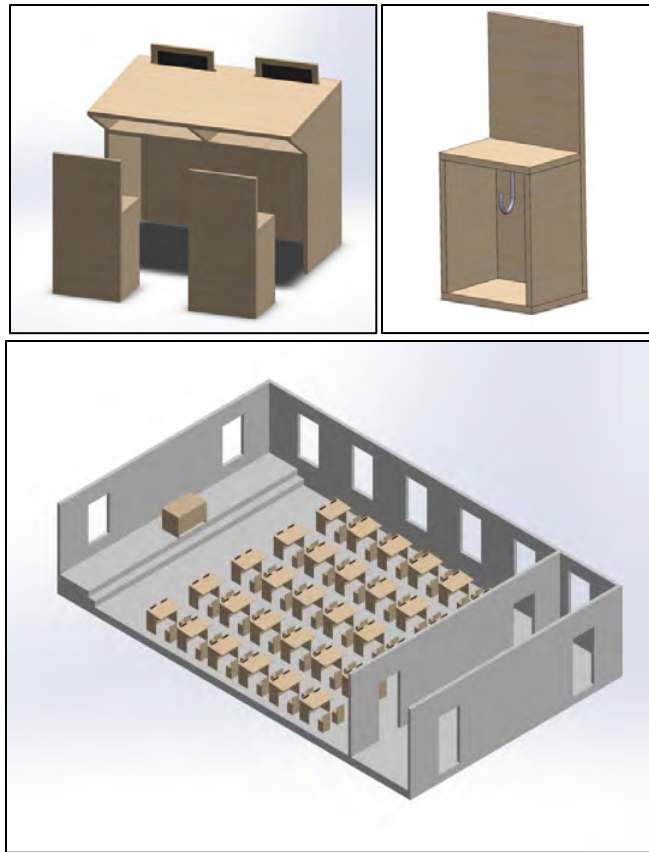


Fig. 1.6 William Adams broke apart the long desks into double-occupancy desks with individual seats. The box seat was open at the front with a hook for hanging a hat, and a board that extending up to support the child's back. Renderings based on descriptions and measurements included in Adams, "On the Construction and Furnishing of School Rooms," Boston, 1831 (© Philip Carlino, all rights reserved.)

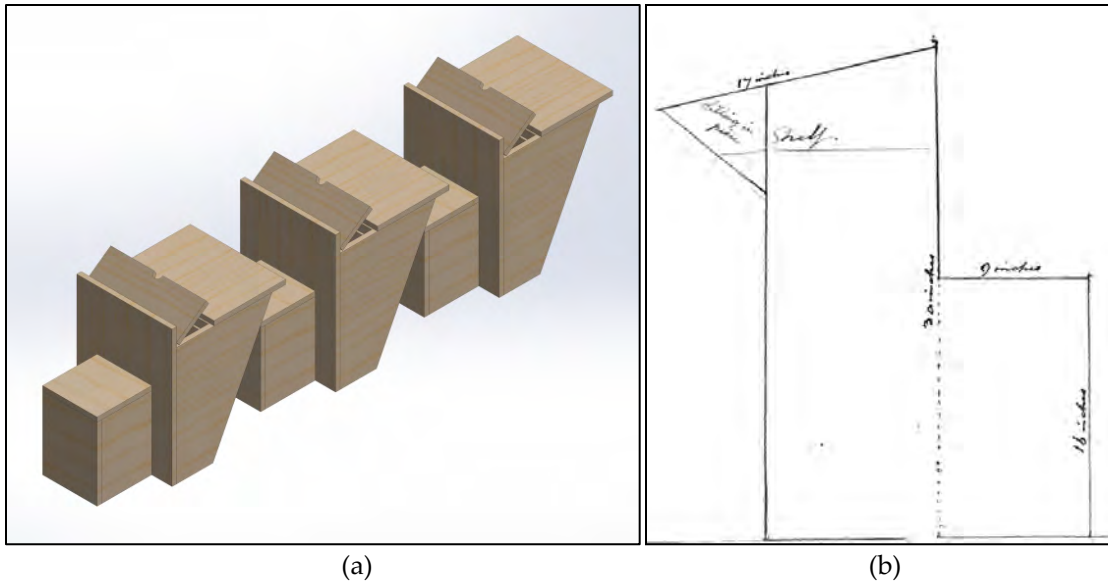
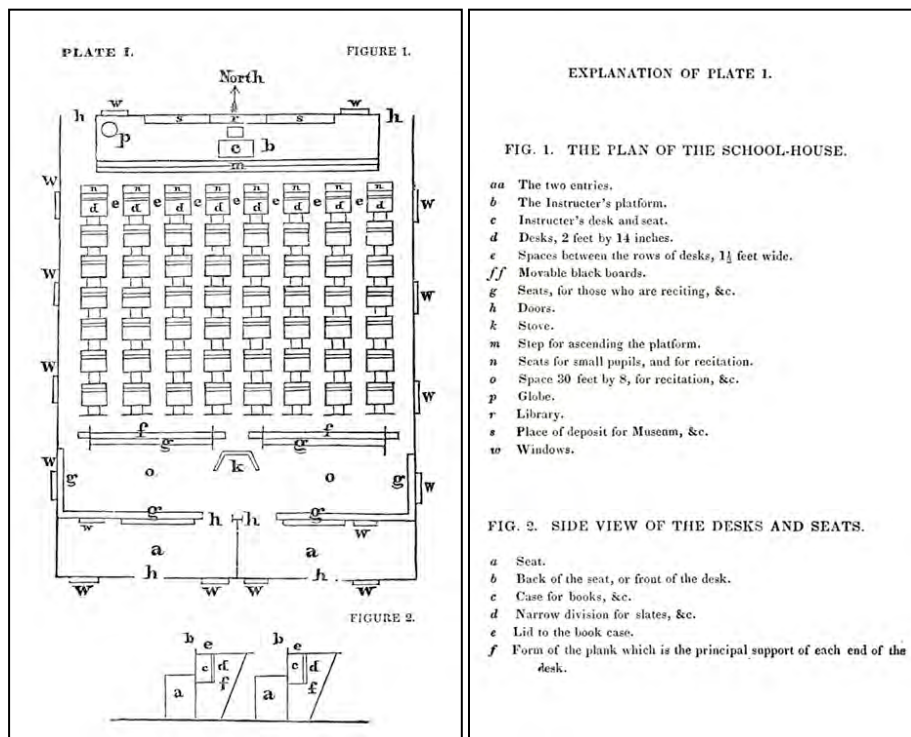
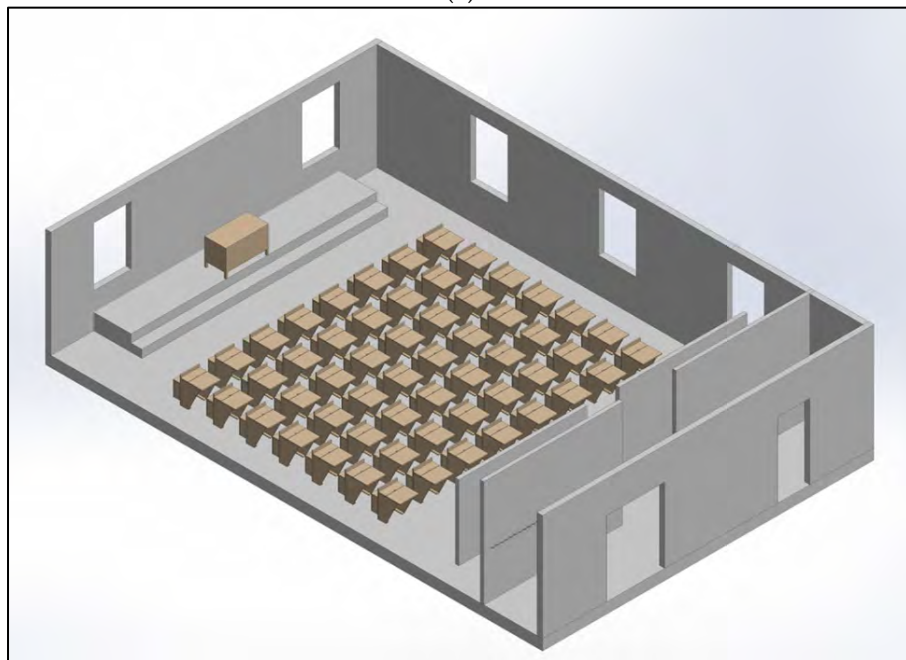


Fig. 1.7 The Alcott desk (a) was adapted from designs already in use such as the section view of a desk from an agreement between John Cooper and the Selectmen of Newburyport from a March 1830 (b). Alcott proposed modifications that included lidded storage at the front of the desk instead of a shelf beneath or below the seat box, and a flat, rather than a sloped top. (a. Rendering based on Alcott, "Construction of School Houses," 1832, © Philip Carlino, all rights reserved; b. Col 268, Miscellaneous Legal Agreements, Joseph Downs Collection, Winterthur Library.)



(a)



(b)

Fig. 1.8 Alcott considered individual desks separated by aisles “indispensable.” (a. Alcott, “Construction of School Houses,” 1832, 258-259; b. Rendering based on Alcott, “Construction of School Houses,” Boston, 1832, © Philip Carlino, all rights reserved.)

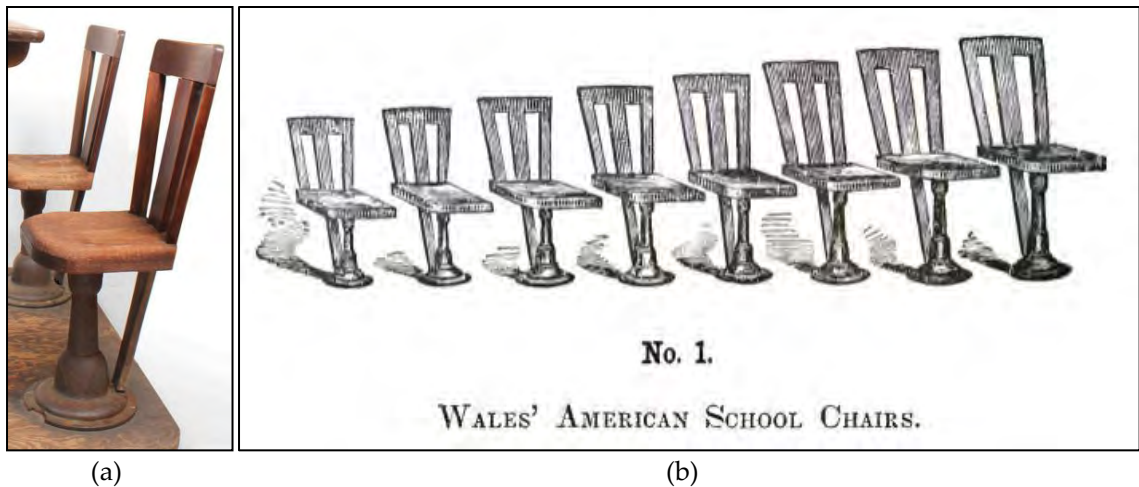


Fig. 1.9 Samuel Wales, Jr. of Boston designed the first mass manufactured school furniture produced in the United States in 1839. Originally offered in three sizes, by 1850 he sold the chairs in 8 sizes in one-inch height increments to address educators and physician's concerns for about curved spines. Comfortable chairs also helped students maintain the restrained, focused upright behavior expected of them. (a. © Brookline Historical Society, Boston Furniture Archive, <http://bfa.winterthur.org/object/485>, accessed August 26, 2019, DAPC_2014-0245[Detail]; b Samuel Wales, Jr., *The Guide*, 1850, np.)

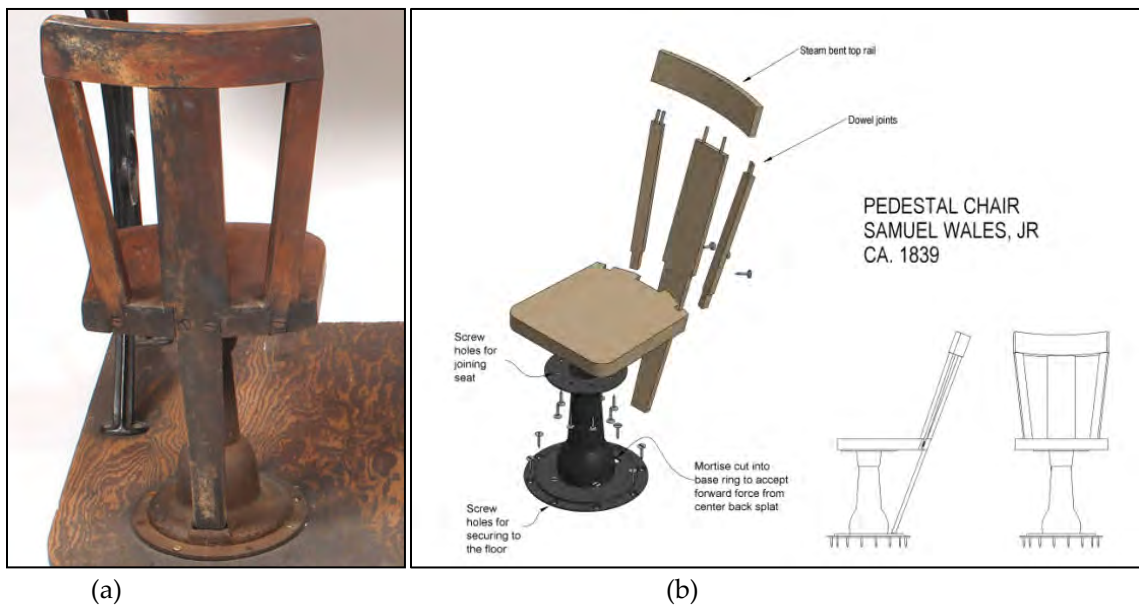


Fig. 1.10 An unmarked Wales-type pedestal school chair. Wales designed a chair that leveraged the strength and moldability of cast-iron to compensate for low skilled but relatively weak screwed joinery. The rearward lateral force of a sitter leaning on the seat back could potentially tear out the screws securing the seat to the pedestal and the back to the seat. To compensate, the long center back splat acted as a lever to transmute rearward force into a forward force counteracted by the pedestal. (a. © Brookline Historical Society, Boston Furniture Archive, <http://bfa.winterthur.org/object/485>, accessed August 26, 2019, DAPC_2014-0245[Detail]; b. Construction details, © Philip Carlino, all rights reserved.)

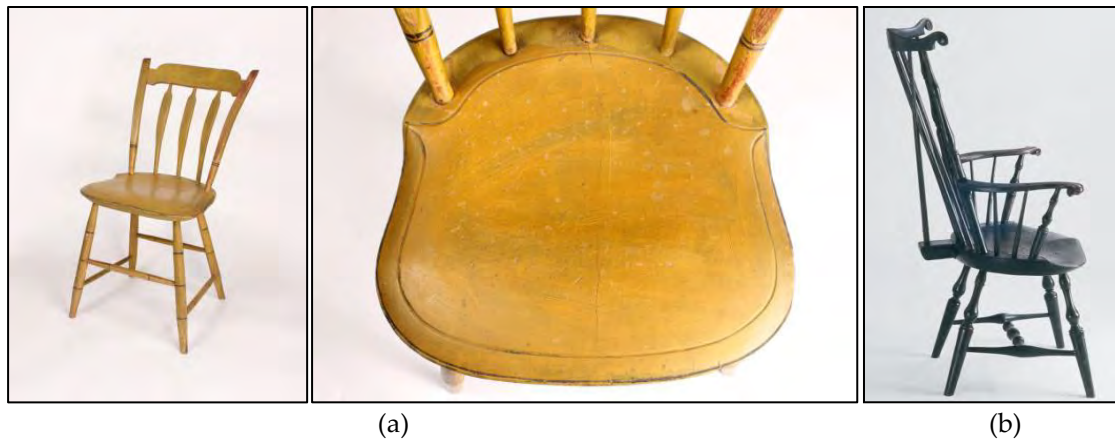


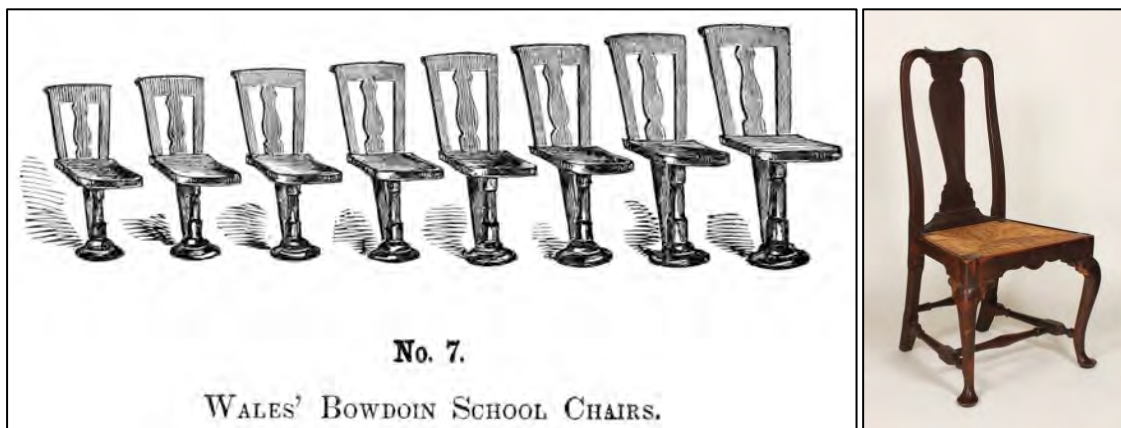
Fig. 1.11 a. Traditional Boston-area Windsor chairs made with angled mortises that connected the back and leg spindles to the seat. Brace-back versions (b) had one or two additional spindles to reinforce the back, like the central back splat in the pedestal chair. (a. Windsor Chair, 1800-1900, Courtesy of the Duxbury Rural and Historical Society 1954.002.002, www.duxburyhistor.org and The Boston Furniture Archive, DAPC_2014-0136; b. Windsor armchair, Charles Chase, Nantucket, 1790-1805, Pine, birch, ash, oak, 1959.1637, Bequest of Henry Francis du Pont, Courtesy of Winterthur Museum.)



Fig. 1.12 Detail of joinery showing the prominent screw heads. (© Philip Carlino, all rights reserved.)



Fig. 1.13 Illustration of curved spine and uneven shoulders, 1830 (“Foster’s Carstairsian Penmanship,” *American Journal of Education*, August, 1830, 377.)



(a)

(b)

Fig. 1.14 Wales named later models after Boston schools to associate the chairs with the city’s leading reputation in education. The Bowdoin chair had a vase-shaped back splat characteristic of Queen Anne-style chairs made in Boston in the mid-1700s (b). The style was not in fashion for domestic furniture in the 1850s when Wales made these chairs. Rather than a forward-looking aesthetic, the ornamental splat was a conservative symbol that raised the slightly more ornamental chairs above his plain “American School” model. (a. Samuel Wales, Jr., *The Guide*, 1850, np; b. Side Chair, Dedham Historical Society and Museum, 1886.03 Courtesy of the Boston Furniture Archive, DAPC_2014-0064.)

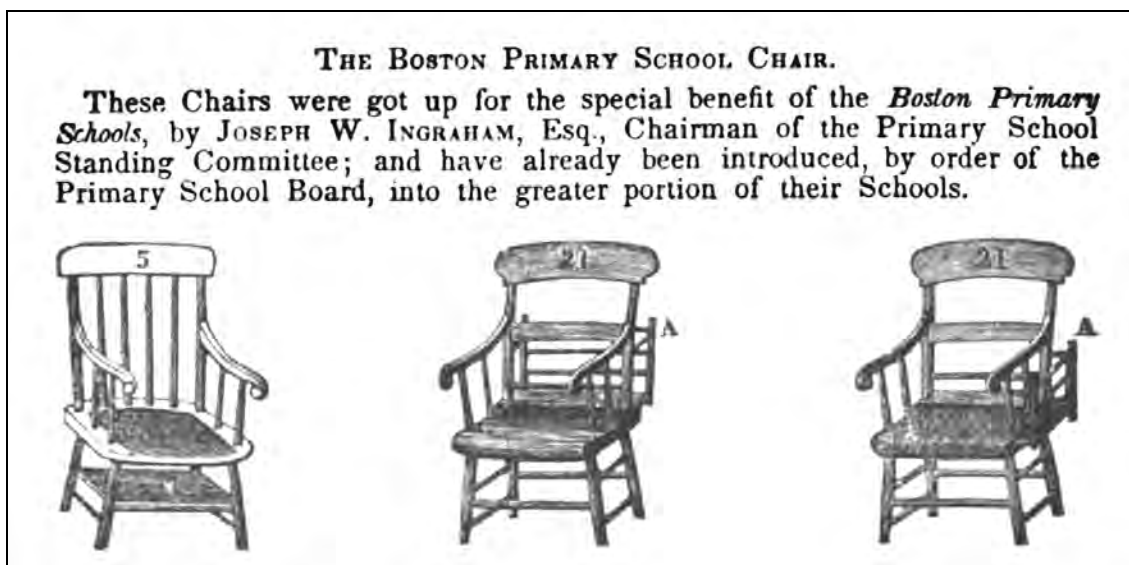


Fig. 1.15 Primary-school chairs designed by James W. Ingraham and made by William G. Shattuck. The chairs, for 4 to 7-year old children who had yet to begin writing, were mainly used for reading. (Barnard, *School Architecture*, 1848, 201.)

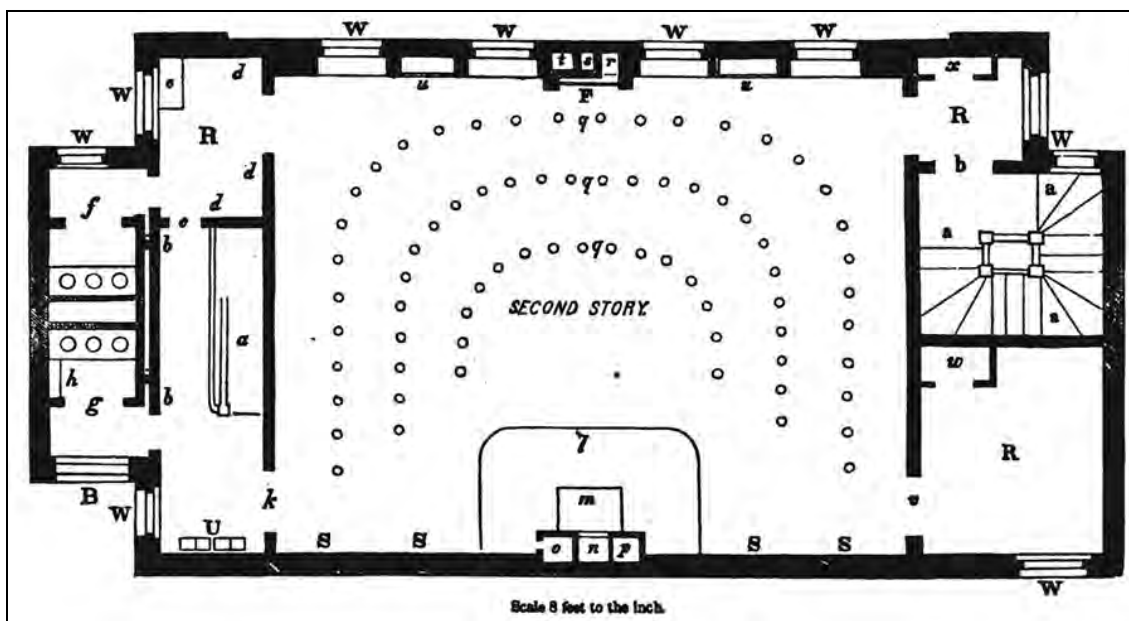


Fig. 1.16 James Ingraham, designer of the first mass-manufactured primary-school chairs, also helped to design the first primary schools in Boston, built in 1848. (Barnard, *School Architecture*, 1848, 179.)



Fig. 1.17 Wales designed a primary school version of his pedestal chair, advertised in the 1850 Boston directory. (*Boston Directory*, 1850, 40.)

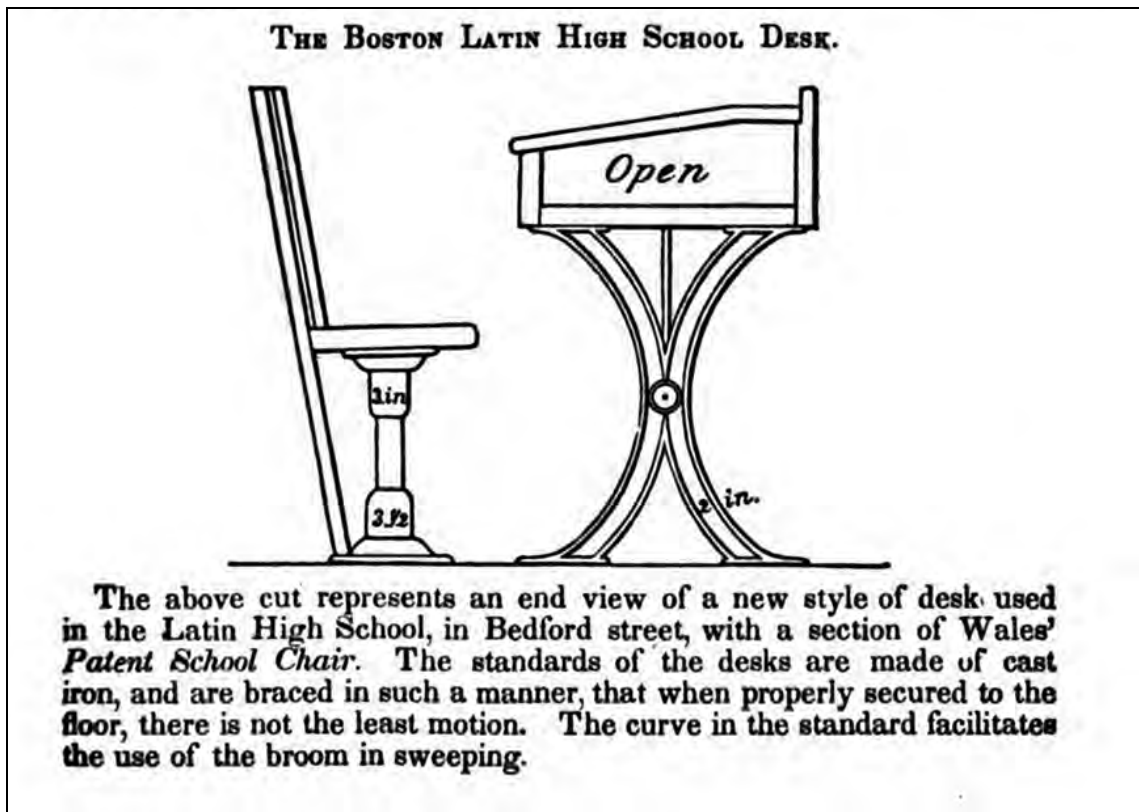


Fig. 1.18 Section view of Boston Latin School desk with Wales pedestal chair, 1847. The desk was designed by Epes S. Dixwell, principal of the Boston Latin school. (Barnard, *School Architecture*, 1848, 201.)



Fig. 1.19 The first factory-made school desks were manufactured in the Boston area in 1847/1848 by Samuels Wales, Jr., Joseph L. Ross, and James Kimball. (Barnard, *School Architecture*, 1848, 203, 205, and 222.)



Fig. 1.20 Manufacturers decorated cast iron standards on Boston Latin desks for protection from mischievous scratching and carving, and for distinction in the marketplace. (a. Joseph L. Ross, *The Directory of the City of Boston*, Boston, 1850-51, 45.; b. Joseph L. Ross, *Illustrated Catalogue*, 1864; c. Samuel Wales, Jr., *The Guide*, 1850, np.)



Fig. 1.21 Double Boston Latin desks eliminated half the aisles in an urban classroom to increase capacity, often in response to rapid enrollment growth. (© Brookline Historical Society, Boston Furniture Archive, <http://bfa.winterthur.org/object/485>, accessed August 26, 2019, DAPC_2014-0245-001.)



Fig. 1.22 William G. Shattuck display advertisement published one year before he submitted furniture to the Crystal Palace Exhibition in Great Britain. (*Directory of the City of Boston*, Boston, 1852-53, 43.)



Fig. 1.23 A German illustrated newspaper contrasted American individual pedestal seat desks with typical multi-seat German furniture. The legible text translates as “Americans really have the simplest, best and cheapest... [illegible] the most beautiful and elegant in the world... [illegible] intended for girls... [illegible] American Two-Seat Desk for Girls.” Another indication of the American obsession with the bodies of white girls. (“Geschichte der Schulbank,” *Illustrirte Zeitung* no. 1488, January 6, 1872, 16.)

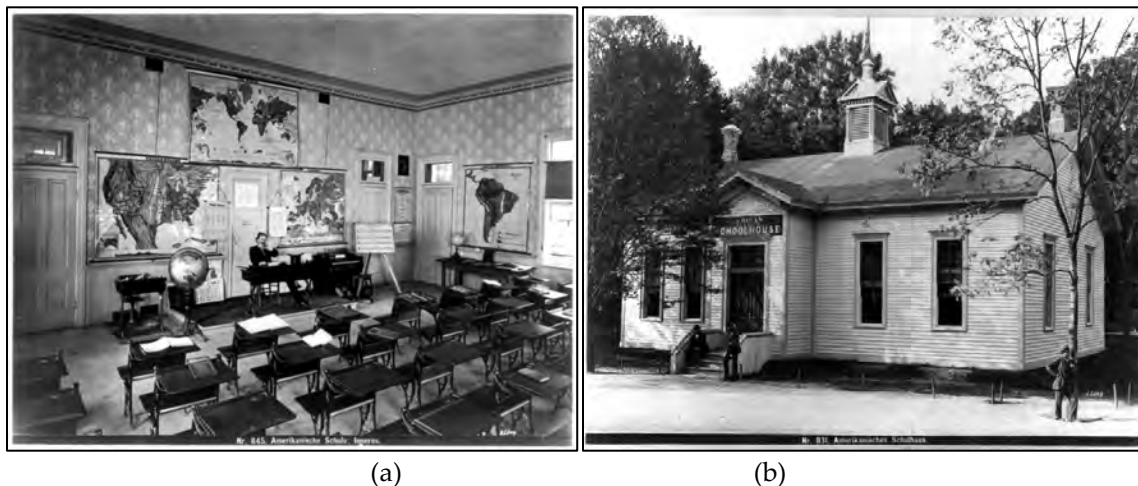


Fig. 1.24 a. The interior (a) and exterior (b) of a model school built by U. S. Secretary of Education on the grounds of the Universal Exhibition in Vienna in 1873. The sign over the left interior door reads “Boys Entrance.” (a. J. Löroy, Universal Exhibition of Vienna, 1873: American rural schoolhouse, interior, Library of Congress, LC-USZ62-59649; b. J. Löroy, “Universal Exhibition of Vienna, 1873: American rural schoolhouse, exterior,” Library of Congress, LC-USZ62-59648.)

Mr. Ross also manufactures tables and desks for the use of teachers, cases for apparatus, and for library, and other furniture for school-rooms."

Mr. Ross also manufactures a style of school desk with seat attached, which has been introduced very extensively into village and country districts in Rhode Island, and is recommended wherever a rigid economy must be observed in furnishing a school-room. The end-piece, or supports, both of the desk and seat, are of cast-iron, and the wood-work is attached by screws. They are made of eight sizes, giving a seat from ten inches to seventeen, and a desk at the edge next to the scholar from seventeen to twenty-six inches from the floor.

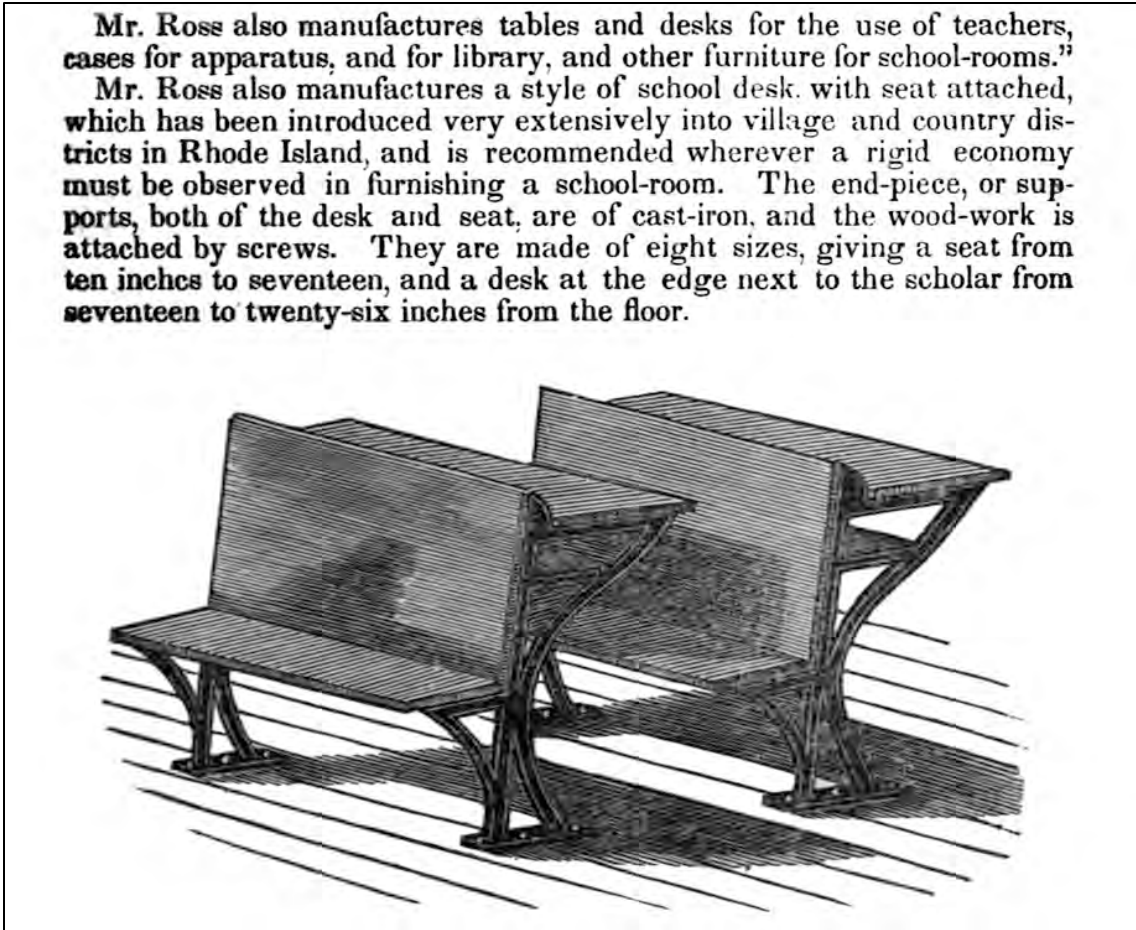
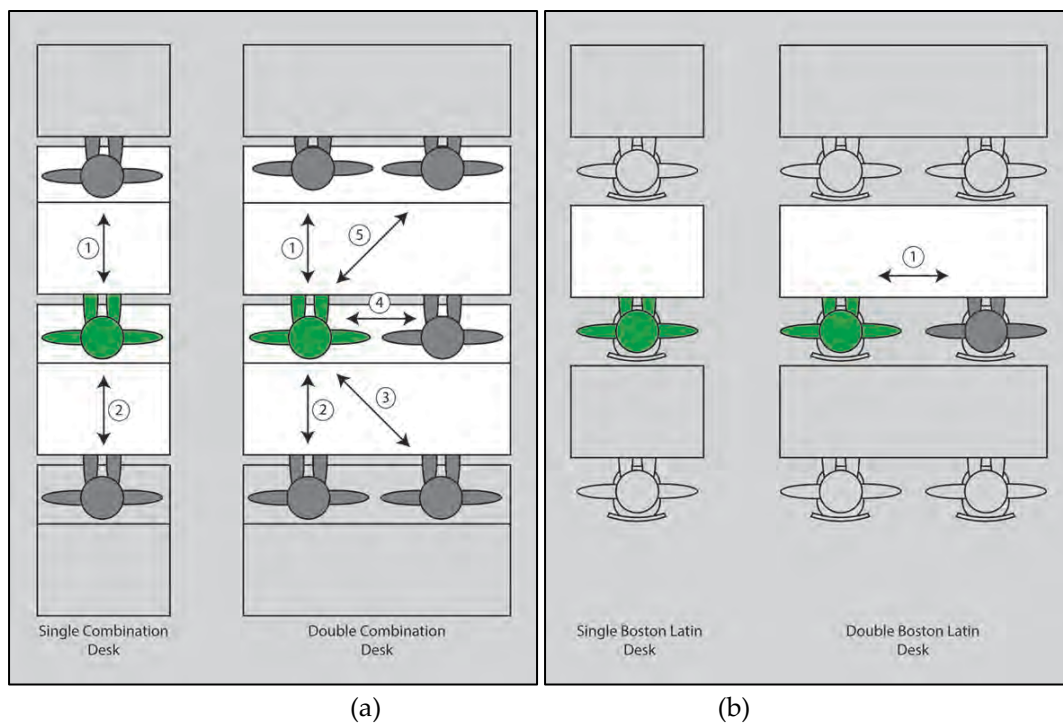


Fig. 1.25 Village school desks made by Joseph L. Ross of Boston in 1848 (Barnard, *School Architecture*, 1848, 205.)



(a)

(b)



(c)

Fig. 1.26 Top view diagrams show the relationships of a child seated in rural combination desk (a) and the greater isolation of Boston Latin desks and pedestal chairs in (b). The photograph of children seated in combination desks (c) is from 1938 in Missouri (a. and b. © Philip Carlino, all rights reserved; c. Negro school children studying near Southeast Missouri Farms, August 1938, Schomburg Center for Research in Black Culture, Photographs and Prints Division, The New York Public Library, <https://digitalcollections.nypl.org/items/510d47df-f942-a3d9-e040-e00a18064a99>)

SIDNEY SCHOOL FURNITURE CO.,
(John Loughlin, Sole Proprietor.)

8

After leaving the planer the wood parts are passed through a sand machine and made perfectly smooth.

They are then filled with a wood-filler made of mineral and oil which fills all the pores so the finish will float on the surface, and finished in the best hard oil finish.

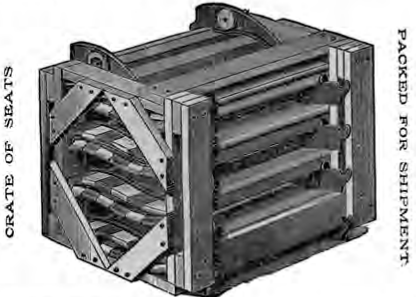
There are no few pieces of the "Fashion" Desk that it can be shipped to advantage in "knock-down" form more cheaply and better than when set up.

For shipment the parts of the same kind and size are crated together, as shown in the crate of seats below. The backs, tops, etc., are all crated in the same way and the irons are also crated.

SIDNEY SCHOOL FURNITURE CO.,
(John Loughlin, Sole Proprietor.)

9

IN SETTING UP THE "FASHION"



CRATE OF SEATS

PACKED FOR SHIPMENT

In packing the woods, heavy felt paper is placed between the finished surfaces so they can not rub or mar.

Each piece of the irons and woods is marked with a number, etc., indicating its size and place in the Desk, and each also being crated by itself, no confusion of parts can occur. Goods crated in this way are convenient to handle, and being compact and protected, they go at low rates of freight.

Being made in the least possible number of pieces and each piece marked, as stated, the parts that match are easily selected and readily and quickly put together. Any one can do it properly, and at much less cost than the difference in freight if sent "set up," and with half the trouble and expense of setting up any other Desk. Besides, Desks shipped "set up" are much more liable to be soiled or broken, as all the finished edges are turned out instead of in, and the extremities are unprotected.




Figure 1.
Next the book-shelf is shoved into its groove from the front, and then the back is placed in position and bolted to the standards with the four bolts. This completes the setting up, and shows it to be a very simple process, consisting of driving on the top and bolting on the seat with two bolts, and the back with four bolts, and shoving the book-shelf in its groove. After putting the anchor screws in the top




Figure 2.
the Desk is ready to screw to the floor, as shown in Fig. 3.

All necessary bolts, screws, washers, etc., are furnished with each shipment; also, a hinge wrench and a chilled cast spud to spread the bolts, so the nuts can not possibly loosen or come off.

Ink-wells furnished for Desks Nos. 1, 2, 3 and 4.


Rear seats and recitation seats go on the same kind of standards, and, having no tops, are simpler to set up as Figure 3.

Fig. 1.27 Combination desks were designed to pack flat for inexpensive shipping and assembly by yeoman laborers using minimal tooling, often provided by the manufacturer. (Sidney School Furniture Co., Patented T-Head School Furniture, Sidney, OH, ca. 1881, 8-9.)

First in the list of our various Manufactures, we offer


"The Triumph."

ANDREWS' PATENT GOTHIC "SLAT BACK" DESK AND SEAT.



SINGLE AND DOUBLE. SIX SIZES.

The main points to be considered in the selection of School Desks and Seats, are the *Comfort and Health of the Pupil*, who is compelled to sit almost continuously for *six hours each day*, without the privilege of leaving or changing his seat, however uncomfortable. In this respect



The Celebrated Triumph.

Boutailed and Boweled.

Fig. 1.28 In 1872 the A. H. Andrews Company introduced the Triumph Desk with a folding seat. The desk also came with a footrest BAR to encourage quiet feet. (a. A. H. Andrews Company, *School Furniture and Hall Settees*, Chicago, 1873, 6; b. A. H. Andrews Co., *Illustrated Catalogue of School Merchandise*, Chicago, 1881, ifc.)

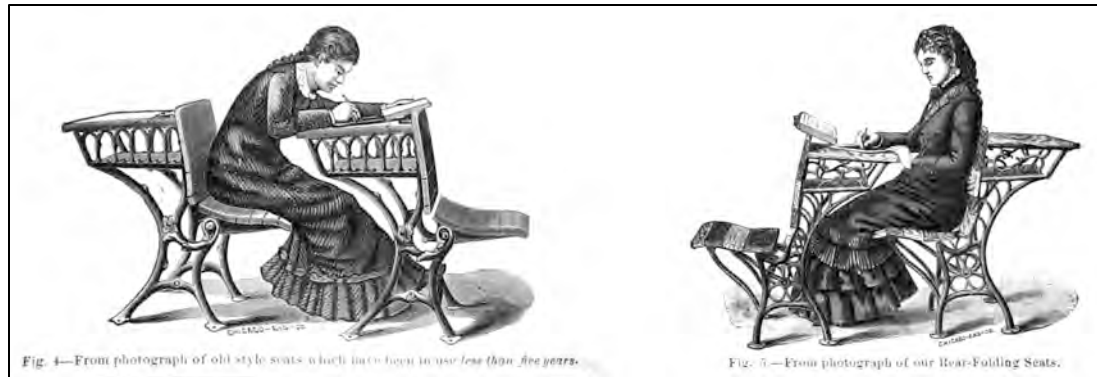


Fig. 1.29 Special folding seats fostered more upright posture and allowed seats to be placed closer together. (Union School Furniture Co., *School, Hall and Opera Furniture*, New York, 1885, 4-5.)



Fig. 1.30 Open work storage offered opportunity for surveillance of student belongings, and a space for ornamentation and branding (Courtesy of the Eastham Schoolhouse Museum, © Philip Carlino, all rights reserved.)



(a)



(b)

Fig. 1.31 Rural schools often installed more affordable combination desks: (a) African-American School, Anthoston, KY, 1916; (b) Rural school in Oregon (circa 1893). (a. Lewis Hine, “Colored School,” 1916, Library National Child Labor Committee collection, Library of Congress, Prints and Photographs Division, <https://www.loc.gov/pictures/item/2018678394/>; b. Interior view of the Bear Creek Township School showing class in session, Brooklyn, Iowa. ca. 1893, Used with permission of the State Historical Society of Iowa, Des Moines).



Fig. 1.32 Manufacturer's promotional materials contrasted exaggerated illustrations of poorly behaved children on crude furniture with self-disciplined children on manufactured desks. (M. W. Chase trading card, 1876.)

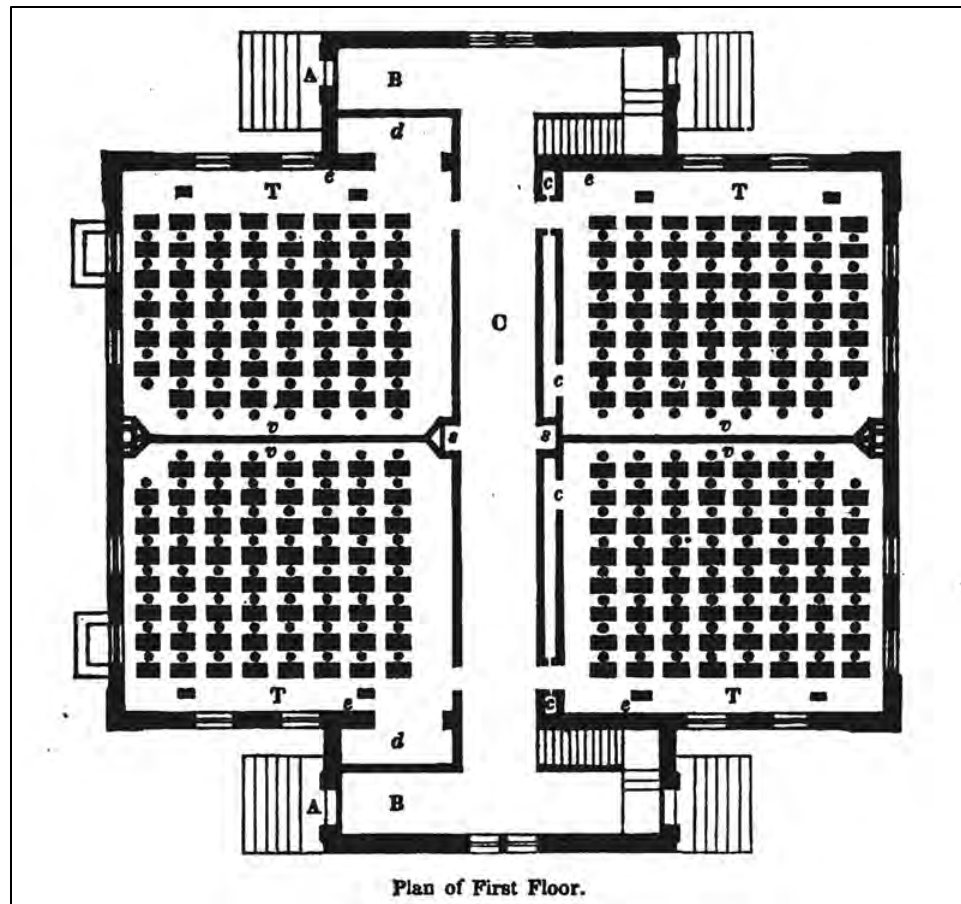
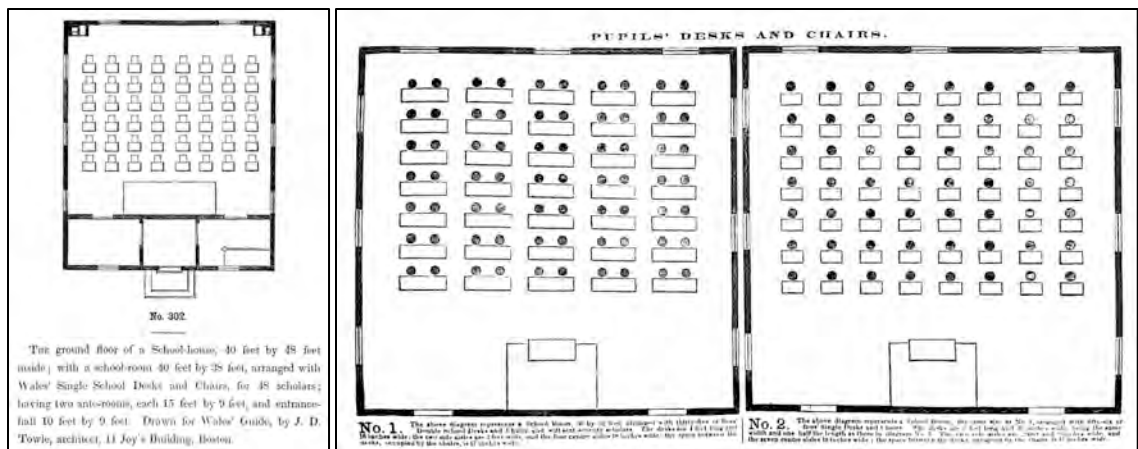


Fig. 1.33 The plan for Boston's Quincy Grammar School, opened in 1848, set a nationwide standard urban grammar school class size of 56 students arranged in a grid format. (Barnard, *School Architecture*, 1848, 209.)



(a)

(b)

Fig. 1.34 Manufacturers printed floor plans in their catalogs that communicated the standard grid layout. (a. Samuel Wales Jr., *The Guide*, 1850; b. Joseph L. Ross, *Illustrated Catalogue*, 1864, 6.)

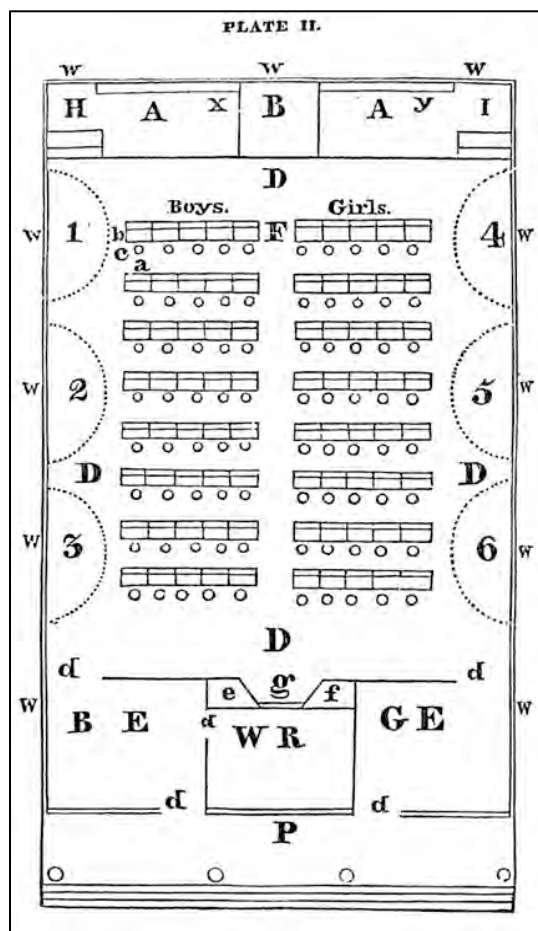
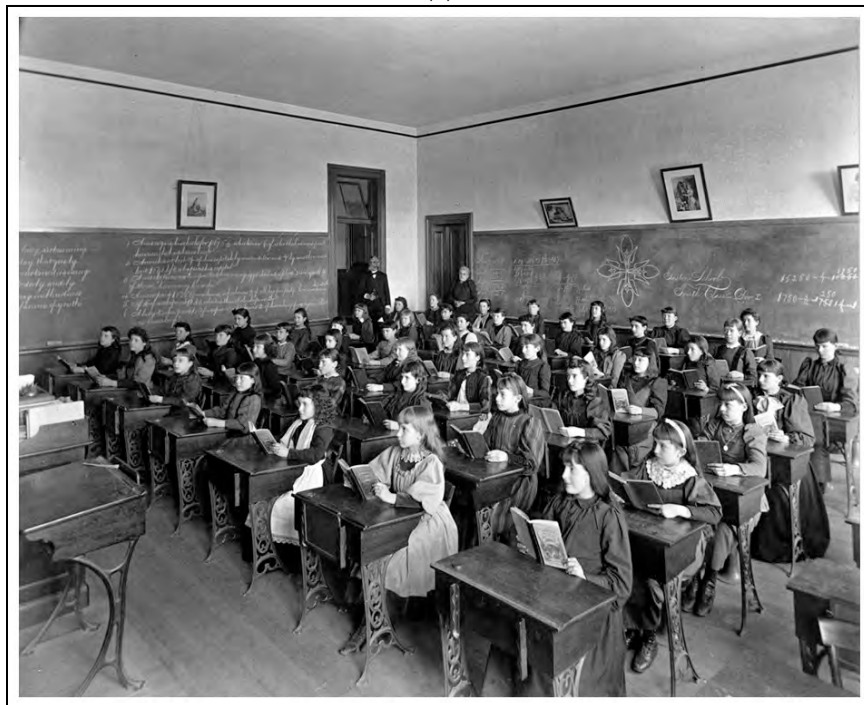


Fig. 1.35 Gender segregation was common practice in the early years of the common school movement as seen in this village school-house plan split longitudinally into boys and girls seats, 1831. (William Woodbridge, "Plane of a Village School-House," in *The Introductory Discourse and the Lectures ... 1831*, 1832, 288.)



(a)



(b)

Fig. 1.36 Teachers sometimes placed children who misbehaved in a chair on the rostrum, seen in the foreground of these images of Boston classrooms from 1892 (a. Grammar school, class VI. Dwight District, 1892: Photos by A. H. Folsom, Boston public schools, Boston Public Library, Print Department; b. Sixth grade-Gaston School, 1892: Photos by A. H. Folsom, Boston public schools, Boston Public Library.)



(a)



(b)

Fig. 1.37 Race and gender integrated classrooms, Boston, 1892 (a. Augustine H. Folsom, Primary school, Class II. Dwight District, Boston Public Library, https://www.flickr.com/photos/boston_public_library/6198193580/in/album-72157627787153962/. b. George Putnam School, Boston. Grade 7 - class 3. Observing, drawing, and describing minerals. June, 1892, Boston Public Library, https://www.flickr.com/photos/boston_public_library/6197671975/in/album-72157627787153962/.)

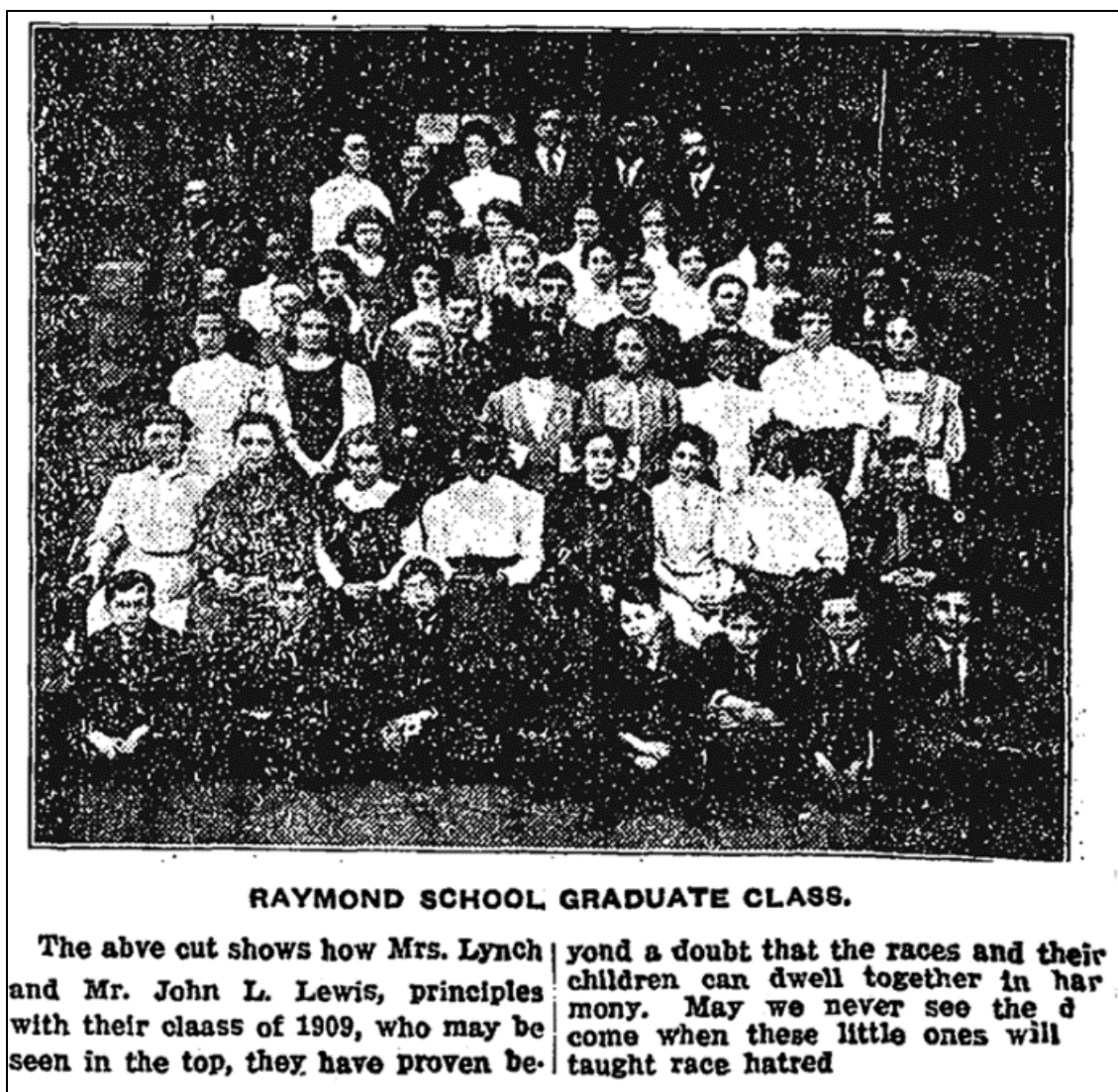
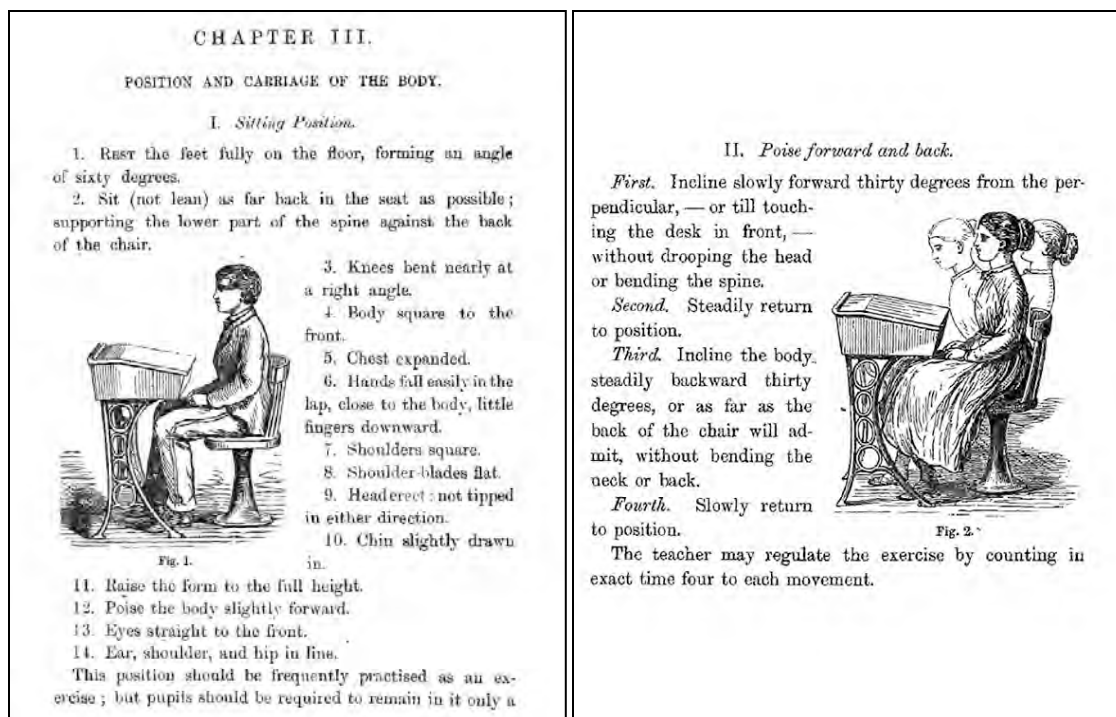
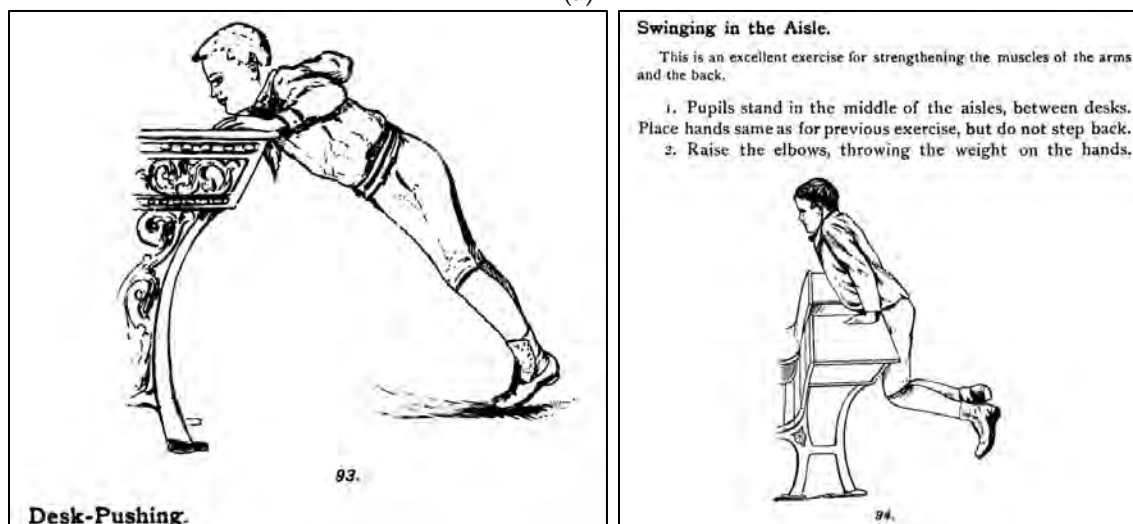


Fig. 1.38 Integrated class photo published in *The Chicago Defender* that according to the caption is proof “that the races and their children can dwell together in harmony.” (“Jim Crow School in Chicago,” *The Chicago Defender*, November 12, 1910.)

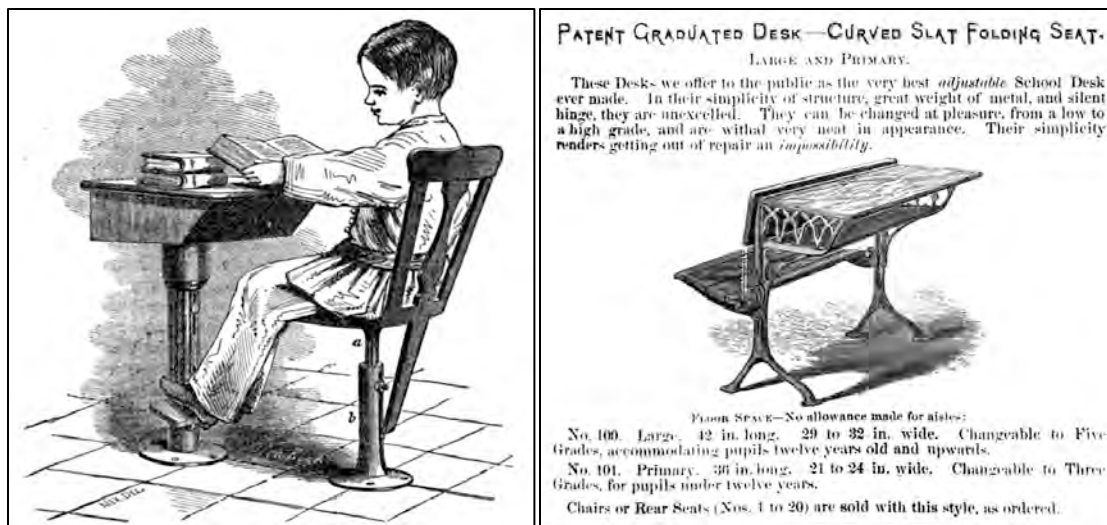


(a)



(b)

Fig. 1.39 Physical education manuals included diagrams that presumed the Boston Latin school desk or combination desk securely screwed to the floor was available in most school rooms. (a. Monroe, *Manual of Physical and Vocal Training*, 1869, 10-11; b. Morris, *Physical Education in the Public Schools*, New York, 1892, 136-137.)



(a)

(b)

Fig. 1.40 In the 1860s and 1870s manufacturers experimented with height adjustable furniture. (a) Amos Chase of New Hampshire received U. S. patent 30,020 for an adjustable desk Sept 11, 1860. A. H. Andrews Company sold a height adjustable combination “Graduated Desk” (b) in 1873. (a. “Chase’s Adjustable School Desk and Seat,” *American Journal of Education* 13, 1863, 656; b. A. H. Andrews Company, *School Furniture and Hall Settees*, Chicago, 1873, 10.)

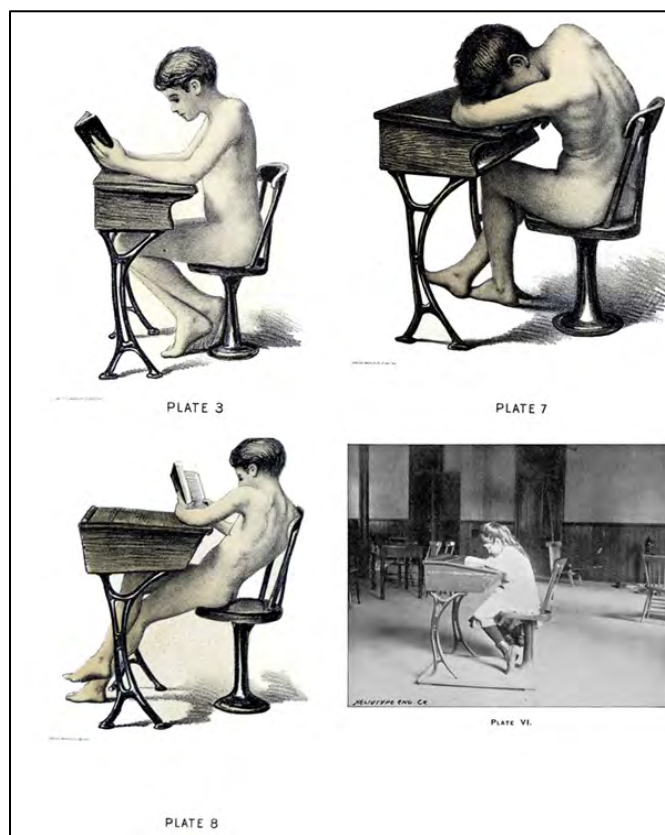


Fig. 1.41 School hygienists surveyed and documented children in schools in the 1890s. (Charles L. Scudder, *Seating of Students in the Public Schools*, 1892, 21-27.)



(a)



(b)

Fig. 1.42 Boston Grammar schools provided small wooden “crickets,” as footrests rather than install different sized desks in the classrooms, shown indicated by white arrows in the details on the right. (a. Augustine H. Folsom, Grammar School, class VI. Eliot District, Boston Public Library; b. Augustine H. Folsom, Grammar School, Class V, div. II Wells District, Boston Public Library, https://www.flickr.com/photos/boston_public_library/6198192726/in/album-72157627787153962/.)

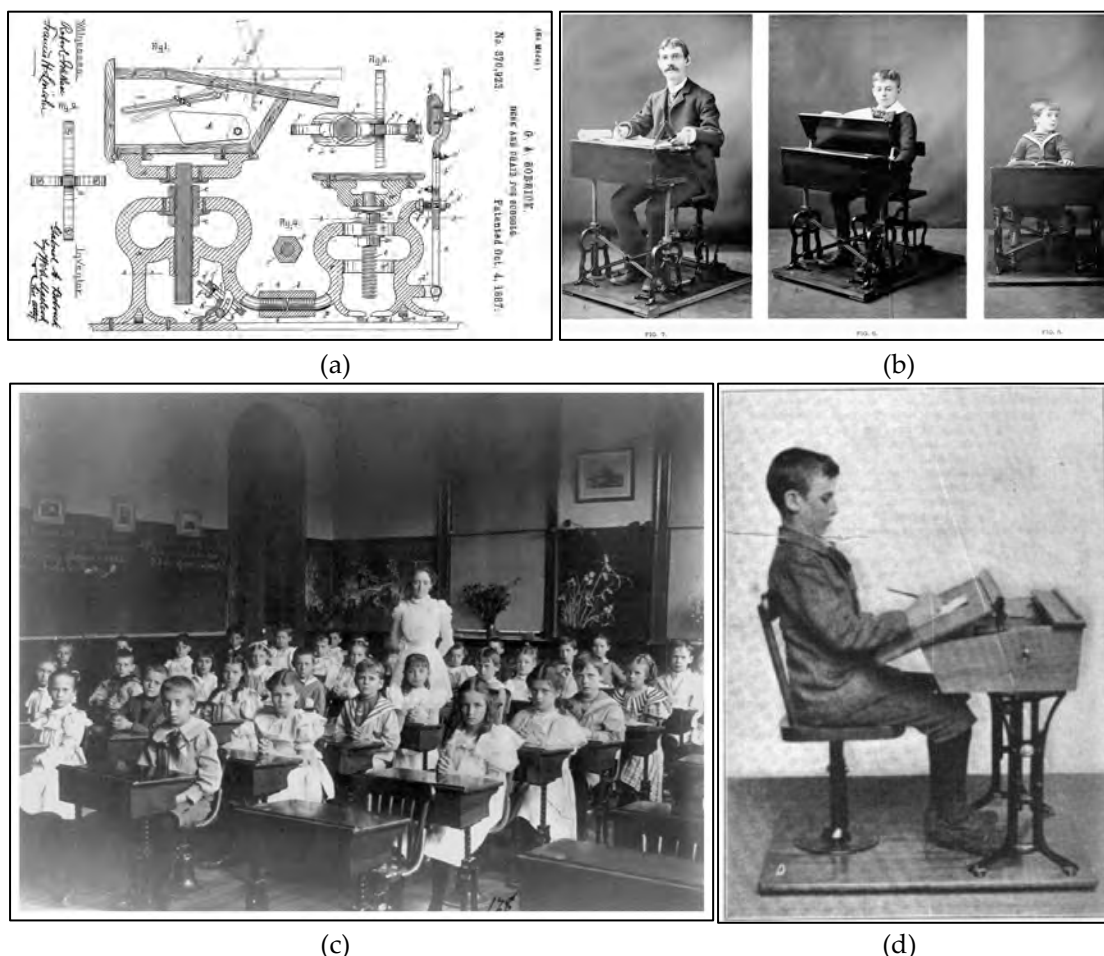


Fig. 1.43 Complicated adjustable desks by Boston manufacturers G. A. Bobrick and F. A. Chandler had a brief popularity from 1895 to 1902. A section view (a) shows the complicated gears and rack and pinion mechanisms of his initial version of the desk. A photograph from Bobrick's 1887 catalog (b) shows the same desk in use by three different age students. A classroom in Washington, DC (c) outfitted with Bobrick furniture. The Chandler desk (d) had a retractable top that could be adjusted by the student. (a. Gabriel A. Bobrick, "Desk and Chair for Schools," US Patent 370,923, October 4, 1887; b. G. A. Bobrick *School Furniture*, 1887, ifl; c. Frances Benjamin Johnston, "Classroom scenes in Washington, D. C. public schools: general classroom scenes, 1st Division, Library of Congress, Lot 2749, no. 128 [item] [P&P], <http://hdl.loc.gov/loc.pnp/cph.3a39509>, (d), "Another Step in the Direction of the Adjustable Feature in School Desks," *School Board Journal* X, 1895, 397.)

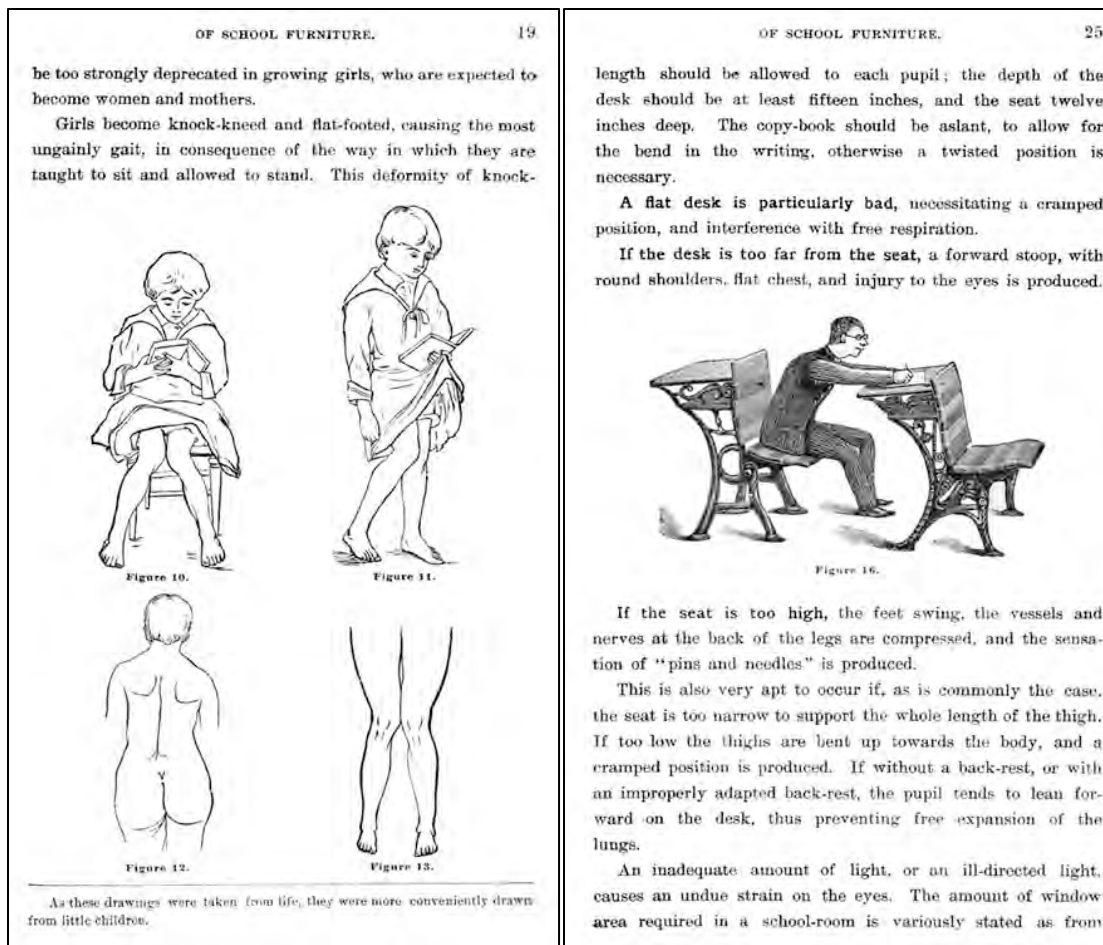
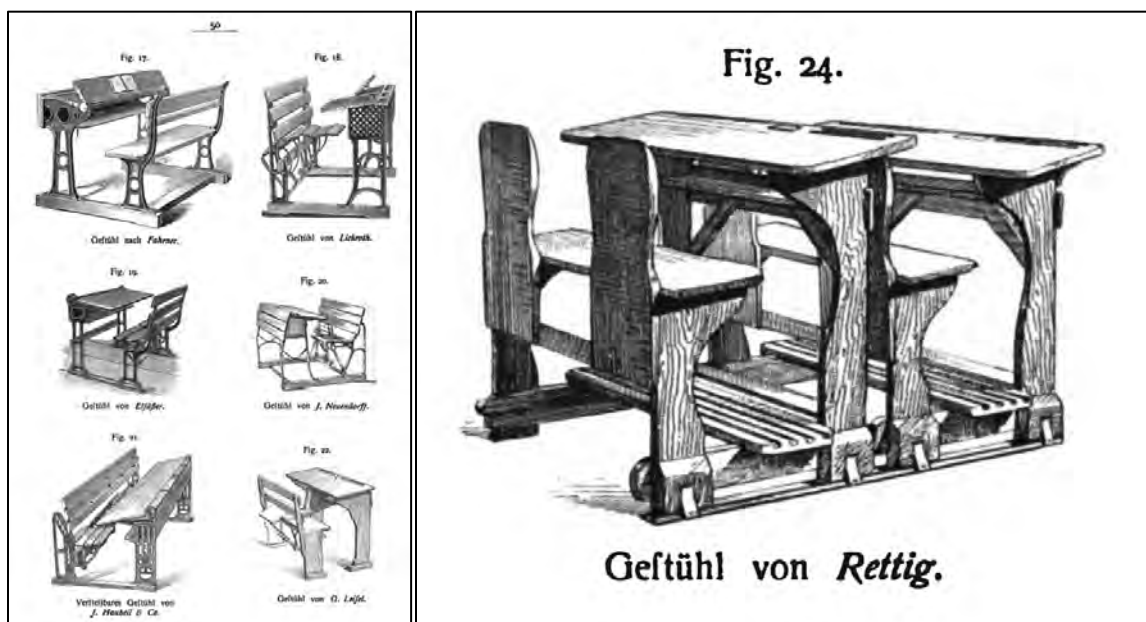


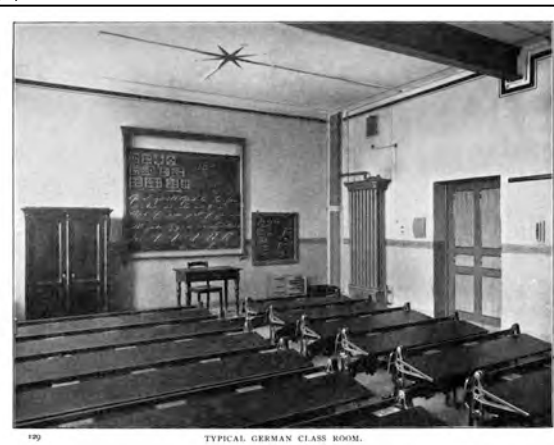
Fig. 1.44 In his 1892 catalog, G. A. Bobrick used drawings and data from school hygienists to show deformed bodies, and a stock image of a hunched over young man that appeared in other manufacturer catalogs. (G. A. Bobrick, *Hygienic Requirements of School Furniture*, 1892, 19.)



(a)



(b)



(c)

Fig. 1.45 The wood Rettig desk shown in this 1903 catalog (a) was the most popular desk in Germany and remained in use in various forms through the first half of the twentieth century. In an early twentieth century school architecture treatise, the individual Boston Latin desk introduced in 1848 was defined as typical for American education; the long benches and desks typical of German education. (a. Durm, *Handbuch der Architektur*, 1903, 50-51; b. and c. Wheelwright, *School Architecture*, 1901, 128-129.)

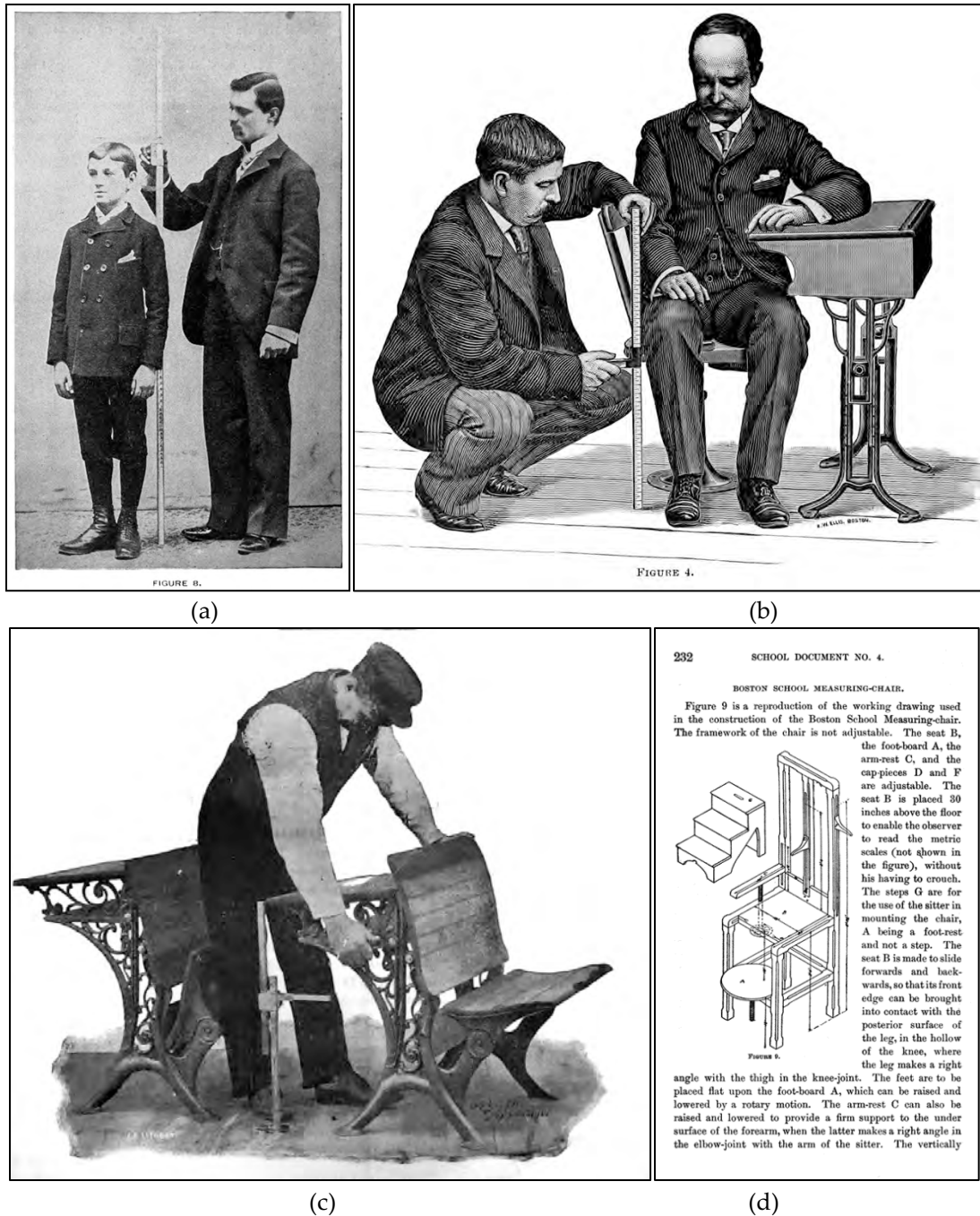


Fig. 1.46 Furniture measurement tools from the Bobrick (a) and Chandler (b) systems. Janitors or manufacturers' representatives transferred the heights to furniture (c). The Boston school commission built a bizarre measuring chair (d) to record student proportions. (a. G. A. Bobrick (The Bobrick School Furniture Co.), *School Furniture and Supplies*, 1895, 9; b. Boston School Committee, *Documents of the School Committee*, Boston, 1895, 214; c. Grand Rapids School Furniture Works, "New 'Ball Bearing' School Furniture, Broadside, 1895-1899, d. Boston School Committee, *Documents of the School Committee*, Boston, 1895, 232)

BUY THE BEST.

... THE ...

CHANDLER ADJUSTABLE.

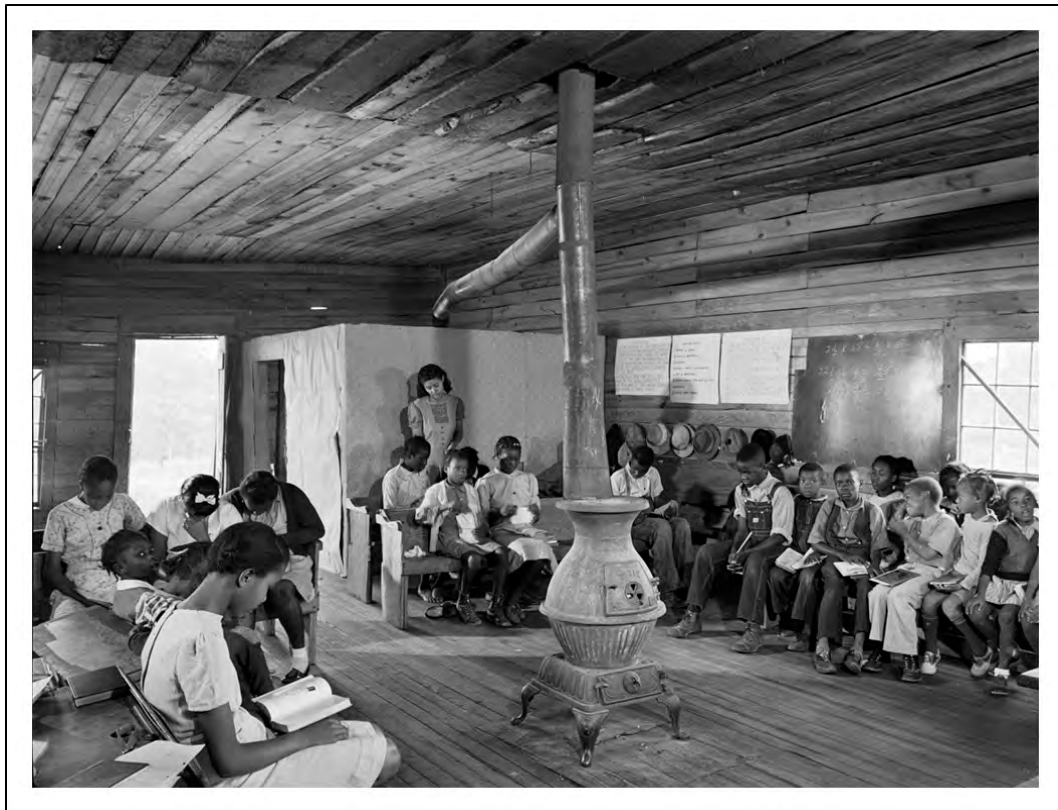


We recommend it as the **BEST.**

Write for Catalogue and Prices to

165 DEVONSHIRE ST., BOSTON.

Fig. 1.47 The simple version of the Chandler adjustable desk was based on the Boston Latin desk and pedestal chair. The desk was one of the most widely installed adjustable desks of the late nineteenth and early twentieth century. (Edward E. Babb & Company, *Illustrated Catalogue of School Supplies*, 1897-1898, bc.)



(a)



(b)



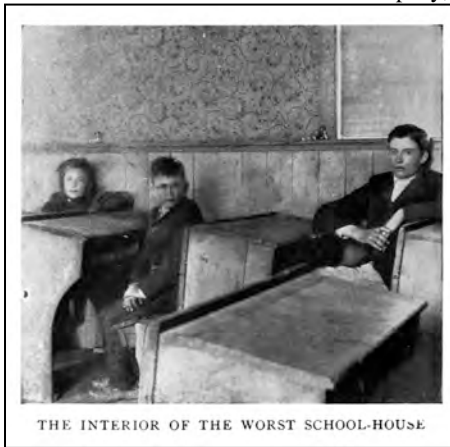
(c)

Fig. 1.48 Log benches typical in the 1820s continued in use in a rural black school seventy-five years later (b). As late as the 1940s, two schools in Georgia appeared unchanged from one-room schools a century earlier. (a. Jack Delano, "Veazy, Greene County, Georgia, the one-teacher Negro school in Veazy, south of Greensboro," October, 1941, Library of Congress, LC-USF34- 046248-D [P&P] LOT 1559 <https://www.loc.gov/pictures/item/2017796657>; b. Unknown photographer, Photo Album, Civil War Battlefields photograph album, ca. 1895, William L. Clements Library, University of Michigan, 4-454.4; c. Jack Delano, "Interior of Negro schoolhouse in Heard County, Georgia," April, 1941, Library of Congress, LC-USF34- 044089-D [P&P] LOT 1564, <https://www.loc.gov/item/2017794462/>.)



(a)

Edward E. Babb & Company, *Illustrated Catalogue of School Supplies*, 1897-1898



(b)



(c)

Fig. 1.49 A romantic vision of a country school with rustic furniture, 1900, and photographs of school furniture in the turn of the twentieth century in rural schools. (a. Edward Lamson Henry, *A Country School*, Yale University Art Gallery, Mabel Brady Garvan Collection, 1948.98; b. “The Worst School in Wisconsin,” *World’s Work* 8, June 1904, 4890; c. Clifton Johnson “A district schoolroom in Maine,” ca. 1928, New York Public Library Digital Collections, <http://digital.gallery.nypl.org/items/510d47d9-b774-a3d9-e040-e00a18064a99>.)

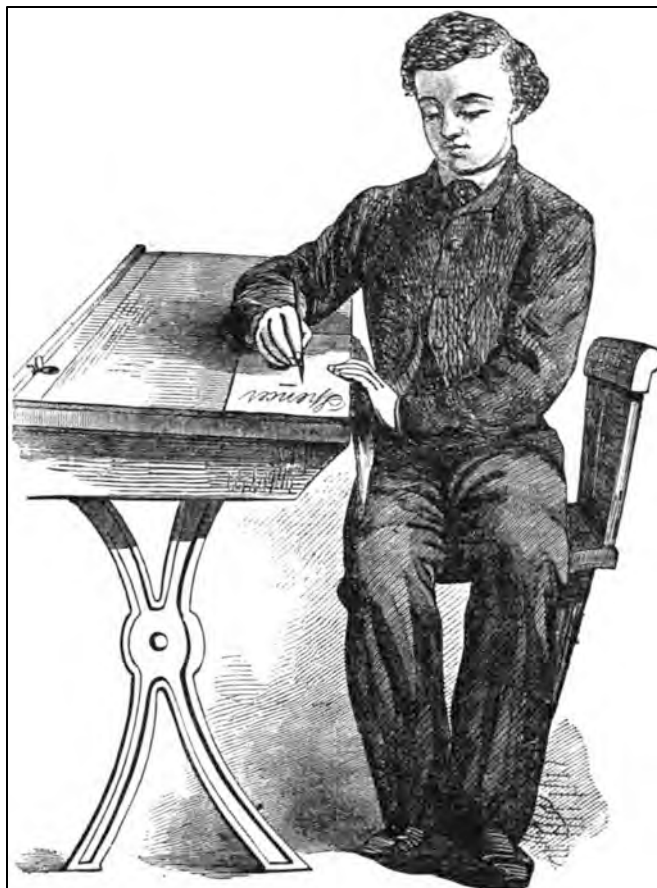


Fig. 1.50 Proper writing position for a clerk as illustrated by noted penmanship author Platt R. Spencer, 1869 (Spencer, H. C., and Platt R. Spencer, *Spencerian Key to Practical Penmanship*. New York: Ivison, Phinney, Blakeman, 1869, 29.)



Fig. 1.51 Pedestal chair and Boston Latin style desk, and combination desk, Heywood-Wakefield Company, 1937 (Heywood-Wakefield, *School Furniture*, 1937, 8 and 12, Image courtesy of Levi Heywood Memorial Library, Gardner, Mass)



(a)

Too Good to Junk!

Too Filthy to Use!



“Casmire Process” And a Coat or Two of Fresh Varnish
Makes Them Good As New!

IT IS dangerous to health and almost criminal to allow school children to sit, day after day, in filth-laden, germ-breeding seats. While it is worse than extravagant to “Junk” seats which are mechanically as good as new, but which are too dirty and unsightly to use, when “Casmire Process” Paint and Fomish Resealer, (Patented June 19, 1917), for very small cost, will positively remove, not only the old discolored paint or varnish, but all the dirt, grime, germs and chewing gum, from the surface and from the remotest cracks and crevices, absolutely without injury to the wood fiber, the glued joints or the original enamel of the iron frames.

We guarantee that after your seats have gone through our process they will be entirely sterilized and free from germs. The “Casmire Process” leaves the wood intact, as clean and sanitary as the day the seat was made—ready for refinishing; and that when finished the seat will be practically as good as new and ready for another year’s service. *Read the Proof of It.* Think of the saving of money and life, the better appearance of your seats—then write for further particulars at once. Address

National Wood Renovating Company
EXCLUSIVE MANUFACTURERS
319 East Eighth Street, Kansas City, Mo.

Here’s the Proof of It
(Extracts From a Few Letters From School Boards)

Source, Chicago, Sept. 6, 1917.
National Wood Renovating Co.
“I have just received your report that the work has been completed in my perfect satisfaction. The process has removed all discolored varnish, and the seats are now as good as new. The cost was less than the entire cost of buying the new seats in all the other seats sold.”
Yours truly, H. V. KERRICK,
Assistant Superintendent of Schools.

Wymore, Nebraska, Feb. 18, 1918.
National Wood Renovating Co.
“I have just received your report that the work has been completed in my perfect satisfaction. The process has removed all discolored varnish, and the seats are now as good as new. The cost was less than the entire cost of buying the new seats in all the other seats sold.”
Yours truly, H. V. KERRICK,
Assistant Superintendent of Schools.

Jefferson, Iowa, Feb. 14, 1918.
National Wood Renovating Co.
“The process removed all the old paint and varnish, leaving the seats in their natural color, smooth, and very satisfactory. They are as good as new.”
C. F. LYON, Secretary.

St. Louis, Kansas, Feb. 1, 1918.
National Wood Renovating Co.
“I have just received your report that the work has been completed in my perfect satisfaction. The process has removed all discolored varnish, and the seats are now as good as new. The cost was less than the entire cost of buying the new seats in all the other seats sold.”
Yours truly, H. V. KERRICK,
Assistant Superintendent of Schools.

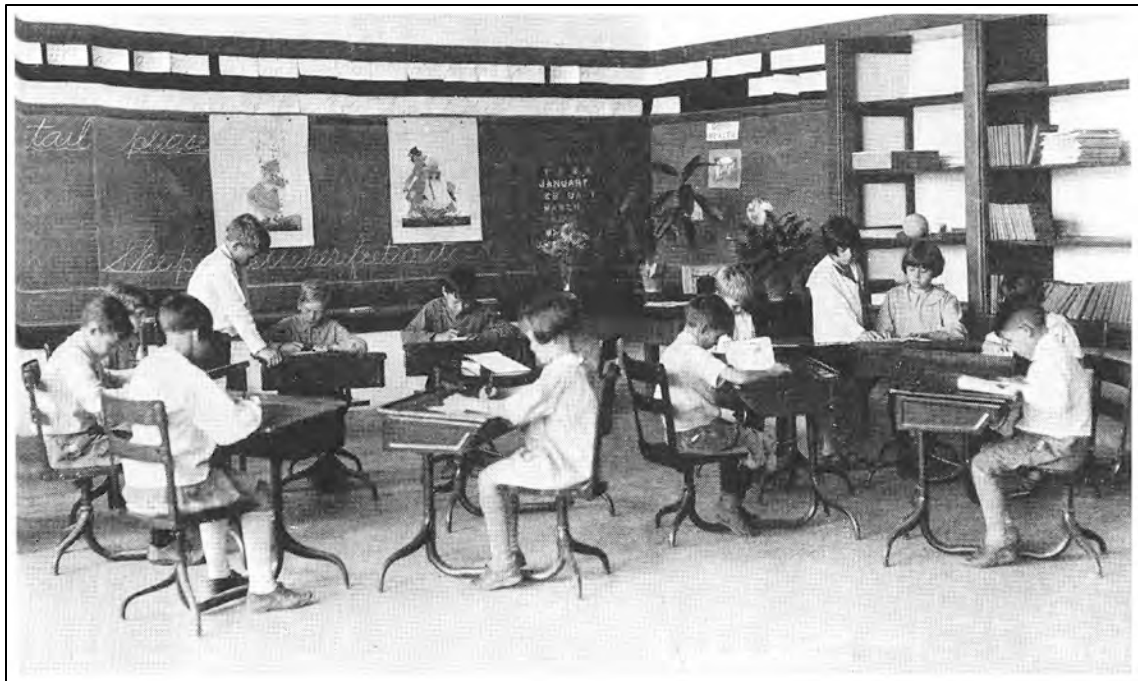
Rockwell City, Iowa, Sept. 4, 1917.
National Wood Renovating Co.
“The process removed all the old paint and varnish, leaving the seats in their natural color, smooth, and very satisfactory. They are as good as new.”
C. F. LYON, Secretary.

(b)

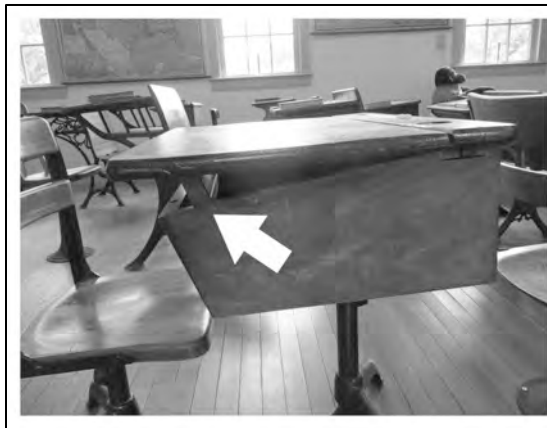
Fig. 1.52 The photograph (a) is part of a series that shows Boston Latin desks virtually identical in form to those introduced in 1848 in use in most Boston classrooms in 1892. Desks were designed to be durable — to resist scarring, scratching, carving and breakage — a coat of varnish could bring combination desks back to “Good as New” in 1819 (b). (a. A. H. Folsom, “Paper cutting and pasting,” Yeoman Street Primary School, Dearborn District,,” Boston, 1892, Boston Public Library, https://www.flickr.com/photos/boston_public_library/6280049882/in/album-72157627787153962/; b. *The American School Board Journal* LIX, no. 1, July 1919, 26.)



Fig. 1.53 The Grand Rapids School Company exaggerated the harms possible with competitor's desks, emphasized threatened retaliation for patent infringement, and wrapped its image in the flag to emphasize its bureaucratic bona fides in this promotional flyer. (Front and back of flyer, Grand Rapids School Furniture Company, 1886-1906 Courtesy of the Grand Rapids Historical Commission.)



(a)



(b)



(c)

Fig. 1.54 a. Moveable chairs in the classroom of a school for underprivileged students, circa 1925; b. detail of a prop on the wood version to allow the desktop to be horizontal for craft work, c detail of the rotating chair. (a. The Marsh Foundation School, *First Yearbook*, 1927, 1927, 15; b. and c. Eastham Schoolhouse Museum © Philip Carlino, all rights reserved.)



Fig. 1.55 The Universal desk skidded across the floor, but still enforced a rigid posture, for young women. A 1930 poster (a) intended for display in the classroom used characters from Frank L. Baum to shame young women into sitting up straight like the universal girl, a non-ethnic white girl being the universal; b. and c. the updated version from 1940 prominently displayed a young woman with a claim that the seat would help her meet a “Desire to Appear Well, and to make the most of one’s self.” (a. Advertising poster, American Seating Company, Grand Rapids, Michigan, 1930, Grand Rapids Public Museum; b. and c. American Seating Company, *These Sitting Americans: Some Science of Sitting, Seeing and Seating*, Grand Rapids, MI, circa 1940.)



(a)



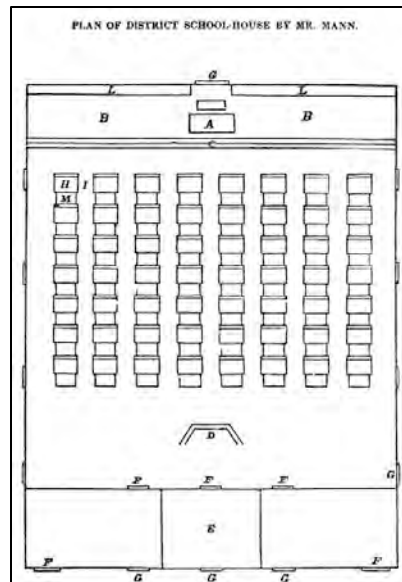
(b)



Study Hall, Liberty High School, Bethlehem, Pa., equipped with American Universal Desks

(c)

Fig. 1.56 Design intent of movable furniture was likely frustrated by cultural practice as these images from 1937 to 1956 seem to suggest. Most rooms are so full of furniture that rearranging would seem impossible. In (c), rather than move the desks out of the grid pattern, the teacher has created an alternative area where she sits more informally with students. (a. Grammar school, Eastham, MA, 1937, Nickerson Cape Cod History Archives, Cape Cod Community College; b. Arthur Vitols, Aquinas High School #26, 1940, Byron Company / Museum of the City of New York. 93.1.3.235; c. American Seating Company, *School Furniture*, 1956, 12.)



(a)



(b)

Fig. 1.57 A raised teacher's platform was a consistent feature of American grammar school classrooms from the start of the common school movement in 1830 through the end of the century. In Horace Mann's Plan from 1838 (a) the teacher's desk [A] sits on a platform [B] raised two steps [C] above the main floor. Henry Barnard (1848) republished Horace Mann's plan from 1838 which was nearly identical to William Alcott's plan published in 1831. The plan, represented by the Quincy School, became standard for grammar schools through the 19th century in Boston (b) and other cities, as well as in rural schools. (a. Barnard, *School-Architecture*, 1848, 65; b. A. H. Folsom, "Grammar School, Class V, Rice District," photograph, 1892, Boston Public Library, https://www.flickr.com/photos/boston_public_library/6197676605/in/album-72157627787153962/.)

ILLUSTRATED CATALOGUE. 19

No. 292. Like No. 291, with Enamel Top and Pulls; 4-inch legs.

No. 314. One Drawer; Pigeon-Holes and Tray.

No. 340. Plain Back.

341. Teacher's Desk—Eight Drawers, Table Top, Panelled Back. Cherry.

342. Teacher's Desk—With Walnut Panels, Trimmings and Pulls.

343. Teacher's or Office Desk—Plain Back, Five Drawers and Book Cupboard; same as No. 346; Table Top. Cherry.

344. Teacher's or Office Desk—Panelled Back; Five Drawers and Book Cupboard; Table Top. Cherry.

345. Enamel Top; Walnut Trimmings and Pulls.

No. 440. Apparatus and Book-case.

No. 320. Inclined Enamel Top; Solid or Open Railing; Five Drawers, with Pulls; Book Cupboard in end; Plain or Panelled Back.

No. 319. Four Drawers, Flat Enamel Top; Cherry or Walnut.

ILLUSTRATED CATALOGUE. 41

OFFICE DESKS.

ALL WALNUT, UNLESS OTHERWISE SPECIFIED.

No. 314. One Drawer, Lid to raise, Six Pigeon-Holes, 3½ feet.

" 315. Same; but High Box with Drawer and Book Compartments in place of open Pigeon-Holes.

No. 320. Inclined Enamelled Cloth Top; Solid or Open Railing, 3½ feet, Five Drawers with Pulls, Book-Closet in end, Plain Back.

No. 321. Same; with Finished Panelled Back.

No. 322. Same; with Box for Books and Pigeon-Holes on right hand, Plain Back.

No. 323. Same; with Finished Back.

No. 329. Solid Flat Top, Eight Drawers, Plain Back, Cherry, 4½ feet long.

" 331. Same; Finished Panelled Back.

" 332. Solid Flat Top, Eight Drawers, Cherry, with Walnut Trimmings and Pulls.

" 333. Solid Flat Top, Five Drawers and Book Closet, Plain Back, Cherry.

" 334. Same; Finished Panel Back.

" 335. Enamelled Cloth Top, Eight Drawers, Cherry, with Walnut Trimmings and Pulls.

ILLUSTRATED CATALOGUE. 21

TEACHERS' CHAIRS.

Our Teachers' Chairs are all made of Steam-bent Oak Frames, and in the strongest possible manner.

We illustrate only a few of the most popular styles.

Arm Chairs, light or dark finish.

No. 500. Cane Seat.

No. 501. Wood Seat.

No. 502. Andrews' Patent Improved Chair. Bent Back, Rim and Spindles. Very comfortable.

No. 503. Cane Seat. Bent Spindle, Back and Rim.

No. 516. English Brave Arm Chair. Cane Seat. Walnut.

ILLUSTRATED CATALOGUE. 35

OFFICE CHAIRS.

We have a great variety in stock, but have room to illustrate only a few of the most popular styles. They are all made in the very best manner, and warranted fully equal to any in the market.

No. 500. Cane Seat, Arm Chair.

" 501. Same; Wood Seat.

No. 502. Cane Seat, Bent Spindle Back.

" 503. Wood Seat, of same style.

No. 504. Revolving Seat, Patent Rocker, or Spring Back.

" 505. Same style, without Spring Back.

" 506. Same as No. 506. Fancy Base.

No. 510. "Grant" Office Chair, Cane Seat and Back, Revolving Seat and Spring Back.

" 511. Same style; with Fancy Base, and Fancy around front of Seat.

" 508. Same as No. 506. Fancy Base.

Oak, Imitation Walnut, or Walnut; all of these have Piano-Stool Screw, to raise or lower the Seat.

Fig. 1.58 Manufacturers simultaneously marketed many of the same desks and chairs for teachers and office clerks (A. H. Andrews, *School Furniture and Apparatus, Church, Hall and Office Furniture*, 1873, 19, 21, 35, and 41.)

The Pioneer School Desk Manufacturers *A. H. Andrews Co.* Chicago Originators of Guaranteed School Goods

Andrews Quality Teachers' Chairs

No. A20 Weight 11 lbs. Office Wood Seat Quicker back, duff. Price, each..... \$1.00

No. A22 Weight 22 lbs. Office Wood Seat Quicker back, duff. Price, each..... \$2.00

No. A21 Weight 28 lbs. Office Wood Seat Quicker back, duff. Price, each..... \$2.25

No. A23 Weight 30 lbs. Office Wood Seat Quicker back, duff. Price, each..... \$1.50

No. A24 Weight 22 lbs. Office Wood Seat Quicker back, duff. Price, each..... \$1.00

No. A25 Weight 24 lbs. Office Wood Seat Quicker back, duff. Price, each..... \$1.25

No. A26 Weight 41 lbs. Office Wood Seat Quicker back, duff. Price, each..... \$1.50

No. A27 Weight 41 lbs. Office Wood Seat Quicker back, duff. Price, each..... \$1.50

No. A28 Weight 11 lbs. Office Wood Seat Quicker back, duff. Price, each..... \$1.00

No. A29 Weight 11 lbs. Office Wood Seat Quicker back, duff. Price, each..... \$1.00

No. A30 Weight 24 lbs. Office Wood Seat Quicker back, duff. Price, each..... \$1.25

PAID SUBSTANTIALLY

Our Durable Line of Teachers' Chairs

No. 4075 Quicker Oak Wood Seat Quicker back, duff. Price, each..... \$1.00

No. 4076 Quicker Oak Wood Seat Quicker back, duff. Price, each..... \$1.00

No. 4077 Quicker Oak Wood Seat Quicker back, duff. Price, each..... \$1.00

No. 4078 Quicker Oak Wood Seat Quicker back, duff. Price, each..... \$1.00

No. 4079 Quicker Oak Wood Seat Quicker back, duff. Price, each..... \$1.00

No. 4080 Quicker Oak Wood Seat Quicker back, duff. Price, each..... \$1.00

No. 4082 Quicker Oak Wood Seat Quicker back, duff. Price, each..... \$1.00

No. 4083 Quicker Oak Wood Seat Quicker back, duff. Price, each..... \$1.00

No. 4084 Quicker Oak Wood Seat Quicker back, duff. Price, each..... \$1.00

No. 4085 Quicker Oak Wood Seat Quicker back, duff. Price, each..... \$1.00

PAID SUBSTANTIALLY

Fig. 1.59 Typical minimally upholstered twentieth century teacher's chairs (A. H. Andrews Co. *Furniture & Supplies for Schools & Colleges*, 1924, 18-19.)



(a)



(b)

Fig. 1.60 Office Chairs entered classrooms for teachers at roughly the same time the chairs entered offices. (a. Robert Paton, *Illustrated Catalogue of School Furniture*, 1872, 39; b. DETAIL Augustine H. Folsom, "Paper cutting and pasting. Yeoman-street Primary School," Boston, 1892. Boston Public Library.)

Chapter 2 **Offices: The brain in the box**

American manufacturing exploded in the North after the Civil War. Rapid industrial expansion and management reorganization outpaced the supply of eligible male clerks. Manufacturers banks, wholesalers, insurance companies and similar organizations that supported industrial production turned to unmarried middle-class white women an educated population for whom work outside the home was only recently acceptable. Businesses that sought to hire women had to assuage concerns of male clerks fearful of losing their tenuous hold on middle-class status, and address American middle-class values that insisted upon separation of men and women in public.¹ Hiring managers were in a bind, desperate to fill positions with willing and able women, but challenged by cultural barriers to women working outside of the home and the likelihood of alienating male employees.

Prior to the opportunity to work in offices, societal restrictions limited middle class women to occupations as teachers and governesses – jobs in which they were protected from random interactions with unknown men in public.² Unchaperoned meetings of middle-class women with unknown men were suspect. In Edith Wharton's

¹ Political economist Harry Braverman defines the category of clerk to include bookkeepers, secretaries, stenographers, cashiers, file-clerks, telephone operators, office machine operators, payroll clerks, receptionists, stock clerks, and typists. The title "clerk" also applied to retail assistants who worked in department and dry goods stores and as stock clerks in warehouses. Although the responsibilities of retail and stock clerks overlapped with office clerks, this examination focuses on occupations of those who spent the most time in and on office furniture. Harry Braverman, *Labor and Monopoly Capital: The Degradation of Work in the Twentieth Century* (New York: Monthly Review Press, 1974), 295-296.

² On the occupational options open to women in the mid- to late-nineteenth century see Kessler, *Out to Work*, 57-59

1905 novel *The House of Mirth*, Lily Bart faces social ruin when she visits a man alone, duped into believing his wife is sick upstairs.³ By designing furniture that defined borders around gendered zones in the office, furniture manufacturers helped women overcome the requirement to always be chaperoned. Between 1870 and 1920, American manufacturers designed furniture that weakened cultural prohibitions and anxieties to help integrate women into the all-male sphere of clerical work. Furniture instructed workers in postures and behaviors that demarcated hierarchy, gendered occupations, and created safe feminized zones. Through the design and promotion of office furniture, manufacturers encouraged male clerks to reconsider power dynamics with women and the centrality of work within their self-defined manhood. By opening opportunities for a woman to address and question her essential domesticity, designers of office furniture catalyzed a great influx of women into clerical work. Furniture that manufacturers intended to surround and protect the bodies of women and keep them in roles subservient to men inadvertently helped to define occupations through which women experienced newfound freedom and power as wage earners and holders of specialized knowledge. Some women reversed the intended surveillance and control of the office panopticon and instead subjected men to their own evaluative gaze, wresting control of courtship from Victorian parents and asserting their right to choose a mate.

This chapter focuses on the history of desks, chairs, and filing cabinets manufactured and used in office spaces in the United States. It broadens scholarship on gender and the design of architecture and interiors in the formative years of American

³ Edith Wharton, *The House of Mirth* (New York: C. Scribner's Sons, 1905).

corporations. Previous investigations of skyscraper offices by Angel Kwolek-Folland and that of Olivier Zunz concluded that office furniture was used to segregate women from men, divide the production process, and reproduce familial relations.⁴ Those studies focused on the environments of large financial firms, but before World War I most clerical workers did not work in large offices.⁵ This chapter uncovers more widespread effects of office furniture in gendering clerical work beyond large financial firms to include offices of different scales and of different industries. Managers and clerks that worked in the offices of manufacturers, distributors, wholesalers, utility companies, department stores and publishers used furniture to achieve different goals than did Metropolitan Life Insurance and other corporations with large, national, multi-tiered

⁴ Angel Kwolek-Folland examined the expression of gender in the physical environment of urban offices in one chapter of a larger study on gender roles and middle-class ideals in business. Olivier Zunz's examined how corporations used office furniture to integrate a more homogeneous social environment that overcame class and gender conflict. Both authors based their conclusions primarily on evidence drawn from the insurance industry. Angel Kwolek-Folland, *Engendering Business: Men and Women in the Corporate Office, 1870-1930* (Baltimore: Johns Hopkins University Press, 2010), 94-128; Olivier Zunz, *Making America Corporate: 1870-1920* (Chicago: University of Chicago Press, 1995), 103-124. See also Anna Vemer Andrzejewski, *Building Power Architecture and Surveillance in Victorian America* (Knoxville: University of Tennessee Press, 2008), 43-90; and Alice Kessler-Harris, *Out to Work: A History of Wage-Earning Women in the United States* (New York: Oxford University Press, 1982), 143-213.

⁵ In 1900 financial firms with one thousand or more employees did not exist. Elizabeth Butler's study of women at work in Pittsburgh in 1907 excluded clerical workers because "the typical clerk or stenographer is employed either alone or with one or two others in an office." C. Wright Mills found that in 1930 only about half of U. S. clerical workers were in offices of over 50 workers. Elizabeth Beardsley Butler, *Women and the Trades: Pittsburgh, 1907-1908* (New York: Charities Publication, 1909), 379; C. Wright Mills, *White Collar: The American Middle Classes* (New York: Oxford University Press, 1969), 198. Intellectual histories of office work and management practice that have drawn upon the model of nineteenth century railroads, such as Olivier Zunz, can elide the early role of women in the offices of other industries. Walter Licht found that railroads, like some insurance companies, were particularly resistant to hiring women, even after women had become established in clerical roles elsewhere. See Walter Licht, *Working for the Railroad: The Organization of Work in the Nineteenth Century* (Princeton, NJ: Princeton University Press, 1983), 214-216.

management structures.⁶

The chapter is loosely divided into four phases in the evolution of the American commercial furniture industry that correspond to developments in clerical office management: a pre-industrial phase of custom furniture made by local craftsman (1815–1840), an early-industrial phase of specialized manufacturing (1840–1870), an experimental phase (1870–1900), and a standardization phase (1900–1920). Within each phase the histories of several key pieces of office furniture are investigated to uncover the critical, yet largely unexamined, role furniture manufacturers played in fostering mixed gender offices of the early twentieth century that were remarkably different from the pre-industrial mercantile offices from which they are descended.

⁶ Very few design historians have written in-depth studies of the office environment as it developed in the nineteenth century. Most begin after 1900, twenty years after women entered office work, well after the management revolution, and after office furniture achieved its modern form. For an example see Adrian Forty, *Objects of Desire: Design and Society, 1750 - 1980* (London: Thames & Hudson, 2017), 120-155. Michael Zakim has investigated the changing role of antebellum clerks in the development of American capitalism and their liminal existence between bourgeois capitalists and the laboring classes; see Michael Zakim, “The Business Clerk as Social Revolutionary: or, a Labor History of the Nonproducing Classes,” *Journal of the Early Republic* 26, no. 4 (Winter, 2006): 563-603; Michael Zakim, *Accounting for Capitalism: The World the Clerk Made* (Chicago: The University of Chicago Press, 2018). Through diaries and literature, Thomas Augst investigated the disruption of universal education, mass media and popular leisure to the values antebellum clerks had used to determine their sense of self and definition of character, see Thomas Augst, *The Clerk's Tale: Young Men and Moral Life in Nineteenth-Century America* (Chicago: The University of Chicago Press, 2003). Brian Luskey investigated commercial and retail clerks in New York City between the 1830s and 1870s to understand how economic uncertainty and social division came to define urban America. Though the book does not situate commercial clerks within an office interior, in the antebellum retail and office clerks experienced similar disruptions to their sense of self as work became more routine. See Brian P. Luskey, *On the Make Clerks and the Quest for Capital in Nineteenth-century America* (New York: New York University Press, 2010).

1815–1840 Pre-industrial offices

Early nineteenth-century mercantile offices of importers, exporters, and banks were close-knit, male environments. As with pre-industrial artisan workshops, typically six or fewer employees worked in a small space. Bookkeepers trained apprentice clerks in proprietary methods of record keeping. Like journeymen craftsmen, clerks aspired to ownership by obtaining comprehensive knowledge of a business through experience (**Fig. 2.1**). Fluid roles and overlapping tasks fostered intimacy and put a higher value on clear interpersonal communication than knowledge of specific techniques. Clerks, owners, clients, and messengers moved around workspaces to write and copy letters, discuss business, and record daily transactions in ledgers kept easily at hand.⁷

The office environment fostered a sphere of male domesticity. Clerks worked indoors in rooms often attached to homes. Offices shared the proportions, functions, and ornamentations of domestic space. Because businesses were often inherited through marriage or other familial connections, good personal relations between owners and workers were critical to business survival. Copying, bookkeeping, and proofreading required teamwork that fostered relationships parallel to those in the home: paternal between employees and management, and fraternal among clerks.⁸

⁷ Following Braverman, historians have compared pre-industrial offices to workshops, a comparison that occurred in trade literature in the 1920s as corporate offices reached modern, standardized, and hierarchical form. Braverman, *Labor and Monopoly Capital*, 313-315. For a description of the intimate size and working relationships see Zakim, “Producing Capitalism,” 228-230.

⁸ Luskey, *On the Make*, 26. Robert Edward MacKay, “Managing the Clerks: Office Management from the 1870’s through the Great Depression” (PhD diss., Boston University, 1985), 9-11. MacKay ascribes the close personal relationships to the small size of firms, and the importance of keeping secrets. Clerks often worked their whole career at a single firm, and owners used clerical employees to train their offspring in business practices.

Prevalent cultural mores about race mixing ensured that African Americans were unwelcome in most occupations that were not service oriented and did not require physical labor. An African American man with basic literacy and numeracy was qualified for entry level clerical work, but employers of the early nineteenth century were loath to hire him into familial relationships among employees. In an 1819 address to patrons of the New York African Free-School, its valedictorian expressed bitter frustration with the futility of his education - "Shall I be a mechanic? No one will employ me, white boys won't work with me," "Shall I be a merchant? No one will have me in his office; white clerks won't associate with me."⁹

Proprietors expected clerks to participate in all aspects of a business; to shun close relationships was to risk a career. In Herman Melville's short story *Bartleby the Scrivener*, the title character, a recalcitrant clerk, exasperated the owner of the law firm where he worked with the response "I would prefer not to," to every request put to him.¹⁰ Bartleby started as an excellent copyist, but gradually refused to do any proofreading or any task that required him to interact with other clerks or even to move from his perch at a desk in the office of the owner; "I like to be stationary," he claimed, when asked to run an errand. Melville premised the conflict in the story upon Bartleby rejecting the cultural norms of the clerical office of the early nineteenth century: fluid movement, collaboration, occupational flexibility, and reciprocal communication among workers.

⁹ Charles C. Andrews, *The History of the New-York African Free-Schools* (New York: Mahlon Day, 1830), 132.

¹⁰ Bartleby was a copy clerk in a law office, not a mercantile firm or bank, but the basic arrangement and relationships holds true. Herman Melville, "Bartleby, the Scrivener" Part 1, *Putnam's Magazine* (November, 1853): 546-557; Herman Melville, "Bartleby, the Scrivener, A Story of Wall Street" *Putnam's Magazine* (December, 1853): 609-615.

Thomas Augst deconstructs the character of Bartleby and concludes his behavior presaged the broad changes in clerical work in the late-nineteenth century. In a quest for efficiency, managers would devalue individual knowledge and associate clerical work with the “unthinking habits of manual labor.”¹¹

Clerical tasks of reading, writing and conversation did not require specialized furniture. Owners and employees needed little more than surfaces to support writing correspondence and recording transactions, pigeonholes to organize receipts and bookshelves to organize ledgers.¹² Paper was stored in drawers and typically not long-term. Cabinetmakers and joiners who made household furniture supplied offices with desks and cabinets closely related to domestic counterparts. Furniture made for offices was referred as counting-house furniture.¹³

Cabinetmaker price books from New York (1802 and Philadelphia (1795) describe pre-industrial office furniture. Single counting-house desks were derived from slant topped travel desks set upon frames (**Fig. 2.2**). The standard form was three-foot six

¹¹ Augst, *The Clerk's Tale*, 220.

¹² A single letter might be copied four times, a rough copy made in a copy book, interlineation corrections made to the rough copy, duplicates and triplicates made, and a final original dispatched. Usually a clerk would read aloud to a second clerk to proofread a document. See Stuart Weems Bruchey, *Robert Oliver, Merchant of Baltimore, 1783-1819* (Baltimore: Johns Hopkins, 1956), 131 note 167.

¹³ Price books describe the furniture in detail. See *The New-York Book of Prices for Cabinet and Chair Work* (New York: Southwick and Crooker, 1802); and *The Journeymen Cabinet and Chair-makers Philadelphia Book of Prices*. (Philadelphia: Omrod and Conrad, 1795). Chairmakers David Alling and John Lambert manufactured “office chairs” and stools alongside fancy chairs and stools in the early nineteenth century. Cabinetmaker John Hewitt made both high-style Federal furniture as well as counting house desks and stands. See Philip Carlino, “Enduring Furniture at an Affordable Price: Reconstructing Nineteenth Century Business Models,” (M. A. thesis, Cooper Hewitt Museum, 2012), Appendix 107-109 and 112; Nancy Goyne Evans, *Windsor-Chair Making in America: From Craft Shop to Consumer* (Hanover: University Press of New England, 2006.) 403-405; and Nancy Goyne Evans, *American Windsor Furniture: Specialized Forms* (New York: Hudson Hills Press, 1997, 204-205.

inches long and two-foot four-inches wide with a lid over six pigeonholes and three small drawers. A double version at which occupants sat side-by-side was six inches longer and eight inches deeper than the single version. For an extra fee desks could be set upon two 4-drawer pedestals, and additional drawers set upon the desktop. A counting-house bookcase had flat paneled doors and a cornice. Two other forms were used both in homes and offices: knee-hole library tables, a slightly larger desk with a flat top set above drawers; and table desks, a narrower and shallower version of a counting-house desk.¹⁴

Multi-purpose chairs sufficed in pre-industrial offices. Bookkeepers perched on high stools at standing desks that supported a physically active and socially interactive workflow. Merchant owners, clients and recording clerks sat in Windsor chairs at low tables and desks (**Fig. 2.3**).¹⁵ Joiners made the inexpensive, durable seats from oak, ash or other local hard woods and typically finished the chairs with opaque paint rather than more labor intensive staining and lacquering.¹⁶ The chairs were lightweight and easily

¹⁴ *The New-York Book of Prices for Cabinet and Chair Work* (1802), and *The Journeymen Cabinet and Chair-makers Philadelphia Book of Prices* (1795) refer to domestic secretaries when describing interior options for counting-house desk drawers, demonstrating a close relationship to domestic cognates. Standard dimensions for a knee-hole library table were 48-50 inches by 24-30 inches, with nine drawers, four on each side and a center drawer. The standard table desk had dimensions of 30 inches by 20 inches, with a six-inch flat area at the back.

¹⁵ The “Windsor” style applies to chairs and tables in which the tops of the legs are turned into a tenon that fits into a corresponding round mortis in the bottom of the seat or table top. The spindles that form the back of the chairs are similarly attached to round mortises cut into the top of the seat. Nancy Goyne Evans has written two comprehensive catalogs of Windsor forms. Evans found that Windsor chairs were a typical form for primarily male public spaces in meetinghouses, courts, and theaters. See Evans, *American Windsor Furniture: Specialized Forms*, 204-206.

¹⁶ Like other forms of commercial furniture, parts were made in bulk and quickly assembled to meet large orders. Craftsmen lathe turned stretchers, back-spindles, and legs with integrated tenons that fit into round mortises quickly drilled into the top and bottom of seats. Chair rails were mold formed. Dry goods stores and peddlers sold replacement parts. See Evans, *American Windsor Furniture*, 119-137; and Don C. Skemer “David Alling's Chair Manufactory: Craft Industrialization in Newark, New Jersey, 1801-1854.” *Winterthur Portfolio* 22, no. 1 (1987): 1-21., Carlino, *Enduring Furniture*.

moved about as needed. Spindle backs permitted visual communication among employees when the chairs were unoccupied. Chairs for owners and visitors sometimes had arms, but chairs for clerks were typically armless to avoid obstructing a clerk as he moved into and out of the chair to retrieve and replace ledgers and to collaborate with other clerks. Hard saddle seats were comfortable enough for intermittent use; in male environments soaked in tobacco smoke with spittoons dispersed throughout, upholstered furniture would have been unhygienic.

Paper records were stored in pigeonholes and cupboards. Merchants of the first half of the nineteenth century had little reasons to maintain extensive paper-based records. Banking and finance, major generators of records in modern offices, were limited by a dearth of hard currency; instead, most debts were settled through barter. Records were typically not helpful for future planning because prior experience was little help in a volatile market. Merchants navigated unpredictable swings in prices and supplies guided by current information from external sources in newspapers, letters, and conversations with traders and other merchants.¹⁷

1840–1870 Early industrial offices

In the 1840s, manufacturers overtook merchants as the powerhouse of the American economy. Steam power, machine assistance, and a reorganization of industrial methods increased manufacturing output, while railroads reached distant customers and

¹⁷ Alfred D. Chandler Jr., *The Visible Hand: The Managerial Revolution in American Business* (Cambridge, MA: Harvard University Press, 1977), 39-40. For a specific example of information management, accounting and shared responsibilities within a merchant office see Stuart Weems Bruchey, *Robert Oliver, Merchant of Baltimore, 1783-1819* (Baltimore: Johns Hopkins, 1956), 131-141.

suppliers.¹⁸ The quantity and velocity of information required to transfer goods and services increased exponentially as modes of exchange shifted from barter to abstract financial tools: money, stocks, bonds, loans and mortgages.¹⁹ Planning, scheduling, purchasing, and cost accounting became fundamental to success in a rapidly changing marketplace. Clerks were the motive force of information exchange in factory offices and a proliferation of organizations that serviced manufacturers – accounting firms, banks, law firms, insurance brokers, import and export houses, government offices, commission merchants, and wholesalers.²⁰

In the mid-nineteenth century, proprietors highly valued clerk's comprehensive knowledge to guide a business through price changes and manage the movement of goods, people, and money. A single clerk might transfer thousands of dollars of merchandise and services among dozens of clients daily. Businesses needed accurate records of orders, invoices, and receipts to collect payments and satisfy customers.

¹⁸ Ross Thompson discussed the effects of technological change on American industry in Ross Thompson, *Structures of Change in the Mechanical Age: Technological Innovation in the United States, 1790-1865* (Baltimore: Johns Hopkins University Press, 2009). On the rationalization of American manufacturing see David Hounshell, *From the American System to Mass Production, 1800-1932* (Baltimore: Johns Hopkins University Press, 1984); and Donald R. Hoke, *Ingenious Yankees: The Rise of the American System of Manufactures in the Private Sector* (New York: Columbia University Press, 1990).

¹⁹ Olivier Zunz, *Making America Corporate: 1870-1920*, 105.

²⁰ Though this dissertation focuses on Northern offices, a concomitant drive for efficiency occurred on Southern plantations. In the 1850s, large Southern plantation owners used mass-produced standardized forms and account books that limited the specialized knowledge needed to track productivity and profitability. Using methods later codified as scientific management, planters measured the daily amount of cotton each enslaved man or woman could pick and the productivity of sugar cane fields, keeping careful records to determine their profitability and incentives that could speed up production. Like Northern office procedures, ledgers were the primary tool to maintain records, much of the daily flow of information was recorded in ephemeral form, in chalk on slates, or on papers tacked to the walls. See Caitlin Rosenthal, *Accounting for Slavery: Masters and Management* (Cambridge, MA: Harvard University Press, 2018), 85-120.

Idiosyncratic systems designed by clerks to process, classify, store, and retrieve documents required custom-made furniture.²¹

As in the last chapter on school-furniture, Boston was a center of early mass production of office furniture. The city experienced a rapid shift in its economic base in the first half of the nineteenth century. After the collapse of the slave trade, the former maritime capital shifted to manufacturing. Merchants invested in industries producing machine parts, textiles, shoes, and paper. Boston became a center for banking, finance, and insurance – paper-based business that supported manufacturing. As manufacturers increased production volume and expanded geographic markets rapid access to sales records, historical and competitive pricing, and client information became critical. Offices expanded in the number of employees and the complexity of their needs. Local craftsmen who made office furniture as part of a general cabinetmaking business no longer provided sufficient customizability, manufacturing capacity, rapid enough turn-around time, or low costs that could meet the needs of clerical offices; instead, the demand was met by manufacturers that specialized in commercial furniture.

An investigation of the prototypical commercial furniture manufacturer Stephen Smith demonstrates the advantages of specialization in the early industrial period. Smith pioneered factory methods to produce commercial furniture that began in New England and expanded nationally. He opened a Boston cabinetmaking shop in 1830 that made

²¹ Zakim refers to mid-century American capitalism as a “knowledge economy,” represented by a “matrix of information industries specializing in credit, insurance, prices, schedules, communications, and professional training. See Zakim, “Producing Capitalism,” 226; and Zakim, “The Business Clerk as Social Revolutionary,” 570.

clock cases, tables and cabinets for domestic and commercial clients but by the late 1840s specialized in desks, tables, counters and book cases for banks, insurance companies, railroads, government offices (probates, registries) and other paper-based businesses.²²

Like school furniture makers Wales and Ross, Smith organized his commercial production on a new business model: a small number of basic forms made from interchangeable parts customized with a limited number of options (**Fig. 2.4**).²³ Four desk types suited different uses: standing desks with slanting surfaces and a gallery at the rear to support ledgers; sitting desks to copy letters and documents; library tables with flat tops for writing and conversation; and massive piano desks with oversized turned legs designed for proprietors to impress visitors.²⁴ Library tables were desks finished on four

²² Although Smith was one of the first American specialists in counting-house furniture, manufacturers in Boston, New York, Philadelphia, and later Chicago produced similar forms. Others included J. T. Hammitt (Philadelphia, 1850-1858), T. G. Sellev (New York, 1855-1880), The American Desk Manufactory - Brewi / Kehr Kellener (New York, 1870-ca. 1880), The Chicago Desk Manufactory (Chicago, 1879). Stephen Smith joined the Massachusetts Charitable Mechanic Association in 1827 and is first listed in the Boston Directory in 1830 as a cabinetmaker. His letterhead in the 1840s described him as a maker of "Counting Room Furniture" listed as double and single standing- and sitting-desks, writing tables, cloth tops, mahogany arm chairs, book cases and desk stools, and mahogany counters. In the 1851 *Boston Directory* he is listed as a cabinetmaker specializing in desks. The Smith papers at the Nickerson Library at Cape Cod include accounts with various cabinetmakers in Smith's shops, as well as lists of his clients in his carting records. Smith's firm also supplied teacher's desks to the Boston Latin School in 1877.

²³ Customization of basic counting-house forms was not very different from the menu of options listed in price books, but Smith offered less customization, and focused most of his production on the business segment of the market.

²⁴ Classified Advertisement in S. N. Dickinson, *The Boston Almanac for the Year 1847* (Boston: B. B. Mussey, 1847), 182. "Stephen Smith, 44 Cornhill, manufactures and keeps constantly on hand for sale, all kinds of Counting-Room and Office Furniture, viz.: Double Standing Desks, with two and three sides, different lengths; Double Sitting Desks, different lengths; Double Writing Tables, cloth tops, different lengths; Single Writing Tables, cloth tops, different lengths; Single Sitting Desks, different lengths; Small single Setting Desks, for home use, different lengths; single Standing Desks, different lengths; Library Tables, drawers down each side, different lengths; Arm Chairs and Cushions, for offices and counting -rooms; Common Chairs, for do. do.; Desk Stools, with and without backs. Desks, Book-Cases and Counters, of all descriptions made to order."

sides, designed to stand away from the walls and used to converse with clients, sign documents, and conduct general of business.²⁵

To keep labor and production costs low and increase profit, manufacturers designed counting-house furniture for high-volume manufacturing using machine assistance (**Fig. 2.5**). Flat, frame and panel construction and turned legs maximized the efficiency of machine tools.²⁶ Manufacturing methods resulted in furniture that was minimally ornamented and did not significantly differentiate hierarchy within an office. In an office of a few employees, managers had little need to reinforce power structures visually. Like the makers of school furniture, manufacturers of counting-house furniture stockpiled interchangeable parts to quickly assemble large orders.²⁷ Factory techniques

²⁵ Smith also made custom, innovative forms, as he did for the clerk of Portsmouth, New Hampshire who declaimed in a letter to Smith that his desk was so “particularly advanced” that “nothing like it has ever been bought in this town,” an emphatic endorsement from the clerk of a town with a large furniture making industry. Letter from John L. Hayes, Portsmouth, New Hampshire to Stephen Smith, May 1843, Clement Library, Thomas Smith Papers, Stephen Smith Papers, 1828-1874.

²⁶ The 1875 inventory of Smith’s shop includes: 1 dovetailing machine, 2 planing machines, 1 scroll saw, 1 irregular moulder, 2 groover with saws, 1 moulding machine, 1 tennoning machine, 2 jointing saws, 1 turning lathe, 1 mortising machine, and pulleys, belting and shafting to connect to a steam powered engine. See inventory at the Nickerson Library. Even before his shop was mechanized, Smith was quickly filling large orders. Smith contracted to produce 18 desks in one month for a New England registry office. “11 standing desks and one sitting desks for the clerks, 1 sitting desk for the Register, 2 large desks for the record room with coves for indexes, 1 double and 1 single desk [probably standing desks] for copying, and 1 sitting desk for copying.” Letters from John Hayes, 1841, Clement Library, University of Michigan; Letter from Stephen Smith to Jonathan Chapman, October 19, 1840 Sturgis Library Archives, Barnstable, Massachusetts.

²⁷ The 1875 inventory of Stephen Smith’s shop taken upon his death listed 148 basic desks as well as dozens of parts - pedestals, backs, ends, and frames. The interchangeable model smoothed over periods of reduced demand. Makers reduced output during slack times or continued to pay cabinetmakers to produce the four basic forms and parts necessary to customize them. Although it is clear from his inventory that Smith was producing in high volume, his accounts through the 1840s show that he was not using wage labor but paying cabinetmakers by the piece. The traditional form of most of Smith’s furniture - turned legs, and straight forward joinery, and the limited number of machines in his shop and of parts in his inventory indicate that he likely did not fully divide his labor but that workers moved from machine to machine. For a discussion of how the economics of factory production affected appearance in domestic furniture see Carlino, “Enduring Furniture at an Affordable Price.”

supported increased complexity and storage capacity beyond designs made by domestic shops. Rather than six pigeonholes and three small drawers of pre-industrial counting-house desks, factory made desks frequently had a dozen or more pigeonholes, numerous slots for storing ledgers, several cabinets and up to ten drawers.

Merchants accessorized desks to meet proprietary storage methods. Cabinets with reconfigurable interiors attached to panel backs above or below the work surface and set into desk sides. Pigeonholes in cases were variable in size, shape, and number to support flexible storage methods. Each cubby was reassigned with a simple label change. Moveable dividers inside cabinets supported variation in the size and quantity of ledgers. Optional slanted writing surfaces could be added onto flat desktops, and drawers could be added below. Specificity in form structured information differently for different types of offices. A primarily ledger-based business such as banking or accounting could choose to have multiple shelved cabinets. An importer with frequent repeat business from some port cities, and infrequent business from others could have large cubbies dedicated to the main ports, and a series of smaller cubbies arranged alphabetically for other ports. Similarly, a manufacturer with many repeat clients might have many identical cubbies arranged by client name, or if using a sales force, by region or salesman, to hold active orders, and slots for summary ledgers in which completed business was recorded and summarized by account. Traditional domestic manufacturers that also produced office furniture adhered to aesthetics of symmetry, balance, and ornamentation suitable to the home, whereas new commercial manufacturers produced asymmetrical counting-house desks with discordant compositions that defined the furniture as a class separate from

furniture used in the home. Factory-made counting-house furniture significantly increased the volume of information under the control of clerks. With more information within his proprietary system of storage, the clerk was critical to future success.²⁸

Changes in the amount and speed of information required for clerical work in the 1850s did not immediately change close working relationships in the office because management structures remained relatively shallow.²⁹ Furniture provided no impediment to sociability. Double-seat desks where clerks sat side-by-side, double-sided desks where clerks sat face-to-face and triple-sided desks where a third clerk worked on one end arranged bodies to facilitate conversation.³⁰ Clerks rarely turned their back to the room. Desks were arranged either in the center of the room or turned at a right angle to perimeter windows so that light fell across the page. An 1862 engraving of a New York City Assessor's office showed clerks writing and in dialog at double standing desks closely arranged in parallel rows (**Fig. 2.6**). A supervisor sat at a desk in an oval backed chair with his back to the rest of the staff. The visiting public had direct view of clerks at work; the architecture of a balustrade and counter provided a low barrier over which individuals easily conversed.

Cordial interpersonal relationships and open communication remained a critical requirement of clerkship that shared interactive standing desks and open offices supported. In his memoir *Experience of a New York Clerk*, F. R. Reed described the relationships among six clerks in a commodities office of the early 1870s. The narrator

²⁸ The desire for the improvements

²⁹ Zunz, *Making America Corporate*, 105-106; Chandler, *The Visible Hand*, 77-121.

³⁰ The three-sided desk is listed in Smith's 1875 inventory. Smith desks were produced in eight widths, from 30 to 72 inches, in six-inch increments.

described the downfall of a clerk who failed to win the esteem of his fellow workers.

When the cashier “failed to see the peculiarities of the members of the firm,” and “ceased to be *liked*,” he was fired.³¹

1870–1900 Industrialization

In the decades following the Civil War a clerk’s close relationships and control over information came under attack driven by corporate pursuits of efficiency and cost saving. Mass-production in mechanized factories, mass-distribution via railroads and warehouses and mass-retailing in department stores and mail order houses fostered the formation of multi-tiered corporate structures to coordinate the flow of farm products and finished goods from individual producers to a greater number of individual consumers at low costs.³²

In the 1870s, manufacturers utilized economies of scale to profitably increase production for a nation-wide market consolidated by the completion of the transcontinental railroad network. Businesses hired dozens of clerks in sales, marketing, and credit to cultivate customers in competitive markets. The clerical workforce in the United States grew from 81,619 in 1880 to 740,486 in 1900 and more than three million by 1920. In the span of two decades offices grew from a handful of clerks to hundreds;

³¹ F. R. Reed, *Experience of a New York Clerk* (New York: F. R. Reed), 61-62.

³² Wholesaling is a good example. Mass manufacturers came to rely upon “jobbers,” wholesale corporations like Marshall Field in Chicago and A. T. Stewart in New York that bought goods outright in massive quantities and distributed them to retailers via railroads and steamships. To manage a volume of trade orders of magnitude larger than previous wholesalers, Marshall Fields and A. T. Stewart had to build multi-tiered management structures with connections to different trades. Chandler highlights the economic long depression of the 1870s as giving impetus to mass-manufacturers to shift their attention from technological efficiency in manufacturing to organization and management improvements. See Chandler, *The Visible Hand*, 109-270.

growth that required new administrators and means of expressing and controlling a clear hierarchy through the design of furniture and interiors.³³ Universal education that provided the means to grow the population of clerks undermined the occupation's elite status. Office furniture became an active participant in dividing and separating workers, reducing the skill of clerkship, and eliminating the power clerks held as keepers of specialized knowledge.³⁴ Furniture arrangement on office floors facilitated oversight and control that extended down to the desk drawers themselves, which became sites for evaluation and discipline.

“...our desk has been magically changed from a mere senseless storehouse of tommy-rot matter, to an actual, working, thinking private secretary that plans and lays out all our work for us, pushes us, prods us, spurs us until we do it, and then files it away again, all with the precision and certainty of a well oiled machine.”³⁵

This quote from an office furniture manufacture in 1910 was the culmination of efforts to promote desks as surrogates for the brain power of clerks. The “desk with brains,” became a frequent expression used in trade literature at the turn of the century.³⁶ Writers on business systems encouraged managers to use desks as active tools in

³³ For descriptions and statistics on office growth see William H. Leffingwell, *Office Management: Principles and Practice* (Chicago: A. W. Shaw Co., 1925), 4; Alba M. Edwards, *Population: Comparative Occupation Statistics for the United States, 1870 to 1940* Part 2 (Washington: Government Printing Office, 1943, Tables 9 & 10; and Braverman, *Labor and Monopoly Capital*, 295-296.

³⁴ Augst, *The Clerk's Tale*, 207-254.

³⁵ A. W. Shaw Co. (The System Company), *How to Double the Day's Work* (Chicago: A. W. Shaw Company, 1910), 29; George L. Stephens, “How I Keep My Work Up-to Date,” *System: The Magazine of Business* 15, no. 3 (March, 1909), 293-294; The System Company, *How to Systematize the Day's Work* (Chicago: A. W. Shaw Company, 1911), 46-48. The concept of the “Auxiliary Brain Box,” in the upper right-hand drawer was first published in 1904 in *System: The Magazine of Business*; see Henry M. Hyde, “The Auxiliary Brain Box,” *System: The Magazine of Business* 5, no. 3 (March, 1904), 154-157.

³⁶ H. C. Earle, “The Small Dealer and Office Furniture,” *The Grand Rapids Furniture Record* 30, no. 2 (February, 1915), XXVII.

managing work flow, transferring management of work from the brain of the worker to the physical features of the desk.

The history of Metropolitan Life Insurance exemplified changes in clerical office environments. In 1868 the company resembled the lawyer's office described in Melville's *Bartleby*: a small rear room for the President and a front room that housed the remainder of the staff - vice president, secretary, cashier, policy clerk, and office boy. All the records fit within a couple of desk drawers. Fifteen years later Metropolitan Life employed 200 clerks and bookkeepers organized in separate divisions and housed on several floors of a seven-story office building. The officers of the company continued to share in the details of clerical work, and divisions overlapped in function, but executives were unable to interact daily with all employees.³⁷

Larger companies adapted modern processes of organization, measurement, and efficiency. Clerks were consolidated into departments dedicated to personnel, payroll, accounting, purchasing and other functions. Information moved from desk to desk up through department managers and division heads to be collated in reports for executive consumption. Complex organizational charts ensured authority flowed smoothly in the opposite direction in which each subordinate was accountable only to an immediate superior.³⁸ Clerical offices previously shoe-horned into corners of factories or repurposed

³⁷ Louis I. Dublin, *A Family of Thirty Million: The Story of the Metropolitan Life Insurance Company* (New York: Metropolitan Life Insurance Company, 1943), 227-228. The first offices were at 243 Broadway in New York City, in 1876 Metropolitan Life moved into part of a seven-story white marble office building at Park Place and Church Street. The first female employee, Carrie Foster, was hired in the building in 1877 and took up a position at a standing desk next to male bookkeepers.

³⁸ *The American Railroad Journal* popularized methods of cost accounting and statistical controls that introduced the modern processes of measurement and efficiency to other sorts of corporations.

domestic spaces moved into large, undivided, purpose-built office space. Department managers physically separated clerks to clarify reporting and oversee personnel.³⁹ In 1892, after surveying the latest practices in the arrangement of business offices, the Joseph Dixon Crucible Company built a three-story office building adjacent to its manufacturing plant (**Fig. 2.7**). The first floor held an open office for shipping and receiving clerks and a second office for accounting, cashier, and bookkeeper. The second floor had a large office with a desk for the president, vice president and treasurer, and a second office with desks for the secretary and various assistants, and file storage. The top floor had rooms for engineering and drawing, dead file storage, and a dining room for the department heads and to entertain visitors.

Clear delineations of power reinforced by furniture and spatial arrangement minimized confusion and duplication of work that undermined efficiency and competitiveness in the marketplace. The job of general clerks was divided. Some clerical positions promoted to managers; others demoted to unitary tasks of sales, billing, purchasing, and accounting. Clerks at the bottom of the organizational hierarchy were discouraged from innovative practices that destabilized predictable workflow. The nature of divided work meant that only executives needed broad knowledge of the business

Daniel A. Wren, *The Evolution of Management Thought* (New York, 1972), 84-89. Wren describes the influence of J. Edgar Thomson and David McCallum who restructured the Pennsylvania Railroad, and Henry Varnum Poor, publisher of *The American Railroad Journal*. McCallum required daily reports and checks, and a system to “detect errors immediately.” Regardless of the type of industry, growth in administration outpaced the number of manufacturing jobs even as automation – accounting machines, duplicators, mailing machines, filing systematization, and form standardization improved efficiency.

³⁹ Seymour Melman, “The Rise of Administrative Overhead in the Manufacturing Industries of the United States 1899-1947,” *Oxford Economic Papers* 3, no. 1 (February, 1951): 75, 89-93.

necessary to make strategic decisions. Manufacturers designed work surfaces and seating to fix clerks within differentiated departments. Corresponding information management systems sold alongside the furniture took over clerk's responsibility to move information across organizational boundaries.⁴⁰

Roll-top desks

The commercial roll top desk began to be produced in high volume in the United States in the 1870s. The form served the need for a piece of furniture that served the functions and articulated the power of middle-managers as corporate hierarchies deepened. Smith, the Boston specialist in counting-house furniture, was arguably the first American manufacturer to popularize a sitting desk with a serpentine horizontal tambour cover over pigeonholes and cubbies above the work surface (**Fig. 2.8**). A high back and sides shielded the desktop, affording an occupant a greater degree of privacy than clerks and bookkeepers working at open desks. Smith made a specialty of roll top desks marketed to financial companies, manufacturers, and government offices in New England.⁴¹

Compared to counting-house furniture, the compact, symmetrical, roll-top desk

⁴⁰ Braverman, *Labor and Monopoly Capital*, 306-310; Zunz, *Making America Corporate*, 37-49.

⁴¹ Roll-top desks were also referred to as "roll desks", "roll-over desks" and "curtain desks." The earliest printed image of a roll-top desk in the United States located is an illustrated advertisement for Stephen Smith & Company in the 1869 *Boston Directory*. By 1874 Smith changed his letterhead from an arrangement of counting-house furniture used since the 1840s to an engraving of a single roll-top desk. Smith had already shown himself to be an experimental manufacturer. He had produced unusual forms including a combined standing and sitting desk and an experimental revolving center table with drawers and cabinets fixed to the top. Smith's letterhead is at the Nickerson Library, Stephen Smith Collection and an envelope is at the Sturgis Library, Barnstable. *Boston Directory* (Boston: Sampson, Davenport and Company, 1868), 1036; *Boston Directory* (Boston: Sampson, Davenport and Company, 1869), 1247.

appeared strikingly new, but Smith drew upon counting-house and domestic precedents (**Fig. 2.9**). Smith covered more than two dozen pigeonholes, cubbies and drawers with a horizontal tambour typically used to cover domestic desks and set the top upon a pedestal base derived from knee-hole desks. The serpentine side of the roll top created a functional profile that allowed more light to reach the work surface than a domestic cylindrical form, but also blocked the gaze of casual passersby.⁴² The concave curve at the top blocked most of the writing surfaces, while light flowed over the lower convex portion to illuminate the work surface.

The design of roll top desks maximized storage and privacy and minimized space usage.⁴³ A flexible tambour converted a three-dimensional cover to a planar surface that recessed into the desk. Whereas a lidded counting-house desk forced a user to remove papers from the work surface, a roll-top desk allowed papers to remain on the entire writing surface when the desk was closed. Most domestic desks included a fold-out or pull-out tray for additional writing space that required a user to move a chair back to use. Efficient use of floor space was a goal in offices with growing numbers of employees.

⁴² He may have found inspiration in the drawings for cylinder and tambour desks reproduced in the widely disseminated, late eighteenth-century pattern books of Thomas Sheraton and George Hepplewhite. See Thomas Sheraton, *The Cabinet-maker and Upholsterer's Drawing-Book*, 1793, plate 47 c., Fig. 48; and George Hepplewhite, *The Cabinet-Maker & Upholsterers Guide* 3d ed. of 1794 (New York: Dover Publications), plates 67-69. The tambour cylinder form also had precedents in French furniture; See Alfred de Champeaux, *Le Meuble II* (Paris: Société Française d'édition d'art, 1885), 167. Smith would have been familiar with the work of his fellow Bostonians - premier cabinetmakers John and Seymour Thomas, who produced richly decorated tambour and cylinder desks with pigeonhole storage for the luxury domestic market.

⁴³ The geometry of a cylinder cover located the greatest volume of storage at the center of the work surface, and the storage height was limited to the radius of the cylinder lid, which for a hemisphere, was half the depth of the desk. The maximum height of storage was limited to 15 inches on a typical 30-inch deep desk (the reach of an average seated occupant). A fall-front lid similarly limited the height of storage, as the taller the storage, the deeper the fall front required.

Manufacturers marketed the roll-top desk based on a maximized storage volume in “the greatest economy of space.”⁴⁴ Stacked storage at the back of a roll-top desk conserved space to open a deep writing surface that obviated the need for a pull-out tray, reducing the footprint per employee.

Smith’s design soon spread to manufacturers in Philadelphia and New York.⁴⁵ In its 1874 catalog, Chicago school furniture manufacturer A. H. Andrews & Co. illustrated a “Boston Curtain Desk” almost identical to the Smith desk (**Fig. 2.10**).⁴⁶ Smith manufactured the new roll-top desks as part of a diverse line that included traditional counting-house furniture, but as the form became more widely used specialists elaborated and standardized features. In 1881, the Derby Desk Company opened a factory in Boston dedicated to the high-volume production of roll-top desks. The company was such a prolific producer that the name “Derby Desk” became synonymous with the roll-top form.⁴⁷ An 1881 Derby Desk catalog illustrated ten models that promulgated standard

⁴⁴ A. Cutler & Son, *Descriptive Catalogue and Price List of Cutler's Patent Business Desks, 1884* (Buffalo, NY, 1884), 3.

⁴⁵ Smith & Co. was known for expensive roll-top desks made from luxurious wood, including desks made for Secretary of War Robert Todd Lincoln and Union Army General Philip Sheridan.

⁴⁶ A. H. Andrews offered a roll-top desk with several different arrangements of storage. Other desks in the catalog were mainly counting-house forms; see A. H. Andrews & Co., *Illustrations of Plain and Elaborate Office Desks, Tables, Chairs, Book Cases, Etc.* (Chicago, 1874), Item, no. 458-462. In the 1878 New York City Directory Sellev listed “roll desks” for the first time and placed the word “DESKS” in bold face to the emphasize his specialty, see T. G. Sellev, *Designs of Office Desks and Tables* (New York, 1877). Simmen, Homan & Sebastian published a similar range of furniture, although their roll-top desks were cylindrical, rather than serpentine; see Simmen, Homan & Sebastian, *Illustrated Catalogue of Office Desks* (Chicago, 1884). A. Cutler & Sons of Buffalo was also known for roll-top desks and patented a number of features in the decade from 1875-1885; see A. H. Cutler, “Office-Desk,” U. S. Patent 168,459, Oct. 5, 1875; A. Cutler, “Business Desk,” U. S. Patent, no. 242,436, June 7, 1881; A. Cutler, “Desk,” U. S. Patent, no. 260,950, July 11, 1882; and A. Cutler & Son, *Cutler's Patent Business Desks, 1884*.

⁴⁷ In a court case investigating cost over runs at the Massachusetts State House, Henry M. Cross, finance committee member described the 54-inch roll-top Walnut Derby desk as “a thing as standard as a ton of coal.” (He was a coal merchant). The desk was used as a measuring stick to

roll-top features: serpentine (also called an ogee) tambour lid, finished back, a single lock to secure the cover and all drawers, moveable drawer partitions, and a deep lower drawer on the right grooved to accept dividers for ledgers.⁴⁸ The company claimed their roll-top desks relieved “the drudgery of office work,” and were “a positive economizer of valuable time.”⁴⁹

Businesses of different sizes and purposes used roll-top desks in a variety of ways. Insurance companies and other open plan offices that housed a high number of employees tended to use the desks primarily to delineate occupational hierarchy. Managers sat in roll top desks placed with finished backs facing into the room to broadcast social separation from nearby subordinates. The back of a roll top desk was a tall, wide, and impenetrable expanse of finished wood designed to face into the room (**Fig. 2.11**). The seemingly impenetrable barrier was conspicuously different from the more open flat-top and bookkeeper desks (**Fig. 2.12**) Scale, privacy, and control over desk organization and information storage communicated a user’s elevated status and control. Massive and seeming immobility made roll-top desks appear imposing, but the desks typically included casters to facilitate cleaning, orient the desk to maximize light on the desktop, and where desirable, ensure a supervisor had a clear sight-line to his

determine whether the state had overpaid for furniture from the Stephen Smith Co. “House, no. 466,” *Documents Printed by the Order of the House of Representatives of the Commonwealth of Massachusetts During the Session of the General Court, 1885* (Boston: Wirth & Potter Printing Co., 1885).

⁴⁸ The Derby catalog is incomplete so the company may have produced more than 10 versions. George H. Derby & Co., *Illustrated Catalogue of the Derby Roll-Top Desk* (Boston, 1881).

⁴⁹ Derby & Kilmer Desk Co., *Tenth Illustrated Catalogue and Price-List of the Derby Roll-Top Desks* (Boston, ca. 1889-1893), 2.

subordinates.⁵⁰ When used in concert with flat top desks, roll-top desks communicated through visible differences and spatial arrangements. Michel Foucault identified a similar articulation of power in military camps in which discipline and transform individuals by making power visible to those who are inside space – “to carry the effects of power right to them, to make it possible to know them, to alter them.”⁵¹ Roll-top desks were not always expressions of power, however. Storage of more information was more important than delineating occupational hierarchy for the National Cash Register Company – the manufacturer sat all of its clerks at identical roll-top desks and charged each with maintaining records for a particular raw material from acquisition through processing (**Fig. 2.13**). Very small offices such as Ryerson Steel and Columbia Phonograph arranged roll top desks open to view by others in which security and power were probably not the most important feature (**Fig. 2.14**). In a small company office, privacy was less important than increased storage and communication of hierarchy.

Through the 1880s and 1890s roll-top desk manufacturers reduced the number of stock forms while maintaining customizability in finishes. Two basic choices remained: high or low top; and single or double pedestals. Manufacturers offered a wide range of price points determined by dimension and ornamentation. Standard woods were typically plain-sawn oak, walnut, or cherry. Quarter-sawn oak (cut to present grain in parallel lines) and mahogany cost significantly extra, as did carving, raised panels, and applied

⁵⁰ “New Roll-top Desk,” *The Office Journal* (September, 1891), xiv.

⁵¹ Foucault, *Discipline and Punish*, 170-171.

ornament.⁵² Photographs of offices show different height desks and different dimensions, but rarely show any identifiable differences in wood choice or ornamentation.

Corporations used height and width to express occupational hierarchy among workers and materials and ornament to establish the status of the business. For example, a bank or insurance office was more apt to install carved mahogany desks to impress public visitors while a manufacturer's office was more likely to furnished plain sawn oak desks with little or no ornamentation.

Like the manufacturers of school desks, the designers of roll-top desks considered the size, function, and arrangement of the body of an occupant. The degree of visual exposure of workers and managers was a carefully calibrated feature of roll-top desks used to demarcate status. A desk 51 inches tall completely hid the body of department heads that required near-total privacy and did not need to directly observe employees. A desk that sequestered its inhabitant imbued the occupant with some of the higher status of an executive in a private office.

For supervisory personnel, the design of lower height roll-top desks of approximately 45 inches sacrificed some pigeonhole storage to permit easy surveillance of employees (**Fig. 2.15**). Although a six-inch height difference may seem insignificant, the lower top permitted the eyes of a man of average stature to peer over the top of the desk while seated. The lower height also exposed the top of a seated supervisors head so subordinates knew that at any time they could be under observation. The Union Desk

⁵² A. H. Andrews (Chicago) offered "Elaborate" desks "ornamented with raised panels of rich veneered woods, and in other ways." as well as "Very Elaborate" desks "Same, in greater degree, with carving added in most of the highest priced desks." A. Cutler & Son offered veneered desks and desks with beveled glass panels, but those were atypical.

Company of Boston illustrated the back cover of its 1887 catalog with an idealized office in which a manager's roll top desk was situated in the middle of the office with sight lines to clerks, bookkeepers, and cashier (**Fig. 2.16**). Roll-top desks were frequently arranged on platforms to further elevate and separate supervisors from subordinate clerks at flat top and standing desks in an arrangement that drew upon the cultural resonance of a teacher's platform (**Fig. 2.17**). Some companies placed supervisor's desks on platforms to the side of clerks rather than directly facing clerks to enhance the behavioral control.⁵³ When placed to the side of clerks, hinged side supports were an option that further opened the supervisor's view of subordinates.

Catalog text of most manufacturers stressed the nuanced surveillance and privacy designed into low height roll-top desks — American Desk Manufactory described its desks as “intended to be set out in the centre of an office, in which position the writer can overlook the desk and observe all that is going on around him, and at the same time have a certain amount of privacy for his correspondence...” when seated, “the writer [was] to have the entire supervision of the office.”⁵⁴ Catalogs descriptions of roll top desks

⁵³ The sideways arrangement enacted the panopticon theorized by Jeremy Bentham's in which prisoners could not determine whether they were under surveillance, and therefore behaved better because under the presumption they were always being watched. Michel Foucault, *Discipline & Punish: The Birth of the Prison*, transl. by Alan Sheridan (New York: Random House), 195-228.

⁵⁴ American Desk Manufactory, *Illustrated Catalogue of Office and Library Furniture* (New York, 1883); and American Desk Manufactory, “American Desk Manufactory” (Broadside, 1885). A. Cutler & Son noted that “The occupant of this Desk has an unobstructed view over it.” in A. Cutler & Son, *Descriptive Catalogue and Price List of Cutler's Patent Business Desks* (Buffalo, NY: A. Cutler & Son, 1884). The low-roll desk of The Macey Co. was also designed “to have the roll feature in the desk for privacy, and yet have the desk so low as not to obstruct the view of its user.” See The Fred Macey Co., *Office and Library Furniture* (Grand Rapids, MI), ca. 1904, 8. A. H. Andrews highlighted the use of low roll-top desks in banks, presumably so managers could keep an eye on clients as well as employees. See A. H. Andrews, *Medium Grade Furniture* (Chicago, 1905).

implied office clerks would misbehave unless regularly watched and acknowledged that managers had responsibilities that prevented constant supervision. The low roll-top fit was designed to suit the dual role as worker and supervisor. The occupant was expected to write on his own desk surface and not waste time and energy standing and moving around to check on employees. Instead he could work uninterrupted in his semi-private space and see his employees just by raising his vision.⁵⁵

The status of roll-top desks was elevated with the standardization of a new flat top desk for clerical work. In multi-clerk offices, roll-top desks were most often used in conjunction with standing desks for bookkeepers and flat-topped desks for general clerks. Over several decades, manufacturers enhanced the status of clerks who sat at roll-top desks by seating subordinate clerks at a new form: the pedestal desk.

Pedestal Desks

Like roll-top desks, pedestal desks had precedents in both domestic and counting-house furniture. The counting-house sitting desk was typically a double-sided desk (also called a partners' desk) (**Fig. 2.18**). Merchant owners like the owner of the legal practice in Dicken's *Bartleby*, used counting-house desks to write correspondence, interact with employees and conduct face-to-face meetings across its broad surface. A low and flat top suited the social atmosphere of a small counting-house office. The basic form consisted of a set of three to five drawers under a work surface on one or both sides of a kneehole,

⁵⁵ The Derby Desk's roll-top "can be seen over by the occupant without rising from chair." George H. Derby & Co., *Illustrated Catalogue of the Derby Roll-Top Desk* (Boston, 1881), 9. The Union Desk Company's desk also "Can be seen over while sitting." See Union Desk Company, *Illustrated Catalog Union Desk Company* (Boston, 1887), 3.

with no storage above the surface. Joseph L. Ross, A. H. Andrews, and other school furniture manufacturers sold a similar form as a teacher's desk (**Fig. 2.19**). Boston schools set Ross teacher's desks upon a raised platform. With no obstructing cabinetwork above the desktop, the teacher's body and behavior was on display to model appropriate conduct for students who aspired to future clerkship in a pedestal desk.⁵⁶

The classroom was an apt model for furniture arrangement as offices moved from cramped spaces fit within corners of factories, homes, warehouses, and retail blocks and into large, open spaces within skyscrapers. The unobstructed sight line between teacher and pupil was reproduced in the open plan office. Simple flat-topped pedestal desks facilitated employee supervision over greater visual distances by eliminating the visual obstruction of bodies at standing desks and counting-house desks.⁵⁷ Manufacturers offered flat top desks in their catalogs that coordinated with roll-top forms (**Fig. 2.20**). Standard flat top desks had considerably less storage than their roll-top counterparts - typically five or nine drawers and no cabinets or pigeonholes. Unlike clerks at roll-top

⁵⁶ Joseph L. Ross, teacher's desk (Display advertisement from an 1856 catalog, republished in *The Teacher and the Parent* (New York: A. S. Barnes, 1867, 332-336). A. H. Andrews & Co., *Illustrated Catalogue Office Furniture, School Furniture, Church Furniture Hall Settees, Holbrook's Apparatus, Maps, Globes, &c.* (Chicago, 1873), 19. Unions School Furniture Company, *Principals' and Office Desks, Opera Chairs, Etc.* (Battle Creek, MI, ca. 1885). Roll-top desk pioneer Stephen Smith made library tables and counting-house desks, as well as a teachers' desk used in Rhode Island schools of the 1840; see Henry Barnard, *Report and Documents Relating to the Public Schools of Rhode Island for 1848* (Providence, 1848), 294. The 1884 catalog of A. Cutler & Son described roll-top desks as "Business Desks," but pedestal desks were referred to only as "flat-top desks," an indication of their use in schools and other institutions; see A. Cutler & Son, *Descriptive Catalogue and Price List of Cutler's Patent Business Desks* (Buffalo, NY: A. Cutler & Son, 1884). Later major manufacturers of flat top and roll-top desks included Standard Desk Company, National Desk Company, and Horrock's Desk Company.

⁵⁷ "Men and Their Methods," *System: The Magazine of Business* 14, no. 4 (October, 1908): 372. The essay describes a manager replacing roll-top desks with flat top desks after discovering that one of his salesmen kept his roll-top desk unlocked overnight, with his hat on the top shelf to fool the manager into thinking he arrived early to work each day.

desks, clerks seated at flat-top desks were supposed to clear their work surface, filing all correspondence, returning ledgers to central storage areas, and collecting any remaining paperwork into drawers at the end of each day's work.

Corporations used mass-manufactured standing desks, pedestal desks and roll-top desks to differentiate and manage employees in architecturally undifferentiated spaces that contained hundreds of office workers. As the physical distance between management and employees expanded furniture design and arrangement enhanced and institutionalized control. The desk became an assistant manager, helping to focus minds and order bodies over great distances. Although efficiency is most prominently associated with the factory work theories of F. W. Taylor and the Gilbreths at the turn of the century, the concept was built into office furniture manufactured in the 1870s and 1880s. Management theorists used standard pedestal desks as a foundation upon which to erect systems that regulated time and regimented processes. Through design, desks were anthropomorphized into active participants in office work.⁵⁸

Writing in *System: The Magazine of Business* in 1904, journalist Henry M. Hyde encouraged managers to designate the upper right-hand drawer of pedestal desks as an "auxiliary brain box."⁵⁹ Supplied with a bank of cards and partitioned, the desk drawer was a location to download and organize the worker's brain, empowering him beyond his

⁵⁸ Kwolek-Folland, *Engendering Business*, 108-112. Kwolek-Folland notes that the insurance industry had institutionalized systematic management in physical form in the 1880s and by 1900, when scientific management was becoming a popular ideology it had already been in practice for 15 years. On the body and social control see Michel Foucault, *Discipline and Punish*.

⁵⁹ Henry M. Hyde, "The Auxiliary Brain Box," *System: The Magazine of Business* V, no. 3 (March, 1904): 154-157. Hyde was a *Chicago Tribune* editorial writer and author of humorous serials and novels about urban life including *Confessions of a Reformed Messenger Boy*.

natural abilities. According to Hyde, to develop and maintain a winning personality required the maintenance and manipulation of super-human amounts of information to justify prices, to rationalize rejecting second-hand goods, to enumerate competitive benefits, even to know which client likes duck hunting and which golf. By applying his organizational methods to the desk, Hyde believed a mediocre salesman could overcome a dearth of natural sales ability.

The A. W. Shaw Company, manufacturer of filing cabinets and supplies published the monthly journals *System: The Magazine of Business*, *Factory: the Magazine of Management*, and the ten-volume *Business Man's Library*.⁶⁰ The Shaw Company included a description of Hyde's brain box in most of their guide books on office system published in the first decades of the twentieth century. To further emphasize the importance of an empty mind, subscribers to *System Magazine* received a brain box filled with Shaw's pre-printed cards.⁶¹

Manufacturers encouraged managers to use desk management systems to lower the threshold of skills needed to enter clerical work. Anyone with basic literacy and numeracy could learn the routine systems. The desk and its arrangement reduced the burden and cost of clerical training by prescribing tasks and storage to specific areas of the desk (**Fig. 2.21**). Like a rationalized factory layout in which raw materials entered at one end and finished goods exited at another, the clerk no longer moved about to gather correspondence, it passively came to him. Papers "coming to the desk" entered the work

⁶⁰ A. W. Shaw launched a manufacturing firm in 1901 in Muskegon, Michigan. ("Pages with the Publisher," *System: The Magazine of Business* (November, 1907), n. p.

⁶¹ *The World To-Day: A Monthly Record of Human Progress* 8, no. 3 (March, 1905), advertisement; and *Colliers* 34, no. 21 (February 18, 1905), 24.

zone at the front right tray and left the desk via a messenger service rack at the front. The desk blotter was the machine area. A clerk no longer had to develop their own system for keeping track of responding to clients, he simply opened his top left “tickler drawer.” He did not have to determine where the most convenient and efficient place to store letterhead; it was the second drawer on the left. Work for the day was neatly laid out on the left of the work surface. Unfinished work collected in the upper right-hand drawer, available for others to access if needed. Work awaiting additional information was in the second drawer on the right. Hyde noted that through this type of system the “brain” was easily transferred to a clerk’s “descendants” when he was “through with his work,” a convenient euphemism for transferring knowledge into the infrastructure of the office to ease the transition from one interchangeable worker to another.⁶²

Guidebooks and trade catalog contained numerous tools and techniques to transcribe business knowledge of clerks into hard copy stored in desks.⁶³ Once managers established rules for the arrangement and use of desktops and drawers, a desk was a focus of managerial inspection of work-in-progress. The cardinal sin in a systematized office was to interrupt the efficient movement of work among various departments. Clerks were warned against using the few remaining unprogrammed desk drawers of their pedestal desk for personal belongings, or worse, for monopolizing client records required to be stored in central files. The desk, like the robotic clerk himself, was to contain no originality or personality. Like school children who were trained to assume teachers

⁶² Henry M. Hyde, “A Salesman’s Grip on His Customers’ Personality” in *Personality in Business*, A. W. Shaw Company, ed. (Chicago: A. W. Shaw Company, 1916), 112-118.

⁶³ Isaac Wagemaker, *A Comprehensive Text Book on Business and Office Systematizing* 1 (Grand Rapids: Isaac Wagemaker, 1907), 53-63.

could search their desks for contraband at any time, clerks had only marginal expectation of private storage. Turn the desk drawers of clerks, “inside out, every detail of the assistant’s work investigated and put into line with the standard system,” one sales specialist advised in 1905.⁶⁴ A New York University business professor echoed education reformers when he encouraged business school faculty to determine “whether a student is systematic or not” by inspecting his desk, since “the contents of a desk are in a sense intended to be made accessible for reference.”⁶⁵ Managers and writers focused so intensively on the manner in which employees used their desks that clerks came to be referred to as “desk men.” Authors encouraged clerks to consider the size, placement, neatness, and organization of their desk, “a mark of his relative position in the office.”⁶⁶

Desks only regulated efficiency when occupied. The prime law of system, to have “one definite everlasting location for each definite kind of material – and *keep it there*,” included the bodies of clerks.⁶⁷ Like compulsory education laws that compelled students to sit in school desks, the goal was to keep the worker in the furniture to train behavior. According to one office efficiency expert “anything which claims the attention of an employee from his work reduces his efficiency and cuts profits.”⁶⁸ In a systematically

⁶⁴ Harry Dwight Smith, “A Training Course in System,” *System: The Magazine of Business*, 5, no. 4 (April, 1905): 419.

⁶⁵ George Harvey Seward, *Shall Filing be Taught in the Business School?* A paper before the private commercial school managers’ association, Boston Meeting, 1903.

⁶⁶ Harry Dwight Smith, “A Training Course in System,” *System: The Magazine of Business*, 7, no. 6 (June, 1905): 420.

⁶⁷ R. A. Daniels, *Desk System* (Chicago: The McCollum Mfg. Company 1907), 23. Much of the book *Desk System* was republished in 1909 by A. W. Shaw (The System Company), *How to Double the Day’s Work*.

⁶⁸ Walter Dill Scott, *Increasing Human Efficiency in Business* (New York: The Macmillan Company, 1911), 115.

organized office with divided tasks, each clerk relied on the processing of others as paperwork moved between mail clerks, order clerks, shipping clerks, billing clerks, and accounting clerk. A breakdown at any stage due to papers being misplaced, forwarded to the wrong desks, or delays from clerks traveling great distances slowed workflow across the organization.

The flood of paper-based information required by modern businesses demanded increased number of clerks spread over vast distances on multiple floors. Without an alternative means of physically moving paper, high wage clerks would be tempted to waste time to deliver their work to the next step in the chain.⁶⁹

Desks and chairs that successfully anchored clerks fed a demand for low-wage office boys to circulate paperwork.⁷⁰ Office boys on roller-skates and bicycles sped delivery between offices in large buildings (**Fig. 2.22**).⁷¹ In one railway office the superintendent clerk had eight messenger boys at his disposal, each connected to a basket on his desktop (**Fig. 2.23**).⁷² A grid of identical pedestal desks in predictable locations maximized legibility and minimized distance traveled. There were no tall desks, or desks turned at unpredictable angles that might obscure delivery targets or force clerks to

⁶⁹ Leffingwell, *Office Management*, 357-365.

⁷⁰ In the 1880s a few large railroad companies and telegraph firms installed pneumatic tube systems between offices but required office boys to quickly deliver documents from a central receiving station to the individual desk of the clerk. For a contemporary description of the personnel around pneumatic tube use in the office of Western Union at St. Louis see "The Talking Wires," *St. Louis Post-Dispatch*, January 1, 1888, 11; and for the use of pneumatic tubes in the Baltimore & Ohio Railroad see "A Splendid Building," *The Baltimore Sun*, November 15, 1882, 1.

⁷¹ William H. Leffingwell, *Making the Office Pay* (Chicago: A. W. Shaw Company, 1918), 231.

⁷² Arthur L. Lynn, "The Desk System of a Detail Man," *System: The Magazine of Business*, 7, no. 1 (January, 1905): 42-44. An identical diagram and system were republished by C. L. Pancoast, "The Clearing House of a Business," *System: The Magazine of Business* 12, no. 2 (August, 1907): 202-204.

negotiate around long rows of side-by-side tables.

An efficient office boy understood the systematic flow of information in the business – a valuable skill for an entrée to clerkship. The design of office furniture that predestined office boys for clerkship contributed to class and gender barriers. To fill the position of office boy, managers typically hired young men whom they could envision as future clerks. Herbert J. Hapgood, writing in *System* in 1905, recommended hiring a boy from a middle-class home, “where he has been taught the importance of truth and obedience.” Hapgood cited a New York manufacturer who gave preference to native-born (white) American boys, whom he would encourage to attend night school so they could advance. Girls could serve as office boys, according to Hapgood, but he derisively claimed a girl not distracted by “chewing gum and entertaining her young men friends,” was one in one thousand.⁷³ Stories of office boys achieving a respectable clerkship were a trope of late-Victorian children’s literature and popular culture. In his 1889 serial tale *Silas Snobden’s Office Boy*, Horatio Alger rewarded the honesty, integrity and hard work of the protagonist with a well-paid clerkship.⁷⁴ The same year (1889), Parker Brothers released its board game “The Office Boy” in which a child took on the role of office boy and spiraled about the board avoiding laziness, intemperance, and carelessness to move up in the firm from mail clerk, to shipping clerk, and salesman, before going off on his

⁷³ Herbert J. Hapgood, “The Managers of Tomorrow,” *System: The Magazine of Business* 8, no. 6 (December, 1905): 565-568. Hapgood published multiple columns in *System* in the 1900-1910 period advocating for the hiring of native-born middle-class men, by the definition of middle class in the period, he also was specifying they be white. See also Herbert J. Hapgood, “Engaging an Employee” *System: The Magazine of Business*, 5, no. 2 (February, 1904): 86. E. W. Nash, “Small Inefficiencies that Make Big Wastes” *The Efficiency Magazine* 3, no. 11 (November, 1913): 8.

⁷⁴ Alger, Horatio. *Silas Snobden's Office Boy*. Garden City, New York: Doubleday & Company, Inc, 1973.

own to become head of a firm. Throughout several revisions, representations of office furniture became more modern while the office boy remained a white boy in middle-class garb (**Fig. 2.24**).⁷⁵

The young men who became clerks in the 1870s and 1880s had graduated from the control of school furniture, but school desks did not completely tame rambunctious male bodies. A young middle-class white man in the nineteenth century was raised to anticipate the day he would leave behaviorally constrained feminized spheres of home and school and enter the freedom of a masculine world of work. Boys were taught that to be a man was to overcome challenges, express power, and act independently. But freedom and initiative were not conducive to increasingly rule-bound and efficient offices that developed in the 1870s.⁷⁶ How to corral young men who defined masculinity through autonomy and accomplishment? The answer was two-fold – give him distinct tasks and design a chair that minimized his need for physical movement.

Convincing young men to perform task work was not a problem. Boys were raised to believe that occupational success defined their manhood; indeed, young men were comforted by overcoming frequent challenges.⁷⁷ The routine of divided clerical work offered a quantifiable account of his successes – number of letters written or answered, orders placed, or forms completed. The challenge lay in controlling a young

⁷⁵ Parker Brothers, *Office Boy* (Salem, Mass: Parker Bros., c1889), Library of Congress; Parker Brothers, *Office Boy* (Salem, Mass: Parker Bros., 1893), The Strong National Museum of Play, 107.4046; Parker Brothers, *Office Boy* (Salem, Mass: Parker Bros., 1896, <https://boardgamegeek.com/image/2317586/office-boy>, Accessed 12/3/2017.

⁷⁶ E. Anthony Rotundo, *American Manhood: Transformations in Masculinity from the Revolution to the Modern Era* (New York: Basic Books, 1993), 176.

⁷⁷ Rotundo, *American Manhood*, 177.

man's physical side, getting him to sit still and focused for extended periods of time and not engage in horseplay with his peers. In a book directed at impetuous young men, moralist James Freeman Clarke held up the lengths that Italian dramatist Vittorio Alfieri went to keep focused on his work: "he directed his servant to tie him in his chair, and to fasten him by knots he could not himself loosen, and then go out of sight and hearing for a certain number of hours." According to Clarke, young men could not always be taking initiative but would find "great power of strength in habitual work."⁷⁸

By the late 1850s writers on public health presumed occupational life, like school life, had to be sedentary. Office work led to "desk diseases" of constipation, headache, dyspepsia, consumption, nervous disorders, heart disease, pneumonia, and cancer, authors claimed. By the late nineteenth century, it was known that many of these ailments could be exasperated or caused by lack of physical activity and they also assumed tuberculosis could be caused by poor posture during desk work. American reformer H. I. Bowditch and English physicians John Fothergill and John Thomas Arlidge blamed inactivity and curved chests from height differential between bodies and work surfaces. Stooped postures were said to lead to bent spines and compressed chests, problems like those believed to be experienced by children in fixed school desks. Similar to the recommendations of physical educationists that children engage in vigorous play as a compensation for inevitable classroom inactivity, the *Encyclopedia Britannica* recommended clerks live far away from their place of work to compel them to get

⁷⁸ James Freeman Clarke, *Self-culture: Physical, Intellectual, Moral and Spiritual* (Boston: Ticknor and Company, 1880), 374.

exercise, but at work, they were expected to be seated.⁷⁹ Manufacturers designed furniture to compensate for the physical challenges of office work.

Inventors first experimented with height adjustable work surfaces to address the problem of curved spines and compressed chests.⁸⁰ In 1830, Boston cabinetmaker Seth Luther advertised a crank adjustable, double sided counting-house desk (**Fig. 2.25**). In 1877, David L. Ransom of Buffalo, New York patented and advertised a roll top desk with a mechanism for raising and lowering the writing surface to provide variety of postures; and in 1888, Ottoway Partridge submitted a double desk that combined standing and sitting desks to the exhibition of the Massachusetts Charitable Association intended to be used for different kinds of work (**Fig. 2.26**).⁸¹ The designs reflected a cultural fascination with mechanical furniture but were not widely adopted.⁸² Adjustable desks were too awkward to manipulate. In *Bartleby*, Melville's clerk Nippers suffered with an adjustable desk that he periodically manhandled to no avail:

If, for the sake of easing his back, he brought the table lid at a sharp angle well up towards his chin, and wrote there like a man using the steep roof of a Dutch house for his desk:—then he declared that it stopped the

⁷⁹ H. I. Bowditch, "Consumption in America," *Atlantic Monthly* (January 1869): 60. J. Milner Fothergill, *The Disease of Sedentary and Advanced Life* (New York: D. Appleton & Co, 1885), 28-32. John Thomas Arlidge, *The Hygiene, Diseases and Mortality of Occupations* (London: Percival & Co, 1892), 107-108. T. S. Traili, M. D., "Medical Jurisprudence," in *Encyclopaedia Britannica* 8, no. 14 (Boston: Little, Brown, & Co., 1857): 442.

⁸⁰ The sloped top of standing and counting-house desks helped somewhat - clerks placed books further up or lower down the slope to adjust the height, but the slant was too slight to make a significant a difference.

⁸¹ Seth Luther, "Writing-Desk," U. S. Patent, no. 786 (June 19, 1838); David L. Ransom, "Improvement in Desks," U. S. Patent, no. 197,290 (April 24, 1877); "Partridge Duplex Desk," in Massachusetts Charitable Mechanic Association, *Report of the Sixteenth Triennial Exhibition* (Boston: Mills, Knight & Co., 1888); 176-177.

⁸² On the prevalence of mechanical furniture in the American imagination see Siegfried Giedion, *Mechanization Takes Command a Contribution to Anonymous History* (New York: Oxford University Press, 1948), 389-481.

circulation in his arms. If now he lowered the table to his waistbands, and stooped over it in writing, then there was a sore aching in his back.⁸³

Small, lightweight, simple school desks were height adjusted with straightforward screw mechanisms, but screw mechanisms were not robust enough for large, heavy, desks full of drawers. Challenged by the technology and cost of adjusting the height of a desk surface to a worker's body, manufacturers pursued an easier and more effective solution — to adjust the seat-height of the user.

Desk Chairs

By the twentieth century “office chair” signified an adjustable, rotating, tilting, rolling chair, but in the 1870s, the first chairs advertised specifically as “office chairs” were versions of stationary spindle backed Windsor chairs that had been in use since the eighteenth century in both domestic and commercial settings. The mass-produced versions had low or no arms so the chair could be pulled close to a desk and often a more robust crest rail designed to withstand frequent rearrangement (**Fig. 2.27**).⁸⁴ A handhold cut into the rail was rarely seen in domestic versions which typically had narrower, more fragile crest rails. The chairs were inexpensive to make and repair, lightweight, durable, easy to rearrange, and quick to enter and exit; a hold-over from the social offices of the earlier part of the century. Although domestic Windsor chairs were occasionally outfitted with cushions, the first mass-produced office chairs were advertised with solid wood or caned seats comfortable enough for transient sitting.⁸⁵

⁸³ Herman Melville, “Bartleby,” in *The Piazza Tales* (New York: Dix & Edwards, 1856), 39-40.

⁸⁴ Goyne-Evans, *Windsor-Chair Making in America*, 406-407.

⁸⁵ Office managers also frequently sat workers in bentwood chairs made by European firms such as Thonet Brothers and J and J Kohn.. Like Windsor chairs, inexpensive bentwood chairs were

In the 1870s, office furniture catalogs began to sell rotating, tilting, rolling office chairs.⁸⁶ Like the first manufacturers of roll-top desks and school furniture, the designers of rotating tilting office chairs were from the Boston area. In 1867, Robert Fitts of Fitchburg, Massachusetts patented a rotating and tilting “office chair” specifically denoted “for use in offices and other purposes” (**Fig. 2.28**). Fitts assigned the patent to the Walter Heywood Chair Company of Fitchburg. The company put the chair into production a few years later.⁸⁷ In 1871, J. Brewi’s American Desk Manufactory of New York advertised a rotating “Office Chair” with a height adjustable screw in low- or high-backed, caned or upholstered options (**Fig. 2.29**).⁸⁸ Manufacturers in other cities soon

sometimes used in American homes, although the manufacturers of the chairs intended them primarily for use in commercial settings. The Thonet number 14, the most inexpensive, was frequently used in offices. It was made from just six pieces of bent wood, ten screws and two washers, with a caned seat. Henry I. Seymour, an American competitor, produced chairs nearly identical to Thonet, and highlighted in his patent that the design was intended to furnish chairs cheaply to the market. See Barry R. Harwood, “Two Early Thonet Imitators in the United States: The Henry I. Seymour Chair Manufactory and the American Chair-Seat Company.” *Studies in the Decorative Arts* 2, no. 1 (1994): 92-113, and Christopher Wilk, *Thonet: 150 Years of Furniture*. (Woodbury, NY: Barron's, 1980). Nancy Goynes Evans found some makers provided special cushions for their commercial Windsor chairs, see Nancy Goynes Evans, *Windsor-Chair Making in America*, 190, n190.

⁸⁶ In trade literature mechanical chairs were referred to as “office chair,” and “desk chair,” or by function, “swivel chair,” “rotating chair,” “screw chair,” or “tilting chair.”

⁸⁷ Robert Fitts, Jr., “Improved Office Chair,” U. S. Patent 67,034 July 28, 1867. The patent misspells the name of the assignor as “Walter Heyward Chair Company.” The chair appears in the company’s 1880 catalog but may have been produced earlier. The Walter *Heywood* Chair Company was a high-volume producer of chairs in Fitchburg, Massachusetts. The Heywood-Wakefield Company, a separate entity, acquired the Walter Heywood Chair Company in 1899. In 1869 Jefferson Chase, also of Massachusetts patented a similar chair intended “for use in business offices, public buildings &c., rather than the parlor and sick-room.” No record of production has been found. See Jefferson Chase, “Improved Chair,” U. S. Patent, no. 96,548 Nov. 9, 1869.

⁸⁸ J. Brewi & Co, *Designs of Writing Desks, Tables, Bookcases, Secretaries, &c. Manufactured at the Original American Desk Manufactory*, 1871, 16. (). The designers of the first office chairs inserted a four-pronged, cast-iron metal spider between the seat and base to allow the top of the chair to tilt. The spider was attached to the underside of the seat at the sides, with the forward and rear points free to act as stops to limit the degree of tilt. Several additional patents were issued in the 1870s for titling and rotating mechanisms, but none were assigned to manufacturers, so it is unclear whether they were put into production: J. J. Vollrath, “Tilting Chairs,” U. S. Patent, no., 149, 550 (April, 7, 1874). R. W. Myers, “Tilting-Chair,” U. S. Patent, no., 160, 943 (Mar. 16, 1875); M. D. Connolly,

produced their own nearly identical version.⁸⁹

Manufacturers first advertised rotating tilting chairs to both male and female users in the home and the office. The same design listed as an office chair was sometimes also listed as nursing and dining chairs for the home (**Fig. 2.30**). The ambiguity likely arose because mechanical office chairs were based on several domestic precedents.

Manufacturers adopted the tilting motion of the rocking chair, a form long associated with the feminine task of nursing.⁹⁰ But rocking chairs were also associated with calming American male restlessness. “When males used rocking chairs, regardless of who they were, the inference was that they had become civilized or domesticated,” furniture historian Ken Ames argued.⁹¹ Rocking chairs offered men an acceptable alternative to tilting their chairs on their back-legs, a posture considered powerful but that violated nineteenth century norms of decorum in the home. A rocking chair offered a comforting, calming activity in exchange for an acceptable posture. The tilting mechanism of office chairs extended the control and discipline applied to the male body in the home to the male body at work (**Fig. 2.31**).

“Tilting -Chair,” U. S. Patent, no. 185, 501 (Dec. 19, 1876); H. Parry, “Tilting Chair,” U. S. Patent, no., 299,846 (June 3, 1884); M. V. Lunger, “Tilting-Chair,” U. S. Patent, no., 176, 654 (April 25, 1876); P. Nilson, “Tilting-Chair,” U. S. Patent, no., 177,350 (May 16, 1876); C. B. Hitchcock, “Tilting-Chair,” U. S. Patent, no., 204, 573 (June 4, 1878).

⁸⁹ Rotating tilting “Office Chairs,” appear in A. H. Andrews 1873. A. H. Andrews & Co., *School Furniture and Apparatus; Church, Hall and Office Furniture* (Chicago, 1873), 35.

⁹⁰ Ellen and Bert Denker, *The Rocking Chair Book* (New York: Mayflower Books, 1979), 23-24. Armless rocking chairs were referred to as nursing chairs. The Denkers argued that the back-and-forth action was derived from the soothing motion of the cradle. The first rocking chairs were made by attaching runners to ordinary Windsor or ladder-back chairs. Joiners in New England designed the first factory-made rocking chairs with integrated runners, the “Boston Rocker” in the 1820s.

⁹¹ For a full discussion of the social significance of tilting and rocking postures, see Kenneth L. Ames, *Death in the Dining Room and Other Tales of Victorian Culture* (Philadelphia: Temple University Press, 1992), 185-232; and Denker, *The Rocking Chair Book*, 23-24.

Manufacturers adapted a rotating, height adjustable screw mechanism from music stools, a form associated with genteel pursuits, to adjust the height of office chairs.⁹² “Screw Chairs” as height adjustable chairs were sometimes called, had an unfortunate flaw of inadvertently changing height with regular use. When chairs reached the lowest height, they suddenly stuck. “I whirled, all full of gallantry,” a writer recounted in *The Furniture Record* in 1896, and “the chair stuck, but I went ahead - fell on my hands and knees on the floor” in front of a widow he was trying to impress. He related how at the highest point the chair separated from the base and tossed him to the floor with a loud crash. In both anecdotes the crisis arose from distraction, when the clerk was called to the phone, or had a visitor. Underneath the humorous story was a moral message about keeping still: had he remained quietly at work at his desk, free from distraction, he would have been fine. Regardless of the flaws in screw chair design, the young man remained “stuck on these revolving chairs.”⁹³

Sedentary work life was conciliated by the comforts of office chairs.

Paradoxically, the motion designed into office chairs was not intended to increase movement of a worker’s body, but to circumvent excess exertion and distraction.

Windsor and bent-wood chairs forced an occupant to push his chair back and stand to

⁹² Ten Eyck patented a rotating, tilting chair that some design historians have identified as the first American office chair, and although it has a recognizable form, the chair is referred to as a “Rocking Chair,” and there is no manufacturer assigned and no record that the chair was produced. Peter Ten Eyck, “Rocking Chair,” U. S. Patent, 9,620, March 15, 1853. Other patent chairs with similar forms include: Matthew King, “Chair,” U. S. Patent 1,737, August 25, 1840; James F. Sargent, “Improved Chair,” U. S. Patent 54,217, April 24, 1866, George C. Winchester, “Improvement in Chairs,” U. S. Patent no. 60, 978, January 1, 1867, and Thomas E. Warren’s Centripetal Chair.

⁹³ “She Gave Him a ‘Laugh,’” *The Furniture Trade Review and Interior Decorator* 16, no. 3 (Jan. 10, 1896), 40. New York Public Library.

reach the depths of lower drawers and the edges of works surfaces. Announced by the noise of scraping chairs, a standing employee was an invitation to conversation in the close quarters of the office. To circumvent the noise and distraction, manufacturers applied pivot and spring supports that transformed a stationary seat into a fulcrum upon which the sitter's body rotated and tilted. Management reformers claimed that to work quietly consumed strength and attention, but a mechanical office chair made quiet work effortless. He silently tilted, rolled, or rotated just a few inches to have full access to all areas of the desk instead of trying to silently push back while standing, and reaching.⁹⁴ Like school children in a classroom, a clerk was anchored to a location in the room. Rather than fix chairs to the floor to root bodies, as was done with school children, furniture designers fixed clerks through comfort and a controlled set of sanctioned movements programmed into their chairs to keep them seated.

Like the introduction of roll-top desks and pedestal desks of different sizes and ornamentation, mechanical office chairs became a tool to clarify management hierarchy. Seating in the pre-industrial office had differentiated occupations functionally but not hierarchically: bookkeepers had stools to perch on and enter information into ledgers, clerks and owners had Windsor or bentwood chairs to sit on to write correspondence and converse. Comfort and ornamentation were similar. The designers of factory-made mechanical office chairs offered fine variations in comfort and ornamentation to serve more stratified and hierarchical organizations (**Fig. 2.32**). Kenneth Ames has argued that

⁹⁴ Harry Dwight Smith, "A Training Course in System," *System: The Magazine of Business*, 7, no. 6 (June, 1905): 654-656; Leffingwell, *Making the Office Pay*, 1918.

middle-class Americans of the second half of the nineteenth century were highly attuned to the meaning inherent in degrees of ornamentation, and fluent in a rich symbolic iconography.⁹⁵ The embellishment of office chairs with carved ornament communicated subtle degrees of status (**Fig. 2.33**). In addition to decorative elements, wood choice communicated hierarchy: plain oak for lower grade positions, cherry, or walnut for middle positions, up to mahogany for executives and upper-level managers. Comfort also defined hierarchy from plain wood seats, to caned seats to top-of-the-line leather upholstery. Regardless of the status implied through the design of office chairs, all operated on the same principal of fixing occupants at their desk.

In pursuit of ever greater efficiency, management experts encouraged clerks, managers, and executives to remain seated at their desks. Desk chairs facilitated more sedentary bodies but work still needed to move quickly to maintain an efficient operation processing thousands of purchases, invoices, and shipping records. Office boys took on some of the responsibility for moving documents through the office, but managers considered them unreliable and compulsory schooling laws limited the supply. In the 1870s a new constituency entered offices to help clerks process, track, and store a rapidly expanding volume of paper: young, middle-class white women.⁹⁶

⁹⁵ See Kenneth Ames, *Death in the Dining Room and Other Tales of Victorian Culture* (Philadelphia: Temple University Press, 1992), 45-96; and Kenneth Ames, "Meaning in Artifacts: Hall Furnishings in Victorian America" *The Journal of Interdisciplinary History* 9, no. 1 (Summer, 1978): 19-46.

⁹⁶ More men than women moved west to frontier towns, while more young women moved to cities. By the 1880s many industrial cities had a female surplus. David T. Courtwright, *Violent Land: Single Men and Social Disorder from the Frontier to the Inner City* (Cambridge: Harvard University Press, 1996), 52-53.

Furniture designed to help managers hire women into the clerical workforce

Women who proved themselves at clerical jobs in government offices during the Civil War opened a pathway for female clerks. After the war, corporate consolidation and expansion vastly increased a need for clerks to manage an increased volume of record keeping and correspondence. Businesses also required entry level clerks to fill positions of those promoted into deepening management hierarchies. Demand outstripped the supply of educated white male workers. The unmet need was filled by unmarried, native-born women.⁹⁷ Between 1870 and 1920, the percentage of women in clerical occupations in financial industries grew from one woman for every forty men, to nearly an equal number of men and women.⁹⁸ As women took over responsibility male clerks might have felt cheated out of jobs rightfully theirs. To mitigate the potential for conflict, office furniture manufacturers, in conjunction with managers, formulated new clerical positions reinforced as feminine through occupationally specific desks, chairs and filing cabinets.

Unlike working-class white and black women who had always labored outside of the home in factories or as maids and laundresses, women who entered the field of clerical work were the daughters of middle-class families. The mill-girls of Lowell were

⁹⁷ Henceforth in this chapter, the discussion of women in office work is a discussion of white, middle-class women. In the 1900 and 1910 census, native born women of native parents made up 50% of female clerical workers, native-born of foreign parents 40%, and foreign born 10%. Although middle-class black female clerks worked for black owned firms, the number was very small. See Joan Younger Dickinson, *The Role of Immigrant Women in the U. S. Labor Force, 1890-1910* (New York: Arno Press, 1980), 32-36.

⁹⁸ Kwolek-Folland, *Engendering Business*, 4-7. Kwolek-Folland demonstrates that the gendering of financial industries contradicts the prevalent notion of radical, sudden change that accompanied the managerial revolution and instead suggests that the modern corporation remained “infused with pre-corporate work relationships and attitudes.” Robert W. Smuts, *Women, and Work in America* (New York: Schocken Books, 1976), 22.

working-class daughters of rural farmers with limited education, hired because they had nimble fingers for servicing machines, and could be paid low wages. In the 1840s immigrant women paid even lower wages usurped white women in mill work. As industrialization drove young men from agricultural land to work in cities, sisters and daughters followed. Whereas in agricultural homes, a woman's work in and around the home was critical to produce food, household goods and clothing; in urban homes household goods were purchased, freeing women to pursue an occupation. Clerical work required people fluent in English and educated enough to make simple, rational decisions that maintained efficiency. Like the mill-girls, the women who entered clerical work were native born daughters of native born Americans, but these were educated women of the middle class who would not have taken jobs in factories next to immigrant women.⁹⁹ High schools had offered commercial education since mid-century, and while boys were leaving high school to go to work, nearly fifty percent more girls were graduating from high school than boys at the end of the nineteenth century (**Table 1**).¹⁰⁰ Normal schools also taught bookkeeping that familiarized women with clerical work.¹⁰¹

Women valued office work more highly than manufacturing. Office jobs made use of her knowledge and skills in a clean environment and the pay was steady.¹⁰²

⁹⁹ See Richard N. Current, *The Typewriter and the Men Who Made It* (Urbana, 1954), 120; and Alice Kessler-Harris, *Out to Work*, 147-149.

¹⁰⁰ See Robert W. Smuts, *Women and Work in America* (New York, 1959), 49; and Edwin G. Knepper, *History of Business Education in the United States* (Bowling Green, OH: Edward Brothers, 1941), 99.

¹⁰¹ Knepper, *History of Business Education*, 35.

¹⁰² Kessler-Harris, *Out to Work*, 194-197. Clerical work paid better than other urban work. Telephone work paid \$10 to \$30 a month, sales work \$12 to \$15, while a typist with shorthand skills earned \$40 or more a month. "Women in Business," *Fortune* 12, Nos. 1-3 (July-August, September, 1935), 92.

Advocates for female workers claimed that women were better at clerical work, less easily distracted, less likely to share trade secrets, and more loyal to the company (at least until they got married).¹⁰³ Women's wages were typically lower than a man's doing equivalent work due to the late nineteenth century's patriarchal devaluation of her work and because proprietors believed it was not logical to invest in an employee who would soon leave to marry. Her struggle to survive on low wages virtually ensured she would need to marry and leave the workforce.¹⁰⁴

Although an office job was attractive to women, businesses had to overcome nineteenth-century middle-class values that insisted on clear separation in public spaces where men and women mixed. For an unchaperoned woman to engage frequently with unknown men in public, in the street, at a restaurant or a theater was to risk sully her reputation as a morally virtuous individual. To middle-class parents and hiring managers, it was unthinkable that a young unmarried woman works in proximity to a male colleague in the office. Some large organizations followed strict societal rules and fully segregated female work areas architecturally through separate entrances and hallways, a practice adopted in train cars and station lounges, tea rooms, hotel lobbies and department

¹⁰³ Current, *The Typewriter and the Men Who Made It*, 118-120.

¹⁰⁴ Bruce Bliven Jr., *The Wonderful Writing Machine* (New York: Random House, 1954), 78. Low wages and education were not enough to overcome Victorian morals of women in the public sphere. Women's wages had been below men's since the first decades of the nineteenth century when native-born women worked in New England textile mills, but office work remained a male occupation. It was not until the supply of men was insufficient that women were hired into offices. For the social history of women and clerical work see Sharon Strom, *Beyond the Typewriter: Gender, Class, and the Origins of Modern American Office Work, 1900-1930* (Urbana: University of Illinois Press, 1992); Kwolek-Folland, *Engendering Business*; and Margery Davies, *Woman's Place is at the Typewriter: Office Work and Office Workers, 1870-1930* (Philadelphia: Temple University Press, 1982).

stores.¹⁰⁵ For most small and mid-sized offices, however, isolation was not ideal; close proximity between men and women who worked together was a much more efficient solution. Office furniture was designed to overcome resistance to gender mixing – to chaperone a woman by protecting her body so she could safely contribute to the productivity of the office.

Managers also needed to convince male clerks to accept women as co-workers. Businesses were concerned male clerks might believe their middle-class status was at risk if they had to work closely with women at identical jobs.¹⁰⁶ A drop in the morale of male clerks could destabilize profitability. Because a woman doing the same job was typically paid less, wages for all clerks would have been threatened if women had been introduced into equivalent clerical positions with men. In the nineteenth century, a man was middle class if he supported a non-working wife and children. The risk to the status of his family amplified a male clerk's anxiety of falling into the lower class due to job loss or stagnant wages. A woman could work a lower paid job because her class status was not tied to her earning power but was instead defined by the wealth of her parents and later by her husband. Businesses feared competition between men and women for the same job would lead to jealousy and tension that could undermine close coordination.¹⁰⁷

¹⁰⁵ For discussion of how the built environment helped to ease women into shopping, dining and amusements that paralleled women's introduction into office work see Jessica Ellen Sewell, *Women and the Everyday City: Public Space in San Francisco, 1890-1915* (Minneapolis: University of Minnesota Press, 2011). Christine Stansell explored how working-class women used public street life to compensate for social constrictions in tenements; see Christine Stansell, *City of Women Sex and Class in New York, 1789-1860* (New York: Knopf, 1986); and Sarah Deutsch, *Women and the City: Gender, Space, and Power in Boston, 1870-1940* (New York: Oxford University Press, 2000).

¹⁰⁶ On the class anxieties of male clerks see Augst, *The Clerk's Tale*, 1-18.

¹⁰⁷ Rotundo describes masculinity beginning to express itself in barbaric, primitive, and savage terms

To overcome male and female resistance to gender integration, manufacturers gendered furniture to define protected zones, feminized bubbles that separated men from women. Within the protections of their furniture, young women enacted the gestures, postures, and behavior representative of their middle-class status. Manufacturers designed furniture for women to suit new occupations as typists and file clerks that did not compete with male clerical jobs. Gendered furniture supplied clear physical and occupational separation and reduced potential “friction,” a term of art office managers used in the 1890s for anything that slowed “the machine-like” flow of work.¹⁰⁸ From 1890 to 1920, female protective bubbles surrounding furniture spread through the office, breaking down strict gender segregation and normalizing the presence of women. Through daily interactions in which women provided critical support to the organization while protectively surrounded by furniture, men perceived women not only as potential domestic partners, but also as potential work partners with their own ideas and abilities that commanded respect and treatment as coworkers. Conversely, from the safety of their desks and filing rooms women sortied out to interact with men in sanctioned roles as stenographers and filing clerks to discover that not all interactions with unknown men threatened her dignity.

The introduction of typewriters to the office opened a pathway through cultural

in the late nineteenth century partly in response to women entering the formerly separate male sphere of business. According to Rotundo, men were attempting to maintain business as a seat of masculine power. See Rotundo, *Transformations in Masculinity*, 169 and 251-255. See also Peter Filene, *Meanings for Manhood, Him, Her, Self: Gender Identities in Modern America* (Baltimore: The Johns Hopkins University Press, 1998), 78-80 and 151.

¹⁰⁸ “Friction,” was a colorful term used frequently in office management trade literature to refer to any problem that would slow the machine-like processing of information in the office. For an example see “Office Routine,” *Business* 11, no. 4 (October, 1891), 215.

prohibitions that prevented businessmen from hiring lower wage women.¹⁰⁹ Typewriters improved accuracy, legibility, and efficiency in processing voluminous paperwork. The typewriter fractured the job of a general clerk by breaking apart information previously bound in ledgers and distributing it to multiple clerks for processing. The role of clerk was divided into occupations that had no cultural history and were therefore gender neutral: file clerk, typist, stenographer, billing clerk. Male clerks viewed stenography, typing and filing as mindless mechanical work lower in status and particularly suited to women, therefore businesses that hired women into the new occupations faced no structural or moral argument that they were taking over men's jobs.¹¹⁰ The creation of occupations gendered female was one part of the solution, but to successfully introduce women into the office, businesses had to address a prohibition against close physical association of women's bodies in a homosocial space designed for men. Furniture was designed to surround female bodies with a protective shield.

Typewriter Desks

The typewriter desk was the first form designed to carve out a space for women in the office. Typewriters entered widespread use in businesses offices just as the rate of women high-school graduates outpaced men.¹¹¹ Office managers hired from a growing

¹⁰⁹ Although used by men, Remington and other typewriting companies compared typewriters to sewing machines. See Davies, *Woman's Place*, 9; and Elyce J. Rotella, *From Home to Office: U. S. Women at Work, 1870-1930* (Ann Arbor, 1981), 124.

¹¹⁰ Kessler-Harris, *Out to Work*, 147-149.

¹¹¹ The Young Women's Christian Association, seeking to rescue women from the financial vagaries of life in the city, began to train women as typists in 1881 and within five years sixty thousand women were working as type writers. Typewriter manufacturers supplied low cost, or no cost machines to special schools who taught young women the skills and then helped to place them in business offices, see Bliven, *The Wonderful Writing Machine*, 74, Arthur M. Baker, *How to*

pool of eligible female typists.¹¹² According to the U. S. census women were 4.5% of typists and stenographers in 1870, 40% in 1880 and over 75% by 1900.¹¹³ Because female clerks were paid less than male clerks, by 1890 wages for all clerical workers had become lower on average than the wages of manufacturing work.¹¹⁴

By the mid-1880s the number of women stenographers and typists surpassed men (**Table 2**). In 1886, A contributor to *Inland Printer* magazine observed that “no large business house may be found in these days without a type-writer of some kind.”¹¹⁵ A year later, an article in *Scientific American* announced that the typewriter was “creating a revolution in methods of correspondence, and filling the country with active, competent young ladies who are establishing a distinct profession, and bringing into our business offices, lawyers offices, editorial sanctums etc., an element of decency, purity, and method which is working a perceptible change.”¹¹⁶

Succeed as a Stenographer or Typewriter (New York, 1888), 53-54; and Richard N. Current, *The Typewriter and the Men Who Made It*, 108. Brief histories of the typewriter include, Margot Davies, *Woman’s Place is at the Typewriter*, 31-38; Bliven, *The Wonderful Writing Machine*, 80-93; Richard N. Current, *The Typewriter and the Men who Made It*, 111-122; and Margery W. Davies, *Woman’s Place is at the Typewriter: Office Work and Office Workers, 1870-1930* (Philadelphia, 1982), 58-59.

¹¹² The term “typewriter” referred both to the machine, and to the occupation, though typist is used in this chapter to avoid confusion. Stenographers “took dictation,” a practice of rapidly writing down spoken language using phonetic symbols. Most stenographers used typewriters to transcribe dictation into text, but not all typists were stenographers. Some focused on filling out forms and typing form letters.

¹¹³ Knepper, *History of Business*, 91. Bliven, *The Wonderful Writing Machine*, 74. The statistics are reinforced by a search across American newspapers for the term “lady typewriter” showing classified advertisements for female typists and stenographers growing significantly in the 1880-1885 period.

¹¹⁴ JoAnne Yates, “Investing in Information: Supply and Demand Forces in the Use of Information in American Firms, 1850-1920” in *Inside the Business Enterprise: Historical Perspectives on the Use of Information*, Peter Temin, ed. (Chicago: University of Chicago Press, 2014), 121.

¹¹⁵ J. B. Huling, “Some Type-Writers - Their Origin and Uses,” *The Inland Printer*, 3, no. 10 (July, 1886): 604.

¹¹⁶ “What the Type Writer is Doing,” *Scientific American*, 57, no. 17 (Oct. 22, 1887): 256.

One solution to the challenge of separating women and men was to house female typists in separate rooms. A typing room both isolated women from men, and protected men from the incessant clacking of the typewriters. Women in the typing pool of the National Cash Register Company (NCR) were seated close by one another at long tables (**Fig. 2.34**). Physical separation of bodies was not necessary in a female only zone, so close association of bodies was allowed.¹¹⁷ In 1940, NCR housed 4,000 employees in its office, 500 of them women.¹¹⁸ Large corporations had enough female employees to justify a separate space, but the solution was not ideal for smaller businesses. Like the financial challenge of building a segregated school for a few black children in small towns, building or leasing space for just a few female clerks was cost prohibitive. A less expensive and more efficient solution was to integrate women into the office floor close to male clerks they supported.

Some offices in the 1890s repurposed letterpress stands as supports for typewriters (**Fig. 2.35**). The stands were becoming obsolete with the advent of carbon paper to copy outgoing documents. Inexpensive letter-press stands did not provide typists with a significant physical barrier for her body, nor a defined space consistently under her control. The stands were transient workspaces – lightweight and designed to be easily moved about as needed. Businesses interested in providing a female typist with a robust zone of protection purchased a center-lift typewriter desk. Derby & Kilmer Company of

¹¹⁷ On methods of office arrangement see Sheridan H. Graham, “The Arrangement of an Office,” in A. W. Shaw Co. (The System Co.) *Office Methods* (Chicago: A. W. Shaw Company, 1908), 18; and Scott, *Increasing Human Efficiency*, 128-130.

¹¹⁸ Alfred A. Thomas, *National Cash Register Factory* (National Cash Register, 1904), 16.

Boston, roll-top desk specialists, introduced a flat-top typewriter desk in an 1891 catalog that defined a protected place for female typists in offices (**Fig. 2.36**).¹¹⁹ Unlike letterpress stands, typewriter desks provided a set of drawers for keeping stationery and forms, but the main advantage of a typewriter desk over generic tables and letterpress stands was a solidity that communicated permanence. Typewriter desks defined a space under a woman's control and provided a considerable physical barrier between her body and the body of her male coworkers.

Furniture manufacturers integrated typists into clerical work through the design of a desk that visually coordinated with the desks of male clerks, thereby announcing her as a productive member of the organization, but that reduced the potential of conflict with jealous male clerks by differing significantly in form and function. Manufacturers offered two types of typewriter desk: a side-lift designed primarily for writing, and a center-lift desk designed primarily for typing. Through functional affordances and promotional materials, manufacturers gendered center-lift typewriter desks as female. The Fred Macey Company advertised the two types of desk on opposite pages of their 1903 Christmas Gifts catalog (**Fig. 2.37**). The company promoted its center lift desk as a gift for female stenographers and its side lift desk for those (men) who “are their own stenographers.”¹²⁰

¹¹⁹ Typewriter “cabinets” and a cylinder “business desk” were shown at the 1876 Philadelphia Centennial made by Densmore, Yost & Company; see Asher & Adams, *Asher & Adams' New Columbian Rail Road Atlas and Pictorial Album of American Industry* (New York: Asher & Adams, 1876), 9. William Horrocks of Ilion, New York patented a retractable typewriter / sewing machine desk in 1883; see William Horrocks, “Cabinet for Type-Writers or Sewing-Machines,” U. S. Patent no. 281, 765 (July 24, 1883). No record has been found of either the Yost or Horrocks's desks being produced. Horrocks later founded a large desk manufacturing firm in Herkimer New York (a center of desk manufacturing at the turn of the century).

¹²⁰ After 1900 major office furniture manufacturers included both roll-top and flat-top typewriter desks in their catalogs. Roll-top versions similarly privileged typing over writing. Examples are

The catalogs of other manufacturers also consistently portrayed women as the typical user of center-lift desks (**Fig. 2.38**).

Although similar in appearance when closed, the placement of the typewriter within center-lift desks emphasized rote mechanical typewriting and de-emphasized writing, the more creative and problem-solving side of clerical work, gendered as male.¹²¹ Rather than having the standard center drawer for writing implements, a center lift desk had a mechanism to support the machine. If a closed desktop was used for writing, the design forced users to remove papers to raise the lid and use the typewriter. When closed, the machine lowered into the knee-hole, potentially interfering with the traditional posture of handwriting. When open, the location of the machine impeded writing on the two small surfaces on the adjacent desktop (**Fig. 2.39**). To compensate, some designs included small pull-out trays above the top drawers as auxiliary writing surfaces. Because a center lift desk was time consuming and awkward to reconfigure, the desk remained in the open position throughout the workday, with the machine prominently displayed on its raised platform, a visible flag that gendered the perimeter of the space as a female zone, but also a zone in which the category of work, typing, was less intellectual and therefore a zone of lower status, typically ancillary to the main zone of creative work, the adjacent male pedestal or roll-top desk.

found in Derby & Kilmer Desk Co., *Fifteenth Illustrated Catalogue and Price List Derby Roll-top Desk* (Boston, MA, 1891); A. H. Andrews & Co., *Business Furniture* (Chicago, 1896); and The Globe Co., *Catalogue of Globe Office Desks* (Cincinnati, OH, 1897-1898), 86-88.

¹²¹ The gender separation of work in the office echoed gendered work in manufacturing where women were typically assigned tasks that required manual dexterity and repetition, whereas men were assigned tasks that required physical strength and problem solving. Kwolek-Folland, *Engendering Business*, 3.

In comparison, marketing materials implied that the normal user of side-lift typewriter desks was a man. Men who used a typewriter too much risked loss in status and having their wages set at the same lower level of a female typist.¹²² To de-emphasize feminine work side-lift desks camouflaged the typewriter. The desks had a retractable shelf that hid the machine in the pedestal when not in use. When stored, the only visual indication that a side-lift desk differed from standard roll-top or pedestal desks was a small tambour cover over the top two drawers of the left pedestal (**Fig. 2.40**). The writing surface always remained intact and accessible to privilege a male clerk's handwritten work. Without leaving his chair or removing the papers from his side-lift desk, a male clerk who needed to type a document simply rotated his body to the left, lifted a cover and the machine slid out and up for use. When finished typing, he swung the machine back into the pedestal and dropped the tambour cover. Promotional materials referred to later versions that camouflaged the typewriter behind faux drawer fronts as a "disappearing typewriter mechanism...where clerks or executives have typewriting to do, but do not wish a separate typewriter desk, yet want to have the typewriter in connection with a regular desk."¹²³

¹²² Ida E. Turner, "Is the Typewriter Girl a Success?" *The Philadelphia Stenographer* 1, no. 1 (May, 1890), 10-12. MacKay, "Managing the Clerks," 32-33.

¹²³ Presumably, the Art Metal Construction Company catalog singled out "clerks and executives" because they were male, as opposed to female typewriters who would have used the center lift desks advertised on the same page. See Art Metal Construction Co., *The 1919 Book of Better Business* Jamestown, NY, 1919, 92. For nearly identical examples of typewriter desks see The Fred Macey Co., *Christmas Gifts*, Grand Rapids, MI, 1903; The Moon Desk Company of Muskegon, Michigan, and The Gunn Desk Company of Grand Rapids. See also "A Great Typewriter Desk," *The Furniture Record* 5, no. 3 (August, 1902), 51. "A Clever Catalog," *The Furniture Record*, 4, no. 6 (May, 1902), 60. Photographs of office interiors from *System: The Magazine of Business* in the 1901-1921 period show women seated almost exclusively at center lift typewriter desks. Only one photograph shows a woman seated at a side raise desk, in the small office of the Indianapolis Merchant's Association in 1908; see Daniel Vincent Casey, "Team Work

The center-lift typewriter desk counteracted the potential threat of women to the status of nearby male clerks and opened an opportunity for women to work in proximity to men. Office managers located women in typewriter desks adjacent, or in close proximity, to male co-workers to maximize work-flow efficiency.¹²⁴ The typewriter desk defined borders of an assigned space under her control from which men needed her consent to enter, but allowed her to engage in a quite intimate working relationship should she choose (**Fig. 2.41**). To compensate for limited writing space on her desk, photographs show women seated in typewriter desks used a portion of the desk of an adjacent male clerk as an auxiliary writing surface (**Fig. 2.42**). Although still physically separated, the success of close physical working relationships between men and women over an eight-hour day shrank the gender separation distance of long-held middle-class norms.

Penman's Art Journal praised the introduction of the typewriter for bringing women into the office, and along with them “an element of decency and purity” that would tame the more crude behaviors of all-male spaces.¹²⁵ Working as a team, with a male clerk dictating and a female clerk typing, furniture design and arrangement extended prevalent roles of woman as caregiver in the home into the office space but also affirmed women's value in the business sphere. To seat a woman at a typewriter desk on the clerical floor was to acknowledge her as a vital cog in the machinery of the office. The desk was so important to the success of a female clerk that in 1903 The Fred Macey

for Wider Retail Trade” *System: The Magazine of Business*, 14, no. 5 (November, 1908): 455.

¹²⁴ Strom, *Beyond the Typewriter*, 177.

¹²⁵ “What the Type-writer is Doing,” *Penman's Art Journal* XI, no. 2 (February, 1887), 21.

Company encouraged bosses to give their stenographers a typewriter desk at Christmas. The catalog justified the gift in transactional terms, as she would “unquestionably give her employer in her next year’s work many times its value.” In an appeal to a belief in feminine sensitivity to aesthetics, the company warranted that when “nice things extend to the stenographer the results are sometimes marvelous.”¹²⁶

The assumption that a woman would be delighted by a desk as a Christmas gift indicated an affinity between women and their desks that differed from men. For men, desks were tools, and increasingly an object of control. For women, the typewriter desk was armor that protected her body from unwanted male contact, but also freed her to interact with men in prescribed activities. Women used the opportunity of heterosocial mixing to interact in a manner unintended by furniture designers. In large rooms with dozens of male clerks, typewriter desks subjected women to scrutiny of her coworkers, but typewriter desks were also watchtowers from which unmarried women could closely examine and learn from the behavior of male co-workers. Typewriter desks helped female office-workers wrest courtship from the watchful eye of Victorian families. In 1900, about 90% of women clerical workers were unmarried and about 80% of unmarried clerical workers lived at home.¹²⁷ Office work freed a woman from geographic and financial constraints that circumscribed her participation in the public sphere. In an essay about cultural changes in the United States in the 1890s, Rudyard Kipling described a new urban denizen, a “typewriter maiden earning her own bread in this big city, because

¹²⁶ The Fred Macey Co., *Christmas Gifts*, 1903.

¹²⁷ MacKay, “Managing the Clerks,” 35.

she doesn't think a girl ought to be a burden on her parents, who quotes Theophile Gautier and moves through the world manfully, much respected for all her twenty inexperienced summers."¹²⁸

Sociability in offices between unmarried women and bachelors not only subverted courtship norms but also changed gendered power dynamics. Frequently fiction writers in stenographer journals expressed anxiety that women who worked for low wages in offices were being exploited. In a melodramatic short story published in *The Typewriter and Phonographic World* in 1903, conservative critic Anne Mahon wrote:

In an office on the seventh floor sat a young girl at the typewriter, working as if her life depended on it. Many times the tears in her eyes blurred the lines so she could hardly read her notes. She had worked so hard all day—such responsible, worrying work. It was done rapidly, neatly and accurately, yet there had been nothing but blame and faultfinding. The head of the office was “out of sorts,” and he vented his temper alike on the guilty and the not guilty.¹²⁹

At the end of the story she is saved from her pecuniary circumstances when her boss swoops in to marry her. In an 1889 column published in the *Chicago Tribune* and republished in *Browne's Phonographic Monthly*, Willice Wharton portrayed the financial constraints of working class typewriters paid small salaries who “have to undergo all the horrors of ‘scrimping...eat a slice of bread and butter, washed down by a draught of lake water, for luncheon,” and “walk several miles to economize on car fare.”¹³⁰

¹²⁸ Rudyard Kipling, “American Politics,” in *The Complete Works of Rudyard Kipling* (New Delhi, India: General Press, 2017).

¹²⁹ Anne Guilbert Mahon, “Ill Blows the Wind That Profits Nobody,” *The Typewriter and Phonographic World* 21, no. 2 (February 1903), 107-111. Mahon wrote frequent newspaper articles espousing conservative views on motherhood and the responsibility of women to maintain a moral home.

¹³⁰ Willice Wharton, “Life of a Typewriter” *Chicago Tribune* (November 9, 1889), 12.

Like Theodore Dreiser's *Sister Carrie*, the young woman adrift in the big city was a trope of turn of the century literature, but in her survey of the genre of stenography magazine fiction, historian Carole Srole found that most fiction portrayed stenographers not as victims but as New Women.¹³¹ Beth Morgan, heroine of a 1903 story titled "One Way: How a Plucky Girl Stenographer Demanded and Obtained a First-Class Situation," is described as "independent," and resistant to her families attempts at controlling her romantic life. She was "not of a mind or temperament to enter into the schemes of her ambitious aunt to capture for herself a rich husband...She wished to earn for herself a place in the world." She gets her job by finding the strength and power to stand up to a boorish prospective boss who only respects women with "sass."¹³²

The quasi-sexual titillation of a powerful woman in a male world was enhanced by typewriter desks that set women's bodies in visible locations for male inspection. The "pretty" typewriter was another trope frequently portrayed in stenography magazines. In "The Typewritten Letter," a short story published in McClure's Magazine, the central character, Miss Gale, as "pretty, of course – all typewriter girls are."¹³³ In "Two Typewriter Types," an 1892 poem republished from the *London Phonographer*, the author contrasts the "practical, earnest and bright," typewriter with a portrayal of a more

¹³¹ Theodore Dreiser, *Sister Carrie* (New York: Doubleday, Page & Co, 1900), 16-19; Carol Srole, *Transcribing Class and Gender: Masculinity and Femininity in Nineteenth-Century Courts and Offices* (Ann Arbor: University of Michigan Press, 2009), 163-165.

¹³² Mrs. C. H. Brake, "One Way" *The Typewriter and Phonographic World* 22, no. 2 (August, 1903), 91-95. In Dreiser's novel, Carrie faces nearly identical gruff refusals when asking for work in offices. Twice she is asked if she is a typewriter or stenographer, but she lacks those skills. She ends up working as a machinist.

¹³³ Robert Barr, "The Typewritten Letter," *McClure's Magazine*, II no. 5 (April, 1894), 446, reprinted in *The Typewriter and Phonographic World* 26, no. 5 (November, 1905), 268-272; and *The Railroad Trainman's Journal*, 20, no. 5 (May, 1904), 342.

frivolous type:

Oh, here's to one type of the type writer girl,
Who comes to the office at ten,
Whose bleached Psyche twist terminates in a curl,
Whose thoughts are of marriage and men!
She sits on her feet in a soft easy chair,
And prays that no business may come;
And reads French novels of love and despair—
The while her jaw masticates gum.¹³⁴

An editorial in a 1912 edition of *The Phonographic World* described “the pretty and tasteful dresses of girl workers in offices,” as “sometimes all that exists to brighten the aspect of these dull holes.” “The man in the office frequently isn’t ornamental, and if the artistic side of our business life isn’t to be neglected the women will have to be permitted to use their most excellent judgment as to what they shall wear around the typewriter desk.”¹³⁵

Though portrayed as the subject of the male gaze, it was surveillance a woman could choose to leverage to catch the romantic eye of male co-workers and supervisors. Some young women used a typewriter desk as a way station on her journey from the family home to the conjugal home.¹³⁶ Stenography journals fictionalized a common occurrence described in newspapers. In 1906/1907 *The New York World*, *Wichita Daily*

¹³⁴ “Two Type-writer Types,” *The Phonographic World* 7, no. 10 (June, 1892), 393.

¹³⁵ “Our Stenographic Cousins,” *The Phonographic World and Commercial School Review*, 40, no. 6 (December, 1912), 301-302.

¹³⁶ Srole, *Transcribing Class and Gender*, 162-163; Several historians have investigated the relationship between architecture and gender in the financial industry: see Kwolek-Folland, *Engendering Business*, 94-105; Julie Berebitsky, *Sex and the Office: A History of Gender, Power, and Desire. Society and the Sexes in the Modern World* (New Haven: Yale University Press, 2012); and Michel Foucault, *The Order of Things*, xv-xxiv. Courtship changed dramatically in the late 1890s as young women moved to cities and entered the workforce: see Beth Bailey, *From Front Porch to Back Seat: Courtship in Twentieth-Century America* (Baltimore: Johns Hopkins University Press, 1988); and Peiss, *Cheap Amusements*.

Eagle, *St. Louis Post-Dispatch*, and *Los Angeles Herald* printed an article that described “the quiet little girl in the black dress and the white turned-over collar and cuffs who seems to be capturing the millionaire.” The article went on to describe several local cases but carefully defined stenographers as productive helpmates not gold-diggers marrying for money without love.¹³⁷

Since the 1880s, middle-class white women who worked fed into racial tensions and anxiety about race suicide due to declining white birthrates.¹³⁸ Many white Americans feared that a woman might choose to work rather than marry and thereby abdicate her obligation to maintain racial proportions by having children. Lower birthrates would threaten white cultural dominance. Office furniture designed to create safe spaces for women contributed to the anxiety. At her typewriter desks or in her filing room, a woman could safely find a husband, but within a society of female clerks, she could also form a sense of occupational pride and selfhood independent of men.

An 1899 poem published in the shorthand magazine *The Gregg Writer* described a male clerks thrill, and anxiety over the proximity of a female typist in the office:

¹³⁷ “Take a Stenographer,” *The Wichita Eagle*, August 16, 1906, 14; “Stenographers as Wives,” *The Winnipeg Tribune*, February 2, 1907, 19; “Stenographers as Wives – Blonde or Brunette,” *Los Angeles Herald*, August 29, 1906, 6; “Stenographers Supplant Chorus Girls as Brides of Wealthy Men but not as Divorcees,” *St. Louis Post-Dispatch*, August 26, 1906, 1. Other examples include: “No Divorce,” *Lincoln Journal Star* (May 19, 1903), 2; “Married his Stenographer,” *Jackson Daily News*, March 13, 1910, 11; “Married His Stenographer,” *Buffalo Courier* (April 21, 1899), 8; “Stenographer-Wives,” *The Greenville Daily News*, October 24, 1910, 4. Srole outlines how shorthand magazines carefully protected women from accusations of gold digging by rejecting stories about loveless marriages based on money. Srole, *Transcribing Class and Gender*, 149.

¹³⁸ For a discussion of race and the evolution of the skyscraper see Adrienne Brown, *The Black Skyscraper: Architecture and the Perception of Race* (Baltimore: Johns Hopkins University Press, 2017), 1-17.

The click of the keys as her fingers fly,
 And the ring of the silvery bell,
 I hardly hear; though I sit quite near,
 Enchained by her magic spell.”¹³⁹

Entranced, sitting nearby he “dare not tell” of his passion because, he concluded later in the poem, “she gets sixteen dollars a week, and what does she want of me?” Working daily in a space with a wage-earning woman who may have earned close to his wages discomfited a young man raised to be the breadwinner and who may have expected to lure her affection through superior earnings. A previous generation of clerks defined their respectability through their domination of women, but by the turn of the twentieth century, the earning potential of women had begun to erode male clerk’s supremacy.¹⁴⁰ Forced by furniture into proximity, attraction and jealousy mixed in an environment in which men learned to adjust to a woman in greater control of her finances and romantic pursuits.¹⁴¹

The rapid hiring of women forced a critical reconsideration of the relationship between middle-class white men and women in the public sphere. Victorian mores that emphasized the need to protect the vulnerability of middle-class women came into conflict with close association and fluid communication required for efficient business practice. Rules of behavior that emphasized standing when a woman entered a room, or policing of language in a woman’s presence were challenged by the frequent occurrence

¹³⁹ “The Typewriter Girl,” *The Gregg Writer* 1, no. 4 (July / August 1899), 1.

¹⁴⁰ On antebellum clerk’s relationship to women in sexual domination and courtship see Luskey, *The Clerk’s Tale*, 177-205.

¹⁴¹ A parallel process was occurring among working class women, “charity girls,” who sought out men to treat them. See Kathy Peiss, “Charity Girls and City Pleasures.” *OAH Magazine of History* 18, no. 4 (2004), 14-16; Smuts, 122-123; Bliven, *The Wonderful Writing Machine*, 78, and Current, *The Typewriter and the Men Who Made It*, 117-119.

of women seated beside men and moving in and out of offices to take dictation, and deliver and collect files.¹⁴² Advice books warned young women to avoid casual interactions with men, yet women were expected to work directly with male supervisors. “Above all things,” advice book author Ruth Ashmore warned, “have the greatest care about accepting compliments from any man who is placed in a superior position over you in business.”¹⁴³

Spring-back chair

Some women used the typewriter desk to their romantic advantage, but the design intent of manufacturers was to maximize efficient work. To help her achieve maximum productivity manufacturers introduced the spring-back chair as a counterpart to the typewriter desk (**Fig. 2.43**).¹⁴⁴ Whereas office chairs designed for male clerks and executives supported calm, contemplative postures designed to encourage them to stay in their seats, spring-back chairs discouraged relaxation by manipulating bodies of typists into active, upright, ideal postures for rapid typing.

Classroom furniture manufacturer A. H. Andrews Company translated concern for the body of schoolgirls to the body of female typists when the company introduced

¹⁴² Kwolek-Folland, *Engendering Business*, 113.

¹⁴³ Ruth Ashmore, *The Business Girl in Every Phase of Her Life* (Philadelphia: Curtis, 1898), 15-20, 23. Caroline A. Huling, *Letters of a Business Woman to Her Niece* (New York: R. F. Fenno, ca. 1906), 56-64. The compromise of women’s corporeal and sexual safety in exchange for occupational advancement echoes time and again in American labor history, through the twenty-first century #MeToo movement.

¹⁴⁴ The chair was also referred to as a *stenographer* or *typewriter* chair after the occupation of its primary users.

one of the earliest and most persistent designs for a spring-back chair (**Fig. 2.44**).¹⁴⁵ The Andrews spring-back chair adapted an innovative twisted wire technique to reduce visual mass and weight. The delicate and feminine appearance of the chairs was intended to visually complement female bodies - a version of which was also marketed for ice cream parlors and cafes.¹⁴⁶ Advertisements for spring-back chairs emphasized both interest in productivity and a concern for the health and comfort of women that was reminiscent of the concern of marketing materials and guidebooks for the body of girls seated in school furniture (**Fig. 2.45**).¹⁴⁷

The spring-back chair had functional similarities to office chairs designed for men: both had swiveling, height-adjustable seats and frequently rolled on casters, but other features gendered the chair as female. Like the thrusting uprights of the early pedestal chairs for school children, the back of the spring-back chair mimicked an upright spine, as opposed to a comfortable gentle curving embrace of an office chair or executive seat (**Fig. 2.46**). Seats were much smaller, minimally upholstered and rotated but did not tilt like men's office chairs. The chairs were named for an adjustable height back attached

¹⁴⁵ Prolific inventor Herbert Andrews, of the A. H. Andrews Company, patented a "Type-Writer's Chair," in 1896. Herbert L. Andrews, "Type Writer's Chair," U. S. Patent, no. 552,502, January 7, 1896. Smith N. McCloud patented a spring back office chair in 1901 and assigned the patent to the other major manufacturer of typewriter chairs in the United States, The Davis Chair Company of Maryville, OH. Smith N. McCloud, "Adjustable Spring-back Chair," U. S. Patent, no. 681,566; *System: The Magazine of Business*, 12, no. 6 (December, 1907), advertising section.

¹⁴⁶ The company used the same technique to make chairs for cafes and ice-cream parlors.

¹⁴⁷ Spring back chairs occasionally marketed for men carried the same concern for physical health. A spring-back stool was marketed for bookkeepers, but manufacturers typically advertised spring-back chairs for use by female typewriters and stenographers. A circa 1904 description from a catalog of The Fred Macey Co. described the "Typewriter Chair," as a style "meeting with much favor, especially with lady stenographers." The qualifier of "lady" stenographer implied that some men continued to work as stenographers, but that the spring back seat was more popular with women. See The Fred Macey Co., *Office and Library Furniture Catalog "A"* (Grand Rapids, MI, ca. 1904), 20-H.

to a spring mechanism under the seat that maintained forward force on a sitter's back to encourage her to lean toward the typewriter.¹⁴⁸ The chair, her body and the typewriter were unified into a machine for translating the words of male dictators onto the typewritten page.¹⁴⁹

While seated, spring back chairs encouraged, and to a degree enforced, an upright posture, the chairs did less to restrain the bodies of women than did office chairs for men; the chairs did not have arms that might interfere with the action of typing or impede a stenographer's repeated forays from her typewriter (**Fig. 2.47**). A stenographer was a typist who also used shorthand to take dictation. Stenographers were permitted more fluid movement through office spaces than male clerks – movement that managers often saw as a potential for flirtations and distraction from efficient work. In his 1917 proto-feminist novel *The Job*, Sinclair Lewis described an office in which efficiency experts arranged to have office boys serve stenographers water every two hours. Lewis sarcastically observed that “Thitherto, the stenographers had wasted a great deal of time in trotting to the battery of water-coolers, in actually being human and relaxed and gossipy for ten minutes a day.”¹⁵⁰

To take dictation, a stenographer left her spring-back typing chair to travel to the desk of a male clerk where she frequently sat upon a domestic bentwood or Windsor

¹⁴⁸ Manufacturers marketed the chairs as piano stools for a similar reason, the chair encouraged the occupant to lean into the keys of the piano, the same way it did for stenographers leaning into the keys of the typewriter.

¹⁴⁹ The editors of *The National Stenographer*, a monthly illustrated magazine, warned that stenographers work was being considered by corporate managers as purely mechanical, thoughtless, and machine-like. “The Stenographer’s Side of the Question,” *The National Stenographer* (April, 1890), 157.

¹⁵⁰ Sinclair Lewis, *The Job An American Novel* (New York: Harper & Brothers, 1917), 230-231.

chair. Using a phonetic alphabet of calligraphic marks, she recorded the speaker's words in real time (**Fig. 2.48**).¹⁵¹ Taking dictation required intense and alert focus on the speaker, and put women into intimate, face-to-face physical communication with male clerks and executives in a traditional gender hierarchy. The posture portrayed in photographs and advertisements shows stenographers often leaning on the extendable writing surface of his desk. She then returned to her typewriter to rapidly translate her notes. Whereas a male clerk's chair allowed for both a relaxed posture seemingly conducive to thinking, a spring-back chair offered no such intellectual support. Manufacturers assumed stenographers were solely robotic subordinates hired to relieve male clerks and executives from the mechanical act of hand writing letters, but often a stenographer needed to be more than just an interface with the typewriter. She had to understand the business well enough to fill in crucial bits of information that smoothed over prose as she typed letters.¹⁵² Spring-back chairs did not encourage her to sit back, to think about what she was transcribing, to discuss it with nearby associates. The design was discordant with the critical thought required to be an effective stenographer and emphasized one thing only – typing – for the consumption of male clerks whose status was threatened by female competence. The possibility of women as intellectual workers within the office was more readily acknowledged by designers of another new furniture form, one often designed to be placed at a spatial remove from clerks: filing cabinets.

¹⁵¹ The Thonet Number 14 chair, sometimes referred to as the “Cafe Chair” is arguably the most widely distributed chair ever made. Furniture historian Christopher Wilk considers it the first consumer chair. The chair entered production in 1859 and continues to be made 160 years later. The chair is ubiquitous in cafes because its comfort level is designed to discourage lingering overly long. See Wilk, *Thonet*, 33.

¹⁵² Strom, *Beyond the Typewriter*, 18-19.

Letter and document files

“Every merchant ought to keep an exact copy of all letters on business which he dispatches; and the letters he receives from his correspondents should be so carefully arranged, as, should he have occasion to refer to them, he may be able to do so without the loss of time required to search for them.” B. F. Foster, *The Clerk’s Guide*, 1837.¹⁵³

B. F. Foster, founder of Foster’s Commercial Academy and author of several early and influential treatises on bookkeeping, insisted upon methods to keep “the “wheels” of business from becoming “clogged” by the explosion of paper.¹⁵⁴ “To do this,” he argued, “it must be, like everything else, done by system.”¹⁵⁵ The application of “system,” as a regular method of procedure became a byword of business practice in the nineteenth century. Clerks were the machinery of the profitable merchant’s office of the 1830s, regulated by systematic procedures “like the fly-wheel upon a steam engine.”¹⁵⁶ Foster responded to an increase in the flow of information at the founding of American corporate enterprise. Presaging the late-nineteenth century emphasis on standardization and efficiency, Foster considered business “nothing in the world but habit, the soul of which is regularity.”¹⁵⁷

Foster was concerned that pre-industrial methods of document maintenance were incomplete, inaccurate, physically cumbersome, and too time consuming for the increased pace of business. Clerks logged incoming letters, invoices, receipts and contracts into day books; and then, because American paper sizes were not standardized,

¹⁵³ B. F. Foster, *The Clerk’s Guide* (Boston: Perkins & Marving, 1837), 31.

¹⁵⁴ Foster, *The Clerk’s Guide*, 28-36.

¹⁵⁵ Foster, *The Clerk’s Guide*, 221.

¹⁵⁶ Foster, *The Clerk’s Guide*, 214.

¹⁵⁷ Foster, *The Clerk’s Guide*, 214.

clerks folded documents to a consistent three-inch width, endorsed the back with the name of the writer and the date, and placed the document into a pigeonhole at their counting-house desks or in shelving units, grouped by name, date, geography, or by a clerk's own methods.¹⁵⁸ Once a pigeonhole was full, papers were gathered into bundles, tied with a string and moved to storage boxes. To find a particular paper in storage required consulting a ledger index, locating and accessing the correct storage box, opening it and removing bundles until the correct bundle was found, untying and sifting through all of the papers in the bundle to locate the document, consulting it, replacing the document, retying the bundle, replacing all of the bundles in the box, and replacing the box.¹⁵⁹

Outgoing letters continued to be recorded in chronological order in massive copy books using a copy-press developed in the eighteenth century (**Fig. 2.49**). Clerks placed a wet sheet of absorbent tissue against the letter to leave a copy in a large book. Copies were arranged chronologically, cross listed in an index ledger, and the copy books and ledgers stored either on a nearby shelf, or in a double height drawer on the lower right of the clerk's desk.¹⁶⁰ As manufacturers, banks, insurance companies, and wholesalers engaged with distant markets, correspondence increased dramatically but the existing methods of document management were tedious, time consuming and prone to

¹⁵⁸ Some offices pasted documents into ledgers, while others used ledgers to record a synopsis. The various systems are described in a flyer for the national Cabinet Letter File. See Culver, Page, Hoyne & Co., "National Cabinet Letter File," flyer, ca. 1855-1883, and *Business: A Practical Journal of The Office* (July, 1891), 136.

¹⁵⁹ *Business: A Practical Journal of the Office* (July, 1891), 136.

¹⁶⁰ William H. Leffingwell, "The First Half Century of Office Management," in *Proceedings of the 10th Annual Conference National Office Management Association, 1929* (1930), 7-8.

inaccuracy.

Business leaders needed centralized storage and accurate, rapid retrieval methods to access information critical to decision making in a more complex business environment. Manufacturing expansion during and after the Civil War made immediate and accurate document retrieval systems imperative to respond to orders, collect on invoices and guide strategic planning. Clerks and executives needed immediate access to stored information. Outdated pigeonhole filing systems had limited volume and were too idiosyncratic. Clerks were castigated for holding information needed by others further along the system of information processing. In response to the problems of existing document storage methods, manufacturers designed furniture-based systems that transformed the responsibility of individual clerks in the process of managing paper-based information.¹⁶¹

The first manufactured filing systems of the 1870s and early 1880s adapted the basic pigeonhole into specially designed cardboard or wooden document storage boxes that stood documents on-end to permit users to find an individual document without having to handle the entire bundle (**Fig. 2.50**). Document storage cabinets centralized access but finding the location of a stored document was slow, and the system did not have a consistent indexing system for rapid retrieval of documents from storage. In 1869,

¹⁶¹ Braverman, *Labor and Monopoly Capital*, 307. Braverman identified the 1910s as the period when scientific management was put into practice by office managers, but in the 1870s and 1880s objects and systems designed by furniture manufacturers streamlined and controlled the flow of documents well in advance of the efficiency engineer with a stop watch in the 1910s. See JoAnne Yates, "Investing in Information: Supply and Demand Forces in the Use of Information in American Firms, 1850-1920," in *Inside the Business Enterprise: Historical Perspectives on the Use of Information*, ed. Peter Temin (Chicago: The University of Chicago Press, 1991), 117-159; Zunz, *Making America Corporate*, 106.

William A. Amberg of Chicago patented a system designed to collect unfolded papers into boxes with a permanent index (an “Indexicon”) that transferred into storage when the box was full (**Fig. 2.51**). The Amberg “Cabinet Letter File” stored papers horizontally behind individual printed indices that improved accuracy and speed of storage, retrieval, and replacement. Instead of sifting through bundles of folded documents, clerks had a system for nearly instantaneous touch-free location by sight. Amberg designed and patented a cabinet that held letter files in a central location. The central unit relieved an individual clerk of responsibility and control of information at his desk, made the records available to multiple users, and offered optional secure doors to prevent tampering.

Amberg’s background was typical of early industrial designers – he drew upon first-hand understanding of manufacturing systems.¹⁶² He conceived of his designs based on experience as a bookkeeper for a large stationery manufacturing firm.¹⁶³ The firm manufactured tags, forms and other printed tools used by mid-century factory managers to coordinate client and supplier records. Amberg leveraged knowledge of manufacturing organization, printing technology, paper processing, and business management to develop parameters of modern filing systems: centralized storage, immediate accessibility, and standard indexing.¹⁶⁴ The organization of information into files and folders became so

¹⁶² See William A. Amberg, “Improvement in Paper-Clips,” U. S. Patent, no. 92, 141, July 6, 1869; William A. Amberg, “Improvement in Temporary Binders,” U. S. Patent, no. 169,667; November 9, 1875; and William A. Amberg, “Improvement in Letter-File Cabinets,” U. S. Patent, no. 171, 495, December 28, 1875.

¹⁶³ William A. Amberg was of German descent, born in the United States, but raised until the age of 4 in Bavaria. He had a public-school education, and worked as a clerk in a dry goods store for five years before moving to Chicago

¹⁶⁴ A. T. Andreas,” William A. Amberg,” in *History of Chicago Volume 3* (Chicago: A. T. Andreas Company, 1886),688. The profile of the Amberg Filing System was raised significantly when he displayed the cabinet at the 1876 Centennial Exhibition to great acclaim. See Asher & Adams,

ingrained in modern conceptions of knowledge that the parameters and terminology transferred into the digital realm a century later.¹⁶⁵

In the 1880s, a letter file manufacturer claimed that businessmen who previously considered letter cabinets a “commercial luxury,” now “universally approve...the principal of filing papers by a system.” No longer would clerks fold, endorse, number, bundle, and transfer papers from various pigeonholes to boxes using their own proprietary systems.¹⁶⁶ Horizontal file systems participated in the trend toward divided, deskilled clerical labor. A purchased filing system reduced creative mental work previously done by bookkeepers and clerks to devise systems of storage to standard practice. Filing became “perfectly apparent and simple upon examination of the cabinet.”¹⁶⁷ Clerks did not have to give thought to how to distribute and label the drawers. Patented Amberg pre-printed indices distributed American surnames and company names into manageable subdivisions. Purchasers needed only to specify the

Asher & Adams' New Columbian Rail Road Atlas and Pictorial Album of American Industry (New York: Asher & Adams, 1876), 92. The system became an industry standard, copied by other office furniture manufacturers, and produced through at least 1920, even after the introduction of vertical files. The Amberg method of filing loose individual sheets in boxes with indexes went by several names, letter files, document files, Shannon files (a brand name), loose sheet files or box files. Major furniture manufacturer Yawman & Erbe published letter files in their 1916 text book on filing and continued to sell “loose sheet files” and “Shannon files.” See Yawman & Erbe Mfg. Co., *Modern Filing: A Textbook on Office System* (Rochester: Yawman & Erbe Mfg. Co, 1916); and Yawman & Erbe Mfg. Co., *Filing Equipment Cat.*, no. 3230 (Rochester: Yawman & Erbe Mfg. Co, 1920), 10. Art Metal Construction Co. and others also sold the system into the twentieth century.

¹⁶⁵ For a discussion of the importance of filing in new ways of conceiving information in the twentieth century and how materiality of information persists see Craig Robertson, “Learning to File,” *History of Technology and Culture*, 58, no. 4 (October, 2017): 955-981.

¹⁶⁶ See The Globe Co., *Catalogue of Office Appliances, Filing Cabinets, Desks, Book Cases, Etc.* (Cincinnati, OH, ca. 1884-1889), 12.

¹⁶⁷ In 1884 The Globe Co. (later the Globe-Wernicke Company) introduced a nearly identical system called the “Ideal File” The Globe Co., *Catalogue of Office Appliances* (1884-1889), 12.

number of drawers based on the firm's volume of annual correspondence and the manufacturer devised and included an appropriate index. The Amberg Company produced cabinets and licensed patents and trademarks to other companies to spread the system across the corporate landscape.¹⁶⁸

The letter file system improved the efficiency of finding documents distributed across the desks of multiple clerks, but rapid retrieval was only possible for recent documents. As boxes filled during the year, clerks or office boys emptied the working file boxes and placed the papers in transfer boxes for long term storage. The job entailed recording the dates and location of the storage box in a ledger and making a new index for each box. The collected papers made the transfer boxes heavy and cumbersome to move and access, especially if stacked and moved to distant or inconvenient storage sites. Retrieving papers from long-term storage required time-consuming cross checking of storage ledgers to find the right box.

Vertical Files

In the 1890s office, systematized management principals drove manufacturers to design scalable furniture-based systems of information management. Businesses reorganized into departments divided the work of clerks in assembly line fashion, passing and cross-referencing solicitations, bids, sales, contracts, purchase orders, receipts, invoices, and payments. Copies of all correspondence were annotated and set aside for later reference to protect against fraud and suits and to generate reports to guide the

¹⁶⁸ Amberg made a fortune from the trademarked indices that are still used today. He bought and remodeled a mansion in Mackinac Island Michigan – Edgecliff Cottage.

enterprise.¹⁶⁹ The outdated letter press required considerable effort to operate. In 1905, filing cabinet manufacturer Yawman & Erbe produced an alternative, a rapid rolling copier. The company promoted the technology with an image of a young woman effortlessly operating the new machine opposite an office boy straining to make a copy using the outdated letter press. The image in the catalog associated young women with a machine that reduced effort and increased efficiency.

Typists used multi-part forms, carbon copies, mimeographs, and other duplicating technology to generate immense amounts of paper documents. The typewriter had a compound effect on the feminization of clerical work: women were both operators of typewriters and filers of paper that the new technology produced.¹⁷⁰ Office managers could not easily increase the capacity of letter and document files nor reconfigure the systems to meet changing storage needs of departments with dozens or even hundreds of clerks. Indexed boxes only permitted a single, simple index insufficient to classify complex layers of information.¹⁷¹

Melvil Dewey, founder of The Library Bureau, revolutionized record storage and retrieval when he marketed library vertical filing as a system for managing documents in

¹⁶⁹ Walter Licht, *Working for the Railroad: The Organization of Work in the Nineteenth Century* (Princeton, NJ: Princeton University Press, 1983), 14-16. Licht describes the division of the Erie railroad into regions and departments with a hierarchy of managers in the 1850s. The organizational structure was improved by the Pennsylvania railroad and published as a manual by J. Edgar Thompson in 1858.

¹⁷⁰ The invention of the mimeograph greatly sped up the number and amount of typewritten copies, as did the introduction of multi-part forms and carbon paper. Thomas Edison patented a process for making rapid copies that A. B. Dick coined the mimeograph when he introduced it to the industry in Chicago in 1887. "The Mimeograph," *The American Stationer* (September 12, 1895), 468.

¹⁷¹ Letter files continued to be sold through 1920, but the systems were relegated to the filing of receipts, memos and other papers that were not referenced frequently.

the office (**Fig. 2.52**).¹⁷² In vertical filing, clerks deposited individual sheets of paper in folders on their long edge, rather than folded upright as in document storage bins, or laid flat in letterboxes. File clerks placed documents into inexpensive heavy-weight paper folders labeled by client, supplier, policy holder, employee, city, or subject. Folders bore labels on staggered tags for instant visual location when placed in deep drawers. Cabinets contained two to five drawers stacked vertically. A collection of vertical file cabinets was an expandable, flexible, accurate, three-tiered classification system that reduced wasted storage space and wasted time to locate information.¹⁷³

Library Bureau vertical files were initially designed for librarians. The design adapted card catalog furniture and indexing technology to store letters, pamphlets, reports, bulletins, and other miscellaneous matter.¹⁷⁴ David E. Hyde assigned to the Library Bureau three patents critical to the success of vertical files. In 1896 and 1902 Hyde patented designs for full-extension drawer slides that permitted a clerk easy reach

¹⁷² Card catalogs date back to at least the 1860s used by banks for client records, railroad companies, electric utilities, and publishers. Melvil Dewey, founder of the Library Bureau, introduced his Dewey Decimal system in 1876. Vertical files first appear in the company's 1900 catalog. Library Bureau, *Classified Illustrated Catalog of the Library Bureau* (Boston, 1900), 112-113.

¹⁷³ Melvil Dewey, *Library Notes: Improved Methods and Labor-savers for Librarians, Readers and Writers* (Library Bureau, 1887), 47. The system was predicated upon the paper industry's movement toward an unofficial standard letter size of 20 cm by 25 centimeters (approximately 8 inches by 10 inches). The standard paper size was partly driven by the standard width of typewriter rollers. In 1921 the United States attempted to set an official government letterhead size of 8 by 10 ½ inches, but it was not successful. It was not until January of 1980 that the United States letter standard 8 ½ x 11 inches.

¹⁷⁴ Manufacturers, banks, and insurance companies also used card systems for inventory tracking, maintaining client accounts, and sales prospecting. The use of cards in libraries grew out from work done by Charles Coffin Jewett in the 1850s at the Smithsonian Institution in Washington, D. C. but use of call slips at Harvard University library had a greater influence on Melvil Dewey. See Markus Krajewski, *Paper Machines: About Cards & Catalogs, 1548-1929* (Cambridge, MA: The MIT Press, 2011), 94.

to papers at the very back of the drawer.¹⁷⁵ The slides also reduced friction, making it easy to open a fully laden drawer. The ease of use satisfied an assumption that female librarians and file clerks lacked the strength to manipulate heavy ledgers and boxes full of documents (**Fig. 2.53**). In 1907, *System: The Magazine of Business* described how women who copied policies from ledgers in the New York Life Insurance Company had to be “athletic damsels,” strong enough to lift and replace large record books from shelves. With a vertical file system managers could hire from a large pool of educated, low-wage women, nearly universally referred to as “girls” in the trade literature, with no physical requirements other than lifting a few pages and opening a drawer (**Fig. 2.54**).¹⁷⁶

The typewriter was a gender neutral object when it entered the culture of the office, its entry coincident with an increase in the number of women in the office; vertical filing, however, was already gendered female through association with the work of

¹⁷⁵ David E. Hunter, “Drawer and Support Therefor,” U. S. Patent, no. 573,978 Dec. 29, 1896; David E. Hunter, “File-Cabinet,” U. S. Patent, no. 696,049 March 25, 1902; David E. Hunter, “Expansible Filing System,” U. S. Patent 722,709 March 17, 1903. The 1903 patent included a mechanism for simultaneously locking all the drawers in a row of cabinets using a crank mechanism, but there is no evidence in trade catalogs or photographs that the feature was widely adopted. Hunter’s basic mechanism continues to be used in full-extension drawer slides. Traditionally, drawers were constructed with sides or runners that closely fit within the height of an opening in the case. When the drawer was fully opened, the design relied upon the friction between the top of the drawer side or runner and the top of the opening to keep the drawer from tilting all the way down or falling out. A file drawer using the old system would have been hard to open and likely “stick,” especially when heavily laden.

¹⁷⁶ “Men and Methods,” *System: The Magazine of Business*, 12, no. 6 (December, 1907): 603. The use of the term “girl,” or “business girl,” to refer to female clerical workers was the norm in journals, textbooks, and in use among female workers themselves. See Kwolek-Folland, *Engendering Business*, 1-3. The trope of a girl or a child demonstrating the ease with which drawers operated existed in domestic furniture marketing for dressers and convertible beds as well. Yawman & Erbe Mfg. Co., *Record Filing Equipment* (Rochester, 1920), 7; Yawman & Erbe Mfg. Co., *Steel Filing Equipment Cat. no. 3500* (Rochester, 1922), 63.

female librarians.¹⁷⁷ Manufacturers reinforced the female gender association of filing cabinets through consistent portrayals of file clerks in marketing materials as well-dressed white women. The conventional image was of a woman standing at an open cabinet with papers in hand, staring into the file drawer (**Fig. 2.55**). If a work surface was located nearby it was typically a simple table (**Fig. 2.56**).¹⁷⁸ In the few instances where men were portrayed filing, the activity was almost always ancillary to more valued written work. A photograph published in a 1907 catalog portrayed men standing at vertical files at the Naturalization Bureau, but the filers also have full pedestal desks covered in stacks of paper, with mechanical office chairs that implied a more active engagement with processing and writing than passive filing (**Fig. 2.57**).¹⁷⁹

Manufacturers of vertical files promoted complex filing methods to achieve near immediate document retrieval. Like the books in a library, papers in a vertical file were indexed in a separate card catalog. Female file clerks mastered indexing methods beyond simple alphabetical, chronological, or geographic classifications. Subject indexing demanded broad understanding of a business to identify significant keywords.¹⁸⁰ A clerk recorded each document on multiple index cards -sender, receiver, company, subjects,

¹⁷⁷ Smuts, *Woman's Place is at the Typewriter*, 153-155. Originally a male occupation, the occupation of librarian responded to the same changes in demographics and economic demands that led women to be accepted into office work. By 1900 most librarians were white, middle-class women. See Christine L. Williams, *Still a Man's World: Men Who Do "Women's Work"* (Berkeley: University of California Press, 1995), 23.

¹⁷⁸ Amberg File & Index Co., *Vertical Filing Cabinets Guides, Folders, Transfer Cases, etc.* (Chicago, IL, 1909).

¹⁷⁹ The Globe-Wernicke Co., *Filing Cabinets, no. 808* (Cincinnati, 1907)

¹⁸⁰ Document files used subject indexing, but the system required filing a separate memorandum for each subject. The vertical file system eliminated multiple memoranda by listing the document on a file index card. For a description see U. S. Desk & Office Fitting Co., *Letter and Document Files* (Chicago, 1892).

geography, and follow up date. Each card was coded based on a numerical index to keep all correspondence together for each party.

Complicated information classification systems required knowledgeable, aware, and imaginative file clerks. Managers created the dedicated position of file clerk to code and operate the machinery of vertical files. Folders, indices, and cards were delivered with the furniture. The catalogs were guidebooks for clerks to use to compensate for businesses that did not invest in employee training.¹⁸¹ Filing system manufacturers also wrote textbooks that emphasized the importance of using their teachable system. Individuals and business schools purchased the textbooks as reference sources. Manufacturers also supplied traveling demonstrators to dealers and teams of experts in office management to help train employees.¹⁸² The standardization of vertical filing systems allowed businesses to shift the responsibility for a portion of training from male clerks to vocational and high schools. The Globe Wernicke Company opened branch schools to train clerks in how to manage paper-based information. The company offered correspondence courses for those parts of the country too distant from its city branches

¹⁸¹ Amberg File & Index Co., *Instructions Vertical Filing The Amberg Way Published for the Benefit of the File Clerk* (Chicago, 1910); Art Metal Construction Co., *The 1919 Book of Better Business* (Jamestown, NY, 1919); Library Bureau, *Library Bureau Systems of Vertical Filing with Interchangeable Unit Cabinets* (Boston: Library Bureau, 1903); The Globe-Wernicke Co., *Filing and Finding Papers by the Globe-Wernicke Safe Guard Method of Vertical Filing* (Cincinnati, 1908-1913); The Macey Co., *First Principles of Filing Systems* (Grand Rapids, MI: The Covell-Hensone Co. Press, 1915); and W. D. Wigent, Burton D. Housel, and E. Harry Gilman, *Modern Filing: A Textbook on Office System* (Rochester, NY: Yawman & Erbe Mfg. Co., 1916)

¹⁸² See A. W. Shaw Company (The System Company), "How to Cooperate in Educating the Local Public," in *How to Sell Office Appliances and Supplies* (Chicago: A. W. Shaw Company, 1911), 43-48; and A. W. Shaw Company (The System Company), "Starting a Supply Business," *How to Sell Office Appliances and Supplies*, (Chicago: A. W. Shaw Company, 1911), 12.

and acted as an employment agency supplying mostly female clerks.¹⁸³ Institutional teaching of filing methods undermined the status awarded male clerks as keepers of specialized knowledge and mentors. Business education also circumvented the possible conflict between a male clerk assigned to train female clerks to do equivalent work.

In early twentieth century, and particularly after World War I, office furniture manufacturers gendered the occupation of file clerk through auxiliary services that highlighted the value of female file clerks. Major file furniture manufacturer Yawman & Erbe illustrated their card service with photographs of dozens of young women who transcribed records from outdated ledgers, (likely filled out by male clerks in the past), into modern card indices using specialized machinery (**Fig. 2.58**). In 1919, the Library Bureau published *Filing as a Profession for Women* to encourage more “women of intelligence and education” to pursue filing as a “permanent profession.” The company developed a staff of female “trained file specialists,” who went into offices, surveyed the filing system, and recommended improvements.¹⁸⁴ In 1920, Yawman and Erbe claimed businesses were incapable of designing their own information management systems. The company’s free “System Service,” provided “Office engineers,” to tailor filing cabinets, furniture and standardized supplies to best suit methods that were “peculiar” to the organization.¹⁸⁵

Instructions Vertical Filing, published in 1912 by The Amberg Company, claimed

¹⁸³ Yawman & Erbe Mfg. Co., *Filing Equipment Cat.*, no. 3220 (Rochester, NY, 1920), 5. The Globe-Wernicke Company, *Filing and Finding* (Cincinnati, 1921), 10.

¹⁸⁴ Library Bureau, *Filing as a Profession for Women* (Boston: Library Bureau, 1919), Preface.

¹⁸⁵ Yawman and Erbe Mfg. Co., *Record Filing Cabinets: Cat. 3220* (Rochester, 1922), 4-5.

that to successfully file by subject a file clerk “must become acquainted with the contents of every letter and be able to classify related subjects under one common head.”¹⁸⁶

Subject coding a letter was individualistic, and transferred to female file clerks some of the proprietary knowledge removed from male clerks when files were centralized.¹⁸⁷ The Library Bureau advocated for women file clerks by refuting a presumption that filing was simply monotonous classifying of information:

She must know what information is helpful to every department of the business...She must know how to ferret out information wanted, even if it is not in her files. For this reason it is necessary for her to clip from newspapers, trade papers, and to search for books that relate to the industry. In addition, she must know authorities and authentic sources of information, so that she may know where to go when someone in her firm demands such information that has not come to the files.¹⁸⁸

Vertical file systems displaced comprehensive knowledge previously held in the heads and at the desks of male clerks and collected it in a central file - the “brain” of the organization that was maintained and supplemented by women (**Fig. 2.59**). Female file clerks were given control of the company’s “brain,” but manufacturers broadcast a fear of them modifying it or being able to manage its complexity. Globe Wernicke admonished file clerks who attempted “freakish,” “impractical,” and “costly experiments” in improvising systems that differed from the company’s standard methods.¹⁸⁹ Amberg published its instructional catalog because nobody “takes the trouble to impart necessary instruction,” to incoming filing clerks who “are consequently left to their own devices

¹⁸⁶ Amberg File and Index Co., *Vertical filing Cabinets*, Cat. no. 18 (New York, 1912).

¹⁸⁷ Amberg File & Index Co., *Vertical Filing Cabinets* (Chicago, 1906, 1910, 1912).

¹⁸⁸ Library Bureau, *Filing as a Profession* (Library Bureau: Boston, 1919), 17.

¹⁸⁹ Globe-Wernicke Co., *Filing and Finding Papers* (Cincinnati, 1913), 6.

and wrong practices ensue.”¹⁹⁰ The Macey Company warned that most people, “especially girls, generally employed as filing clerks, are not at home with figures.”¹⁹¹

Vertical files had no counterpart in domestic furniture. Like typewriters and rolling copiers, managers associated female file clerks with a specialized modern and efficient business tool. Trade catalogs reinforced a preference for female file clerks through illustrations of frustrated men using the outdated letter and ledger filing systems and calm, efficient women with the vertical files (**Fig. 2.60**). The illustrations appear to operate under an explicit deterrent and liberationist logic. Under the title of “A Comparison,” the text invites the viewer to compare the “old style,” with the new modern methods, and by extension, the male clerk with the female clerk. Under an illustration of the female clerk, the Library Bureau used martial language to describe how she calmly and efficiently engaged in “the modern rapid-fire method,” of filing, but is careful to note that the system is “simple,” presumably within the assumed limited organizational capabilities of a young woman. In the other picture the bumbling male clerk, struggled with ledgers and document boxes on the opposite page. To hire a young woman to operate an off-the-shelf filing system saved “the time not only of clerks but of managers, The Library Bureau catalog claimed. It would liberate the manager from having to deal with the messy inefficient work of male clerks.”¹⁹²

Male clerks relied upon women file clerks to store and retrieve documents because their desks were designed to prevent document hoarding (**Fig. 2.61**). The

¹⁹⁰ Amberg, *Instructions Vertical Filing the Amberg Way* (1910), 1.

¹⁹¹ The Macey Co., *First Principles of Filing Systems* (Grand Rapids, MI: The Covell-Hensone Co. Press, 1915), 17.

¹⁹² Library Bureau, *The New Method for Indexing Cards*, ca. 1915.

hierarchy put women in a traditionally gendered service role; it also made male clerks reliant upon women for success at their job. Control of files placed women at a critical juncture in the pursuit of rapid and efficient workflow. The 1916 textbook *Modern Filing* published by furniture manufacturer Yawman and Erbe expressed this conflicted status. The authors described the role of file clerks as “very important but subordinate positions.”¹⁹³

Furniture catalogs targeted to male buyers made light of an absurd, almost antagonistic relationship between men and vertical files as the position of file clerk became firmly feminized in the second decade of the twentieth century. Images show male clerks standing or jumping in open drawers or sitting upon the cabinet as a demonstration of the cabinet’s strength (**Fig. 2.62**). A photograph published in the catalog of manufacturer Globe-Wernicke showed a well-dressed middle-aged man standing stoically inside a drawer, while a woman watched from nearby, one hand protectively holding on to the cabinet. The trope of male aggression began to appear in about 1916, and was so recognizable that the Shaw-Walker Company adopted it as their logo and printed a small silhouette of a man jumping in the drawer of a cabinet on the top of each of page in their catalogs (**Fig. 2.63**). The images expressed an impulsive and boisterous and boyish masculinity that arose in the late nineteenth century partially in response to women entering into office work.¹⁹⁴ Under the guise of rough boyhood, the images also

¹⁹³ A Committee of Experts, “A System for Correspondence,” *System: The Magazine of Business* 7, no. 1 (January, 1905): 93-94. “Over the Executive’s Desk,” *System: The Magazine of Business* 38, no. 1 (July, 1920): 52-53. Wigent, *Modern Filing*, 1916), viii. *Modern Filing* was co-written by an instructor from the Rochester Business Institute and a manager Yawman & Erbe Mfg. Co.

¹⁹⁴ Rotundo, *American Manhood*, 175-177.

communicated male aggression and frustration at having to rely upon lower wage women file clerks. Manufacturers chose to show women in the same catalogs as sober and hard at work (**Fig. 2.64**). The presentation of such contrasting imagery in proximity communicated manufacturer's belief in the strength and resilience of filing cabinets, and by extension women clerks, in the face of male resistance and aggression.

Like the spatial separation built into typewriter desks, manufacturers designed features into filing cabinets that helped managers maintain the required distance between men and women. Modular filing cabinets were sold with panel sides separately to encourage ganging the cabinets into long rows. The most cost-effective method of setting up a vertical filing system was to purchase a full set of interlocking cabinets (**Fig. 2.65**).¹⁹⁵ The cost savings virtually ensured that large corporate offices would protect the "brain" of the organization, and its female keepers, behind walls of file cabinets.

File banks facilitated arrangements that limited accessibility. "A committee of experts," writing in *System: The Magazine of Business* in 1905, insisted that in a well-regulated office the only person allowed to remove and replace filed correspondence was the female file clerk.¹⁹⁶ Corporate managers used banks of four-drawer vertical files to assemble gated rectilinear filing spaces isolated within open-plan offices (**Fig. 2.66**). Limited access from the outside corralled file clerks into female only spaces to limit and

¹⁹⁵ The savings on purchasing 4-drawer Globe-Wernicke "Elastic" vertical files with open sides versus stand-alone units was approximately 20% on runs of six or more, see The Globe-Wernicke Co., *Wood and Steel Filing Cabinets*, Cat. 814, Cincinnati, OH, 1913, 26. The savings on Yawman & Erbe skeleton commercial 4-drawer cabinets versus fully enclosed stand-alone units was 23%. See Yawman & Erbe Mfg. Co., *Record Filing Cabinets* Cat. 916E, Rochester, NY, 1910, 21.

¹⁹⁶ A Committee of Experts, "A System for Correspondence," *System: The Magazine of Business* 7, no. 1 (January, 1905): 93-94.

control interactions with men.¹⁹⁷

As women entered office work in greater numbers at the turn of the century, managers worried about the potential for time wasted in flirtations and sexual distraction. An 1898 advice book published by *Ladies Home Journal* cautioned working women that “masculine human nature is weak, and when things have gone wrong at home there is an immense satisfaction to the average man in getting a sweet sympathy which he probably does not deserve, from a pretty, charming girl who believes in him.”¹⁹⁸ The advice included a warning to avoid “undue familiarity with the clerks with whom you may associate,” since “under present conditions, and in every act of our lives, let us all remember that on each of us rests the dignity of all.”¹⁹⁹ The author implied women were responsible for keeping relationships between men and women platonic not just for her own sake, but to protect the reputation of women in office work.

Advice literature told women that, as a new class in the office, they were all on probation together. Women not only should regulate their own interactions with men but should police the behavior of other women to protect the collective reputation of the gender. *The Business Woman's Journal*, published in the last decade of the nineteenth century, warned readers they should behave because their employer would be unlikely to complain but simply replace her with a young man. To facilitate surveillance a Chicago wholesaler segregated his file department in 1920 so that “no girl [was] out of sight of the

¹⁹⁷ Some file rooms were overseen by men, but most were overseen by women. Chief file clerk was one of the few management positions open to women.

¹⁹⁸ Ashmore, *The Business Girl*, 26.

¹⁹⁹ Ashmore, *The Business Girl*, 26. See also Kwolek-Folland, *Engendering Business*, 63.

chief at any time,” and located access so that “all business is done at the middle of the room, near the chief’s clerk” (**Fig. 2.67**).²⁰⁰ The magazine explained that “we do not feel responsible for the conduct of the young men; but we must remember that the employment of women has not yet in popular estimation ceased to be an experiment, and that the mistakes made by a *few* are recorded against us all.”²⁰¹

Vertical files designed to be arranged into walled enclosures helped women regulate social distance from male colleagues (**Fig. 2.68**). Cabinets provided a semi-permeable barrier under a woman’s control, just as the typewriter desk did for stenographers. The four-drawer cabinet that most corporations used to set off file rooms was low enough that the head of an average height woman just cleared the top of the cabinets.²⁰² The height was the limit for most women to peer easily into the contents of the top drawer. It also allowed male and female clerks to converse over the top but protected them from unwanted and unwarranted physical and visual attention (**Fig. 2.69**).

The female-only file room was a confined, but sheltered arena in which women interacted with one another more freely than they were able to with men. Recruitment

²⁰⁰ “Over the Executive’s Desk,” *System: The Magazine of Business*, 38, no. 1 (July, 1920): 52-53.

²⁰¹ “Homely Hints to Young Women in Business,” *The Business Woman’s Journal* 1 no. 2 (March-April 1889): 50-52. The journal audience was middle-class white women, with a definite political bias towards women’s rights. The publisher, Mary Seymour, included job advice among helpful hints on fashion and physical culture. Seymour also ran several secretarial schools. Writers in the first issue of the journal *Filing* had a distinct anti-female bias, implying that women made mistakes when distracted by men and that few women were qualified to supervise file rooms. *Filing: A Magazine on Indexing and Filing* 1, no. 1 (July, 1918):19; *Filing: A Magazine on Indexing and Filing* 1, no. 4 (October, 1918):131.

²⁰² The height of four drawer filing cabinet unit was 52 – 55 inches. In 1912, the average height of women in the United States and Canada was 64.5 inches, and the average height of men was 68.5 inches. (Conveniently subjects were measured in shoes), “Statistics of Height and Weight of Insured Persons,” *Medico-Actuarial Mortality Investigation* 1 (1912): 21-22, 26. Susan Porter Benson, *Counter Cultures: Saleswomen, Managers, and Customers in American Department Stores, 1890-1940* (Chicago: University of Illinois Press, 1988), 3-4.

literature for filing schools emphasized the occupational separation of women from men in the file room. In 1918, the New York School of Filing placed a full-page advertisement at the beginning of the first edition of the journal *Filing*. The tagline “Assisting woman to come into her own” appeared below an image of eight women at work in a practice file room.²⁰³ The description held a double-entendre, the school both invited women to demonstrate their occupational abilities, but also referred to women entering a feminized physical space. The school’s prospectus explained that the occupation of file clerk was “essentially a profession for women,” and enticed young girls to become file clerks with images of well-lit and ventilated file rooms, where “almost invariably the sanitary conditions are superior to those of the other departments.” (**Fig. 2.70**). Implicit in the description was that file rooms would be a space under the control of professional women set apart from the smoke-filled rooms of men littered with spittoons.²⁰⁴

In the first decade of the twentieth century, companies broadcast their efficiency and modernity through candid photographs turned into postcards that included women scattered among workers. Meat packer Swift and Company prominently placed women in the photo postcard of its sales floor. A series of postcards published by Metropolitan Life Insurance shows rooms of women at work in the filing section and the actuarial division (**Fig. 2.71**). The postcard text celebrates the enormous volume of data under the women’s

²⁰³ *Filing: A Magazine on Indexing and Filing*, 1, no. 1 (July, 1918), 6.

²⁰⁴ New York School of Filing, *Fifth Year* (New York, 1918), 9. The faculty of the school were all women, under the direction of a man. The catalog insisted that decent filing demanded well trained AND well-paid workers. The Library Bureau used a similar enticement in its 1919 text *Filing as a Profession for Women*, illustrated with images of file rooms noting that each was set apart from the other offices, see Library Bureau, *Filing as a Profession for Women* (Boston: Library Bureau, 1919).

control: “the largest outfit of steel filing cases in the world, and “all records here are kept on cards, of which more than ten millions [sic] are filed in this room.” Only one postcard notes the presence of women – the card with the image of the women’s lunchroom. The cards, printed with “Compliments of the Metropolitan Life Insurance Company,” were promotional items intended to advertise confidence through images of women filers and to draw women into the safe confines of the office.

Tub Desks, Card Catalogs, Map catalogs

In the mid-1910s file clerks who managed card catalog systems were subjected to increased control and supervision. Card catalog systems for libraries originated in 1830s and were standardized by Charles Coffin Jewett for the Smithsonian Institution Library in 1853. Melvil Dewey, president of the Library Bureau, popularized their use in commercial settings.²⁰⁵ Every large corporation employed some form of card catalog system - banks, utility companies, factories, government record keeping offices, insurance agencies, publishers, mail order catalog companies, railroad companies, and publishers. File clerks used card systems to maintain client accounts, registries of property, vital statistics, subscription lists, advertising records, and other enumerated data.

The number of cards at firms became tremendous as customer bases expanded. Cabinets to store cards grew to massive size and towered over file clerks.²⁰⁶ Women

²⁰⁵ Guy A. Marco, *The American Public Library Handbook* (Denver, CO: ABC-CLIO, 2012), 69-70.

²⁰⁶ Some men operated tub desks, but card filing, like other forms of filing, was primarily a job for female file clerks by 1920. W. H. Leffingwell, *Scientific Office Management* (Chicago, IL: A. W. Shaw Company, 1917), 179-189; A. W. Shaw Co., *How to Manage an Office: Making Conditions Right for Fast Work* (Chicago: A. W. Shaw Company, 1914), 22.

scaled ladders to reach card files overhead in the filing depart at Metropolitan Life Insurance (**Fig. 2.72**). In the offices of Montgomery Ward, women had to repeatedly walk back and forth between their table and tall card catalogs to remove and replace drawers (**Fig. 2.73**).

Furniture manufacturers applied the strategies of F. W. Taylor's *Scientific Management* (1911) to design office furniture that minimized the motion of users. In 1914, the Library Bureau catalog introduced a card file and desk combination called a "unit record desk," that replaced massive card catalogs (**Fig. 2.74**). The Library Bureau catalog described the card desk as "A NEW appliance for efficiency in the world of business," that put "an immense number of cards... within arm's reach."²⁰⁷ Globe-Wernicke claimed their design enabled a clerk to concentrate and work steadily because it "eliminate[d] the distraction co-incident with moving about from place to place."²⁰⁸ The form adapted the card drawers of a librarian's charging desk that contained a card for every book and asset (**Fig. 2.75**). In libraries, a typically female librarian sat in a prominent location at a charging desk to track books and other assets leant and returned. Like the vertical file, the card desk entered the office with the same gendered attachment from its use in libraries. A basic card desk consisted of two tubs for holding cards with a removable writing surface. The desk could be broken down and the tubs wheeled into a storage vault at night as needed. A more complex version resembled a pedestal desk with

²⁰⁷ Library Bureau, *Unit Filing Cabinets in Wood* (Library Bureau, Boston, 1914), 68. The Art Metal Construction Company manufactured a unit record desk in metal. Art Metal Construction Co., *Steel Office Furniture and Filing Equipment Cat.*, no. 758 (Jamestown, NY, 1916), 62. The desks were also referred to as "card record" desks and tub desks.

²⁰⁸ The Globe-Wernicke Company, *Filing Cabinets: Wood and Steel Cat.*, no. 822 (Cincinnati, ca. 1920), 164.

large open wells covered by a sliding writing surface and several shallow drawers (**Fig. 2.76**). A file clerk was surrounded by thousands of cards she managed without moving from the seat of her desk.

Manufacturers designed card desks to increase supervision of wayward clerks. Soaring card catalogs had obscured bodies and behavior of clerks from supervision. Hidden in a maze of tall card files, clerks could interact casually with female and male colleagues. File clerks were wasting the company's time, according to manufacturer A. W. Shaw, "going back and forth from distant desks...and stopping to chat."²⁰⁹ The Library Bureau catalog illustrated its desk in a gridded classroom arrangement under the watchful eye of a manager to emphasize the control element of their new design (**Fig. 2.77**). The benefit of a card desk, according to the influential textbook *Scientific Office Management*, was that it situated and oriented the body of a clerk to ensure that "every clerk [was] visible to the supervisor."²¹⁰

The Executive Suite: From One Man to Organization

In the post-Civil War decades, as management structures deepened in corporations of all sizes, furniture increasingly separated executives physically and psycho-socially separated executives from lower level workers. When all employees sat in one and two room offices open to visitors an ornamental scheme consistently applied shaped the public image of the company. Ornamentation and comfort of desks and chairs

²⁰⁹ A. W. Shaw Company, *How to Manage an Office: Making Conditions Right for Fast Work* (Chicago: A. W. Shaw Company, 1914), 21.

²¹⁰ W. H. Leffingwell, *Scientific Office Management* (A. W. Shaw Company, 1917), 187. At large financial firms like Metropolitan Life, supervision was often by a male employee, but at smaller firms both women and men were in supervisory roles; see Zunz, *Making America Corporate*, 118.

was similar for both employees and employers. To foster social separation between executives and lower-level employees, architects set executive offices on separate floors or designed private offices.²¹¹ After executives were sequestered, architects and furniture manufacturers focused ornamentation on executive suites.

The aesthetic difference between the work floor and the executive suite was intended to distinguish the decision-making executive from the routine work of clerks. To emphasize hierarchy, executive furniture blurred separation between work and home, public and private space. Comfort was an important marker of class in the executive office, an outgrowth of Anglo-American values of respectable domesticity.²¹² Advertising and editorials emphasized the importance of a well decorated executive suite. In 1875, *The Furniture Gazette*, an industry newspaper, blamed the ugly nature of corporate offices on American executives who employed the services of a commercial manufacturer, an “office furnisher,” rather than a professional designer or architect.²¹³ In “luxurious business houses...devotees of commerce spending most of the time in their office, look to convenience and even comfort in articles of office furniture,” according to

²¹¹ Kwolek-Folland, *Engendering Business*, 106-108. Architects theorized office buildings but did not consider how the offices would be furnished. See George Hill, “Some Practical Limiting Conditions in the Design of the Modern Office Building,” *Architectural Record* 2 (July 1892-July 1893): 445-468; and George Hill, “The Economy of the Office Building,” *Architectural Record* 15 (April, 1904): 313-327.

²¹² John E. Crowley, “The Sensibility of Comfort,” *The American Historical Review* 104, no. 3 (Jun., 1999): 749-782. Men inhabited feminine spaces, and women masculine spaces. A more nuanced explanation examines gender separate from sex that opens greater possibilities for understanding how class influenced and intersected with gender. On the historiography of the separate spheres as explanatory model see Linda Kerber, “Separate Spheres, Female Worlds, Woman’s Place: The Rhetoric of Women’s History” in *No More Separate Spheres!: A Next Wave American Studies Reader*, ed. Cathy Davidson and Jessamyn Hatcher (Durham, NC: Duke University Press, 2002), 29-67.

²¹³ “The Decoration and Furnishing of Offices,” *The Furniture Gazette* III, no. 100 (March 6, 1875), 304-306.

an 1876 advertisement of a luxury desk manufacturer.²¹⁴ In 1885, the *Decorator and Furnisher* recommended beauty in the office as a “refining and calming influence...if only by association of office life to home life.” Targeted to an audience of upper-class businessmen’s wives, the magazine suggested the businessman call in his wife to “give him some points.” Just as the female presence of a parlor tamed the savage man at home, the journal argued, a domestic appearing office would automatically result in a quiet and courteous demeanor.²¹⁵

In 1886, the *Decorator and Furnisher* published a profile of the office of Philadelphia publisher George W. Childs who furnished his office to emphasize his upper-middle class style (**Fig. 2.78**). Behind a screen of stained glass that separated public from private areas, walls were ornamented with plaster decoration, embossed wallpaper and a carved fireplace inset with Minton tiles. Light filtered through painted glass window panels and reflected off a decorative painted ceiling. Conversations occurred around a center table covered in a silk cloth with four painted and turned side chairs. Portraits and bric-a-brac covered the walls. A large ebony desk and office chair was a nod to work.²¹⁶ Executive suites surrounded occupants with visual expressions of

²¹⁴ “Kehr, Kellner & Co,” in Asher & Adams, *Pictorial Album of American Industry*, 132.

²¹⁵ “Office Decoration,” *The Decorator and Furnisher* 4, no. 2 (May, 1884), 58. “Office Fittings,” *The Decorator and Furnisher* 6, no. 3 (June, 1885), 75. The *Decorator and Furnisher* was the first interior design magazine published in the United States during a postwar boom in interest in interior design. “Evolution of Business Life in Cities,” *Frank Leslie's Popular Monthly*, 37, no. 1 (January 1894), 92.

²¹⁶ “Private Office of Geor. W. Childs, Philadelphia,” *The Decorator and Furnisher* 8, no. 1 (Apr., 1886), 6-7. Executive furniture made to suit decorated interiors with carved and painted ornament was costly. In contrast, furniture for lower and mid-level clerks was designed with inexpensive to produce, broad, unadorned surfaces from interchangeable parts made with machine assistance. Even if a company wanted to invest in hand-made furniture for all employees, the ratio of clerks to executives would have made investment in comparable furniture for general clerks exponentially costly.

magnificence and splendor, but architects and furniture designers chose domestic in forms and function to emphasize separation from detailed clerical work.²¹⁷ The skills of an executive were to become interpersonal conversation and relationship building, the opposite of the busy routine work of clerks. Executive offices were designed to be spaces of public domesticity.

Eventually, the hierarchical behavioral controls designed into office furniture permeated every level of the corporation from the entry-level file clerk to the executive suite, though the controls differed for those at the top. In 1908, *System* magazine compared the leadership methods of Philip D. Armour, the founder of the Armour Corporation with the methods of his son, J. Ogden Armour. The elder Armour was “a man of action, a detail builder,” who handled “personally every item of business affairs.” His day was spent in correspondence, and meetings. When the business expanded in the 1890s, the details “became too great for the gigantic brain which had conceived it.” In comparison, his son J. Ogden was “the true executive,” who spent his days reading reports and considering problems. The magazine considered his day less strenuous but more productive than his father’s. Business organization was personal to the founders of large corporations, whereas for the new generation business organization was a “machine-like regulator,” that only required periodic maintenance.²¹⁸ Management theorists and efficiency experts reminded executives that they needed to rely upon

²¹⁷ Kwolek-Folland, *Engendering Business*, 104-105 and 116.

²¹⁸ Arthur Graydon, “The Second Generation of Business,” *System: The Magazine of Business* 12, no. 3 (September, 1907): 219-226.

department heads and managers.²¹⁹

By the early twentieth century, most corporate executives worked in private offices that either contained the director's room or were *en suite* (**Fig. 2.79**). In purpose-built office buildings, the façade, lobbies, and executive offices became the public face of the organization. Ornamentation flowed from the exterior into the director's room and president's office (**Fig. 2.80**). Architects arranged spaces following the social geography of baroque palaces. How far a visitor penetrated the executive suite, sent a message about the relative status of a visitor – from lobby, to antechamber to private office, each more comfortable and domestic than the last.

As the gilded age hit full steam, commercial furniture manufacturers outfitted executive offices with furniture that was visually and functionally inseparable from forms used in home libraries. Major manufacturers frequently used leather to upholster not just chairs and sofas, but also tables and desks. Executive furniture in catalogs at the turn of the twentieth century often included large comfortable “Turkish” seats in tufted and buttoned leather.²²⁰ (**Fig. 2.81**). To promote their Turkish chairs one manufacturer's

²¹⁹ Chandler observed that Armour was among owner-managers to whom all department heads reported. He had little or no staff assistance, so his day was filled with reading reports and not strategic planning. See Chandler, *Visible Hand*, 399-400. Between 1884 and 1894 A. Cutler & Son added furniture suited to decorate executive offices. The offerings included extra-large flat-topped desks, leather-topped desks, directors' -tables, and folding card tables. See A. Cutler & Son, *Descriptive Catalogue and Price List of Cutler's Patent Business Desks* (Buffalo, NY, 1884); and A. Cutler & Son, *The Famous Cutler Desks* Cat. no. 12. (Buffalo, NY, 1894).

²²⁰ Most major manufacturers offered larger, more elaborate furniture almost exclusively upholstered in tufted leather. They include: T. G. Sellew, *Illustrated catalogue of desks*, (1885); Derby & Kilmer Desk Company, *Catalogue* (1886); Derby & Kilmer Desk Company, *Catalogue* (1896); The Globe Co., *Office Desks* (1897/1898); A. Cutler & Sons, *Patent Business Desks* (1894); ; The Fred Macey Co., *Christmas Gifts*, (1903); Union Desk Company, *Illustrated catalogue* (1887). As early as 1873, A. H. Andrews offered lounges “For Office or Library,” and advised that upholstery for office use was usually leather; see A. H. Andrews & Co., *Illustrated Catalogue*, (1873).

catalog reminded executives in 1896 that “ease as well as labor, has its place in business.”²²¹ In masculine spaces where cigar smoking and drinking were frequent activities, leather upholstery resisted odors and stains better than fabric. Unlike the mechanical, rectilinear, hard surfaced chairs of subordinates manufactured with machine assisted production methods, the sinuously curving Turkish chairs required hundreds of hours of hand-labor to construct and upholster. Turkish chairs were a new fashion for domestic parlors in the 1880s and 1890s.²²² The exotic term “Turkish,” applied to almost all over-stuffed seating furniture in home parlors, a reflection of American’s embrace of comfort over more formal European styles. The Turkish chairs sold for four times the cost of a basic mechanical office chair and eight times the cost of a spring-back stenographer’s chair.²²³ Upholstered chairs enveloped sitters and supported relaxed postures intended to encourage discussion, negotiation, contemplation and decision making; nearly the opposite of the intent of furniture for general clerks and stenographers that discouraged conversation and free-thinking. In 1898, employment specialist Herbert Hapgood observed, with no irony, that among successful executives like Carnegie and Frick, “the busiest men are not infrequently those who appear to be loafing.”²²⁴

²²¹ A. H. Andrews Co., *Business Furniture* (Chicago, ca. 1896)

²²² On American cultural associations with the Turkish chair see Gülen Çevik, “American Style or Turkish Chair: The Triumph of Bodily Comfort,” *Journal of Design History* 23, no. 4 (2010): 367-385; Katherine C. Grier, *Culture & Comfort: Parlor Making and Middle-class Identity, 1850-1930* (Washington: Smithsonian Institution Press, 1997), 126.

²²³ The Fred Macey Co., *Office and Library Furniture* (Grand Rapids, MI, ca. 1904).

²²⁴ Herbert J. Hapgood, “The Indicator of the Working Force,” *System: The Magazine of Business* 13, no. 5 (May, 1908): 426. Wil Payne, “Modern Business Methods,” *System: The Magazine of Business* 4, no. 6 (October, 1903): 232-234. Kenneth Ames argues that nineteenth century Americans expressed power through posture in the home, men sitting in relaxed postures project confidence, whereas formal upright postures project passivity and restraint; see Kenneth Ames, *Death in the Dining Room*, 186-187.

In 1905, furniture manufacturer A. H. Andrews claimed that “the truly ambitious man requires a nicely furnished office,” not only for his own gratification, but “from a cold business standpoint he knows that others will class him with the character of his surroundings.”²²⁵ Like restaurant dining rooms, theater lobbies, and railroad parlor cars Executive office were constructed as places where visitors enacted and reinforced behaviors and postures that confirmed upper-class status (**Fig. 2.82**). Deep upholstered chairs and sofas were designed to support relaxed postures, tables supported cocktails and ashtrays for smoking, and bric-a-brac demonstrated taste and class level as an opening to the discussion of business. Conference tables contrasted with the more relaxed seating areas and were equivalent to home dining tables with upright chairs in which men debated and made decisions about the future of an enterprise. Home decorating books suggested prosperous clients include leather covered lounges in their home dining rooms to support dinner-party etiquette in which men remained to smoke and talk after the meal while women withdrew to the parlor.²²⁶

In 1909, the paneled office of the president of the Curtis Publishing Company was spacious and decorated like a Tudor palace (**Fig. 2.83**). The director’s room functioned as

²²⁵ E. H. Beach, *Tools of Business: An Enclopaedia of Office Equipment and Labor Saving Devices* (Detroit: The Book-Keeper Publishing Co., Ltd., 1905), 115.

²²⁶ Grier, *Culture & Comfort*, 220; Ella Rodman Church illustrated a dining-lounge in her advice book, and recommended chairs with “severe lines.” Ella Rodman Church, *How to Furnish a Home* (New York: D. Appleton and Company, 1881), 4; Decorator Hester Poole recommended a sturdy lounge rather than a sideboard in the dining room, Hester Poole, “Dining Room Decorations and Service,” *The Decorator and Furnisher* 16, no. 2 (May, 1890): 41-42; A “dining-room lounge” appears in late nineteenth century fiction, usually as a convenient spot for a character to throw down their body. Evelyn M. Ludlum “Annetta,” *Overland Monthly* 1, no. 10 (October, 1883), 433; Kate Tannatt Woods, *The Duncans on Land and Sea* (New York: Cassell & Company, 1883), 226; Harry Bolingbroke, “The Cherry-Wood Chest,” *Demorest’s Monthly Magazine*, 21, no. 10 (August 1885), 658; Elizabeth A. S. Chester, “Provided For,” *Sunday Afternoon* 3, no. 16 (April, 1879), 337.

a reception room for formal gatherings of corporate leaders and investors. The room was usually the most grandiose; dominated by a large director's table and multiple upholstered chairs. It was a semi-private space between the fully public lobby and the private executive offices. The Metropolitan Insurance Company director's room was outfitted with comfortably upholstered chairs, and a long, elegant table that would not have been out of place in a dining room at Versailles, perhaps to reassure the titans of American industry that they were New World aristocrats.²²⁷ Financial companies had the most ornate executive suites, but even the director's rooms at small manufacturers like Eisenstadt Manufacturing and Glizer Stove were luxurious (**Fig. 2.84**). The Eisenstadt room appeared no different from a men's club or home library with a tiger rug on the floor, arts and crafts tile and dark wood paneling on the walls, and deep arm chairs to welcome visitors; and at Glazier an imposing tiled and paneled fireplace mantle dominated the room, which also included large, leather upholstered Turkish sofas.

Home office

When office manufacturers designed ornate furniture for corporate leadership in the late nineteenth century, they further blurred the boundary between domestic and public, home and work for executives. Manufacturers distributed office furniture through dealers who also sold home furniture. Desk and bookcases bought from cabinetmakers had been in homes of the wealthy for centuries, but now roll top desks were for sale

²²⁷ Kwolek-Folland, *Engendering Business*, 99. Kwolek-Folland equates skyscrapers and other ornate office buildings with a new public domestic architecture of apartment buildings, but the skyscraper was more a palace with a hierarchy of privacy and comfort used to send messages about a visitor's status.

through Sears Roebuck and Montgomery Ward & Company's household catalogs.²²⁸ Gimbel's and Wannamaker's department stores in New York contained large office furniture sections that catered to business shoppers (**Fig. 2.85**). When the Equitable Building opened in 1915, Gimbel Brothers set up a sales department on one of the empty floors and outfitted a suite of offices "in the most modern style."²²⁹ Department stores and dealers reinforced gendered office occupations through street-level window displays (**Fig. 2.86**).²³⁰

Catalogs and trade literature recruited women as purchase agents for the home and extended their role to the office. In a series of editorials on selling office furniture, *The Grand Rapids Furniture Record* encouraged dealers who struggled to sell office furniture to target wives and female assistants. The journal claimed that female stenographers made decisions about purchases of business furniture for male employers and further suggested furniture dealers target wives shopping for domestic furniture to reach their businessmen husbands.²³¹ The journal *Business* recommended office furniture manufacturers place ads placed in women's magazines, sure that a female reader would "take steps to secure the use of the articles for the men in whom they are especially interested."²³² The Macey Company encouraged wives to purchase furniture for their

²²⁸ Montgomery Ward & Co., *High Grade Furniture* (Chicago, 1902), 64; Sears Roebuck & Company, *Catalogue, 1902* (Chicago, 1902), 756.

²²⁹ "A Gimbel Office Furniture Scheme," *The Grand Rapids Furniture Record* (May, 1915), LXVII.

²³⁰ C. A. Netzhammer, "Displaying Office Equipment," *The Furniture Record* (June, 1915), LXXX.

²³¹ Wesley A. Stanger, "Selling Office Furniture in a Furniture Store," *Grand Rapids Furniture Record* 25, no. 5 (October, 1912), 842-844., *The Furniture Record* was a trade journal for manufacturers and dealers of factory-made furniture with a wide geographic distribution; "The Question Personal in Advertising" *The Office* (February, 1892), 35. Kwolek-Folland, *Engendering Business*, 117-118.

²³² "The Art and Practice of Advertising," *Business*, 12, no. 2 (February 1892), 35.

husband as a Christmas Gift. The catalog recommended she consult with his business associates if she was unfamiliar with the size or style of roll-top desk her husband preferred. “Business and professional men rarely consider how great a portion of their life-time is passed at their desks,” the company noted, so why were they “content with an awkward, uncomfortable, wiggly, nervous chair... when the cost of a handsome, comfortable, modern chair is so small - more work and better work is possible. A splendid Christmas gift.”²³³

Furniture manufacturers also designed and marketed desks for the home that corporatized housework. A roll-top desk with rococo ormolu decoration and paw feet was “just the thing for a gentleman’s den,” a new sphere of domestic masculinity within the female dominated home (**Fig. 2.87**).²³⁴ With the addition of a drop front desk, a Macey Company office bookcase system was perfect for a husband’s home office (**Fig. 2.88**). Manufacturers portrayed the home in an ambiguous manner, both as a refuge for work, and as workplace with housewives as managers. (**Fig. 2.89**). An image of a woman at a writing at a desk on December 26th (perhaps writing thank you notes) illustrated the cover of a 1903 *Christmas Gifts* catalog. An interior page advertised a home roll-top desk with

²³³ The Fred Macey Co., *Christmas Gifts*, 1903. The Macey Co. described its “Standard” book cases as intended primarily for office use...and are now extensively used in homes where low cost is an important consideration.” The Macey Co, *Sectional Bookcases for the Home, Cat., no. 1316* (Grand Rapids, MI, 1916), 7; The Fred Macey Co., *Christmas Gifts*, Grand Rapids, 1902. (Smithsonian Warshaw Collection)

²³⁴ A. H. Andrews Co., *Business Furniture* (Chicago, 1896), 32-25. The A. H. Andrews Company of Chicago included feminine rococo bookcases and “Lady’s” desks in its 1896 catalog of *Business Furniture*, listed just after typewriter desks. Into the 1920s The Macey Co. continued to encourage office furniture as an appropriate Christmas gift for women to give to their husbands for both the home and the office, as well as for men to give to associates. Advertisement, The Macey Co., *Office Appliances* (October, 1922). Stephen Gelber coined the phrase “domestic masculinity,” for the rise of a new masculine identity within the home. Steven Gelber, “Do-it-yourself: Constructing, Repairing and Maintaining Domestic Masculinity,” *American Quarterly* 49, no. 1 (1997): 73.

generous functional storage: pigeonholes, two file boxes, two small drawers, two pen racks and ledger storage. The desk was described as for “professional men, teachers,

The text equates housework with the work of professional men and teachers. A small line drawing beneath portrayed a woman seated at the desk; her oversized apron emphasized she was engaged in work. The use of the expression “artistic Home,” and the image on the cover of a Mission-style desk implies an Arts and Crafts philosophy in which the home was not a place of business but a refuge from scientific management and modern life, yet an interior illustration implies the home was a place of clerical work under the control of the housewife as manager. The catalog portrayed a woman standing by in the position of assistant. Home desks for both men and women were slightly smaller and more ornamented than desks for general clerks, but not as ornamented as those for an executive office (**Fig. 2.90**).²³⁵

Catalogs and trade literature encouraged executives to purchase office furniture for their home. *System Magazine* glorified executives Andrew Carnegie, Henry Frick, and Charles Schwab as “Big Men” who conducted much of their business from rooms in their homes outfitted with modern office furniture. For these executives, a home office was the place where “the real duties of the day are performed,” a refuge from continual office distractions.²³⁶ The magazine described the gauntlet a potential visitor had to pass

²³⁵ Derby Desk Co., *Derby Roll-Top Desks and Fine Office Furniture*, 18th Catalog, Boston, 1896, 17. The catalog refers to one model as “A particularly desirable and satisfactory style for home and other places where more ornament is required than is found in the regular office patterns.” Another, desk, no. 28, is described as “about four inches less in depth than our standard Roll-top Desks. Like no 30 it is adapted for small, narrow offices and home use. See Derby Desk Company, *Tenth Illustrated Catalog and Price List of the Derby Roll-Top Desks* (Somerville, MA, 1885).

²³⁶ Kendall Banning, “How Big Men Do Big Things,” *System: The Magazine of Business*, 14, no. 4 (April, 1908): 365-366.

through to conduct business with steel magnate Andrew Carnegie at his famous residence at Ninety-first Street and Fifth Avenue in New York City. A visitor had to state their business to a hall man who ushered the visitor into the office of Carnegie's secretary lined with filing cabinets, reference drawers, bookcases, and desks for several stenographers. Henry C. Frick and Charles Schwab maintained hidden office in New York to escape daily interruptions. The office furniture manufacturer A. H. Andrews published a pseudo-scholarly design history, *The Evolution of the Chair* (1895), in which the company advertised its executive chairs for both public and private spheres of white male executives – “in place in the inner office of the business and professional man, and, in his home...capacious enough for himself and his clan of “blue-eyed banditti.” (Fig. 2.91)²³⁷

As office furniture penetrated the home, attitudes typically associated with home furniture penetrated the office. Furniture retailers cast executives in the role of a shopper who participated in consumption with the intensity of a housewife, but for a corporate, not a conjugal home. *The Furniture Record* advised dealers to carefully consider their displays to avoid putting off a potential male customer who had “learned to shop instead of ordering blindly” and was “more particular about the desk he buys than [was] the average woman about the chamber suite.”²³⁸ Another writer discouraged dealers from mixing office and domestic furnishings on the sales floor for fear of distracting the

²³⁷ The reference to blue-eyed children circumscribed the occupant within the normative boundaries of white, married, domestic life. A. H. Andrews & Co., *The Evolution of the Chair* (Chicago, 1895).

²³⁸ É. T. Harris, “The Modern Office Furniture Department,” *The Grand Rapids Furniture Record* 30, no. 1 (January, 1915), VI; J. N. Senior, “The Dealer and Office Furniture,” *The Grand Rapids Furniture Record* XXX, no. 1 (January, 1915), i, and v.

businessman who had “his mind as far away from domestic affairs as it is possible to get them.”²³⁹ The newspaper’s emphasis on care and concern for the proper selection of tables and chairs symbolized the primary role of the executive as decision maker and the face of the company for the reception and entertainment of visitors.

Executive Desk Chair

Functionally, the executive desk chair operated like the mechanical chairs of subordinates, but in appearance, it was a baronial seat of corporate power. Space equated to status in carefully planned offices of the early twentieth century. Executive chairs expressed hierarchy by occupying more physical space than necessary. An executive chair was larger, more heavily ornamented, and more thickly upholstered than the chairs of clerks (**Fig. 2.92**). Expensive ornamentation elevated executives above clerks seated in their rather plain mass-produced chairs.

Aesthetics separated corporate leaders from underlings, comfort, however, encouraged both the executive and the clerk to sit still at a desk. The ideal executive chair was “not too easy; just easy enough,” according to the A. H. Andrews circa 1896 catalog. It served as a tool for thinking and strategizing about the future.²⁴⁰ In the first decades of the twentieth century efficiency experts advised executives to avoid the minutiae of every-day office affairs and rely on a systematized office to get work done. A 1905 editorial signed by filing supplier and publisher A. W. Shaw encouraged executives to

²³⁹ Wesley Stanger, “The Furniture Man’s Opportunity,” *The Grand Rapids Furniture Record* 30, no. 2 (February, 1915), VI.

²⁴⁰ A. H. Andrews & Co., *Business Furniture* (1896), 66.

take a vacation, to “keep away from the detail – and *think... Think and play.*” A comfortable executive office chair was a tool to help him “sit quietly at his desk, thinking.”²⁴¹

Executive Desks

System Magazine portrayed executives in the early twentieth century as deep thinkers in conventionalized portraits and illustrations of executive offices. Commissioned and staff photographers posed executives seated at, or in front of, an open roll-top desk, typically reading or contemplating reports that summarized the myriad details of corporate governance. Illustrations for short stories of office life used the same convention (**Fig. 2.93**). An executive desk was a command center, a locus of power and decision making in the corporation. The executive needed to be at his desk to wield his power.²⁴²

By 1900, the executive desk had reached supernatural status in trade literature. The editors of *System* so highly valued a well-organized executive desk that they published an ode to a desk illustrated with an executive staring forlornly into his roll top desk before he departed from his office at the end of the day: (**Fig. 2.94**)

I TAKE my troubles home no more,
 Within my desk last night
 I put them all both great and small,
 And then I locked it tight.

²⁴¹ A. W. Shaw, “Take a Vacation – Be Satisfied,” *System: The Magazine of Business*, 7, no. 6 (June, 1905), 678.

²⁴² The desk in Armour’s private office was described as the center of multiple communications lines that told of the conditions of the world’s food supply and demands. Arthur Graydon, “The Second Generation of Business,” *System: The Magazine of Business*, 12, no. 3 (September, 1907): 226.

...
 Today I opened wide the desk
 With all my troubles on.
 Each evil sprite had taken flight—
 My troubles all were gone!²⁴³

The desk had magically solved all his problems.

Some executives and other professionals chose to visually highlight their centrality within a business by enthroning themselves within large mechanical desks filled with dozens of pigeon and cubby holes, shelves, and drawers (**Fig. 2.95**). Each storage element represented a symbolic link to some part of his business empire. A man wanting to express upper-class status through ornamental taste ordered an extra or superior desk lavishly decorated with inlay, incised carving, pierced veneer, and marquetry representative of the Eastlake style.²⁴⁴ Charles Eastlake was an English architect and social reformer who wrote an 1868 handbook, *Hints on Household Taste* popular in the United States. Eastlake abhorred visual excess, and maintained that decent furniture without “shapeless extravagances,” could be made for the masses “quite as cheap as that which is ugly.” He argued that the display of highly ornamental wares was driving the poor and middle classes to purchase shoddily made decorative objects that

²⁴³ Douglas Malloch, “My Troubles,” *System: The Magazine of Business* Volume XV, no. 2 (February, 1909). A. W. Shaw, the publisher of *System*, frequently included articles describing the vital importance of office furniture systems to business success. Archibald W. Shaw, the magazine publisher, was somewhat biased toward desks as tools. He was an officer of Shaw-Walker, a company that produced desk organization systems. He also published the journal *Factory* focused on efficient practices in manufacturing, cross pollinating ideas between the office and the factory floor.

²⁴⁴ The Moore Desk Company marketed its desks as “Office, Home and Study Desks.” The Wooton Desk Company and the Moore Desk Company both originated as school furniture manufacturers. Moore Combination Desk Company, Flyer, 1880-1894. Smithsonian National Museum of American History, Warshaw Collection.

were beyond their means.²⁴⁵ Manufacturers in the United States, however, lavishly applied Eastlake ornamentation to wildly expensive desks. Symbols of excess, the desk designs were emblematic of how many Americans adopted the aesthetic of European design reform movements but jettisoned their philosophical and social directives toward frugality and moral uplift of the masses.²⁴⁶

The spectacular mechanical and craft virtuosity of the ornamented behemoths set mechanical desks and their occupants apart from all other employees. Wooton Desk Company and the Moore Company, the two major manufacturers began producing the desks in the mid-1870s in the Midwest. Their mainly regional clientele were railroad, bank and insurance executives, publishers, attorneys, and medical doctors.²⁴⁷ To emphasize the exalted position of purchasers, the Moore Company referred to products within its line of desks as “The Insurance King, the Counting-house King,” and “The Office King.” These were not just desks for business executives, they were desks for monarchs who ruled what *System Magazine* publisher A. W. Shaw referred to as “American business empires,” an expression that originated at the turn of the twentieth century.²⁴⁸ The Wooton Desk Company claimed mechanical rotary desks and cabinet

²⁴⁵ Charles L. Eastlake, *Hints on Household Taste* (London: Longmans, Green, and Co., 1878), 63, 174.

²⁴⁶ Jeffrey Meikle, *Design in the USA* (New York: Oxford University Press, 2005), 55-56.

²⁴⁷ T. G. Sellev of New York, a manufacturer of counting-house desks, was agent for Wooton Desk in New York. See T. G. Sellev, *Illustrated Catalogue of Desks, Office and Library Furniture* (New York: Brown & Wilson, ca. 1885). A partial inventory of persons owning Wooton desks in 1875-1875 shows more than half of the 104 desks sold to owners in Indiana (31), Illinois (10), Ohio (4), Pennsylvania (4), and Kentucky (4). See Betty Lawson Walter, *The King of Desks: Wooton's Patent Secretary* (Washington: Smithsonian Institution Press, 1969), 27-30.

²⁴⁸ A. W. Shaw, “The Opportunity of the Young Man,” *System: The Magazine of Business* 6, no. 6 (December, 1904), 514-515; There are several references to a “business empire” in books and magazines between 1890 and 1920. According to Google’s NGRAM viewer, the expression “Business Empire,” begins to skyrocket around 1920 and does not peak until the late 2002.

secretaries were supposed to revolutionize office furniture, but the desks were obsolete soon after they began to be produced. Mechanical desks were designed to suit an outdated organizational structure where an owner controlled multiple tiers of stored information as opposed to the trend in corporate management to divide and delegate tasks and centralize access to stored information elsewhere.²⁴⁹ Neither company continued selling the desks beyond the mid-1880s.

Secretary's desk

In the early 1900s, prelates of scientific management declared that efficiency control should apply to all levels of the company, including executives who were to stop expecting to know and control every detail of their operation. "Divide the day's work," a 1909 cover of *System* magazine ordered, "errands to boys - routine to clerks - for yourself only vital, worth-while things...Unload!"²⁵⁰ Manufacturers designed larger versions of pedestal desks with less storage for executives and coordinating secretary desks. Experts recommended that task-oriented work be transferred onto the desk of a secretary. The personal secretary became a role for women distinct from that of low-level file clerks,

²⁴⁹Wooton Desk Co., *Illustrated Catalogue of Wooton's Patent Cabinet Secretaries and Rotary Office Desks* (Indianapolis, 1876). Wooton Desk Co., *Descriptive Catalogue of Wooton's Patent Cabinet Office Secretary* (Indianapolis, 1875). Also see J. Camille Showalter, Janice Tolhurst Driesbach, *Wooton Patent Desks: A Place for Everything and Everything in Its Place* (Indianapolis, IN: Indiana State Museum, 1983). Betty Lawson Walters, "The King of Desks: Wooton's Patent Secretary," in *Smithsonian Studies in History and Technology*, no. 3 (Washington, DC: Smithsonian Institution Press, 1969), 1-31. The Tyler Desk Company was another manufacturer of massive rotary desks. Tyler Desk Company, *Catalogue of the Tyler Desk Company* (St. Louis, MO, ca. 1887). The Moore Company was not profitable and survived for only survived until 1889 through Joseph A. Moore's deceitful practice of subsidizing his business with principal entrusted to him as an agent of the Connecticut Insurance Company. ("The Connecticut Mutual Loses \$500,000," *The Chronicle*, 43, no. 1 (January 3, 1889), 54; "How They Sold Desks So Cheap," *American Cabinet Maker and Upholsterer*, 38, no. 14 (February 2, 1889), 9.

²⁵⁰*System: The Magazine of Business*, 15, no. 2 (February, 1909)

stenographers, and typists, although all these occupations were dominated by women.²⁵¹

Although a secretary might take dictation and type, the position involved much more responsibility than a stenographer. In 1916, the author of an office manual explained the hierarchy of female clerical work: the work of a typists was least valued because it was mechanical, the work of stenographers was slightly higher value because they had to understand the thoughts of someone else, and a secretary was most highly valued because “a secretary must think independently, and at the same time execute the thoughts of another.” A secretary’s job was to “lift a great burden of worry off the shoulders of the high priced executive.”²⁵² According to *System Magazine*, the function of a personal secretary, whether male or female, was to help overcome executive resistance to stepping away from never-ending details. In *System Magazine*’s 1908 profile of “big men,” Henry C. Frick and Charles M. Schwab, the author explained that executives “protect themselves in their private offices for the doing of the big things through a corps of secretaries and clerks.” The businessmen profiled authorized secretaries to make high-level decisions about what was worthy of their attention.²⁵³ Women began to serve as personal secretaries in the 1910s. Agnes Perkins, writing in 1910 on occupations for women other than teaching, argued that “in the majority of cases a stenographer grows into a secretary gradually, a busy man being only too thankful to throw into competent hands the details which are too vexatious and petty for his

²⁵¹ Margery Davies, *Woman's Place*, 5.

²⁵² Ellen Lane Spencer, *The Efficient Secretary* (New York: Frederick A. Stokes, 1916), 4.

²⁵³ Kendall Banning, “How Big Men Do Big Things,” *System: The Magazine of Business*, 14, no. 4 (October, 1908): 365-371.

consideration.”²⁵⁴ By 1940, the author of *‘Ask My Secretary’: The Art of Being a successful Business Girl* assumed that a personal secretary was a woman.²⁵⁵ Business writers portrayed the secretary as a vital tool to discipline and protect executives. In the “scheme of retreat and protection,” according to industry consultant Walter Dill Scott, “private offices guarded by secretaries fortify them (executives) against distractions and unauthorized claims on their attention.”²⁵⁶ Scott recommended that a secretary be located nearby or adjacent to the executive to keep his desk and his mind, neat and tidy.

Furniture manufacturers reinforced the importance of an adjacent desk for a close female personal assistant through illustrated advertisements (**Fig. 2.96**). In a 1909 *System Magazine* article an executive encouraged his counterparts to adopt his office methods and arrangement (**Fig. 2.97**).²⁵⁷ The most important element of the office, according to the author, was “a perfect desk system” and the ideal desk was a flat table. A diagram published with the article indicated a female secretary at a typing desk immediately adjacent in his ideal small office, with a telephone on a swing arm shared by both, and filing cabinet behind, an arrangement found in illustrations into the 1920s (**Fig. 2.98**).

²⁵⁴ Agnes F. Perkins, *Vocations for the Trained Woman: Opportunities Other than Teaching* (Boston: Women’s Educational and Industrial Union, 1910), 209-210. See also: Helen B. Gladwyn, “How I became a Confidential Secretary,” *Ladies’ Home Journal* (September 1916): 32. She describes taking over the position of secretary to the president from a man by perfecting “the already fairly comprehensive knowledge of the business,” that she possessed and by taking the initiative to answer his correspondence while he was away.

²⁵⁵ Gladys Torson, *‘Ask My Secretary.’: The Art of Being a successful Business Girl* (New York: Greenberg, 1940).

²⁵⁶ Scott, *Increasing Human Efficiency*, 117. Several executives outlined their use of “tickler files” in the office for *System: The Magazine of Business*, but unlike regular clerks, the tickler was maintained by assistants. Daniels, *Desk System*, 83-89. Helen Mar Shaw, “Organizing an Advertising Department,” *System: The Magazine of Business*, 10, no. 1 (July, 1904): 41.

²⁵⁷ George E. Turner, “How I Handle My Personal Work,” *System: The Magazine of Business* 15, no. 1, January 1909): 71;

The author described his secretary in robot-like terms when he claimed that “the business man needs mechanical help: to bring the necessary details to his attention.” Articles in *System Magazine* lauded executives who shared their offices and work with female assistants, yet the titles, such as “How I Handle My Work,” and “Now I Get Twice as Much Work Done,” ascribed no credit to women who undertook previously executive work. Female secretaries had become responsible for all “routine” executive work: correspondence, maintaining competitive research, vertical filing, a tickler filer of reminders, appointments.²⁵⁸

Although the relationship between executive and secretary could be viewed as mechanical or marital, her placement at a desk in or just outside his office contested middle-class gender norms that cast women as subservient and domestic. A stenographers training book from 1916 outlined significant responsibilities beyond the routine: she prevented disruptions, redirected routine problems to department heads and reserved only vital new questions to the executive. Installed in her desk, she was a sentry at the gate. She needed will power to turn people away from the inner sanctum and business acumen to know what questions were worthy of disturbing her boss. A secretary’s desk, matched in appearance to furniture in an executive suite, empowered a woman as a worthy gatekeeper, a reversal of the traditional role of husband as protector of the family home.²⁵⁹

Trade literature published by furniture manufacturers also called upon executives

²⁵⁸ “Now I Get Twice as Much Done,” *System Magazine* 40, no. 3 (September, 1921): 295.

²⁵⁹ Rupert Pitt Sorelle, *Office Training for Stenographers* (Boston: Gregg Publishing Company, 1916), 115. Leffingwell, *Making the Office Pay*, 220-221.

to move beyond treating women as machines to see the potential of women assistants. “The Stenographer’s Wail,” a prose poem in biblical cadence published in 1918 *Remington Notes*, commanded business leaders to acknowledge the intimate association and power of female assistants: “Is it not she who, more than anyone else, is best acquainted with thy real inner-most nature...thy virtues and thy shortcomings...EMPLOYER, WAKE UP! Thinkest thou that thou hast all the executive ability? Treat not thy stenographer as a machine...Trust thine employee.”²⁶⁰ An issue of the 1921 *The Office Economist* was devoted to “Woman’s Value in Business,” decrying businessmen overlooking the “the girl who takes dictation or files letters,” who had expertise in management practice and sales development.²⁶¹ A well-organized secretary desk was like a machine that brought the “necessary details to his attention at the right time and in an undisturbing way.” Like a child reminded to put away his toys, the responsibility of an executive was to “clear up his table each day.”²⁶²

In private offices, the postural relationship between a female secretary and male supervisor was at its most intimate (**Fig. 2.99**). By the 1910s furniture catalog covers portrayed intimate scenes between secretaries and executives surrounded by office furnishings. A typical cover represented a secretary in a powerful posture, active, standing, ready to go, while executives are typically seated beneath her in a comfortable

²⁶⁰ Excerpted from A. H. Winfield-Chislett, “The Stenographer’s Wail” *Remington Notes* 4, no. 7 (May, 1918), 10. Remington made and sold typewriter desks as well as machines. The company was located in the major wood desk manufacturing region around Herkimer, New York.

²⁶¹ Eleanor Gilbert, “Woman’s Value in Business,” *The Office Economist*, 3, no. 4 (April-May, 1921): 3-4. The *Economist* was published by Art Metal Construction Company, maker of steel furniture.

²⁶² George E. Turner, “How I Handle My Personal Work,” *System: The Magazine of Business*, 15, no. 1, January 1909, 71.

office chair, reliant on her work to complete his task (**Fig. 2.100**). A 1921 cover for a pamphlet on office arrangement titled “The Executives Workshop,” presents a secretary and executive seated at a desk in an ominously darkened room while another man looks on. The primary relationship was between the executive and the secretary, the third man poses almost angrily with his hand on his hip, waiting to get their attention.

Salesman’s Desk

Furniture could be designed to encourages quiet introspective work, as it did for executives and male clerk; or conversely, furniture could be designed to encourage activity. The desks designed for salesmen were miniscule compared to desks for executives, clerks, and typists (**Fig. 2.101**). Manufacturers designed tiny, barely functional desks to discourage salesmen from loafing about the office.²⁶³

Whereas an executive was supposed to operate from within the company, the traveling salesman’s role was to go out and bring in business. The salesman was a mythic, virile character, the breadwinner of the corporate home office whose strength was based in his interpersonal relationships. Business secrets could be threatened by salesmen frequently poached from competitors with the lure of higher commissions.²⁶⁴ A desk that discomfited and pushed him out of the office was a means to avoid gathering too much information that could be shared with competitors. To ensure he followed directions,

²⁶³ Print advertising threatened the status of the salesman but the number of salesmen increased in the first decades of the twentieth century. See Timothy B. Spears, “‘All Things to All Men’: The Commercial Traveler and the Rise of Modern Salesmanship,” *American Quarterly* 45, no. 4 (Dec., 1993), 528.

²⁶⁴ Walter A. Friedman *Birth of a Salesman: The Transformation of Selling in America* (Cambridge: Harvard University Press, 2009), 112-114.

Yawman and Erbe designed its desk to “make system practically automatic,” and under “house control.” The desk was intentionally small so that “with this desk, a salesman spends less time working at records and more time on the outside.”²⁶⁵

The salesman represented a unique position in the clerical office. His work was supposed to take him out on the road, but he also needed a space in the office to process orders and receive correspondence. Managers and executives complained that “the average salesman haunts his office as if he were tied to it with a string.”²⁶⁶ One manager removed roll-top desks behind which salesmen were obscured from supervision; “too comfortable in the office; they settle themselves in their chairs, light their cigars, read their papers, write some letters—and before they know it the morning is gone. Hereafter there will be no smoking or newspaper reading near those desks; the salesmen will come in, dictate a few business notes and get out.”²⁶⁷

1900–1920 Standardization

By the first decade of the twentieth century, manufacturers had developed myriad innovative furniture forms and functions tailored to specific occupations and fine gradations in corporate hierarchy. The plethora of different options was inefficient,

²⁶⁵ Yawman & Erbe Mfg. Co., *The Executive's Workshop* (Rochester, NY, 1921), 26. Shaw Walker company offered a similar hierarchical arrangement. The company's general clerk's desk was called a “Speed” desk. The salesman's desk in their line was a double desk, with salesmen seated face to face, and a single pedestal with a card file drawer and vertical file drawer. Shaw Walker, *Filing Cabinets: Steel and Wood* (Muskegon, MI, 1916), . In 1896 A. H. Andrews sold two “Salesman's” desks a single pedestal (no. 123), and a school desk version, with two drawers beneath the desk top. It had the smallest surface area on the desktop of all the desks in their extensive catalog - 32 inches wide by 24 inches deep, 40% of the area of the company's smallest pedestal desk. (A. H. Andrews Co., *Business Furniture* (Chicago, 1896), 23.

²⁶⁶ Worthington Hollman, *System: The Magazine of Business*, 6, no. 6 (December, 1904): 547-549.

²⁶⁷ “Successful Through System,” *System: The Magazine of Business*, 7, no. 4 (April, 1905), 388-390.

permitting different parts of an organization to operate with idiosyncratic procedures. In 1914, one of the first comprehensive guides to modern office management, *The American Office: Its Organization, Management and Records*, was published.²⁶⁸ The author, J. William Schulze, was a lecturer on office organization and management at New York University. In the preface, Schulze highlighted two reforms that effected office management: the efficiency movement of the prior three decades that focused on business systems, and scientific management, a twentieth-century movement focused on minimizing body motions. The efficiency movement influenced the design of desks, chairs and filing cabinets; scientific management encouraged manufacturers to redouble efforts to design furniture that streamlined office practices.

Until the founding of a national organization for office management in 1921, furniture manufacturers were the primary publishers of works that applied scientific management theory to clerical work. Schulze was among a group of authors who adapted factory management principles recently published in the books of Frederick W. Taylor and Frank B. Gilbreth.²⁶⁹ In 1908, a group of manufacturers founded The International Office Equipment Bourse in New York City - a cooperative clearinghouse on office management practices.²⁷⁰ The Bourse facilities included a showroom and temporary office space for visiting salesmen. The cooperative published the journal *The Efficiency*

²⁶⁸ J. William Schulze, *The American Office: Its Organization, Management and Records* (New York: The Ronald Press Company, 1914).

²⁶⁹ The books introduced the concepts of time and motion study into the office. Frederick W. Taylor, *The Principles of Scientific Management* (New York, NY: Harper, 1911); Frank B. Gilbreth, *Primer of Scientific Management* (New York: D. Van Nostrand Company, 1912);

²⁷⁰ The term 'bourse' has Dutch origins, appropriate to New York, and referred to a European stock exchange.

Magazine (1911–1916). Frederick W. Taylor, Melvil Dewey, and home economist Christine Frederick were among regular contributors. J. George Frederic, the Bourse vice president, contributed essays, as well as articles for the advertising newsletter *Office Economist* (1919–1929) published by steel furniture maker Art Metal Manufacturing Company. Frederic's essays were later collected in several textbooks.²⁷¹ Filing cabinet manufacturers A. W. Shaw Company published William H. Leffingwell's textbook *Scientific Office Management* in 1917 and his 850-page textbook *Office Management: Its Principles and Practice* in 1925. The Leffingwell books collected guidelines Shaw had previously published in books and in the company journal, *System: The Magazine of Business*.²⁷²

Standard furniture

Immersed in the culture of scientific management, manufacturers simplified and standardized office furniture. A plethora of variation in office furniture designs

²⁷¹ The *Office Economist* was a cooperative journal published by the Art Metal Construction company in Jamestown, New York, and mailed to lists of businesses provided by furniture dealers. The intended destination was the "busy executive's desk." The journal was short (approximately 16 pages) to not take up too much executive time, free, and contained articles on best practices in efficient management. The only ads were from Art Metal and the dealer. Both were designed by Art Metal to coordinate with the editorial content of the month. The magazine claimed its success hinged upon "the constant hammering and reiteration." "What is the Office Economist?" *The Office Economist* Special Number (January, 1920), n. p.

²⁷² W. H. Leffingwell, *Scientific Office Management*; W. H. Leffingwell, *Office Management: Its Principles and Practice* (Chicago: A. W. Shaw Company, 1926); Lee Galloway, *Office Management: Its Principles and Practice* (New York: The Ronald Press Company, 1919). The textbooks written by Galloway and Leffingwell included line drawings of furniture, some of it quite fantastic and some based on existing manufactured furniture. Leffingwell based his theories on his experience reorganizing the Curtis Publishing Company, Montgomery Ward and other mail order firms. He became a founder of the National Office Management Association. Leo Galloway, Professor of Commerce and Industry at New York University, influenced office furniture design through application of scientific principles. He was not associated with a specific manufacturer.

complicated the prime directive to have one manner of doing every task and one place for every item. Manufactures stopped innovating new designs, and winnowed furniture product lines over the same 1905–1915 period that school furniture innovation slowed.²⁷³

Furniture was reduced to three basic forms: flat-topped pedestal desks, low roll-top desks for managers, and vertical files (**Fig. 2.102**).²⁷⁴ High-roll top desks and bookkeepers' standing desks were phased out. The desks had too much storage and interrupted sightlines necessary to quickly identify desk occupants on the work floor.²⁷⁵ Authors used standardized designs to reinforce proscriptions against innovation and experimentation in business methods.²⁷⁶ The 1917 *Office Manual*, published by A. W. Shaw Company, described a desk-based work management system that reduced sovereignty and creativity in pursuit of efficiency.²⁷⁷ The system was mapped on to an

²⁷³ School furniture was responding to some of the same trends toward efficiency as government regulations and teacher training standardized teaching methods.

²⁷⁴ Derby Desk Company advertised 15 different types of roll-top desks and one flat top library table in their 1884 catalog. In 1891 the company catalog listed 5 types of roll-top desks, and 4 types of flat top desks, one of which was a typewriter desk. In 1894 A. Cutler & Son advertised 76 models of desks - 56 Roll-top, 10 Flat Top, 6 Standing, 4 Typewriter Desks, 10 Directors Tables. In 1924 the company advertised 1 low roll-top desk, 1 flat top desk, 1 typewriter desk, and a single suite of executive furniture. Each form was offered in one of four different veneers. In 1897/1898 Globe-Wernicke Company advertised 62 roll-top desks, 22 standing desks, 16 flat top desks, 3 typewriter desks and 5 directors tables. Ca. 1926, the company advertised 2 flat top desks, 3 typewriter desks and one table, each in several widths and veneers.

²⁷⁵ Leffingwell, *Making the Office Pay*, 119; also see "Men and Their Methods, *System: The Magazine of Business*, 14, no. 4 (October, 1908), 2; and Carl C. Parsons, *Office Organization and Management* (Chicago: LaSalle Extension University, 1921), 166.163-166. Parsons was a manager at filing supplier and publisher Shaw-Walker Company in New York, and was a former lecturer in Business Administration at the University of Michigan.

²⁷⁶ Harry Dwight Smith, "System in the Individual," *System: The Magazine of Business* 7, no. 4 (April, 1905), 417-420. William H. Leffingwell, *Office Management* (Chicago: A. W. Shaw Company, 1917), 507-512; Daniels, *Desk System*, iii and 10. William H. Leffingwell, "Finding the One Right Way," in *Shaw Management Service: Finding the One Right Way in Office Work* 6 (Chicago: A. W. Shaw Company, 1917).

²⁷⁷ "A. W. Shaw & Co., "Rules of Office Procedure: Desk Standards" in *Office Manual Including Policy Book and Standard Practice Instructions* (1917), 42-43, New York Public Library. The book was a reproduction of the internal Shaw Company office manual, published as a template to

illustration of a standard desk reproduced in several publications between 1905 and 1910 intended for use by both clerks and executives (**Fig. 2.103**). An employee was to arrange all papers so that should the employee be absent, someone else in the department could take care of any of the work necessary. The employee had to be able, at any time, to explain to the manager what was kept in each drawer and why. Lower drawers had department specific uses, but throughout the organization the upper right-hand drawer of the desk was to be kept for unfinished work, the center drawer for supplies, and the upper left drawer for the office manual. All papers in the desk were to be “active and moving”, but the clerk was to leave his or her desk as infrequently as possible. Executives and clerks alike planned and recorded coded tasks on a pad of pre-printed forms in 5- or 10-minute increments. The work plan was to always be on the desktop to the immediate right of the employee.²⁷⁸

Reformers were obsessed with employees having too much control over desk and drawer space. To compensate, Schulze assigned every square inch of space in desk drawers and on desk tops a specific function, for when desks were “left to employees’ own devices a tremendous loss of efficiency results.” He reiterated that supervisors should inspect desks to eliminate “too much junk, too much stationery, and papers not neatly kept.” A manager should be able to go to the desk of any clerk at any time and

be followed by other organizations to create their own version. The manual was an adaptation of rules articulated by Schulze in 1914, see Schulze, *The American Office*, 1914.

²⁷⁸ See A. W. Shaw & Co., *Office Manual Including Policy Book and Standard Practice Instructions*, 1917. New York Public Library; C. L. Pancoast “The Clearing House of a Business,” *System: The Magazine of Business* 12, no. 3 (September, 1907): 271; and “A System for Handling Correspondence” *System: The Magazine for Business*, 7, no. 1 (January, 1905): 86-88. Leffingwell, *Office Management*, 333. For a history of information management systems see JoAnne Yates, *Control Through Communication*; Alfred Chandler, *The Visible Hand*.

locate all unfinished work in the upper left-hand drawer. Schulze included sample inspection reports with notes including “Too many papers in desk,” “Papers not in best order,” and “Too much ‘junk.’” To facilitate inspection Schulze advised that “office furniture should be standardized as much as it is possible.” To do so he recommended a 48-inch desk, with two drawers in each pedestal and no center drawer. Focused on minimizing body movement, he argued a center drawer was inefficient because to open it a user had to move his chair backward into an awkward position. For the use of executive officers, Schulze recommended “larger desks similarly standardized.” Conceivably, executives were spared having their desk drawers inspected for contraband materials.²⁷⁹

Efficiency Desk

Reformers and manufacturers argued that packaged systems of furniture and methods would improve the efficiency of any office. Mechanical chairs and vertical filing cabinets were designed to minimize movement and maximize control even before the arrival of scientific management. Manufacturers focused their attention on a redesigned desk that adhered to scientific management principles. The modern efficiency desk was the result of their efforts.²⁸⁰

In 1916 Art Metal Construction Company, one of the first and largest manufacturers of steel office furniture introduced its “Amco” desk system (**Fig. 2.104**). The desks adhered to principals of minimal storage space, consistency in dimensions and appearance and low height. The catalog claimed the basic form was universal - “designed

²⁷⁹ Schulze, *The American Office*, 49-57.

²⁸⁰ Manufacturers and textbooks also referred to efficiency desks as sanitary desks or as speed desks.

for the needs of the office clerk, stenographer, etc.” and had “no unnecessary drawer space to act as a catch all for useless papers, personal belongings, etc.”²⁸¹ Yawman & Erbe offered fifty different versions of wooden efficiency desks, but with the same rectilinear clean form as the Art Metal desks (**Fig. 2.105**). Perfectly rectangular tops were set upon one or two pedestals of drawers. Desks were lifted well off the floor by square legs to facilitate cleaning and ventilation; and, as importantly, to reduce the number of drawers. All surfaces were unornamented rectilinear painted metal, including the pulls on the drawers. The center drawer could be omitted to eliminate the movement of an employee shifting his or her chair to access supplies.²⁸² Functional differences maintained status hierarchy while close coordination in appearance promoted a sense of belonging across the levels of the organization whether a female stenographer, file clerk, manager or even executive. Desk surface area was minimized and standardized to pack tighter

²⁸¹ Carl Parsons, manager of the Shaw-Walker Company, outlined the history and current practices of desks and filing cabinets in Carl C. Parsons, *Office Organization and Management* (Chicago: LaSalle Extension University, 1921), 162-166; Art Metal Construction Co. Inc., *Steel Office Furniture and Filing Equipment* (Jamestown, NY, 1916), 5. John Barnaby, *Standardization of Office Equipment* (New York: American Management Association, 1925), 4-5.

²⁸² The design had more flexibility of drawer arrangements within a consistent form than did pedestal desks. A modular design of reconfigurable drawers allowed office managers to tailor amount and type of storage to suit an occupation. Pedestal drawers with built in dividers were sized to the depth of card-based information management systems: The top left drawer 3x5 cards, the middle drawer 4x6 cards, the lower drawer 8x5 cards. A deep lower right hand desk drawer, originally designed for ledgers in the 1880s, was transformed into a nimble tickler file, a personal vertical file for active documents that would remind the occupant of work to be done. Art Metal Construction Co., *The 1919 Book of Better Business* (Jamestown, NY, 1919), 87; Globe-Wernicke, *Desks and Tables* Cat. 525 (Cincinnati, 1926). E. B. Estes & Sons, *Roll-top Desks* (New York, ca. 1880); The Globe Co., *Catalogue of Business Furniture: Filing Cabinets, Desks, and Office Appliances* (Cincinnati, OH: The Globe Co., 1895-1896), 6. A. Cutler & Sons was unusual in outfitting the right hand drawer with an alphabetical letter file in 1884. Typically through the 1880s the drawer was used for ledger books.

together and reduce “reaching energy and walking energy” expended by clerks.²⁸³

Manufacturers marketed the efficiency desk as a standard to be used up and down the office hierarchy from mail clerk to executive.

The executive office gets systematized

Some executives resisted standardization and kept a roll top desk in their office as a symbol of their importance — each pigeonhole a symbolic tie to some distant part of his realm — but by 1920 flat top pedestal desks came to predominate as the main working surface for executives as well (**Fig. 2.106**). Even as forms were standardized, appearance remained important in executive desks of the 1920s. “A handsome Circassian walnut desk certainly suggests more prestige than one of common oak,” Leffingwell argued, but he judged executives by the number of papers in their desks: the fewer papers, the more successful the executive. An executive was a thinker, a planner and had no need for drawers “unless for storing cigars and golf balls for his periods of relaxation and recreation.”²⁸⁴

Since 1900 management theorists had called for the elimination of routine paperwork from the purview of executives.²⁸⁵ By 1920, furniture in the executive office

²⁸³ W. H. Leffingwell, “Seven Space-saving Plans that Earned Profits,” *System: The Magazine of Business*, 42, no. 4 (October, 1922): 409-411. W. H. Leffingwell, “Nine Improvements on ‘The Way It Was Always Done’,” *System: The Magazine of Business*, 42, no. 3 (September, 1922): 274-275, 318. Desks were available in just two different widths, 42-inch or 60-inch.

²⁸⁴ W. H. Leffingwell, “Nine Improvements on ‘The Way It Was Always Done’,” *System: The Magazine of Business*, 42, no. 3 (September, 1922): 274-275. Galloway, *Office Management*, 90-91. In a parallel argument, Leffingwell encouraged better offices for executives than for clerks, but warned against too great a difference in amenities.

²⁸⁵ David Lay, “A Desk System for the Executive,” *System: The Magazine of Business*, 6, no. 6 (December, 1904):525-528. Lay described a successful executive’s work plan in which the desk drawers were always empty because he did not hold on to any paperwork or deal with routine matters.

was under the same pressures at efficient control (**Fig. 2.107**). “The capable executive of today is characterized by a ‘clean’ desk” the vice president of Western Electric wrote in *System Magazine* in 1919, “there should not be any place in the desk to put papers away.”²⁸⁶ The journal *Filing* wrote that heads of filing departments were frustrated by the annoyance and inconvenience of executives holding on to records at the end of the day.²⁸⁷ Filing cabinet manufacturers Yawman and Erbe offered “System Service Men” to analyze an executive’s particular need and a desk arranged such that “the hand of the executive will reach automatically for desired records without interrupting the continuity of brain action.”²⁸⁸

Yawman & Erbe suggested companies eliminate a “comfortable homelike atmosphere” from large executive offices to discourage guests from lingering. In an advertising brochure the company suggested a two-third reduction in the size of an executive office to limit walking, change file storage to a table, and replace a roll top desk with one of their efficiency desks (**Fig. 2.108**). According to an essay in *System*, successful executives no longer needed any storage whatsoever at their desks since “few details cross that desk when he is there, so few questions come up for him to decide.” Instead, executives were supposed to get away from their desk and spend time at the new pastime of golf and go to the ball game.²⁸⁹

²⁸⁶ Charles G. Du Bois, “A Place For Everything,” *System: The Magazine of Business* 35, no. 3 (March, 1919), 477-478.

²⁸⁷ “Custody of ‘Held-Over’ Records,” *Filing*, 1, no. 4 (October, 1918):132-133.

²⁸⁸ Yawman & Erbe, “Efficiency Desks,” Brochure, 1921. The service also provided “Big executives,” with their own set of filing and card record systems.

²⁸⁹ Lyman Anson, “Can You Put Thinking on a Schedule?” *System: The Magazine of Business*, 38, no. 3 (September, 1920), 437.

The Grid

In their guidebook *How to Succeed in Business* (1883), G. L. Howe and O. M. Powers believed identical standing desks for bookkeepers and sitting desks for clerks “should be ranged, one in front of another, like the desks in a school.”²⁹⁰ The authors, principals of the Metropolitan Business College, recommended a grid layout that spatially communicated status, those in the upper echelons closest to the proprietor so that each employee understood exactly what relative position he held and was in direct line of sight to his supervisor and any supervisees. The equation of proximity with higher status inverted the recommended arrangement in classrooms. The technical limitations of natural light and ventilation challenged Howe and Powers’ ideal arrangement. In commercial architecture, space was often leased without partitions. Full height walls tended to block window light and air flow. Instead of a grid that minimized travel between desks, in many medium and large sized office, desks defined functional units (**Fig. 2.109**). Even after the introduction of electric lighting, desks continued to be placed in long rows perpendicular to windows that required walking behind multiple workers. The placement encouraged distraction the same way that long benches in a monitorial school lead to distracted students in classrooms.²⁹¹ (**Fig. 2.110**).

Between 1910 and 1920, improved lighting, centralized heating and cooling systems, and curtain walls in hundreds of new office buildings freed furniture placement

²⁹⁰ Observations on arrangements of businesses for efficient management. G. L. Howe and O. M. Powers, “Office Methods,” *The Secrets of Success in Business* (Chicago: Metropolitan Publishing Company, 1883)

²⁹¹ See The Table, in Chapter 1.

and paved the way for fully coordinated furniture systems arranged in the ideal grid.²⁹² Managers positioned standard desks, filing cabinets and tables so workers remained close, but separated and within sight of a supervisor. Standard desk heights and widths encouraged classroom-like arrangements with consistent rows and straight aisles for office boys to rapidly traffic paperwork and packages. A 30-inch-high standard work surface placed clerks' heads at a consistent height. The clerical floor became immediately legible, a specific, missing, or aberrant employee quickly identified. Better efficiency resulted when all desks were arranged so that they faced the supervisor.²⁹³

Standard filing cabinets were used to divide space. Heights invited or discourage interaction – two-drawer filing cabinets were designed to be low enough to see over while seated, three drawer file cabinets blocked the view of seated clerks, and four drawer filing cabinets allowed for limited conversation.²⁹⁴ Two images taken from Globe Wernicke catalogs show how promotional materials reinforced the unit and grid principal and reinforced hierarchy (**Fig. 2.111**). The gridded schoolroom arrangement was familiar to young clerks, many of whom were hired upon graduation from high-school or from business schools. Students at the Eastman Business College, one of the largest practical

²⁹² “The Battlefields of Business,” *System: The Magazine of Business* 12, no. 4 (October, 1907), 375; Carl C. Parsons, *Office Organization and Management*, 22; Merrill W. Osgood, “Standardizing Methods of Standardization,” *Proceedings of the National Office Management Association*, 1921; Kwolek-Folland, *Engendering Business*, 104-106; Anna Vemer Andrzejewski, *Building Power: Architecture and Surveillance in Victorian America*.

²⁹³ Leon Orr Fisher, “How to Get Humanized Office Efficiency,” *The Efficiency Magazine* 3, no. 7 (July, 1913): 3-4, 15. The author, Third Vice-President Equitable Life Assurance Society, explained how to relieve clerks of “many of the burnesburdens which under old methods, made them merely drudges.” The article was based on an address he delivered before the Efficiency Society in New York.

²⁹⁴ Kwolek-Folland, *Engendering Business*, 110.

business schools, sat in gridded school desks, as did salesman in training at the school of the National Cash Register Company.²⁹⁵ (**Fig. 2.112**) and (**Fig. 2.113**).

With some exceptions, clerical floors of the second decade of the twentieth century came to express streamlined efficiency through flat, unadorned, metallic, and painted surfaces in strict gridded arrangement (**Fig. 2.114**). Steel desks, chairs and file cabinets were cheaper and provided no additional fuel for fires, a major worry as buildings grew in height.²⁹⁶ But the materiality of metal furniture went beyond its functional and cost benefits. Steel also reinforced clerical work as machine-like and moved office furniture further away from associations with traditional domestic furniture. Leffingwell argued that matching furniture was a visual cue of an “efficient” arrangement that induced workers and visitors to conduct business expediently.²⁹⁷ Crisp corners, coordinated dimension, and sleek uniformly colored surfaces implied neatness, forethought, and planning.²⁹⁸

²⁹⁵ Most of the rooms in the school were outfitted with school desks: Eastman National Business College, *Catalogue and Prospectus of the Eastman National Business College*, Poughkeepsie, NY, 1898), 35, 38, 55, 57, 59, 69, 71. Kendall Banning, “Getting Employees in Line,” *System: The Magazine of Business*, 15, no. 4 (April, 1909), 379-382.

²⁹⁶ Metal furniture became more prevalent after 1910. Art Metal first produced a metal pedestal desk, with drawers raised off the floor in 1906. Art Metal Construction Co., *Steel Cabinets and Furniture* (Jamestown, NY, 1906).

²⁹⁷ Leffingwell, *Office Management*, 330 and 342; and Carl C. Parsons, *Office Organization and Management*, 166.

²⁹⁸ By 1923 a standard shade of olive green, thought to harmonize with any color, was in place and lasted for fifty years. Olive green was also the standard color of upholstered leather Turkish chairs and couches for executives. Oak, walnut, and mahogany and painted or printed finishes were offered to coordinate with existing furniture. See Art Metal Furniture Co., Inc. *The 1919 Book of Better Business* (Jamestown, NY, 1919), 2; The Fred Macey Co., *Christmas Gifts*, 1903; and Yawman & Erbe Mfg. Co., *Steel Filing Equipment, Catalog, no. 3500*, 1922, 7. Steel desktops were cold to the touch, so some companies offered tops made of wood, or pegamold, a celluloid impregnated paper or fabric, a forerunner to Formica and other laminates.

Race in the Office

To affirm the place of women in the office, manufacturer's trade catalogs and newspaper advertisements repeatedly portrayed file clerks and stenographers as white women and executives and clerks as white men, despite the growing employment of African Americans in clerical work. Commercial furniture catalogs and trade journals failed to represent African American businesses, or to imagine them as customers though banking and insurance were prominent industries in African American communities and played a significant role in expanding a new black middle class between 1900 and 1920.²⁹⁹ In 1910, African American-owned insurance companies employed nearly 120,000 black clerks and over 140,000 in 1920.³⁰⁰ The businesses must have purchased office furniture and supplies.

If the consistent portrayal of young white women opened the imagination of hiring managers and executives to the possibility of women in the office, the erasure of black bodies from trade literature had the opposite effect; it limited the imagination of hiring managers to the possibilities of black bodies in a clerical office. After 1915, when the great migration brought waves of African Americans to northern cities, many could easily have taken up the now simplified and routine entry level clerical jobs at low pay. Many business schools enrolled black students, but few white-owned firms would hire

²⁹⁹ M. S. Stuart, *An Economic Detour: A History of Insurance in the Lives of American Negroes* (College Park, MD: McGrath Pub., 1969); Jerome P. Bjelopera, *City of Clerks Office and Sales Workers in Philadelphia, 1870-1920* (Urbana: University of Illinois Press, 2005), 23. Bjelopera found that a consistent 7 percent of white-collar workers were black between 1900 and 1920. Du Bois, W. E. B., Elijah Anderson, and Isabel, Eaton, *The Philadelphia Negro a Social Study* (Philadelphia: University of Pennsylvania Press, 1996), 132, 342. In Du Bois's and Anderson's study of Philadelphia, they found that black clerks only worked at black firms

³⁰⁰ M. S. Stuart, *An Economic Detour*, 49-50.

black graduates.³⁰¹ A black woman portrayed seated at typewriter desk or a black man seated in a clerical desk on an integrated office floor would have visually challenged social norms. White firms that did hire black women typically segregated them from clients and other workers.³⁰²

Whether consciously or unconsciously, office furniture manufacturers reproduced Jim Crow justifications of segregation based in the quest for efficiency and the fragility, sanctity, and perceived threat to white women's bodies.³⁰³ The choice to ignore black clerical workers was racist, but also economically strategic. If they hired black clerks, managers feared white racism inside and outside the office would cause "friction," that would undermine efficiency. After emancipation, the Federal government was one of the few institutions to employ a significant number of black clerks, yet in 1914, ignoring fifty years of successful integration, Woodrow Wilson justified the re-segregation of government offices in appeals to the all-pervasive goal of efficiency.

It was an "intolerable humiliation," for a white man to work "side by side with an objectionable people," and if it continued it would "destroy the efficiency of the public service" a Louisiana U.S. House of Representative legislator exclaimed in the legislative

³⁰¹ Business schools proliferated in most major cities in the 1860s and 1870s, opening up skills acquisition to anyone who could afford the tuition. See Zakim, *Accounting for Capitalism*, 70-75.

³⁰² Ethel Erickson, "The Employment of Women in Offices," *Women's Bureau bulletin* 120 (1934), 92. Kwolek-Folland argues that the pattern of racial segregation in office work was determined at least partially by the type of work- since women were prominent from the early years of the insurance industry, they were very visible and therefore employers shied away from hiring black women. See Kwolek-Folland, *Engendering Business*, 32-33.

³⁰³ James Weldon Johnson, *The Autobiography of an Ex-Colored Man* (Boston: Sherman, French, and Co., 1912), Chapter 11; in Johnson's autobiography he describes his struggles to find well-paying work and his success in passing as white to take a job as a clerk at a wholesaler. James Smethurst, *The African American Roots of Modernism: From Reconstruction to the Harlem Renaissance* (Chapel Hill: University of North Carolina Press, 2011), 96-123.

fight to segregate the government.³⁰⁴ The Secretary of the National Democratic Fair Play Association could not believe that for years no one had paid attention to the unbelievable number and manner that black employees were mixed with white employees. “In one of the rooms I visited I saw a negro employee leaning over the desk of a white women, evidently giving her some instruction to her work,” he related mortified, another testified to the “great evil” of a black men and white women seated at the same table. Further objection is repeatedly described using language of imagined spatial intimacy - “alongside,” “side by side,” “no negro shall sit down and dictate...to your white daughter.”³⁰⁵ White men perceived the simple presence of black men as a sexual threat to white women, “the ultimate symbol of white male power,” as Jacquelyn Dowd Hall argues.³⁰⁶ Office furniture overcame the worry over friction of attraction between white men and white women, but segregationists of the 1910s insinuated there would be a new friction caused by white repulsion by black clerks association with white women — ignoring the decades that white and black clerks had worked productively in proximity in government jobs. Though arguments against integration often appealed to the potential discomfort of white men working beside black men, democrats also shared accounts of white women subjected to the unwanted attention of black civil servants. The highly

³⁰⁴ U. S. Congress, House of Representatives, Select Committee on Reform in the Civil Service, *Hearing on Segregation of Clerks and Employees in the Civils Service*, 63rd Congress, 2nd session, March 6, 1914 (Washington: Government Printing Office, 1914), 4. Others testified that black women were abusive toward white women, were seditious in their criticism of Wilson, and carried diseases that could potentially infect white women with whom they had to share a toilet.

³⁰⁵ U. S. Congress, *Hearing on Segregation of Clerks*, 4-20.

³⁰⁶ Jacquelyn Dowd Hall, “The Mind that Burns in Each Body: Women, Rape, and Racial Violence,” in *Powers of Desire: The Politics of Sexuality*, ed. Ann Snitow, Chirstine Stansell, and Sharon Thompason (New York: Monthly Review Press, 1983), 334.

publicized debate over the segregation in the Federal government in the 1910s re-energized exclusion of black clerks from office work in corporations. Hiring managers dare not take the risk of introducing a black body in the office if it might undermine efficiency or the hiring of low-wage middle-class white girls.³⁰⁷

While trade literature proscribed possibilities of race-integrated clerical work, books, journals, and catalogs inadvertently helped open possibilities for African American businesses by providing owners with accessible and standard guidelines and practices. Business schools and correspondence courses broadened access for white students to satisfy the growing demand for clerks.³⁰⁸ Furniture manufacturer's catalogs were a less expensive alternative to textbooks or tuition at a business school or for a correspondence course in bookkeeping, stenography, or typewriting. Freely available illustrated catalogs contained detailed instructions about how to arrange furniture in an office, to divide responsibilities, and how to use the various cards and pre-printed forms that came with filing systems. With a few catalogs, an aspiring African American businessman could purchase furniture and supplies, and the basic knowledge to set up a modern, efficient clerical office.³⁰⁹

³⁰⁷ For the history of re-segregation arguments in the Wilson administration see Eric S. Yellin, *Racism in the Nation's Service: Government Workers and the color Line in Woodrow Wilson's America* (Chapel Hill: University of North Carolina Press, 2013), 157-172.

³⁰⁸ Cahins of business schools and books like B. F. Foster's *Theory and Practice of Book-Keeping*, increased access to education to those who could afford it

³⁰⁹ M. S. Stuart, *An Economic Detour*, 49-50.

Gender and class in the twentieth-century office.

“Down the hall he took a wrong turn at a junction of corridors and wound up at the entrance to an enormous room in which about thirty clerks worked at desks in neat rows as in a schoolroom.” Sloan Wilson, *The Man in the Gray Flannel Suit*, 1955.³¹⁰

An inexorable pursuit of greater efficiency and cost savings pushed designers to develop standard furniture systems that lasted for decades, becoming popular culture symbols of the alienation of office life at mid-century. The permanence of office furniture design also solidified the demographics of office work. Office furniture design was used to create boundaries between men and women, working class and the wealthy to overcome anxieties and potential conflict. As corporations expanded within the rapidly modernizing American economy new social structures were needed to guide behavior among men and women in offices. Furniture manipulated bodies and disciplined behavior of employees in much the same way school furniture quieted the bodies of students. Rigidly arranged standard furniture instructed men and women, executives, managers, and clerks work postures and behaviors needed to perform their occupational roles in a socially cohesive, productive, and hierarchical public space.

³¹⁰ Sloan Wilson, *The Man in the Gray Flannel Suit* (Cambridge: MA, Da Capo Press 1983), 100.

Chapter 2 Figures



Fig. 2.1: Another view of pre-industrial offices furniture. The simple yet monumental standing counting-house desk on the right served the limited record-keeping required by most business offices through the first quarter of the nineteenth century. (“Old Baltimore and Its Merchants,” *Harper’s New Monthly Magazine* January 1880, 178.)



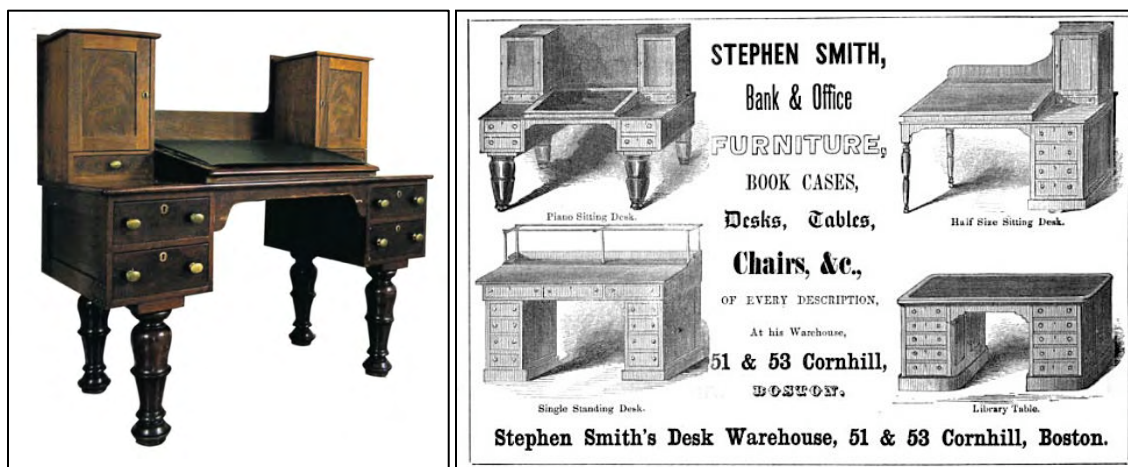
(a)

(b)

Fig. 2.2 The desk on the left is an especially luxurious version of a single counting-house desk with cross banded mahogany veneer, elaborately ring turned legs and splayed feet. The desk was used by a minister. The desk on the right closely resembles the standard form, set upon a simple frame of turned legs. (a. Standing Desk, Alden Spooner, 1810-1830 in the vicinity of Boston. Courtesy of the Duxbury Rural and Historical Society, www.duxburyhistory.org, Gift of Mrs. Marie Moore Forest, 1916.185 and the Boston Furniture Archive, DAPC 2014-0103, Winterthur Museum; b. Courtesy of Bourgeault-Horan Antiquarians & Associates, LLC.)



Fig. 2.3 Windsor Chair, 1810-1816, Gore Place Society, received as a bequest in 1951, F. 296.01, courtesy of the Boston Furniture Archive, DAPC_2014-0020-001.)



(a)

(b)

Fig. 2.4 The massive piano desk with oversized legs made visual allusion to the piano to imbue the form with the weight and cultural capital inherent in the expensive musical instrument. (a. John Sewell, "Roll-top desk worth \$4,000," *Windsor Star* June 14, 2008; b. Jones, *The Illustrated American Biography*, 1854, 310.)

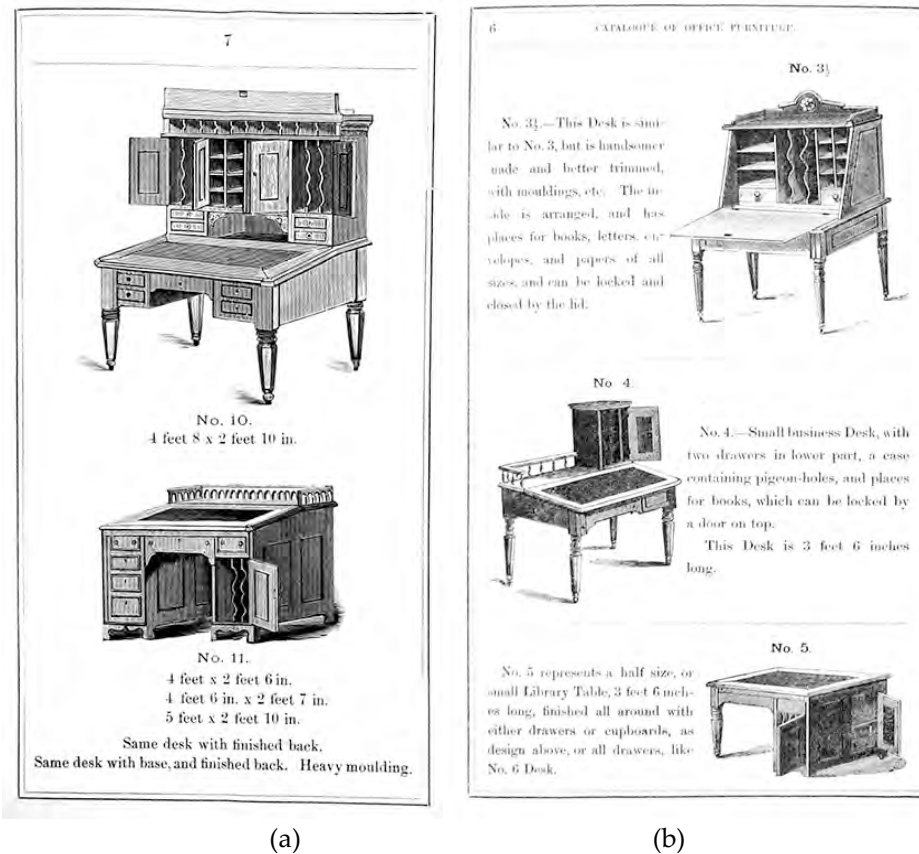


Fig. 2.5 Counting-house desks made in New York in the 1870s. (a. T. G. Sellew, *Designs of Office Desks and Tables*, 1871-1876, 6-7; b. J. Brewi & Co., *Designs of Writing Desks*, 1871, 6.)

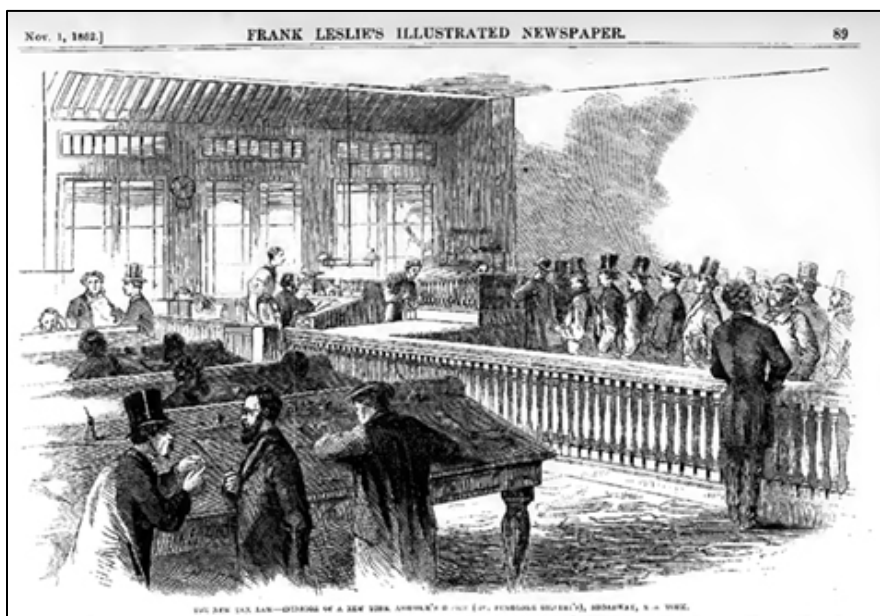


Fig. 2.6 Assessor's Office, New York City, 1862 (*Frank Leslie's Illustrated Newspaper* XV, no. 370 (November 1, 1862), 89.)

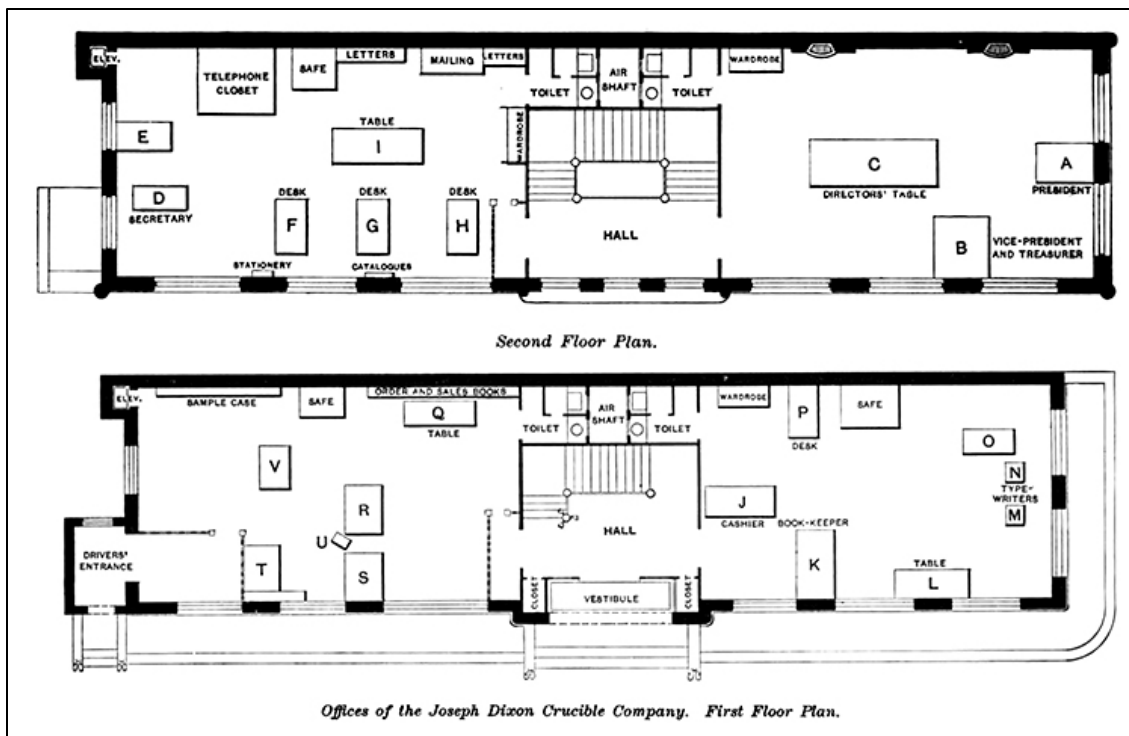


Fig. 2.7 Floor plan of the new office building of the Dixon Crucible Company, Jersey City, NJ, 1892. The first floor right office contained the cashier, bookkeepers, typewriters and stenographers; the first floor left office the shipping, receiving and other clerks not named, the second floor left office was the corporate secretary's desk, filing cabinets, and various other clerks, and in the office on the second floor right, the president and vice president, as well as a table for periodic director's meetings. One quarter of all the office space was devoted to the executive suite. ("A Spacious Office Building," *Business Magazine*, May 1892, 92.)

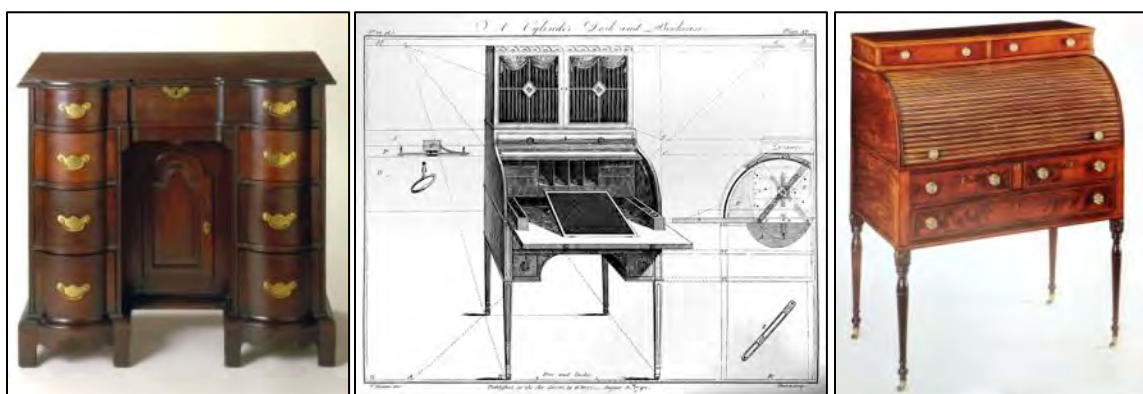


(a)



(b)

Fig. 2.8 Smith's annual display advertisement in the Boston directory changed from a typical counting-house desk in 1868 to a roll-top desk in 1869. By 1874 Smith had changed his letterhead from a collection of counting-house furniture in-use since the 1840s, to the lower engraving of a roll-top desk, reflecting his association and specialization in the form. (a. *Boston Directory*, 1868, 1036; b. *Boston Directory*, 1869, 1247.)



(a)

(b)

(c)

Fig. 2.9 Domestic precedents for the roll-top desk. (a. Bureau table, Boston, 1740-75, Mahogany, pine, 1955.0136.097, Bequest of Henry Francis du Pont, Courtesy of Winterthur Museum; b. Thomas Sheraton, *The Cabinet-maker and Upholsterer's Drawing-Book*, 1793, plate 47 c., Fig. 48; c. Cylinder Secretary with tambour lid, 1798-1808, attributed to John and Thomas Seymour of Boston. (Robert Mussey, Jr. *The Furniture Masterworks of John & Thomas*, 2003, 168. Photo by David Bohl.)

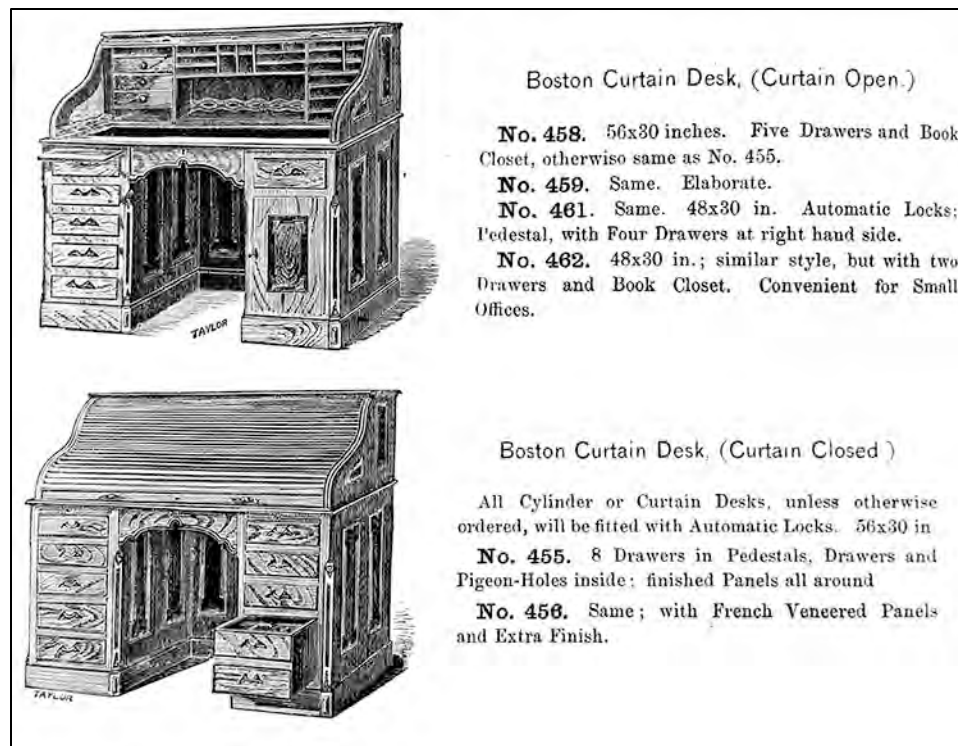


Fig. 2.10 Roll-top desks quickly spread from Boston to other major cities. School furniture manufacturer A. H. Andrews also made commercial furniture for offices including this nearly identical desk the company acknowledged was a form that originated in Boston. Item no. 458-462 were offered with several different arrangements of storage. Other desks in the catalog were mainly counting-house forms. (A. H. Andrews & Co., *Illustrations of Plain and Elaborate Office Desks*, Chicago, 1874, np.)



Fig. 2.11 High roll top desk showing finished and carved back, circa 1894. A photograph of a nearly identical desk appears in A. Cutler & Son, *Catalogue, no. 12*, 1894. (Courtesy of Manhattan Restorations, [http://www.manhattanrestorations.com/.](http://www.manhattanrestorations.com/))



(a)



(b)

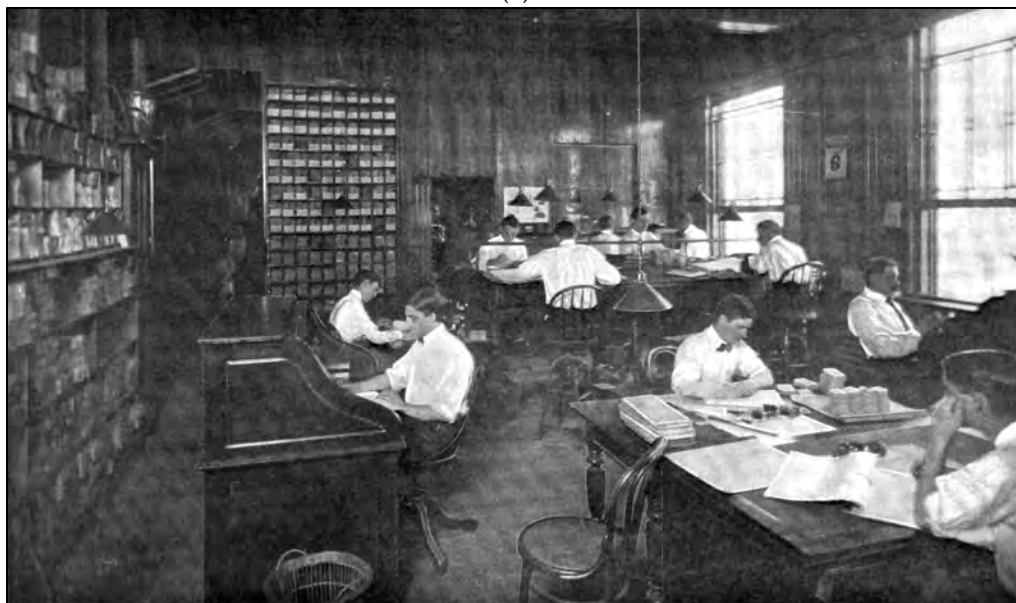
Fig. 2.12 Interior of the National Fire Insurance Company 1896, and the Metropolitan Life Insurance Company 1907, showing roll top desks set upon raised platforms with finished backs facing subordinate clerks. [Arrows added by author] (a. National Fire Insurance Co *A Quarter-Century's Fire Underwriting, 1871-1896*, New York: The National Fire Insurance Co, 1897; b. Byron Company / Museum of the City of New York. 93.1.1.6922.)



Fig. 2.13 High roll-top desks placed back to back as room dividers in the mid-sized office of the stock department at National Cash Register. Businesses that installed roll-top desks en-masse were unusual. The desks obscured sightlines across the department. Note the female clerk in the upper left also seated at a roll-top desk. Both she, and the clerk next to her have no papers stored in their cubbies, perhaps indicating a lower status. (“Battlefields of Business,” *System: The Magazine of Business* 10, no. 3, 1906, 311.)



(a)




Photograph taken especially for *SYSTEM*
 The factory office of the Columbia Phonograph Company at Bridgeport, Connecticut,—time and cost department, where all labor and time records are kept and production cost ascertained.

(b)

Fig. 2.14 Privacy and security were less important features of roll-top desks in the small offices of Ryerson Steel, (circa 1900), and the Columbia Phonograph Company payroll and (1906). (a. Ryerson Steel, Milwaukee Avenue, Chicago, Circa 1900, Courtesy of the Chicago History Museum; b. “Battlefields of Business,” *System: The Magazine of Business* 10, no. 3, 1906, 313.)

UNION DESK COMPANY. 3

IMPROVED ROLL TOP.



Patent applied for.
No. 10.


3 feet wide, 3 feet 9 inches high, 2 feet 6 inches deep. Can be seen over while sitting.

Red Cherry	\$40.00
Antique Oak	40.00
Black Walnut	40.00
Ash (no order)	40.00
Mahogany (no order)	35 per cent. advance.

Also made to order with Book Shelf on top for extra cost, at an additional cost of \$10.00.
DISCOUNT ON APPLICATION.
Order by number. No charge for packing when returned.

UNION DESK COMPANY. 9

IMPROVED ROLL TOP.



Patent applied for.
No. 22.

4 feet wide, 3 feet 9 inches high, 2 feet 6 inches deep. Can be seen over while sitting.


Red Cherry	\$65.00
Antique Oak	65.00
Black Walnut	65.00
Ash (no order)	65.00
Mahogany (no order)	25 per cent. advance.

DISCOUNT ON APPLICATION.
This Desk is also made 4 inches deeper, No. 25, at an additional cost of \$10.00. If made 6 inches higher, price will be \$75.00. No. 24. If made 6 inches higher and 4 inches deeper, price will be \$80.00. No. 26.
Order by number. No charge for packing when returned.

Our letter drop in Roll is a great convenience.

UNION DESK COMPANY. 10

IMPROVED ROLL TOP.
WITH SWING ARMS.



Patent applied for.

This cut illustrates our 5 feet "Swing Arm" Desks, designed for use where the light is extremely poor, or where the entire use of table is desired for projecting plans, drawings, etc. We make the 4 feet, 4½ feet and 5 feet widths only in the following numbers: 16, 17, 19, 21, 23, 25. In ordering simply specify number wanted "with Swing Arms," and kind of wood. Price \$5.00 additional for either size. Also made to order with Secretary on Top covered with Screen Roll.

All Desks made to take apart in sections.

Fig. 2.15 Single and double pedestal low-rise roll-top desks, and a version with hinged sides from the Union Desk Company of Boston, 1887. The catalog noted that the desks "Can be seen over while sitting." Red cherry, antique oak, and black walnut were stock woods, ash and mahogany were special orders. Mahogany was more expensive and required a 25 percent advance. (Union Desk Company, *Illustrated Catalogue*, 1887, 3, 9 and 10.)

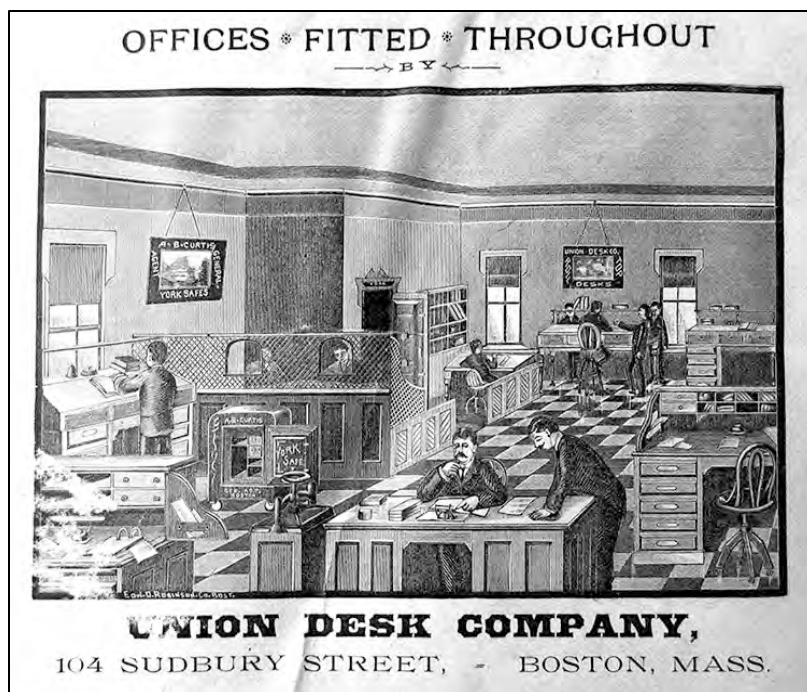


Fig. 2.16 Illustration of imagined office space outfitted by the Union Desk Company of Boston, 1887. (Union Desk Company, *Illustrated Catalogue*, Boston, 1887, bc.)



Fig. 2.17 Interior of the Connecticut Fire Insurance Company, 1887 showing low roll-top desks set upon raised platforms for supervisors set to the side of standing desks for clerks. (Connecticut Fire Insurance Company, *Photo-views of the home Office* 1887, 7.)

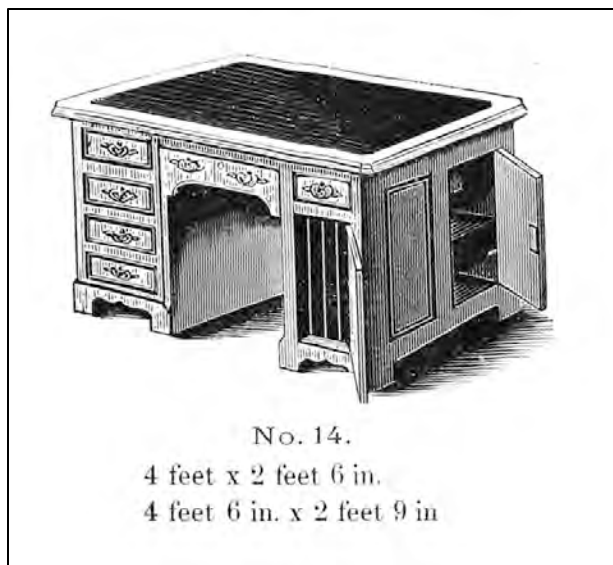
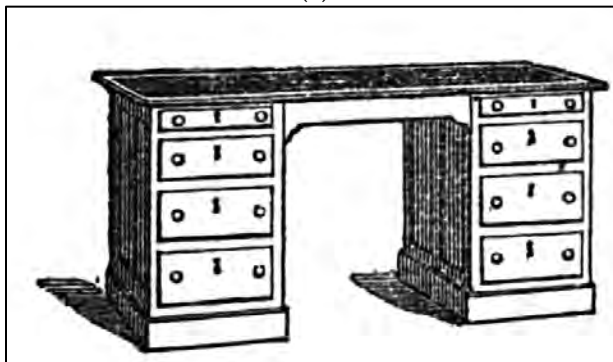


Fig. 2.18 Counting-house sitting desk, circa 1877 (T. G. Sellew, *Designs of Office Desks*, 1877, 9.)



(a)



(b)

Fig. 2.19 In 1856, an office partner desk (a) was identical to a teacher's desk (b). Both made in Boston. (a. Mahogany Partner's Desk, stenciled label of Stephen Smith & Co., Courtesy of Neal Auction Company, New Orleans, <http://www.nealauction.com/>; b. J. L. Ross ad, *The Teacher and the Parent* (New York: A. S. Barnes, 1867, 335.)



Fig. 2.20 Single and double pedestal desks and coordinating roll top desk manufactured (Derby & Kilmer Desk Co., *Derby Roll-top Desk*, 1889, 5,12, and 13.)

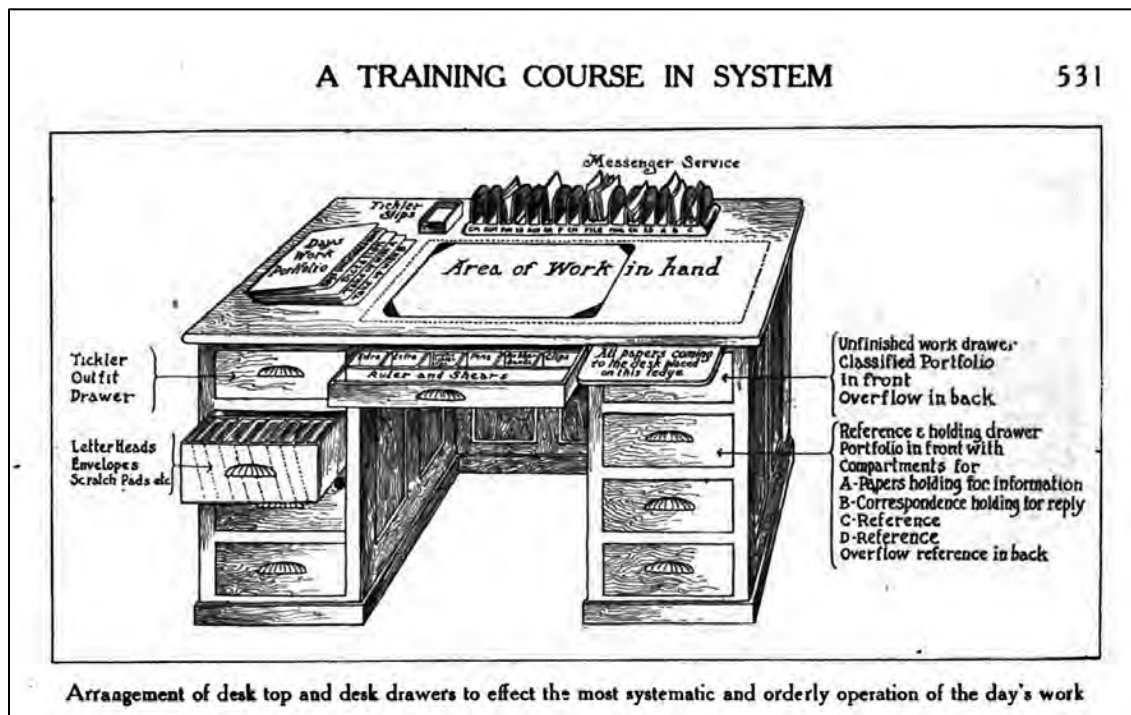


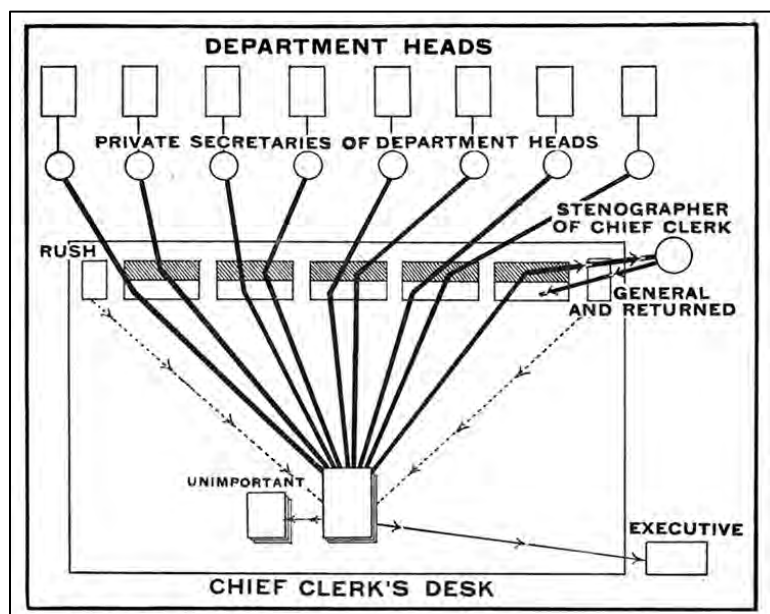
Fig. 2.21 The mapping of standard locations for work processes onto a pedestal desk. Note that the lower two drawers on either side are not programmed. (Harry Dwight Smith, "A Training Course in System: The Principles of Good Desk System" *System: The Magazine of Business* 7, no. 6, 1905, 531.)



FIGURE 126: The "fast mail" in this office is carried by a boy on roller skates. Where distances are long as in many factories this plan is often worth trying at least, you'll agree.

FIGURE 127: Rapid transit of mails is assured in another plant by putting the mail boys on bicycles. Long runs in a one-floor plant may make this plan economical.

Fig. 2.22 Managers kept clerks at their desks by transferring responsibility for trafficking correspondence to less expensive office boys. In 1918, W. H. Leffingwell suggested roller-skates or bicycles to speed the movement of correspondence in offices, especially those spread over a single floor. (Leffingwell, *Making the Office Pay*, 231.)



(a)



(b)

Fig. 2.23 Diagram of workflow in a railway office. The large rectangle represents a plan view of the chief clerk's desktop, heavy lines represent a high volume of papers delivered by messenger boys who move information from the desk of the clerk to the desk of the department head secretary. The stenographer also moves a high volume of papers, but only as far as his or her own desk, before processing and returning them to the chief clerk. The chief clerk's desk was a trafficking center from which he rarely stirred. The executive desk on the lower left receives very few documents, represented by the very light lines. On the right, the chief clerk of the Chicago & Alton Railroad maintained a flat-top desk as set up as in the diagram with a series of bins across the front to sort correspondence. He also maintained a roll top desk for his other written work. (Arthur L. Lynn, "The Desk System of a Detail Man," *System Magazine* 7, no. 1, 1905, 42-44; b. "Battlefields of Business," *System: The Magazine of Business* 10, no. 6 1906), 572.)



Fig. 2.24 “The Office Boy,” a board game by Parker Brothers of Salem Massachusetts. In the game the office boy spiraled about the board avoiding laziness, intemperance, and carelessness and moving up in the firm to mail clerk, shipping clerk, salesman, before going off on his own to become head of the firm. Over multiple editions the office boy was always represented as a white boy in middle-class garb. (Parker Brothers, Inc, and Marian S. Carson Collection. The Office Boy. Salem, Mass.: Parker Bros, 1889. Library of Congress, <https://www.loc.gov/item/97196328/>.)

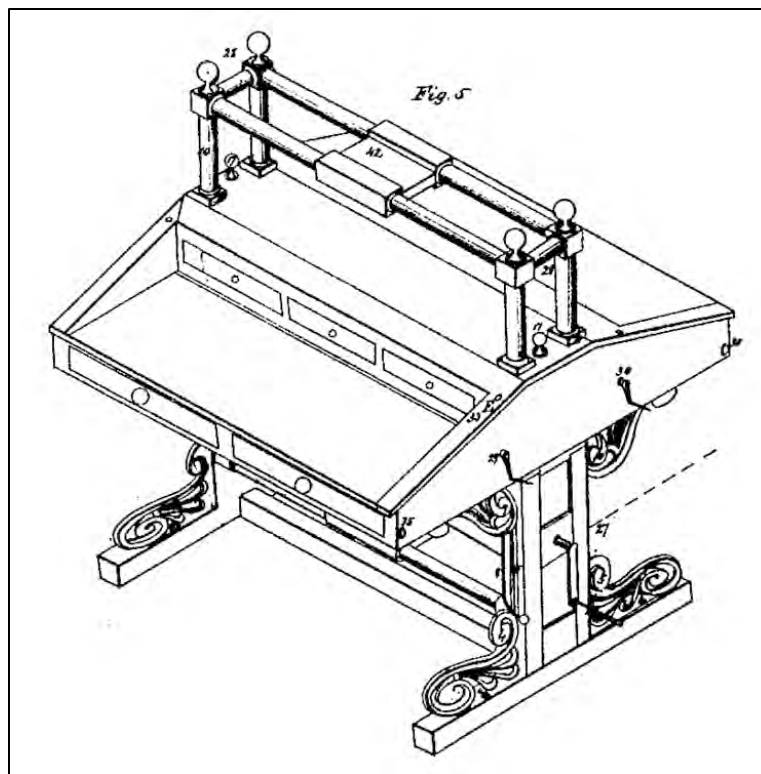
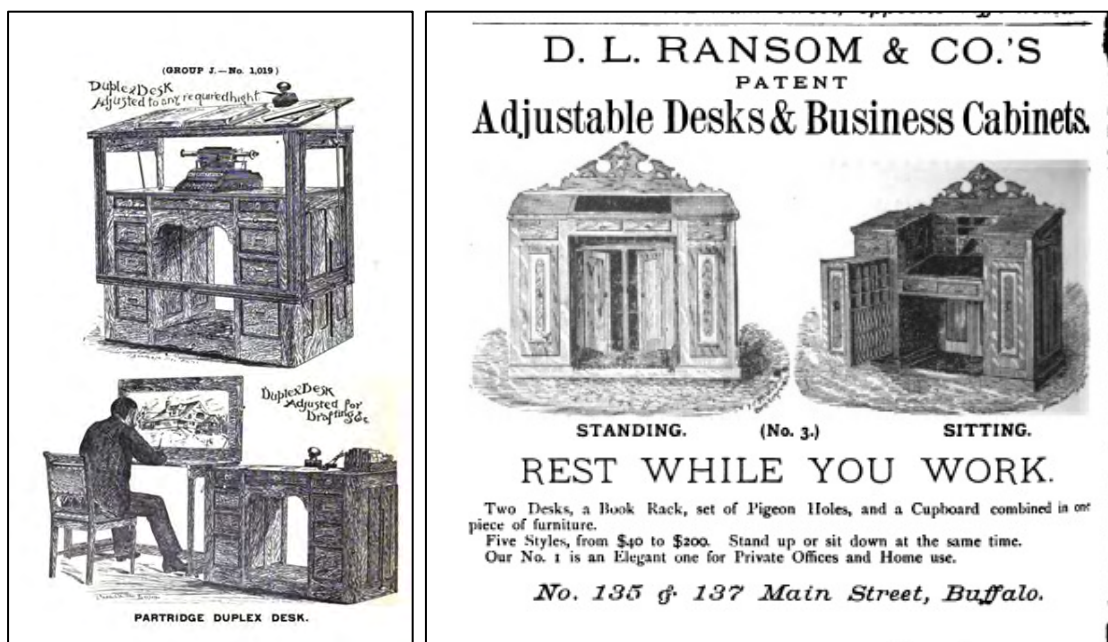


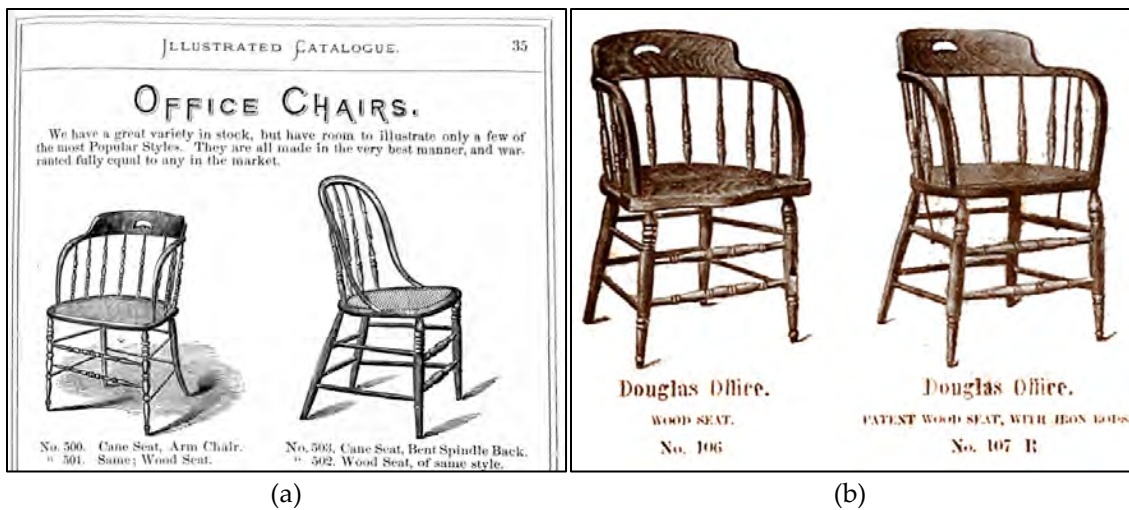
Fig. 2.25 Seth Luther, Alleviating writing desk, U.S. Patent no. 786. June 19, 1838.)



(a)

(b)

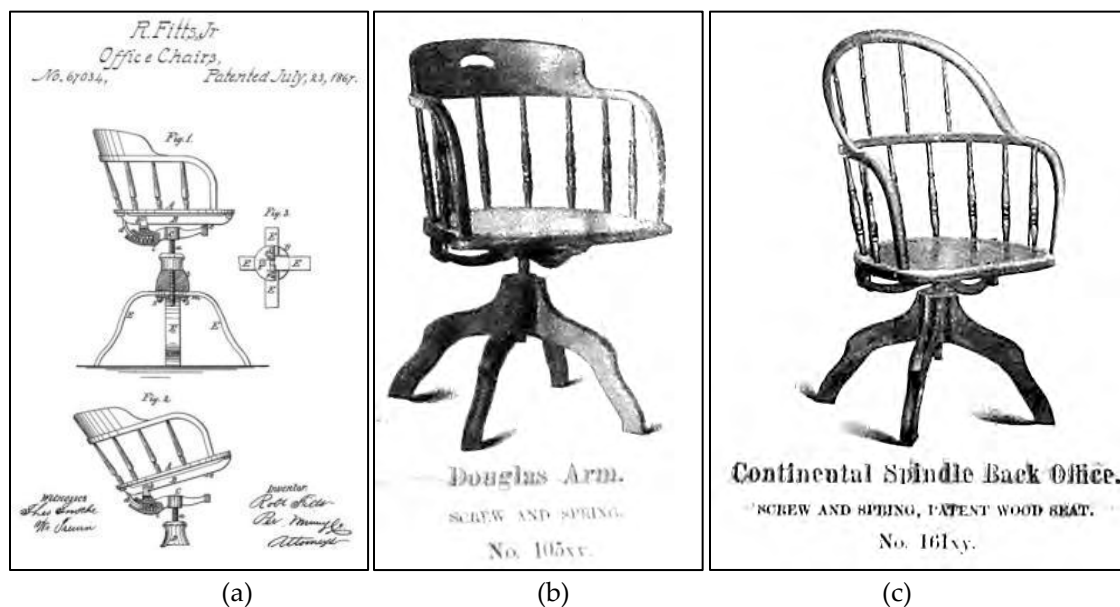
Fig. 2.26 Unsuccessful designs for height adjustable clerical desks. (a). Ottoway Partridge of Boston, Duplex Desk; b. Mechanical sitting and standing desk, D. L. Ransom, Buffalo, NY (a. Massachusetts Charitable Mechanic Association, *Report of the Sixteenth Triennial Exhibition*, 1888, 176-177; b. Advertisement, *The Globe: An Illustrated Magazine* 3, April 1876, np.)



(a)

(b)

Fig. 2.27 The term “Office Chair,” originally referred to a lightweight, inexpensive, spindle backed chair with low or no arms for use at or near a desk. The handhold cut into the crest rail of many of the chairs was used to move the chair about the office when fluid movement of clerks was the norm. The chairs were used in both offices and by teachers in classrooms. The chair on the right in illustration (b) has a patented wood seat, probably a Gardner & Company plywood seat. A perforated plywood seat may have been cooler for use in warmer climates. Typically, a solid wood seat was critical to the rigidity and stability of a Windsor chair since the superstructure and substructure both attached to the seat. In the “Patent wood seat” version, iron rods have been added to stiffen the substructure and compensate for the flexibility of the plywood seat. (a. A. H. Andrews & Co., *School Furniture and Apparatus*, 1873, 35; b. Heywood Bros. & Co, *Chairs, Rattan Furniture and Chair Cane*, 1878, 7.)



(a)

(b)

(c)

Fig. 2.28 a. First office chair patent illustration, 1867 and b, c. chair as illustrated in early manufactured versions. (a. Robert Fitts, Jr., “Improved Office chair,” U. S. Patent no. 67,034, July 23, 1867, 1; b. and c. Heywood Bros., *Chairs, Rattan Furniture and Chair Cane*, 1878, 4, and 7.)

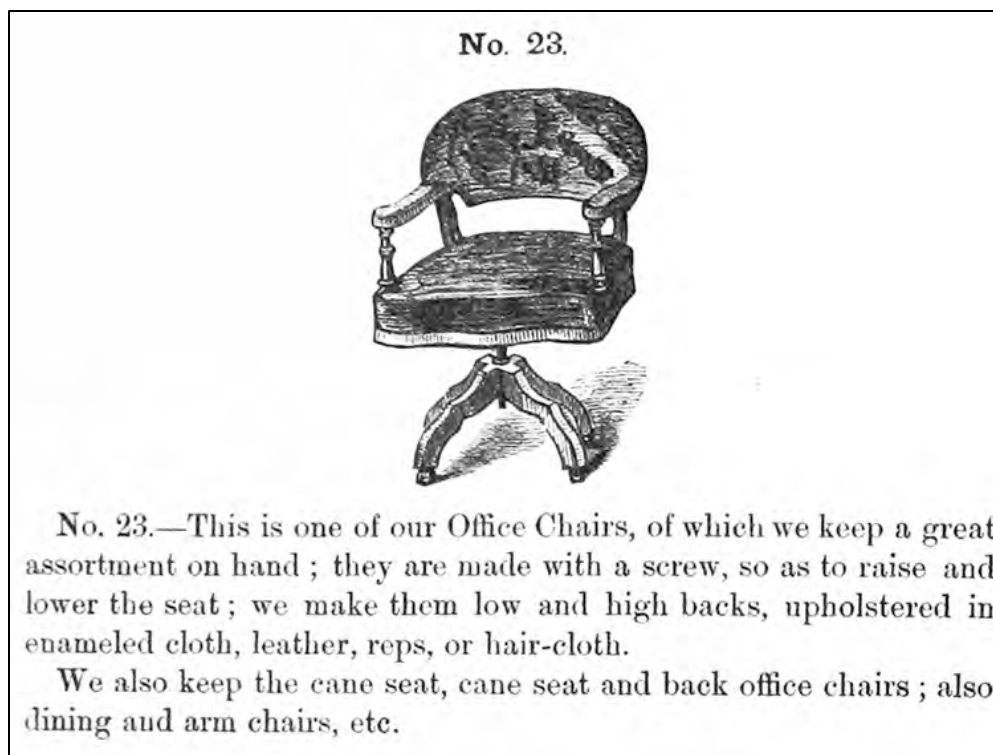


Fig. 2.29 One of the earliest illustrations of a manufactured office Chair, 1871. (J. Brewi & Co, *Designs of Writing Desks*, 1871, 16.)



Fig. 2.30 The rotating, tilting chair was initially promoted for use in both home and office. This selection of domestic uses included two nursing chairs and a dining chair. The chairs were identical to designs later specified as office chairs. The group on this page was situated among dozens of domestic rocking chairs in the catalog. A small number were specified elsewhere for the office. (Heywood Bros. & Co, *Chairs, Rattan Furniture and Chair Cane*, 1878, 4.)

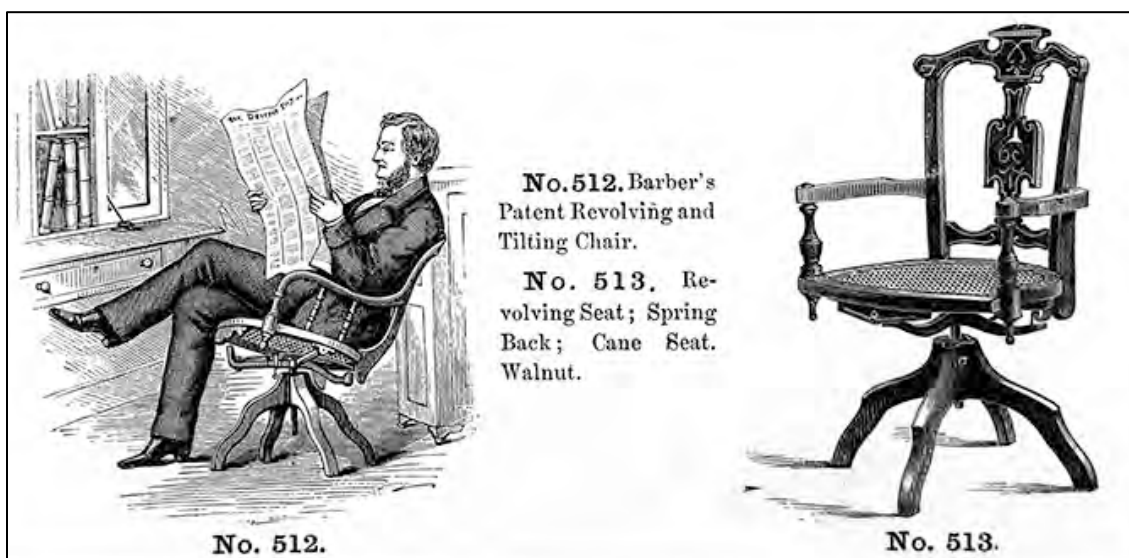


Fig. 2.31 Relaxed but controlled tilting position possible in an office chair. (A. H. Andrews & Co., *Illustrations of Plain and Elaborate office Desks*, 1874, np.)



Fig. 2.32 Factory-made office chairs expressed fine gradations in comfort and ornamentation to serve more stratified management hierarchies. (Composite of images taken from Heywood Bros. & Co., *Chairs: Cane and Wood Seat*, 1897, 76-92.)



(a)

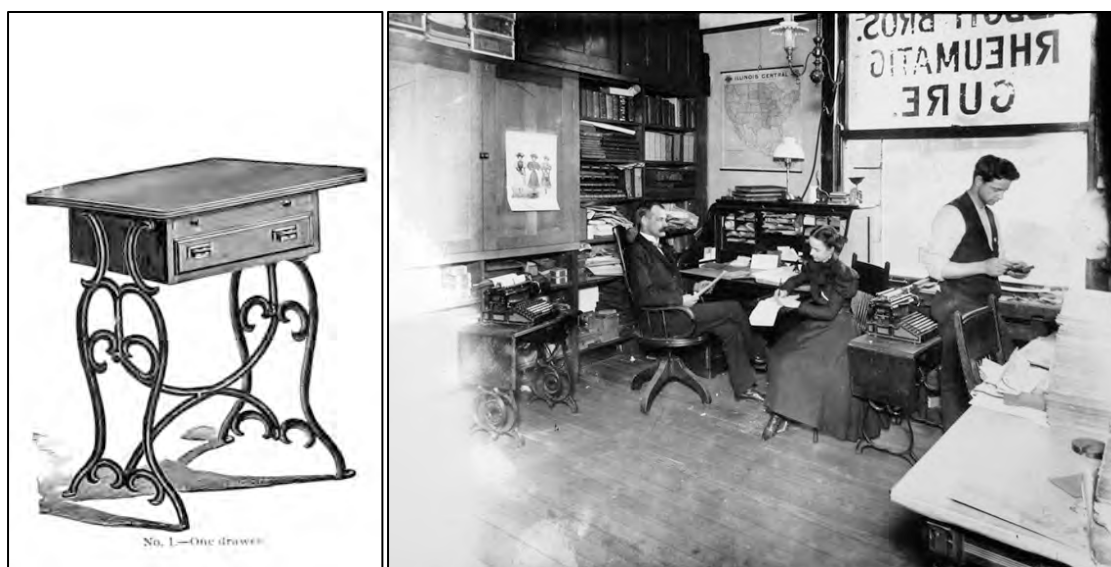
(b)

Fig. 2.33 19th century Americans were adept at reading subtle differences in status in highly ornamented furniture. The chair on the left is decorated with a scene from the hunt, a masculine symbol of nobility, and an acorn, representative of the strength of the oak in its generative phase. Although the chair appears complicated, the predominantly planar elements were designed for machine production, cut with scrolls and bandsaws, and decorated with machine pressed leather, spindle carving for incised decoration, and lathe turned elements. The chair on the right is a less ornamented versions, made using many of the same manufacturing processes. (a. The Globe Company, *Catalogue of Office Appliances*, ca. 1884-1889, 568; b. Swivel Chair, accession 129510, 1875-1890, Gift of Mrs. John J. Ruthven, Grand Rapids Public Museum, © Philip Carlino, all rights reserved.)



Sunlight and fresh air in abundance are found in the large room occupied by the stenographers of the National Cash Register Company at Dayton, Ohio; here hundreds of letters are handled each day

Fig. 2.34 Women seated at long tables in the stenography department at National Cash Register, 1907 The magazine noted that “sunlight and fresh air are in abundance,” to emphasize separation from the smoky male work area. (“The Battlefields of Business,” *System: The Magazine of Business* 12, no.1, 1907, 53.)



(a)

(b)

Fig. 2.35 One option for supporting a typewriter was to place the machine on a repurposed letter press stand. (a. The Globe Company, *Office Appliances*, Cincinnati, 1896, 113; b. Office of Abbott Bros, 1908, Courtesy of the Chicago History Museum.)

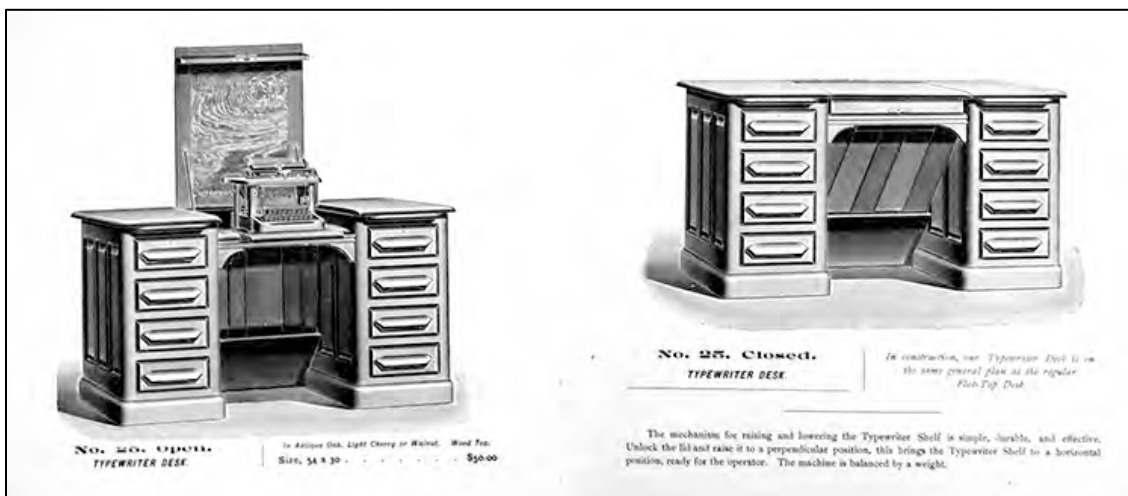


Fig. 2.36 Retractable typewriter desk, 1891. (Derby & Kilmer Desk Company, *Fifteenth Illustrated Catalogue* 1891, np.)

No. 327 Typewriter Desk.

CHOICE QUARTERED OAK, GOLDEN FINISH.

The stenographer so fortunate as to receive a genuine "Macey" typewriter desk at Christmas time will unquestionably give her employer in her next year's work many times its value in appreciation of its goodness. Of course the desk need not be given to her outright.

The quality of this typewriter desk is unsurpassed. It is constructed of carefully selected and matched quarter-sawn white oak gives a rich, even oak piano polish golden oak finish. The writing bed and extension slides are of heavily machined steel, fitted to the most expensive tooling throughout and made of the best material that can be used in an office desk. Brass points all around, including the entire front. Moulded sides. Full size model. All drawers run on rollers. All drawers lock and unlock automatically by lowering and raising the covers. Roll-topping covers. Size, 36 inches long, 26 inches wide, 31 inches high; height of typewriter bed when in use, 43 inches, the correct height. Weight, 30 pounds.

Price, No. 427 Roll Top, as above illustrated, \$41.00 net.
Price, No. 328 Flat Top, Double Pedestal, \$31.50.
Price, No. 330 Flat Top, Single Pedestal, \$23.25.

Similar desks are worth at retail from 40 to 100 per cent. higher prices. For our "WARRANTY" and "LIBERAL TERMS" see page 1.

It is an indisputable fact that one's office work is a greater pleasure in a nicely equipped office with all conveniences near at hand, and when these conveniences and nice things extend to the stenographer the results are sometimes marvellous.

As I am a great admirer of quartered oak in all furniture you will know how greatly I appreciate the beautiful wood you have placed in this desk. The workmanship and finish is more than you claim for it and it is really a PERFECT desk. We are GREATLY PLEASED. H. D. WHITEFIELD, Asst. Cash., Bank of Park River, Park River, N. D.

Gold Medals.

For superiority of design, material, construction, workmanship and finish we received the Gold Medal, the highest award, at both the Pan-American and Christian Exposition. See page 1.

No. 7 D Typewriter Desk.

CHOICE QUARTERED OAK, GOLDEN FINISH.

A great many are their own stenographers and for them the combination typewriter and office desk is a great convenience and economizes office space. For such this typewriter desk is beautifully adapted as when brought into use it does not require the breaking up of the writing bed and the consequent disturbing of papers thereby. When the typewriter is not in use it is out of the way under lock, thief and dust proof.

The desk itself presents an unusually handsome appearance, being made of selected quarter-sawn oak throughout, all stock being carefully selected for handsome grain effect. The entire writing bed and extension slides are of heavily machined steel, made to the most expensive tooling throughout and the most durable material that can be used in an office desk. The desk has a very practical pigeon-hole arrangement. Slides of diverse sizes. Cover drawers with lock. Moulded fronts all around. Full base mould. Roll-topping covers. The desk is set in rich golden oak fine-cut piano polish. Size, 36 inches long, 30 inches wide, 47 inches high; height of typewriter bed when in use 43 inches, the correct height; weight, 30 pounds.

Price, No. 7 D (Roll Top), \$45.00 net.
 Worth at retail \$60.00 to \$80.00.

Price, No. 7 C (Flat Top), \$31.50 net.
 Worth at retail \$40.00 to \$45.00.

For our "WARRANTY" and "LIBERAL TERMS" see page 1.

It is so much more sensible to buy such a practical Christmas gift, as it lasts almost forever and is enjoyed more hours in the day, year in and year out, than almost any other article.

The No. 7 D typewriter desk is the BEST typewriter desk I have ever seen and everyone who comes into our office seems to be of the same opinion. E. F. DAVIS, Bristol, Tenn. Sec'y Va. Iron, Coal & Coke Co.

Gold Medals.

For superiority of design, material, construction, workmanship and finish we received the Gold Medal, the highest award, at both the Pan-American and Christian Expositions. See page 1.

No. 328.
Flat Top Double Pedestal.

No. 7 C Flat Top
(Mahoning Writing Bed.)

Fig. 2.37 Typewriter desks manufactured by The Fred Macey Company of Grand Rapids, Michigan, and advertised on opposite pages of their 1903 Christmas Gifts catalog. The desk on the left was marketed as a gift for female stenographers, the desk on the right, for those (men) who "are their own stenographers." Both desks also came in roll-top versions. (The Fred Macey Co., *Christmas Gifts*, 1903, np.)

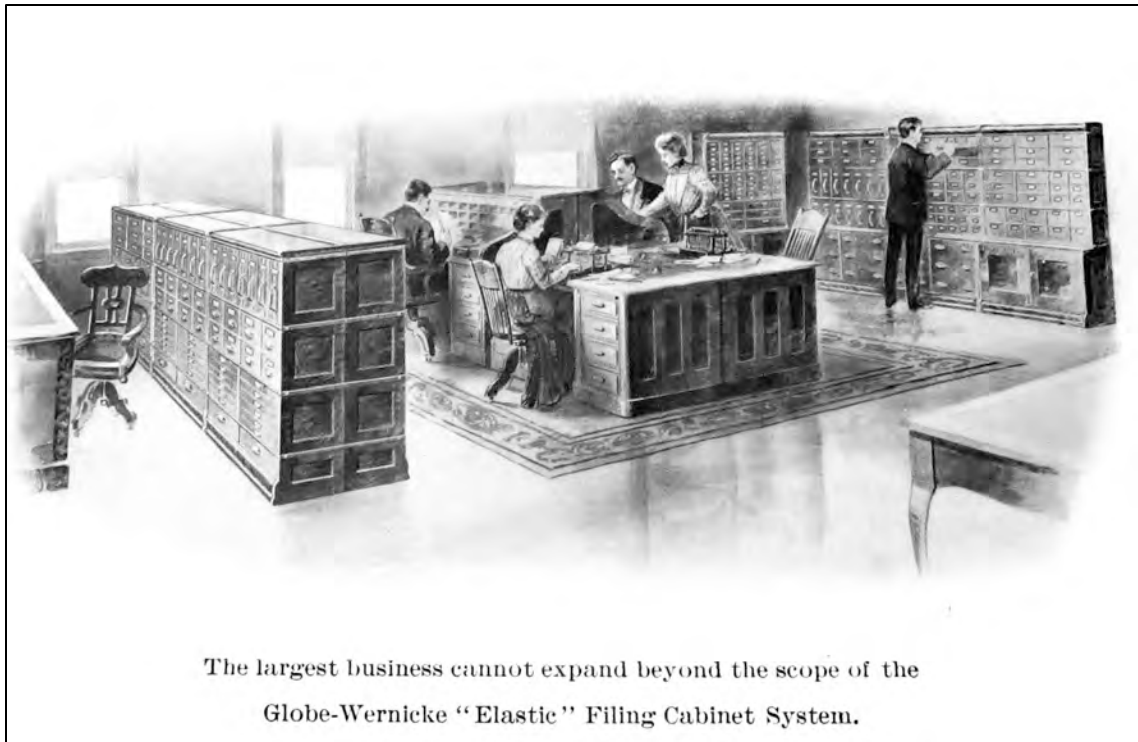


Fig. 2.38 Catalogs invariably portrayed center-lift typewriter desks as female. In this image the two women are seated adjacent to male counterparts in a standard arrangement shown in photographs in the early twentieth century. (The Globe-Wernicke Co., *Filing Cabinets*, Cat. no. 807, Cincinnati, 1907, 10.)



Fig. 2.39 Typewriter desk, A. Cutler & Son, 1884. (A. Cutler & Son, *Catalogue no. 12*, 1894, 45.)

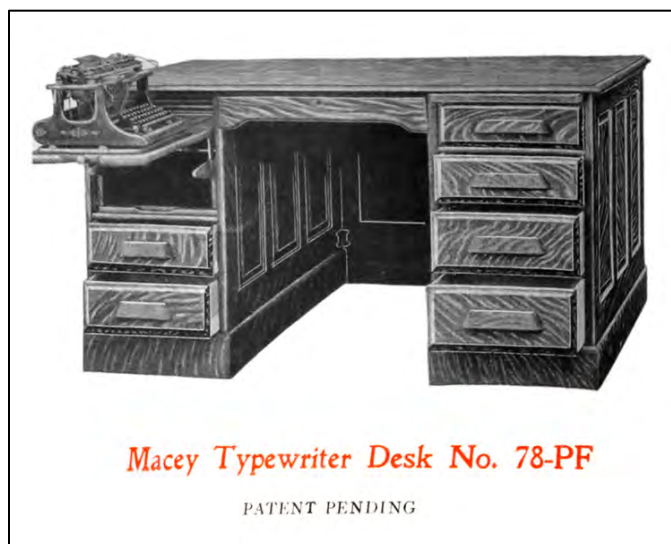


Fig. 2.40 Side lift typewriter desk. When closed, the tambour replaced just two of the desk drawers. (The Fred Macey Co., *Office and Library Furniture*, ca. 1904, 20.)



A compact but convenient and systematic arrangement of desks and departments in the general offices of C. M. McClung & Company, Knoxville, Tennessee, with files handily arranged for reference use

Fig. 2.41 Women seated adjacent to supervisors at C. M. McClung & Company, a hardware and stove manufacturer, 1908. Note that there are few or no papers on the women's desks, but various tools of business on the men's desks. ("The Battlefields of Business," *System Magazine* 14, no. 4, 1908, 409.)



Fig. 2.42 Women are turned to share their male counterparts work surface at Swift & Company the meat processing conglomerate, circa 1904. The image was published in the *System: The Magazine of Business* April 1904. (Illustrated Post Card and Novelty Co., NY)

Back Rest

**HANDSOME
OFFICE CHAIR**

With supplementary adjustable spring back. The most practical chair made. Gives ease and comfort all the time. Satisfaction guaranteed.



No. 300

Stenographer's Chair



No. 30

Easily adjusted spring back—the best chair for use at the typewriter ever produced. By its use you are able to do more and better work without that tired feeling. No office complete without them. Send for catalogue showing many styles.

**THE DAVIS
CHAIR CO.,**
S. N. McCloud, Mgr.
Marysville, - Ohio.

Fig. 2.43 Advertisement revealing gendered differences in the function of seating in the office. The male “handsome” office chair “gives ease and comfort all the time,” while the description of the female stenographer chair implies active physical engagement as it helps the sitter achieve “better work without that tired feeling.” (Display Advertisement – The Davis Chair Company, *System: The Magazine of Business* 4 no. 4, 1903, np.)

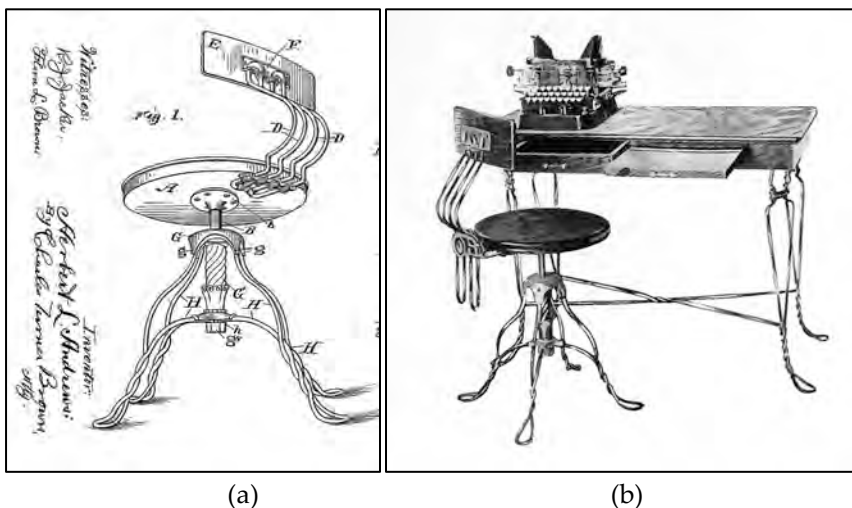


Fig. 2.44 Typewriter chair, circa 1887 The seat rotated, and seat and back were height adjustable. The same type of bent wire that formed the legs formed the spring back. A. H. Andrews wire frame spring-back chair was a popular item for stenographers for decades. An 1893 trade card from the Chicago World’s Fair (at The Chicago History Museum) described the chair as ideal both for “your daughter’s piano,” as well as a “perfect joy for the *Typewriter*.” (a. Herbert L. Andrews, “Type Writer’s Chair,” U. S. Patent, no. 552,502, January 7, 1896; b. A. H. Andrews Co., *Office Furniture*, ca. 1905, 67)

*Work's same as Play
when you're resting all day.*

Spring Back Chair Comfort

Stenographers and Bookkeepers and **all who work at a desk** all day long owe it to themselves to **Prevent Tired Feeling.**

YOU can't do good work when YOU're tired, and nothing makes YOU feel worse than a **Back Ache** which is due to the fact that the muscles of your back have no support.

Spring Back Chairs ought to be in every office. Employers ought to get them voluntarily, or employees ought to insist on having them.

Help you do better work.

Catalogues, price lists and illustrations of both high and low office chairs on request.

N^o 45. DAVIS CHAIR COMPANY, MARYSVILLE, OHIO.

(a)

DON'T GROW OLD!

Avoid stoop shoulders, round backs, aching bodies.

Every Bookkeeper and Stenographer should use a chair that is made right; a chair which will support the back and rest it while you are working.

"Our easily adjusted spring back Office Chairs appeal to men"

who value the health of their help and who want to protect that health, not only because it is humane, but because a healthy employe is worth twice as much as one who does not feel well and hearty.

Get Our Circulars Free.

DAVIS CHAIR CO. MARYSVILLE, OHIO

(b)

Fig. 2.45 Two advertisements for spring-back chairs equating work and play and emphasizing the relationship between body and productive work in the office. The admonition "Don't Grow Old!" played off the youthful fears of female typewriters. (a. *System: The Magazine of Business* 2, no. 1, 1901, np; b. *System: The Magazine of Business* 2, no. 7, 1902, np.)



(a)


Typewriter Desk

The pedestal is made up of two Sectionnets (see pages 65 to 75). For the upper unit a No. 521, 513, 528 or 529 may be used, while any of the following may be selected as the lower unit: No. 504, 505, 519, 516, 514, 514D, 514S, 508, 509, 503, 517, 510, 506 or 507.

No. 600
27" high 42" long
21" deep

Price includes top, legs, base, center drawer and sliding shelf.
Add price of two Sectionnets selected for pedestal.

Carried in Light Oak



(b)

Fig. 2.46 The upright posture of the spring-back chair introduced in the late 1880s by A H Andrews, continued to be a standard for typists and stenographers into the twentieth century. (a. Photograph, Chase and Sanborn Company, Chicago, IL, circa 1900, Courtesy of the Chicago History Museum; b. Shaw-Walker Co., *Filing Cabinets: Steel and Wood*, 1916, 79.)



(a)



(b)

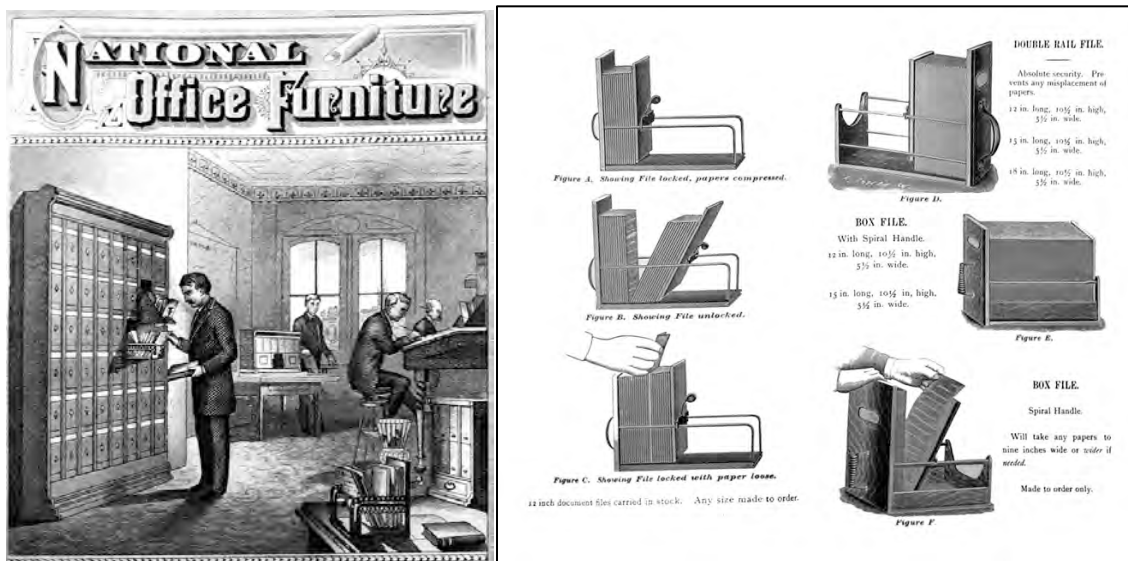
Fig. 2.47 Spring back chairs did not have arms that might interfere with typing or impede rapid entry and exit from the chair into the office to take dictation. The stenographer in the image on the left has moved from her typewriter desk (a) to share the work surface of the male clerk, shown in (b) the detail on the right. The gridded arrangement of desks has placed the men and women in direct visual sight lines, facilitating two-way surveillance. (a. and b. Machinery Department, Chicago office of Ryerson Steel, 1913-1914, Courtesy of the Chicago History Museum.)



Fig. 2.48 The stenographer seated in a side chair, often leaning upon the writing extension of a male clerk's desk was a standard posture shown in illustrations and photographs. (a. Brown's Business College, *The Student Hand Book of Brown's business College*, 1902, 20; b. Rand McNally, "The Battlefields of Business," *System: The Magazine of Business* 7, no. 1, 1905, 54; c. Rosenbaum Brothers, *System: The Magazine of Business* 3, no. 4, 1903; d. Freight office of the Chicago, Rock Island and Pacific Railway in Chicago. "Battlefields of Business," *System: The Magazine of Business* 8, no. 2, 1905, 145.)



Fig. 2.49 The outdated letter press shown versus the rolling copier. (Yawman & Erbe Mfg. Co., *Rapid Roller Letter Copier*, 1905, 3-4.)



(a)

(b)

Fig. 2.50 Folded document filing systems. (a. National Office Furniture, *Catalogue of National Office Furniture*, 1883, cvr; b. U. S. Desk & Office Fitting Co., *Letter and Document Files*, 1892, 36-37.)



Fig. 2.51 Amberg Cabinet Letter File. The advertisement emphasizes that letters are filed “rapidly and cheaply,” and available for “instantaneous” reference. (Emphasis original). Letter file systems were part of a movement toward systematic management that pre-dated Taylor’s scientific management by nearly 40 years. (a. Amberg File & Index Co. (Cameron, Amberg & Co.), *Amberg’s System of Letter Filing*, 1881, np; b. *Publisher’s Weekly* 233, no. 1, 1876, 97; c. “Oak Amberg’s Imperial Letter File Cabinet,” Lot 54, March 28, 2015, Invaluable, <http://www.invaluable.com/auction-lot/oak-amberg-s-imperial-letter-file-cabinet-54-c-06e4068b6f> Accessed 2/16/2017.)



Fig. 2.52 Early image of a female file clerk. (Library Bureau, *Classified Illustrated Catalog*, 1900, 112-113.)

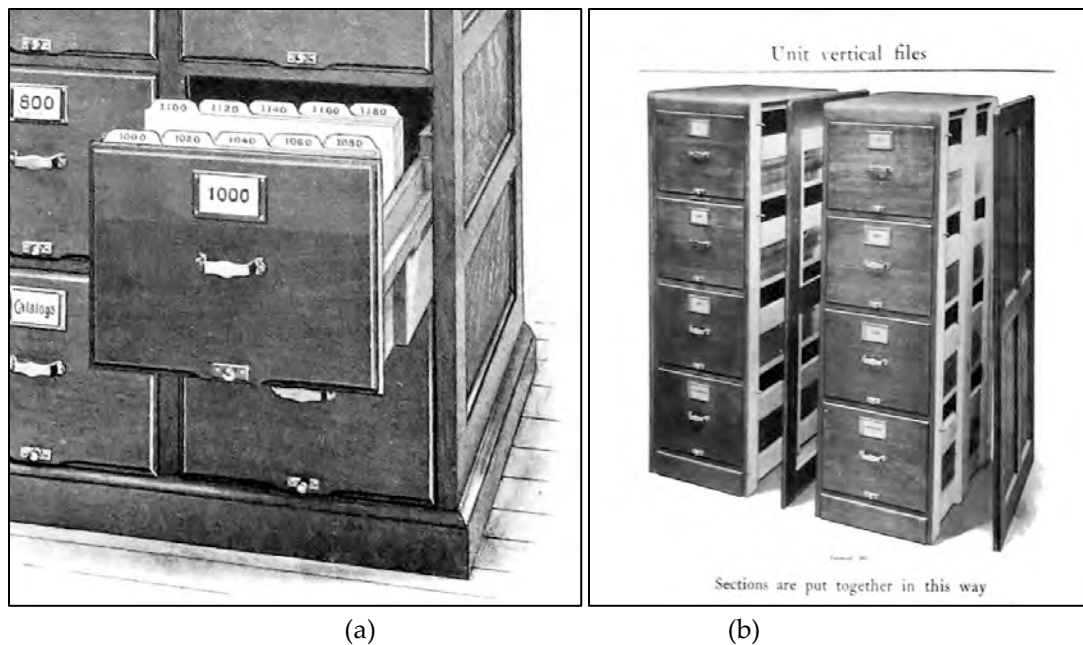


Fig. 2.53 Full extension drawer slide technology (a), and modular construction (b). (a. Library Bureau, *Furniture, Equipment and Supplies*, 1902, DETAIL), 87; b. Library Bureau, *Unit Vertical Files*, ca. 1903, 38.)

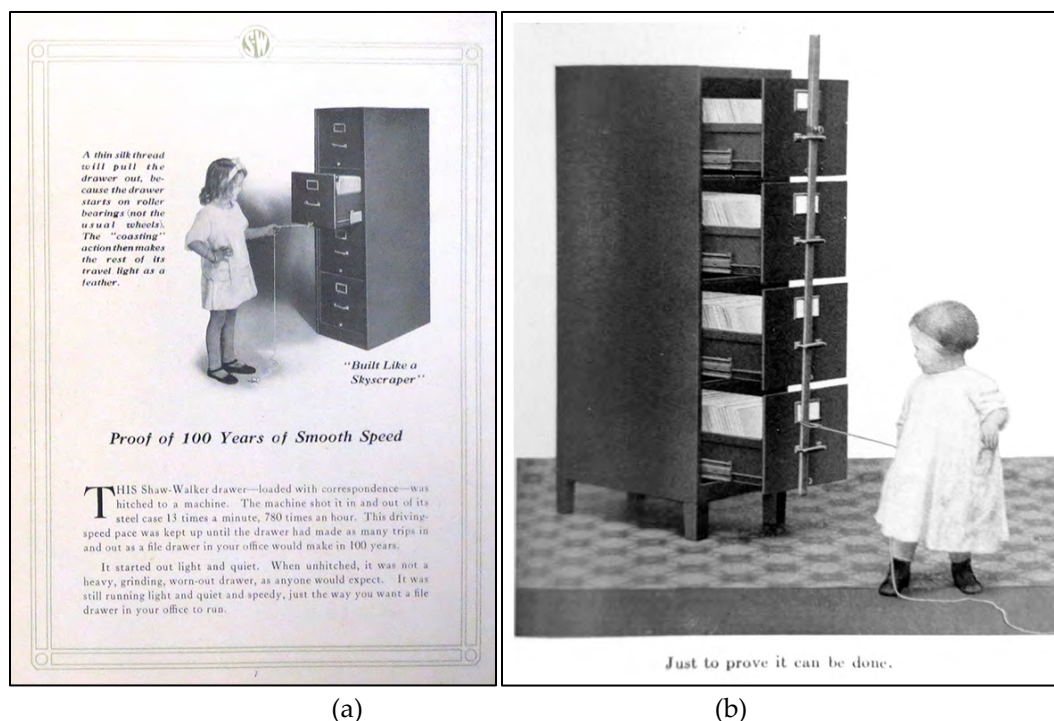


Fig. 2.54 The portrayal of a woman, girl, or even a toddler demonstrating convertible and mechanical furniture was a trope that developed in furniture advertising materials in the late nineteenth century. In a catalog of filing equipment, the imagery takes on a deeper resonance. The girl or baby stood in for the young female file clerk, implying fragility and innocence. (a. Shaw-Walker Company, *Filing Cabinets: Steel and Wood*, 1916, 7, Yawman & Erbe Mfg. Co., *Record Filing Cabinets*, 1920, 63.)

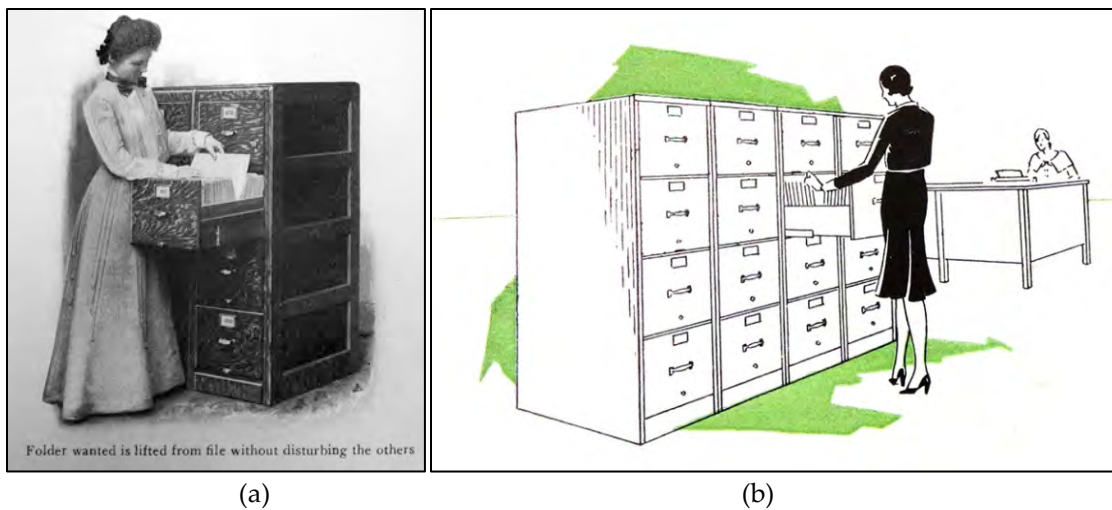


Fig. 2.55 From their inception in the office in 1900, manufacturers consistently represented filing clerks as well dressed, white, middle-class women in marketing materials, whether the representation was a posed photograph, a candid photograph of a workplace, or an illustration. (a. Library Bureau, *Library Bureau Vertical Filing*, 1904, 10; b. The Globe-Wernicke, *Steel Filing Equipment*, 1931, 2.)



Fig. 2.56 Filing room, Willard Storage Battery Co., Cleveland OH, 1917 (Library Bureau, *Vertical Filing*, 1917-18, 8.)

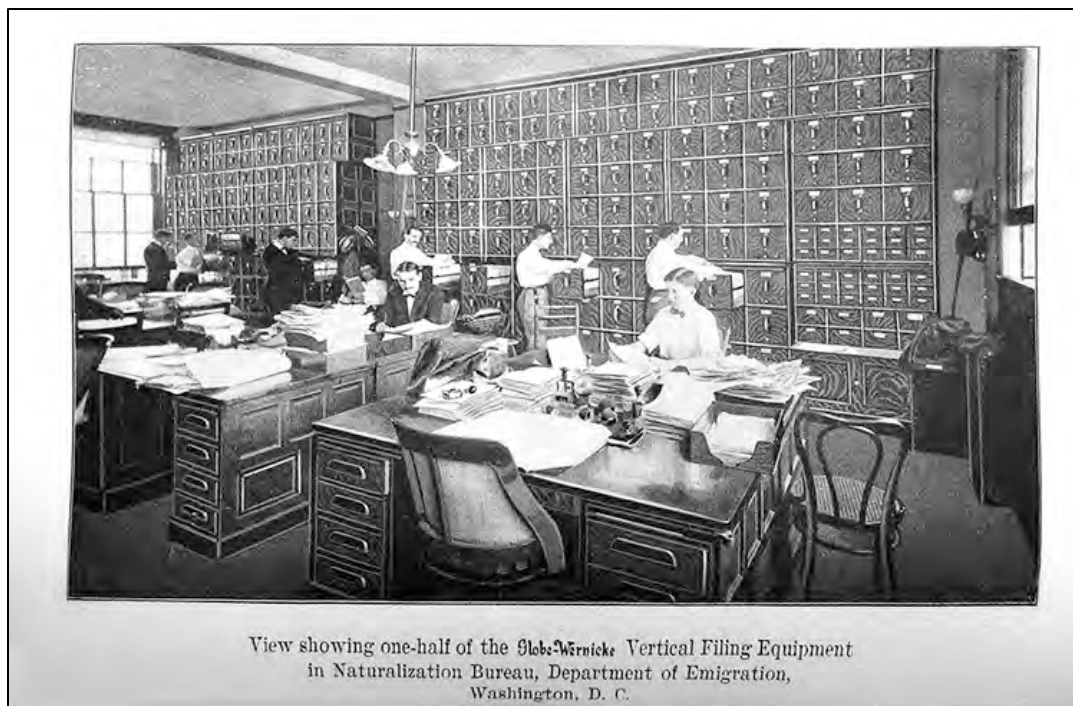


Fig. 2.57 Men working at the files of the Naturalization Bureau in Washington D. C. (The Globe-Wernicke Co., *Filing Cabinets*, no. 808, 1907, ifc.)



(a)



(b)

Fig. 2.58 Card transcription and checking departments, (a) Yawman & Erbe Mfg. Co., circa 1900, and (b) a filing school run by furniture manufacturer The Globe-Wernicke of Cincinnati, 1921. (a. Yawman & Erbe Mfg. Co., *Suggestions*, ca. 1898-1902, 64; b. The Globe-Wernicke Co., *Filing and Finding*, 1921, 10).

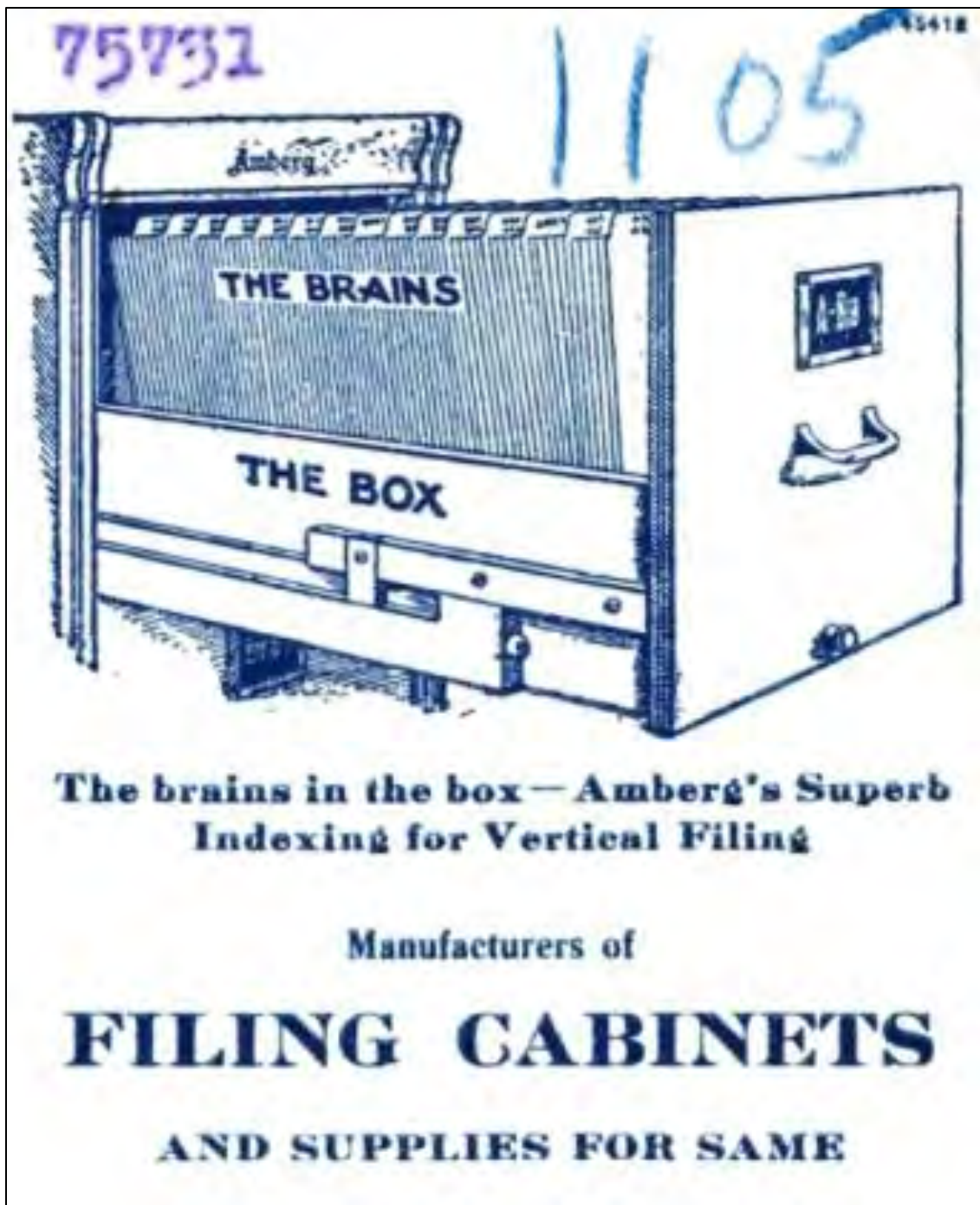
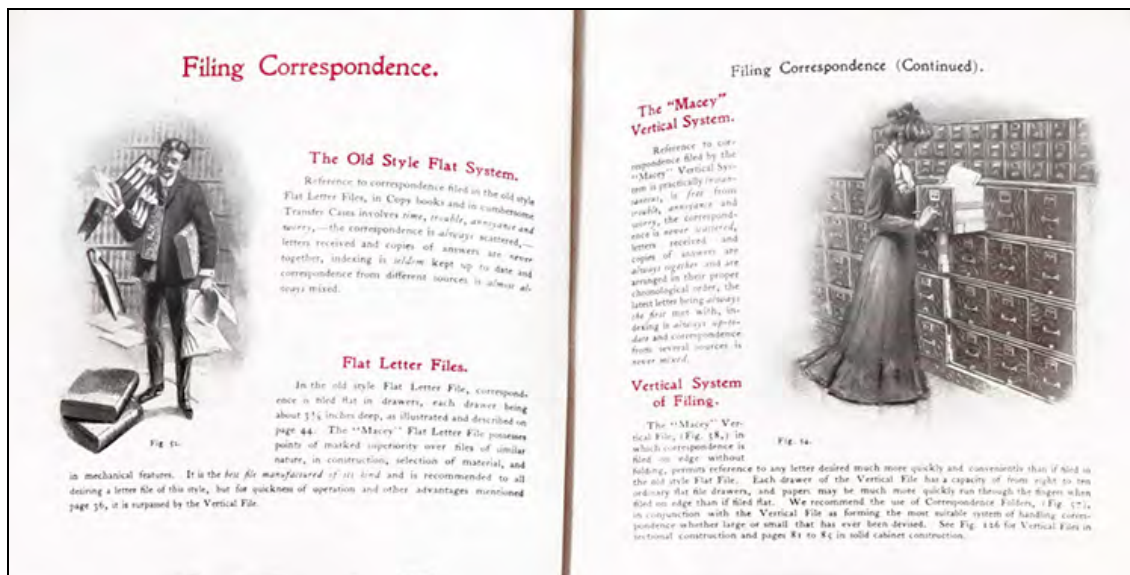
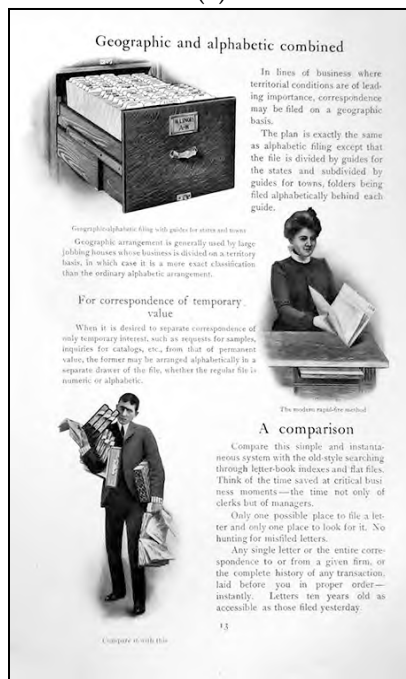


Fig. 2.59 Detail from illustrated invoice of the Amberg Company demonstrating how file cabinet manufacturers considered their indexing systems to be the brains of the filing system, and by extension, of the organization, 1910. (Amberg Company Invoice, 1910)



(a)



(b)

Fig. 2.60 Trade catalogs associated male clerks with inefficient, outdated methods and women with modern filing methods. The Fred Macey Catalog described the letter file, here portrayed with a male clerk, as “surpassed by the vertical file,” for “its quickness of operation and other advantages.” To contrast with the outdated letter file, the vertical file was portrayed with a female clerk. The Library Bureau used the same image in its catalog several years later, but with a slightly different portrayal of a modern woman. The catalog asked the reader to compare the frazzled male clerk, with “the modern rapid-fire methods” portrayed by the female clerk. (a. The Fred Macey Co. *Business System*, 1901, 34-35; b. Library Bureau, *Unit Vertical Filing*, 1904, 13.)



Fig. 2.61 Male Clerk waiting for service file clerk, 1910. (Yawman & Erbe Mfg., *Record Filing Cabinets*, 1910, 11.)

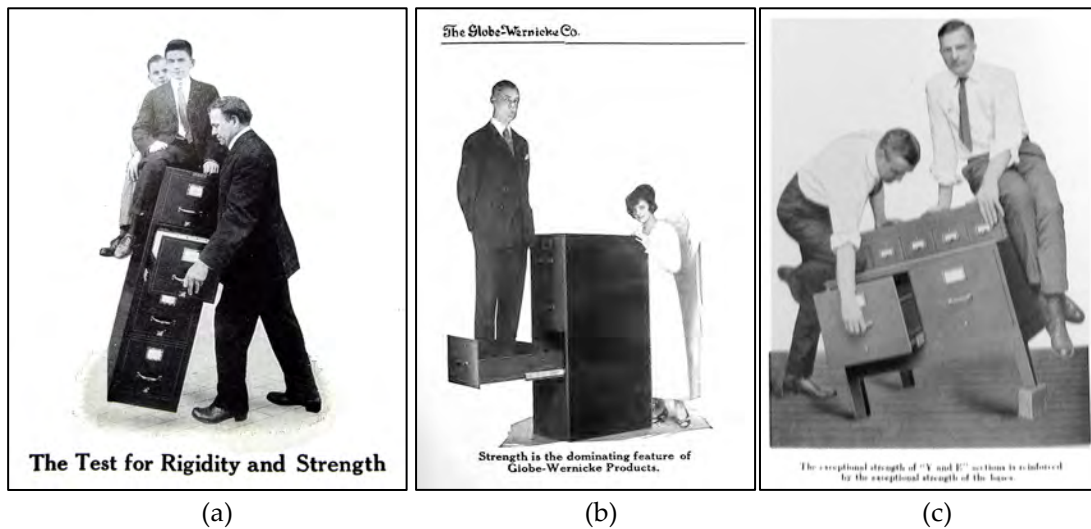


Fig. 2.62 A demonstration of filing cabinet strength can be read as an illustration of male aggression toward the filing cabinet. (a. Fire-Proof Furniture & Construction Co., *The Security Steel Line Cat. no. 92* (Syracuse, NY, 1916, 12; b. The Globe-Wernicke Co., *Filing Cabinets Wood and Steel*, 1921, 21; c. Yawman & Erbe Mfg. Co., *Record Filing Cabinets*, Cat. No. 3220, 1920, 62.)

Built Like a Skyscraper

FILING CABINETS

Of Steel and Wood
Indexed for your business

SHAW-WALKER

Built Like a Skyscraper

Here's the acid test that proves the merit of the Shaw-Walker file—its ability to stand up under the strain of a man jumping square-footed into one of the drawers.

Both cabinet and drawers are proof against the hardest abuse. Channel steel construction, electric spot-welding, cold-drawn steel drawer slides—all unite to make the Shaw-Walker file the strongest and most durable piece of office furniture of its kind.

Fig. 2.63 In 1919 the Shaw Walker Company adopted a logo of a man jumping into one of the drawers. The image may have symbolized ongoing tension between male employees reliant upon female file clerks with the filing cabinet standing in for the female clerk. If so, the strength and resilience of the filing cabinet reinforced the manufacturer's belief in the resilience of its female operators. Shaw-Walker and Yawman & Erbe frequently illustrated their catalogs with images of women actively engaged in office work. (Shaw-Walker Co., *Filing Cabinets*, 1919, cvr, 7.)

"Neverstick" is Right

The Improved "Neverstick" Drawer in the Shaw-Walker File opens and closes with slightest effort. When closed it fits flush and appears just like a fitted drawer—except that it never sticks under any condition, in any climate. (Patent Pending.)

New "Press-the-button" Follower Block

Why does it slide along so smooth—no sticking or hesitating? Because it doesn't depend on the guide rod—it runs on rods of its own—two of them—an exclusive feature. Adjusts with a touch. Locks instantly. One movement does the whole thing. This is one more example of Shaw-Walker ingenuity.

Who said "Strength"?

This husky young man's weight on the loaded Shaw-Walker File drawer doesn't cause slightest damage to the drawer front or mechanism. This is the New Wood Construction, plus new steel progressive slides.

Slam-Proof Front

Proof against even the most careless filing clerk. The sections of the drawer front are doweled—invisibly, of course—where they meet—and they stay. They're rigid forever. No warping. No breaking. No repairs.

Fig. 2.64 Shaw-Walker Co., *Filing Cabinets*, 1919, 68-69.)

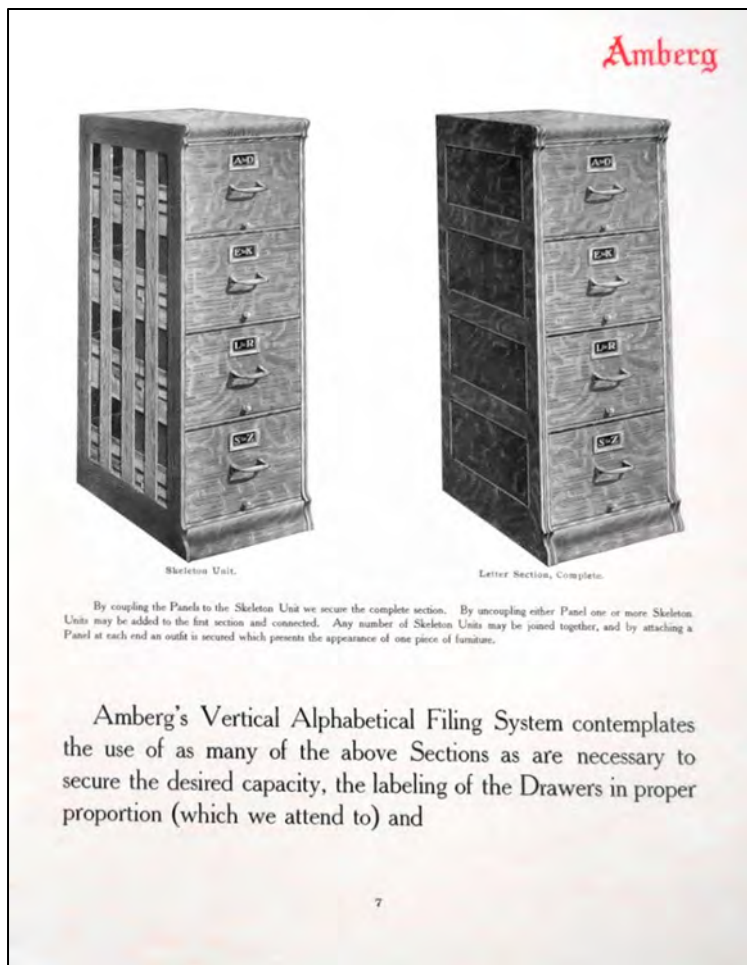


Fig. 2.65 Filing Cabinets designed to be ganged together encouraged long alleys and challenged rearrangements. (Amberg File & Index Co., *Vertical Filing Cabinets*, 1906, 7.)



Fig. 2.66 Segregated banked filing areas. The filing area on the left has a gate between the units in the foreground and a door in the background to ensure controlled access to the files. (Library Bureau, *Unit Vertical Filing*, 1904, 36 and 40.)

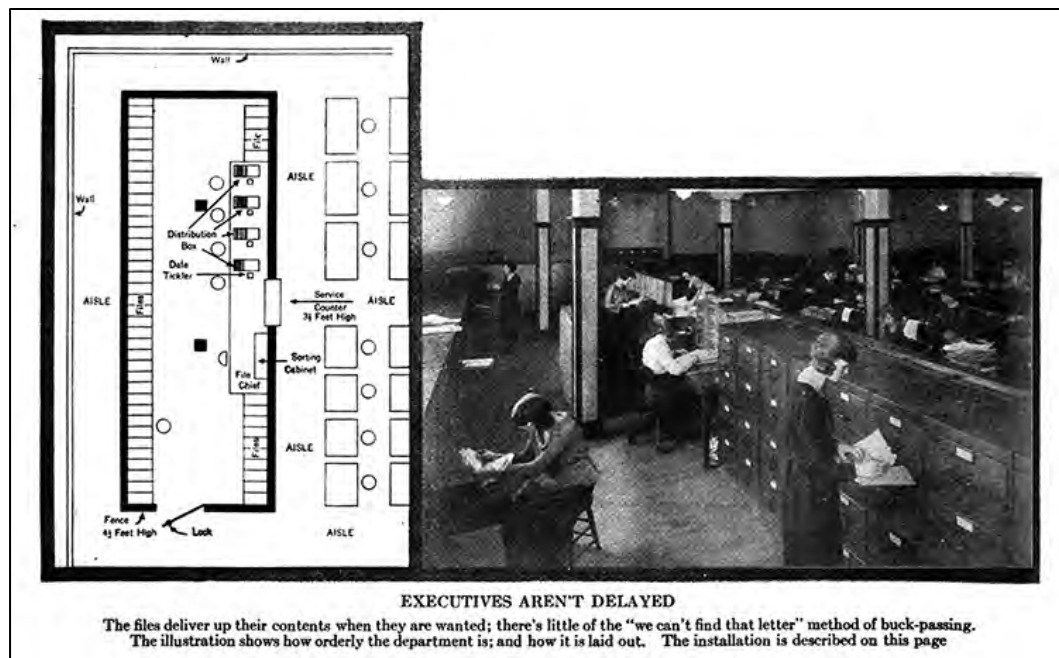


Fig. 2.67 File consolidation behind a wall and locked door, O. W. Richardson Company of Chicago, a wholesaler of rugs, carpets, and furniture, 1920. ("Over the Executive's Desk," *System: The Magazine of Business* 38, no. 1, 1920, 52-53.)



Fig. 2.68 Filing cabinets used to separate female file clerks from the rest of the office. (a. Amberg File & Index Co., *Vertical Filing Cabinets*, 1909, 52; b. Library Bureau, *Filing as a Profession*, 1919, 12.)

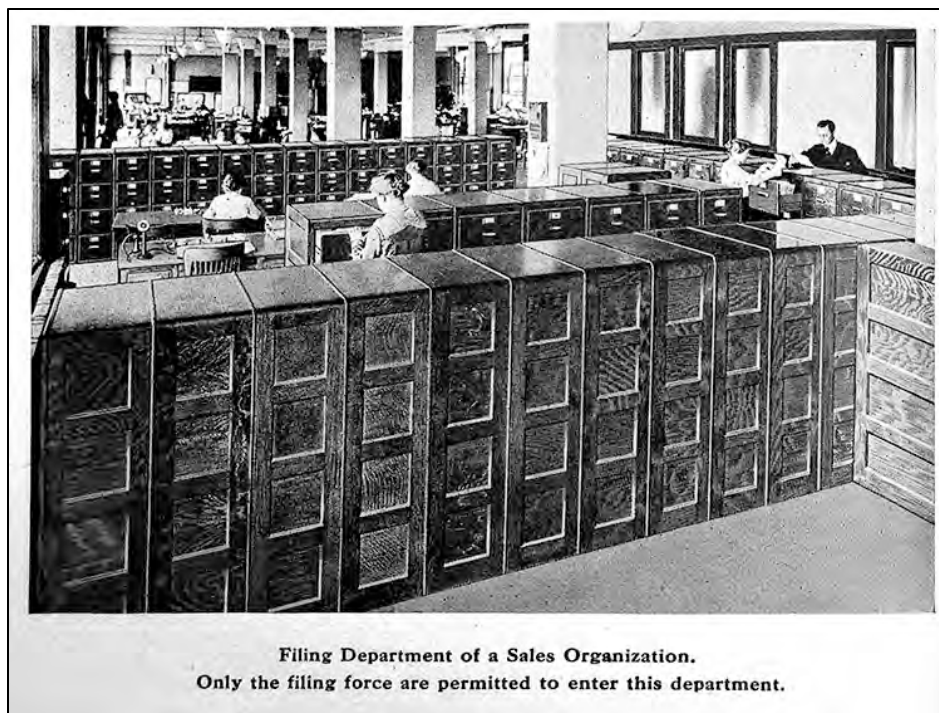


Fig. 2.69 Filing department from a prospectus for the New York School of Filing, 1918. Schools and manufactures maintained a close working relationship. The Library Bureau used the same photograph to illustrate its 1917 vertical filing cabinet and identified the company as Cleveland Metal Products. (New York School of Filing, *Sixth Year*, 1919, 7; also, The Library Bureau, *Vertical Filing*, 1917, 20.)

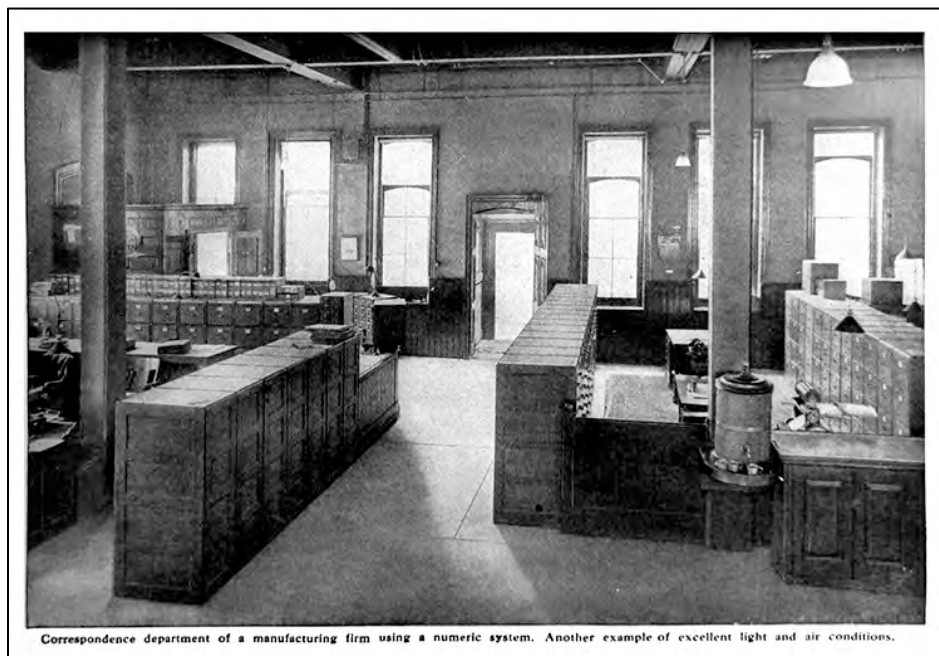


Fig. 2.70 Filing room. The reference to excellent “air conditions,” contrasted with smoke-filled masculine environments. (New York School of Filing, *Sixth Year*, 1919, 21.)



Fig. 2.71 Postcards published by the Metropolitan Life Insurance Company based on a series of 1907 photographs, clockwise from upper left – the filing department, the actuarial department, the ordinary department, and the women’s lunch room. (Metropolitan Life Insurance Co., circa 1907).



(a)



(b)

Fig. 2.72 Images of the floor-to-ceiling Metropolitan Life Insurance card files. The department was all female, under the supervision of a male chief filing clerk, seen in the center of the room standing in front of his low roll-top desk in the picture on the right. Though the male supervisor did not appear in the postcard version of this photograph. The women sit at lightweight bentwood chairs (a. Detail of Postcard, 1907; b. The Metropolitan Life Company, 1907, Byron Company / Museum of the City of New York. 93.1.1.6910.)



Where the millions of names of customers doing business with Montgomery Ward & Company are filed—probably the most engaged each day in properly arranging the names of customers for ready reference at

Fig. 2.73 Filing Card System, Montgomery Ward. Note the simple wooden table and chairs to support card drawers. *System Magazine*, V 14, no. 01, 1908, 36.)



Unit card record desk

Double unit desk

Outside dimensions: 6 ft. 1 $\frac{1}{4}$ in. wide, 3 ft. 4 $\frac{1}{2}$ in. deep, over all. Posting board unit: 26 in. wide, 20 in. deep. Card unit only: outside dimensions, 31 in. high, 40 $\frac{1}{2}$ in. wide, 24 $\frac{1}{2}$ in. deep. Inside dimensions, 35 $\frac{1}{2}$ in. wide, 20 $\frac{1}{2}$ in. deep.

Fig. 2.74 Following the strict conservation of motion of Taylorism, The Library Bureau catalog described the card desk as “A NEW appliance for efficiency in the world of business,” that put “an immense number of cards... within arm’s reach.” (Library Bureau, *Unit Filing Cabinets in Wood*, 1914, 68.)

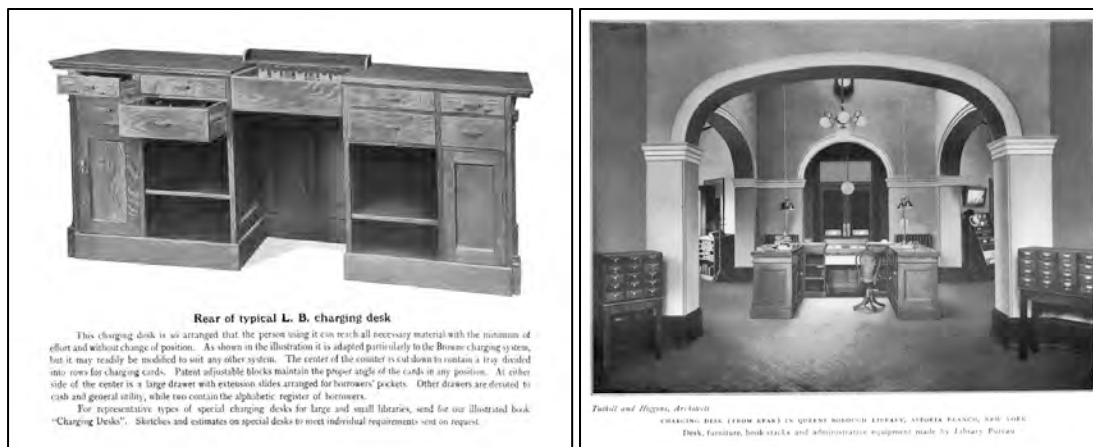


Fig. 2.75 Library Bureau charging desk used by librarians to manage client information on cards stored in a large well at the center of the desk. (Library Bureau, *Furniture, Equipment and Supplies*, 1902, 98, 102.)

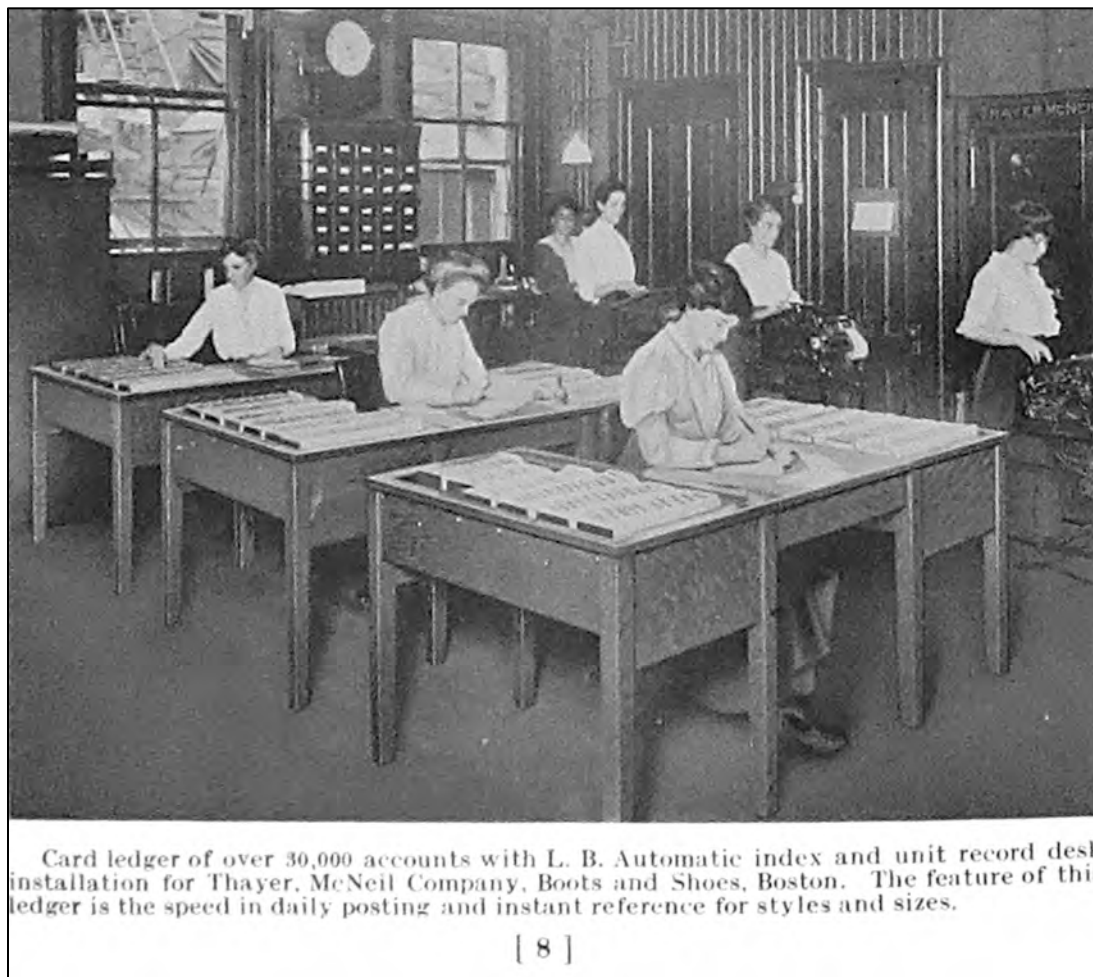


Fig. 2.76 Women at this shoe manufacturing firm worked at both card handling desks and operating computational machines, under the watchful eye of a female supervisor at the rear of the room. (Library Bureau, *The New Method for Indexing Cards*, circa 1915, 8.)



THE OLD WAY

The clerks in this office of a mail order house are almost hidden by card files, which makes proper supervision rather difficult. Compare this arrangement with that shown below, for an office handling similar records



THE NEW WAY

Every clerk is visible to the supervisor. One clerk with a modern "tub" desk can handle as many cards as with the card drawer cabinet, and thousands of waste motions made by pulling out and putting in the drawers of the cabinets shown above are eliminated. Many managers have a horror of discarding equipment, but the saving usually effected by installing modern equipment often justifies the initial cost, not to mention the satisfaction from better work

Fig. 2.77 Some corporations replaced tall card catalogs with tub desks to reassert surveillance on their female file clerks. (Leffingwell, *Scientific Office Management* 1917, 187.)

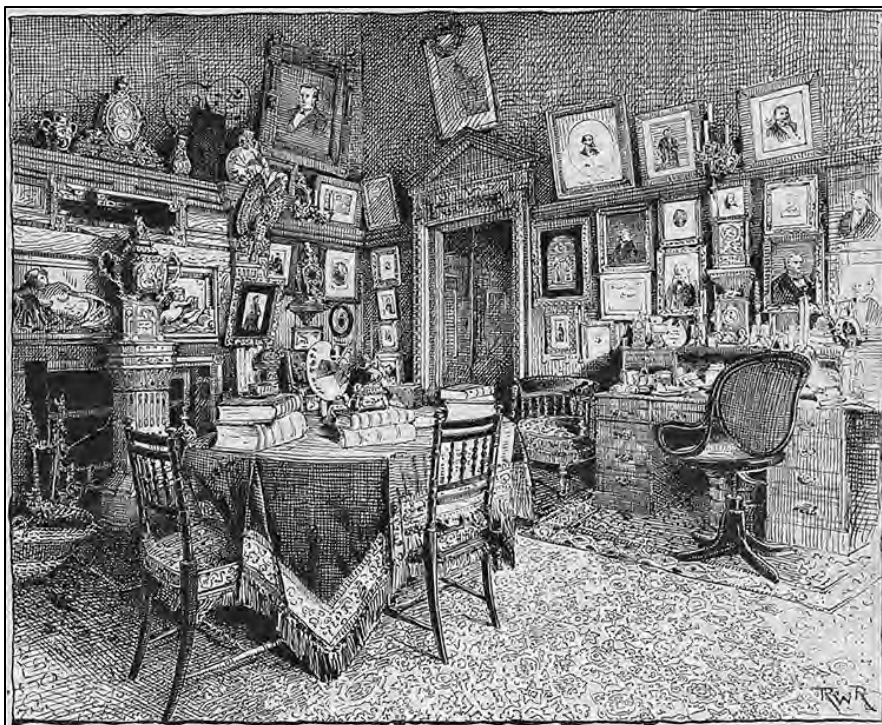


Fig. 2.78 Executive office of George W. Child's, Philadelphia Newspaper Publisher, 1885. ("Private Office of Geor. W. Childs, Philadelphia," *The Decorator and Furnisher* 8, no. 1 (1886), 6-7.)

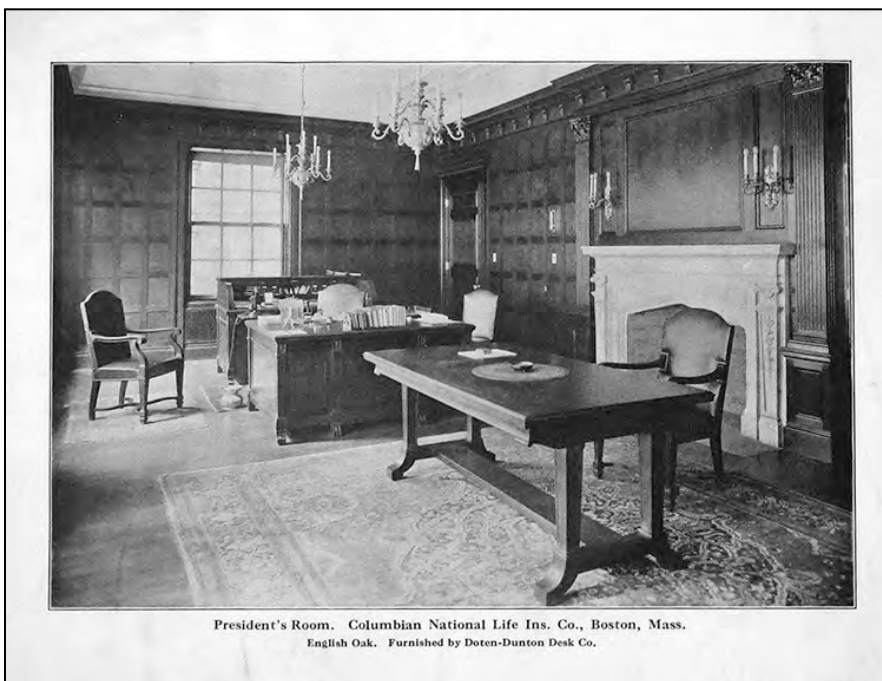


Fig. 2.79 Executive office of Columbian National Life Insurance, Boston, 1910. The room was furnished by Doten Dunton, a manufacturer of commercial furniture. The roll-top desk hints at a productive space; the remainder is set up to look like a home. But the company supplied all the furniture. (Doten-Dunton Desk Co., *Commercial*, ca. 1910, 12.)



(a)

(b)

Fig. 2.80 Metropolitan Life Insurance Boardroom and executive offices, 1906-1909. Not only was the ornamentation palatial, Metropolitan Life arranged its executive offices enfilade, an arrangement used at Versailles and Renaissance European palaces as a way of intimidating and impressing visitors. Your status was determined by how many rooms deep you were able to penetrate the inner sanctum. (a. Wurts Bros. / Museum of the City of New York. X2010.7.2.24660; b. “Battlefields of Business,” *System: The Magazine of Business* 9, no. 5 1906, 522.)

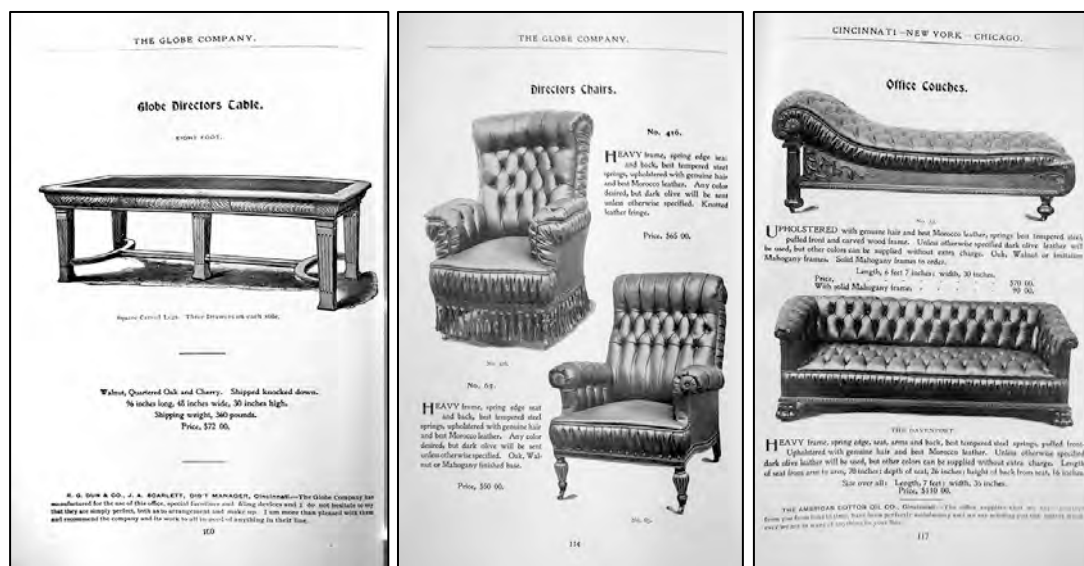


Fig. 2.81 Director’s furniture was larger, more richly ornamented and luxurious than the furniture for subordinates and encouraged much more relaxed postures that emphasized status difference. (The Globe Company, *Catalogue of Globe Office Desks, Tables, Chairs, Couches, &c.*, 1897/1898, 100, 114, and 117.)

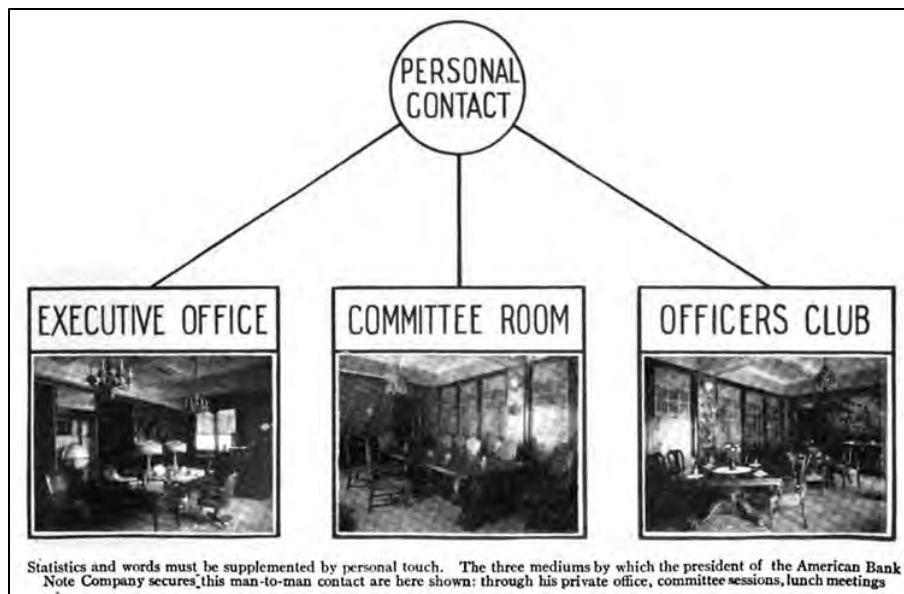


Fig. 2.82 Executives primary methods of conducting business was conversation and interpersonal interaction, the opposite of the methods to general clerks, typists, stenographers and file clerks who were supposed to avoid distracting conversations. *System Magazine* highlighted the three primary locations, all furnished with domestic-like furniture. (Kendall Banning, "Driving the Engines of Business," *System: The Magazine of Business* 14, no. 5, November 1905, 551)



Fig. 2.83 Office of the president of Curtis Publishing Company, publishers of the *Ladies' Home Journal*, *The Saturday Evening Post* and *The Country Gentleman*, circa 1909. (Postcard, 1909)



(a)

(b)

Fig. 2.84 (a) Directors' Room of the Eisenstadt Manufacturing Company, St. Louis, 1908; (b) Directors' room of the Glazier Stove Company, Chelsea, MI 1900-1910 (a. *System Magazine* 13, no. 6, 1908, 643; b. Detroit Publishing Company, Library of Congress, LC-DIG-det-4a20557)



An office furniture demonstration in the store of John Wanamaker, New York

Fig. 2.85 Office furniture display in Wannamaker's Department Store in New York City showing an executive suite with partners desk and low roll-top desk. (*The Grand Rapids Furniture Record*, February 1915, XXVIII.)



Window Display of Loveman, Joseph & Loeb, Birmingham, Ala.

Fig. 2.86 Window display of Macey Company office furniture, complete with mannequins in appropriate gender roles. Loveman's was a chain of department stores in Alabama. (*The Grand Rapids Furniture Record*, May 1915, LXIX.)



Fig. 2.87 Cover of the Grand Rapids Furniture Manufacturing Company catalog, circa 1900. The company illustrated the female oriented parlor with leather "Turkish" furniture, also marketed to the executive suite. On the right, a man works in a new space, a home office, at a complex roll-top desk, seated at a pivoting office chair. (Grand Rapids Furniture Mfg. Co., *Grand Rapids Furniture Mfg. Co.*, Grand Rapids, MI, ca. 1900)

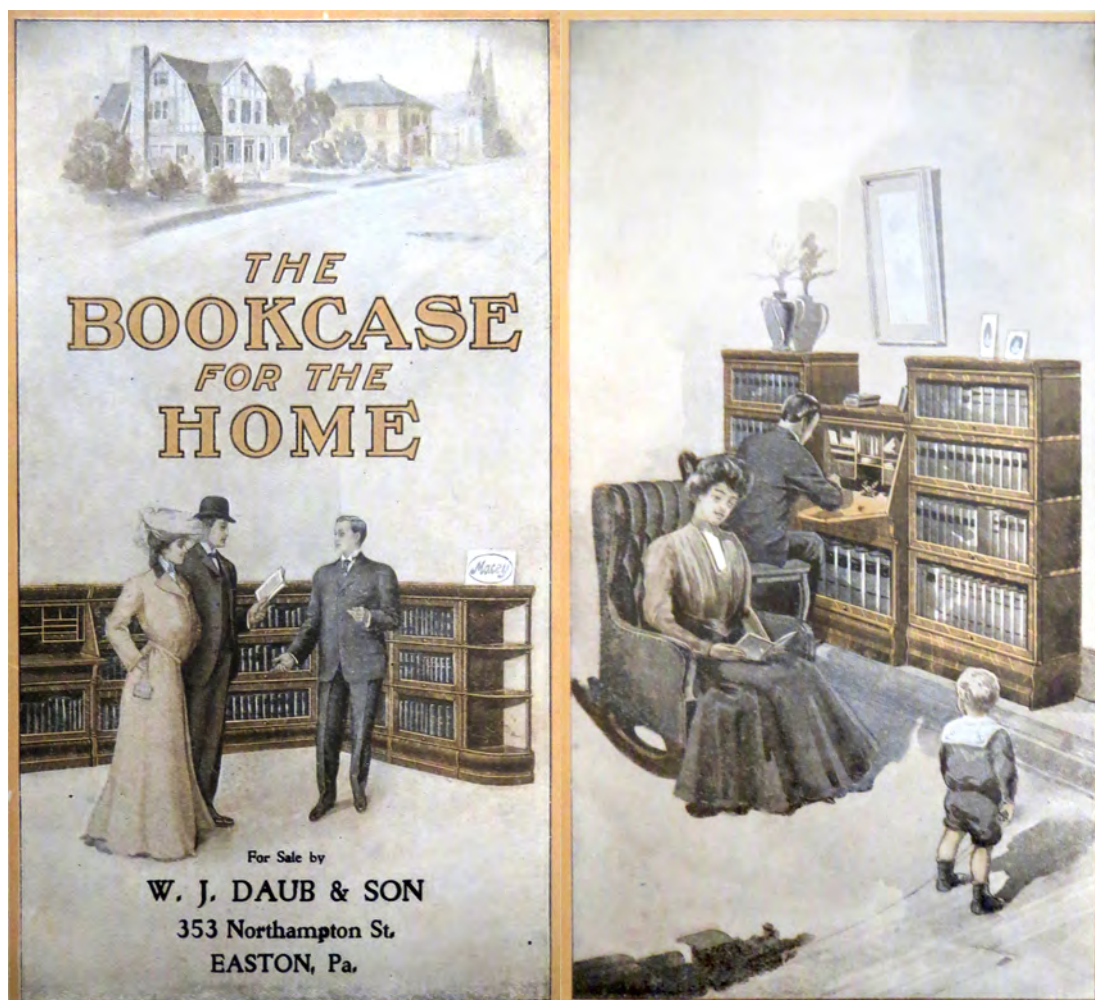


Fig. 2.88 Office furniture manufacturers marketed the same furniture for home offices. (The Fred Macey Co., *The Bookcase for the Home*. Advertising brochure, ca. 1907, cvr)

CHRISTMAS GIFTS



THE FRED MACEY CO. LTD.
GRAND RAPIDS, MICH.



Library and Home Desks

No. 1022-LB—As illustrated. Quartered oak, golden finish.....\$36.00
 No. 1022-LC—As illustrated. Birch mahogany finish.....\$36.00
 Size, 48 inches long, of inches deep, 64 1/2 inches high.

Our Home desks have become very popular, due to the handsome design, practical features and extra quality of material and workmanship. We make these desks in large quantities, and quality considered, sell them at a very low price. We make a specialty of Home desks, but confine ourselves to few designs and make them in large quantities, enabling us to sell them at a very low price.

The bookcase has an adjustable shelf, and the doors are fitted with artistic leading glass in a good lock. The drawers are well fitted. The drawers are locked by a dust-proof metal curtain, fitted with a Macey Patent Spring automatic lock which forces desk lock made.

The desk contains six pens, pencils, a rubber, a blotter, and a letter holder, and is large, convenient and in line with the times. The desk has a large glass front, giving an ample view of the contents of desk, and contains a dust-proof and fitted with the "Macey Patent" automatic lock. This lock requires both ends of the desk instead of the ordinary one leaving an unsecured writing hole. All fittings are solid brass. Drawers have rounded sides and bottom and dovetailed corners. All parts of the desk can be locked.

Patent lock contains two tin boxes, two small drawers, two pen racks, plenty of pigeon holes, an ordinary, professional case, teachers, students and father opening an ordinary. If one desk has keeping private papers, books, etc., will appreciate this feature.

Read "OUR LIBERAL TERMS" and "OUR GUARANTEE" on page 2.

What is true of the above desk is true and holds in also true of the desks illustrated in the margin.





Home Desk

No. 1021-B—Quartered oak \$27.00
 No. 1021-C—Birch mahogany finish \$27.00
 Same as size but without book case.



Home Desk

No. 1020-B—Quartered oak, \$26.00
 Same as size but without pen case.



Library Desk

No. 1022-B—Quartered oak, \$24.00
 No. 1022-C—Birch mahogany finish, \$24.00
 Same as size L.B. but with plain glass doors.



Library Table

No. 17, B—Quartered oak, \$14.00



Fig. 2.89 Around 1900 manufacturers began to market office furniture for the home. (a) The Fred Macey Company illustrated the cover of its 1903 catalog with a woman sitting at its fashionable and very domestic “Mission” desk, but on the interior the company advertised a roll-top home desk, (b), along with a small line drawing of a woman seated at the desk, (c). The company sought to market furniture to women as clerks within the household that needed to manage information. (a. The Fred Macy Company, *Christmas Gifts*, Grand Rapids, MI, 1903 cvr, np.)



Fig. 2.90 Home desk from the circa 1902 Christmas Gifts catalog. The desk was smaller, with ormolu mounts and claw feet. (The Fred Macey Co. *Christmas Gifts*, ca. 1902, np.)

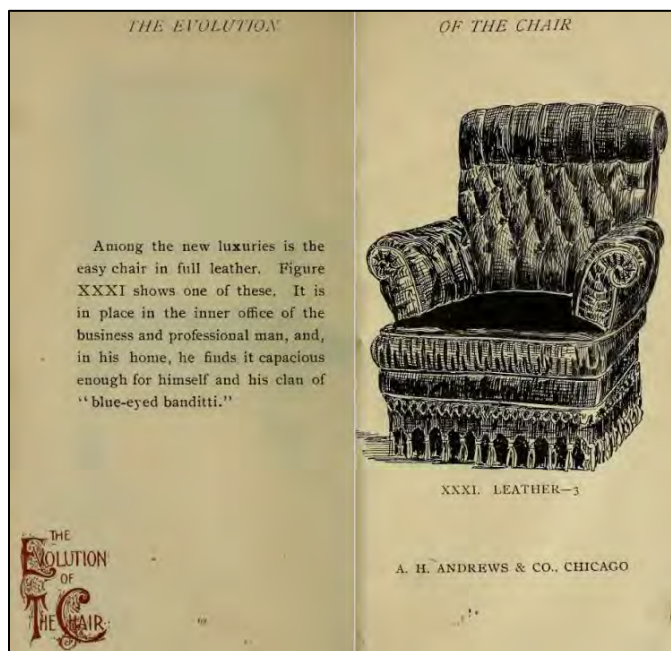
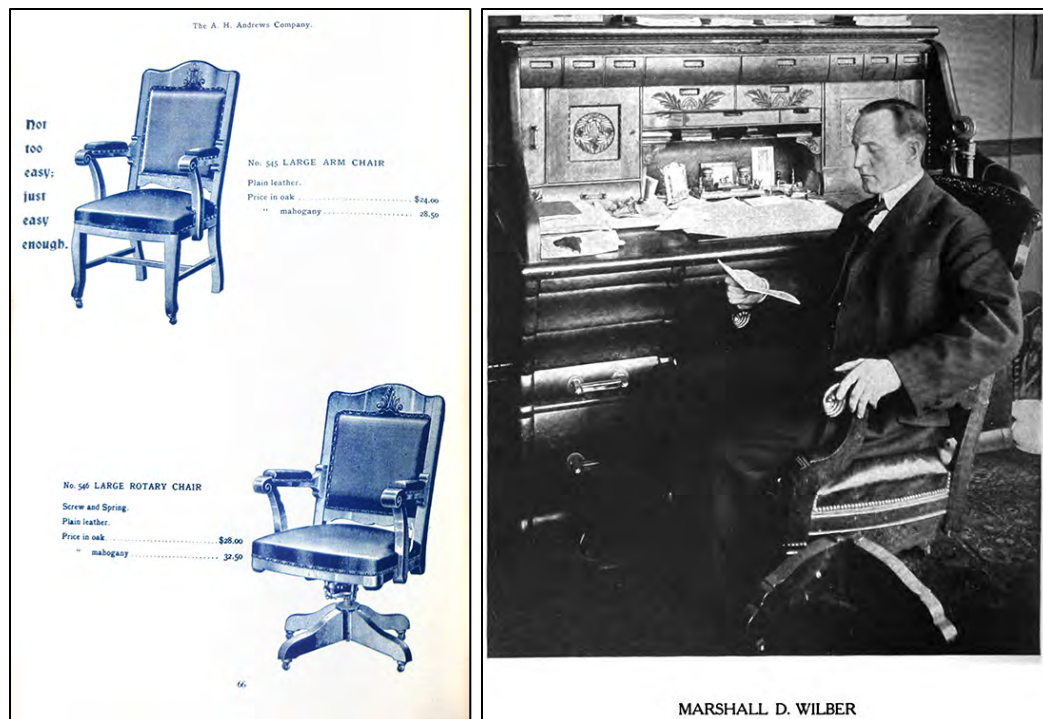


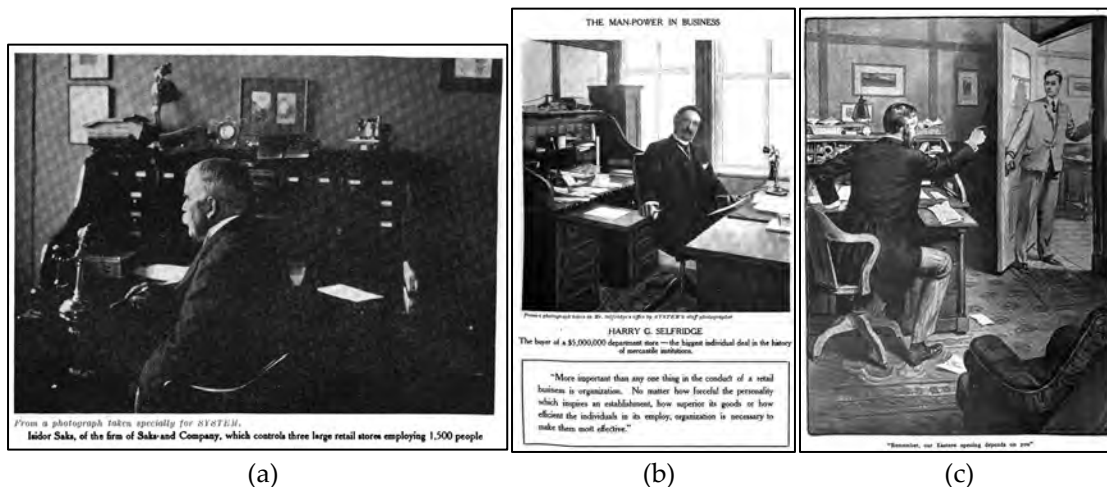
Fig. 2.91 Easy chair, A. H. Andrews Company of Chicago, 1895. To allow for a flexible imaginarity in both home and work the chair was illustrated with no interior context. (A. H. Andrews & Co., *The Evolution of the Chair*, 1895 62-62.)



(a)

(b)

Fig. 2.92 Office chairs for executives were larger and more heavily ornamented but had the same mechanical functions as the office chairs of clerks. Marshall D. Wilber was president of the Wilber Mercantile Agency, a multi-branch collection company. (a. The A. H. Andrews Company, *Business Furniture*, ca. 1896, 66; b. *System: The Magazine of Business* 9, no. 4, 1906, 374.)

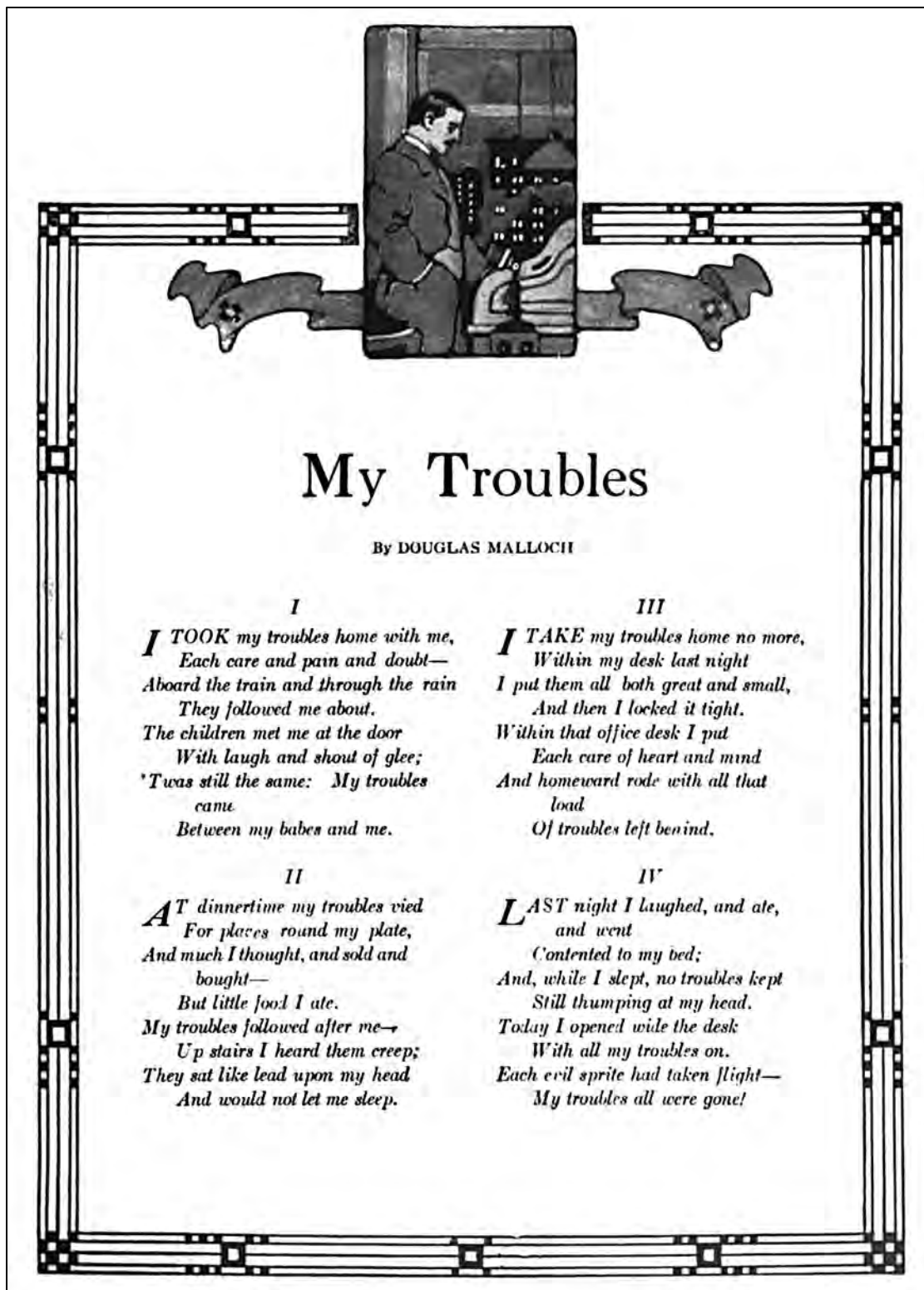


(a)

(b)

(c)

Fig. 2.93 Executives at roll top desks as portrayed in *System* in the early 1900s, a. Isidor Saks owner of department store Isidor Saks, (b) Harry Selfridge, owner of a department store chain; c. an illustration from *System* magazine. (a. "Successful Through System," *System: The Magazine of Business* 7, no. 6, 1905, 651; b. "The Man-Power in Business," *System: The Magazine of Business* 6, no. 3, 1904, 7; c. "Three Hours Grace," *System: The Magazine of Business* 9, no. 6, 1906, 587.)



My Troubles

By DOUGLAS MALLOCH

I

I TOOK my troubles home with me,
 Each care and pain and doubt—
 Aboard the train and through the rain
 They followed me about.
 The children met me at the door
 With laugh and shout of glee;
 'Twas still the same: My troubles
 came
 Between my babes and me.

II

AT dinnertime my troubles vied
 For places round my plate,
 And much I thought, and sold and
 bought—
 But little food I ate.
 My troubles followed after me—
 Up stairs I heard them creep;
 They sat like lead upon my head
 And would not let me sleep.

III

I TAKE my troubles home no more,
 Within my desk last night
 I put them all both great and small,
 And then I locked it tight.
 Within that office desk I put
 Each care of heart and mind
 And homeward rode with all that
 load
 Of troubles left behind.

IV

LAST night I laughed, and ate,
 and went
 Contented to my bed;
 And, while I slept, no troubles kept
 Still thumping at my head.
 Today I opened wide the desk
 With all my troubles on.
 Each evil sprite had taken flight—
 My troubles all were gone!

Fig. 2.94 Douglas Malloch, "My Troubles." (System: *The Magazine of Business* Volume XV, no. 2, 1909, np.)



Fig. 2.95 Wooton no. 10 Rotary Desk, Extra Grade. The opposite of showing the distance from work was to have one of these lavish machines for office work. Made in luxurious materials these desks announced the striking difference between the executive and the clerk. The executive with this desk had private communications that only he was to control. The desk is illustrated in the 1876 Wooton Catalog and was their top-of-the-line model. (Courtesy of Neal Auction Company, New Orleans, [http://www.nealauction.com/.](http://www.nealauction.com/))

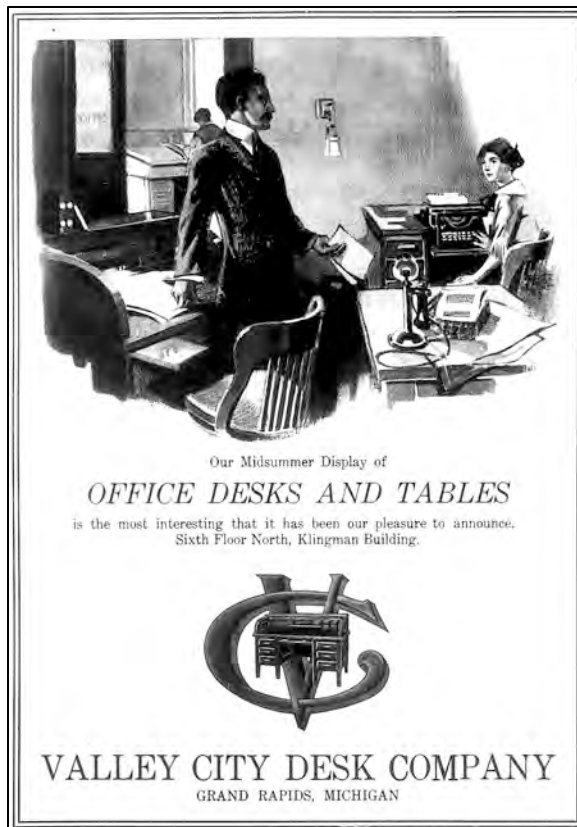


Fig. 2.96 Display Advertisement, Valley City Desk Company, Grand Rapids, 1912. (*Furniture Record*, July 1912.)

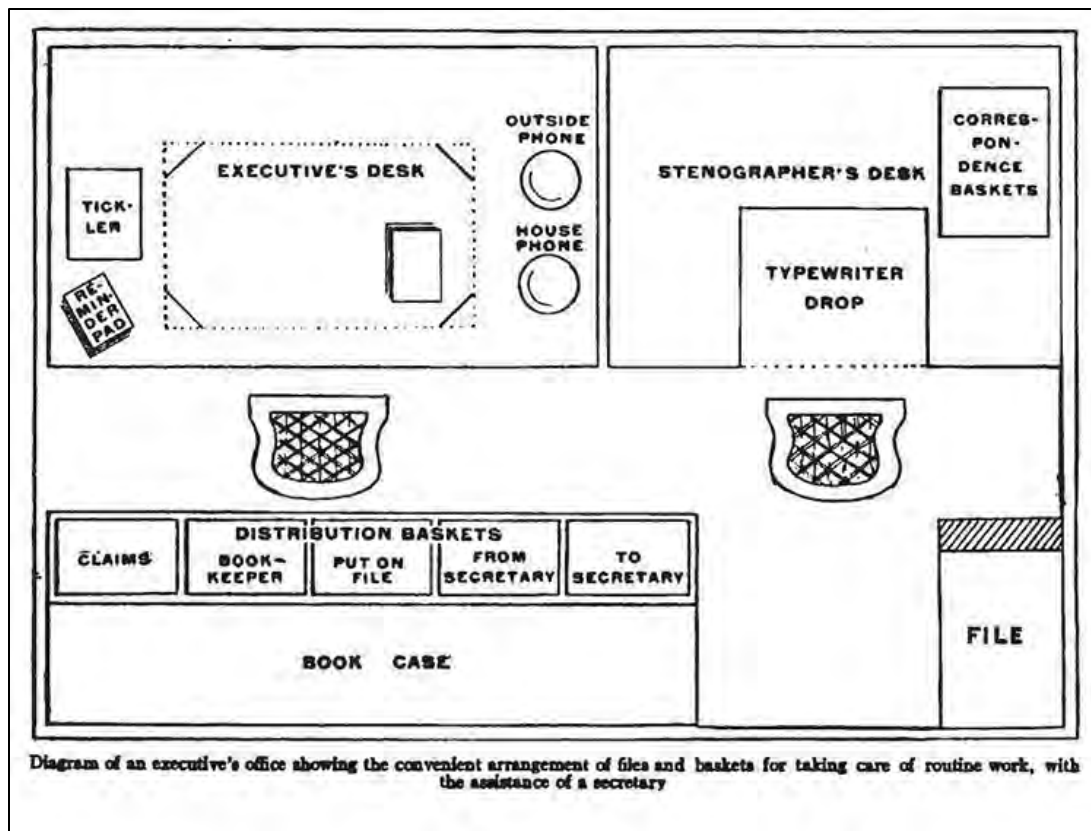


Fig. 2.97 Executive office plan, showing close relationship of secretary and executive. (George E. Turner, "How I Handle My Personal Work," *System: The Magazine of Business* 15, no. 1, 1909, 71.)

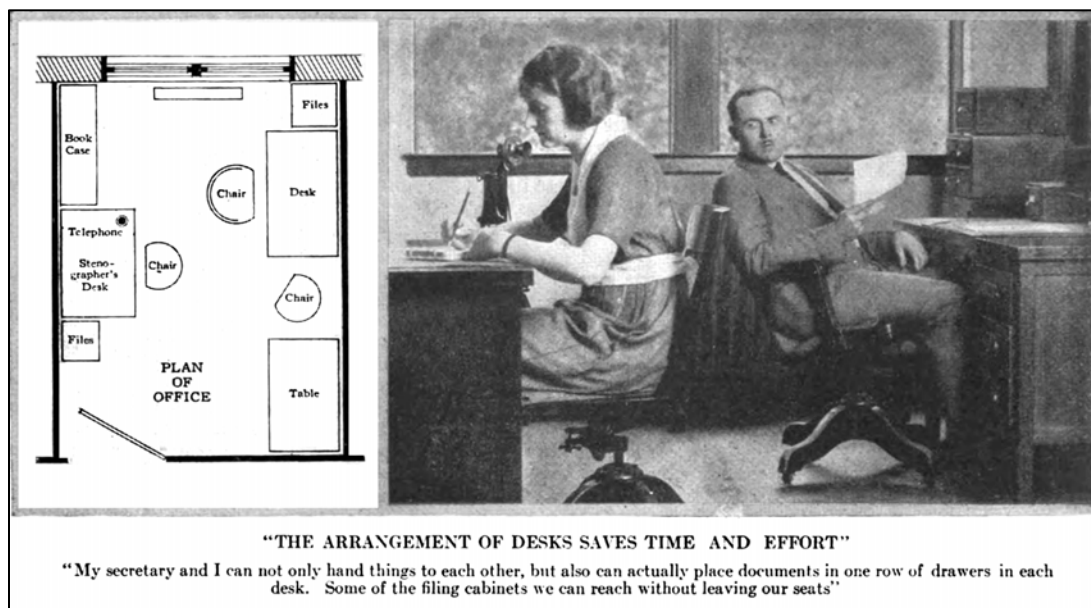


Fig. 2.98 "Anonymous" manager and secretary in close working conditions. ("Now I Get Twice as Much Done," *System Magazine* 40, no. 3, 1921, 295.)



Fig. 2.99 In the private office of the executive, the postural relationship between female assistants and male supervisors was more powerful. The corresponding secretary at The Michigan Stove Company and an assistant (a), and at the offices of the Salvation Army (b). (a. *System: The Magazine of Business* 12, no. 6, 1907, 625; “The Salvation Army’s Business Side,” *System: The Magazine of Business* 5, no. 3, 1904, 193.)

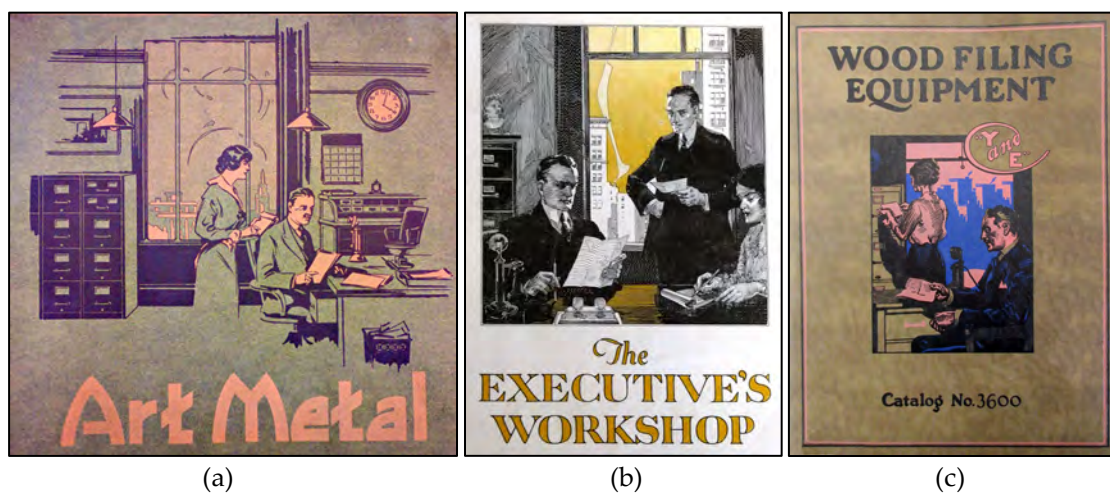


Fig. 2.100 Covers office furniture catalogs from 1916-1923 highlighted the presence of women in the executive office. (a. Art Metal Construction Co., *Steel Office Furniture and Filing Equipment*, Cat. no. 758, 1916, cvr; b. Yawman & Erbe Mfg. Co., *The Executive’s Workshop*, 1921, cvr; c. Yawman & Erbe Mfg. Co., *Wood Filing Equipment*, 1923, cvr.)



(a)

(b)

Fig. 2.101 Salesman's desks evolved remained miniscule for decades to discourage loafing in the office. (a. A. H. Andrews, *Business Furniture*, 1896, 23; b. Yawman and Erbe Mfg. Co, *The Executive's Workshop*, 1921, 26.)



Fig. 2.102 Interior of a floor of the Globe-Wernicke Co. furniture store at 382 Broadway, New York City, circa 1910. Manufacturers reduced the number of forms to the basics seen here - a pedestal desk, known in the industry as an efficiency desk, a low roll-top desk for managers, and executive furniture. Filing equipment continued to be complex, although most organizations used vertical files, card files, or a combination of the two. Document files were phased out. (Byron Company / Museum of the City of New York. 93.1.1.1941.)

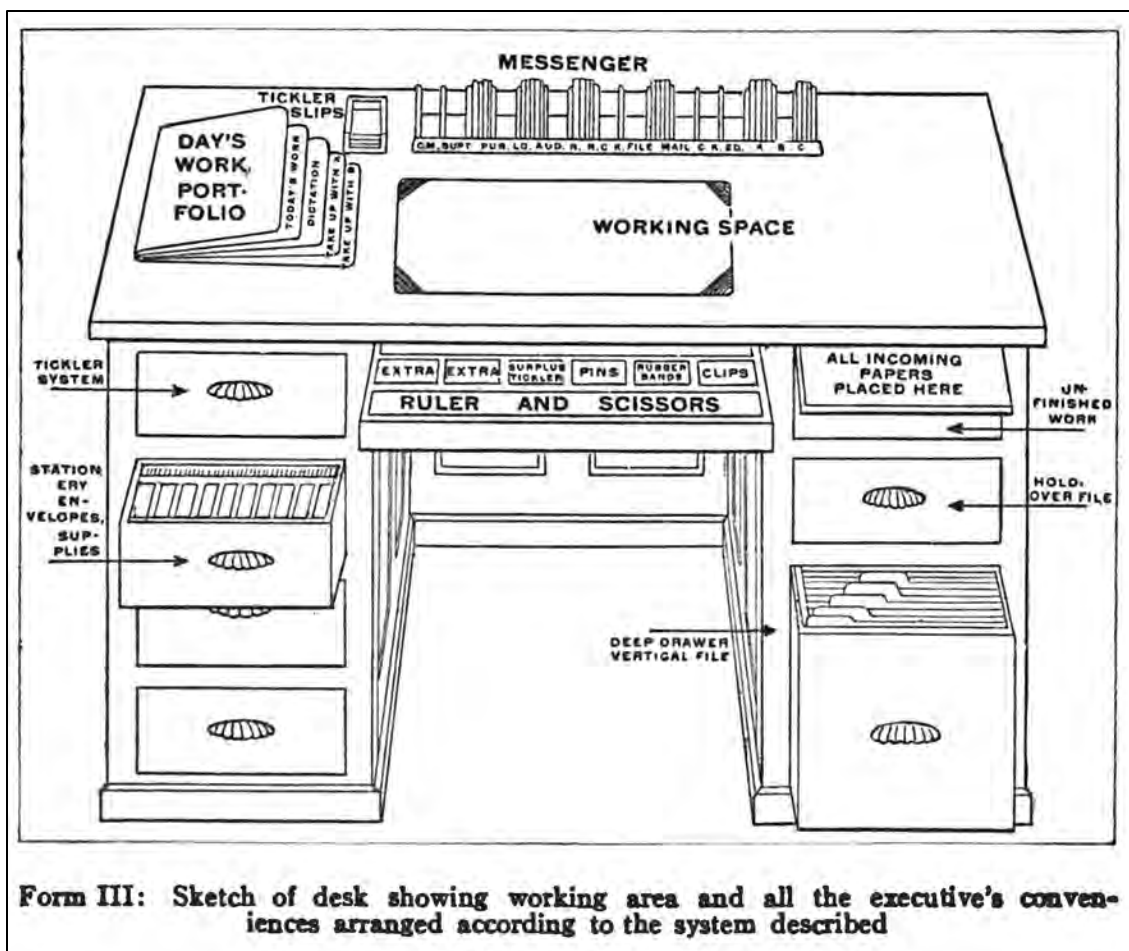


Fig. 2.103 Illustration of a systematized desk, 1909. An identical illustration was published in *Desk System*, 1907, page 26. The illustration of the systematized desk first appeared in a 1905 article by Harry Dwight Smith in *System Magazine* described as "How the office executive or clerk may so arrange his desk as to do the greatest possible amount of work with the least room, in the shortest time and with the greatest accuracy." (Fig. 2.21) The only change was the programming of the lower right drawer as a vertical file. (A W Shaw Company, *How to Double the Day's Work*, 1910, 24.).

Art Metal
ART METAL CONSTRUCTION COMPANY, INC.

"Amco" Desks for Clerks and Large Offices

To meet the growing demand for a modern-priced steel desk for use in large offices, the "Amco" Line of Steel Desks was designed and is now offered to the business public.

These desks have all the advantages of the regular line of Art Metal Desks—fire resistance, sanitary qualities, durability, non-scrapping, non-swelling, etc. They are designed for the needs of the office clerk, stenographer, etc. There is no unnecessary drawer space to act as a catch-all for useless papers, personal belongings, etc.

The drawer handles are wrought bronze in place of the cast bronze used on the Art Metal Line of Desks.

The "Amco" Desks are lighter in construction, have fewer drawers and no outer legs. Otherwise the specifications are the same as for Art Metal Desks—uniform tops, bronze finishing, etc.

The typewriter desks are flat top, lower in height than the regular flat top desks.

These desks may have two drawers in a pedestal, the upper of a size to hold 2 x 3 inch or 8 x 4 inch cards, the lower of a size to hold 8 x 5 inch cards, or they may have one drawer per pedestal of a size to hold a letter size sheet.

The single pedestal desk may have the pedestal on the right or left hand side, as desired.





No. 983—Single Pedestal Flat Top Desk. Overall dimensions: 41 inches long, 20 inches high, 20 inches deep.

No. 984—Double Pedestal Flat Top Desk. Overall dimensions: 61 inches long, 20 inches high, 20 inches deep.

Pedestals may be arranged with two drawers, or with one large letter size drawer. Chest drawers may be omitted if desired.

One drawer removable partition line for each two drawers in all desks—with a partition of four each partition to keep desk clean.

Art Metal
ART METAL CONSTRUCTION COMPANY, INC.

"Amco" Desks for Clerks and Large Offices



No. 985—Single Pedestal Flat Top Desk. Overall dimensions: 41 inches long, 20 inches high, 20 inches deep. High, letter size for an extra side and may be omitted when a chest drawer or wide top board is desired.



No. 986—Single Pedestal Flat Top Typewriter Desk. Overall dimensions: 41 inches long, 20 inches high, 20 inches deep. High, letter size for an extra side and may be omitted when a chest drawer or wide top board is desired.



No. 987—Single Pedestal Flat Top Desk. Overall dimensions: 41 inches long, 20 inches high, 20 inches deep. High, letter size for an extra side and may be omitted when a chest drawer or wide top board is desired.



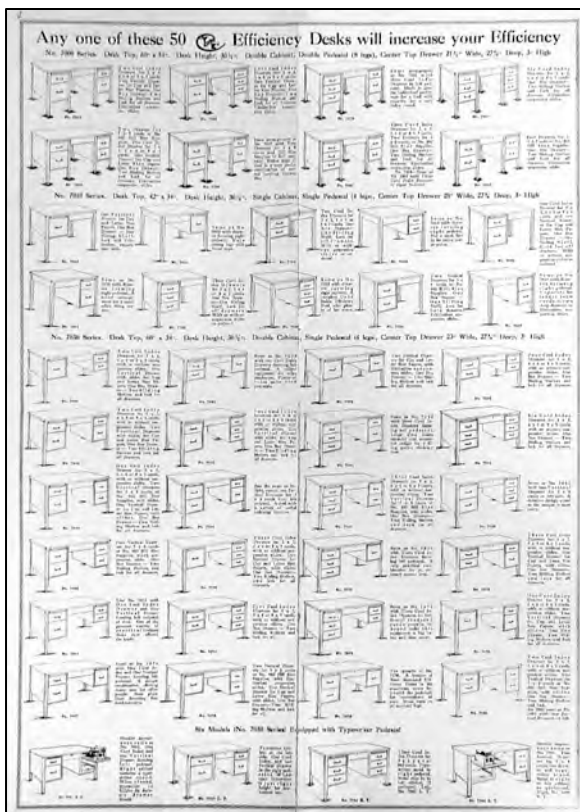
No. 988—Single Pedestal Flat Top Typewriter Desk. Overall dimensions: 41 inches long, 20 inches high, 20 inches deep. High, letter size for an extra side and may be omitted when a chest drawer or wide top board is desired.

All desks perfectly finished and ready for use with the plates on the drawers. They are guaranteed for one year or longer for as long as the materials are available. Chest drawers arranged on both ends 24", 30" or 36" high.

No. 989—Flat Top Typewriter Desk. Overall dimensions: 41 inches long, 20 inches high, 20 inches deep.

One drawer removable partition line for each two drawers in all desks—with a partition of four each partition to keep desk clean.

Fig. 2.104 The Amco line of desks from Art Metal Construction Company stripped away personal storage along hierarchical lines, from the general clerk, to lesser positions. The least amount of storage was given to the salesmen, who was supposed to be out on the rode glad-handing customers. (Art Metal Construction Co., *Filing Cabinets and Furniture*, 1916, 59-60.)



START WITH EFFICIENCY AT YOUR DESK



Accurately Card Records in Desk Drawers.

TO meet the high cost of doing business—to save time and money—to do more work in less time—you need a “Y and E” Efficiency Desk. Executives, managers and clerks of your company should have an efficient workbench—a desk that looks like business

and enables the man on the job to do more work in less time, with no added effort.

A “Y and E” Efficiency Desk combines all the advantages of a high-grade, well made, serviceable, wooden desk with those of a genuine filing cabinet of equal quality. It enables a man to have thousands of card records and ten thousand papers, properly filed and indexed, at his finger’s tips.

We offer these big advantages in a very complete line consisting of 50 different types of single and double cabinet-pedestal desks having more than 1000 drawer combinations, and six of these desks are equipped with disappearing typewriter pedestals on one side.

We have the right desk for every individual in a business office. Install “Y and E” Efficiency Desks and you’ll increase the efficiency of every employee.

A CHOICE of 50 different types, offering more than 1000 drawer combinations for Vertical and Card Index Filing. Single and Double Cabinet Desks and Single Cabinet Desks with disappearing typewriter stands. Plain large tops, sanitary leg bases and many other features, typical of “Y and E” cabinets.

The double pedestal (eight leg) “Y and E” Efficiency Desks (No. 7000 Series) are made in nine distinct types. Beautifully finished quartered oak throughout and heavily trimmed.

The single pedestal (four leg) “Y and E” Efficiency Desks are made in ten single cabinet-pedestal types (No. 710 Series) and thirty-one double cabinet-pedestal types (No. 7030 Series). Six models in this latter series are equipped with a typewriter stand in one of the cabinets and various combinations of card index and vertical filing drawers in the other cabinet. When not in use, typewriter is hidden by dummy drawer fronts. When open, typewriter is just right height for use. Quartered oak, cast brass trim.

No. 128 brush finish, a rich light dull finish that wears. The high grade workmanship and quality of these desks make them suitable for every requirement. Detailed descriptions following show the numerous exclusive features.

Large Vertical Filing and Card Index capacity for data and record files of many sizes. Each vertical drawer has capacity for about 4500 papers, filed vertically, across the drawer, and will hold both cap-size and letter-size papers. As to Card Index drawers: in grade B cards, 90 to an inch, you can file in one drawer 5 rows of 5x3 cards (total 5400), or 4 rows of 6x4 cards (total 4320), or 3 rows of 8x5 cards (total 2340), or a combination of all sizes. In bill-size drawers you can file 5 rows of 5x8 cards, or a total of 5400.

Every desk has sliding shelves and a roomy box drawer with sliding tray for the business tools. Designed along the plain, dignified lines that are so popular. Strong and durable. Perfection in detail is the keynote of our manufacturing policy.



No. 7000 Type. (7000 Series.) There are ten different single cabinet, single pedestal, four leg desks of this design. The “Y and E” High Sliding Shelf. Drawers with an without slides, as indicated. “Y and E” Lock. See also 7100.



No. 7000 Type. (7000 Series.) There are ten different single cabinet, single pedestal, four leg desks of this design. The “Y and E” High Sliding Shelf. Drawers with an without slides, as indicated. “Y and E” Lock. See also 7100.



No. 7000 Type. (7000 Series.) There are ten different single cabinet, single pedestal, four leg desks of this design. The “Y and E” High Sliding Shelf. Drawers with an without slides, as indicated. “Y and E” Lock. See also 7100.



No. 7000 Type. (7000 Series.) There are ten different single cabinet, single pedestal, four leg desks of this design. The “Y and E” High Sliding Shelf. Drawers with an without slides, as indicated. “Y and E” Lock. See also 7100.

Fig. 2.105 The efficiency desk becomes a standard throughout all levels of the corporate organization. (Yawman & Erbe Mfg. Co., Broadside, 1918.)

Cutler
Desks
They Express Success

Does Your Desk Measure up to You?

There comes a time in every successful business man's career when he wants a desk that measures up to his success.

If he is well informed about desks, or if he makes a discriminating choice, almost invariably he will decide on a "Cutler" Desk.

Cutler Desks are true aristocrats. They combine quiet elegance with lifetime service; scientific design with faultless construction. They are the product of master cabinet workers; as carefully made and of as fine wood as is used in furniture for the home.

The prosperous and solid appearance of private and general offices, furnished throughout with Cutler Desks, helps materially in winning the confidence of customers. In these days of strenuous competition, Cutler Desks pay big dividends.

Cutler Desks are shown by leading office appliance dealers everywhere. The wide range of designs provides a Cutler Desk for every purpose; and the moderate prices, quality considered, enable anyone to make a happy selection. Write for Art Catalog and name of nearest dealer.

CUTLER DESK COMPANY
20-64 CHURCHILL STREET
Buffalo, N. Y.

(a)

SHE MAKES BUSINESS RUN SMOOTHER

Henrita F. H. Ried, who is shown here at her desk, oils the executive machinery of the Bush Terminal Company. She is secretary of the company

(b)


Fig. 2.106 By the end of the second decade of the twentieth century executives were no longer portrayed seated at roll-top desks (a). Henrita F. H. Ried (b) was an early female executive seated at her flat desk. She was the secretary of the Bush Terminal Company, a shipping conglomerate operating out of Sunset Park, Brooklyn. (a. "Builders of Business" *System: The Magazine of Business* 35, no. 3, 1919, 409; b. Cutler display ad, *System: The Magazine of Business* 35, no. 3, 1919, 409.



Fig. 2.107 These illustrations from *System Magazine* for an executive desk illustrated the "Wrong Way" and the "Right Way" in which "the desk itself is scarcely more than a table of small dimensions... a flat-topped desk is kept cleared of all details except such as require immediate attention." Note the change in form as well as function, the roll top desk and bent wood chair giving way to the modern flat top pedestal desk and mechanical office chair. (Edward Mott Woolley, "The Business Man's Desk," *System: The Magazine of Business* 21 no. 3, 1921, 306-307.)

THE "Y AND E" EFFICIENCY DESK

AT THE HEART OF THE HIVE



¶ Occupying the center of importance in the beehive of modern business is the desk. ¶ From the desk emanate urgent instructions which radiate to the remotest ramifications of business activity. ¶ Over the desk problems are threshed out; policies laid down; plans conceived, weighed, put into operation; deals consummated; work—work—work accomplished. ¶ In the ideal desk of today—at the fingertips of the busy office worker—are the vital records necessary to the speedy dispatch of the day's routine. ¶ This ideal is best expressed in the "Y and E" Efficiency Desk. It represents the acme of achievement in desk construction, harmonizing with the most progressive efficiency requirements of modern business.

**SPECIALLY BUILT FOR
MODERN EXECUTIVES**


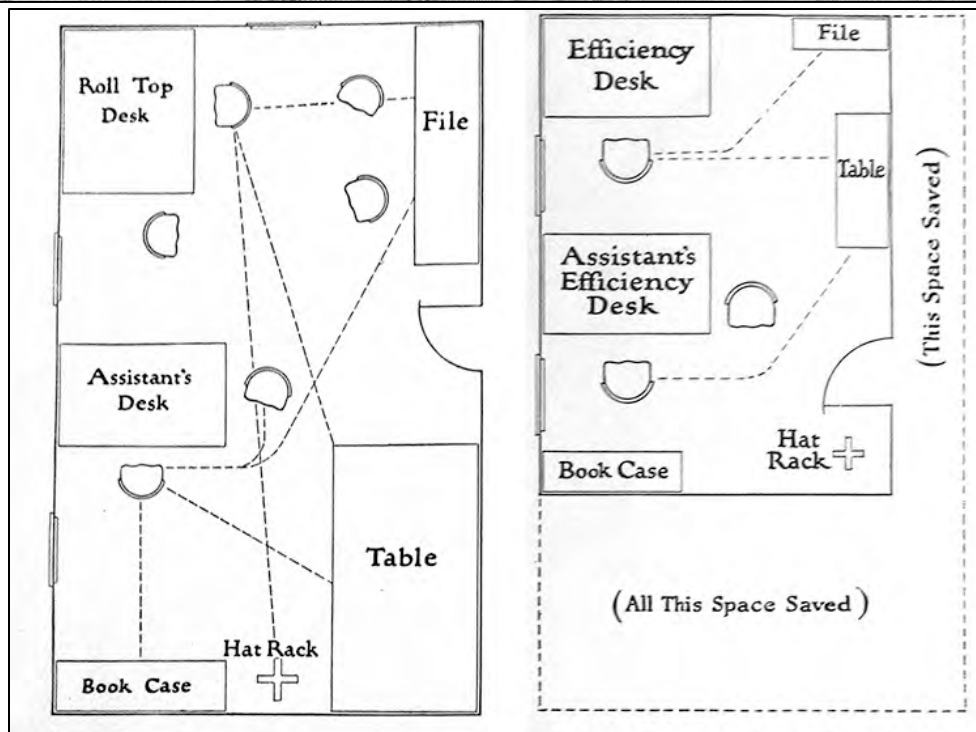



Fig. 2.108 Yawman & Erbe solution to the inefficient executive - reduce the size of the office, remove file storage, and replace a roll top desk with one of their efficiency desks "Specially built for Modern Executives." (Yawman & Erbe, Mfg. Co., *The Executive's Workshop*, 1921, 8 and 16-17.)



Fig. 2.109 General offices of the National Life Insurance Company, 1907. The company defined a private zone for each of its “sub-departments” by arranging desks facing outward and furnished matching roll-top desks for women typists who supported managers. (“Battlefields of Business,” *System: The Magazine of Business*, Vol 12, no. 4, 1907, 375.)



Fig. 2.110 Metropolitan Life Insurance, 1907 (Byron Company / Museum of the City of New York. 93.1.1.6925.)

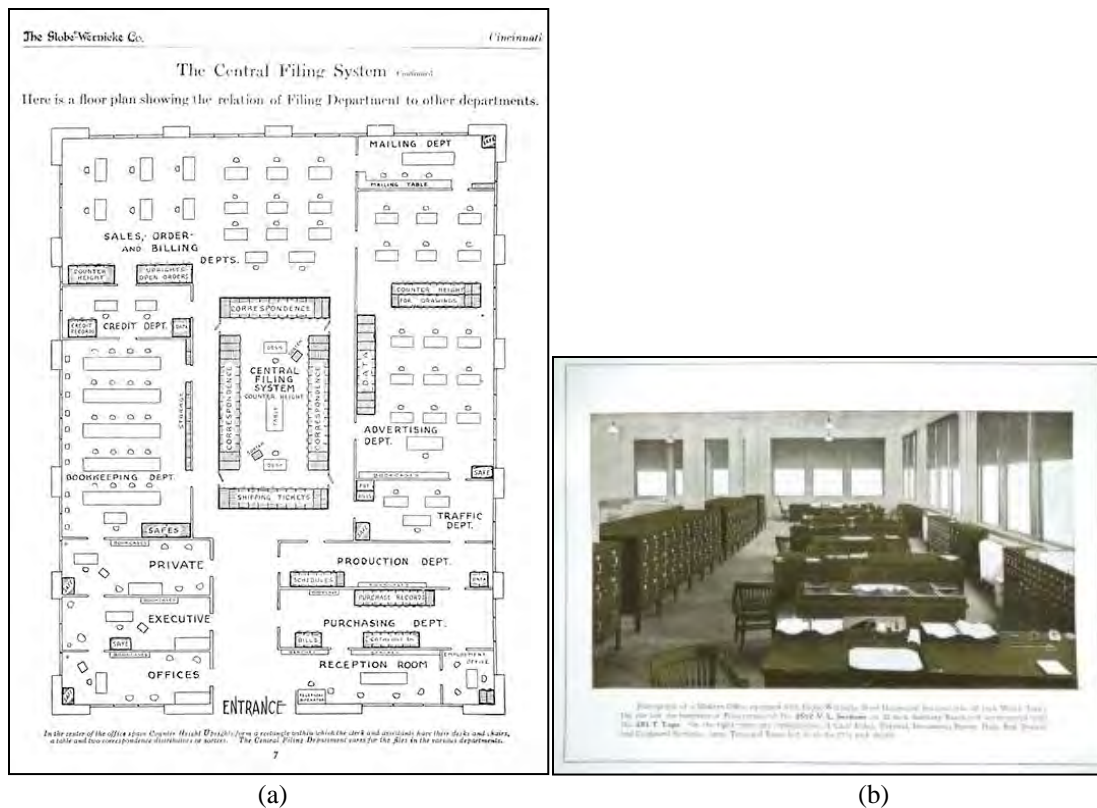


Fig. 2.111 Gridded office systems mimic schoolrooms, 1913. These two images taken from Globe Wernicke catalogs show the ways in which promotional materials reinforced office hierarchy and surveillance. Managers' desks face rows of clerks' desks in a parallel to the standardized school room. The walls of the central filing room were built from counter height filing cabinets with access controlled by gates. The image on the right shows how filing cabinets were used to demarcate and create semi-private space. (a. The Globe Wernicke Co., *Filing and Finding*, 1921,7; b. Globe Wernicke Co., *Filing Cabinets*, ca. 1917, 17)



Fig. 2.112 Shorthand dictation rooms, Eastman Business College, 1898. (Eastman Business College, *Catalogue and Prospectus*, 1898, 55 and 71.)



“To educate employees in the system and policies of the house... the school of the National Cash Register Company is conducted in a separate building equipped with machines, blackboards, diagrams, desks. Regular courses are offered. A staff of instructors have the school in charge”

Fig. 2.113 Sales employee training, National Cash Register. Salesmen sit at cast-iron school desks arranged in schoolroom fashion. (Kendall Banning, “Getting Employees in Line,” *System: The Magazine of Business* 15, no. 4, 1909, 379-382.)



Office equipment is the machinery for production in an insurance office. They find that standardization on Art Metal is a factor for efficiency in the offices of the National Fire Insurance Co., Chicago.



Castle & Cooke, Ltd., Honolulu, T. H., steamship agents realize in their new Art Metal equipment a fitting complement to the new office building recently opened by them.



A view in the Thos. A. Edison offices which were completely equipped in Art Metal following the disastrous fire of 1914.



Part of a large installation of Art Metal in the Government Offices in the Panama Canal Zone.

Fig. 2.114 Several offices arranged using standard desks in a grid layout. The offices of the Thos. A. Edison Company are arranged with all the desks for the female clerks facing forward, subject to male supervision. (Art Metal Construction Co., Inc. *Steel Office Equipment*, Cat. no. 765, 1926, 11.)

Chapter 3 Theaters: Gallery gods and bleacherites

The change to wage work in offices and factories of the modern city opened leisure to a broader constituency. In early America, only the wealthy had regular leisure hours, but as the structure and pace of work changed from seasonal agricultural and craft work to synchronized hourly clock-time and wage labor, a growing middle class discovered leisure as a phase of life beside regularly scheduled work.¹ Outside of the office, office workers and other urban denizens entered new venues for commercial leisure reliant upon furniture to structure boundaries between diverse Americans. This chapter examines the interiors of theaters, churches, and sports arenas — public recreational interiors in which furniture articulated power. As Americans grappled with social changes of modernization, institutional leaders invited some to the center of civic space and marginalized others through furniture selection and arrangement. Riots and lawsuits challenged boundaries defined by seat design and location.²

¹ E. P. Thompson, “Time, Work-Discipline, and Industrial Capitalism,” *Past & Present*, no. 38 (December 1967): 56-97; Roy Rosenzweig, *Eight Hours for What We Will: Workers & Leisure in an Industrial City, 1870-1920* (New York: Cambridge University Press, 1983), 35-40.

² Churches were a form of commercial leisure because patrons paid through tithes and pew rentals in exchange for witnessing a transformative performance. For a discussion of churches as theaters see Jeanne Halgren Kilde, *When Church Became Theatre: The Transformation of Evangelical Architecture and Worship in 19th-Century America* (Oxford: Oxford University Press, 2005). For a collection of essays that traced the evolution of commercial leisure in the United States, see Richard Butsch, ed. *For Fun and Profit: The Transformation of Leisure into Consumption* (Philadelphia: Temple University Press, 1990); Richard Butsch specifically investigated the positive and negative attitudes Americans expressed toward audiences in relationship to standards of good citizenship Richard Butsch, *The Citizen Audience: Crowds, Publics and Individuals* (New York: Routledge, 2008), and Richard Butsch, *The Making of American Audiences from Stage to Television, 1750-1990* (New York: Cambridge University Press, 2000), 127. David Nasaw investigated the development of twentieth century commercial leisure that brought together most Americans but excluded African Americans, see David Nasaw, *Going Out: The Rise and Fall of Public Amusements* (New York: Harper Collins, 1993). Kathy Peiss examined the gender implications of commercial leisure and found that working-class women redefined male and female companionship

The first part of this chapter investigates the development of mechanical folding chairs for theaters; the second part traces the installation of versions of the chair in churches and cinemas (**Fig. 3.1**). The third and concluding part analyzes versions of opera chairs designed for baseball stadiums, a new and distinctively American institutional and social space that developed at the turn of the twentieth century.

At the opening of the nineteenth century American theaters and Protestant churches had interiors designed to support communal worship and entertainment. In both institutions, Americans from all socioeconomic groups wrestled with conceptions of citizenship based upon egalitarian democratic principles. In the middle of the nineteenth century, demographic, economic and religious changes fractured the monolithic character of theater audiences and worshippers into separate entertainment venues and denominations. Interior designs evolved as cultural and religious leaders and audiences negotiated authority in new institutions. By the end of the nineteenth century, large populations of conservative upper-class Americans abandoned egalitarianism out of fear of losing status. An emergent bourgeoisie expressed dominance and control of traditional protestant religions and highbrow entertainment through interiors designed to exclude or marginalize working-class, immigrant and poor Americans. In response, progressive Americans built theaters and worship spaces that appealed to a diverse and changing

in commercial venues, see Kathy Peiss, *Cheap Amusements: Working Women and Leisure in Turn-of-the-Century New York* (Philadelphia: Temple University Press, 1986). Over the nineteenth century, theater transformed from a monolithic mixed race and class space, to a diverse set of institutions stratified by race and class that adhered to rigid Victorian values. In the twentieth century cabarets and nightclub spaces evolved that permitted people of diverse class, race, and ethnicity to mix and contributed to the relaxation of rigid Victorian values. On the class changes in the twentieth century see Lewis A. Erenberg, *Steppin' Out : New York Nighlife and the Transformation of American Culture, 1890-1930* (Westport, CT: Greenwood Press, 1981).

American public.³

Theaters and churches shared a similar function as auditoriums that assembled people to view and listen to a performance. Seating was a critical element of carefully planned interiors designed to permit and foreclose social interaction, express power relationships and status, and shape experience and belonging. Both conservative and progressive institutions employed opera chairs, a new type of mechanical furniture, to control behavior and define boundaries. Mass production broadcast behavioral norms to audiences within every type of architectural auditorium across the United States.

Early American Theaters, 1800–1850

In the first half of the nineteenth century, nearly every major town had a theater or opera house that served as a meeting place and location for the exchange of ideas, news, and information.⁴ Theaters presented a wide variety of cerebral and earthly performances to Americans of all classes, races, and creeds, from the erudite to the illiterate. A single night's performance might include a Shakespeare play, followed by a farce, with gymnastics display and singers performing popular music between the acts. In conjunction with theater proprietors, architects designed spaces that aligned with republican ideals espoused by philosopher John Stuart Mill and John Locke that all men were equal, with universal basic rights of association and freedom to pursue their

³ For a background on the evolution of the American theater industry see: Lawrence W. Levine, *Highbrow / Lowbrow: The Emergence of Cultural Hierarchy in America* (Cambridge, MA: Harvard University Press, 2002). For an overview of the evolution of evangelical architecture and its relationship to religious worship see Kilde, *When Church Became Theatre*.

⁴ Theaters were also tied to civic life as sponsors of fund-raising events; frequently proceeds were donated to benefit the poor, the blind and the insane. For example, the Federal Theatre in Boston hosted benefits for the local asylum. Boston Public Library Ms. Th. 1, Box 1 Folder 3.

interests. In 1789, the most direct expression of citizenship, the vote, was reserved for white men who either owned a set amount of land, held a value of wealth, or paid a minimum tax. Over the first half of the nineteenth century, states gradually expanded the franchise to all white men, but in the antebellum public commons, which included the theater, white men who may not have been able to vote were equal in their ability to vocalize their opinions.⁵

Early American theaters welcomed men of all classes, but it was wealthy investors who determined theater size and capacity, hired architects, participated in the design of interiors, set admission prices, and established rules of performance and attendance.⁶ Theaters had a loose and diffuse supervision. Proprietors, a sub-group of investors, leased performance halls on a seasonal basis to professional theater managers who contracted with acting troupes, sold tickets, hired supernumeraries (extras), night watchmen and police. Managers were itinerant and therefore less concerned with a theater's ongoing reputation than proprietors. Absentee proprietors and indifferent managers permitted spectators wide latitude to control the theater experience. Audiences considered theaters an extension of the public commons and treated managers and actors as servants employed for the price of admission.

Local newspapers reinforced the democratic philosophy of theaters. In 1824, *The*

⁵ Most states dropped the property qualifications by the 1820s but until the middle of the nineteenth century, many states restricted voting to those who met minimum tax payments. See Alexander Keyssar, *The Right to Vote the Contested History of Democracy in the United States*, (New York: Basic Books, 2000), 26-52.

⁶ Richard Butsch analyzed the power relationships within early American theater audiences, especially as power related to control over the boundaries of citizenship. Butsch, *The Citizen Audience*, 23-40.

Boston Weekly Magazine forcefully expressed a belief that “it is the *American people* who support the theater, and this being the case, the people have the *undoubted right* to see and applaud who we please, and we trust *this right* will never be extinguished. *No, never!*”⁷ Within the egalitarian space of the auditorium, individuals of all classes socialized, displayed and observed clothing, loudly interrupted performances with critiques, flung trash upon the stage and at performers, demanded favorite songs be sung over and over again — *Yankee Doodle* was a favorite — applauded, booed, hissed and stamped their feet.⁸

Boston’s Federal Street Theater epitomized the interior arrangement of American theaters built in the first half of the nineteenth century. Charles Bulfinch, foremost architect of American institutions in the early nineteenth century, specified an interior resplendent with patriotic imagery befitting a secular communal space built in the formative years of the new democracy.⁹ Carved eagles embellished gilded chandeliers, seven-foot-tall girandoles, and towering looking glasses in which Americans literally viewed their reflection surrounded and crowned by national symbols. Mirror frames were carved with chains representing the unified thirteen colonies, wheat ears as symbols of plenty and Latin references to Roman democratic principles. A curtain emblazoned with

⁷ “Theatrical: Mr. Pelby,” *The Boston Weekly Magazine*, November 27, 1824, 145. (Italic emphasis original).

⁸ Butsch, *The Citizen Audience*, 4-6; Lawrence Levine describes nineteenth-century American theater as “kaleidoscopic.” He describes the demanding and participatory audience behavior that “blurred the line between audience and actors.” Levine, *Highbrow / Lowbrow*, 21-28.

⁹ Bulfinch also designed the Massachusetts State House (1798), Massachusetts State Prison (1803), Massachusetts General Hospital (1818), and the United States Capital in Washington, D. C. (1818-1829).

the union arms hung across the stage.¹⁰ Bulfinch outfitted each section of the theater with seating that separated individuals along lines of class, gender, and race. Location, convenience, comfort, and security determined status hierarchy.¹¹ Although no interior rendering exists, Bulfinch's specifications describe a division of space similar to the contemporaneous Park Theatre in New York (**Fig. 3.2**). A large space open to the ceiling, referred to as a pit, spanned the ground level in front of a raised stage, and three balconies lined the walls. Ticket prices remained relatively consistent through 1850.

White male mechanics, journeymen, artisans, clerks, and an occasional woman (always escorted) paid fifty cents to sit in the pit.¹² To reach a seat, an audience member passed through a hallway under the boxes, entered the main auditorium near the stage, and then climbed over backless wooden benches that spanned the width of the theater.¹³ In the pit, benches minimized impediments to frequent fluid movement and informal postures. Seats were unassigned – people came and went and moved to sit with friends and acquaintances. Audience members sat or stood upon benches; they faced forward or

¹⁰ The following description is primarily based on letters, contracts and documents in the Federal Street Theatre Collection, Boston Public Library. Ironically, most of the fixtures were imported from London. Richard Stoddard described the relationship of the Federal Theatre to European counter parts. See Richard Stoddard, "A Reconstruction of Charles Bulfinch's First Federal Street Theatre, Boston," *Winterthur Portfolio* 6 (1970): 185-208.

¹¹ The manager could sell 350 tickets for the two tiers of boxes, 450 for the gallery and 305 for the pit.

¹² Ticket prices for the Federal Street Theatre are based on an 1808 document. Ticket prices printed in newspapers remained relatively stable through 1850. Pit seats at twenty-five cents to fifty cents, first and second tier seats at fifty cents to seventy-five cents, box seats at one dollar or more, and gallery seats between 12 ½ cents and twenty-five cents. Some theaters charged a bit more, or a bit less, but the ratio between sections was consistent.

¹³ Aisles were not always provided. Patrons seated in the pit of the Chestnut Street Theater in Philadelphia also entered at the front and climbed over benches to find a seat. Benjamin Latrobe's 1798 plan for the Richmond Theater included an entry stairway that ended halfway into the pit, forcing audience members to climb over the benches in the front to reach their seats. See Brooks McNamara, *The American Playhouse in the Eighteenth Century* (Cambridge, MA: Harvard University Press, 1969), 111, 148-151.

backward or straddled the bench. At a Cincinnati theater in 1832, cantankerous English travel writer Frances Trollope was mortified to observe men in the pit in shirtsleeves incessantly spitting, fully reclined with their bodies “the whole length supported on the benches.”¹⁴ A raised stage encouraged those seated in the pit to stand either on the floor or on the bench tops to fully take in a performance, as well as to survey the audience and to be seen.

Above the pit of Boston’s Federal Theatre, men and women who could afford higher priced tickets of seventy-five cents to one dollar sat in private boxes. An individual could purchase box tickets in advance or for the season, and arrive at the theater at their leisure knowing exactly where they would sit, and without worrying about finding a seat.¹⁵ Upon arrival, a box holder climbed a set of stairs into an elegant lobby and then entered a small private room through a rear door secured by a bolt. The box contained three rows of padded benches and was open to the auditorium side. Private boxes re-created a miniature stage on which occupants performed for other audience members. An 1804 letter published in the *Columbian Centinel* reminded the manager of the Federal Theatre that audience members did not attend “solely to witness the stage exhibitions” but also to see “the attractions of beauty and taste,” and recommended that

¹⁴ Trollope was notoriously elitist, but her description captures the bodily freedom of a male dominated atmosphere. Mrs. Trollope, *Domestic Manners of Americans* (New York: Whittaker, Treacher, & Co., 1832), 116-117.

¹⁵ William Dunlap, *A History of the American Theatre* (New York: J. & J. Harper, 1832), 32; the earliest published reference found for the term “box-office” is a London magazine - “obituary of considerable Persons,” *The Gentleman’s Magazine*, November, 1785, 837; the earliest reference to the *box-office* found in a U.S. publication is in *The Knickerbocker* 4 (July 1834): 21. Theaters kept *box books*, in which a record was kept of patrons who reserved a box for the season. The *box book* was kept in the *box office*, a term surviving in modern parlance from the days when the only reserved seats in the theater were for box patrons.

the manager increase light in the theater. In their boxes, elite citizens demonstrated genteel behavior and postures, displayed fine clothes as markers of their status, and participated in debates and calls to performers on stage. Elite box patrons were not necessarily attentive to the performance. Washington Irving observed that they “*strive to appear inattentive; and I have seen one of them perched on the front of the box with his back to the stage...some have even gone so far in search of amusement as to propose a game of cards in the theatre during the performance*” (Fig. 3.3).¹⁶ Behind the first tier, Bulfinch outfitted a grand assembly area with lightweight, moveable Windsor chairs and settees to which box members could retreat. Some theaters rewarded box holders with higher status moveable parlor chairs for first tier boxes. Comfortable domestic furniture that audience members could rearrange reinforced the class status of elite patrons. Theater managers trusted them to use furniture in an acceptable manner.¹⁷

The third tier, sometimes referred to as the gallery, was a space inhabited by white and black men of all classes (Fig. 3.4). Tickets were the least expensive at 37 ½ cents. Upon benches men took up relaxed postures to watch performances, slept off overindulgence of drinks from the adjacent gallery bar, or availed themselves of the company “of females of a certain description,” as one Boston theater referred to

¹⁶ Washington Irving, (writing as Jonathan Oldstyle) *Letters of Jonathan Oldstyle*, Gent. (London: Effingham Wilson, 1824), 20. Frances J. Grund, *Aristocracy in America* 1 (London: Richard Bentley, 1839), 176-189.

¹⁷ The Park Theatre in New York similarly sat its box patrons on benches or pew like “slips,” Francis J. Grund, *Aristocracy in America*, 185. A description of the Federal Theatre was published in the local newspaper: “Architectural Description of the Boston Theatre,” *Federal Orrery* 1, no. 7 (November 10, 1794): 1; Detailed descriptions and inventories can be found in The Federal Street Theatre Collection, Box 2, Folder 1, Boston Public Library.

prostitutes.¹⁸ Throughout most of the nineteenth century theater galleries were notorious locations for female prostitutes to engage clients. An 1830 investigative report of Boston's Tremont Street Theater highlighted the "vulgar crowds" the theater attracted and described a sign on the gallery (upper tier) indicating "No Gentleman without a Lady." The report indicated the double meaning was well understood by clientele - both a prohibition and an invitation to an area frequented by prostitutes and their clients in third tier boxes who "may not occupy the rooms according to the apparent design."¹⁹ Due to the dominance of men in theater audiences, reformer's efforts to banish prostitutes had little effect until after the Civil War. In 1832, theater historian William Dunlap bemoaned the separate entrance to the third tier of the Federal Street theatre through which prostitutes entered en masse in advance of the performance: "The Federal-street theatre provided a separate entrance for those who came for the express purpose of alluring to vice."²⁰ If she made a successful connection a working woman took her client to a nearby

¹⁸ "Theatricals," *Columbian Centinel*, November 17, 1804, 2. "New Amphitheater," *Columbian Centinel*, April 26, 1817, 3; Robert Clyde Allen, *Horrible Prettiness: Burlesque and American Culture* (Chapel Hill, NC: University of North Carolina Press, 1991), 52; Claudia D. Johnson, "That Guilty Third Tier: Prostitution in Nineteenth-Century American Theaters" *American Quarterly* 27, no. 5 (December, 1975): 577-578.

¹⁹ "Report of the Tremont Theatre Investigating Committee," *American Monthly Magazine* 2, no. 9 (December, 1830): 586-592. Boston may have been particularly resistant to women in the pit. The *New York Mirror* observed that the Lafayette Theatre in Philadelphia sat women in the pit in 1826. "Why females should be debarred the most eligible, comfortable, and economical department of a theatre, by a prejudice (it is nothing more) which has no existence (if we except Boston) in any other section of the globe, we do not know." But the paper's vehement endorsement was likely an expression of intercity rivalry more than a change in practice. "La Fayette Theatre," *The New York Mirror and Ladies' Literary Gazette* 3, no. 52 (July 22, 1826): 415.

²⁰ Dunlap, 210-212. *Theatre in the United States* 1 (Cambridge, U. K.: Cambridge University Press, 1996), 115, 92, Lease of refreshment bars to James B. Johnson, June 6, 1827, MS. Th. 1, Box 1 C20 Federal Street Theatre Collection, Boston Public Library.

Theater architects adapted the exterior stairway from American meetinghouses and churches. Exterior stairways maximized the number of ground level benches. Marginal citizens - apprentices, indentured servants, black household slaves, Native Americans and boys between the ages of ten

bordello or a restaurant that offered private supper rooms for sexual relations, or simply consummated the arrangement on the benches of the gallery.²¹ The third tier also was well known for vehement expressions of disapproval. Washington Irving, writing in 1824 as John Oldstyle, lamented rowdy behavior in the pit and gallery:

I pay pretty dear for it; first to give six shillings at the door, and then to have my head battered with rotten apples, and my coat spoiled by candle-grease; by and by I shall have my other clothes dirtied by sitting down, as I perceive every body mounted on the benches...I could scarcely breathe while thus surrounded by a host of strapping fellows, standing with their dirty boots on the seats of the benches.²²

The simplicity of benches that served the varied behavior of active audiences also augmented income and reduced expenses for managers and saloon keepers. Simple to construct, the backless bench was a form that dated to ancient arenas (**Fig. 3.5**). Local carpenters made inexpensive benches from straight planks of wood using nailed joinery and painted finishes. Managers preferred benches because un-upholstered plank seats minimized repair costs. Maintenance was as easy as putting on a new coat of paint or replacing a plank of wood. If patrons were not going to be sitting for long periods of performance, indeed if they were going to be standing and moving about the theater nearly continually, the comfort of upholstery was outweighed by the expense of cleaning and replacing fabric stained by tobacco smoke, dirty boots and spitting.

and fifteen years - were sequestered in the upper tier of the meetinghouse. See Peter Benes, *Meetinghouses of Early New England* (Amherst: University of Massachusetts Press, 2012), 70, 165-168.

²¹ John M. Murtagh and Sara Harris, *Cast the First Stone* (New York: McGraw-Hill, 1957), 205; Johnson, "That Guilty Third Tier," 578.

²² Irving, *Letters of Jonathan Oldstyle*, 16-24. Irving colorfully described the interactive and boisterous audience of the early nineteenth century theater, "the gentry in the gallery, who vociferated loudly for Moll in the Wad," the calls for every "servant at the theatre (actor)" to bow, and the "stamping, hissing, roaring, whistling;" when the people of the gallery did not get their way,

Concessionaires appreciated the income from benches which permitted audiences frequent trips to purchase refreshments.²³ The availability of alcoholic drinks, and the intimacy of bodies pressed closely together in the pit and gallery fostered social interaction and conversation and a sense of communal engagement. As in most theaters, most patrons of the Federal Theater sat upon unreserved and unassigned pit and gallery benches. Though proprietors set maximum ticket sales, managers typically took advantage of the fungible capacity of benches to oversell the agreed upon maximum.²⁴ Pits and galleries were filled with every class of American. “Managers must depend upon the idle, profligate and vulgar,” to fill their theaters because “the ‘*judicious few*’ ...are nowhere sufficiently numerous to fill one,” American actor and playwright John Payne complained in 1810.²⁵

Hierarchical interiors in the first half of the nineteenth century superficially addressed lingering condemnation of theater as a threat to religious and republican virtue. After appeals to the power of theater to instruct morality and “polish the manners of citizens...in forming a national character,” Governor Samuel Adams lifted a ban on theater in Massachusetts in 1789, but only so long as attendance did not destroy “the necessary distinction of ranks.”²⁶ Like other theaters in the first half of the nineteenth

²³ Lease of refreshment bars to James B. Johnson, June 6, 1827, Box 1 C20 Federal Street Theatre Collection, Boston Public Library.

²⁴ The trustees of the Federal Street Theatre had to renegotiate a signed agreement with their manager because he consistently oversold seats. See Charles Stuart Powell, manager, and the Trustees, Box 1 Folder C4, Federal Street Theatre Collection, Boston Public Library.

²⁵ John Payne to Benjamin Pollard, November 13, 1810 in Willis T. Hanson, Jr., *The Early Life of John Howard Payne* (Boston, 1913), 138-139.

²⁶ Theater was legally banned in the eighteenth century. In 1794 to encourage him to lift the ban, Congressman Elbridge Gerry assured Samuel Adams that the “necessary distinction of ranks” would be preserved while allowing poor men and gentlemen to enjoy the same performance.

century, Bulfinch designed the Federal Street Theater interior to give the appearance of meeting conservative social norms to prevent the corrupting influence of class mixing, while in practice doing little to prevent fraternization and exposure to bad language and drunkenness. The design separated audiences by class and race into gallery, pit, and boxes; but physical barriers were permeable. During a performance there was little to keep people moving from their unassigned seats in pit and gallery to other sections of the theater.²⁷

At the Federal Street Theater, the capacity of the less expensive sections in the pit and gallery was considerably larger than that of the private boxes and balconies – an apportioning typical of the antebellum era. The large percentage of inexpensive seats granted the laboring class a large and loud voice in shaping theater experiences. Managers and actors catered to audience desires. Lamps were kept lit so that audience members could stage performances that competed with the official action on stage. Even the performers were subservient to the audience. Rather than deliver their lines to other members of the cast, actors took turns moving to the center of the stage to belt out their lines to capture the attention of audience members who frequently simply choose not to watch or listen.²⁸

Elbridge Gerry to Samuel Adams, July 17, 1789, Massachusetts Historical Society, *Proceedings of the Massachusetts Historical Society*, 3rd Series 62 (October, 1928 - June, 1929): 54-64.

²⁷ For a discussion of theater in the antebellum years see Bruce McConachie, “American Theatre in Context, from the Beginnings to 1870,” in *The Cambridge History of American Theatre*, Vol. 1 eds. Don B. Wilmet and Christopher Bigsby (New York: Cambridge University Press, 1998), 111-181.

²⁸ At the Federal Theatre in Boston 350 seats were in the first two tiers and 755 seats were in the gallery and pit (450 seats in the gallery, and 305 seats in the pit). Charles Stuart Powell, manager, and the Trustees, Box 1 Folder C4, Federal Street Theatre Collection, Boston Public Library. Bruce A. McConachie, “Pacifying American Theatrical Audiences,” in *For Fun and Profit: The Transformation of Leisure into Consumption* ed. Richard Butsch (Philadelphia: Temple University

Theaters in Transition, 1850–1880

In the late 1840s, elite members of theater audiences grew wary of the power that the pit and gallery expressed within the theater. Growth of the urban working class fueled anxieties. In the two decades prior to the Civil War coastal cities in the North experienced an influx of working-class migrants and immigrants. While the general population grew by 200 percent between 1820 and 1860, the population in urban areas grew by nearly 800 percent.²⁹ Boston grew from 61,000 to 133,000 residents, Philadelphia from 161,000 to over 500,000 and New York from about 200,000 to more than 800,000. People arrived, relocated, and left the city frequently. In Boston, the mobility rate between 1830 and 1857 was 85.5 percent, suggesting that half the population was moving every two years.³⁰ Individuals were separated from thick connections of family and community and no longer lived where they worked. Urban residents knew little about one another's background. Cities were branded as dangerous, menacing places. The threat of unpredictable bodies and potential for angry demonstrations in public spaces influenced the design of auditoriums in which Americans assembled.³¹

Wealthy Americans attributed poverty, vice, crime, and disorder to the rapid expansion of the working-class population, but the bourgeois class inflamed tensions by

Press, 1990), 47-70.

²⁹ Kenneth T. Jackson and Stanley K. Schultz, *Cities in American History* 1st ed. (New York: Knopf, 1972), 110.

³⁰ Peter R. Knights, *The Plain People of Boston, 1830-1860: A Study in City Growth* (New York: Oxford University Press, 1971), 48-77.

³¹ Karen Halttunen explored the evolution of manners and a culture of sentimentality as one response to the perceived threats of the world of strangers. See Karen Halttunen, *Confidence Men and Painted Women: A Study of Middle-Class Culture in America, 1830-1870* (New Haven: Yale University Press, 1982), 34-36.

hoarding profits and keeping wages low. As rent and retail prices increased, inequality grew. Mechanization and division of labor undermined job security. The working class resented the tenuousness of employment and distrusted the supposed benevolence of more politically powerful citizens. The pit and gallery, highly sensitized to perceived classist slights, expressed dissatisfaction in the traditional public commons of theaters. Conversely, elites grew particularly fearful of working-class mobs, especially after legal efforts to stop drinking, prostitution, gambling, rowdyism and disorder met with failure.³²

Class tensions erupted into a violent theater riot at the Astor Place Opera House in New York City in 1849. English actor William Charles Macready, considered pompous and pedantic by working class audiences, had publicly denigrated popular American actor Edwin Forrest. When Macready took the stage, the gallery attacked him with a fusillade of rotten eggs and potatoes. A melodramatic pamphlet recounted how “chairs were thrown from the upper part of the house, so as to peril life.”³³ Through the first act Macready was interrupted with cheers, groans, hisses, and yells. At his performance three nights later, the interruptions continued until members in the pit and gallery were arrested and removed from the theater. Meanwhile, five thousand protestors attempted to gain entrance to the theater to once again disrupt the performance. Denied admission because

³² In his book on class formation in New York City, Sean Wilentz placed the Astor Place Riot within larger economic trends affecting New York City, and identified the violent uprising as a pivotal moment - “it was to be war, here expressed in violent cultural terms, between rich and poor, between the Anglophile aristocrats and the lawless mob, between Astor Place and the Bowery.” Sean Wilentz, *Chants Democratic: New York City and the Rise of the American Working Class, 1788-1850* (New York: Oxford University Press, Inc., 2004), 261. Levine, *Highbrow / Lowbrow*, 61.

³³ A particularly detailed description is the *Account of the Terrific and Fatal Riot at the New -York Astor Place Opera House* (New York: H. M. Ranney, 1849).

all tickets had been sold in advance, they pelted the exterior with stones (**Fig. 3.6**). After the crowd refused or was unable to disperse the local militia fired upon protesters and killed twenty-two people. Graphic descriptions in newspaper articles, illustrated pamphlets, and prints publicized the riot across the nation.³⁴

Superficially, the Astor Place riot concerned enmity between two actors, but sympathetic newspaper reporters argued that a more fundamental cause was frustration over exclusionary seating. In an article reviewing the opening of the opera house in 1847, *The Brooklyn Daily Eagle* reported the interior was “designed for the accommodation more especially of the “upper ten” — the wealthy New Yorkers who lived in its tony surroundings. According to the *Eagle*, the pit was “supplied with rich cushioned chairs” upholstered in crimson velvet rather than typical benches.³⁵ *The Buffalo Courier* reported “a vast attempt at aristocracy and exclusiveness in the arrangements and the whole design of the enterprise.”³⁶

There were warning signs before the conflict. The *Home Journal*, a progressive paper, reminded readers the threat of working-class uprising was in the air well before the riot. At the opera house’s opening in 1847, the paper had objected to the “*aristocracizing* of the pit.” The public had concluded that the Astor Opera house was “*a movement of the aristocracy,*” according to the *Journal*, and represented “the coming to a head of this

³⁴ Peter George Buckley, “To the Opera House: Culture and Society in New York City, 1820-1860” (PhD diss., State University of New York, 1984), 53-75; Levine, *Highbrow/Lowbrow*, 65; J. T. Headley, *The Great Riots of New York, 1712 to 1873* (New York: E. B. Treat, 1873), 115.

³⁵ “Matters in New York,” *The Brooklyn Daily Eagle*, November 8, 1847, 2; “Topics of the Month,” *Holden’s Dollar Magazine* 1, no. 1 (January, 1848): 57. Buckley described all of the chairs in the Astor Opera house as fixed, numbered and covered in red damask, but no other supporting evidence can be found in the sources he cited. See Buckley, “To the Opera House,” 263.

³⁶ “City Matters,” *Buffalo Courier*, November 27, 1847, 2.

vague and uncatalogued class of the population of New York.” Half the reason the “respectable and economical” lower class came to the opera was to gaze upon beautiful women, the paper explained, which was foreclosed after wealthy subscribers reserved all the box seats and the best chairs in the pit. Wealthy New Yorkers reserved private boxes for the season; other seats were priced at one dollar — twice or four times as much as bench seats in other theater pits. According to *The New York Herald* only the “hard and uncomfortable,” seats of the third tier were priced at twenty-five cents.³⁷ Working class attendees were only able to purchase the worst seats of the pit “against which, as the more promiscuous part of the house, there is an habitual prejudice among ladies.” A tightly enforced dress code included an insistence that patrons wear white kid gloves.

Newspapers described working class men as chagrined at being denied a democratic right to centrally located bench seats in theater pits where they could express their views and observe lovely ladies in the boxes. Deprived of a place in theaters, one newspaper warned, the upper and lower classes would mix only through casual interactions in the street “with no possible community of feeling – and the *dangerous consciousness of a class from which they are entirely cut off* is offensively heightened.”³⁸ A Philadelphia newspaper lamented that the riot left behind “a feeling which this community has hitherto been a stranger an opposition of classes a *high* and a *low*

³⁷ Account of the Terrific and Fatal Riot at the New -York Astor Place Opera House (New York: H. M. Ranney, 1849), 5; *The New York Herald*, December 1, 1847, 1.

³⁸ “After-Lesson: Of the Astor-Place Riot” *Home Journal*, May 26, 1849, 2; “The Up-Town Opera,” *Home Journal*, December 11, 1847, 2. *The New York Herald Tribune* attributed the riot to a “collision between those who have been styled the “exclusives,” or “upper, ten,” and the great popular masses”; “Additional Particulars of the Terrible Riot,” *The New York Herald Tribune*, Morning Edition, May 12, 184, 1.

class...between white kids [kid gloves], and no kids at all.”³⁹

The riot reportedly resulted from a recently formed urban upper class exercising its perceived dominance over the theater by excluding the working class, and the belief of the working class that they had an inalienable right to participate in theater as a democratic institution.⁴⁰ In the past, wealthier patrons in boxes and working class and artisans in pits and galleries shared power in controlling theater experiences, but in the second half of the century an emergent bourgeois class insisted on exclusive spaces for what they considered legitimate theater. Critic and theater historian Norman Hapgood expressed the wealthy protectionism by insisting that serious dramas be shown only in “legitimate theaters” because “the more ignorant spectators who formerly followed the lead of the educated now read, have opinions and enforce them.”⁴¹

Following the lead of critics and theater goers, newspapers classified theaters that performed operas, Shakespeare and other art forms canonized by the wealthier class as *legitimate* theaters. Theaters joined art museums and membership libraries as a location where bourgeois citizens separated themselves from working class, non-white

³⁹ “Things in New York,” *Public Ledger*, May 16, 1849, 3. The *Boston Atlas*, May 14, 1849, reprinted in *The New York Herald*, May 16, 1849. The *Boston Atlas* attributed the violence to an exclusionary policy that no person was admitted unless in full dress with white kid gloves. The *Atlas* blamed the conflict on the exclusion of “Bowery boys,” by wealthy classes “who pay high prices for pews in fashionable churches.”

⁴⁰ Mechanics, artisans and laborers had long been aware that they were members of a working class, but wealthier Americans were less conscious or even resistant to the notion they belonged to an aristocratic class. Through the 1830s industrial entrepreneurs and wealthy merchants viewed one another as competitors more than colleagues who shared a value system. It was in response to the potential and actual violent demands of a seemingly unpredictable and growing working class that middle and upper class identity coalesced. Sven Beckert, *The Monied Metropolis: New York City and the Consolidation of the American Bourgeoisie, 1850–1896* (New York: Cambridge University Press, 2001), 50.

⁴¹ Norman Hapgood, “The Upbuilding of the Theatre,” *The Atlantic Monthly* (April, 1899): 421.

Americans, and immigrants. The growth of an urban underclass had instilled fear in the wealthier classes, but wealthy capitalists were reliant upon laborers to fill mill and factory jobs in Northern factories that generated their income. The two classes, deeply intertwined economically, became less tolerant socially.

While capitalists were attempting to exclude the working class from existing theaters wealthy urban citizens were building additional theaters. In the 1850s, capital accumulation in cities fostered investment in cultural institutions and contributed to a growing cosmopolitanism in the visual, performing and literary arts.⁴² The increase in the number of theaters led to competition for customers.⁴³ To expand the pool of potential audience members, theaters redesigned interiors to appeal to middle class women and children and overcome Victorian mores that disallowed respectable women in male-gendered spaces of the theater.

The Boston Theatre

In 1852 a group of Boston merchants, bankers and professionals met and proposed the erection of a first-class opera house. To attract a reputable audience and entice commercial investment to the city, the proprietors commissioned a local

⁴² In Boston, the seeds of the Museum of Fine Arts were planted in the creation of a sculpture gallery at the Athenaeum, the first large free municipal public library was launched, and the influential journal of American thought, *The Atlantic Monthly* began publication. Charles Sellers, *The Market Revolution: Jacksonian America, 1815-1846* (New York: Oxford University Press, 1991), 364-366.

⁴³ Theater capacity was critical to financial success. Many of the costs of the theater including payments to the performers and support staff did not increase with the addition of more seats. It was much more cost effective to give a single performance to a 3,000 seat theater, than it was to give 3 performances to a 1,000 seat theater. Smaller theaters required significantly higher ticket prices to generate the same profit. Part of the reason ticket prices stayed relatively stable through the nineteenth century was because theaters increased income by increasing the number of individuals attending each performance.

cabinetmaker to design an innovative seat.⁴⁴ In 1854 the 3,000-seat Boston Theatre and Opera House opened with the first installation of mass-produced mechanical folding seats (**Fig. 3.7**). The design, referred to as an opera chair, spread quickly and opened a larger portion of theater interiors to middle-class women and families who, it was hoped, would elevate a theater's reputation and increase income.⁴⁵ The architects of the Boston Theatre designed an interior that filtered audiences into six sections. Seat design differed based upon the proprietors' assumptions about the class, gender, and race of audience members. (**Fig. 3.8**). Seats in each section varied in degree of privacy, flexibility of arrangement, and space per person.⁴⁶ An analysis of where the theater located the new seats reveals the owners intended changes to the social structure and demographics of American theater audiences.

⁴⁴ After the Federal Theater was demolished in 1852 and the Tremont Street Theatre was purchased by a Baptist congregation, Boston had no major performance hall designed for opera and classical music. Typically drawn from the upper-echelons of urban society, theater proprietors were concerned that their cities be considered cultured and reputable. Respectable theaters enhanced civic pride, attracted investment to their businesses and reinforced their elite status.

⁴⁵ Demographics may have also played a part in the appeal to women. More middle class young men than women left older industrial cities in the Northeast in pursuit of a better life on the frontier, leaving behind urban populations with a greater proportion of educated middle-class women who could fill seats formerly purchased by men in the pit. See David T. Courtwright, *Violent Land: Single Men and Social Disorder from the Frontier to the Inner City* (Cambridge: Harvard University Press, 1996), 47-48.

⁴⁶ French architect Henri Noury won a competition to design the theater. He was listed in the Boston directory in 1853 and 1854. At an early stage the construction of the theater was taken over by architects Jonathan Preston and Ralph William Emerson. The description in this section is compiled from several sources: "Our New Theatre," *Boston Daily Atlas* reprinted in *Dwight's Journal of Music* 4 no. 23 (March 11, 1854): 179-180; "The New Theatre," *Boston Daily Atlas*, August 28, 1854, the Boston Theatre and Opera House (Washington Street) Collection, Boston Public Library; an unpublished set of Preston & Emerson's drawings in the collection of the Bostonian Society, Architectural Drawings, Boston Theatre, 1967.0019, Bostonian Society Artifacts, Bostonian Society, Boston. Eugene Tompkins, the former manager and treasurer, wrote a detailed history of the Boston Theater; see Eugene Tompkins, *The History of the Boston Theatre 1854-1901* (Boston: Houghton Mifflin Company, 1908),

A dozen or more private boxes typically ringed the first tiers in American theaters, but the architects of the Boston Theatre followed a trend of reducing the number of private boxes. Movable parlor chairs in the theater's six proscenium boxes, reached via dedicated spiral staircases, were the only secure private seats in the theater (**Fig. 3.9**). At a ticket price of \$6.00, box seats were the most expensive in the theater. The theater provided purchasers with the most space-per-person of any audience member and a prominent window through which they could be seen by the audience. Private boxes re-created a domestic parlor, a space that also doubled as both private and public.⁴⁷ Managers trusted box occupants to rearrange parlor furniture to suit their needs and to act appropriately behind closed doors and curtains, but by locating boxes in the front wall of the theater adjacent to the stage opening, the architects juxtaposed the performance of occupants in boxes with the performance of actors on the stage. Theater proprietors expected audience members in highly visible boxes would demonstrate manners, postures, and behavioral restraint suitable to a respectable theater.

The architects shifted the demographics of the audience in the ground floor by installing the new opera seats design. Designed to welcome middleclass and wealthy individuals, the Boston Theatre renamed the pit the *parquette*, a term adopted from

⁴⁷ Moveable chairs in theater boxes were comparable to parlor sofas in terms of flexibility and freedom. Some theaters sat their upper tiers with sofas and settees in lower status locations at the rear of tiers, or in the upper tiers. see Katherine Grier, *Culture and Comfort: Parlor Making and Middle-Class Identity, 1850-1930* (Washington, D.C: Smithsonian Books, 2010), 64-88. Kenneth Ames placed the sofa as the highest status seat in the Victorian parlor suite because it was more spacious than side chairs and least restrictive of posture. Greater distance, lower price and inability to control seatmates and a consequent possibility of close association with strangers reduced sofas and settees within a theater's status hierarchy to mid-range seats between opera chair and benches. See Kenneth Ames, *Death in the Dining Room and Other Tales of Victorian Culture* (Philadelphia: Temple University Press, 1992), 194.

French theaters for its European affectation.⁴⁸ Ticket holders entered through a central doorway and passed through a highly ornamented lobby dominated by a grand cast iron staircase (**Fig. 3.10**). From the lobby they entered an auditorium where ticket holders sat on an individual, numbered, cushioned folding chair (**Fig. 3.11**). The proprietors specified a cover of enamel cloth, a dark fabric imitative of leather typically used in a masculine home library, club, or office. In form the seats resembled parlor seats gendered female, but the choice of enamel cloth seemingly gendered the seats male. The gender contradiction represented the seats transitory state. Putting reserved chairs on the ground level was a new experiment. Enamel cloth was durable, impermeable, and hid stains. Proprietors were not fully convinced the new seats would deter male audience members from spitting, spilling drinks, smoking and other disreputable behaviors associated with the former pit.

The Boston Theatre adhered to a convention of designating the first tier a *dress circle* for fashionably clad elite clientele. Men were expected to wear hats, coats, white vests, and white kid gloves and women to don and display elaborate dresses, jewels, and hair ornaments. The architects surrounded dress circle ticket holders with luxury. They entered through the main lobby and promenaded up the grand staircase to a second lobby

⁴⁸ Parquette may have referred to the wooden floor of the theater. A related French term, *parterre* (French for floor or ground) was also used in some theaters to refer to the ground floor. The gradual conversion of the pit followed a trend begun in France that had spread to England in the 1840s. Johns Saunders, *The People's Journal* 1 (London: People's Journal Office, 1846), 16. Ben Graf Henneke, "The Playgoer in America (1752-1952)" (PhD diss., University of Illinois, 1956), 12-14. Noury, the initial architect of the theater, may have made the decision to elevate the pit to a middle-class parterre. Before the opening of the Boston Theatre, the Howard Athenaeum in Boston added one-dollar parquette box seats to the front of its orchestra section in Fall 1847 and in Fall of 1851 restricted gallery ticket holders to a separate entrance. Howard Athenaeum, Programs 1847-1892, Boston Athenaeum, Rare Books, Lg PN2277.B67 H64.

with marble columns, a large crystal chandelier and stucco ornamentation (**Fig. 3.12**).

The theater charged dress circle ticket holders fifty-cents to sit upon one of four rows of oak settees cushioned and covered with crimson plush (a cut nap velvet fabric).⁴⁹ The architects hung two rows of seats twenty-four inches below the front perimeter of the dress circle separated by a light wooden barrier from the rest of the tier (**Fig. 3.13**). The theater referred to the two front rows as the *balcony*. Proprietors installed mechanical opera chairs identical in form to those in the parquette below but covered in crimson plush more luxurious and more feminine than enamel cloth upholstery. The contrast in upholstery fabric differentiated and elevated the status of balcony chairs. Visibility of the fine dress was enhanced by the choice of front railing. Whereas the second and third tiers were fronted with low solid walls, the balcony was fronted with an open ironwork grille so parterre and upper tier audience members could observe the clothing and bodies of balcony audience members. In function and effect, the balcony opera chair replaced private boxes as a location for elite display. The balcony chair reduced the flexibility of

⁴⁹ It was common practice for theaters and opera houses in the second half of the nineteenth century to limit opera chairs to the ground floor and occasionally the first several rows of the first tier, the most visible parts of the house. Some examples include: "Another New Theatre," *Chicago Daily Tribune*, October 13, 1872, Chestnut Street Theatre - Philadelphia, Seating Diagram, ca. 1881, Harvard Theatre Collection; Crosby's Opera-House, Chicago, Seating Diagram, ca. 1881, Harvard Theatre Collection, Music Hall, Lowell, MA, Trading Card, 1880-1890, Harvard Theatre Collection; Park Theatre Boston, Seating Diagram, 1880-1890, Harvard Theatre Collection; Opera House, Ogdensburg, NY, Seating Diagrams 1880-1890, Harvard Theatre Collection; Owens' Academy of Music, Charleston, SC, advertisement, 1884, Harvard Theater Archive. Opera houses and theaters seated with chairs in all parts in the 1870s and 1880s used their exceptional seating as a selling point. In 1884, the Xenia Ohio opera house touted "not a bench in the house," in its advertisement. The opera house seated its gallery patrons in moveable chairs, and patrons on the lower tiers and parquet in folding opera chairs. In 1885, Bidwell's Academy of Music in New Orleans referred to itself as "The Parlor Theatre," because it was seated fully with chairs. Xenia Ohio Opera House, Harvard Theatre Collection; Display Advertisement for Bidwell's Academy of Music, *New Orleans City Directory*, 1885, flyleaf; Seating diagram, Bidwell's Academy of Music, ca. 1885, Harvard Theatre Collection.

space under control and degree of privacy from a small room seating six to fifteen people defined by walls and a locking door to an individual chair delimited by the chair arms and back.⁵⁰

The second tier, referred to as the family circle was designed for middle- and upper-class families. The initial rules of the theater proprietors required managers to sell family circle tickets at twenty-five cents and only in quantities of two or more “to engage frequenting of families to this part” although within two years the theater raised the price for the section to fifty cents.⁵¹ Family circle patrons entered the main lobby, but rather than climbing the central grand staircase they ascended a ten-foot wide circular staircase into a lobby “finished off in a neat and plain style.”⁵² Parents and children could sit closely together on settees upholstered in crimson plush.

The theater referred to the third tier to as the gallery or amphitheater. The spiral staircase that led to the second-tier family circle also reached the third-tier gallery but to prevent disreputable third-tier ticket holders from mixing with family circle patrons the staircase was to be used only as an emergency exit. Management required third tier patrons enter directly from the street through an uncovered passageway and climb a cast

⁵⁰ Their feet were obstructed from view by strategically placed gilt leaves. A grille on the dress circle was a common feature in opera houses and theaters. Most of the Federal Street Theater boxes sat twelve to thirteen people in a spaces three benches deep. Based on a bench depth of twenty-eight inches and a width of fifteen inches per person, the area per person in a private box of the Federal Theatre was equivalent to the area of an individual opera seat at the Boston Theatre. There was no significant reduction in area per person when opera seats were installed.

⁵¹ “General Rules for Management,” Box 17, Boston Theatre and Opera House (Washington Street) Collection, Boston Public Library. The rules may not have been consistently applied. A January 1856 broadside at the Bostonian Society listed seat prices identical to the rules except for family circle seats which were listed at 50 cents, the same price as the parquette and dress circle.

⁵² “The New Theater,” *The Boston Daily Atlas*, August 28, 1854.

iron staircase that opened onto a “retiring room” with chairs arranged for “additional accommodations.”⁵³ Inside the auditorium, gallery seats extended back over the lobby and nearly up to the ceiling (**Fig. 3.14**). According to the rules of the theater, the section was “to be frequented by gentlemen only,” a subtle prohibition against fraternization with prostitutes. Admission to the gallery cost twenty-five cents, the lowest price in the theater. The gallery of the Boston Theatre was also outfitted with cushioned settees, but unlike the lower tiers, these were cast iron, with arms that divided the gallery settees into spaces “each of which will accommodate two persons” (**Fig. 3.15**).⁵⁴ The divided settees offered a nuanced control over illicit behavior. A double seat distance of 36 to 40 inches between the arms allowed a more relaxed posture than theater chairs but prevented occupants from fully reclining; a feature specifically noted when similar settees were marketed to railroad depots in the 1870s.⁵⁵

Soliciting was a powerful charge levied against the respectability of theaters by Victorian moralists. In 1847 the Boston Alderman specified that licensed theaters had to abolish the “third row.” Theater owners were required to hire city police officers to keep liquor and prostitutes out of theaters.⁵⁶ Historically, police in theaters mainly cast out

⁵³ “The New Theatre;” *The Boston Daily Atlas*, August 28, 1854; “Our New Opera House,” *The Boston Daily Atlas* reprinted in *Dwight’s Journal of Music*, March 11, 1854, 179.

⁵⁴ “The New Theatre;” *The Boston Daily Atlas*, August 28, 1854; “Boston Theatre- Rachel’s Debut,” *Ballou’s Pictorial* 9, no. 19 (November 10, 1855): 296. A manufacturer for the settees has not been identified, but Boston school furniture makers Joseph L. Ross and Samuel Wales, Jr., published settees with cast iron arms in for lyceums in their catalogs. Joseph L. Ross, Samuel Wales, Jr., *The Guide: A Description of the Modern School Furniture Manufactured by Samuel Wales, Jr.* (Boston, 1850), Joseph L. Ross, *Ross’ Improved School Furniture* (Boston, 1864), 26-27.

⁵⁵ A. H. Andrews, *School Furniture and Hall Settees* (Chicago, 1873).

⁵⁶ James M. Bugbee, “Boston under the Mayors,” in *The Memorial History of Boston* 3, ed. Justin Windsor (Boston: Ticknor and Company, 1881), 253.

troublemakers but did little to discourage soliciting. Access to prostitutes was a significant selling point and theaters faced financial difficulties when they banned the practice.⁵⁷ Legal changes in Boston had made prostitution in theaters illegal, but the design of seats in the third-tier questions whether the Boston Theatre fully embraced the exclusion of prostitutes. Like most theaters, the proprietors of the Boston Theatre required managers to pay for a police force inside and outside the theater to keep “idlers” and prostitutes out. Arms on settees separated individuals and discouraged amorous postures to give the appearance of addressing the new licensing regulations, but the double seat width appeared to suit an intimate seating relationship between two people. The settees with arms at the Boston Theater gave the impression of control without fully eradicating support of soliciting.⁵⁸

In 1849, to displace rowdy behavior and bodies from pit to gallery, the Astor Place Opera House had charged one dollar instead of the customary twenty-five cents for chairs in the former pit. Working class audience members responded with outrage and civil unrest. Five years later, to avoid a similar outcome, the Boston Theatre priced parquette seats at fifty cents, a common pit price affordable to a broad segment of the

⁵⁷ In 1857, a Philadelphia observer noted that the theater was “in truth the house of the harlot; it is here she holds her court [in] that odious gallery.” Although prostitution in the third row fell out of favor in the years before the Civil War, prostitutes continued to frequent galleries through the post war years. D. Hayes Agnew, *Theatrical Amusement* (Philadelphia: Wm. S. Young, 1857), 8, 20. Johnson, “That Guilty Third Tier,” 575-584.

⁵⁸ The city of Boston sent inspectors to review theaters. In 1830, a committee of alderman inspected the Tremont Street Theatre to determine whether “gentlemen” and “ladies” of the gallery were not occupying the “rooms according to the apparent design.” *The American Monthly Magazine* reported that they found no evidence of illicit behavior but intimated that the theater knew the inspection was coming. “Report of the Tremont Theatre Investigating Committee,” *The American Monthly Magazine* (December 1830): 2; Tompkins, *The History of the Boston Theatre*, 463.

population. The Federal Theater had charged an admission price of fifty cents for a pit bench nearly fifty years earlier.⁵⁹ As an alternative to a price increase, the Boston Theatre relied upon chairs designed to inhibit behavior that violated middle-class norms and the appearance of seats in the former pit to announce the new expectations. Individual opera chairs were astonishingly novel when they appeared in a section of the theater that audiences were accustomed to find filled with an array of benches. The designers of the Boston Theatre judiciously selected the ground floor and the first tier in which to install the seats.⁶⁰ The proprietors hoped audience members who paid the lowest price, whom they assumed to be lowest in class and rowdiest, would gravitate to twenty-five cent settees in the third tier where they would be out of sight of most of the audience and isolated from interaction with performers. Middle class women would then take their place accompanied by middle-class men who were encouraged to adopt more restrained behavior, the theater owners hoped.

Opera seats in the parterre rewarded mid-priced ticket purchasers with a reserved and predictable location, a control over space previously afforded only to expensive box

⁵⁹ In their guidelines for managers the theater proprietors were adamant that seat prices be fixed at fifty cents for the parquet, first tier dress circle and balcony, and twenty-five cents for the family circle and gallery. The price scale was not strictly adhered to. A broadside from January 1856 lists the following prices: gallery seats at twenty-five cents; parquet, dress circle, and family circle seats at fifty cents; balcony seats at one dollar. See "General Rules for Management," Box 17, Boston Theatre and Opera House (Washington Street) Collection, Boston Public Library. The Howard Athenaeum had the same ticket prices as the Boston Theatre in 1847: Dress, First Circle and parquette at fifty cents, upper tier at twenty-five cents. Howard Athenaeum Program, January 27, 1847, Boston Athenaeum.; In 1834, the Tremont Theatre and Warren Theatre in Boston charged fifty cents for the pit and twenty-five cents for the gallery; *Boston Post*, October, 14 1834, 3.

⁶⁰ Initial drawings at The Bostonian Society show the seats only in the first two tiers but the designers or the theater owners subsequently changed the design to include opera chairs only in the parterre and the balcony. The change implies deliberation over where the seats were installed.

holders.⁶¹ In the former pit, a ticket holder was given general access to the benches but no assigned place. To move was to risk losing a seat. Ticket holders to the new parterre were guaranteed a specific seat for the duration of a performance, and as importantly, a consistent adjacent seatmate. To ensure patrons sat in the seat they had purchased and to avoid a ticketholder from having to eject an interloper themselves, the Boston Theater proudly announced in its programs: “Courteous ushers with badges always in attendance to conduct visitors to their seats.”⁶² Predictability and insulation from acrimonious encounters contributed to the bourgeois comforts of the former pit.⁶³

The Boston Theatre proprietors offered a one-hundred-dollar prize for the design of the new theater seat. Augustus Eliaers, an innovative Boston-based French cabinetmaker, won the competition with a design that he patented in 1854 (**Fig. 3.16**).⁶⁴

⁶¹ Henneke, “The Playgoer in America,” 33.

⁶² Tompkins, *The History of the Boston Theatre*, 7.

⁶³ The proprietors of the Boston Theater did not invent the idea of furnishing the lower level of an auditorium with individual seats. In 1833, Tyrone Power described arm chairs in use in the pit of the New York Opera House; and in 1840, the New National Theater had pew-like benches divided into individual seats in the pit “which preclude[d] the possibility of the visitors being annoyed by a crowd, consequent upon an over sale of tickets.” Power referred to arm chairs with the English term “Stalls.” Tyrone Power, *Impressions of America* (Philadelphia: Carey, Lea & Blanchard, 1836), 108; “The National Theatre,” *The New York Courier and Enquirer*, August 11, 1840, published in Barry B. Witham, *Theatre in the United States, 1750-1915* (Cambridge, UK, Cambridge University Press, 1996), 117-119. The *Courier* described the National Theatre seats only as single seats. A longitudinal section of the theater drawn by the architect shows pew-like benches in the tiers and the ends of pews in the pit. The seats were probably divided pews. Washington Hood, “Drawings,” Col. 101, Winterthur Museum & Library. Hills New York Theater (1840), the Bowery Theatre (1849), and the Varieties Theatre in St. Louis (1852) also provided arm chairs on the ground level; see Henneke, “The Playgoer in America ,12-13. The Boston Music Hall installed moveable individually numbered seats upholstered in blue moreen arranged in rows when the theater opened in 1852. “The New Music Hall,” *Gleason’s Pictorial* 3, no. 25 (December 18, 1852): 1.

⁶⁴ Eliaers was not French by birth. He was born in L’Eèveque Hainaut, a French-speaking region under Dutch rule in 1820. In 1830 it became part of Belgium. However, Eliaers referred to his business as a “French Cabinet Maker” and his shop as a “French Furniture Manufactory,” in his advertisements. The term “French Furniture” in the United States in the nineteenth century indicated as much a style of rococo revival furniture, as it did the nationality of the maker. Much “French Furniture” in the United States was made by German craftsman, such as John Henry Belter in New York. After

Eliaers arrived in New York from Paris in 1847 and worked in Boston from 1849 to 1860 before returning to Paris.⁶⁵ While in Boston he worked closely with a local manufacturer to produce refined carved French neoclassical and rococo furniture for wealthy homeowners (**Fig. 3.17**). Although it was Eliaers who patented the opera chairs, the design was the product of collaboration with a committee of the theater proprietors through an iterative process. The committee provided guidelines based upon “numerous alterations and various improvements” to existing chairs they had already examined. Guidelines specified the upholstery material and the locations for the new chairs in the parquette and balcony. Six months before the theater opened, the proprietors signed a contract for the manufacture of 1,288 opera chairs at a price of five dollars per chair. The proprietors insisted the manufacturer install six chairs in the theater at his expense, to be “tested practically” and altered based on feedback.⁶⁶ The theater allowed only four months to prototype, test, obtain materials, manufacture, deliver and install the chairs before the opening of the fall season. It was a monumental undertaking to manufacture a

leaving Boston, Eliaers settled in Paris. “The New Opera House,” *Dwight’s Journal of Music*, April 23, 1853, 18-19; *The Bostoniad* (Boston: Hollis & Gunn, 1853), 45. James G. Blake, the manufacturers, described the chairs as “according to a plan proposed by A. Eliaers.” See James G. Blake to Gardner Brewer, October 13, 1854, Box 17 Folder B12, Boston Theatre and Opera House (Washington Street) Collection, Boston Public Library.

⁶⁵ Boston directories and his patents list Eliaers in Boston until 1861. Frenchman Henri Noury won a competition to design the theater. Noury was listed in the Boston directory in 1853 and 1854. Eliaers may have been introduced to the Boston Theatre project through shared nationality. Eliaers was also an innovative manufacturer of curving staircases and designed the grand staircase of the Boston Theatre leading from the lobby to the dress circle. He was widely known for his folding library chairs and later his mechanical invalid chairs.

⁶⁶ The committee considered the design to be unique, and although they demanded indemnification against patent infringement, they also noted that they had no fear of legal proceedings - “the principle of the chair being entirely different from any other.” Edward C. Bates and Gardner Brewer contract to James G. Blake, March 20, 1854, Box 17, Folder B7, Boston Theatre and Opera House (Washington Street) Collection, Boston Public Library.

completely new design in such a short time frame.⁶⁷

Eliaers embedded a refined aesthetic in the chairs that spoke quietly of elite respectability through visual and formal references to domestic furniture (**Fig. 3.18**). He arranged upholstered arms and an oval back in a form reminiscent of neo-classical French chairs and surmounted the metal frame of the chair back with a decorative wooden crest. The armchair form immediately transmitted body memory of upright postures assumed in domestic chairs to encourage etiquette appropriate within the home - a space defined by feminine respectability at midcentury. By adapting a typically domestic form, Eliaers spatially extended domestic space previously present solely in private boxes and ladies' parlors into the most visible areas of the theater – the ground floor and balcony.⁶⁸ Proprietors expected that rules, etiquette, and behavior associated with a middle-class home would follow.⁶⁹ Eliaers was not the only opera chair designer at mid-century. Boston furniture distributor Aaron H. Allen received a patent for an opera chair one week after Eliaers. The Allen chairs were installed in the New York Academy of Music, also opened in 18754. Like the Boston Theatre, the Academy of Music installed opera chairs

⁶⁷ James G. Blake, Invoice, September 14, 1854, Box 17, Folder B10, Boston Theatre and Opera House (Washington Street) Collection, Boston Public Library. Initially, the proprietors specified enamel cloth for the balcony seats, perhaps reticent to about the behavior of occupants. The specification was changed later and Blake charged an extra fee to upholster the 293 seats in the balcony extra full and with plush instead of enamel cloth. He did not deliver by the (very tight) deadline, and delayed the opening by at least one week, costing \$3,500 the theater estimated.

⁶⁸ Richard Butsch, "Bowery B'hoys and Matinee Ladies: The Re-Gendering of Nineteenth-Century American Theater Audiences," *American Quarterly* 46, no. 3 (September, 1994): 381.

⁶⁹ In the antebellum period, domesticity signified safety for women, even if it occurred in a public place. For example, women's work in temperance and religious societies, although public, was deemed an acceptable extension of their domestic role as caregiver. See Kathy Peiss "Going Public: Women in Nineteenth-Century Cultural History," *American Literary History* 3, no. 4 (Winter, 1991): 817-828.

in the parterre and balcony.⁷⁰ The intent was similar – to build a community of “feminine loveliness,” according to a critic from the *New York Tribune*, that would “draw people from the comforts of home.”⁷¹

Rather than a few women half sequestered in private boxes, the opera chairs peppered the theater with fashionably clothed women to heighten their aesthetic performance as ornaments of the theater and broadcast expectations of genteel behavior. A lampoon of wealthy Americans linked exhibitionism and narcissism to opera seats in the middle of the nineteenth century:

B. may worship his wonderful vest,
 In his boots a la Paris, and marvelous hair;
 And his wife and his daughters be happy and blest,
 Adoring themselves in their opera-chair⁷²

To display and observe ladies toilette remained an expected part of theater entertainment. Like a silver setting for magnificent jewel, Eliaers opera chairs secured women and put them on display to their best advantage. The tall, upright oval back supported erect posture, and conveniently placed arms and stuffed seat suggested easy deportment. The chair was as important an indicator of character as the body of its occupant.⁷³

⁷⁰ Aaron H. Allen, “Seat for Public Buildings,” U. S. Patent no. 12,107, December 5, 1854. School furniture maker J. W. Schermerhorn licensed Allen’s 1854 patented folding mechanism in 1869. See *The Great Industries of the United States* (Harford: J. B. Burr & Hyde, 1872), 227, James Johonnot, *School-Houses* (New Yorker: J. W. Schermerhorn, 1871), School Material- Part I.

⁷¹ “New York Academy of Music,” *New York Daily Tribune*, October 2, 1854, 4; “Our New Opera House;” *Dwight’s Journal of Music*, 180; and “Opening of the Academy of Music,” *The New York Times*, October 3, 1854.

⁷² Henry Morford, *Rhymes of Twenty Years* (New York: H. Dexter & Co, 1859), 156-157. From a poem titled “Idol Worship in the Occident,” in which Morford mused upon increasing income concentration after a period of severe economic downturn. He compared the worship of money, political ambition, fashion, and fame to the biblical sin of idol worship.

⁷³ “The Excelsior Opera,” *Home Journal*, November 27, 1847, 2; Etiquette books argued that parlor chairs in the home displayed the character of the sitter. Grier, *Culture & Comfort*, 107.

Theater proprietors anticipated that women would conspicuously exhibit elaborate dress and perform genteel behavior of the home parlor for audience members throughout the auditorium. The prominent display of middle-class women would improve the behavior of men and elevate the reputation of the theater, owners hoped. As early as 1826, *The New-York Mirror* reported women held the power to reform male behavior: “The presence of females, in any place, is the best guarantee for the gentlemanly deportment of the other sex; and in the *pit* of a theatre, especially, it always insures a respectability which it would not otherwise obtain.”⁷⁴ Middle class etiquette was predicated on the protection of women’s bodies, therefore spaces that protected women were considered inherently reputable.⁷⁵ Opera seats that insulated women from injurious and indecorous male behavior were an important component of a coordinated plan that also included restrictions on alcohol consumption, prohibitions on prostitution and eradication of objectionable language.⁷⁶

⁷⁴ “La Fayette Theatre,” *The New-York Mirror, and Ladies’ Literary Gazette* 3, no. 52 (July 22, 1826): 415.

⁷⁵ Butsch, “Bowery B’hoys,” 375-377, John F. Kasson, *Rudeness & Civility: Manners in Nineteenth-century Urban America* (New York: Hill and Wang, 1990), 127-130, Mary P. Ryan, *Women in Public: Between Banners and Ballots, 1825-1880* (Baltimore: The Johns Hopkins University Press, 1990), 79-80.

⁷⁶ Boston’s 1847 licensing regulation prohibited prostitution and alcohol in theaters. The management rules of the theatre forbid sales of any alcohol. “General Rules For Management,” Box 17, Boston Theatre and Opera House (Washington Street) Collection, Boston Public Library; Kathy Peiss, “Leisure and the ‘Woman Question’” in Butsch, *For Fun and Profit*, 109. As opera chairs gained popularity, some theaters replaced the forward benches of their pit, immediately behind the orchestra with chairs protected by a railing and began to call the separate section the “orchestra.” Gradually theaters expanded the orchestra rows, removing additional benches from the front to the back of the theater. In New York, the Bowery Theater opened its orchestra seats to spectators in 1856 at 50 cents per seat, the same price as its dress circle, while Laura Keene’s and Wallack’s charged 1 dollar for orchestra seats, in 1857. In 1861 the Metropolitan Theatre in San Francisco established a “reserve in the last of six front benches, called orchestra seats.” “The Broadway Theatre,” *Frank Leslie’s Illustrated Newspaper*, September 6, 1856, 207; *Frank Leslie’s Illustrated Newspaper*, April 11, 1857, 293; *Porter’s Spirit of the Times*, January 10, 1857, 312; “Our

Like typewriter desks, opera seats both displayed a woman's body and protected and empowered her to safely inhabit a previously male-dominated realm. The structure of opera chairs helped a fashionably dressed, corseted woman maintain poise and grace that would have been nearly impossible while crushed on a bench with no back support among a sea of unfamiliar bodies crashing about the former pit. In mid-nineteenth century America, sitting posture expressed character, social class, and power.⁷⁷ Middle-class etiquette required women to display bodily restraint, to keep still and quiet, control their hands and feet, hold their torso upright, always face forward, and to give the appearance of doing so effortlessly. Most importantly, they had to avoid physical contact with other bodies.⁷⁸

The high backs of opera chairs supported upright spines and physically protected occupants from contact with those seated in or moving through the row of seats behind, as well as the bodies of those seated in the row in front. Chair arms assigned a place to rest hands, a place to grip to exit and enter a chair gracefully, and a physical barrier from adjacent audience members. Arms interfered with a neighbor turning their torso away from a front facing posture to inspect those to the sides and behind. Thick upholstery cushioned bodies for the duration of the performance to curtail the need to shuffle and shift. With its legs securely screwed to the floor, opera chairs prevented restlessly bored audience members from noisily shifting their chairs. Placement in offset rows ensured

California Correspondence," *Wilkes' Spirit of the Times*, August 10, 1861, 368.

⁷⁷ Ames, *Death in the Dining Room*, 189-191.

⁷⁸ Katherine Grier thoroughly explores the parlor in the mid-nineteenth century as a site of self-representation within which people "had to be" models of self-control, able to conduct their self-representation with disciplined restraint of both feelings and body. Grier, *Culture & Comfort*, 90; see also Halttunen, *Confidence Men*, 104; Ames, *Death in the Dining Room*, 185-232.

each seat occupant had a clear view to the stage between the two heads in front thereby minimizing heads bobbing back and forth during the performance. Seated in opera chairs, audience members relaxed in comfort, effortlessly displayed a restrained posture, and focused their attention on the performance.⁷⁹

Assisted by restrictive corsets, women were familiar with demonstrating poise by maintaining their bodies upright and stationery, but men had been less physically constrained in public. Opera chairs had to overcome mid-nineteenth century cultural norms that encouraged male self-centeredness and self-focus and downplayed consideration for others. In industrializing America, men no longer considered their occupation and class as set at birth. Through self-interest and self-advancement, young men believed they could climb the social ladder. Elite Americans struggled with the dilemma of how to build a society based on individualism and self-actualization, but also instill consideration for others and commitment to the greater good. Social reformers hoped to teach American men to channel aggression to positive ends by recalibrating acceptable public behavior. In a series of published lectures, theologian James Freeman Clarke counseled young men not only in “self-reliance,” but also “self-restraint, self-control, [and] self-direction” — in effect, men had to learn to behave outwardly more like women in public while maintaining an inward self-interest and drive for success.⁸⁰

⁷⁹ Peiss, “*Women and the Leisure Question*,” 108-109; and E. Anthony Rotundo, *American Manhood Transformations in Masculinity from the Revolution to the Modern Era* (New York: BasicBooks, 1993), 19-20.

⁸⁰ Rotundo, *American Manhood*, 19-20; “If the will is weak, it must be taught self-reliance; if it is willful [sic], it must have restraint ; if it is violent, it must acquire self-control ; if it is without any true aim, it must be educated to self-direction,” James Freeman Clarke, *Self-culture: Physical, Intellectual, Moral and Spiritual* (Boston: Ticknor and Company, 1880), 372.

Opera chairs corseted men, shaped their posture, restrained their mobility, and tutored them in quiet consideration of others. Whereas men of all socio-economic status had participated in raucous expressions of audience sovereignty in the early years of American theater, moralists condemned loud shouting and vigorous physical displays as rowdyism - an indicator of lower-class status. Middle class men were rebuked when they ignored the new rules. An 1847 letter writer to the *Spirit of the Times* complained that his nephew, seated next to him in white kid gloves, admonished him as “dreadfully vulgar,” when he “stamped heartily,” and “rapped away lustily,” with his cane to let everybody know of his “enjoyment,” of the performance.⁸¹ Middle-class men traded cross-class camaraderie of uproarious and free expression for class solidarity experienced through restrained public behavior previously the domain of women. Like they did for women, cushioned seats and backs provided comfort, but it was a comfort intended to encourage bourgeois white men, who were permitted to roam all areas of a theater at will, to remain seated.

Eliaers became a specialist in mechanical furniture that cradled and supported male bodies. As he developed the design for the opera chair he also patented a sofa designed to give “support to the upper part of the body, upon springs, so that it can be inclined simply by the weight of the occupant at pleasure.”⁸² In 1857 he patented a reclining chair, which he also referred to as an “invalid chair.” He advertised the chair as a “Gentleman’s Reading Chair,” intended for “comfort and convenience,” and noted that

⁸¹ “The Italian Opera and the Bowery, New York,” *Spirit of the Times*, February 6, 1847, 590.

⁸² Augustus Eliaers, “Lounge,” U. S. Patent no. 10,150, October 25, 1853; Augustus Eliaers, “Library Step Chair,” U. S. Patent no. 10,151, October 25, 1853; Augustus Eliaers, “Reclining Chair,” U. S. Patent no. 20,198, May 11, 1858.

it was “greatly approved by the medical faculty” (**Fig. 3.19**). Fundamentally, invalid chairs were designed to satisfy the same demands as an opera chair — to support a body for long periods of time, with little movement and almost no physical effort by the sitter. When Eliaers returned to France he became well known as a specialist in invalid furniture. His designs suggested quasi-medical solutions for the problems of active male bodies.⁸³ Although the patent does not specifically mention comfort, Eliaers’ other furniture designs suggest he carefully considered comfort and support of the body in the opera chair.⁸⁴

Like school furniture, a folding seat reduced necessary space between rows and thereby maximized theater seat capacity.⁸⁵ Rows of opera seats could be placed close enough so the knees of an occupant were very close to the seat backs of the row in front, but still permit a person to pass down the row while avoiding physical contact with those previously seated. The chairs operated much like a European choir stall (**Fig. 3.20**).

Eliaers suspended the pivoting seat and back between cast iron uprights with a counterweight to pull them vertical when unoccupied (**Fig. 3.21**).⁸⁶ When a seated

⁸³ The camouflaging of possible male weakness by emphasizing comfort rather than illness reflected a nineteenth century definition of masculinity that insisted upon fortitude at all times. See Barbara Sicherman, “The Uses of a Diagnosis: Doctors, Patients, and Neurasthenia,” in *Sickness and Health in America: Readings in the History of Medicine and Public Health*, ed. Judith Walzer Leavitt, and Ronald L. Numbers (Madison: The University of Wisconsin, 1985), 22-38.

⁸⁴ *Boston Directory* (Boston: Adams, Sampson, & Company, 1861), 75. Although Eliaers offered a version of the reading chair for ladies, he chose to illustrate advertisements for the chair with an image of a man reclined and reading. The prize committee of the Paris World’s Fair of 1891 lauded the Eliaers house for “great progress” in very comfortable furniture that considered the plight of the injured, gout stricken and paralytic. “M. Éliaers (A. – E.)” in *Rapports Du Jury International, Paris* (Paris: Imprimerie Nationale, 1891), 66.

⁸⁵ Noted in Robert Grau, *The Stage in the Twentieth Century* 3 (New York: Broadway Publishing Co., 1912), 115.

⁸⁶ The self-raising technology was known, but infrequently used in the United States. In the patent he noted that the chair did not rely upon springs to raise the seat. Spring mechanisms came to dominate

individual stood, the chair seat front swung up to open space between the uprights in which the occupant stood (**Fig. 3.22**). The additional space, more than half the seat depth, was typically enough for an individual to reach their assigned seat by passing unencumbered (and unmolested) through a row of standing audience members. Benches or chairs with fixed seats arranged at a similar distance would not provide enough space for a person to walk to his or her seat without uncomfortably close contact.⁸⁷

Eliaers specified the intent of the swing back as space saving, in effect, what he had created was a rocking chair. Restless audience members could not move the entire chair, but they could rock gently back and forth within the chair. When an occupant lowered the seat of Eliaers' chair, the back reclined slightly and by simply leaning forward and back the occupant rocked in place. In the 1870s English actor Edmund Leathes was impressed with how folding opera chairs "allowed the American play-goer to enjoy the favourite luxury of a rocking chair." Like the office chair, a tilt-back opera chair offered men and women, a prescribed, acceptable, outlet for restless energy.⁸⁸

In the nineteenth century, notions of sexual purity insisted that women be wary of mixed gender public spaces. Individual seats with arms helped to protect female audience members from intimate encounters with unknown individuals. Women were warned that men who outwardly appeared middle-class could still prove problematic.⁸⁹ In 1857 *The*

future versions of the chair, but the simple lever and counterweight system, although somewhat crude, was durable. Mechanical energy in springs eventually wore out, gravity did not.

⁸⁷ For example, in a chair with a typical seat depth of 19 inches, the seat in a vertical position would have taken up four to seven inches, leaving a full 12 inches between the frame. This feature was noted in a description of the theater at its opening. "Rachel's Debut," *Ballou's Pictorial* 9, no. 19 (November 10, 1855): 296.

⁸⁸ Edmund Leathes, *An Actor Abroad* (London: Hurst and Blackett, 1880), 1854.

⁸⁹ Peiss, "Leisure and the Woman Question," 108-109.

New York Daily Times warned city dwellers that “so long as business men and the public at large value a man according to the display he makes, - the horses he drives, the fashionable society he frequents, the opera seat as at his disposal...so long may they expect to be defrauded and robbed.”⁹⁰ The confidence man in the city was a trope in women’s literature and popular culture that played upon fears of the randomness of public interactions.⁹¹ Assigned theater seats minimized the likelihood of a dreaded stranger chair hopping and suddenly materializing in the next seat.⁹² Whereas audience members seated on unassigned benches in the former pit could slip out of one seat, climb over a few benches, get a drink, and return to any convenient empty place, assigned theater seats with backs impeded easy movement when the theater was occupied, and precluded returning to a different seat.

Opera chairs also increased security from fire risks and rowdy behavior. Unlike bench seats, assigned seats discouraged managers from selling more tickets than a theater could safely accommodate.⁹³ Older theaters with benches and movable chairs frequently did not have aisles, or had aisles clogged with auxiliary chairs, or inconsistent aisles that did not always lead to exits. In the event of a fire audience members climbed over benches and one another often blindly attempting to find an exit. Opera chairs secured to the floor, however, formed permanent aisles that were easier for managers to keep clear.

⁹⁰ “More Defalcations - Increase of Crime,” *New York Daily Times*, August 22, 1857, 4.

⁹¹ See Halttunen, *Confidence Men and Painted Women*.

⁹² Eliaers illustrated his patent with a tag on the bottom of the seat to indicate an individual seat assignment.

⁹³ Benches were frequently overfilled, and even when aisles were present, chairs were sometimes placed in the aisles to seat additional patrons, “six persons on a bench not wide enough for five,” and filling aisles with chairs. “The New Opera House,” *Dwight’s Journal of Music*, April 23, 1853, 18-19.

Predictable aisle locations fostered efficient evacuation and reduced chaos and loss of life from fires that decimated theaters in the nineteenth century.⁹⁴ Once a seat was established as a standard unit, cities passed laws that prescribed the number of seats per row, and the number of seats between aisles to ensure rapid exit in the event of a fire.⁹⁵ Permanent aisles also minimized audience members approaching the stage to interact with performers. The layout of the Boston Theater included only three aisles toward the stage; other aisles directed traffic to perimeter exits (**Fig. 3.23**). Aisles were also immediately accessible to ensure rapid removal of disorderly persons. Chairs secured to the floor could not be hurled at the stage, and protesters could not easily stand and dance upon the chairs, as had been done at the Astor Opera House five years earlier or they would find themselves hurled to the ground when the pivoting seats suddenly snapped up.⁹⁶

Opera chairs were designed to be affordable, customizable, and easy to maintain. Manufacturers applied many of the rational economic principles embedded in Boston school furniture. To reduce labor costs chairs were supported on iron uprights cast by the thousands from a handful of patterns produced by a highly skilled patternmaker. Uprights that were secured to the floor reduced the need for complicated cross bracing and

⁹⁴ The worst being fire was at Conway's Theater, Brooklyn in 1875, when 295 people died. "The Great Tragedy," *The New York Clipper*, December 16, 1876.

⁹⁵ New York's 1879 regulation was followed in most states. All seats except those in boxes were to be secured to the floor and no seat in the auditorium was allowed to have more than six seats between it and an aisle. The maximum width of a row was therefore thirteen seats. "An Act to Provide for Stability of Construction," *The American Architect and Building News* 6, no. 193 (September 6, 1879): 76.

⁹⁶ At the performance that preceded the riot and killing at the Astor Place Opera House an attempt to calm protestors was interrupted when the whole pit began to loudly sing "a methodistical hymn, with a roaring, meanwhile stamping and dancing on the red plush chairs." *New York Morning Express*, May 9, 1849, quoted in Buckley, "To the Opera House," 59. See also Levine, *Highbrow/Lowbrow*, 65.

attendant material, labor, and manufacturing costs. Each row of chairs required only one upright per interior seat, and one pair of aisle-facing uprights, like the arrangement for ganged filing cabinets.⁹⁷

The strategic use of cast iron by the two Boston-based opera chair inventors suggests they were influenced by designers of Boston school furniture in the late 1840s. Both school furniture makers and opera chair makers belonged to the Boston Massachusetts Charitable Mechanic Association – a clearinghouse for rational manufacturing techniques in Boston.⁹⁸ Both school furniture and theater seats fixed bodies and sightlines. In fixed school furniture, students were arranged in longitudinal rows to face the teacher, whereas in theater seats audience members were arranged in transverse rows, to face the stage.

The introduction of new seating at the Boston Theatre and the New York Academy of Music at mid-century was a tool wielded by theater owners to cleave elite

⁹⁷ Although Eliaers' s patent does not specifically state that the standards of his chairs are shared, a contemporary newspaper review describes how "each arm will answer for two chairs, will be sufficiently wide to be used, and will also be well cushioned." See "Our New Theatre," *Dwight's Journal of Music*, 180.

⁹⁸ One year after he arrived in Boston, Eliaers exhibited a carved settee at the 1850 Massachusetts Charitable Mechanic Association in Boston; the same year Joseph L. Ross, William Shattuck and Samuel Wales, Jr. exhibited school desks with cast iron supports. In 1853, Eliaers joined Ross and Shattuck as a member of the Association and exhibited patented folding and reclining chairs in the exhibition. With his mechanical inclination, its likely Eliaers was acquainted with their designs. Ross had a large shop in the Cornhill neighborhood of Boston nearby Eliaers shop. Ross became a member of the Massachusetts Charitable Mechanics Association in 1838, Shattuck in 1846 and Eliaers in 1853. The manufacturer of the Eliaers opera chairs, James Gorham Blake, also became a member in 1855. Eliaers exhibited again at the 1860 Mechanics Fair, the year he left Boston for Paris. See Records of the Massachusetts Charitable Mechanic Association, Massachusetts Historical Society. The Ross shop, located at 42 Chardon employed an astounding 85 men in his steam powered shop in 1860, Eliaers and Blake's shop was located at 12-24 Cornhill just a few blocks away. *Massachusetts State Census*, 1860.

legitimate theater from mixed entertainment “variety theater.”⁹⁹ In 1847, *The Spirit of the Times*, a newspaper of sports, literature and the stage, compared two types of theaters: the opera house where “there is a feeling of repose, of security from rude and impertinent interruption,” where performances were met with a “well-bred murmur...along the ermined ranks of fashion;” and variety theater where “the pit is a vast sea of upturned faces...extending its roaring and turbid waves close up to the foot-lights...while a row of luckier and stronger-shouldered amateurs have pushed, pulled and trampled their way far in advance of the rest, and actually stand with their chins resting on the lamp board, chanking [noisily eating] peanuts and squirting tobacco juice upon the stage.”¹⁰⁰

Legitimate Theater: The Hollis Street Theater

By the 1880s opera chairs had gained widespread popularity in both legitimate and variety theaters. To meet the demand for opera chairs within a segmented market, A. H. Andrews and Company and several other large commercial furniture manufacturers in Chicago and western Michigan produced hierarchical lines of opera chairs graduated in comfort and ornamentation to suit particular types of theaters, as well as differentiate sections within theaters (**Fig. 3.24**).¹⁰¹ The Hollis Street Theatre in Boston epitomized use

⁹⁹ Lawrence Levine describes a bifurcation in American theater audiences as theaters that previously staged a variety of entertainments split into popular theaters that staged variety shows, vaudeville and burlesque, and legitimate theaters that staged more erudite performances of classical music, opera, and Shakespeare. See Levine, *Highbrow/Lowbrow*, 33-34, and 234.

¹⁰⁰ The paper was referring to the Bowery Theatre, notorious for its lower-class clientele. Yankee Doodle, “The Italian Opera and the Bowery, New York,” *The Spirit of the Times*, February 6, 1847, 590.

¹⁰¹ A. H. Andrews licensed the A. H. Allen patent and began producing opera chairs with cast iron uprights ca. 1879. The earliest Andrews installation located was the Chicago Central Music Hall (1879), designed by Dankmar Adler. Ten years later, Adler and Sullivan installed Andrews chairs in the Chicago Auditorium. The earliest Andrews catalog found that listed opera chairs was published in 1881. In an advertisement published in 1882, the company listed 35 installations in

of mass-produced opera seats to maintain class segregation within the interior of a legitimate theater.

The finest members of Boston society streamed out of their carriages and into the Hollis Street Theatre on opening night, Monday, November 9, 1885. Some may have briefly stopped in the mirrored ladies dressing room, referred to by *The Boston Daily Globe* as the “How-do-I-Look” apartment, but most continued straight through the lobby and past the cloak room.¹⁰² Men in formal evening dress capped with top hats sauntered proudly down the aisle accompanied by women wrapped in opera cloaks and silk dresses of the latest Parisian fashions. Walking sticks tapped, silk swished, diamonds refracted glittering rainbows, and perfume scented the air as couple after couple arrived at their \$125 reserved seats in the orchestra, or perhaps a chair in the first two rows of the balcony set apart by a gold-plated rail. Gleaming polished cherry frames surrounded morocco leather seats and plush backs of opera chairs. Coats and shawls were removed with a flourish to be placed in convenient wire racks on chair backs; sticks, canes, hats, and purses landed in racks under seats, and the audience settled, like so many delicate flowers into a field at dusk. As the lights came down and the curtain rose on the Boston premier of Gilbert and Sullivan’s 3-hour comic opera *The Mikado*, seats were all-but

opera houses, theaters and music halls. In 1884, Herbert L. Andrews, A. H. Andrews’ brother, patented an opera chair. C. F. Manahan, “Historical Sketch of the Furniture Trade of Chicago,” *American Cabinet Maker and Upholsterer* 35, no. 15 (August 13, 1887): 21; Herbert L. Andrews, “Opera-Chair,” U. S. Patent no., 303,606, August 18, 1884. Other major American manufacturers of opera chairs included: Thomas Kane & Company (Chicago), Harwood Chair Seat Company (Boston), Grand Rapids School Furniture Manufacturers (Grand Rapids), American Desk Company (later American Seating Company) (Grand Rapids), Readsboro School Furniture Company (Readsboro, VT), Union School Furniture Company (Battlecreek, MI), and Heywood-Wakefield Company (Chicago, IL).

¹⁰² “Hollis Street Theatre,” *Boston Daily Globe*, March 22, 1885, 2.

forgotten.¹⁰³

Exhibitionists, theater goers entered the auditorium overloaded with outerwear and accessories. Manners books encouraged women to dress extravagantly for a night at the opera (**Fig. 3.25**). In 1870, etiquette writer Sarah Ann Frost stipulated that women appear at the opera in full evening dress with white opera bonnets, richly embroidered opera cloaks, white or black lace shawls, ermines, and elaborate hairstyles interlaced with flowers, feathers, and ribbons. Coordinated accessories included fans, lorgnettes, and embroidered lace handkerchiefs. More jewelry was allowable than on most occasions. “Ladies are supposed to be seen, as well as to see, and are often the most beautiful part of the display,” she claimed, and warned that “...it is out of harmony with the scene and surroundings to see somber draperies, heavy bonnets, and dull faces.” At the theater, Frost rationalized, women were criticized or admired based solely on her looks, regardless of her other “charms.”¹⁰⁴ The elaborate opera seats of the Hollis Street Theatre were a fitting backdrop to such extravagant dress. Audience goers in the orchestra and balcony sat upon “Boston-Back” chairs, the latest opera chair incarnation manufactured by A. H. Andrews & Co (**Fig. 3.26**)

Opera chair manufacturers designed highly ornamental chairs for the best seats in the theater. Rococo detailing simulated finely carved and pierced domestic furniture (**Fig. 3.27**). Highly skilled craftsmen made ornate wooden patterns from which lower skilled foundry workers cast hundreds of identical pieces. Once released from the mold, the parts

¹⁰³ *The Mikado*, December 14, 1885, Broadside, Hollis Street Theatre, Grossman Collection, Winterthur Museum & Library, Wilmington, DE; “A New Boston Playhouse,” *The New York Times*, November 10, 1885.

¹⁰⁴ S. A. Frost, *The Art of Dressing Well* (New York: Dick & Fitzgerald, Publishers, 1870), 85-86.

were dip coated in a dark base color and the ornament highlighted in bright metallic paint or a color specified by the theater to match the interior. Ornate painted standards were coupled with richly colored stuffed upholstery often embroidered with a logo or some other design unique to each theater. The business model was typical for batch production of decorative arts in the late nineteenth century: mass production methods to create a basic form, and hand painting, carving or other form of ornamentation to customize a product for a client. Thousands of identical chairs were purchased by theaters across the nation, but each theater could have its own unique combination of paint scheme, wood species, and upholstery.¹⁰⁵

Ornate opera chairs possessed many visual characteristics of domestic furniture but were more durable and produced at a comparably lower cost from stockpiled parts. The Boston-Back Chair was offered with a back framed in either iron or wood, and with an option of folding arms. In its 1883 catalog Andrews described the tapered back and general style of the chair as “less conventional and more like a drawing-room chair than usual.” The ornate designs imitative of luxury furniture justified increased ticket costs, and a parlor-like illusion attractive to theater owners who wanted to foster refined domestic behavior in audience members.

Andrews reinforced passive visual cues for domestic behaviors with more assertive functional elements designed to curtail movement and distractions. Managers expressed frustration with audience members who, after having made a dramatic

¹⁰⁵ See Philip Carlino, “Enduring Furniture,” (M. A. thesis, Cooper-Hewitt National Design Museum, 2012)

entrance, draped outerwear over seats and balcony fronts, tapped canes, toyed with hats and purses, and created unacceptable visual and auditory messiness that distracted performers and their fellow audience members and debased the glorious imagery of theater interiors. During the 1849 season sensitive audience members at Burton's Theater asked the manager to state in playbills that "Fidgety individuals who occasionally disturb the audience by rising before the conclusion of the entertainments, pushing their way to the door, standing up to put on overcoats or shawls, are most earnestly requested to respect the feelings of those who wish to see the whole of the play in quiet."¹⁰⁶ The manager of the Hollis Theatre implored audience members to store their belongings in the cloak room where they would be safe from theft. Programs included denials of responsibility for stolen goods placed under chairs. Seeing an opportunity, manufacturers added features to chairs that mediated between the desires of managers, performers and audience members for a safe, neat, and quiet auditorium and audience members who insisted on bringing personal items to their seats (**Fig. 3.28**). Under the seat, manufacturers installed simple wire frames to hold hats and bags and molded c-shaped racks into standards near feet to hold umbrellas and canes.¹⁰⁷ A. H. Andrews offered an optional wire advertised as a convenience that kept coats and shawls "off the floor and from being stolen." The warning preyed upon fear of strangers in public places. A

¹⁰⁶ From Burton's theatre program of May 25, 1849, reprinted in *The Green Book Album* 2 no. 3 (September, 1909), 520. Admonitions to use the cloak rooms and not place articles under the seat continue in programs into the 1880s. Theater scrapbooks and programs, 1863-1957, Col. 894, Joseph Downs Collection, Winterthur Museum & Library, Wilmington.

¹⁰⁷ Andrews licensed two patents for the hat rack: an 1866 patent intended for church pews and related seating. Edward S. Blake, "Improved Hat-Rack and Seat," U. S. Patent 57,076 August 14, 1866; and Russel O. Dunning, "Improvement in Hat-Holders," U. S. Patent 207,722. Cited in A. H. Andrews & Company, *Catalogue of Improved Opera Chairs* (Chicago, 1886).

defined storage location for personal accessories encouraged audience members to place their belongings out of sight and out of reach of both potential thieves and their own restless hands. The location of storage under seats also discouraged those who might consider early departure by forcing an audience member to conspicuously and disruptively stand to raise the seat and retrieve stored belongings. The placement of storage for potentially distracting objects so that it was difficult for occupants to access and obvious to those surrounding echoed the earliest school furniture of Adams and Alcott discussed in Chapter 1.¹⁰⁸

Attacking restlessness as a source of noise control was a growing concern in auditorium spaces that housed larger urban audiences numbering into the thousands. A letter writer to the *Cincinnati Enquirer* empathized with “a man who is accustomed to activity and stir of a business life,” but who “cannot sit quietly bolt-upright in the narrow confines of an opera chair through a two or three hours’ performance.”¹⁰⁹ To compensate for those who simply had to stir, opera chair catalogs emphasized their consideration for noise control in descriptions such as seats “constructed to insure an **absolutely and permanently noiseless action.**”¹¹⁰

Manufacturers also enhanced noise controls in more subtle ways targeted at male bodies. Both the A. H. Andrews Company and Thomas Kane Company illustrated only one chair in use in opera chair trade catalogs – an image of a man in a fully laden chair

¹⁰⁸ See The Table Chapter 1.

¹⁰⁹ “Footlight Flashings,” *The Cincinnati Enquirer*, August 10, 1884, 11.

¹¹⁰ Thomas Kane & Company, *Assembly Chairs* (Chicago, ca. 1887), 3; also Harwood Chair Seat Co., *Catalogue of Assembly Chairs and Settees* (Boston, 1883), 4; A. H. Andrews & Co., *Improved Opera Chairs* (1886), 3, 20-21; American Seating Company, *Opera Chairs* (Chicago, 1907).

(Fig. 3.29). In the 1880s manufacturers added footrests identical to those in trains and on school desks to define a place for potentially restless shuffling feet. The Thomas Kane Company catalog described footrests as “little essentials of peace and comfort.” The footrests were clearly targeted at men – no respectable nineteenth century woman would take up such an open legged posture.¹¹¹

Though most of the furniture-based controls were targeted at controlling men, opera chairs also encouraged bourgeois women to restrain their excesses. The social etiquette that women dress elaborately to attend the theater resulted in women entering the auditorium wearing large, often feathered hats. Under-seat hat racks assisted in convincing recalcitrant women to remove their hats. In increasingly adamant statements printed in weekly programs, the manager of the Hollis Street Theatre admonished women who insisted on wearing hats during performances. During the 1896/1897 season, programs thanked “those ladies who are considerate enough to remove their hats.” On the cover of programs during the 1900/1901 season, the manager praised women who removed headwear for showing “a graceful consideration for the pleasure of others,” but inside the programs somewhat menacingly reminded “Lady Patrons” that the City of Boston required ladies to remove their hats and ornaments and that it was “the established rule” in “all parts of the auditorium, including the boxes.” The manager followed the warning with a mild threat - should the rule be ignored, ladies would be “earnestly requested to leave the Theatre without delay.”¹¹² Through the early 20th century

¹¹¹ Thomas Kane & Company, *Assembly Chairs* (ca. 1887); Arthur S. Meloy, *Theatres and Motion Picture Houses* (New York: Architects' Supply & Publishing Company, 1916), 26.

¹¹² The threat to remove women who insisted on wearing hats continued at least through the 1906

programs in Boston, Chicago, and Philadelphia rebuked women who did not remove hats. The state of Louisiana went to an extreme and made the wearing of hats in a theater a misdemeanor in 1896.¹¹³

Bourgeois bodies were comforted and controlled by upholstered opera seats. In the galleries, however, opera seats controlled but did little to comfort. Theater owners installed hard veneer seats in galleries due to a lingering whiff of working-class disrepute that hung over the upper tier (**Fig. 3.30**).¹¹⁴ Discriminatory seating lasted into the twentieth century. When the Hollis Street Theatre renovated in 1900 the theater replaced the seats in the orchestra and first tier with mahogany and leather opera chairs, but chose to continue with veneer seats in the top tier (**Fig. 3.31**).¹¹⁵ It was customary and legal for American theaters to restrict non-white theater-goers to specific seats, usually in the top tier. In the North, non-white patrons sat with white patrons in the lowest priced seats

season at the Hollis Street Theater. The Colonial Theatre printed the same warnings in their programs in the 1900-1901 season, and the Castle Square Theatre and Tremont Street Theatre published the 1897 City of Boston regulation verbatim. Hollis Street Theatre, Programs, 1886-1933, Lg PN2277.B67 H64 Boston Athenaeum; Hollis Street Theater Programs, December 21-26, 1896, December 16, 1900, Boston Hollis Street Theatre Collection, Boston Public Library; Program for *Ben Hur*, December, 1900, Boston Colonial Theatre Collection, Boston Public Library; Castle Square Theatre program, April 7, 1902, Miscellaneous Theatre Programs, Boston, Lg PN2277.B67 M5, Rare Books Collection, Boston Athenaeum. Programs dated 1897-1900, Tremont Theatre, Programs, 1863-1903, Lg PN2277 .B67 T73, Rare Books Collection, Boston Athenaeum, Boston.

¹¹³ Lucius H. Cannon, *Motion Pictures: Laws, Ordinances and Regulation* (St. Louis Public Library, 1920), 138.

¹¹⁴ Clarence H. Blackall, "American Theater II," *The Brickbuilder* 17, no. 1 (January, 1908): 2-8; Clarence H. Blackall, "American Theater V" *The Brickbuilder* 17, no. 4 (April, 1908): 67; "Another New Theatre," *Chicago Daily Tribune* (October 13, 1872); Rural opera houses in Appalachia typically had cast-iron opera chairs in the orchestra, and benches or unpadded chairs in the upper tier for mixed black and working-class white patrons, or in the deep south, black-only sections. Exhibitionism and voyeurism were as much a behavior in rural as urban areas. For a discussion of theaters in Appalachia see William Faricy Condee, *Coal and Culture: Opera Houses in Appalachia* (Ohio University Press, 2005), 10, 77.

¹¹⁵ "Like a Royal Palace of Old France," *Boston Daily Globe*, September 30, 1900, 32.

among prostitutes and their clients, whereas in the South, African Americans typically were the sole occupants of the cheap seats in the top tier.¹¹⁶ To circumvent and protest racist restrictions African Americans purchased tickets from an agent or asked a white friend to buy the tickets. When denied access to the specific seat, African Americans attempted legal challenges in which they based arguments on a presumed equality in the marketplace. *The Nation*, a widely-read progressive weekly journal, desired “to see colored people occupying such places in every theatre as they are able to pay for,” but was against legislation giving African American access to theaters as “the surest way of hardening a social prejudice is to levy penalties for the display of it.”¹¹⁷

One of the earliest and highest profile challenges to segregated theater seating occurred in Boston in 1853 when Sarah Remond, a local black abolitionist, used an agent to purchase three tickets to the second-tier family circle of the Howard Athenaeum. Remond invited fellow black abolitionist William C. Nell to join her in attending a performance of an Italian opera. Upon arriving at the section of their reserved seats, an usher refused them access and directed them to the less reputable third tier gallery. Nell

¹¹⁶ In 1875, the Academy of Music in Indianapolis upgraded its seating to include opera chairs in the orchestra, and newly upholstered benches for the family circle, the “colored gallery” remained “unchanged.” “Academy of Music,” *The Indianapolis News*, August 30, 1875, 3; James Haskins, *Black Theater in America* (New York: Harper Collins, 1982), 5-9. Philadelphia’s Chestnut Street Theatre had a separate “colored gallery” at 12.5 cents with “colored boxes” priced at twenty-five cents, *Public Ledger* (Philadelphia, PA), January 12, 1850, 3; The colored gallery at the Richmond Theatre was priced at twenty five cents, *Richmond Enquirer* (Richmond, VA), February 15, 1850, 2; At the Eagle Street Theatre, Buffalo the colored gallery was priced at twenty-five cents, *Buffalo Morning Express* (Buffalo, NY), April 27, 1850, 2.

¹¹⁷ “The Week,” *The Nation*, February 1, 1872, 66. Marvin McAllister delves deeply into the history of race relations between African American and white audience members and performers, see Marvin McAllister, *White People Do Not Know How to Behave at Entertainments Designed for Ladies & Gentlemen of Colour: William Brown’s African & American Theater* (Chapel Hill, NC: The University of North Carolina Press, 2003), 67-82.

“demanded to have seats where the checks designated.” When their demand was refused, Nell and Remond offered to leave their seats the moment anyone in the audience complained, but this concession was refused. They then offered to stand in the designated standing area behind the seats in the second tier but were again rebuffed. An usher informed them they could only sit in the gallery. When they refused to acquiesce, the theater manager and a city policeman forcibly removed them. In the process of attempting to push Remond down the stairs the policeman tore her dress and injured her shoulder. Remond pressed charges.¹¹⁸

In court, the defense argued the presence of black bodies outside of the gallery undermined a theater’s status hierarchy. The lawyer for the theater equated the presence of Remond and Nell to that of “an ill-dressed man,” and claimed a right “to exclude from the reserved seats any person, who would make their performances less fashionable, and therefore less attractive.”¹¹⁹ In finding in favor of Remond, the judge did not decide

¹¹⁸ In *Roberts v. City of Boston* (1855), the Massachusetts Supreme court upheld the doctrine of separate but equal in schools and other institutions. It took an act of the legislature to change the state law and allow integration specific to school. Because the supreme court upheld segregation, the decision in *Roberts* was frequently cited by American judges to justify segregation practices in trains, trains, theaters, hotels and other public venues. See Davison M. Douglas, *Jim Crow Moves North: The Battle over Northern School Segregation, 1865-1954* (New York: Cambridge University Press, 2005), 56-57; Kazuteru Omori, “Race-Neutral Individualism and Resurgence of the Color Line: Massachusetts Civil Rights Legislation, 1855-1895” *Journal of American Ethnic History* 22, no. 1 (Fall, 2002): 32-58.

Jim Crow segregation in theaters persisted for decades, particularly after 1883 when the United States Supreme Court invalidated the Civil Rights Law of 1875. Theaters were a racially charged environment where protest was based on seat and location. See for example: “The Civil Rights Law,” *The Atlanta Constitution*, September 28, 1883; “Race Discrimination,” *The Richmond Item*, October 1, 1890, 1. An almost identical scenario took place at New York’s Lyric Theater in the first decade of the twentieth century. Karen Sotiropoulos, *Staging Race: Black Performers in Turn of the Century America* (Cambridge, MA: Harvard University Press, 2006), 72-73; One reporter’s take on the civil rights decision of 1883 was published in “The Civil Rights Decision,” *The New York Times*, October 18, 1883, 1.

¹¹⁹ “The Opera Ejection Case,” *The Liberator*, June 10, 1853.

against segregationist policies based in race; instead, he narrowly ruled the theater in the wrong for not advertising or forewarning ticket purchasers of the theater's restrictive policy.¹²⁰ To avoid similar legal challenges, Boston theaters printed notices of restrictive seating policies onto their broadsides and in their advertisements in the late 1850s and 1860s. The Howard Athenaeum noted that African Americans were restricted to the gallery, the Boston Theatre warned that colored persons were only admitted to a single box in the family circle and the third tier and the Tremont Theater set aside the central gallery, "reserved for people of color," at fifty cents per seat, twice the typical gallery price charged to white patrons.¹²¹

The visibility of stigmatism in the theater made it a powerful place for African American resistance to segregation.¹²² In the top-tier gallery, Nell and Remond would have enjoyed the same performance of the opera *Don Pasquale* as those seated in lower parts of the theater. Their view from the third tier, might even been better than if, as offered; they had stood in the back of the second tier. What irked them was denial of access to the class status and comforts associated with seats in the more respectable

¹²⁰ Richard Archer, *Jim Crow North: The Struggle for Equal Rights in Antebellum New England* (New York, NY: Oxford University Press, 2017), 210;

¹²¹ *The Tempest*, January 2, 1856, Doc. 1025 66.7.144, Theater Broadside, The Bostonian Society, Boston; the same wording appears on an 1858 broadside for "The Gypsy Prophecy;" September 2, 1853, Programs, 1847-1892, Howard Athenaeum, Lg PN2277.B67 H68, Boston Athenaeum, Boston; The Howard Athenaeum also restricted "colored persons to the gallery only." Advertisement, "Afternoon Concerts," *Dwight's Journal of Music*, April 24, 1858, 1; The Howard Athenaeum Broadside, from about 1858 until at least 1861 carried printed statements that "COLORED PEOPLE admitted to the GALLERY ONLY." From 1847-1852 the statement did not appear. See also Mary Crawford, *Romantic Days in Old Boston* (Boston, Little, Brown, and Company, 1910), 249.

¹²² For examples of resistance see: J. Black, "Younger v. Judah," Missouri Supreme Court, 1892; and J. J. Sterrett, "Drew v. Peer," in *Pennsylvania State Reports* 12 (Philadelphia: Kay & Brother, 1882), 242. The judgment in Philadelphia drew upon the Remond decision in Boston; *Cleveland Herald*, September 2, ff., 1851; *Cleveland Plain Dealer*, May 21, 1853.

second tier. Sitting in the upper tier was a considerably less refined and pleasant experience. Ventilation in cavernous theaters challenged owners. Gas lights generated considerable heat, especially in warmer months. Hundreds or thousands of people breathing in a confined space for several hours also fouled the air. Top tiers of theaters were warmest and farthest from the fresh air of exterior doors. Large chandeliers were sometimes hung so close and low they blinded gallery occupants.¹²³ Theater patrons on lower levels had easier access to amenities, including spring water and cloak rooms where they could deposit their outer garments.¹²⁴ Because those in the gallery continued to enter and exit through a direct, separate and an isolated staircase they did not have easy access to cloak rooms.¹²⁵ They were forced to haul with them all of their outerwear, further choking off ventilation.¹²⁶

Just getting to a third-tier seat forced indecorous behavior. A gallery ticket at the New York Academy of Music required a spectator climb three to six stairways to a hard,

¹²³ Clarence Blackall, "American Theaters VIII," *The Brickbuilder* (April, 1908), 70; "City Items: The Opera," *New York Tribune*, November 25, 1847.

¹²⁴ A separate entrance to the top tier was the norm throughout the nineteenth century. Most theaters also did not provide a lobby or coatroom outside the top tier but instead continued tiered seating all the way to the front wall of the theater. Clarence Blackall, *American Theaters II*, 24. Hollis Street Theatre, Programs, 1886-1933, Lg PN2277.B67 H64 Boston Athenaeum; Indianapolis Opera House, *The Indianapolis News*, September 10, 1875, 4.

¹²⁵ Program, *Mikado*, Winterthur Museum & Library. "Hollis Street Theatre," *Boston Daily Globe*, March 22, 1885, 2. The *Globe* describes the balcony seats as "iron chairs finished in imitation leather," probably enameled cloth, and the seats in the gallery as "comfortable, though plain, chairs."

¹²⁶ Programs from the 1886 describe gas lighting for fixtures and chandeliers from Bliss & Perkins, Boston. In spring of 1888 the programs prominently highlight "The Entire Edifice Lighted by the EDISON INCANDESCENT LIGHT." To address discomfort in May of 1888, after just their second season, the Hollis Street Theater changed all lighting from gas to electric. In its programs the theater billed itself as "The Coolest Theatre in Boston, No Heat! No Gas! Pure Atmosphere!". Hollis Street Theatre Programs, May, 1888, Programs, 1886-1933 1, Boston Athenaeum, Boston.

plain veneer chair.¹²⁷ A critic in the *New York Times* described the challenges of reaching a seat in one of the upper tiers: “the seat was found with much less trouble than it took to get into it. It was at the extreme end of a back row, and the only way to get into it was by climbing over the back. All of the other seats in the row were occupied and there was not sufficient room to pass in front of the occupants...some notes of a human voice, which came straggling faintly up to them impelled many to stand up and look over the heads of those in front.”¹²⁸ To maintain a full sight line seats had to be pitched at a vertiginously steep angle.

From plain veneer seats the “gallery gods,” peered down upon those in the orchestra and lower tiers comfortably seated in upholstered ornate chairs. The New York Academy of Music sat its orchestra and first tier audience on A. H. Andrews, no. 6 chairs with plush upholstery and ornate cast iron backs open at the bottom to provide additional ventilation, and its gallery patrons on Andrews no. 35 model of plain veneer chair (**Fig. 3.32**). Gallery spectators threw their coats over the shaped back of the chair where coattails dragged upon the floor of the row behind. In its catalog, the Andrews Company emphasized the simplicity of its plywood seats by referring to them as “Plain Chairs,” and illustrated the chairs with different hats loosely indicative of class - a working-class

¹²⁷ Separate staircases for the upper tiers were both a means of separating patrons by class, and a safety precaution. Separate entrances expedited evacuation of theaters in an emergency. Theater fires were devastating. Seventy-two people died in a fire at the Richmond Theatre in 1811, and more than 200 in a theater fire in Brooklyn. The gallery audience suffered the most casualties in a horrific 1876 Brooklyn Theater fire. The gallery had a separate entrance, but a turn at one of the landings created a bottleneck that slowed evacuation. The gallery supports gave way and crashed into the lower tier and then to the ground. *Particular Account of the Dreadful Fire at Richmond, which Destroyed the Theatre* (Baltimore, J. Kingston, 1812), 10-12; “The Great Tragedy!” *New York Clipper*, December 16 1876.

¹²⁸ “In the Balcony,” *The New York Times*, October 23, 1883, 1.

bowler for the gallery seats, and a peaked hat for the higher-class seats of the orchestra and tiers.¹²⁹ The Andrews Company and other manufacturers promoted the cleanability of veneer seats. Gardner and Company, patent holder for perforated veneer plywood widely used in gallery seats, also advertised veneer chairs for depots, halls, and hotels as “always clean and harbor no insects.” Bed bugs, lice and bodily fluids penetrated and collected in upholstery. After the disease and filth of the Civil War, prosperous Americans cared a great deal about cleanliness. Most Americans considered the millions of immigrants from southern and eastern Europe to be unwashed and unclean. In choosing to only install veneer seats in galleries, theaters, and opera halls strongly implied that immigrant, working class, and non-white bodies in the gallery were unclean.¹³⁰

The choice of plain veneer seats for the top tiers of legitimate theaters and opera houses was not only driven by a lower purchase price. For theater owners, the cost differential between an upholstered ornamented opera chair and a plain, hard seated veneer chair was modest. In 1871, the Chicago Opera House paid \$15.00 for opera chairs

¹²⁹ A. H. Andrews & Co., *Improved Opera Chairs* (1886), 8. Although hats were sometimes used by American men to blur class boundaries, especially when a new style was first introduced, hats generally settled upon a particular social class. For a discussion of the different class associations of hats in Europe and the United States see Diana Crane, *Fashion and Its Social Agendas: Class, Gender, and Identity in Clothing* (Chicago: University of Chicago Press, 2000), 85-87.

¹³⁰ Cleanliness is mentioned six times by Gardner in their 1884 catalog, Gardner & Co. *Perforated Veneer Seats, Charis, Settees Etc. Etc.* (New York, 1884); On American classification of bodies and attitudes toward cleanliness see Suellen Hoy, *Chasing Dirt: The American Pursuit of Cleanliness* (New York: Oxford University Press, 1995), 88-89, 117-118, 101-102. In 1892, the rebuilt Metropolitan Opera House followed a similar pattern and installed opera chairs in the parterre and first two tiers of boxes upholstered in a maroon-colored tapestry with an ornamental design worked in gold thread. Those in the balcony, considered a second-rate seat, were upholstered in gold leather, while those in the top tier, referred to as the family circle, were made with un-upholstered perforated veneer seats and backs. William H. Birkmire, *The Planning and Construction of American Theaters* (New York: John Wiley & Sons, 1903), 5.

upholstered in crimson plush with gold leaf on the frame.¹³¹ After sixty performances an upholstered chair in most theaters would have paid for its initial installation.¹³² Veneer seats were made using the same rational process, the same hardware, and could have easily been just as ornate. It would have cost less to use the same uprights as ornate lower seats, rather than pay a craftsman to create another pattern. Upholstery and its maintenance would have added some cost up front, and some in maintenance, but spread over years and thousands of performances the additional cost would have had little effect on overall profitability. Theaters installed veneer seats to define an area specifically for lower class and non-white patrons, rather than for the minimal cost savings.

Theater zones differentiated by opera seats in northern theaters institutionalized racial segregationist practices that lingered and, in some places, became stronger in the years after the Civil War. After laws guaranteeing equal treatment in public accommodation were passed in the 1870s and 1880s, illegal segregation in many cities increased rather than decreased.¹³³ White Americans grew less comfortable with integration as waves of African Americans moved into northern and southern cities after the Civil War. By 1900, seventy-two American cities had black populations greater than

¹³¹ "The Opera House Restored," *Chicago Tribune*, September 29, 1871, 4.

¹³² Based on the average top-tier seat price of twenty-five cents per performance.

¹³³ McPherson argues that in some Northern cities, segregation was more institutionalized than in the South where slavery had precluded the need for a similar separation. It was only in the first decade of the twentieth century that racial segregation became completely institutionalized nationwide. James M. McPherson, "Abolitionists and the Civil Rights Act of 1875," *The Journal of American History* 52, no. 3 (December, 1965): 495.

The United States passed an 1875 civil rights act guaranteeing equal treatment in public accommodations and by the 1880s most northern states had passed anti-segregation public accommodation laws as well. Massachusetts passed a law in 1865, See McPherson, 493-495; Douglas, *Jim Crow Moves North*, 134-135.

five thousand — New Orleans had 77,000 black residents, Baltimore, 79,000 and Washington, D. C., 86,000. In Chicago and New York black populations were just two percent of the total population but numbered between forty and fifty thousand people.¹³⁴ Managers who were unwilling to give up income from African Americans, but wary of losing income from white patrons concerned about class and race mixing, continued Jim Crow segregation both in the North and the South.

Although no court cases claiming discrimination specifically mention the quality of seats, defenses in the late nineteenth century continued to be based on the concept that a ticket entitled a purchaser to a specific seat.¹³⁵ Installation of visually and functionally different seats rationalized price scale and therefore ticket price. Managers claimed segregation was economic not racist, but white patrons paid extra for the physical comfort of upholstered opera seats and the psychological comfort that they could avoid colored bodies they perceived as undesirable.

Just as exclusionary policies generated working class cohesion and a backlash in the 1847 Astor Place Riot, civil rights activism coalesced around theater seats.¹³⁶ African Americans leveraged collective purchasing power to exercise their right to sit where they

¹³⁴ Sotiropoulos, *Staging Race*, 57.

¹³⁵ Jim Crow seating continued in theaters into the 1930s, and in some states anti-segregation laws grew weaker in the wake of the Great Migration of African Americans north in the 1910s and 1920s. In 1914, plans for the new Raleigh Opera House in Raleigh North Carolina included separate black and white galleries, each with a separate entrance on opposite sides of the theater. "Plans a New Theater," *The Wilmington Dispatch* (Wilmington, NC), January 7, 1914, 8; for a discussion of the spread of segregation in the North see: Douglas, *Jim Crow Moves North*, 134-135, and James M. McPherson, 493-510.

¹³⁶ In bringing together like-minded individuals to participate in a focused activity, third tier seats transformed individuals of different socio-economic and social backgrounds within a social group (African Americans) hostile to white suppression into what Sociologist Erving Goffman identifies as a "focused gathering," that strengthened the group even though they may only have come together at the theater. Goffman, *The Presentation of Self*, 7-14. Sotiropoulos, *Staging Race*, 74-80.

chose.¹³⁷ Large crowds of African Americans thwarted manager's attempts at segregated seating by overwhelming ushers with sheer numbers. Light-skinned black audience members questioned the entire premise of race by passing as white patrons in the orchestra and then having their subterfuge reported in local newspapers.¹³⁸ Challenges to segregated seating policies became a part of the theater experience for many black Americans. Trapped on hard seats in a gallery, African Americans performed acts of resistance played to white audiences in the orchestra; a play that would be revived in the bus boycotts and sit-ins of the twentieth century.¹³⁹ Efforts had limited success. When black performers broke the color line in the orchestra for the Broadway debut of the black musical *Shuffle Along* in 1921, black audience members were restricted to one third of the seats in the orchestra.¹⁴⁰ In a notorious 1926 novel, white Harlem renaissance author Carl Van Vechten likened segregated theater seats to geographic segregation in New York City: "Nigger Heaven! That's what Harlem is. We sit in our places in the gallery of this New York theatre and watch the white world sitting down below in the good seats in the orchestra. Occasionally, they turn their faces up towards us, their hard cruel faces, to laugh or sneer, but they never beckon. It never seems to occur to them that Nigger Heaven is crowded, that there isn't another seat, that something has to be done."¹⁴¹ After continued protest the taboo of racially mixed seating broke down and by the 1930s it was

¹³⁷ "Civil Right," *The Memphis Daily Appeal* (March 6, 1865), 1.

¹³⁸ Sotiropoulos, *Staging Race*, 71.

¹³⁹ Sotiropoulos, *Staging Race*, 75.

¹⁴⁰ Allen Woll, *Black Musical Theatre: From Coontown to Dreamgirls* (Baton Rouge, LA: Louisiana State University Press, 1989), 72.

¹⁴¹ Carl Van Vechten, *Nigger Heaven* (Chicago: University of Illinois Press, 1926 renewed 1954), 149.

no longer remarkable to see racially integrated audiences in the orchestra seats at New York theaters.¹⁴²

Variety Theater

You may pay three dollars for a seat in the dress-circle of the Metropolitan Opera House, and have the most uncomfortable seat...even if one is poor, he has his feelings and doesn't like to sit out a whole play on a hard bench, with no room for his knees between the bench he sits upon and the one in front.

— *The Critic*, 1895¹⁴³

Whereas legitimate theaters expressed ambivalence over their working-class audience members through minimally comfortable seats, variety theaters welcomed the masses of working class and immigrants arriving in American cities. Interactive and communicative audience members discouraged by legitimate theater found a welcome at variety theaters where comedians, singers and actors were more than happy to engage with audience members.¹⁴⁴ As in the earlier part of the nineteenth century, performers sang and spoke directly to an audience that enjoyed becoming part of the show.¹⁴⁵

In the late 1880s and 1890s some variety theaters distinguished themselves from legitimate theater by installing opera seats throughout the auditorium.¹⁴⁶ Proctor's

¹⁴² Woll, *Black Musical Theatre*, 73.

¹⁴³ "The Lounger," *The Critic* no. 686 (April 13, 1895), 279.

¹⁴⁴ Sotiropoulos, *Staging Race*, 63.

¹⁴⁵ Mary Cass Canfield, "The great American Art," *The New Republic* (November 22, 1922), 334; In his extensive survey of American popular entertainment at the turn of the twentieth century, David Nasaw found that whereas middle-class audiences were defined by their emotional restraint, variety theater provided audiences with "the opportunity to display their emotions in public." See Nasaw, *Going Out*, 33.

¹⁴⁶ Louisville's Buckingham Theater (1883) and the Gillis Theatre (1907) followed the custom of benches in the top tier seating from legitimate theaters. "Hooley's Theater, Chicago" *The Inter Ocean* (Chicago, IL), August 28, 1881, 3; "The Buckingham Theater, Louisville," *The Courier-Journal* (Louisville, KY), July 29, 1883; "Providence theater, 1889," *The Boston Globe*, August, 4, 1889, 10. *Gleason's Pictorial and Drawing Room Companion*, May 14, 1853, 308.

Pleasure Palace (1895) in New York installed 700 opera chairs in pale blue plush “provided for every occupant regardless of location” according to architecture critic William Birkmire.¹⁴⁷ The Maxine Elliott Theatre (1908) in New York sat its audience of 900 on identical chairs, at 22 inches the widest standard size, “the seats in the second balcony being as comfortable as those on the ground floor.”¹⁴⁸ Boston’s Castle Square Theatre (1894) chose to provide all patrons with the same A H Andrews Boston Back chairs used in the Hollis Street Theatre. The Castle Square advertised that its seats were extra wide and arranged with thirty-two inches between rows, which was the norm for orchestras but was frequently reduced in other parts of the house. The theater took “great pains,” to ensure that “every seat in the house, from the gallery to the pit, shall be alike in material and finish, the finest plush being used not only in the orchestra, but also in the first and second balconies.” Birkmire, an architect, critic, and steel construction specialist, praised the theater for appeasing the “gallery god,” of the top tier, “this majestic critic, the terror of all ‘thespians,’ is seated in comfort. He sits in a chair covered with finest plush.”¹⁴⁹

To further ensure every occupant a pleasant experience Castle Square seats incorporated a new design that provided fresh air to each seat. Chairs had hollow cast-

¹⁴⁷ Proctor’s was a variety theater located in the heart of the Upper East Side shopping district on Fifty-Eighth Street. The theater attracted all classes from shops, nearby Fifth Avenue mansions off Central Park and the club-houses of German societies. Birkmire, *The Planning and Construction*, 38; “A New Uptown Theatre,” *New-York Tribune*, July, 28, 1895, 16.

¹⁴⁸ The Maxine Elliott was the first theater in New York to be managed by a woman and specialized in highlighting actresses. Birkmire, *The Planning and Construction*, 32; “A New Playhouse,” *New York Tribune*, December 27, 1908, 2.

¹⁴⁹ Castle Square Theatre, “Opening Performance of the Castle Square Theatre,” Monday, November 12, 1894, Miscellaneous Theatre Programs, Boston Athenaeum; Birkmire, *The Planning and Construction*, 12.

iron legs connected to a duct work system beneath the floor. Fresh air was forced at low pressure through a lattice vent on the leg; exhaust fans in the ceiling drew the air up to be removed through ceiling vents (**Fig. 3.33**).¹⁵⁰ The upper part of the chair leg was ornate, but the expansion of the volume of the lower part of the chair leg eliminated the built-in storage feature for canes and umbrellas, a diminished need in variety theaters that did not require or expect formal dress. B. F. Keith, a maverick of the variety theater industry, also chose to install identical ventilated seats in his nearly-3,000-seat flagship “New Theatre,” opened in Boston in 1894. The interior set a standard for comfort and opulence (**Fig. 3.34**). Birkmire commended opera seats placed in the top tier gallery, a luxurious improvement over “the plain, hard, wooden benches which formerly were used in places of this kind.”¹⁵¹

Luxurious chairs fit within variety theater interiors designed to impress middle-class clients. The Keith theater opening brochure extolled the interior as “the handsomest, most solidly constructed, most elaborately decorated, and most sumptuously appointed amusement establishment on the face of the earth.” Marble mosaics decorated the floors, light from thousands of electric bulbs played off of the stained glass and brass, a “Bureau of Information,” in the lobby included a telephone, messenger-call, writing desk,

¹⁵⁰ Frank E. Kidder, *Churches and Chapels: Their Arrangements, Construction and Equipment* (New York: W. T. Comstock, 1910), 162; Birkmire, *The Planning and Construction*, 12. An identical or similar chair was installed in the gallery of the United States House of Representatives in 1899. A manufacturer was unable to be identified for the first ventilated chairs, but an inventor from Lynn, Massachusetts assigned a patent for a similar ventilated opera chair, issued in 1887, to the American Ventilating Company of Portland. William Y. Ober, “Opera Chair,” U. S. Patent 374,424, December 6, 1887; “Ventilation of the Hall of the House of Representatives,” *Heating and Ventilation*, October, 1899, 9, Ventilation of the Hall of the House of Representatives,” *Heating and Ventilation*, October, 1899, 15.

¹⁵¹ Nasaw, *Going Out*, 52.

directories, time-tables and guide books for the use of patrons “free of charge”; a grand mirrored lobby contained sofas, tete-a-tetes, cabinets of Dresden China, and a large tall clock, sofas; silver plated doors, an orchestra reception room, three “sumptuously furnished apartments reserved exclusively for the use of ladies”; and a men’s smoking room, “kept constantly supplied with all the leading daily papers.” The brochure emphasized democratic design elements, especially appurtenances of the balcony where “the same careful attention has been given to the comfort of the patrons in this section of the house as is bestowed on the occupants of the more expensive orchestra seats.”¹⁵²

Although the theater laid claim to seating all its patrons in identical seats, images show a common practice of placing private boxes at the front of the theater. As in earlier theaters, proscenium boxes were filled with reconfigurable domestic furniture for elite patrons, a common practice into the twentieth century (**Fig. 3.35**). Heywood-Wakefield-Company, a major manufacturer of opera chairs, included 18 styles of mass-produced, quasi-domestic Windsor, bentwood and wicker “Box Chairs,” in its 1912-1921 catalogs of theater furniture (**Fig. 3.36**).¹⁵³

Keith’s attention to an opulent and gracious environment served two populations:

¹⁵² *B. F. Keith’s New Theatre Boston Mass* (Boston: George H. Walker & Co, 1894).

¹⁵³ Photographs show that it was a common practice to only have private boxes near or in the proscenium. See also “The New Brooklyn Academy of Music,” *The Brickbuilder* 17, no. 10 (October, 1908): 234; “Within Philadelphia’s New Opera House” annotated *New York Times*, December 6, 1908, Philadelphia, Pennsylvania, Prints (Visual Works) of Theaters in the United States (TCS 56). Harvard Theatre Collection, Houghton Library, Harvard University,; Between 1869 and 1875 Philadelphia’s Walnut Street Theatre introduced “Parlor Boxes” sold by the seat at \$2. Private boxes sold for \$10.00. Reserved chairs in all areas cost 25 cents more than unreserved seats. Scrapbooks, Grossman Collection, Winterthur Museum & Library, Wilmington, DE; Heywood Brothers and Wakefield Company, *Opera Chairs Public Hall Seating* (Boston, ca. 1912), 60-69; Edward Renton, *The Vaudeville Theatre: Building Operation Management* (New York: Gotham Press, Inc., 1918), 77.

working class aspirations and middle-class expectations. Working class audiences, condemned to live in dark, cramped, and poorly built tenements fantasized of living in luxury, and for middle class women, the ornamental environment was as familiar as department store interiors and legitimate theaters that she frequented. Variety theaters were usually located near where middle-class women shopped. An usher led patrons to comfortable and protective chairs to minimize possible unsavory interactions and to emphasize that audiences were always under the watchful eye of employees. In most variety theaters a middle-class woman could take a safe and secure break from her shopping in an opulent environment.¹⁵⁴

Variety entrepreneurs successfully attracted class-mixed audiences, but African American patrons remained restricted to upper tiers. In her autobiography Ethel Waters, who performed on the Keith circuit, described how “colored people could buy seats only in the peanut gallery in B. F. Keith’s Alhambra Theatre”¹⁵⁵ In the somewhat more welcoming world of variety theater the same unwritten and often ambiguous racial rules of legitimate theater continued in practice, even when African Americans attended shows by noted black performances like Bert Williams and George Walker performing *In Dahomey*.¹⁵⁶ In his 1918 book on variety theater management, Edward Renton recommended theaters built without a segregated second balcony, which “the better classes of the negroes,” frequently declined to patronize. He did not go so far as to

¹⁵⁴ Peiss, ‘Leisure and the ‘Woman Question,’ 113.

¹⁵⁵ Nasaw, *Going Out*, 31; Ethel Waters with Charles Samuels, *His Eye Is on the Sparrow: An Autobiography* (Garden City, NY: Doubleday & Company, Inc., 1951), 124, 150.

¹⁵⁶ Nasaw, *Going Out*, 49.

encourage desegregated theaters, but instead recommended a single balcony divided by an iron rail with white audience members in the front and black audience members in the rear and a separate ticket-window and stairs for black patrons.¹⁵⁷ The owners of variety theaters used opera chairs to try to bring together diverse Americans in communion, an aspiration also held by progressive evangelical churches.

Churches: The People's Church

That all the people may see equally well, and hear equally well, it will be amphitheatrically seated. This may not be perfectly ecclesiological; but if the construction of the theatre is better adapted to a pure and simple worship than the ill-ventilated, right-angled parallelograms through which our dim religious light drags its slow length along, we have not hesitated to say so.¹⁵⁸ J. W. Hamilton, pastor, The People's Church, Boston, 1885.

More than forty ministers of different denominations delivered sermons over the eight-day celebration of the opening of the People's Church in Boston in 1884 (**Fig. 3.37**). Much like a theater performance, the church issued reserve tickets to those who wanted to attend. Ticket holders who walked into the auditorium for the first time could easily have thought they had entered a downtown Boston theater. Their ticket stub led them to one of thousands of identical folding opera seats arranged in concentric rows that emanated up and away from a central stage-like altar and into a deep hanging balcony.

J. W. Hamilton, founding pastor of The People's Church, outfitted its auditorium with mass-manufactured opera chairs made by A. H. Andrews & Company rather than traditional pews (**Fig. 3.38**).¹⁵⁹ The church sat a massive 2,500 worshippers each with a

¹⁵⁷ Renton, *The Vaudeville Theatre*, 15 and 22.

¹⁵⁸ J. W. Hamilton, *The People's Church Pulpit* (Boston: The People's Church, 1885), xvii.

¹⁵⁹ The chairs were sold by Baker, Pratt & Co., a New York distributor. *Boston Globe*, "The People's Church, January 10, 1884, 2.

full and unobstructed view to the altar. The interior, designed to visually welcome individuals into communion, was strikingly different from the clannish interiors of conservative Protestant churches. By comparison, the ornate Trinity Episcopal Church opened nearby in 1877 sat approximately half as many congregants in a traditional arrangement of family-oriented pews (**Fig. 3.39**). A review of the People's Church in *Harper's Weekly* commented on the extraordinary resemblance of the church to a theater, praised no-fee individual opera chairs and declaimed the house of worship "the People's Church in name and in fact."¹⁶⁰

A progressive Methodist congregation, the People's Church participated in a movement to reach people marginalized by more conservative Christian denominations. In the preface to his book celebrating the opening of the church, founder Hamilton described the innovative interior as an intentional visual and functional break from tradition that he believed emphasized a simpler and more direct worship service compared to the architecture of more conservative denominations.¹⁶¹ Hamilton explained that the People's Church was founded in response to mainline Protestant churches' "growing neglect by their ministers and members of the great common people in the large cities." He condemned the "invidious distinctions," made by the churches, and decried that "relative locations within the house of worship had become a matter of price." The "common people" Hamilton hoped to reach included unmarried men, migrants and

¹⁶⁰ "The People's Church," *Harper's Weekly* 28, no. 1421 (March 15, 1884): 175; "The People's Church," *The Boston Globe*, February 10, 1884, 2; Arthur H. Chester, *Trinity Church in the City of Boston: An Historical and Descriptive Account with a Guide to Its Windows and Paintings* (Cambridge, MA: John Wilson and Son, 1888), 22.

¹⁶¹ Hamilton, *The People's Church*, xvii.

immigrants who had flooded into American cities in the years after the Civil War and who were more comfortable in open-air meetings than within the formal architecture of churches and cathedrals.

The radical contrast with traditional pews was the result of a reanimation of revivalism in the post-Civil War years as evangelical denominations added worship and family ministry to their mission and sought, through architecture, to differentiate themselves from conservative denominations. Like Finney, before building their own churches, many of the post-Civil War revival congregations worshiped in opera houses: Dwight L. Moody at the Indianapolis Opera House, the New York Methodists at the Metropolitan Opera House, and Denver's Trinity Congregation at the Tabor Opera House. Evangelical congregations designed sanctuaries that mimicked secular venues of theaters and opera houses because the design supported a performative and audience interactive service absent in mainline churches. Evangelical churches installed opera chairs for the same reasons as variety theaters: to provide comfort, to increase patronage in a competitive environment, to increase income, and to project an air of modernity and democracy.¹⁶²

At the beginning of the nineteenth century, Protestant congregations arranged bench seats in churches in a similar manner as early theaters and schools. Asher Benjamin's 1798 drawing for a meetinghouse illustrates a typical early American Protestant church (**Fig. 3.40**). Benjamin oriented the assembly space on the longitudinal

¹⁶² Kilde, *When Church Became Theatre*, 117, 130. Kilde describes how prominent theatrical elements, including seating, were adopted by churches to create an entertaining and performative worship service that transformed the relationship between clergy and spectators.

axis of a rectangle, located the central main door on the short wall and placed a raised pulpit on the opposite end. In the plan and section, Benjamin drew a set of transverse box pews that faced the pulpit and indicated additional seats in a sloped upper gallery. Box pews were constructed of three-to four-foot vertical walls arranged in a rectangle with doors that led to aisles. Plank seats hung from the interior walls of the boxes (**Fig. 3.41**). Box rents provided the most significant source of income for church maintenance. Like early theaters, church congregations stratified interior space by class and race. Desirable pews in the first row of the gallery, near the doorways and on the main aisle were the highest status; those with views impaired by objects and distance were for those with lesser status. Pew rental systems emphasized the family as central to religious life, maintained power relations among families through inheritance, and discouraged worship by individuals unattached to a family. Many churches restricted African-American congregants to an upper tier or a specific pew of lower status.¹⁶³ Box rents helped leaders maintain control over the political structure and demographics of the congregation through exclusionary pew prices.¹⁶⁴ The average price for a Box pew in the 1830s was \$250, too high a sum for a working-class family who either had to sit in shared pews in

¹⁶³ Kilde, *When Church Became Theatre*, 4-6; Kidder, *Churches and Chapels*, 47. Boston had at least four segregated congregations in the middle of the nineteenth century. In 1854, Charles Lowell, minister of the Unitarian West Church, suggested older black worshippers be allowed to sit on a pew near the ground floor entrance. His white parishioners rejected the proposal. For a further discussion of Northern segregated churches see Archer, *Jim Crow North*, 209. Pews created a visual hierarchical interior landscape that was continually. For a discussion of the politics of pew seating in early-American meetinghouses see Peter Benes, 62-73.

¹⁶⁴ Kilde, *When Church Became Theatre*, 24-25. In 1826, sales of the 85 pews in Lyman Beecher's Boston church covered two thirds of the building expense, with the first choices of pews selling for \$1,200 to \$1,300. Lyman Beecher to William Beecher, Mar. 31, 1826 in Lyman Beecher, *Autobiography, Correspondence, Etc., of Lyman Beecher*, ed. Charles Beecher (New York: Harper Brothers, 1864), 58.

the balcony or simply not attend the church.¹⁶⁵ This classist structure came under attack in the 1840s. An editorial in the *Baptist Watchman* ominously titled “Pews, or the Devils Toll Gates,” compared proud purchasers of expensive pews to biblical Jews who claimed the best places in the synagogue: “Loving the chief seats in these synagogues— Two or three hundred dollars paid for a spot in the church to sit in Oh! This money changing!”¹⁶⁶

Pulpits physically and psychologically elevated the body of a minister above his congregants to serve a worship culture in which clergy were the sole interpreters of church doctrine and liturgy. Congregationalist and Presbyterian church-leaders controlled the content of the worship service by employing only seminary-educated ministers suspicious of change. The autocratic interiors and worship style attracted elite, educated, erudite, typically native-born adherents, and alienated members of an under-educated and expanding working class.¹⁶⁷

In the 1820s and 1830s, Methodist, Baptist, Free Presbyterian, and similar evangelical denominations repudiated elite control of worship in favor of a democratic relationship among clergy and congregants. Their mission was to reach members of the working class, immigrants and non-white worshippers through an approach that stressed personal emotional relationships to the divine more accessible than autocratic and dogmatic mainstream protestant denominations.

¹⁶⁵ Although rented or owned pews not in-use were sometimes used by others, owners had the power to eject transient worshippers. Kilde, *When Church Became Theatre*, 24-25; Charles C. Cole Jr., “The Free Church Movement in New York City,” *New York History* 34, no. 3 (July, 1953): 284-297.

¹⁶⁶ A letter published in the *Philadelphia Public Ledger* expressed outrage that a couple who occupied a rented pew were forced to leave the church when its owners arrived, quoted in Edward Waylen, *Ecclesiastical Reminiscences of the United States* (New York: Wiley and Putnam, 1846), 285.

¹⁶⁷ Kilde, *When Church Became Theatre*, 24.

Churches of the Free Church Movement abolished expensive pew rentals to open worship to unimpeded participation by urban populations.¹⁶⁸ Opera seats were novel to emphasize a more modern approach to worship, and individual, to emphasize the essential equality of congregants.

Free Churches invited innovative, often itinerant, and self-taught revivalist preachers to address congregations. Preachers conducted improvisational interactive revival meetings during which conversion and redemption resulted from intense spiritual, visual, and sometimes physical connection between congregant and clergy. Fiery language, gestures and spectacle convinced sinners of their need to repent. To suit the performance aspect of worship services interior architecture of evangelical churches became nearly interchangeable with theaters in the post-Civil War decades.¹⁶⁹

Theater architecture was adaptable to evangelicals' dialogic ritual. In 1832, leading revival preacher Charles Grandison Finney converted the Chatham Theatre in New York City into a meeting space for his church (**Fig. 3.42**). The bowl-shaped pit, benches and tiered galleries were ideal for Finney's preaching style. Only one revision was necessary: the manager added backs to bench seats to focus attention on Finney's performance. The same benches that had encouraged gregarious and sometimes illicit behavior among theater spectators supported energetic and active religious participants

¹⁶⁸ Cole, "The Free Church Movement in New York City, 288.

¹⁶⁹ Kilde, *When Church Became Theatre*, 23, and 112-145; Churches were also converted into theaters - the Second Advent / Millerite Tabernacle was converted into the Howard Athenaeum in Boston. Kilde, *When Church Became Theatre*, 34; George C. Lorimer, *Tremont Temple Sketch Book* (Boston: St. Botolph Press, 1896). Before erecting their church in the Back Bay, the People's Church raised funds to purchase and convert the Boston Music Hall in the 1870s, but the financial depression quashed the plan, Hamilton, *The People's Church*, xiv-xv.

called repeatedly to stand and be counted, to be drawn to the anxious bench in front of the stage where they publicly worked through their demons, and to demonstrably pray for their brethren.¹⁷⁰

The arrangement of the Chatham Theater freed Finney from the confines of a traditional pulpit. He strutted around the theater stage, engaged with all sides of the house, and thrilled congregants with demonstrations of salvation. Sound traveled much better from the stage of the Chatham Theater up the bowl-shaped pit and tiered galleries than it did from a traditional raised pulpit down upon a congregation. Finney maintained eye contact with individuals and conveyed direct messages verbally and through facial expressions.¹⁷¹

Finney embraced the Free Church axiom to extend religious opportunities to a broad populous that included African Americans.¹⁷² The leaders of the Chatham Chapel attempted to concretize democratic philosophy through unrestricted seating. In 1841, Finney's sponsor Lewis Tappan described a limited success:

Some of us thought that the 'negro pew' should be done away – for although people were invited to sit where they pleased it was understood, by whites and blacks, that the colored people should sit by themselves in a certain place in one of the galleries...In the Chatham St. chapel we

¹⁷⁰ Marion L. Bell, "Religious Revivalism in Philadelphia: From Finney to Moody," (PhD diss., Temple University, 1974), 13-14.

¹⁷¹ Kilde, *When Church Became Theatre*, 34-35.

¹⁷² For a description of the typical discrimination that Finney tried to overcome see "Prejudice," *The Liberator*, November 5, 1836. *The Liberator* reported that white parishioners objected to African Americans sitting in the nearby pews out of concern that the value of their pews would be diminished. The black parishioners left their paid pews and went into the gallery. Also see Kilde, *When Church Became Theatre*, 39-84. Kilde notes that evangelicals turned away from theater-like architecture and toward more traditional Gothic Revival churches with pews because of political turmoil over the issue of slavery in the years leading up to the Civil War. According to Kilde, freedom of movement for the preacher and visual communication with congregants remained important elements, but evangelical energy prioritized worship service over moral reform, outreach work and abolitionism.

succeeded in bringing the colored part of the congregation down stairs to occupy a range of slips on one side of the church, but were never able, though Mr. Finney was the pastor, to abolish the distinction altogether, in seats, and allow people to sit, in fact, as they were invited to do, wherever they chose.¹⁷³

To seat African Americans side-by-side with white congregants was a reformation of the social fabric too radical for Finney's parishioners. The surrounding community in New York City criticized Finney for racially integrated seating. Conservative denominations and civic leaders highlighted a perceived threat of amalgamation and Finney's church became a target of white-supremacist fears of race annihilation, inflamed by deteriorating financial conditions.¹⁷⁴ The intense criticism led to disagreements within the movement over the speed and degree to integrate African Americans. In response, Free Churches diminished their focus on integrated diverse audiences in the years prior to the Civil War.

Population growth, industrialization and urbanization reinvigorated The Free Church Movement after the Civil War. Evangelical parishes contracted architects to design worship spaces that mediated audience-performer interactivity through the behavioral controls of seats familiar to middle-class attendants at the theater and opera.¹⁷⁵ By the 1880s the radial-plan amphitheater of the People's Church dominated evangelical

¹⁷³ Lewis Tappan to S. D. Hastings, April 11, 1841, (*Lewis Tappan Papers*). quoted in Cole, "The Free Church," 295. In addition to spatial and acoustical benefits, theaters were associated with un-Christian behavior. Conversion of the Chatham Theater to a church was both a practical decision, as well as a symbolic message of the power of Finney to convert the sinful.

¹⁷⁴ James Lynn Huston, "The Panic of 1857 and the Coming of the Civil War" (PhD diss., University of Illinois, 1980), 583-584.

¹⁷⁵ George Bowler, *Chapel and Church Architecture with Designs for Parsonages* (Boston: Jewett, 1856), 8; and Kilde, *When Church Became Theatre*, 89-90. The People's Church relocated from Temple Street in downtown Boston to the intersection of Berkeley Street and Columbus Avenue. Construction began in 1882, the same year that the filling of the Back Bay was complete.

church building in the United States (**Fig. 3.43**). The interior arrangement matched the rhetoric of the People's Church in welcoming a race and class diverse audience. In a description of the theater plans, Founder Hamilton emphasized that "the little upper attic pews, where the colored man has so long leaned over to see the white man worship, will be brought down in the broad aisle," and avowed that the church would permit interracial marriages, a not uncommon practice in Boston.¹⁷⁶

Individual, identical seats, each with an unobstructed sight-line and clear acoustics emphasized the equality of all church members, including black congregants invited to sit among white patrons, a practice legally permitted but still culturally frowned upon.¹⁷⁷ Book boxes added to chair backs stored hymnals provided by the church for those who could not afford their own, and so those with more limited English skills could follow along and participate. Just as individual opera chairs in theaters served as a setting that honored and displayed beautifully dressed people, opera chairs in evangelical churches honored the essential equality of church worshippers. The chairs afforded the appearance of equivalent status for impoverished and non-white worshippers and men attending without female family members and simultaneously offered physical and psychological protection to middle-class families wary of intimate interactions with the targets of their mission.

Opera seats were symptomatic of an equivocal approach to outreach in the late nineteenth century. For all the egalitarian rhetoric, many evangelical church leaders were

¹⁷⁶ In 1877, 38 percent of African-Americans in Boston married white spouses. Elizabeth Hafkin Pleck, *Black Migration and Poverty, Boston, 1865–1900* (New York: Academic Press, 1979), 209.

¹⁷⁷ Hamilton, *The People's Church*, xvii.

as concerned with attracting and retaining middle-class patrons as they were in saving the souls of the working class. The People's Church followed a general post-Civil War trend among evangelical churches and relocated to the suburbs to follow their middle-class parishioners. The congregation built their new church in the recently fashionable Back Bay, far from working class and non-white Bostonians in their previous downtown location.¹⁷⁸ Opera seats were an advantage in a competition for financially secure parishioners. More affluent church members were frequent attendees of theaters where opera seats signified elevated status, safety, and separation from undesirable elements. After the Topeka Presbyterian Church decided to install A. H. Andrews veneer chairs in 1884, the local Lutheran Church and Congregational Church ordered opera chairs to replace their circular pews. The local newspaper estimated that opera seats would pay for themselves in one year "by the large attendance induced by comfortable seats" and noted that the cost of opera chairs was "no more than a stiff back pew with a cheap cushion."¹⁷⁹

Methodist architectural critic Reverend F. J. Jobson explicated the difference between embracing a close association with the poor and working class, and merely giving the appearance of doing so through seat design in an 1850 treatise on church architecture. Jobson entreated congregations to award prominent seats in a worthy place in the sanctuary to poor "sons of the soil" and "pale, hard worked mechanics." Jobson scorned Methodist churches that hid free seats for the poor and separated congregations into distinct class-based sections using parlor chairs and curtains. He did not espouse full

¹⁷⁸ Kilde, *When Church Became Theatre*, 99-100

¹⁷⁹ *Southern Kansas Gazette*, November 13, 1884, 1.

equality in the church, which he felt was against God's order; instead, Jobson was concerned about the reputation of the church if the auditorium did not clearly show a place for the poor. He argued for visually accommodating the poor to ensure Methodism survived competition, even if in practice no poor people attended. He warned that the Church of England, a much older and established organization, had "thrown off the doors" of its pews and invited in the poor and cautioned that it was "not only unbecoming but detrimental to Methodism, (and it would be so to any church), thus to *appear* to neglect the poor."¹⁸⁰

In the People's Church, with a capacity of 2,500 congregants and a stated open-seat policy, there was always a chance that an adjacent person would be a stranger pressed uncomfortably close. Concern with crowding was a frequent justification for installing opera chairs. In 1886, the Wichita Baptist church installed opera seats "so that crowding is impossible as in the old style of pews."¹⁸¹ In his 1900 book on Methodist Episcopal Church architecture, F. E. Kidder indicated that installation of individual folding seats, "similar to those used in theatres," in church assembly spaces, especially in the galleries, had become quite common and recommended them for the explicit built-in discipline that policed personal space, whereby "every chair counts a seat, as no person can well occupy two seats or crowd his neighbor."¹⁸²

¹⁸⁰ Kilde, *When Church Became Theatre*, 87; F. J. Jobson, *Chapel & School Architecture* (London: Hamilton, Adams & Co, 1851), 47, 60-65.

¹⁸¹ "The Dedication," *The Daily Republican* (Anthon, Kansas), June 19, 1886; The church kept pews in its 100-seat gallery. *The Weekly Bulletin* (Anthony, Kansas), June, 1, 1886, 3; In 1890, Kansas City's South Side Presbyterian church replaced its "ordinary pews" with "elegant new opera chairs," *Hamilton County Bulletin*, September 26, 1890, 1.

¹⁸² In addition to his book on church architecture, Kidder authored several reference books for architects. Kidder, *Churches and Chapels*, 49-50. Kidder believed that pews gave religious spaces

Unlike impenetrable hierarchical reserved pews, unreserved, opera seats welcomed individuals, but equality did not require an intimate association of bodies among strangers. Despite, or perhaps because of their catholic aspirations, evangelical congregations chose to replace shared pews with individual opera seats. Pews permitted unacceptably close association, leaning, slouching, even reclining, whereas opera seats with high arms physically separated and corralled bodies of occupants. Unmarried young men were of concern. Through the nineteenth century revivalist ministers focused their mission on male youth caught up in the heady pursuit of self-advancement. Sermons emphasized impulse control and warned of the pitfalls of rampant libidos. In 1845, Henry Ward Beecher warned men to beware “the various impulses, wild desires, and restless cravings he can hardly tell for what.”¹⁸³ Manufacturers recommended opera chairs for churches that had the same features and restraints on restless male behavior as chairs for theaters: under seat hat wires, umbrella and cane holders and foot rests designed to curtail fidgeting and early exits (**Fig. 3.44**).¹⁸⁴

Whereas theaters installed opera seats to attract more middle-class women into a

a more ecclesiastical feeling, preserved “family relations,” and seated more people because a full-sized individual seat wasted space when occupied by the small frame of a child. On balance, though, he preferred individual seats.

¹⁸³ Rotundo, *American Manhood*, 73; Joel Hawes, *Lectures Addressed to The Young Men of Hartford and New Haven* (Hartford: Oliver D. Cooke and Co., 1828); Sylvester Graham, *A Lecture to Young Men, on Chastity* (Boston: George W. Light, 1838); O. S. Fowler, *Self-culture and Perfection of Character including the Management of Youth* (New York: Fowlers and Wells, 1847); Henry Ward Beecher, *Lectures to Young Men, on Various Important Subjects* (Salem: John P. Jewett & Co, 1846), 121.

¹⁸⁴ For a discussion of the feminization of religion in the nineteenth century see Barbara Welter, “The Feminization of American Religion 1800-1860” in *Clio's Consciousness Raised: New Perspectives on the History of Women*, ed. Mary S. Hartman, and Lois W Banner (New York: Octagon Books, 1976). “Pews Versus Opera Chairs,” *The Church at Home and Abroad* 18, no. 108 (December 1895): 497-498.

previously male dominated sphere, evangelical churches installed opera seats to attract more individual men. Evangelical churches attracted a wide variety of Americans, black and white, working class, as well as middle-class clerks, mechanics, and artisans, but most of the attendants were women. In 1887, Reverend Dr. Lloyd of the Central Congregational Church in New York City installed opera chairs in the gallery of his new church. Dr. Lloyd described the intent in his first sermon: the galleries were to be “seductive by putting in opera chairs, so that a young man who might want to have one seat in a church could do so without feeling obliged to take a whole pew.”¹⁸⁵

Most conservative churches continued to install traditional pews, but others installed opera chairs, some that aesthetically resembled pews but offered the functional separation and individuality of opera chairs. Seats by the Harwood Chair Seat Company and the Demarest Company were clad heavily in traditional wood, but had folding seats, hat and umbrella storage, and footrests (**Fig. 3.45**). Churches that continued to sell reserve seats to raise income considered individual seats more desirable and therefore easier to sell. A. H. Andrews & Company’s 1886 trade catalog touted the income generating potential of its opera chairs for churches, casting the chairs as modern in contrast to “old style pews.” (**Fig. 3.46**). Smaller urban families paid less to rent only the amount of space needed rather than paying for an entire pew or negotiating a shared pew. In an Andrews’s trade catalog testimony, A. H. Day, pastor of a Presbyterian Church in Kansas City, claimed increased revenue because chairs rented more readily than pews, at a higher rate, and members did not have to partner with other members.

¹⁸⁵ Kilde, *When Church Became Theatre*, 31. “In its New Home,” *The New York Times*, May 2, 1887.

Numbered reserved seats also generated income from secular uses as theaters and assembly halls. After the Tremont Theater in Boston was converted to the Baptist Tabernacle in 1843, the group continued to rent the auditorium for high-profile speakers among them Ralph Waldo Emerson, Abraham Lincoln, Frederick Douglass, and Charles Dickens. Hartford's Unitarian Society church, opened in 1881, was "exactly like an opera house, with opera chairs, a gallery and a platform arranged like a stage," according to the *Boston Post*, and could be used for concerts and light theatricals.¹⁸⁶

By the 1890s mechanical opera seats had penetrated most American auditorium spaces. In its 1886 catalog, manufacturer A. H. Andrews Co. listed 372 installation sites for its opera chairs distributed among 39 states and territories and Canada: 236 opera houses, 32 theaters, 32 churches, 19 auditoriums, 19 courthouses / town halls, 17 schools (mostly colleges), 14 music halls, and 3 fraternal lodges.¹⁸⁷

Movie theaters

Some managers and owners of legitimate theaters regretted their decision to deny comfortable seating to the third tier after moving pictures became popular at the turn of the century. In a competitive entertainment marketplace, legitimate theaters sacrificed

¹⁸⁶ A. H. Day, testimonial, quoted in A. H. Andrews & Co., *Improved Opera Chairs* (1886), 26; "Pews Versus Opera Chairs," *The Church at Home and Abroad* 18, no. 108 (December 1895), 497-498; "New England News," *Boston Post*, April 6, 1881, 2; Kilde, *When Church Became Theatre*, 138.

¹⁸⁷ Fraternal lodges, though private, operated much like theaters and churches in the late 19th century as performance spaces. Members lined the periphery of their lodge rooms with opera chairs. Some groups converted churches and opera houses into lodges. Like theaters and churches, individual opera chairs had the power to shift the role of lodge members from communal and interactive to personal and passive observer. See William D. Moore, *Masonic Temples: Freemasonry, Ritual Architecture, and Masculine Archetypes*. 1st ed. (Knoxville: University of Tennessee Press, 2006), 34-35 and 77-87.

upper tier ticket sales, often the difference between profit and loss, to maintain class hierarchical seating. Theater managers claimed cinemas undercut prices of theatrical entertainment, but uncomfortable top tier seats played a role in the loss of revenue. In *The Theater of To-day*, published in 1914, critic Hiram Kelly Motherwell identified the shortcomings of legitimate theaters who continued hierarchical seating practices:

All of us who are obliged to take cheap seats in the theatre have realized many times that most theatres of the old style are built in utter contempt of the man with a small income. One feels that the architect thought he was doing us a favour to let us in at all. Many seats in the ordinary “horseshoe” theatre make the stage partly or wholly invisible. Very frequently the back of the balconies is so ill ventilated that the evening is torture.¹⁸⁸

One critic who investigated a legitimate theater gallery in 1918 found folding seats but with “straight metal backs shared by an entire row,” in which he sarcastically observed, “no expense has been spared to make it uncompromisingly rigid,” with no wire hat holder underneath the seat, and narrow, hard wood arms that had to be fought over with the neighbor.¹⁸⁹

For most working-class patrons, movie theaters became a more affordable, welcoming, and comfortable experience than the stuffy and distant views from the top tier of a theater. Penny arcades of the 1890s were the earliest architectural spaces to use film as a primary entertainment form. Arcades were crowded with customers standing at peep-show machines watching short films. The inexpensive experience appealed to urban

¹⁸⁸ Hiram Motherwell, *The Theatre of To-day* (New York: John Lane Company, 1914), 31. The arrangement of seats had started to change from a horseshoe to a straight row, most notably with Adler and Sullivan’s Chicago Auditorium (1889), seated with A H Andrews mechanical opera chairs. The new straight seating was related to a change to a more realistic method of acting. William Paul, *When Movies Were Theater: Architecture, Exhibition, and the Evolution of American Film* (New York: Columbia University Press, 2016), 45.

¹⁸⁹ Charlton Andrews, “The Top Balcony,” *Theatre Magazine* 27, no. 206 (April, 1918): 212.

denizens looking for a brief respite on their way to and from work. Arcades proved profitable and popular, but expansion required significant investment. The business model required individual screens for each patron. To increase business, owners had to purchase more machines and rent more space. Entrepreneurs explored a more scalable business model that capitalized on the popularity of film but required less significant and permanent investment in space and equipment: storefront nickelodeons.¹⁹⁰

Around 1905, nickelodeon owners adapted the shared experience of live theater to nickelodeon theaters in converted storefronts where dozens of patrons simultaneously watched films. Programs of no more than an hour typically included several short documentaries, comedies, and dramatic shorts. Exaggerated facial expressions and frenetic action of silent films were particularly suited to non-native English speakers. For the affordable price of a five-cent admission (as opposed to twenty-five cents for a top tier theater seat), nickelodeons provided a communal neighborhood experience to growing working class immigrant populations.¹⁹¹

To successfully attract penny arcade customers, nickelodeon owners had to modify expectations of individuals accustomed to a nearly complete control of their film viewing experience. In penny arcades customers selected a film from a variety of movie machines and started the film at a time of their convenience. Customers came and went as they pleased without significantly disturbing other patrons. Movie theaters, on the other hand, required dozens to come together simultaneously and focus on a single screen. A

¹⁹⁰ Nasaw, *Going Out*, 154-157.

¹⁹¹ Douglas Gomery, "The Movie Palace Comes to America's Cities," in Butsch, *For Fun and Profit*, 136-140.

restive audience would prove disruptive.¹⁹²

To erode audience expectations of control and to calm movement within the theater, nickelodeon owners followed the path of dramatic theaters and invested in opera chairs. Nickelodeon owners fitted out long narrow street-front spaces with chairs, a screen, and a projector. Early cinema historians often mythologized the storefront theaters by claiming that exponential growth between 1905 and 1910 was fostered by ultra-low cost and easy to improvise interiors. In a 1914 review of the history of the motion picture industry, *The Moving Picture World* offered a typical remembrance: “In the beginning, stores could be rented at a low figure and the cost of two or three hundred cheap folding chairs, a few yards of muslin and a projecting machine did not exceed five hundred dollars.”¹⁹³ In their zeal to distinguish new movie palaces from storefront nickelodeons, trade journals underplayed the careful planning and significant investment of many nickelodeon interiors. Images show that owners decorated interiors and supplied seating carefully designed to suit the experience of movie watching (**Fig. 3.47**). An article in the same journal six years earlier estimated the cost as high as \$7,000 to open a nickelodeon. Some of the estimated costs included woodwork \$1,750, walls \$525, staff work (decoration), \$550, painting, \$350, tile \$237, and projector \$175. An estimated cost of \$315 for all the seats was a small percentage of the total theater cost.¹⁹⁴

¹⁹² Nasaw, *Going Out*, 154-157.

¹⁹³ “Kinematography in the United States,” *Motion Picture World* 21, no. 2 (July 11, 1914): 176.

¹⁹⁴ Eileen Bowser, *The Transformation of Cinema, 1907-1915* (Detroit: Charles Scribner’s Sons, 1991), 3. In 1909, *Motion Picture World* estimated that a “very comfortable, substantial” un-upholstered seat cost \$1.40. At a nickel per showing, after 28 showings the seat would have recouped the cost. “Plain Talks to Theatre Managers and Operators, Chapter XXII: Seating,” *Moving Picture World* 5, no. 18 (October 30, 1909), 599; Paul, *When Movies Were Theater*, 63; “The Nickelodeon as a Business Proposition,” *Moving Picture World* 3, no. 1 (July 4, 1908): 61; A

Nickelodeon owners chose to sit audiences on veneer seats that were easily cleaned and comfortable for a one hour sitting (**Fig. 3.48**). The chair cost was unlikely a determining factor in the selection of veneer seats versus more comfortable upholstered seats, as the difference between a very cheap and a high-end opera chair was likely to be no more than two dollars per seat, an amount easily recovered. Third-tier audiences did not abandon live theater for nickelodeons because the seats were more comfortable; they chose to attend because nickelodeons were conveniently located, community oriented and lower cost.¹⁹⁵ An unsigned editorial in a 1911 edition of *Motion Picture World*, claimed that because nickelodeons reached young immigrants and families they were the “most important” form of cheap amusement; “the only theaters which it is possible for the entire family of the wageworker to attend.”¹⁹⁶ A man could take his wife and three children to the movies for the same price as a single gallery seat at a “regular playhouse” according to drama critic Walter Prichard Eaton. At a nickelodeon, Eaton argued, a working-class patron was “paying as much as anybody else, and getting as good a seat...on the ground floor, with his own kind, feeling as it were a kind of proprietorship in the playhouse.”¹⁹⁷

Opera seats brought the same behavioral controls as live theater and churches to

1914 classified advertisement confirmed the low cost of seats and projectors: \$500 for 300 opera chairs, 50 common chairs, and a barely used Edison Picture Machine; *Fremont Tribune*, October 1, 1914, p. 7.

¹⁹⁵ Nasaw, *Going Out*, 154-157. In 1909, *The Motion Picture World* discouraged motion picture houses from installing upholstered seats because “the audience remains seated such a comparatively short time,” but did recommend hat racks for both men and women. “Plain Talks to Theatre Managers and Operators, Chapter XXII: Seating,” *Moving Picture World* 5, no. 18 (October 30, 1909): 599.

¹⁹⁶ “Observations by our Man About Town,” *The Motion Picture World* 8, no. 16 (April 22, 1911): 879.

¹⁹⁷ Walter Prichard Eaton, “Class-consciousness and the ‘Movies’” *The Atlantic Monthly* (January, 1915): 49-51.

nickelodeons, but whereas control in those institutions protected the bodies of the middle-class, nickelodeon seats provided a haven for working class women. For generations working class women were limited from participation in commercial leisure by economic and moral restraints. Nickelodeons were one of the first affordable opportunities for lower-income women to experience public entertainment that was not considered morally corrupt. Women could take a break from housework and child rearing and socialize with neighbors. As opera chairs in legitimate theaters protected middle class women, so fixed opera chairs in nickelodeons provided working-class women an assigned zone under her control that discouraged unwanted male attention. Wives also used nickelodeons to entice husbands from saloons where they spent wages needed to support the family.¹⁹⁸

Nickelodeons proved immensely popular among families in immigrant neighborhoods. In 1905, any one city held but a scattering of nickelodeons. One year later, Chicago alone had more than one hundred and by 1907 there were more than two thousand nationwide. Some estimated the number at over ten thousand by 1910.¹⁹⁹ After 1910 nickelodeons were joined by neighborhood movie houses that resembled small-scale live theaters, often with balconies and box seats. In 1916, the *Exhibitors Herald* estimated that movie houses seated 16 million people every day.²⁰⁰

Neighborhood movie theaters were intimate environments in which local ethnicity

¹⁹⁸ Peiss, 'Leisure and the 'Woman Question,' 111.

¹⁹⁹ Exact nationwide numbers are difficult to find, as the theaters went in and out of business quickly but in 1908 there were fifteen nickelodeons in Grand Rapids, Michigan, in 1909 Philadelphia had 184. Chicago had 407 in 1909, and 650 by 1912. Gomery, "The Movie Palace," 137.

²⁰⁰ "A Newly Invented Cinematograph Screen That Does Not Need Darkness," *Exhibitors Herald* (May 6, 1916), 26.

shaped audience experience.²⁰¹ In her close study of working-class Chicago, Lizabeth Cohen found that Italians yelled at the screen of silent films and played Italian music along with movies while Polish theaters enacted Polish plays between films. Ushers were boys drawn from the local community, and amateur nights highlighted local talent. Folding opera chairs helped to regulate a familiar, but potentially raucous environment.

Along with ethnic pride came ethnic bigotry. The Commercial Theater in South Chicago banished Mexican and black ticket-holders to the balcony, and set aside the main floor for white ethnic audience members, a practice common in Southern cities (**Fig. 3.49**). One Chicago manager offered an excuse familiar from the history of segregated seating in legitimate and variety theaters that “White people don’t like to sit next to the colored or Mexicans.”²⁰² Managers typically banned African Americans from theaters without balconies. In Northern cities where segregation was technically illegal, managers compensated with unofficial discriminatory practices such as using ushers or police to segregate clientele by forcing them to sit in less desirable rear seats.²⁰³ In 1914 Mary E. Scott, a white woman from Chicago, sued the Motion Picture Company of Illinois after she and her black employee Hattie Jones, were not allowed to sit in box seats purchased by Scott. Following established protocol, the manager recommended that the women sit together in the balcony, or the white Ms. Scott could sit in the box alone, but that “his white patrons did not care to sit in boxes with colored people.”²⁰⁴

²⁰¹ Lizabeth Cohen, *Making a New Deal: Industrial Workers in Chicago, 1919-1939* (New York: Cambridge University Press, 2008), 123. Cohen’s in-depth study found that the familiarity of the neighborhood theater strengthened connections to the local ethnic community.

²⁰² Quoted in Cohen, *Making a New Deal*, 123.

²⁰³ Nasaw, *Going Out*, 172.

²⁰⁴ “The Courts,” *The Crisis* (January 1914), 116; for other descriptions of resistance to Jim Crow

The popularity of neighborhood working-class movie theaters encouraged entrepreneurs to design interiors that would attract middle and upper-class patrons.²⁰⁵ After 1910, larger centrally located movie “palaces” in purpose-built structures offered a shared film-going experience designed to appeal to middle and upper-class customers. The widely read industry trade journal *Moving Picture World* encouraged movie palace owners to differentiate their interiors from neighborhood theaters and nickelodeons. The paper noted that society newspapers believed a typical five cent theater was “a breeder of crime,” and that a “bacteriologist [sic] probably would say a breeder of microbes.” “Some of these places are perfectly filthy,” the magazine continued, “with an air so foul and thick that you can almost cut it with a knife...everybody spits on the floor.”²⁰⁶ The elitist attitude toward working class bodies considered dirty and foul smelling may have been related to changes in bathing technology. Between 1900 and 1920, indoor plumbing and bathtubs were the norm for middle-class households, but had yet to reach most working-class apartment buildings.²⁰⁷ Owners avoided veneer seats and their unhygienic association with working class bodies in cheap seats, in favor of upholstered opera seats familiar to patrons who attended legitimate theater.²⁰⁸ Upholstered opera seats comforted

seating in motion picture houses see *The Crisis* (April, 1912), 228; (November, 1913), 323; (January 1914), 117; (November, 1914), 11; Attempts to open separate movie theaters for black audiences by white and black owners were met with violent resistance. *The Crisis* (April, 1911), 11; (April, 1912), 228; (August, 1914)

²⁰⁵ Nasaw, *Going Out*, 163.

²⁰⁶ “The Sanitary Theater,” *Moving Picture World* 8, no. 10 (March 11, 1911), 539.

²⁰⁷ On changing in bathing habits in the United States at the turn of the twentieth century see Jacqueline S. Wilkie, “Submerged Sensuality: Technology and Perceptions of Bathing,” *Journal of Social History*, 19, No. 4 (Summer, 1986): 649-664.

²⁰⁸ In 1908, only veneer chairs were advertised in *Moving Picture World*, targeted at nickelodeons. (American Seating Company of Grand Rapids, and Readsboro Chair Company of Readsboro, Vermont, and E. H. Stafford of Chicago), in 1914, as middle-class movie theaters opened, American Seating Company and A. H. Andrews of Chicago advertised upholstered opera chairs in

middle-class audiences as fifteen-minute shorts evolved into 90-minute feature films between 1910 and 1920.²⁰⁹

In a 1927 survey of American movie theaters, R. W. Sexton and B. F. Betts, Associate Editors of *The American Architect* heralded movie houses for democratizing the theater experience. “Today, rich and poor alike attend the theatre regularly... people of all classes sit side by side...all are made equally comfortable,” they declared. Sexton and Butts examined in detail movie palaces, grand ornate and “elaborate in the extreme.” It is unlikely that rich patrons were sitting cheek-by-jowl with immigrants and the working class as they claimed. Working-class Americans continued to attend local nickelodeon theaters as movie palaces were built, especially as the price of movie palaces increased in the 1910–1920 period. Lizabeth Cohen noted that during the 1920s Chicago’s ethnic working class rarely patronized the grand monumental movie palaces located downtown or in the expanding suburbs, but instead preferred smaller, local theaters that usually cost half as much for admission.²¹⁰

In a supremely condescending voice Sexton wrote that “the masses, reveling in luxury and costly beauty, go to the theatre, partly, at least, to be thrilled by the gorgeousness of their surroundings which they cannot afford in their home life.”²¹¹ The

the journal. Other manufacturers continued to advertise veneer chairs.

²⁰⁹ Bowser, *The Transformation of Cinema*, 125-128; Charles Harpole, *History of the American Cinema 2* (Detroit: Charles Scribner's Sons, 1990), 8.

²¹⁰ According to Lizabeth Cohen’s research, immigrant communities preferred to continue to patronize their local theaters. Cohen, *Making a New Deal*, 121; Eileen Bowser and Charles Harpole. *History of the American Cinema 2* (Detroit: Charles Scribner's Sons, 1990), 122; Gomery, “The Movie Palace,” 138.

²¹¹ Bowser, *The Transformation of Cinema*, 126, R. W. Sexton and B. F. Betts, *American Theatres of Today* (New York: Architectural Book Publishers, 1927), 14. Other major manufactures included the American Seating Company (Chicago), A. H. Andrews Co. (Chicago), Arlington Seating Co.

visual splendor was designed to clearly separate the movie palace from the nickelodeon and welcome a middle-class audience familiar with ornate interiors of dramatic theaters. Manufacturers designed movie palace opera seats to fit within baroque and phantasmagorical interiors. Philadelphia's Mastbaum Theater was decorated with the trappings of Versailles, including seats to match (**Fig. 3.50**), and Detroit's Fisher Theater was designed to feel like the interior of a Mayan palace, down to a totemic Mayan holding up the ends of theater chairs (**Fig. 3.51**). As one employee of seat maker Heywood-Wakefield reminisced "We went to work with pastry tubes, paint pots, and colored glass. And, what a job we did! We gave them gingerbread, whipped cream, cherries, and, for good measure, threw in a side dish of lemon ice" (**Fig. 3.52**).²¹²

Stadiums

Old men, young men, and small boys, who are confined in offices, shops, and factories...jumped about like colts, stamped their feet, clapped their hands, threw their hats in the air, slapped their companions on the back, winked knowingly at each other, and, viewing it from a baseball standpoint, enjoyed themselves hugely.
—*The New York Times*, 1888.²¹³

Eighteen thousand fans had gathered at the Manhattan Polo Grounds on Decoration Day in 1888 to emphatically root for their home team. (**Fig. 3.53**). Early-comers monopolized fifty-cent seats in the covered grandstands, while late arrivals took to the field and formed a horseshoe around the foul lines. Another sixteen thousand fans watched a simultaneous game in Brooklyn. The *Times* reported that "baseball was

(Arlington Heights, IL), Safford Mfg. Co. (Chicago), and Steel Furniture Co. (Grand Rapids, MI).

²¹² Raymond S. Reed, "The Rise of the Movie Seat," *Cavalcade* (New York: The Film Daily, 1939), 245.

²¹³ "Many Baseball Contests," *The New York Times*, May 31, 1888.

patronized to a larger extent in this vicinity than it has been for some time past.”²¹⁴ The sport was on a path to becoming an honorable and enduring American institution; yet just eight years earlier baseball had lost its way. Stadium attendance in 1880 was dismal after a decade rife with bribery, game throwing, gambling, drinking, and brawling. After stricter league regulations failed to bring back fans, team owners redesigned stadiums to woo a broad and diverse audience. To restore spectatorship, teams installed opera seats that classified individuals into hierarchical groups defined by seat type.²¹⁵

Baseball stadiums are a product of American industrialization when the architecture of modern society was constructed.²¹⁶ From 1870 to 1920, institutional

²¹⁴ “Many Baseball Contests,” *The New York Times*, May 31, 1888.

²¹⁵ The term stadium in its modern definition refers to “an enclosed area for sporting events equipped with tiers of seats for spectators.” As baseball organized the terms for the playing area evolved from fields, to grounds, to ball parks, to stadiums, although all the names continue in modern usage. See “stadium, n.” OED Online. March 2019. Oxford University Press. <http://www.oed.com.ezproxy.bu.edu/view/Entry/188620?redirectedFrom=stadium> (accessed April 17, 2019).

²¹⁶ Paul Goldberger authored an architectural history of ball parks and their relationship to the urban landscape, see Paul Goldberger, *Ballpark: Baseball in the American City* (New York: Random House, 2019). Gunther Barth provides an overview of the social history of ball parks from the game’s earliest days. See Gunther Paul Barth, *City People: The Rise of Modern City Culture in Nineteenth-century America* (New York: Oxford University Press, 1980), 148-191. Most scholarship on baseball history has been written by enthusiasts focused on players and only minimally or obliquely referenced the experience of fans. Donald Dewey’s 2004 book is an exception that offers insights and rich anecdotes of spectators; Donald Dewey, *The 10th Man: The Fan in Baseball History* (New York: Carroll & Graf Publishers, 2004). Eric Enders, *Ballparks Then & Now* (San Diego: Thunder Bay Press, 2015) is an illustrated overview of major league fields with historical photographs, Charles C. Alexander, *Our Game: An American Baseball History* (New York: Henry Holt, 1991) has an extensive bibliographic essay including numerous oral histories and firsthand accounts. Jerrold Casway, *The Culture and Ethnicity of Nineteenth Century Baseball* (Jefferson, NC: McFarland & Company, Inc., 2017) is more scholarly than most, and includes a history of Irish and African American players and spectators. Michael Benson, *Ballparks of North America: a Comprehensive Historical Reference to Baseball Grounds, Yards, and Stadiums, 1845 to Present* (Jefferson, NC: McFarland & Company, Inc., 1989) is an encyclopedic text full of statistical data. Newspaper reports and sports magazines reconstruct fan experience, though newspaper bias must be evaluated. Period photographs of stadiums provide snapshots of often candid behavior but tended to be taken on special days when the stadiums were particularly full – opening days, all-star and play-off games, or the World Series – so crowding may not have been as severe on other game days.

owners and managers sought certainty in the face of rapid social change by classifying individuals into groups and circumscribing their participation in the public sphere. In their desire to build a broad fan base, team owners designed stadiums to minimize social friction between men and women, native-born and immigrant, wealthy and working class, black and white spectators. Functional and aesthetic attributes of stadium seats created boundaries, delineated power, and communicated status among audience groups.

Like theaters and churches, stadiums are an auditorium form intended to entice large numbers of individuals to pay for a communal spectatorship experience. But unlike more intimate enclosed venues, stadiums sit thousands of spectators in enormous open spaces. Viewed across the chasm of the stadium, individuals are agglomerated into masses by seat type. Stadium seats act as one of the “‘machineries’ and regimes of representation” in American culture described by sociologist Stuart Hall as playing “a constitutive, and not merely a reflexive, after-the event, role”²¹⁷ As baseball stadiums developed and standardized, fellow fans, team owners, and newspaper reporters branded sections with class and ethnic attributes that were as much influenced by seat design as demographic composition. To sit on a bench in the bleachers, or a seat in grandstands or private boxes in the new stadiums was to become viscerally aware of one’s place within a group and within social hierarchies that extended beyond stadium walls.

Professional baseball developed in parallel with American industry: the game began in semi-rural areas, expanded into the heart of cities through entrepreneurial

²¹⁷ Stuart Hall, “New Ethnicities” in *Stuart Hall: Critical Dialogues in Cultural Studies* ed. David Morley and Kuan-Hsing Chen (London: Routledge, 2006), 444.

efforts, and entered a period of intense competition, followed by managerial consolidation and standardization. The wide-spread popularity of baseball was dependent on a diffusion of leisure time in 1840s. Predictable work schedules and a half day off on Saturday opened time for recreation. In sports, workers sought relief from the boredom and stress of ever more routine factory and desk jobs where competition was subsumed in favor of efficiency. Winning a baseball game was a moment when a young man experienced the romantic success and thrill of achievement through hard work that was frequently absent in his occupational life.²¹⁸ The excitement of competition was enhanced by the presence of spectators.

In the 1840s and 1850s friends, co-workers, wives, and girlfriends stood along the edges of playing fields or sat in carriages to watch games organized in vacant fields adjacent to cities (**Fig. 3.54**).²¹⁹ As cities expanded, construction frequently encroached at the edge-zone where baseball was played; teams had little incentive to build permanent architecture for spectators. “The great disadvantage attached to the Ball Clubs—which every year is increasing— is that of procuring grounds,” the *Brooklyn Eagle* grumbled in 1862, “the vacant lots and unfenced fields in the suburban districts and the vicinity of the city are every year becoming in more demand.”²²⁰

²¹⁸ Steven A. Riess, *City Games: The Evolution of American Urban Society and the Rise of Sports* (Chicago: University of Illinois Press, 1989), 60-63.

²¹⁹ Dewey, *The 10th Man*, 5-6.

²²⁰ The year Union Grounds was enclosed 3 teams in Brooklyn had to find new ball fields. Union Grounds was located in South Williamsburg at the intersection of Rutledge Street and Lee Avenue; “A New Club and New Ball Grounds,” *The Brooklyn Daily Eagle*, April 7, 1862; In May of 1862 the Yazoo & Mississippi Valley Railroad charged admission to a baseball field in Vicksburg. The railroad brought in 23 coaches of white and black people from the surrounding community about half of whom attended the game, no details on the interior architecture of the field have been found; *The Vicksburg Herald*, May 20, 1862, 3.

The April editorial in the *Brooklyn Eagle* may have caught the eye of William Cammeyer, the Brooklyn entrepreneur who built the first enclosed baseball park in the United States one month later (**Fig. 3.55**). Cammeyer created the ballpark to add summer income to his winter skating rink. Opened one year after the outbreak of the Civil War, he named the park Union Grounds, associating his stadium with an optimistic nationalism. Union Grounds was the first baseball park in the United States to charge a regular admission — 10 cents — and the first to have a fence to block the view of non-paying customers.²²¹ For a fee, spectators watched amateur teams seated upon benches scattered on the grounds.²²² “Ample accommodation was afforded to lady visitors, buildings having been erected especially for their use,” a local newspaper announced.²²³ Several hundred fans could watch the game from benches covered by a long wooden shed.²²⁴ The *Brooklyn Eagle* claimed the “chief object,” of the new grounds was “to provide a suitable place for ball playing, where ladies can witness the game without being annoyed by the indecorous behavior of the rowdies who attend some of the first-class matches... Wherever their presence enlivens the scene, there gentlemanly conduct will follow.”²²⁵

In the years after the Civil War, baseball became a money-oriented sport at the

²²¹ Dewey, *The 10th Man*, 29-30.

²²² Baseball had yet to professionalize. Cammeyer collected all the proceeds.

²²³ “Notices,” *The Brooklyn Daily Eagle* May 12, 1862, 2.

²²⁴ “Base Ball,” *The Brooklyn Daily Eagle* May 12, 1862, 15.

²²⁵ The newspaper estimated the inaugural game crowd size at 2,000 – 3,000 spectators, see “Out Door Sports,” *The Brooklyn Daily Eagle*, May 16, 1862, 2. Newspapers do not describe the type of seat in the covered area, but it was probably a bench, perhaps with a cushion; see also “A New Club and New Ball Grounds,” *The Brooklyn Daily Eagle*, April 7, 1862; and “An Old Baseball Man Dead,” *The Sun* (New York, NY) September 7, 1898, 5.

forefront of the commercialization of leisure in the United States.²²⁶ Ball park entry fees paid player salaries and the fees of visiting teams, police, and umpires.²²⁷ For the price of admission, professional teams promised spectators the thrill of fair competition, but friendly wagers that had merely enlivened the excitement of competition in the early years grew to corrupted play and instigate violence. In the 1880s, after a decade rife with newspaper reports of game throwing, drinking, and brawling, attendance collapsed. “Competition among the professional clubs ran so high,” early baseball historian Alfred Spinks wrote, “that bribery, contract breaking, dishonest playing, poolroom manipulation and desertion of players became so public that the highly respectable element of patrons began to drop out of the attendance.”²²⁸ Without regular income from entry fees, team finances collapsed.

In 1876, the National League of Professional Baseball Clubs [National League]

²²⁶ Commercial leisure existed in theaters and music halls, but the late nineteenth century saw a rapid expansion in the number and types of institutions offering entertainment and recreation for a price. See Richard Butsch, “Introduction: Leisure and Hegemony,” in ed. Richard Butsch, *For Fun and Profit: The Transformation of Leisure into Consumption* (Philadelphia, PA: Temple University Press, 1990), 3-27.

²²⁷ In 1877 the Albany Governors received \$12,699 from gate and grandstand, and \$830 from season tickets. The club paid \$5104 to visiting clubs, \$2,821 to players, \$561 for police and \$179 for umpires. See “Base-Ball,” *The Chicago Tribune*, December 22, 1878, 12.

²²⁸ Alfred Henry Spink, *The National Game* (St. Louis, MO: National Game Publishing, 1910), 11. A few newspaper reports of players in trouble for being in collusion with gamblers in the period include: In 1865 William Wansley, a player with the New York Mutuals, bribed his teammates to play poorly during a game against the Brooklyn Eckfords in one of the first documented cases of throwing a game “A Players Appeal,” *The Pittsburg Dispatch*, February 26, 1890, 6; Bill Carver was notorious for bribery and moved from team to team in the 1870s, “Sporting Base-Ball” *Chicago Tribune* July 6, 1879, 7; John Radcliffe was expelled by the Philadelphia Athletics in 1874 for throwing a game with the White Sox, *The Philadelphia Inquirer*, September 9, 1874; Dick Higham was expelled for bribing an umpire and colluding with gamblers, “Crooked Umpiring,” *Chicago Tribune*, June 25, 1882; Dick Higham and George Zettlein were released for throwing games in 1876, “A Chicago Comment,” *The Chicago Tribune*, February 4, 1876, 5; “Treacy and Zettlein in Trouble,” *Chicago Tribune* September 5, 1875.

formed to improve the debased reputation of the sport and rescue its finances.²²⁹ The league replaced player-managers with professional team managers, imposed a territorial system that limited the number of teams to eight, and enforced where, when, and whom teams played. The National League outlawed Sunday games and alcohol and set the lowest admission price at fifty cents to keep out twenty-five cent fans the league considered responsible for the worst behavior.²³⁰ The Cincinnati team reportedly also abolished “fast women” from its grounds.²³¹ Owners built covered grandstands with tiers of benches, a form adapted from the highbrow sports of boat and horse racing, to entice bourgeois men and women into attendance.²³² The reparative strategies failed. National League ball parks continued to struggle to attract enough spectators to cover costs.

The league had overlooked an enormous potential fan-base uncontaminated by the game’s immoral associations. Between 1860 and 1890, ten million immigrants arrived in the United States—most settled in larger cities where baseball was popular. By 1890 four out of five people living in greater New York had either been born abroad or were of foreign parentage. Irish, German, and later southern and Eastern European immigrants

²²⁹ The transformation of baseball from a local, class specific, entertainment into a nationalized organization was part of a broader trend to market to the masses that included theater and movie syndicates. See Butsch, “Introduction: Leisure and Hegemony,” 4.

²³⁰ Louisville, Cincinnati, New York, Philadelphia, Boston and Hartford were the original cities. In 1878 minor league teams in smaller cities could buy into the National League brand with a \$100 membership fee that recognize territorial rights, players’ contracts and black lists of banished players. See Alexander, *Our Game*, 25-28. Three Louisville Gray players were expelled from the league for intentionally losing several games at the end of the season. Dewey, *The 10th Man*, 59.

²³¹ “Base-Ball,” *Chicago Tribune*, April 13, 1879, 11.

²³² The earliest references found to “covered stands” or “grandstands” in American baseball appear in the 1877-1880 seasons. Covered stands appear in the following years and cities: 1877- Milwaukee, Boston, Chicago; 1878- Buffalo, Albany, Auburn, NY, 1879 -Cincinnati, Cleveland, 1888 - New Orleans. See *The Chicago Tribune*, July 5, 1877, 5; “Sporting,” *The Chicago Tribune*, May 11, 1879, 7; *The Chicago Tribune*, December 24, 1876 “Base-Ball,” *The Chicago Tribune*, April 13, 1879, 11; “Sporting Sparks,” *The Cincinnati Daily Star*, March 20, 1880, 6.

were mostly poor and working-class laborers fleeing famine and poverty. Unable or unwilling to pay the fifty-cent entry fee, unfamiliar with vestiges of conservative Protestantism that held Sunday sacred, and coming from cultures where alcohol was not so forcefully disparaged, urban immigrants did not attend National League games in large number.²³³

Wooden Stadium Era

In 1881, a group of wealthy baseball enthusiasts saw an opportunity to revive baseball by making the game attractive to working class and immigrant fans in cities overlooked by the National League. They formed the American Association of Baseball Clubs (the Association). The Association sanctioned alcohol sales at stadiums, permitted games on Sundays (where legal), and charged a base admission fee of twenty-five cents. The new strategy initially proved successful. The National League and several other major leagues joined the Association in a national agreement to limit competition for players and standardize rules. In 1883 professional baseball had its most profitable season. So many new teams were in operation that often multiple teams competed for fans in the same city and in 1884 most teams once again ran a deficit.²³⁴ To attract and retain fans from all socio-economic levels, clubs used seating designed to set behavioral expectations and to segregate spectators by class into clearly defined zones.

²³³ Charles N. Glaab and A. Theodore Brown, *A History of Urban America* (New York: Macmillan Publishing Co., Inc., 1983), 139-140. Between 1890 and 1920 another 18.2 million arrived, most from Eastern and Southern Europe. See Thomas Archdeacon, *Becoming American: An Ethnic History* (New York: Free Press, 1938), 113, 148.

²³⁴ Alexander, *Our Game*, 35-38 and 61-62.

Bleachers

For lower income fans, stadiums constructed massive tiers of benches (**Fig. 3.56**).²³⁵ Uncovered benches came to be referred to as “bleacher boards” or simply “bleachers” to differentiate them from covered grandstand benches.²³⁶ Exposed to the weather, bleachers received their moniker from the hours occupants spent exposed to a hot summer sun.²³⁷ Low skilled, low wage laborers nailed together plank lumber into hard, backless seats. Maintenance cost was minimal. Bleachers prioritized financial gain over spectator comfort (**Fig. 3.57**). Those who paid the twenty-five-cent entry fee could sit in bleachers for free, but there was no guarantee of a seat. Latecomers understood they might have to stand at the perimeter of the field when the ballpark sold admissions to more people than could fit in the bleachers, a common occurrence for popular game days.²³⁸

Some bleachers lacked aisles while others had aisles filled with seated

²³⁵ The eight teams of the National league teams continued to charge fifty-cent base admission, but in 1891 allowed clubs to charge twenty-five cents for uncovered bleacher seats and standing room. The league also allowed baseball on Sunday in Cincinnati, St. Louis, Chicago and Louisville. See Alexander, *Our Game*, 61-62.

²³⁶ The earliest reference to uncovered tiers of benches is from a holiday game in Chicago in 1877 when the team extended a row of benches around the outfield, although it may have been a temporary solution. See *The Chicago Tribune*, July 5, 1877, 5. For the 1879 season the Albany Governors built a 2,000 seat grandstand, 5,000 additional fans could sit “on the side rows of seats” and in a space for 150 to 200 carriages. See *The Buffalo Commercial* (April 15, 1879), 3. The term “bleachers,” appears in newspaper reports of the late 1880s, the earliest reference found is in a January 24th, 1888 article describing Recreation Park in Pittsburgh in which, paradoxically, the park was considering covering the benches with awnings to keep out the sun and rain. The term was used liberally in 1888, sometimes with quotes and sometimes without, and seemed to have been in common parlance. “We May Fly the Pennant,” *The Pittsburgh Press*, January 24, 1888, 5.

²³⁷ Whitening fabric was done by laying on benches and tables in the sun, an alternative to chemical bleaches that were just coming into wide usage in the late nineteenth century.

²³⁸ The closeness of fans resulted in frequent interference in game play. On opening day of Fenway Park in 1912, fans insisted on being in the outfield turning all hits into ground rule doubles. “Sox Open to Packed Park,” *The Boston Daily Globe*, April 21, 1912, 1.

spectators.²³⁹ The design forced bleacher denizens to step on seat surfaces and push one another out of the way to squeeze their body onto a seat dirty from the dozens who had previously stepped on it or used it as a foot rest (**Fig. 3.58**).²⁴⁰ A fan fortunate to secure a bleacher seat was understandably hesitant to leave it. To use the restroom or get refreshments he had to climb back around and over other fans. Someone else could take his empty seat with impunity. Ownership of a section of bench was contingent on his physical presence or the goodwill of seatmates. To compensate for the loss of income from fans reluctant to forfeit their seats, stadiums sent walking vendors to sell hot dogs, peanuts, Cracker Jacks, and beer to bleacher fans. Seat- and foot-well width defined the front-to-back separation between bodies, but side-to-side separation on bleachers was unfixed. A bleacher's capacity was only limited by a culturally-defined minimum acceptable separation of bodies.²⁴¹ The space a spectator received was set by his body width and the sharpness of his elbows (**Fig. 3.59**). Indecorous squirming and continual shifting of posture was inevitable when fans were crushed together on bleachers. Owners presumed closely-packed seating to be more acceptable to all-male bleacher audiences composed primarily of European immigrants and other members of the urban working class, populations in which culturally defined personal space was much smaller than

²³⁹ In 1901, the new Huntington Avenue Grounds in Boston planned to build bleachers with several aisles left "for the accommodation of the patrons." "Hunting Av Grounds," *The Boston Globe*, February 3, 1901, 17.

²⁴⁰ In 1907 the Wilmington Delaware minor league stadium rebuilt its bleachers to add more space so that "those in the bleachers will not have to sit in the same place on which the people passing up and down will walk." *The Morning News* (Wilmington, Delaware), March 28, 1907, 8.

²⁴¹ In 1910 Comiskey Park, home of the Chicago White Sox, affixed "wedges" every eighteen inches to discourage those seated upon the covered benches in the pavilions from taking up too much space, but that was exceptional. *The Lincoln Star*, July 6, 1910, 10.

among mixed-gender middle-class native-born Americans.²⁴² Bleacher patrons jumped up frequently not only to root their team and express frustration over game play, but also to relieve cramped muscles and tired backs.

Owners provided bleachers that set aside a place for immigrant and low-income native-born men to call their own within the national pastime. Immigrants gained a sense of belonging that anchored them in American society — although in the least comfortable seats in the stadium.²⁴³ Extremely intimate, bleachers engendered camaraderie through solidarity. Fans suffered exposure to the searing sun and icy rain seated on hard boards while struggling to see the action from their distant perch. Bleacher audiences formed a proud rooting contingent that overcame ethnic differences. A Buffalo sportswriter commented on the single mind of bleacher fans in 1911: “The bleachers at a baseball game are a great deal like the gods at a theatrical performance. It doesn’t take long for an idea once promulgated to spread among them.”²⁴⁴

Reporters, owners, and fans logically compared bleachers to inexpensive seats in the upper tier galleries of theaters. Leagues priced bleachers at the same twenty-five cent admission as theater gallery seats. Teams placed bleachers farthest from the infield where most of the baseball action occurred often with a separate entrance, akin to the marginalization and isolation of gallery seats. Like wood-veneer gallery seats, bleachers were the least comfortable in the venue, subjected patrons to uncomfortable temperatures,

²⁴² Robert Sommer, *Personal Space: The Behavioral Basis of Design* (Englewood Cliffs, NJ: Prentice-Hall, Inc., 1969), 26-42.

²⁴³ Barth, *City People*, 186.

²⁴⁴ “Pity the Poor Bleacherite,” *St. Louis Post-Dispatch*, July 9, 1911, 17; “The Whistling Coon,” *The Buffalo Morning Express and Illustrated Buffalo Express*, April 23, 1891, 8.

and placed patrons farthest from refreshments. Just as critics focused on boisterous spectatorship of “gallery gods,” in theater reviews, newspaper reporters often highlighted fervent criticism by “bleacherites” and “bleacher bugs,” expressed through heckling, loud chants, name calling, whistling, and throwing objects on the field.²⁴⁵

Sports writers expressed a begrudging respect for bleacher fans to which they attributed a profound knowledge of the game, but also cast bleacher audiences as scapegoats for any interruptions to game play.²⁴⁶ In 1896, the *Washington Times* referred to the Pittsburg bleacher population as “galvanized gorgons of egregiousness.”²⁴⁷ Several newspapers implicated Irish immigrants as particularly irascible bleacher fans. In 1893, *The Cincinnati Enquirer* nicknamed the local stadium bleachers the “Kerry Patch” a derogatory name for low-income Irish ghettos.²⁴⁸ *The Evening World* referred to the bleachers at New York’s Polo Grounds in 1894 as Burkeville—a suggestion that it

²⁴⁵ Unforgiving hardwood planks could be softened somewhat by a cushion, rented at five cents. Cushions also served as handy projectiles that bleacher occupants used to express their displeasure. “Baseball Gossip,” *The Cincinnati Enquirer* May 5, 1894, 2; “His Idea,” *The Fairmont West Virginian* (Fairmont, West Virginia) February 24, 1920, 8; *Salt Lake Telegram* April 1, 1915, 3; *The Times* (Shreveport, Louisiana) September 28, 1919, 8; *The Cincinnati Enquirer* (May 5, 1894), 2. A representative selection of reporting that mentions “bleacherites” between 1895 and 1900: “Indians Take Them Both,” *Kansas City Journal* August 23, 1897; “Colonels’ Great Finish,” *The Courier-Journal* (Louisville, KY), June 17, 1899, 10; “Baseball Gossip,” *The Pittsburgh Press*, September 6, 1899, 5; “The Ball Team Captains of the National League,” *Stevens Point Journal* (Stevens Point, WI), May 24, 1900; “Sporting News,” *The Buffalo Courier*, May 12, 1895, 20; “Diamond Flashes,” *The Baltimore Sun* May 4, 1897, 6; “Bleacherites Threw Constable Out,” *The Baltimore Sun*, May 28, 1900, 6; “On the Bleachers Shrewd Boys Show more Wisdom than Those in The Grandstand,” *The Buffalo Enquirer*, June 1, 1898, 6; “Protests, Rowdyism and Worcester Won,” *Rochester Democrat and Chronicle* (Rochester, NY), July 16, 1899, 18; *Washington Times* (Washington, District of Columbia) May 12, 1896, 3; *Evening Star* (Washington, District of Columbia) April 4, 1896, 2.

²⁴⁶ Richard Butsch described a similar respect for women as “true lovers of drama,” in the gallery of theaters who replaced working-class men, prostitutes, teen-age boys and African Americans in the second decade of the twentieth century. Richard Butsch, *The Making of American Audiences from Stage to Television, 1750-1990* (New York: Cambridge University Press, 2000), 127.

²⁴⁷ *Washington Times* (Washington, DC), May 12, 1896, 3.

²⁴⁸ “One Each,” *The Cincinnati Enquirer* August 7, 1893, 2.

contained Irish fans of Giants second basemen Eddie Burke—and as a “Coxey Army,” an allusion to an 1894 protest march of unemployed workers in Washington, D. C. that turned violent under police suppression.²⁴⁹ In 1898, *The Kansas City Journal* used vernacular dialog to portray bleacher patrons as non-white in a supposed complaint from the bleachers that “dey’s playn’ de game, but dey can’t hit a b’loon t’ day.”²⁵⁰

Although sports writers constructed bleacherites as immigrants and non-white, bleacher audiences were likely diverse in class and ethnicity. Photographs show men and boys dressed in coats, ties, and hats make up most bleacher fans (**Fig. 3.60**). At least one bleacher patron complained of a disreputable characterization in a letter written to the local paper to complain when the Washington’s Nationals Stadium relocated twenty-five cent bleachers farther afield in 1896:

This is the response to the class who have been the most liberal in supporting the club... Those who patronized the bleachers were not hoodlums or ignoramuses. They were men of intelligence and refinement, for the most part employees of the various departments receiving moderate salaries, who enjoyed the national game and whose presence added life and interest to the sport and gave encouragement to the players, but whose limit is twenty-five cents.²⁵¹

Bleacher fans got most, but not all the blame for misbehavior in stadiums. In 1898 it was reported Colonel Rogers, part owner of the Phillies, was disappointed the league did not enact legislation “against the frequent indecent, profane and disorderly conduct of

²⁴⁹ “Six Great Big Runs,” *The Evening World* (New York, NY) June 16, 1894, 1; On Coxey’s Army see Nell Irvin Painter, *Standing at Armageddon: The United States, 1877-1919* (New York: W. W. Norton & Co., 1987), 121.

²⁵⁰ “Was Too Much Bumpus,” *Kansas City Journal*, June 6, 1898, 5; Another example was published in Buffalo in 1891, see “A Story about Jay Faatz,” *Buffalo Courier* (Buffalo, NY), March 30, 1891, 8.

²⁵¹ “National Park Bleachers,” *The Evening Star* (Washington, DC), April 4, 1896, 24.

the people in the bleachers and occasionally in the grand stand.”²⁵² Rogers’ admission that inappropriate behavior also took place in the grandstand and not just the bleachers was unusual but not unprecedented. A year earlier the *Buffalo Enquirer* reported that “the rank partisans, *and they are not all bleacherites*, sometimes resort to extreme methods to disconcert the players of the opposing team and bulldoze the umpire [*italics mine*].”²⁵³

The presumption that bleacher fans were problematic reflected anxieties of the press and by extension newspapers’ middle-class readership as immigrants continued to flood into cities. Between 1890 and 1920 another 18.2 million arrived, most from Eastern and Southern Europe.²⁵⁴ When reporters and owners used the collective terms “bleacherite” and “bleacher bug” they erased class, race, and ethnic diversity of bleacher patrons by lumping them all into a sub-human category, like a swarm of ants. The representation of bleacher fans as an alien mob derived from elite Americans’ fear of riots and labor unrest in the late nineteenth century.²⁵⁵ Categorization and corralling people by class, race and, ethnicity in stadiums was more than an expression of

²⁵² “Col. Rogers Would Have Rowdy Bleacherites Disciplined,” *The Philadelphia Inquirer*, March 12, 1898, 4.

²⁵³ *The Buffalo Enquirer* (Buffalo, NY), April 12, 1897, 8.

²⁵⁴ Thomas Archdeacon, *Becoming American*, 113 and 148.

²⁵⁵ The Astor Place Riot was followed by periodic high-profile violent class-conflicts, among them the tailors’ strike (1850), New York City Draft Riots (1863), the railroad strike (1877), The Haymarket Strike (1886), and the Pullman Strike (1894) as well as numerous strikes over the length of the work day, income, and working conditions. On class-based tensions around these events see Sean Wilentz, *Chants Democratic*, 380; Gary Cross, “Worktime and Industrialization: An Introduction,” in *Worktime and Industrialization: an International History* ed. Gary Cross (Philadelphia: Temple University, 1988), 3-20; Sven Beckert, *The Monied Metropolis: New York City and the Consolidation of the American Bourgeoisie, 1850-1896* (New York: Cambridge University Press, 2001), 235; Daniel T. Rodgers, *The Work Ethic in Industrial America 1850-1920* (Chicago: Chicago University Press, 1978), 69; Painter, *Standing at Armageddon*, 121-125; and David Montgomery, *The Fall of the House of Labor* (New York: Cambridge University Press, 1999), 175-180.

omnipresent late nineteenth century xenophobia; it reflected rising inequality and a growing unease with the potential violence and political power of an expanding urban working class.

Team owners assuaged the anxiety of middle-class patrons by building clearly defined boundaries between the bleachers and those seated upon benches in the grand stand—a space associated with genteel “ladies” and their escorts.²⁵⁶ Owners set up separate ticket windows and entrances, distanced bleachers from grandstands, and erected fences and barbed wire to restrict and police bleacher fans (**Fig. 3.61**). In 1902, The Cincinnati Reds chose an aesthetic separation to separate the higher status seats from “the half dollar people” who sat on five-person benches: “a heavy chain of artistic design.”²⁵⁷ Bleacherites resisted their second class status and stampeded the field in 1908, after Dodgers President Ebbets installed barbed wire over the centerfield wall, placed Pinkerton security guards on the field, and threatened to abolish twenty-five cent admission.²⁵⁸ Owners of Chicago’s West Side Club reportedly arranged their newly built stadium stands in 1893, so “the patrons of the bleachers... cannot mix with the fifty-centers and separate passages prevent the commingling of the half dollar cranks [a term for fervent fans] with the enthusiasts who will occupy opera chairs and boxes in the grand

²⁵⁶ *St. Louis Post-Dispatch*, April 27, 1874, 4; *Chicago Tribune*, March 8, 1871, 4; Chicago July 29, 1871, 4;

²⁵⁷ *The Cincinnati Enquirer* (Cincinnati, Ohio) March 27, 1902, 4.

²⁵⁸ Baltimore’s Union Park, Boston’s Red Stockings, the New York Polo Grounds and Chicago’s West Side Park also separated bleachers from grandstands with barbed wire; “Panic at a Fire,” *Chicago Tribune*, August 6, 1894, 1; “Great Work by Harry McIntire Wins First Brooklyn Victory,” *The Brooklyn Daily Eagle*, April 17, 1908, 22; “The Wired Baseball Bleachers,” *The New York Times*, May 9, 1909, 18; “A Wild Panic,” *The Newton Daily Republican* (Newton, KS) August 6, 1894; Trenton also separated its fans in bleachers from the grandstand with a fence, *The York Daily* (York, Pennsylvania) February 11, 1907, 3.

stand for which privilege they will pay seventy five cents and \$1” (Fig. 3.62).²⁵⁹

Opera Seats

To attract more middle-class spectators, the West Side Club was one of the first stadiums to replace backless benches in grandstands with opera chairs.²⁶⁰ Opera chairs introduced the control, comfort and physical support needed to display genteel manners — characteristics absent from bleachers and benches. Four decades after they were first installed in legitimate theaters, middle-class spectators had come to associate opera chairs with a physically and morally clean entertainment free from corruption, vulgar behavior, and unclean bodies.²⁶¹ Stadium owners appropriated the tactic theater proprietors used when they installed innovative opera chairs in the 1850s to displace a rowdy male dominated audience in the pit with well-behaved middle class men and women.²⁶² Stadium owners hoped the highly visible presence of genteel women would broadcast

²⁵⁹ “A Rally,” *The Cincinnati Enquirer*, May 15, 1893, 2; In reporters writing there was a hierarchy in fan hardiness in which “bleacherites” outranked middle-class “cranks,” seated in the grandstand. A local Rochester newspaper reported that at an 1899 game the cranks grew hoarse from their cheering and called in a bleacherite “of astounding vocal ability,” to help out. “Eastern League,” *Democrat and Chronicle*, August 31, 1899, 12. Patrick R. Redmond, *The Irish and the Making of American Sport* (Jefferson, NC: McFarland & Company, Inc., 2014), 145.

²⁶⁰ Based on newspaper reports, at least two stadiums installed opera chairs in the 1880s: Cincinnati’s Union Club (1884), and Philadelphia’s Baker Bowl (1887). New York’s Polo Grounds planned to install opera chairs or settees with iron arms separating seats in (1886), Buffalo’s Olympic Park (1884) had “armchairs” in the grandstand but it is unclear if they were moveable standard chairs, or manufactured opera chairs. In 1890 and 1891 five stadiums installed opera chairs – Boston’s Atlantic Park, Baltimore’s Union Park, Chicago’s South Side Park, Pittsburgh’s Exposition Park and San Francisco’s Polo Grounds. In the ensuing two decades several teams each year installed opera seats their stadium.

²⁶¹ Dewey, *The 10th Man*, 81.

²⁶² Boxing arenas also installed opera seats in the early nineteenth century, and in 1914 *The Boston Globe* commented that some fans were disappointed in the additional because they believed it undermined the excitement of the sport. “Boxing Fans Want Excitement Regardless of Comfort,” *The Boston Globe*, April 4, 1914, 7.

respectability, elevate a team's reputation and broaden its customer base in a competitive market.

“To cater to the best class of people,” in his new ballpark the President of the Oakland Oaks separated entrances for grandstand and bleachers and installed opera seats in the first three rows of the grandstand.²⁶³ Patrons willing to pay an additional twenty-five to fifty cents received greater comfort and security in grand stand opera seats. Stadium opera seats were individual, numbered, and most stadiums set aside blocks of seats that could be reserved. A purchaser of a reserved seat knew exactly where he or she would be sitting, arrived at the game at a leisurely pace, and could choose in advance not to attend if no acceptable seats were available, rather than face the uncertainty of competing for an unreserved seat upon arrival. Grandstand opera chairs were close to restrooms and concessions. Stadium owners logically assumed that a fan willing to spend a little bit more for a comfortable seat with a good view, was also likely to spend money at the concession stands. Unlike bleacher seats, opera chair purchasers could leave their seat without worrying it would be taken by another.

Like theaters, the extra cost of stadium opera seats reassured women of the class of patrons seated nearby. In 1884, a gentleman at the stadium in Buffalo, one of the earliest stadiums to install opera seats, could pay seventy-five cents (fifty cents general admission plus a twenty-five-cent surcharge) for “an armchair next to his lady friend.” Her seat cost thirty cents. Stadiums set aside ladies' sections in which men without a

²⁶³ “New Ball Field Shows Result of Hard Hustling,” *Oakland Tribune* (Oakland, CA), February 4, 1913, 13.

female charge were prohibited. One newspaper described the non-smoking ladies section filled with armchairs “from which they can smile upon the horrid men and watch them wriggle on the soft side of a plank trying to find an easy spot.”²⁶⁴

Whereas in bench seats a woman was easily kicked or shoved by an overly excited or inebriated fan, the seat backs and arms of opera chairs reduced the likelihood of physical contact with strangers. Like theater seats, the high backs and arms of opera chairs helped a fashionably dressed, corseted, and bustled woman maintain poise and grace that would have been nearly impossible as she wobbled on the edge of a bench. Chair arms assigned a place to rest hands, a place to grip to exit and enter a chair gracefully, and a physical barrier from adjacent audience members. Seated in opera chairs, spectators focused their attention on the game rather than other spectators as they relaxed in comfort and displayed a seemingly effortless restrained and genteel posture.²⁶⁵

Stadium chairs provided relaxed and comfortable support – arms and chair backs - that calmed the bodies of men, restrained their mobility, and tutored them in consideration of others. Whereas men of all socio-economic status had participated in betting, drinking stamping, shouting and other raucous expressions of spectatorship in the early years of American sports, by the 1880s controlled behavior in public separated middle-class men from the working class.

²⁶⁴ General admission was fifty cents and twenty-five cents for minors; a grandstand seat cost an additional fifteen cents. Cincinnati also installed opera seats in its ball park in 1884 see *The Buffalo Commercial* (Buffalo, New York), March 8, 1884, 3.

²⁶⁵ Peiss, “Leisure and the Woman Question,” 108-109; and Rotundo, *American Manhood Transformations*, 19-20.

Concrete and Steel Era

A standard arrangement of stadium seating emerged in the 1890s as wooden stadiums susceptible to fire began to be rebuilt with steel and concrete. Many stadiums built between 1905-1915 remained in use for fifty years or more.²⁶⁶ Owners and reporters characterized fans in the new stadiums by section and seat price. In addition to bleacherites, “fifty centers” sat in typically unreserved grandstand opera chairs along the baselines, and “enthusiasts,” paid seventy-five cents to one-dollar for reserved seats closer to home plate.²⁶⁷ Manufacturers offered stadium opera seats with ornate or plain standards, slat or solid seats and backs, and wood or metal arms to accentuate price differentials within the stadium (**Fig. 3.63**). Heywood Wakefield offered a version with the shapes of a baseball glove, baseball, and bat woven into its swirling, vaguely rococo standard. To seat the most fervent fans comfortably, manufacturers offered chair end caps emblazoned with a team logo so fans could figuratively wear the team’s insignia during a game (**Fig. 3.64**).

Forbes Field in Pittsburgh, opened in 1909, typified the standard arrangement and

²⁶⁶ Wooden stadiums burned frequently and were quickly rebuilt with bleachers, sometimes in only a few weeks, Bob McGee, *The Greatest Ballpark Ever: Ebbets Field and the Story of the Brooklyn Dodgers* (New Brunswick: Rutgers University Press, 2005), 44; Benson, *Ballparks of North America*, 39-40. Fenway Park (1912) and Wrigley Field (1915) are in use in 2019.

²⁶⁷ Newspapers referred to fans who could afford to pay more than twenty-five cents for bleacher seats, but less than seventy-five cents for opera chairs as “fifty centers,” or “half dollar” people. The papers implied that they were enthusiastic fans but needed to be separated from the higher-class patrons in opera seats and boxes. *The Cincinnati Enquirer* (Cincinnati, Ohio) March 27, 1902, 4; Stadiums with the 25¢/50¢/75¢ hierarchy included: Baltimore (1890), *The Boston Globe*, May 21, 3; Detroit Tigers (1902), *Detroit Free Press*, April 5, 1902, 10; New York (1903) - *Detroit Free Press*, June 14, 1903, 17; Atlanta (1907), *The Atlanta Constitution*, June 12, 1907, 11; Cleveland (1910) - *Detroit Free Press*, April 24, 1910, 15; Vancouver Beavers (1913) - *Vancouver Daily World* (Vancouver, British Columbia, Canada), April 15, 1913, 14; Indianapolis (1914) – *The Tribune* (Seymour, IN) April 20, 1914, 2; Salt Lake (1914) – *The Ogden Standard* (Ogden, UT), March 23, 1914, 2.

distribution of seats that has come to characterize modern stadiums (**Fig. 3.65**).²⁶⁸ A double-tiered grandstand wrapped around the infield. In an echo of the theater dress-circle, semi-private boxes separated by a pipe fence and a walkway ringed the front of each tier (**Fig. 3.66**).²⁶⁹ The lower tier boxes contained fixed opera chairs with cast iron standards, wood veneer seats, solid backs with a slight curve to cradle the body and scrolled wooden arms. Cold metal did not touch the body. The appearance closely resembled theater seats, including an inset panel imitating upholstery.²⁷⁰ A second set of private boxes hung from the front of the second tier but instead of full back opera chairs, second tier boxes were outfitted with lightweight moveable folding seats. Protected from random interactions with other fans, there was no need for the structural controls of fixed opera seats (**Fig. 3.67**). Stadium owners presumed patrons who paid the higher price ticket for box seats had the discipline not to toss their moveable chairs onto the field. It was not uncommon for spectators in the grandstands and bleachers to throw cushions, pop bottles and other “baseball vegetables” at players; and especially at umpires, who had come to represent a generic authority figure upon which all could direct their frustrations from both in and outside the stadium.²⁷¹ A narrow row of seven-seat private boxes was

²⁶⁸ Zachary Davis, architect of Wrigley Field (1914) and the president and architect of St. Louis’ stadium (1910) visited while the grandstands were under construction; see *The Pittsburgh Press*, May 9, 1909, 16, and *The Pittsburgh Press*, June 8, 1909, 14.

²⁶⁹ Stadium chairs were made by Heywood Wakefield, and a second company, probably Thomas Kane Company of Chicago. Heywood Brothers and Wakefield Company, *Opera Chairs Public Hall Seating*, Boston, ca. 1912 “Champions Will be Here Tomorrow,” *The Pittsburgh Gazette Times*, May 9, 1909, 16,

²⁷⁰ It is unclear in photographs, but the center panel was probably tongue and grooved wood to accommodate for the natural movement of wood due to humidity changes.

²⁷¹ “750,000 Baseball Park for Brooklyn,” *The New York Times*, January 3, 1912. “Johnson Comes to Town,” *Nebraska State Journal*, March 18, 1909, 5; “Umps Job in the South a Mighty Unpleasant One,” *New Castle Herald* (New Castle, PA), May 8, 1908, 8.

arranged on top of the second tier, also filled with moveable chairs (**Fig. 3.68**). Private boxes contained seven or eight seats and sold for \$1.25 per seat. Elevators lifted fans to the second and third tier. Seven rows of reserved opera seats rose from behind the private boxes on the first level, followed by twenty rows of unreserved opera seats to the back of the tier. The opera seats combined an ornamented cast iron opera chair standard, complete with cane and umbrella rack, with a flat wood slat back and seat more reminiscent of a park bench than a theater seat (**Fig. 3.69**). Reserved opera chairs filled the second tier behind the private boxes. Grandstand opera chairs sold for \$1.00. Access to a set of bleachers close to the grandstand along the left field line cost \$0.50 and access to a second set of bleachers farther out along the right field line cost \$0.25. The stadium sat approximately 26,200 spectators: 2,300 in private boxes, 17,700 in reserved and unreserved grandstand seats, 5,000 in left field bleachers, and 1,200 in the right field bleachers. An estimated 10,000 spectators could stand on the field. Grandstand ticket holders, season box tickets, and left and right bleacher fans each used separate entrances.²⁷²

Separate sections defined and bounded by seat furniture attracted and retained a broad fan base as leagues jockeyed for institutional dominance.²⁷³ Teams that did not

²⁷² “Forbes Field, the World’s Finest Baseball Grounds,” *The Pittsburgh Post*, June 27, 1909, 6. “To cater to the best class of people,” in his new ballpark the President of the Oakland Oaks also separated entrances for grandstand and bleachers and installed opera seats in the first three rows of the grandstand, “New Ball Field Shows Result of Hard Hustling,” *Oakland Tribune* (Oakland, CA), February 4, 1913, 13.

²⁷³ The standard distribution of prices was twenty-five cents for admission to the park with access to the bleachers or the right to stand along the sidelines. For a fifteen to twenty-five cent surcharge a fan entered the grandstand and sat on a shared unreserved bench or opera seat in a section sometimes referred to as the pavilion. An additional fifty to seventy-five cents purchased reserved grandstand opera seats, and one dollar or more purchased a reserved box seat. In 1913, *The Boston*

upgrade and segregate seats for middle-class men and women failed in the market. In 1890, the president of the Players League argued that the National League was losing fans because “interest has died out in the old-style bleaching boards of the National league...The league has made no provisions for the accommodation of the public and have persisted in planting them on harsh boards in the sun. The Brotherhood [Players league owners] has sought to give to the public covered stands, with comfortable opera chairs in place of the old ‘bleachers.’”²⁷⁴ In 1912, *Sporting Life* correctly predicted that the rough plank seats of the United States league would not be able to compete with the comfort of opera chairs at Cincinnati’s “Palace of the Fans,” baseball park; the league collapsed after just two seasons.²⁷⁵

Women in Stadiums

Staid business men, small boys, patrician doyennes, and according to *The New York Times*, young ladies who came to look at “the best looking men,” were among the thirteen thousand fans that attended an 1885 baseball game at the Manhattan Polo Grounds.²⁷⁶ Teams encouraged the attendance of women through clean, comfortable, protected seats and by sponsoring “ladies days” in which women were admitted free.²⁷⁷

Globe reported that Connie Mack of the Philadelphia Athletics was raising prices at Shibe field. To justify an increase from twenty-five cents to fifty-cents, he had the bleachers covered and installed opera chairs. “Hard Times in Baseball,” *The Boston Globe*, January 8, 1913, 6.

²⁷⁴ “A Want of Patriotism,” *Pittsburgh Daily Post*, May 7, 1890, 6.

²⁷⁵ “Four-man Deal,” *Sporting Life*, June 8, 1912, 3.

²⁷⁶ “The Chicagos Beaten,” *The New York Times*, August 2, 1885.

²⁷⁷ After testing the idea at a few parks in during the 1882 and 1883 seasons, the number of parks sponsoring ladies days expanded rapidly in 1884, see *Star Tribune* (Minneapolis, MN), April 21, 1884, 6. Ladies days or proposals for ladies days are described at various parks: *The Inter Ocean* (Chicago, IL), June 24, 1882, 4; *The Boston Globe*, April 22, 1883, 3; *The Times* (Philadelphia, PA), April 17, 1884, 3; *The Rock Island Argus* (Rock Island, IL) June 13, 1884, 4; *St. Louis Post-Dispatch*, June 26, 1884, 5; *The Saint Paul Globe* (Saint Paul, MN), July 12, 1884, 109; *The San*

As young middle-class women were finding a place in a broader public commons that included office and retail work, the stadium was a place of female empowerment. In an 1883 letter to the local paper a woman asserted her right to correct players' manners: one player's "disgusting manner, should certainly not be tolerated, at least in the presence of ladies, and unless there is some improvement, I venture to say ladies' day will be 'one of the past.'" An editorial on the same page expressed concern obscene language of male fans alienated female fans and warned that "when ladies are not only permitted, but desired to attend an entertainment, some of their feelings should be required of the other patrons, or respectable ladies will soon discover that the only course left to them will be to stay away from our base-ball park."²⁷⁸ *The New York Herald* believed female spectators to be central to the resurrection of a game that had "flourished for a time and then fallen into decay, witnessed and taken part in at first by our bet people, but finally patronized only by men."²⁷⁹

Teams welcomed women with "Ladies' Days" as frequently as one day per week in which women entered for free or paid a reduced rate (**Fig. 3.70**).²⁸⁰ The vice president of the Washington Nationals claimed forty thousand women attended games after the

Francisco Examiner, April 19, 1886, 2; *Oakland Tribune* (Oakland, CA), August 2, 1886, 2.

²⁷⁸ "A Woman on Base-Ball," *St. Louis Post-Dispatch*, July 28, 1883.

²⁷⁹ "Ladies' Day in Athletic Sports" reprinted in *The Gazette* (Montreal), January 6, 1883, 8.

²⁸⁰ National League president Charles Murphy prohibited ladies days at all of league ball parks in 1909. The Chicago Cubs expressed dismay in 1914, and in 1919 Cubs President Fred F. Mitchell defied the league and reinstated ladies day. "Pullman Drops Cares of Leading Baseball League," *The Buffalo Courier*, February 19, 1909, 8; "Chicago Cubs want to Have 'Ladies Day,'" *The Lincoln Star* (Lincoln, NE), March 28, 1914, 8; Display Ad, *Chicago Daily Tribune*, June 6, 1919, 23. Ladies had been admitted free to exhibition games in St. Louis in 1882 and Chicago in 1897, "M'Phee's Miss," *The Enquirer* (Cincinnati), August 11, 1882, 5; "Baseball Gossip," *The Cincinnati Enquirer* April 8, 1897, 2.

addition of two ladies days per week for the 1895 season.²⁸¹ Women initially sat with an escort in covered grandstands (**Fig. 3.71**).²⁸² By the 1910s, social mores against women attending games without a male companion had loosened. In 1919, the new owner of the Milwaukee club declared himself in favor of ladies' day to temper male behavior: "their presences means restraint, a cleaner game, and the elimination of rowdyism on the field and objective [sic] language in the grandstands."²⁸³

The separate spheres ideology adhered to by historians of Victorian American argued that most forms of commercial leisure through the nineteenth century was male dominated and that women had to be invited in to commercial leisure.²⁸⁴ A close reading of baseball stadiums finds women part of the game as spectators from the first stadium in 1862, signaling a shift in the consideration of women's place in the public sphere. Recent scholarship has argued American women moved in and through commercial spaces much earlier than previously believed.²⁸⁵ While working class women enjoyed beer gardens and dance halls, middle-class women attended horse races, boating regattas and baseball games.

²⁸¹ "In Sporting Circles," *Evening Star* (Washington, DC), April 1, 1896, 10.

²⁸² Several teams had reserved ladies sections in the grandstand. *The Tennessean* (Nashville, Tennessee) April 30, 1895, 6; *The Twin-City Daily Sentinel* (Winston-Salem, North Carolina) April 19, 1913, 16; *Pittsburgh Dispatch* (Pittsburgh, Pennsylvania) April 25, 1890, 6; *Detroit Free Press* (Detroit, Michigan) June 14, 1903, 17; *Detroit Free Press* (Detroit, Michigan) April 5, 1902, 10.

²⁸³ "Urges 'Ladies' Day' for Cleaner Baseball," *Albuquerque Journal*, February 24, 1919, 4; *The Tampa Times* (Tampa, Florida) 18 Jun 1913, 9; *The Akron Beacon Journal* (Akron, Ohio) 01 May 1913, 10.

²⁸⁴ Peiss, "Leisure and the Woman Question," in *For Fun and Profit: The Transformation of Leisure into Consumption*, ed. Richard Butsch (Philadelphia: Temple University Press, 1990), 105-108.

²⁸⁵ On the historiography of the separate spheres as explanatory model see Linda Kerber, "Separate Spheres, Female Worlds, Woman's Place: The Rhetoric of Women's History" in *No More Separate Spheres!...A Next Wave American Studies Reader*, ed. Cathy Davidson and Jessamyn Hatcher (Durham, NC: Duke University Press, 2002), 29-67.

To some newspaper reporters, women were more than just pretty companions who checked crude male behavior through their presence; they portrayed women as devoted fans. In 1890, *Sporting Life* noted that “the ladies are very much taken with the opera chair seats” in the Player’s League grandstand. Baseball stadiums offered a safe, mixed gender environment, the newspaper observed, but noted women were “envious of their male friends who, while the clubs are away can stand around the cigar stores and hotels and get the latest gossip.”²⁸⁶ Women could only participate in passionate fandom, according to the paper, within the safe confines of the stadium. Although the gender of its female protagonist is often overlooked, the 1908 song *Take Me Out to the Ball Game*, closely associated with modern major league baseball games, was written from the perspective of a young woman who demanded her beau take her to a baseball game instead of the theater. The lyrics describe her as a true fan, Katie Casey, who “saw all the games, knew the players by their first names, [and] told the umpire he was wrong, all along.”²⁸⁷

A “democratic” sport

Team owners rescued baseball from its reputation as a debased masculine world of drinking and gambling through seats that packaged spectatorship for safe consumption by a broad audience. Some fans paid extra for a more predictable, comfortable, and enjoyable physical experience, but regardless of seat every fan in a stadium witnessed the same game. The shared enjoyment of a diverse audience led some to claim a special

²⁸⁶ Ella Black, “A Little Gossip,” *Sporting Life*, May 10, 1890, 10.

²⁸⁷ Jack Norworth and Albert Von Tilzer, *Take Me Out to the Ball Game* (New York: The New York Music Co., 1908).

democratic significance for the sport. “Baseball is for all the people and not a few,” the president of the Pittsburg Pirates wrote in a special invitation to bleacher patrons printed in the local newspaper, “the humble bleacherite will be as welcome on Forbes field...as the most austere box holder...provisions for the comfort of the man or boy seeking a 25-cent seat are just as thorough as the arrangements for more fortunate who have procured boxes and reserved seats.”²⁸⁸ Reflecting upon the evolution of baseball in 1911, former National League president Albert Spalding claimed it was a game, with “no arbitrary class distinctions.”²⁸⁹ A bleacher seat was within the financial reach of all but the poorest of Americans, but the design and arrangement of stadium seats demonstrates class distinctions were anything but arbitrary.

To justify the differences in ticket prices, owners had to design significantly different experiences by seat type. Several clubs considered placing a roof over bleacher seats or seat cushions to provide more comfort for bleacher audiences.²⁹⁰ In 1901 the Huntington Avenue Grounds in Boston planned to cover the bleachers with canvas awnings on especially sunny days “to make an effort to win the support of the followers of the sport,” but *The Boston Globe* warned that the extra comfort was “likely to interfere

²⁸⁸ “Forbes Field, the World’s Finest Baseball Grounds,” *The Pittsburgh Post*, June 27, 1909, 6. The newspaper reinforced the message claiming in reference to the 25-cent bleachers that “baseball is the game of the whole people, and not of any class.”

²⁸⁹ Albert Goodwill Spalding, *America’s National Game* (New York: American Sports Publishing Company, 1911), 6.

²⁹⁰ In 1890, a Chicago club roofed over its “free seats,” and dropped the word “bleachers” from use, see *The Evening World* (New York, NY), March 10, 1890, 4; Pittsburgh struggled with the decision of whether to lower its entry fee to twenty-five cents in 1890 to improve attendance, or to add a cover and cushions to its bleachers to justify its fifty-cent fee. “Mr. O’Neil’s Plan,” *Pittsburgh Dispatch*, April 25, 1890, 6.

with the receipts of the grand stand.”²⁹¹ If bleachers were too similar in comfort to the grandstand, the paper implied, spectators would abandon the grandstand for the cheaper bleacher seats. It was a common practice to literally marginalize the least expensive seats presumed to be filled with immigrant bodies (**Fig. 3.72**).²⁹² Teams could have replaced bleachers with the simple comfort and control of mass-produced stadium opera chairs. The cost of a five-dollar leather covered stadium chair in 1891 would have been recovered after a single season.²⁹³ But to have done so would have called into question the surcharge paid by bourgeois fans in the grandstands.

German, Irish, Italian, and other immigrant and working-class white fans sat in bleachers when they could not afford grandstand seats, but team owners banned African Americans from middle-class seating in baseball parks. The security of opera chairs was not powerful enough to overcome white anxiety over the vulnerability of white women.²⁹⁴ In 1891, the magazine *Sporting Life* observed that “Probably no other business in America is the color line drawn as in baseball.”²⁹⁵ In the North, black fans mixed with white fans in the bleachers (**Fig. 3.73**).²⁹⁶ Negro league games that were played in the

²⁹¹ “Hunting Av Grounds,” *The Boston Globe*, February 3, 1901, 17.

²⁹² The number of bleacher seats appears to have been reduced in the new stadiums. At Forbes field bleachers were estimated to hold only five percent of seats.

²⁹³ Manager Harris of the Haight-Street Grounds installed 2,000 opera chairs at \$5 each in 1891 to be used as reserved seats only. He reportedly said the chairs “will equal in comfort and design the best chairs now used in the local theaters.” *The San Francisco Call*, February 16, 1891, 8. School auditorium chairs, a related form produced by stadium manufacturers Heywood Wakefield Company and American Seating Company cost approximately \$2.00 according to reports of purchases published in newspapers between 1911 and 1915.

²⁹⁴ The National League had barred black players in 1867, a prohibition later adopted by all major leagues. On the recurrent motif of rape in the white imaginary, especially in the South, see Richard Dyer, *White: Essays on Race and Culture* (New York, NY: Routledge, 1997), 26-28.

²⁹⁵ *Sporting Life*, April 11, 1891.

²⁹⁶ Charles Spurgeon Johnson, *Patterns of Negro Segregation* (New York: Harper & Bros, 1943), 72.

same major league stadiums as white teams were well attended. Up to 50,000 fans flocked to watch the annual East-West all-star game at Yankee Stadium, Comiskey Park and other major league ball parks.²⁹⁷ Some stadiums owners highlighted segregated seating during Negro league games to attract white patrons and to appease locals antagonistic to integrated public spaces, but racial barriers in the north could also be looser at Negro league games. Under the subtitle “Color Line? Say Not” *The Chicago Tribune* described a 1907 Comiskey Park game that was fully integrated on the bleachers and in the private boxes. The paper claimed that “as a common leveler the national pastime has Booker T. Washington and the fifteenth amendment beaten eight furlongs flat.”²⁹⁸

In the South, racial discrimination was more rigid. Most southern stadiums either barred black spectators or sat them in segregated bleachers to avoid discomfiting white fans.²⁹⁹ The legalization of separate public accommodations that followed the *Plessy versus Ferguson* decision in 1896 led to segregation in places that had for a brief time been integrated.³⁰⁰ New Orleans black population reportedly peacefully mixed with white

²⁹⁷ Dewey, *The 10th Man*, 167; Nasaw, *Going Out*, 100.

²⁹⁸ “Leland Giants Drub All Stars,” *Chicago Tribune*, August 28, 1907, 6.

²⁹⁹ The Montgomery Alabama grounds had “negro bleachers;” see “Mobile Wins,” *The Montgomery Advertiser*, May 17 1893, 7; Louisville had colored bleachers, “Great Crowd,” *The Courier-Journal* (Louisville, KY), July 20, 1896, 6; Raleigh North Carolina charged 25 cent general admission, 15 cent admission to the grand stand, 15 cent admission to the colored bleacher, 15 cent admission for boys, and ladies entry was free. *The Morning Post* (Raleigh, NC), April, 21, 1902, 8; Houston, 1909 *Houston Daily Post*, May 26, 1909, 3; Vicksburg, MS- *The Vicksburg American*, August 5, 1908, 6; Mobile, Alabama – *The Tennessean* (Nashville, TN), September 5, 1909, 4. In 1913 the Durham Bulls moved their “colored bleachers,” and constructed a “colored grandstand,” with a separate entrance to segregate fans. “About the Durham Bulls,” *The Twin-City Daily Sentinel* (Winston-Salem, NC), April 19, 1913, 16.

³⁰⁰ Charles E. Wynes “The Evolution of Jim Crow Laws in Twentieth Century Virginia,” *Phylon* 28, no. 4 (1967): 416-25.

fans in the bleachers until 1904 when the manager was called upon to segregate bleachers because “the white people of New Orleans are practically pledged to the separation of the races everywhere and under all circumstances.”³⁰¹ Black fans, denied access to the protection of the grandstand, had requested an alternative—the erection of a cover over a section of the bleachers to be set aside for Negro fans—with a promise to pay more and increase their attendance at games. The manager denied the request because he would have had to erect a similar cover for white bleacher patrons. Frazier Robinson, a Negro League pitcher in the 1940s, fondly remembered how black fans at Muehlebach Field in Kansas City were not restricted to specific sections when the team played the park, although the field was segregated when the all-white Kansas City Blues played.³⁰² In 1943, sociologist Charles Johnson described how black teams that rented ball parks in the South for their league games had to reserve a section for white fans in the most desirable location in the park.³⁰³ The one-way permeability of negro-games by white fans constructed white supremacy as free of any restrictions or borders. A white person could attend any game, regardless of Negro team or white team, only non-white fans were restricted to certain games.³⁰⁴

³⁰¹ “Separation of Races,” *The Times-Democrat*, May 16, 1904, 8.

³⁰² Frazier Robinson, and Paul Bauer, *Catching Dreams: My Life in the Negro Baseball Leagues* (Syracuse: Syracuse University Press, 1999), 53; Sarah L. Trembanis, *The Set-Up Men: Race, Culture and Resistance in Black Baseball* (Jefferson, NC: McFarland & Company, Inc., 2014), 34.

³⁰³ Charles Spurgeon Johnson, *Patterns of Negro Segregation* (New York: Harper & Bros, 1943), 72.

³⁰⁴ For a discussion of the construction of whiteness and blackness in leisure and consumption see Karl Spracklen, *Whiteness and Leisure*, 5-7.

Outcomes and conclusions

The design of baseball stadiums shaped American society: inclusive, yet segregated; democratic, but hierarchical. Distributed around stadiums on mass-manufactured seats, fans of different races, classes, ethnicities, and genders visually and physically experienced a sense of place in modernizing America. Baseball became a patriotic symbol of the United States — a place where brass bands played the *Star-Spangled Banner* so often that the song was transformed into the national anthem — where presidents and local heroes throw out the first pitch to ceremonially open the annual season. Though often designed with supremely luxurious private boxes, baseball stadiums continue to be built in the twenty-first century with affordable bleacher seats for some of their most fervent fans.

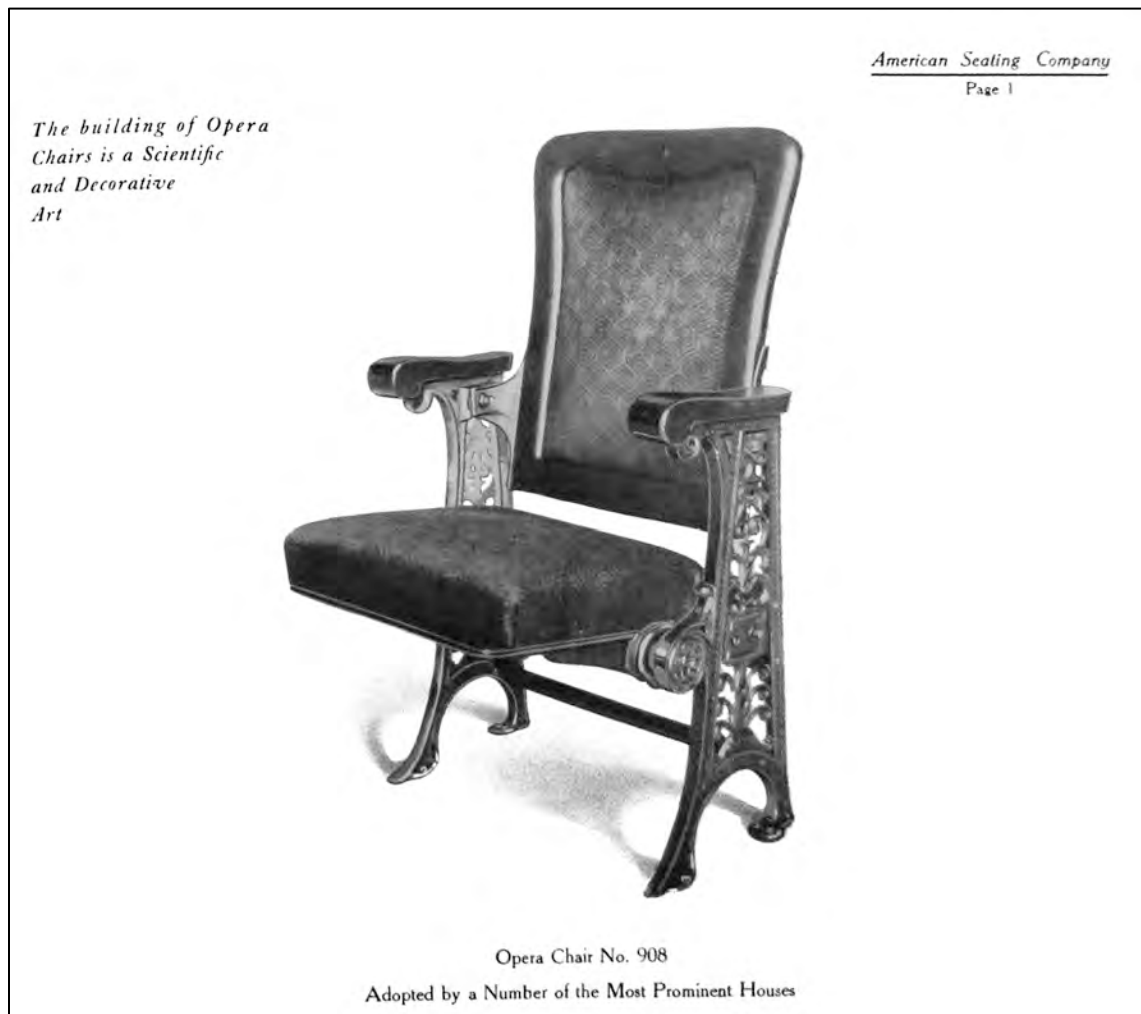
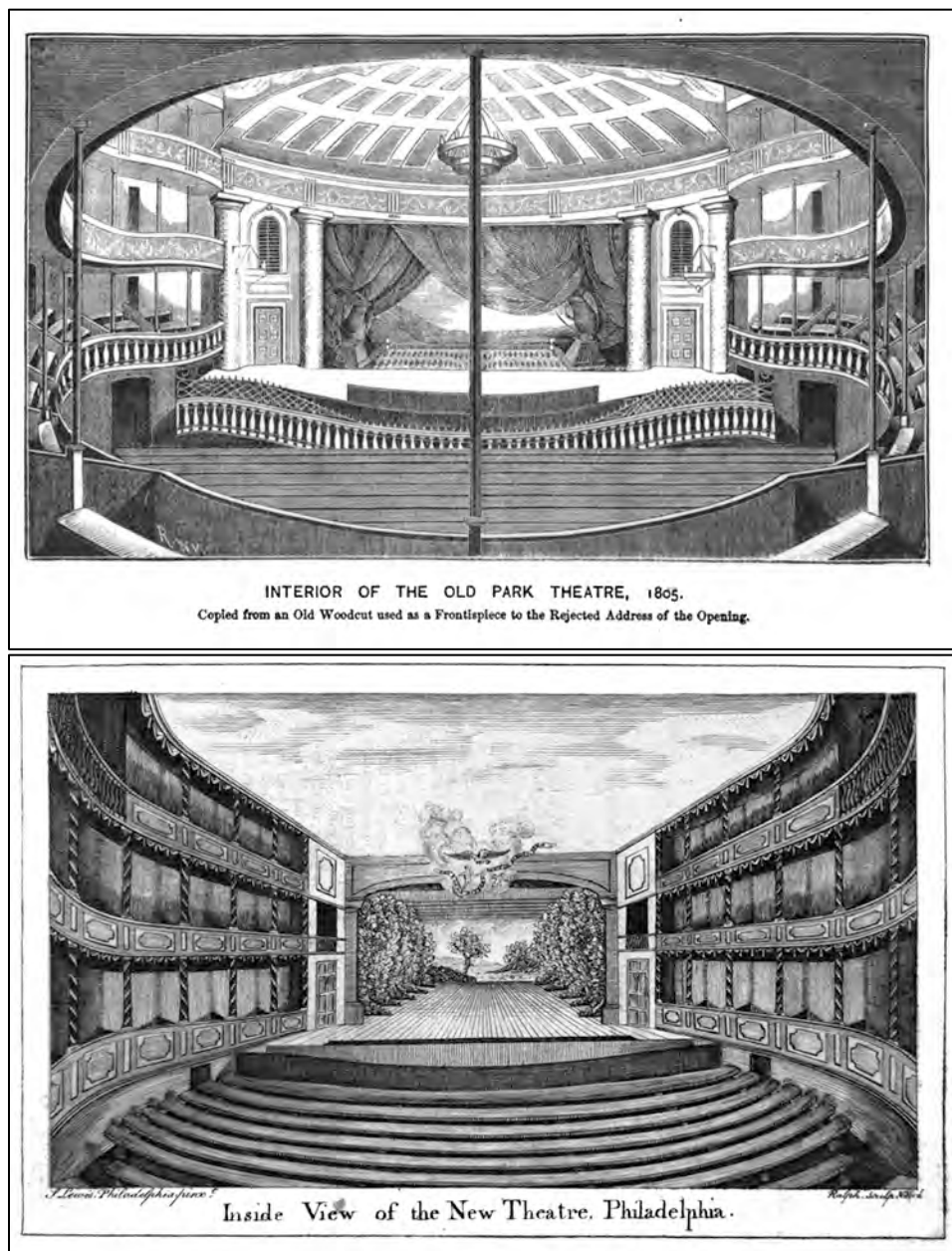
Chapter 3 Figures

Fig. 3.1 The basic opera chair form spread from theaters to most public venues by the end of the nineteenth century. (American Seating Company, *Opera Chairs*, 1907, 1.)



(a)

(b)

Fig. 3.2 (a) Park Theatre, New York, ca 1805 and (b) Chestnut Street Theatre, Philadelphia, ca 1794. (a. "The Old Theatres of New York, 1750-1827," *Appleton's Journal* 8, no. 191, 1872, 577; b. *New York magazine; or Literary Repository* 5, no. 4, April 1794, 194.)



Fig. 3.3 “Box at the Theatre,” from Frances Trollope’s *Domestic Manners of the Americans*, 1832 (Frances Trollope, *Domestic Manners of the Americans*, 116-117.)

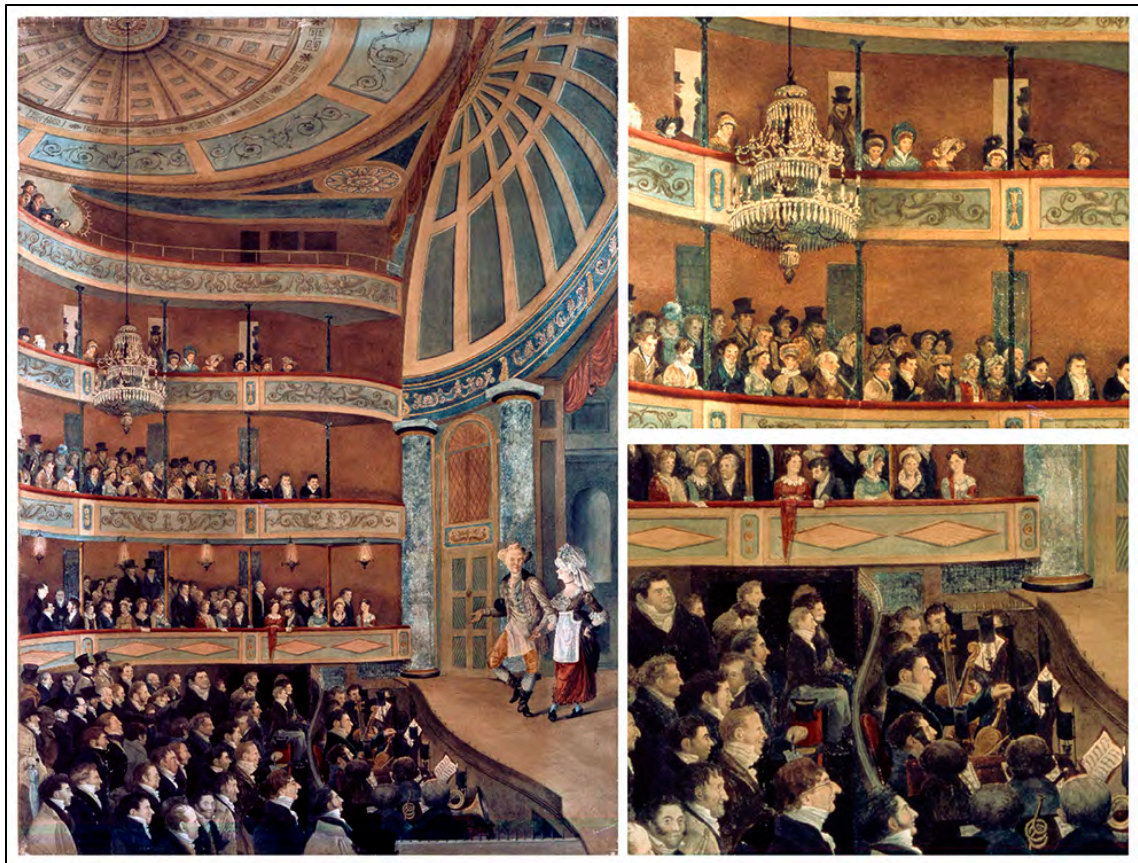


Fig. 3.4 Interior of the Park Theatre and details. Lower right. Several members are standing in the pit, and one member in the second row is seated facing backwards engaged in conversation. The narrow red-plush covered bench can be seen in the center of the first row. In the first tier of boxes a woman at center displays her shawl draped over the box front while a man next to her attempts to engage her in conversation. Upper right. A series of women sit in the first row of the gallery. Although appearing engaged by the performance, their attention is drawn as much to the audience of potential clients in the pit. Men lurk in the open doorways at the back, in the doorway on the left, a man strikes up a conversation with a woman. John Searle, *Interior of the Park Theatre*, 1822 (Interior of the Park Theatre, NYC by John Searle, 1822, Courtesy of New-York Historical Society, 1875.3.)

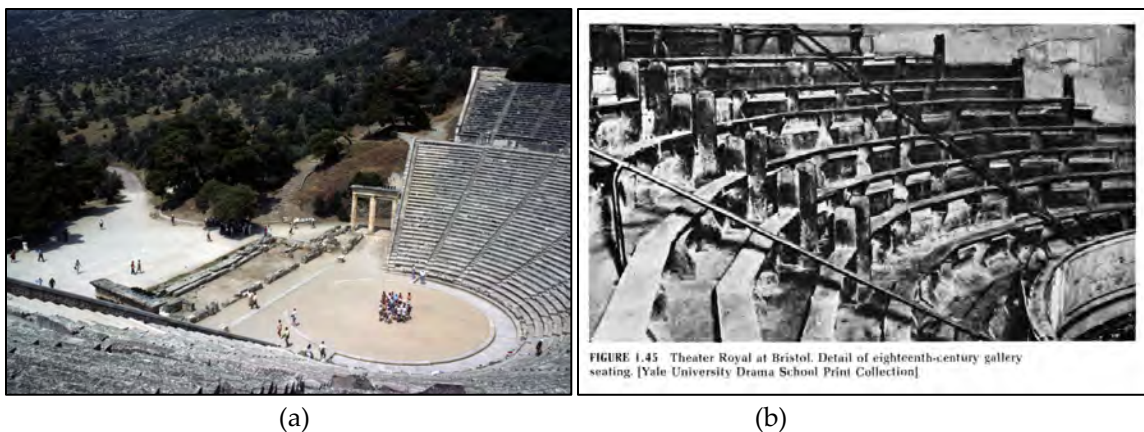


Fig. 3.5 (a). Fourth century amphitheater(a) and eighteenth-century gallery benches (b) show little change in form. (a. The Theater at Epidauros, 4th century B. C. E., Richard S. Ellis, Bryn Mawr College: Richard S. Ellis Photographs, 1985, https://library.artstor.org/asset/SS7730437_7730437_8636052; b. Izenour, *Theater design*, 1977, 23.)



Fig. 3.6 Color lithograph of the Astor Place Riot, 1849 showing protestors hurling stones, the smoke from gunshots into the crowd, and numerous spectators (N. Currier, “Great Riot at the Astor Place Opera House, New York,” Library of Congress, LC-DIG-pga-09042.)

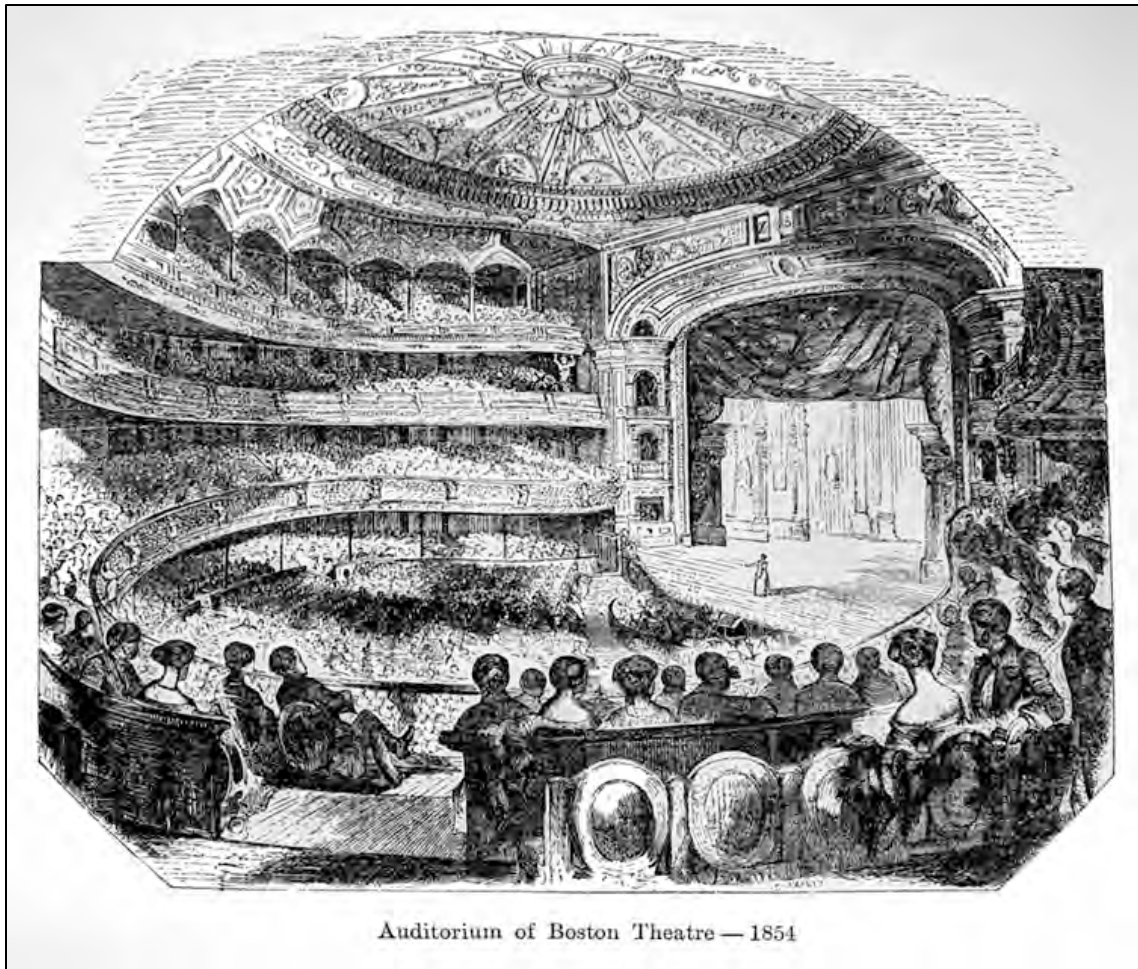


Fig. 3.7 The theater in 1854 on opening night. The back of the opera chairs designed by Augustus Eliaers appear in the dress circle as well as the balcony, although other sources claim that only the balcony had mechanical seats and the remainder of the dress circle sat on sofas. The low wall can be seen encircling the balcony and separating it from the rest of the dress circle. (“Boston Theatre- Rachel’s Debut,” *Ballou’s Pictorial* 9, no. 19, 1855, 296.)

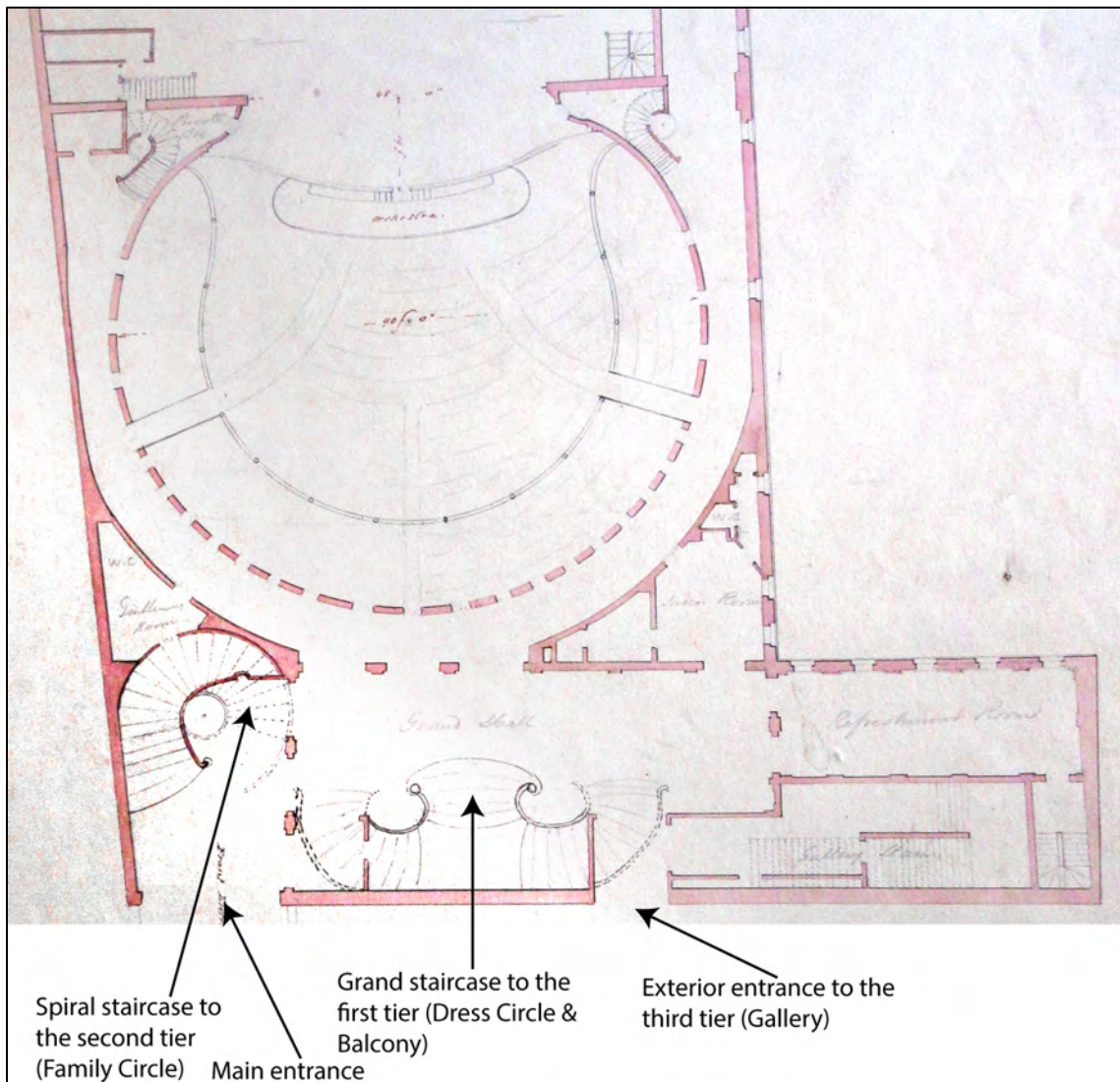


Fig. 3.8 Detail from the ground floor plan of the Boston Theater, circa 1852. The plan matches a contemporary description of the opening of the theater - "Our New Theatre," Boston Daily Atlas reprinted in *Dwight's Journal of Music* 4 no. 23, March 1854, 179-180. Annotations added by author. (Boston Theatre: plan of first floor, by Preston & Emerson, Courtesy of the Bostonian Society, 67.19.5)



Fig. 3.9 Boston Theatre in 1896 showing the arrangement of seats and separation of tiers. The seats are replacements installed in 1896. The wire fronted first tier balcony can clearly be seen, but seats in the top tier gallery are almost invisible. Private boxes are limited to six boxes on the sides of the proscenium, seated with moveable parlor chairs. (Tompkins, *The History of the Boston Theatre 1854-1901*, 1908, 431)



Fig. 3.10 Main lobby of the Boston Theatre, showing the grand staircase designed by Augustus Eliaers, the designer of the mechanical theater seats. (Tompkins, *The History of the Boston Theatre 1854-1901*, 1908, 3.)

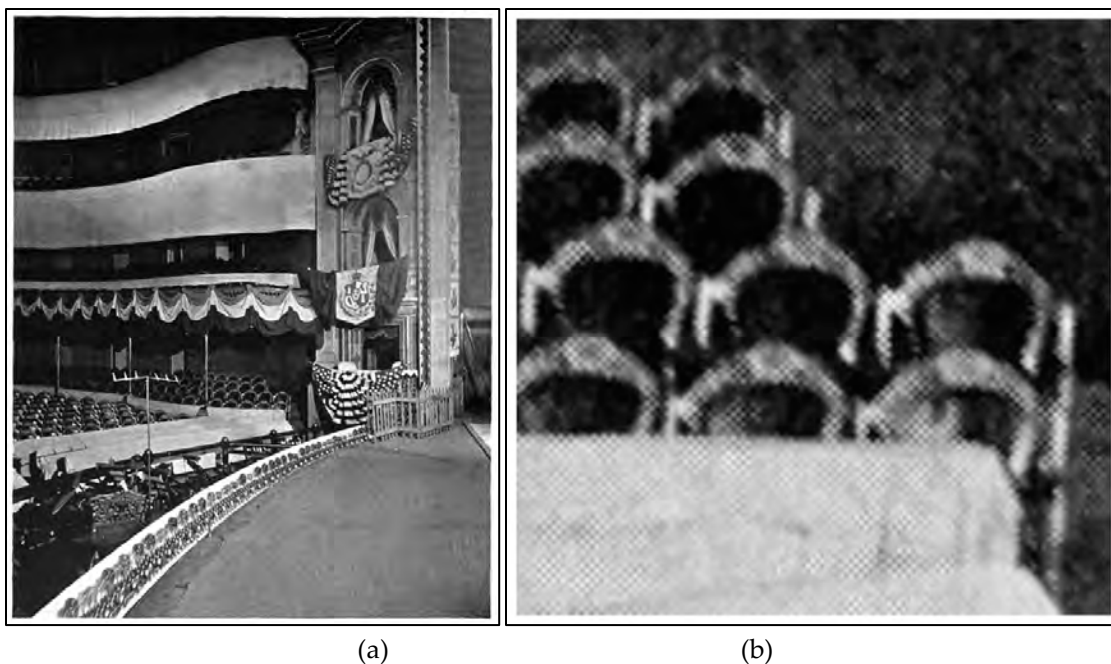
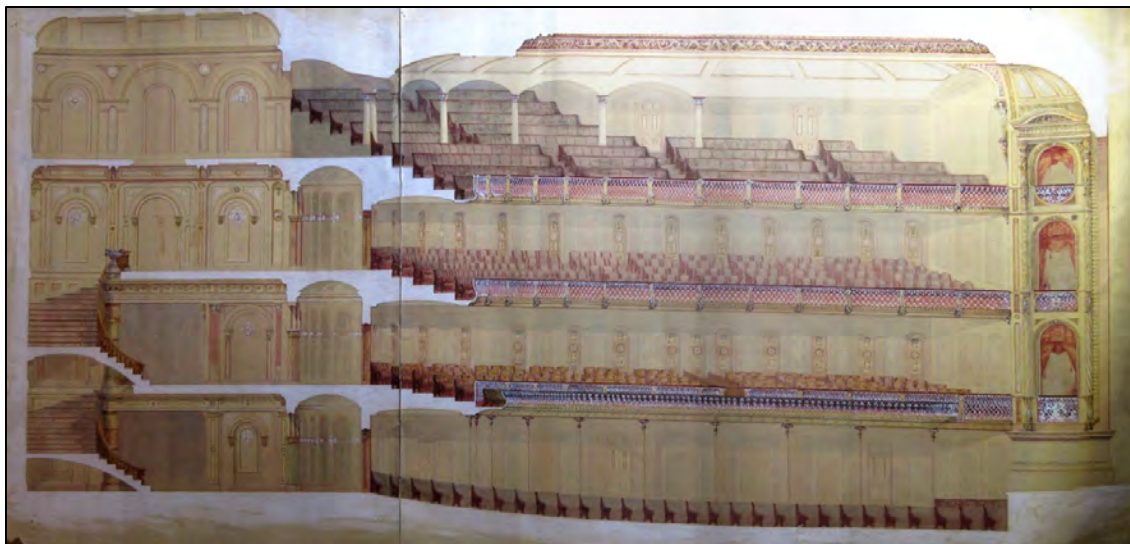


Fig. 3.11 (a) Interior of the Boston Theatre, 1892/1893 season decorated for Columbus Day. (b) Detail of the seats in the parterre. These were the original chairs installed in 1854 and removed two years later. (Tompkins, *The History of the Boston Theatre 1854-1901*, 396-397.)



Fig. 3.12 Dress circle and balcony ticket holders arriving in the lobby via the grand staircase. (Tompkins, *The History of the Boston Theatre 1854-1901*, 1908, fl)

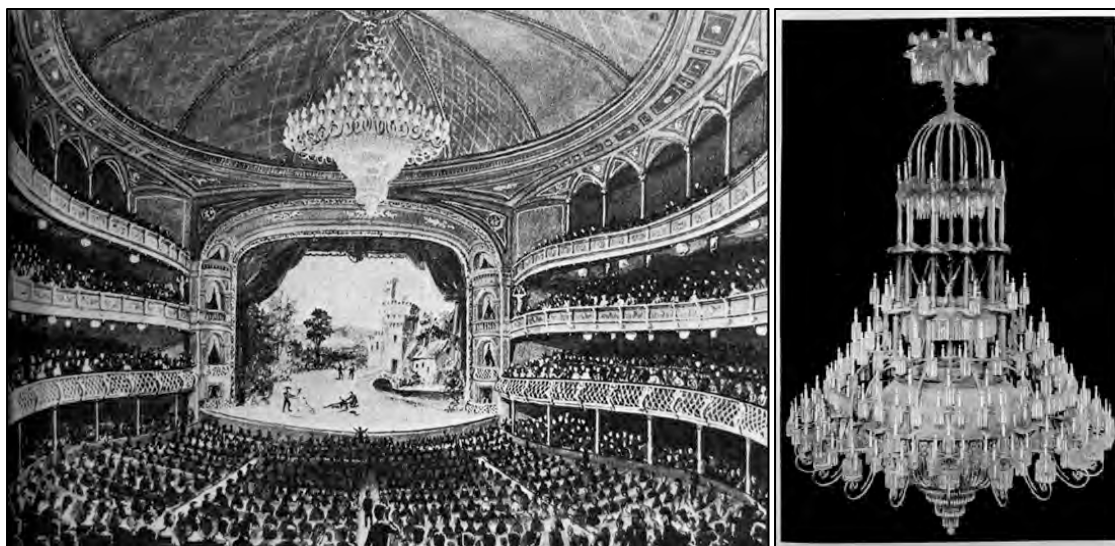


(a)



(b)

Fig. 3.13 Boston Theatre Auditorium Elevation, M. G. Rohelock, circa 1852. (a) Longitudinal section, (b) Detail of balcony seating. The theater as built differed slightly from this drawing: The architects specified settees on the ground floor parquette and opera seats in the second-tier family circle, but a contemporary description of the theater upon its opening described the reverse -settees in the second tier, and opera chairs on the parquette. The drawing also shows wire grille railings on all three tiers, but the contemporary description and a late nineteenth century photograph show the top two tiers were faced with solid plaster decoration. The balcony was built with two rows of seats (not one as in this drawing), the second row elevated slightly above the first. Although a grand staircase on the left is shown reaching both the first and second tier, the contemporary descriptions indicate that the second tier was only reached via a spiral staircase. (Boston Theatre – Auditorium Elevation, Courtesy of the Bostonian Society, 67.19.8)



(a)

(b)

Fig. 3.14 Boston Theatre, 1854. (a) Occupants of the third tier were barely visible to those below. (b) The theater was lit by gas, including a large cut-glass gasolier made by Cornelius & Baker of Philadelphia installed in 1860. Unlike candles, gas lighting did not drip on the expensive clothes of women and men seated below and the manager could turn the lights up and down at will to focus attention on the stage. (a. Douglas Shand-Tucci, *Built in Boston: City and Suburb, 1800-2000*, 1978, Fig. 25; b. Eugene Tompkins, *The History of the Boston Theatre 1854-1901*, 1908, 13).

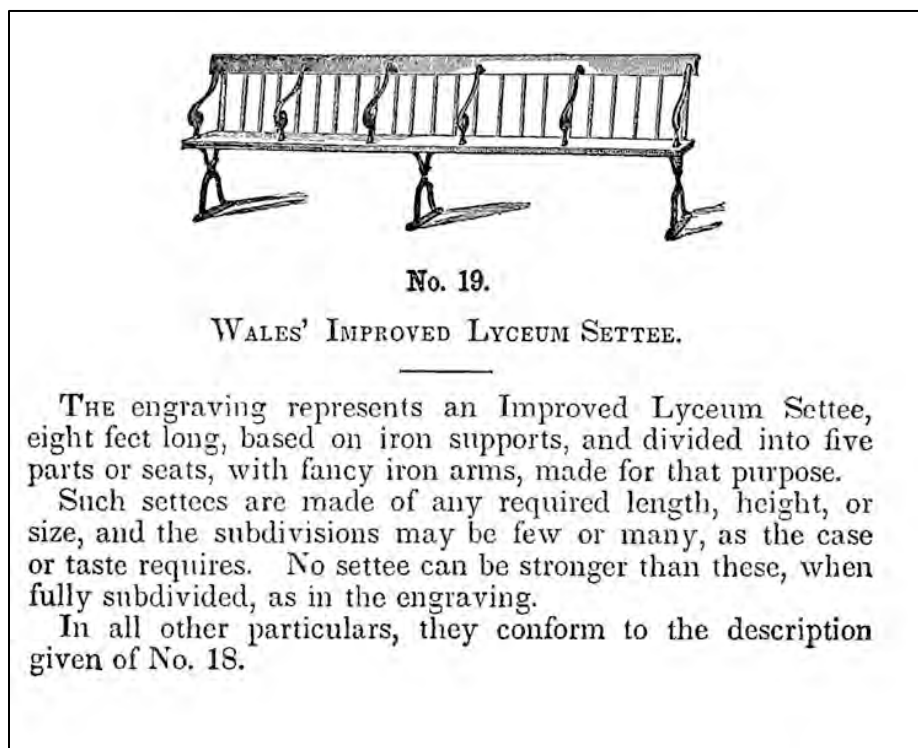


Fig. 3.15 Settee with cast iron arms made by Samuel Wales Jr., 1850. The settee could be customized with different subdivision. (Samuel Wales, Jr., *The Guide: A Description of the Modern School Furniture Manufactured by Samuel Wales, Jr.* (Boston, 1850)

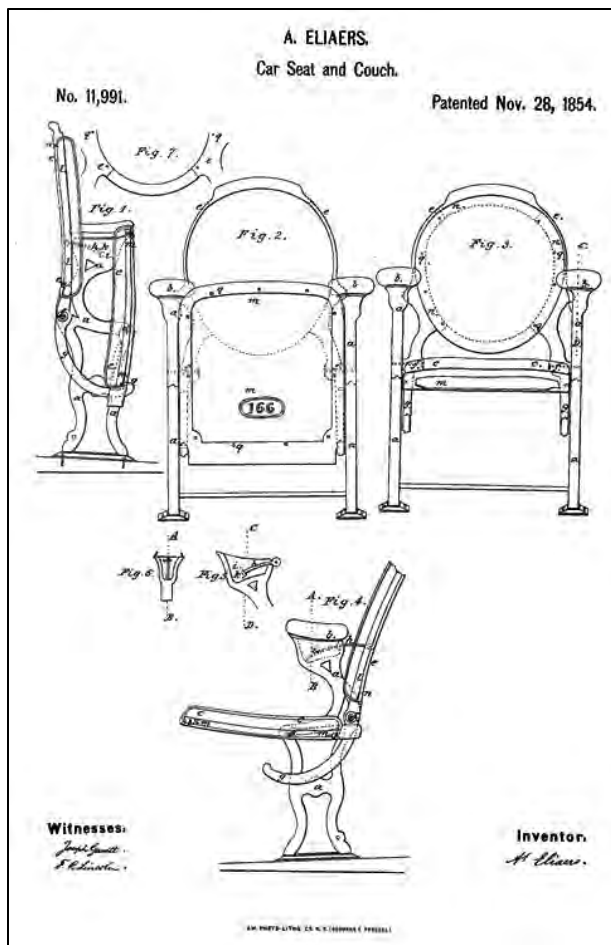


Fig. 3.16 Opera chair installed in the Boston Theater and Opera House in 1854. Eliaers' patent describes these chairs in general terms as a "Seat for Public Buildings" and titled the drawing "Car Seat and Couch" implying the design was be suitable for public transportation as well. (Augustus Eliaers, "Seat for Public Buildings," US Patent 11,991. November 28, 1854)

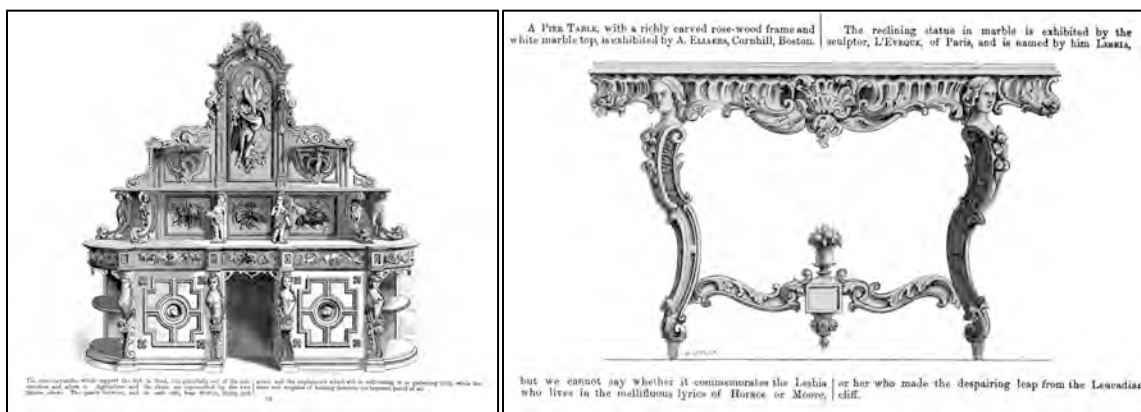


Fig. 3.17 Two French rococo revival furniture pieces designed by Augustus Eliaers. Eliaers was among a handful of French craftsmen centered in New York, but working in other major cities, who designed ornate, richly carved furniture. (*The World of Science, Art, and Industry Illustrated from Examples in the New-York Exhibition, 1853-54*, New York: G. P. Putnam & Co, 1854, 114 and 164.)

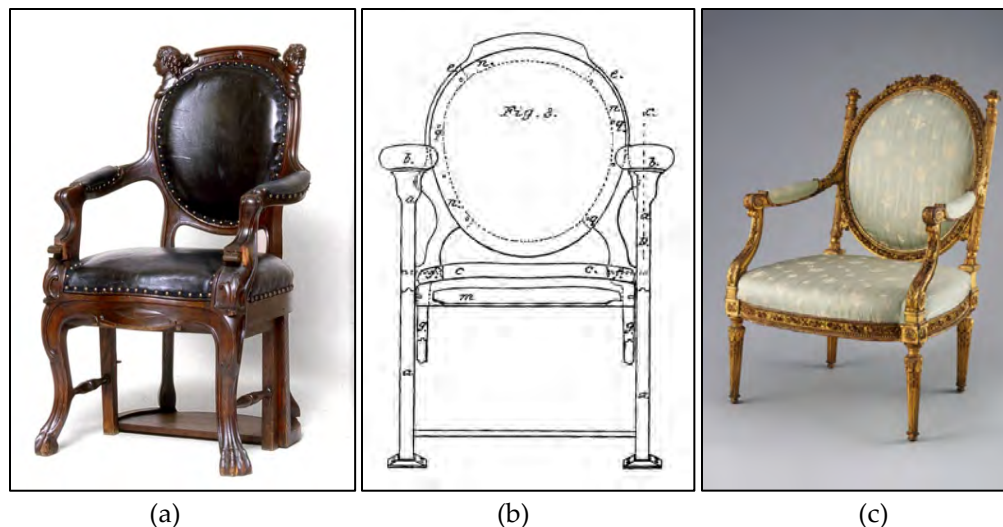


Fig. 3.18 The Eliaers opera chair (b) has a formal relationship to his design for a library chair (a) patented one year before the opera chair. The library chair unfolds to become a set of steps, (U. S. Patent no. 10,151, October 25, 1853). The library chair has its original upholstery – the same enameled cloth that was used in the parterre of the Boston theatre. The style of the opera chair also relates to more feminine oval-backed French neo-classical chairs (c). (a. Library Step Chair, Augustus Eliaers, Boston, 1854-60, © Museum of Fine Arts, Boston, 1976.762, H. E. Bolles Fund; b. A. Eliaers, “Seat for Public Buildings,” U. S. Patent no. 11, 991, November 28, 1854; c. Armchair (Fauteuil à la reine), Georges Jacob (France), ca. 1785, Metropolitan Museum of Art, Gift of J. Pierpont Morgan, 1906, 07.225.106.)

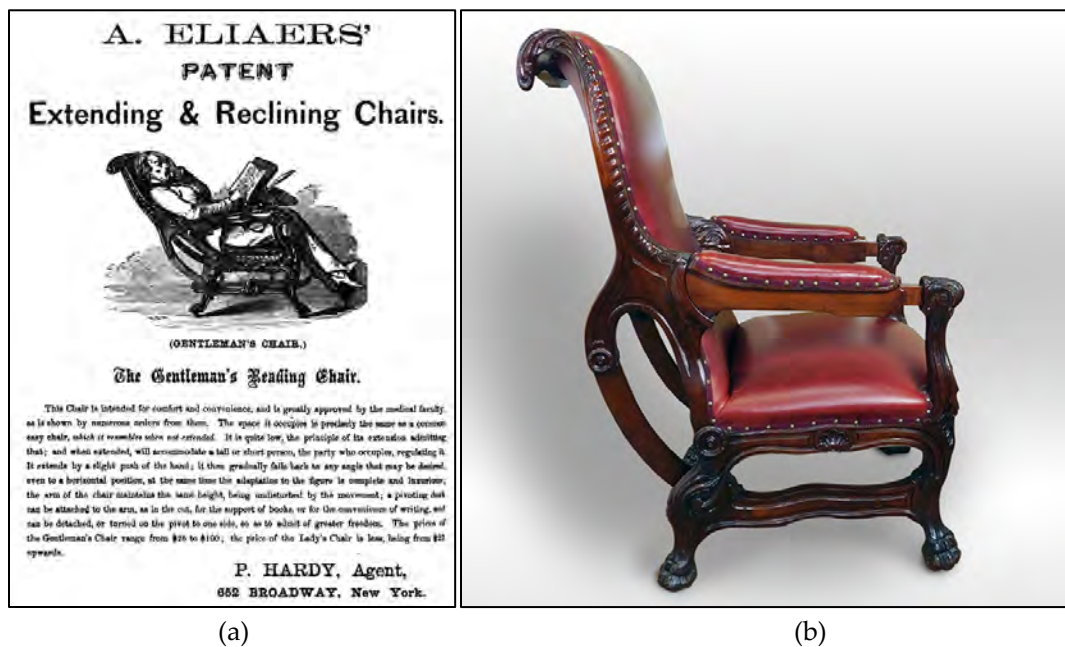


Fig. 3.19 Eliaers' reclining chair. (a) Although the chair was made in a version for ladies, he chose to illustrate the ad in multiple sources with a man, and title the advertisement 'The Gentleman's Reading Chair' or an invalid chair. (a. Charles B. Norton, *Norton's Literary Letter*, 1857, np; b. Reclining chair, marked "Augustus Eliaers," circa 1857, missing its footrest. Chairish, Inc. <https://www.chairish.com/product/574823/antique-american-victorian-renaissance-augustus-eliaers-mahogany-chair>, Accessed 06/22/2018)



Fig. 3.20 Opera chair installed in the Boston Theater and Opera House in 1854 have a structural similarity to European choir stalls. Both rely upon shared upright supports with seats designed to be raised to provide an area within which to stand. (Choirs Stalls, French, 15th Century, Metropolitan Museum of Art, Acc. 16.32.15, Gift of J. Pierpont Morgan, 1916.)

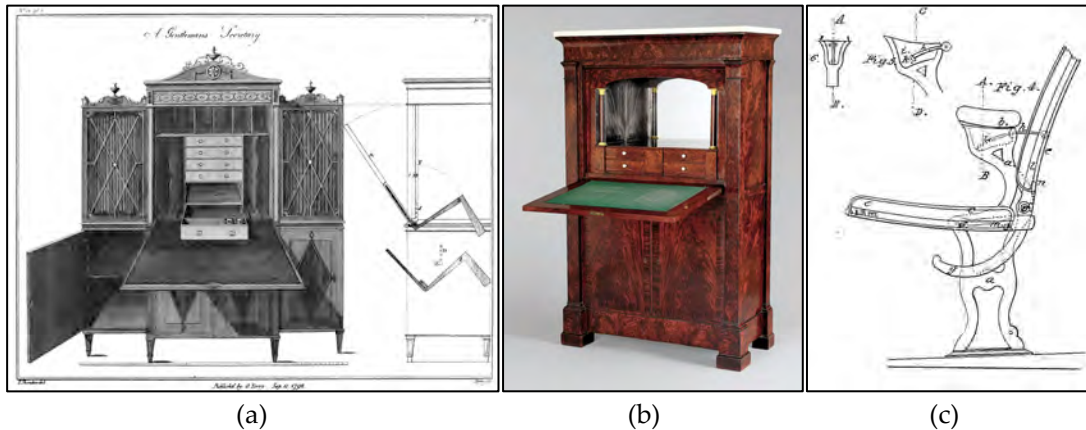


Fig. 3.21 Eliaers based the folding seat mechanism on technology used in French secretaries. Although not frequently used in the United States, the technique was known through Thomas Sheraton's 1792 drawing book and was used by Duncan Phyfe. (a. Thomas Sheraton, *The Cabinet-Maker and Upholsterer's Drawing-Book in Four Parts*, London, 1802, no. 22 Pl. 1; b. "Secretary Abbattant, 1835-45, Possibly from the Workshop of Duncan Phyfe, Metropolitan Museum of Art, The Manney Collection Gift, 1983, 1983.225; c. Augustus Eliaers, "Seat for Public Buildings," US Patent 11,991, November 28, 1854)

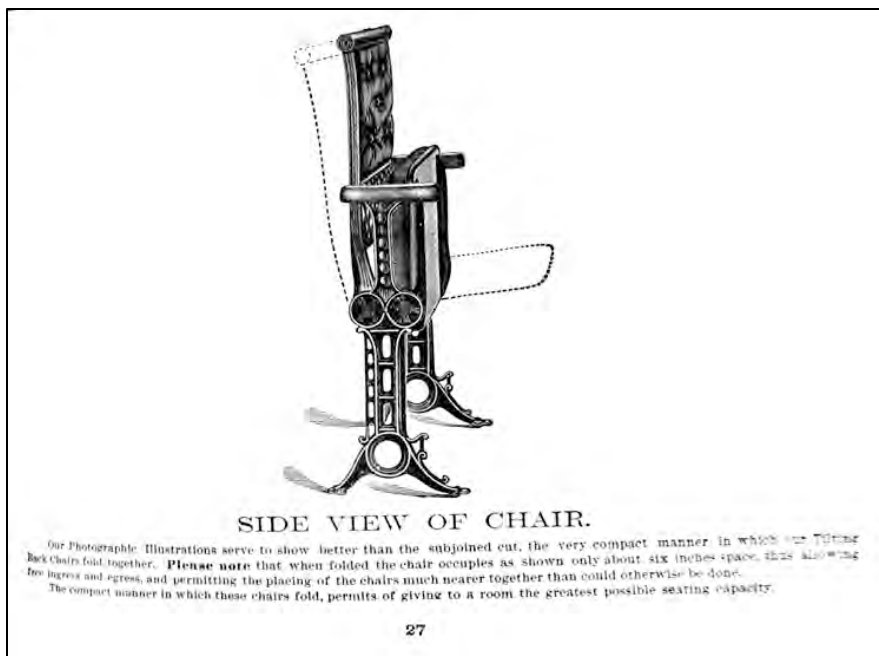


Fig. 3.22 A seated patron leaned forward to provide additional space for a person passing behind, or stood in the space of the seat to permit someone to pass in front. But as the text of this catalog entry indicates, a major advantage was being able to increase the capacity of the theater. The text reads: *Our Photographic Illustrations serve to show better than the subjoined cut, the very compact manner in which our Tilting Back Chairs fold together. Please Note that when folded the chair occupies as shown only about six inches space, thus allowing free ingress and egress, and permitting the placing of the chairs much nearer together than could otherwise be done. The compact manner in which these chairs fold, permits of giving to a room the greatest possible seating capacity.* (Thomas Kane & Company, *Assembly Chairs*, 1887, 27.)

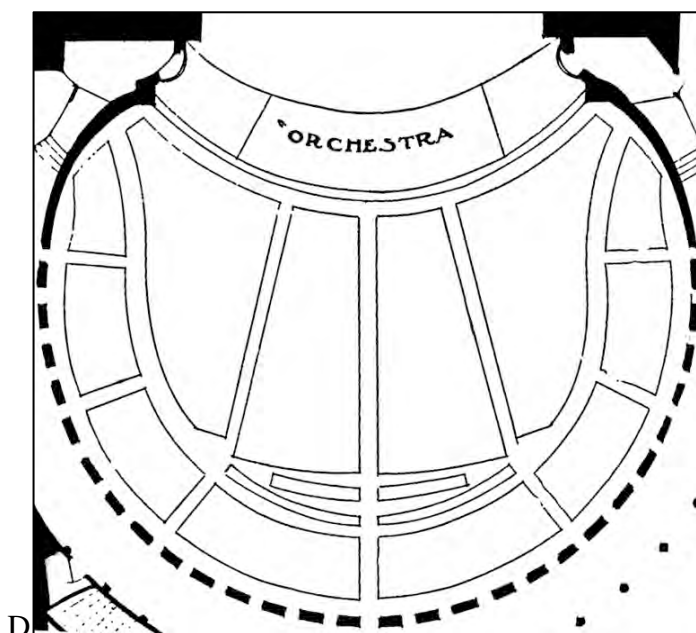


Fig. 3.23 Clarence B. Blackall, "The American Theater II: The Plan," *The Brickbuilder* 17, no. 1, 1908, 2.)

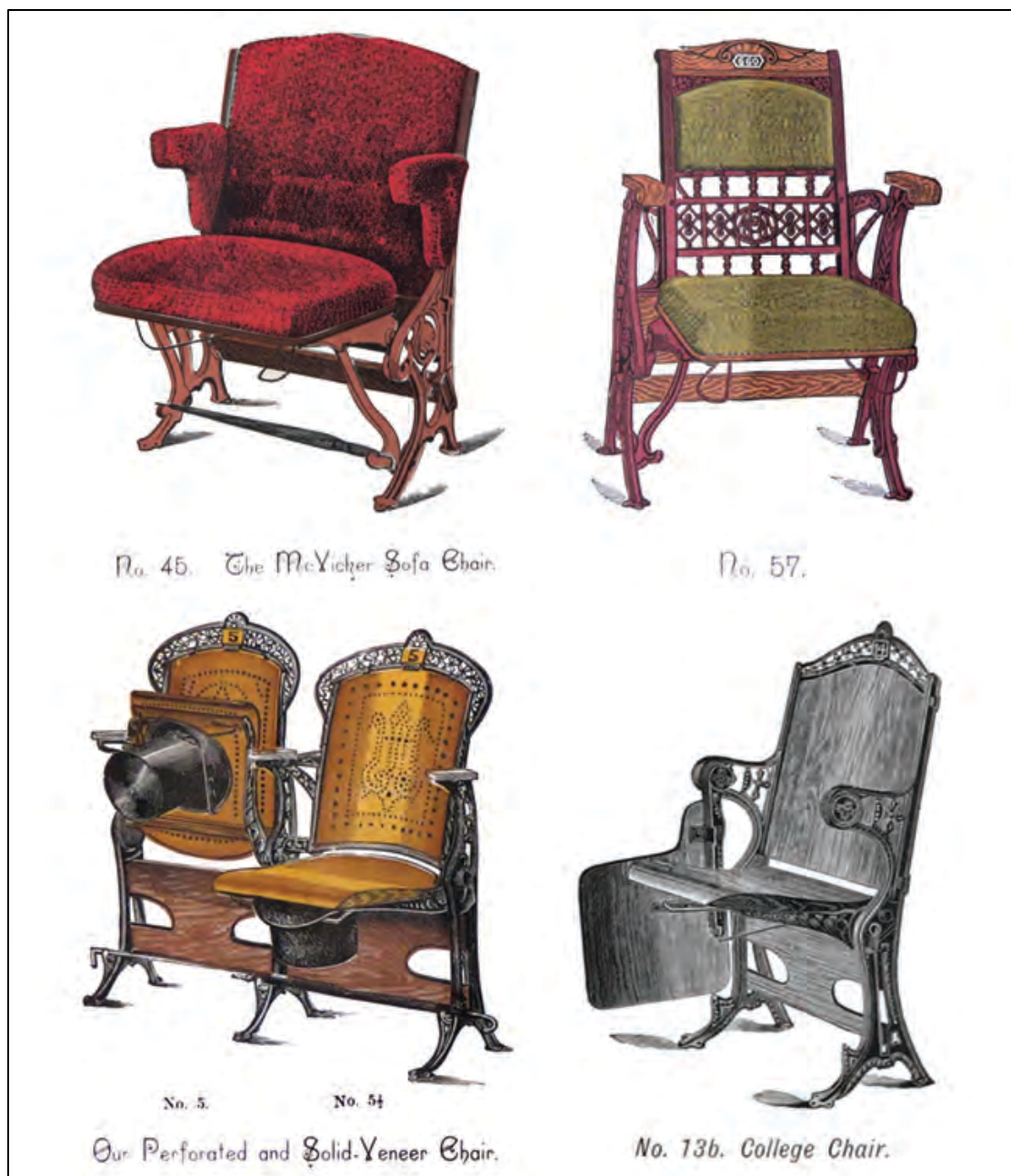
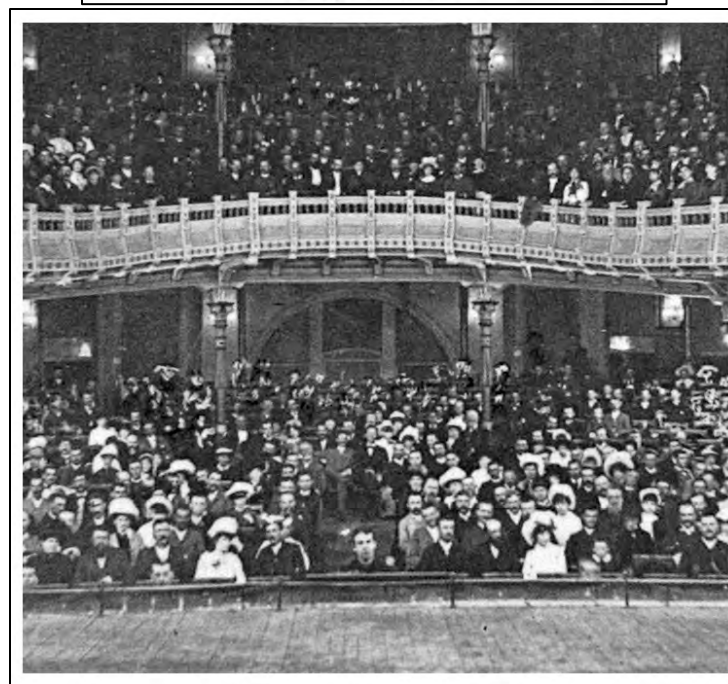


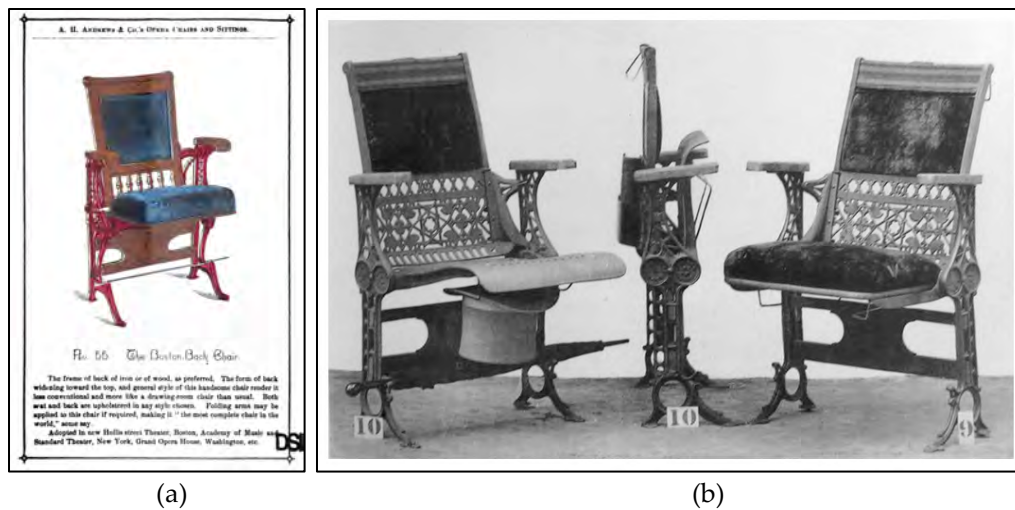
Fig. 3.24 A few additional models of A H Andrews Opera Chairs, 1886 (A. H. Andrews & Co, *Catalogue of Improved Opera Chairs*, 1886, 10R, 11L, 6L, and 16R.)



(a)

(b)

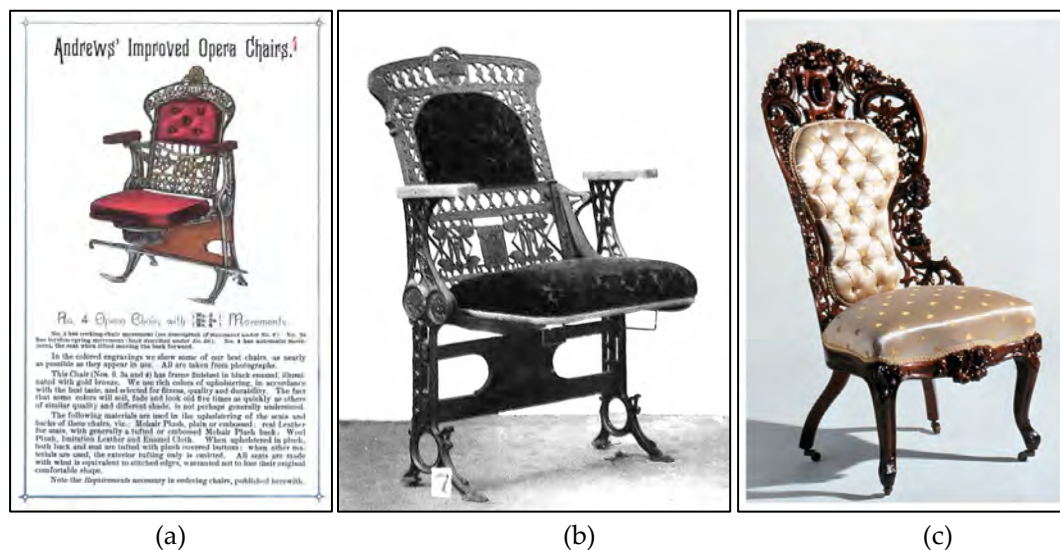
Fig. 3.25 Women were encouraged to attend the opera in their best finery. (a) Four young women are illustrated attending the Philadelphia Academy of Music in 1870 in full evening dress: shawls, casually draped over furniture with complementary fans, hair ornaments, flowers and fans; (b) A detail from a rare interior photograph, staged for a souvenir in 1884, shows women in fashionable white opera bonnets at the Gillis Opera House in Kansas City, Missouri. (a. Shinn, *A Century After*, 1875, 85.); b. J. H. Scottford, "Souvenir Photograph of the Interior of the Gillis Opera House," The Harvard Theatre Collection, Bequest of Evert Jansen Wendell, 1918, Prints-Theatres-U.S.-States-M, [detail].)



(a)

(b)

Fig. 3.26 Popular aesthetic movement design of opera chairs for highbrow theaters with built in racks for umbrellas, canes and hats, and a wire coat and shawl holder attached in the back. The text beneath (a), the Boston-Back Chair by A H Andrews Company, reads: *The frame of back of iron or of wood, as preferred. The form of back widening toward the top, and general style of this handsome chair render it less conventional and more like a drawing room chair than usual. Both seat and back are upholstered in any style chosen. Folding arms may be applied to this chair if required, making it "the most complete chair in the world," some say. Adopted in new Hollis Street Theater, Boston, Academy of Music and Standard Theater, New York, Grand Opera House, Washington, etc.* (a. A. H. Andrews & Co., *Improved Opera Chairs*, 1886, 10L; b. Thomas Kane & Company, *Assembly Chairs*, Chicago, circa 1887.)



(a)

(b)

(c)

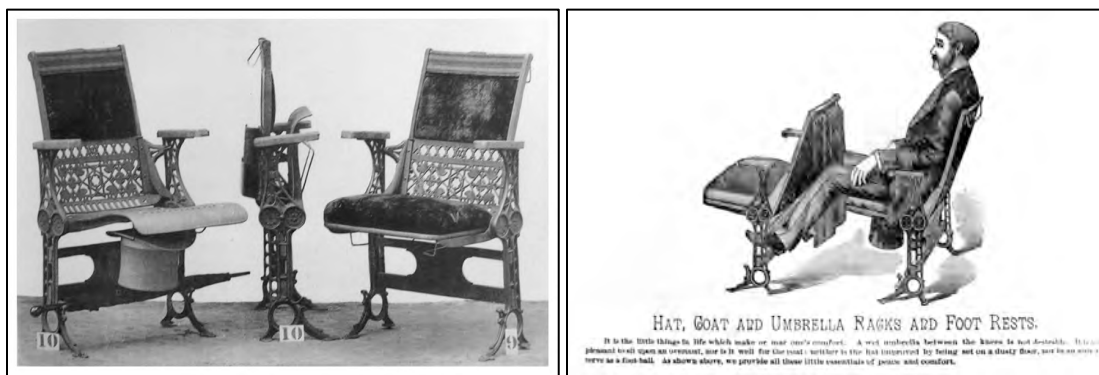
Fig. 3.27 Especially ornate cast iron chairs were imitative of fine carved French furniture, especially when coupled with tufted plush upholstery in rich colors. (a. A. H. Andrews & Co., *Improved Opera Chairs*, 1886, 4R; b. Thomas Kane & Company, *Assembly Chairs*; ca. 1887, 9; c. Chair, John Henry Belter, New York, 1845-60, Rosewood, silk, 1988.0117.001, Gift of the Richard and Gloria Manney Foundation, Courtesy of Winterthur Museum.)



(a)

(b)

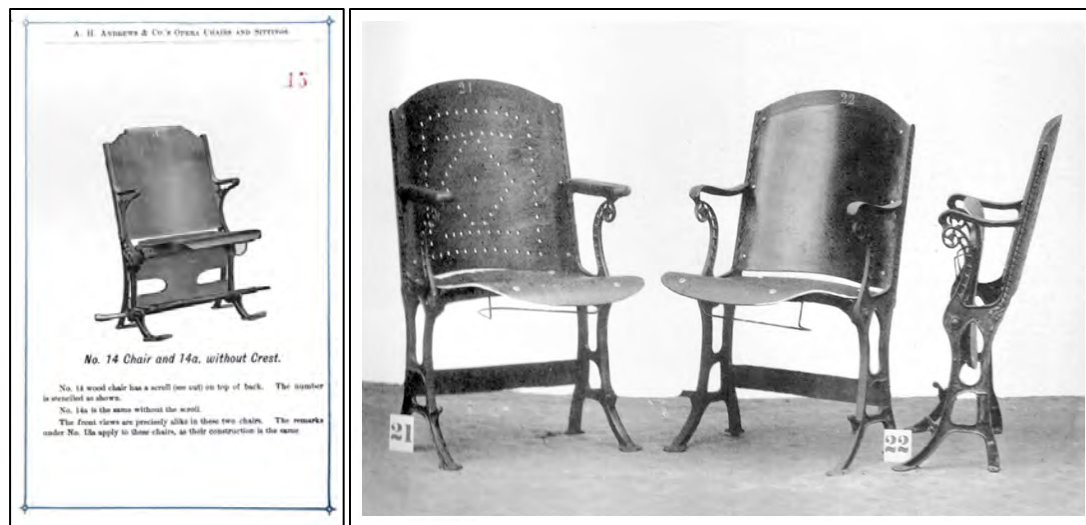
Fig. 3.28 Under seat storage was both a convenience and a control measure to stop patrons from fidgeting with personal items and from leaving early. (a. A. H. Andrews & Company, *Improved Opera Chairs*, 1886, 6R; b. American Store Stool Company, display advertisement, Jeffery, *Guide and Directory to the Opera Houses, Theatres, Public Halls*, 1882, np).



(a)

(b)

Fig. 3.29 Two images of fully laden chairs demonstrating their intended use and the controls instilled in them. The Thomas Kane Company chose to show only one chair in-use with a male occupant, a strong indication that controls were targeted at restless men, especially since a respectable woman would be unlikely to sit in such an open legged posture. The text in (b) reads: *It is the little things in life which make or mar one's comfort. A wet umbrella between the knees is not desirable. It is not pleasant to sit upon an overcoat, nor is it well for the coat; neither is the hat improved by being set on a dusty floor, nor in an aisle to serve as a foot-ball. As shown above, we provide all these little essentials of peace and comfort.* (a. and b. Thomas Kane & Company, *Assembly Chairs*, ca. 1887, 5, and 34.)



(a)

(b)

Fig. 3.30 Veneer chairs were cheaper alternatives to upholstered seats. Highbrow theaters and opera houses typically placed the seats in the upper tier inexpensive seats. The chairs were also frequently used in variety theaters and early cinemas. Perforated veneer chairs were sold as cooler than upholstered chairs, which may have been helpful in the top tier where the theater tended to get very warm. But the total lack of upholstery on backs, seats or arms made the chairs hard, slippery, and not particularly comfortable for a three-hour opera. (a. A. H. Andrews & Co., *Improved Opera Chairs*, 1886, 15R; b. Thomas Kane & Company, *Assembly Chairs*, ca. 1887, 17.)



Fig. 3.31 Hollis Street Theatre, 1935 detail of seats parterre, balcony, and upper tier. The opera chairs are 1900 replacements without the built-in cane and umbrella rack. Rather than wire they seats have a woven cable coat and shawl hanger. The seats in the lower tier have mahogany trim and red leather upholstery, those in the upper tier seat remain un-upholstered veneer chairs. (Historic American Buildings Survey, Creator. Hollis Street Theater, Hollis Street, Boston, Suffolk County, MA. Boston Massachusetts Suffolk County, 1933, [https://www.loc.gov/item/ma0905/.](https://www.loc.gov/item/ma0905/))

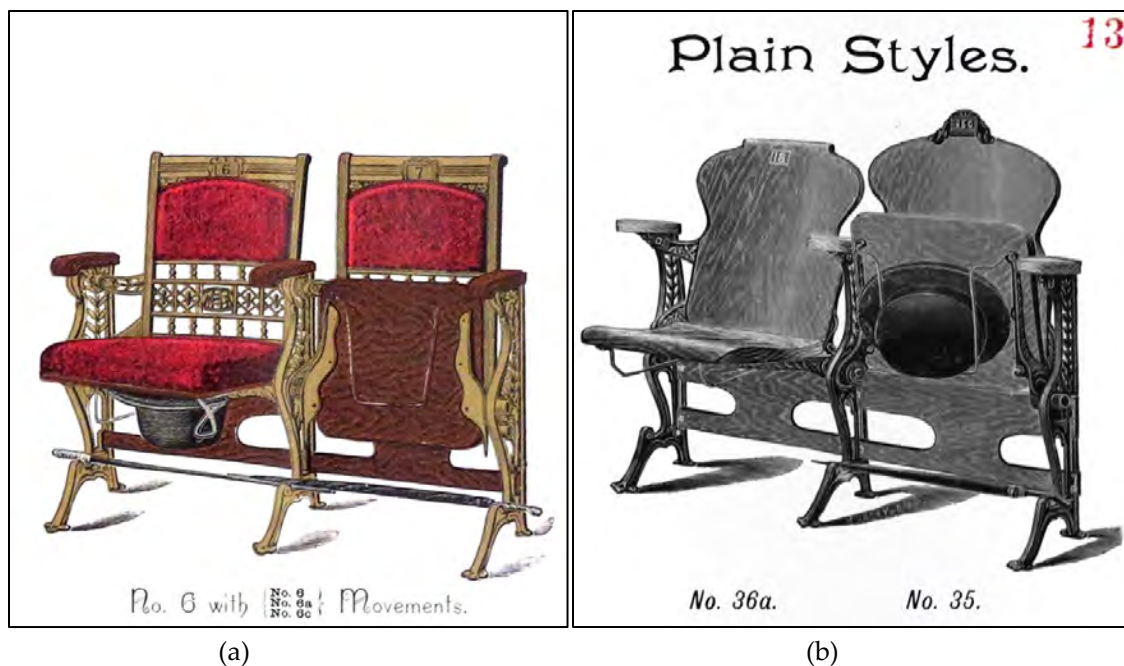


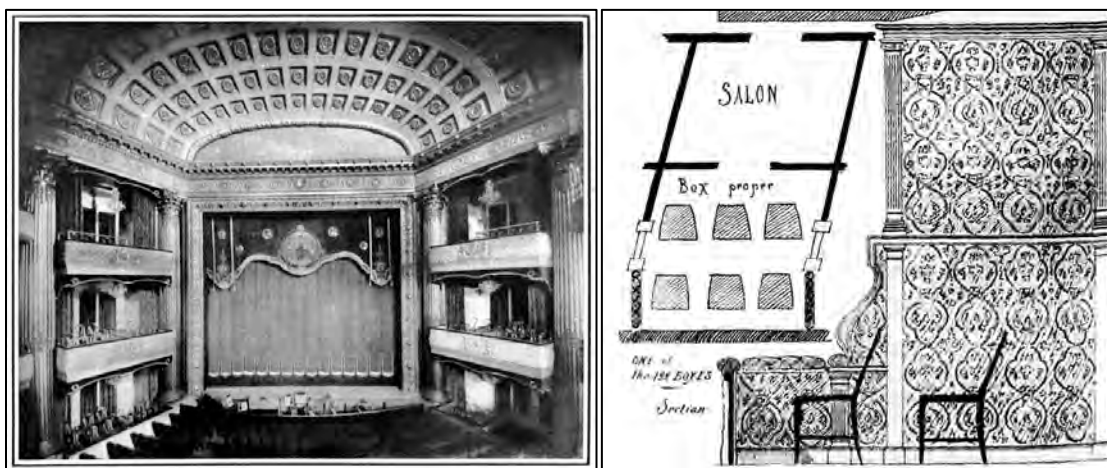
Fig. 3.32 The New York Academy of Music installed A. H. Andrews no. 6 model of ornate upholstered opera chairs (a) into the orchestra and first tier, and A. H. Andrews no. 35 model of plain veneer chair in the gallery. (a. and b. A. H. Andrews Co., *Catalogue of Improved Opera Chairs*, Chicago, 1886, 6R 13R)



Fig. 3.33 Ventilated opera chair, 1894 installed in the Castle Square Theatre and B. F. Keith's New Theatre in Boston. (Kidder, *Churches and Chapels*, 1910, 162.)



Fig. 3.34 Interior images of the elaborately decorated B. F. Keith New Theatre, Boston, 1894, clockwise from upper left: the Loggia, Grand Reception Room, and auditorium. (Keith, *B. F. Keith's New Theatre, Boston, Mass.*, 1894, np.)



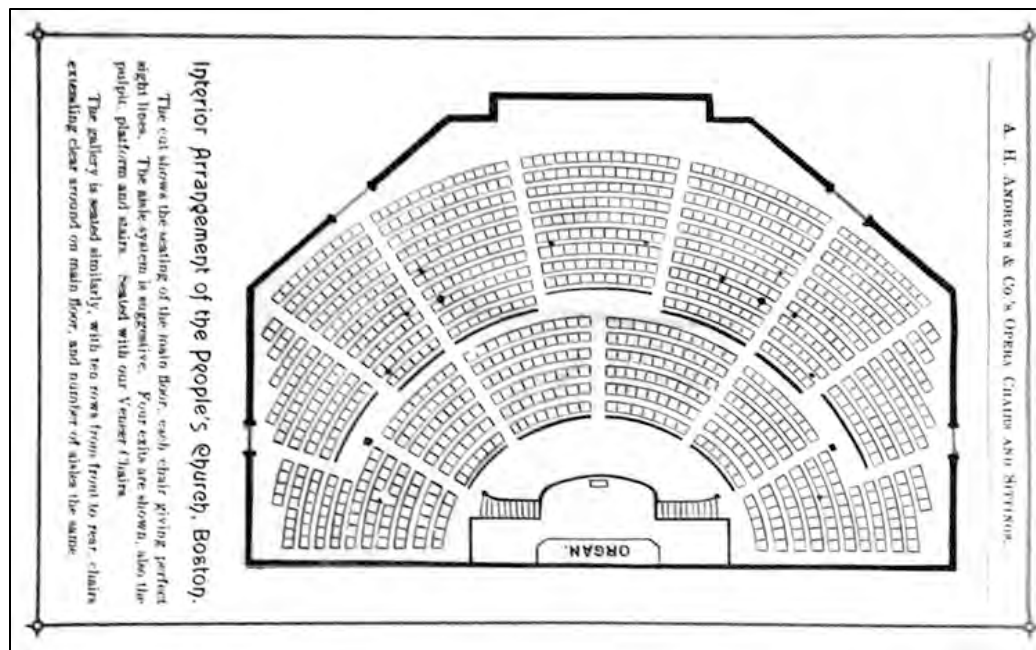
(a)

(b)

Fig. 3.35 (a) Interior photograph of the Columbia Theatre, San Francisco, circa 1907, and (b) plan and elevation of one of the 122 private boxes of the Metropolitan Opera House, New York City, 1883. (a. "San Francisco's Theatrical Rehabilitation," *The Theatre Magazine* 16, no. 138 (1912), 51; b. "The Opening of the Metropolitan Opera House Last Night," *The Daily Graphic* (October 23, 1883), 830.)



Fig. 3.36 Three of the eighteen chairs Heywood-Wakefield Company described in their catalog as “Box Chairs,” intended for private theater boxes. (Heywood-Wakefield Co., *Theatre and Assembly Chairs*, ca. 1921, 37.)



(a)



(b)

Fig. 3.37 Individual seats were installed in the 1884 People's Church in Boston instead of the more traditional pews. The plan (a) from the seat manufacturer catalog shows the theater like arrangement of the first floor. The manufacturer emphasized the importance of clear sightlines in its marketing. The caption reads: "The cut shows the seating of the main floor, each chair giving perfect sight lines. The aisle system is suggestive. Four exits are shown, also the pulpit, platform, and stairs. Seated with our Veneer Chairs. The gallery is seated similarly, with ten rows from front to rear, chairs extending clear around on main floor, and number of aisles the same." (a. A. H. Andrews and Co., *Catalogue of Improved Opera Chairs*, 1886, 11; b. Hamilton, *The People's Church*, 1885, fl.)



Fig. 3.38 A. H. Andrews & Co, no. 7 Veneer Chair installed in the Boston People's Church in 1884. A portion of the text reads: "It remains to add that were an upholstered chair is not wanted, and this is generally the case, no chair ever made has given the satisfaction afforded by our no. 7. Moreover, we shall be glad to refer parties in want of such seatings to those who have bought and made trial of these chairs. Architects are recommending the adoption of our chairs in the latest and most elegant churches, which, as they think, ought not to be behind the well-appointed opera house in beauty and comfort of the seatings." (A. H. Andrews & Company, *Improved Opera Chairs*, 1886, 7R.)

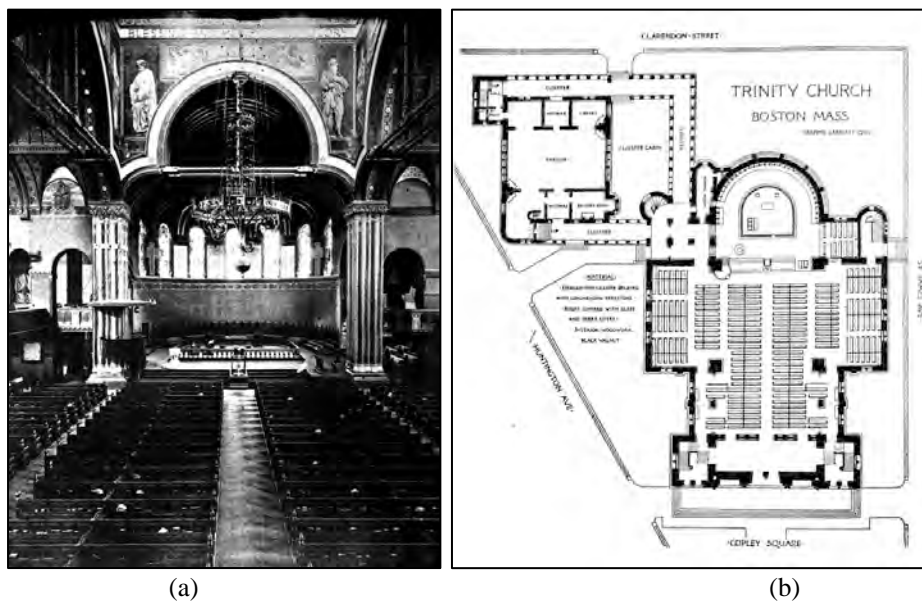


Fig. 3.39 Interior Trinity Church Boston, circa 1888 (a. Arthur H. Chester, *Trinity Church in the City of Boston: An Historical and Descriptive Account with a Guide to Its Windows and Paintings*, Cambridge, MA: John Wilson and Son, 1888, 22; b. Kidder, *Churches and Chapels*, 1910, Plate VII)

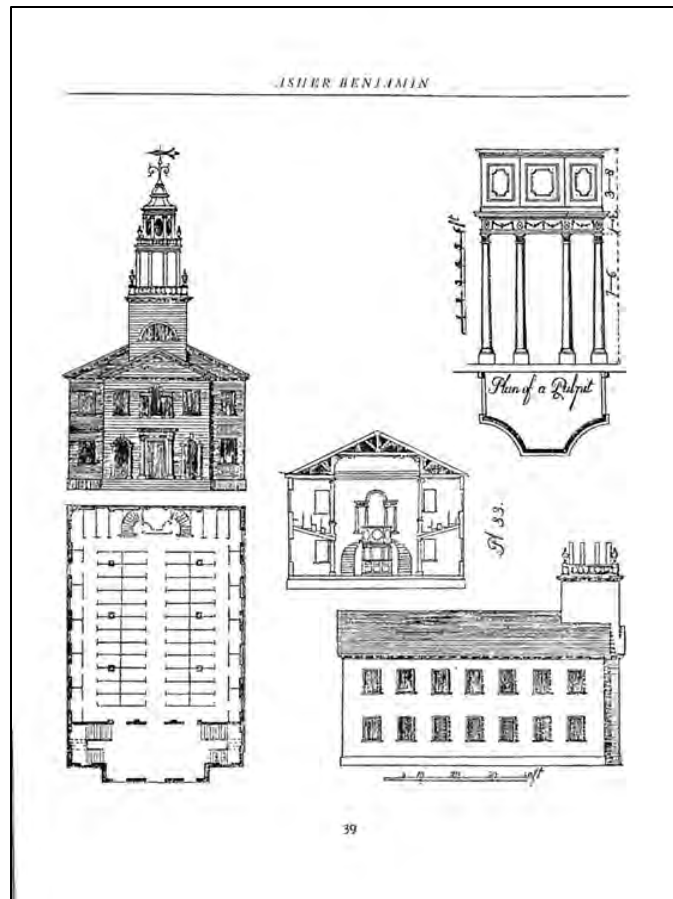


Fig. 3.40 Meetinghouse plan and elevations. Asher Benjamin drew a tiered balcony of pews in the section drawing at the center. (Benjamin, *A Country Builder's Assistant*, 1798, 39.)



Fig. 3.41 First Church of Christ (Old Meeting House), Interior towards pulpit, Charles Bulfinch, 1816-1817, Lancaster, Massachusetts. (Charles Bulfinch, *First Church of Christ, Interior towards pulpit*, Lancaster, MA, 1816-1817, The Carnegie Arts of the United States Collection.)

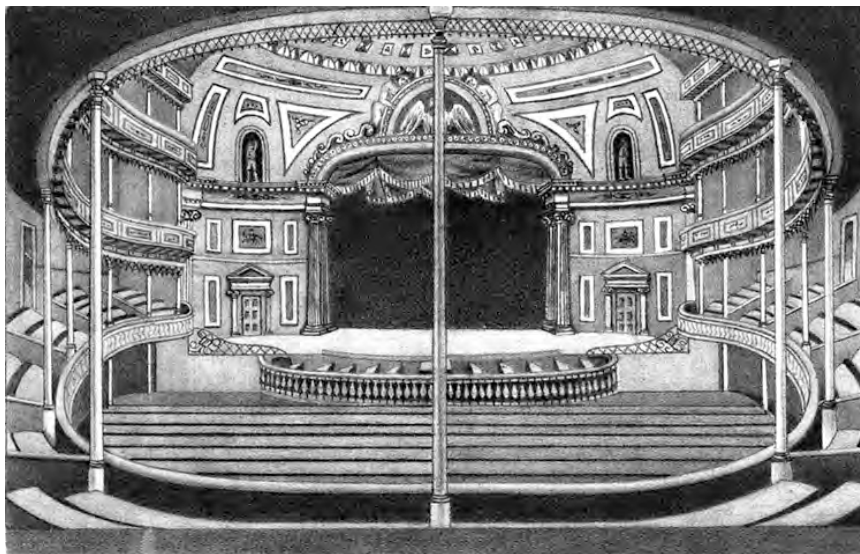
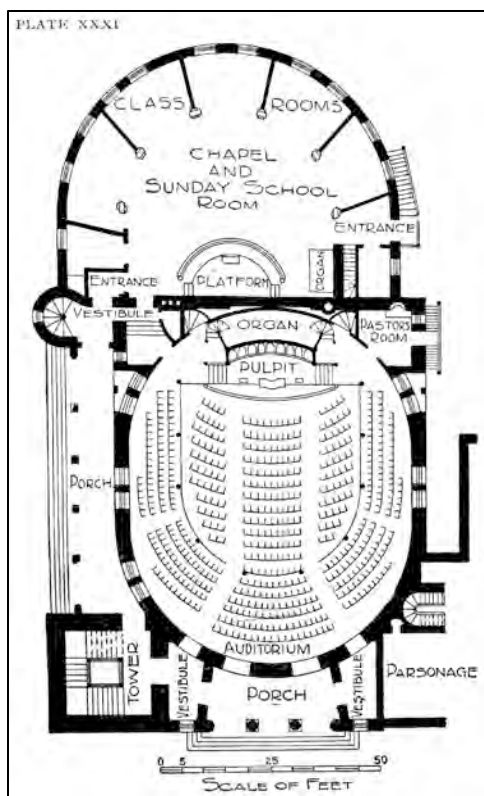


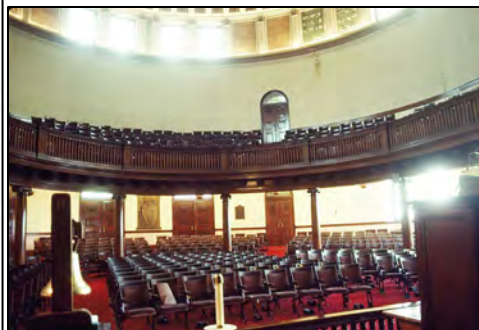
Fig. 3.42 Interior of the Chatham Theatre, New York City, 1825 (he Miriam and Ira D. Wallach Division of Art, Prints and Photographs: Print Collection, The New York Public Library. "Interior of the Chatham Theatre, New York 1825" New York Public Library Digital Collections. Accessed October 7, 2019. <http://digitalcollections.nypl.org/items/510d47da-239b-a3d9-e040-e00a18064a99>.)



(a)



(b)



(c)

Fig. 3.43 Radial plan church, First M. E. (Lovely Lane) church, Baltimore, MD, 1884. Stanford White, architect. Seating Capacity, 1400. (a. Kidder, *Churches and Chapels*, 1900, Plate XIII; b. and c. Richard Guy Wilson, Fiske Kimball Fine Arts Library Image Collection, University of Virginia [details].)



Fig. 3.44 A. H. Andrews & Co. spread highlighting their chairs for church use. The image on the left is captioned “In churches, where they have been extensively used, the Book-Box is found very convenient.” and at center “Architects are recommending the adoption of our chairs in the latest and most elegant churches, which, as they think, ought not to be behind the well-appointed opera house in beauty and comfort of the sitting.” In the page at right the caption reads “The new Book-box, attached for church use, is a feature of this Chair and is very neat. It meets a want never before supplied.” The design replaced a coat/shawl holder for storing elaborate outer clothing with a box for a religious book set. (A. H. Andrews, *Catalogue of Improved Opera Chairs*, Chicago, 1886, 7L, 7R, 8R.)

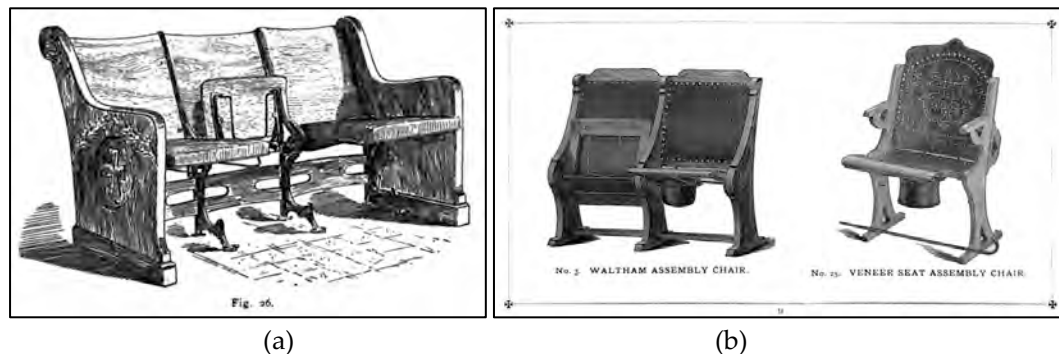


Fig. 3.45 More ecclesiastical chairs manufactured by the Harwood Chair Seat Company, Boston, 1883 and Andrews Demarest Company, New York, 1900. (a. F. E. Kidder, *Churches and Chapels* (New York: W. T. Comstock, 1900), 50; b. Harwood Chair Seat Co., *Catalogue of Assembly Chairs and Settees for Churches, Vestries, Halls, Opera Houses, Lodge Rooms, Depots, Offices, and all Public Places* (Boston, 1883), 9.)



Fig. 3.46 A. H. Andrews Advertisement, 1882. The advertisement lists 35 installations in opera houses, legitimate theaters, variety theaters and music halls. Jefferey, *Guide and Directory to the Opera Houses, Theatres, Public Halls*, 1882, np.)

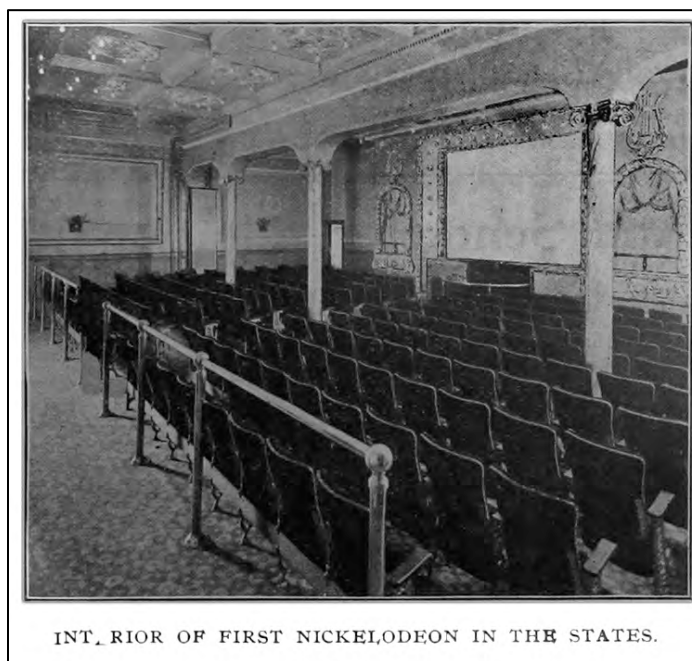


Fig. 3.47 Harry Davis opened one of the first Nickelodeon theaters in 1905. The Pittsburg theater sat all patrons in opera seats at the same level in an intimate setting that did not support segregated seating for African Americans. ("The First Neckelodeon [sic] in the States," *Motion Picture World* 1, no. 39 (November 1907), 629.)



Fig. 3.48 Veneer opera chairs, 1912 (Heywood Brothers and Wakefield Co, *Opera Chairs Public Hall Seating*, 1912, 41.)

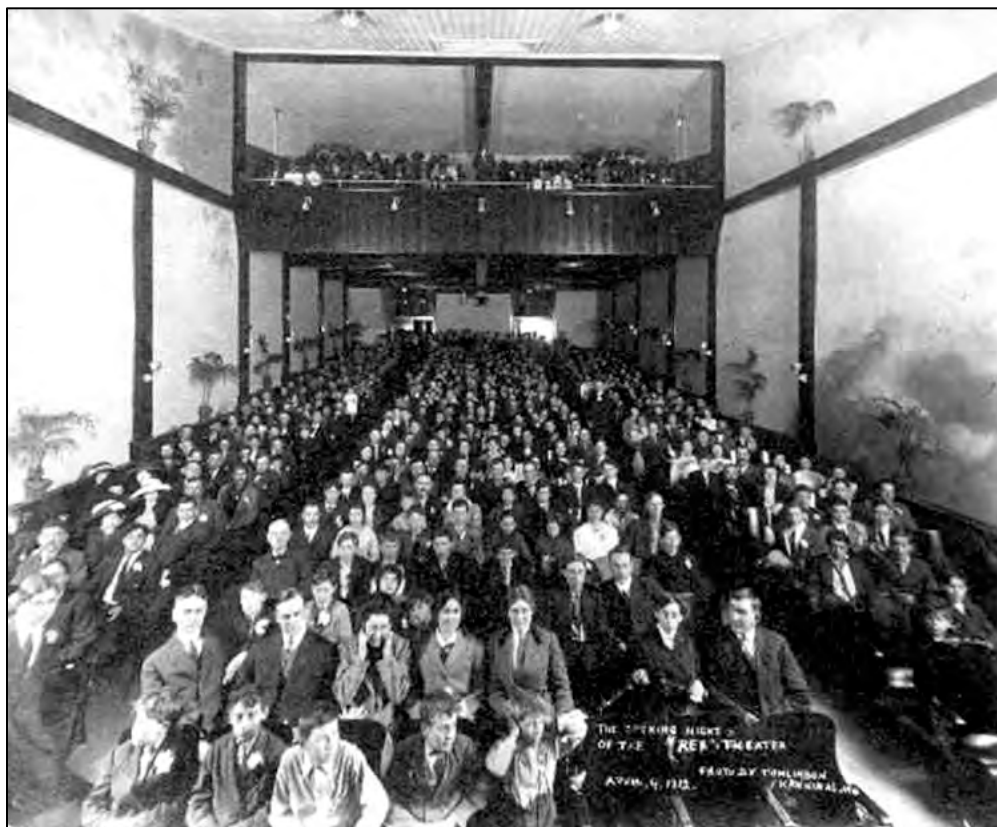


Fig. 3.49 Opening night at the Rex Theater, April 4, 1912, Hannibal, MO. All the African American patrons are seated in the balcony. (Steve Chou, Hannibal Free Public Library, <http://hannibal.lib.mo.us/digital/afram/B7321.htm> accessed 07/03/2018.)

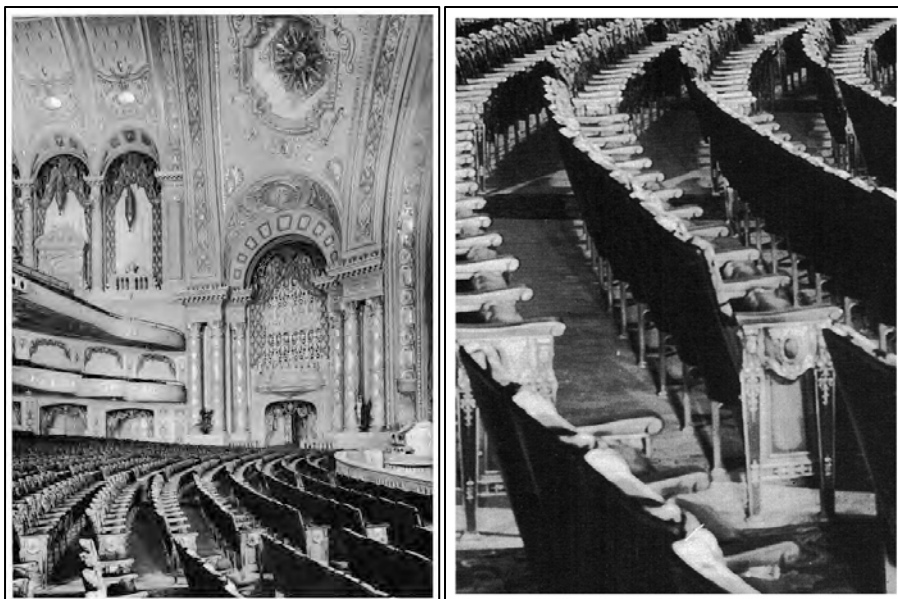
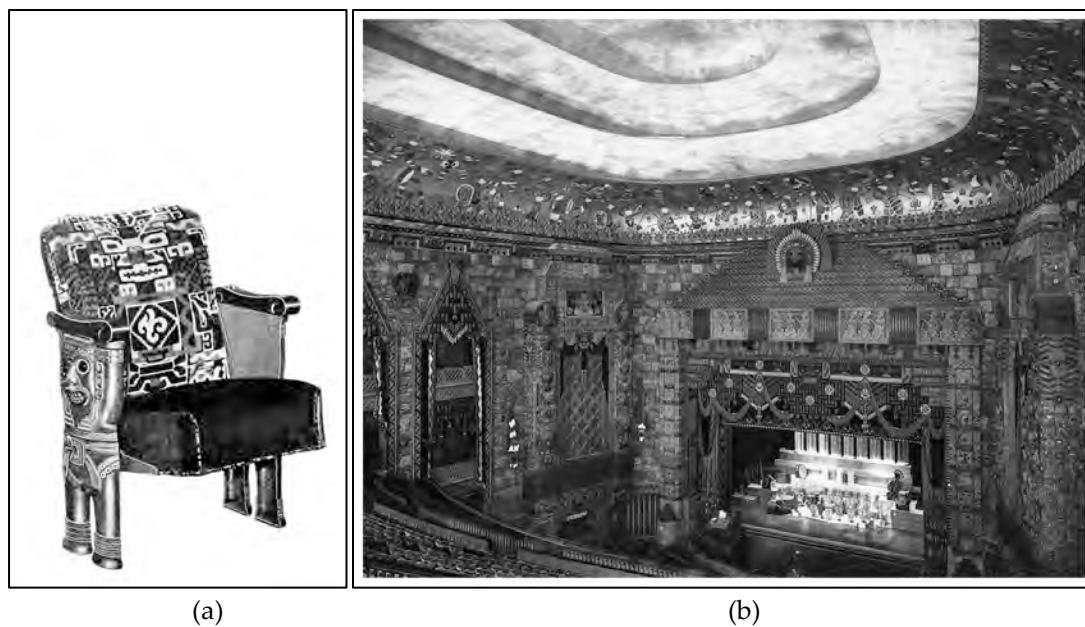


Fig. 3.50 Ornate seats designed to fit with the French Empire interior of the Mastbaum Theatre, Philadelphia, 1929. (Mastbaum Theatre, Stanley Company, 43-P-129B-004A, Irvin R. Glazer Theater Collection, Athenaeum of Philadelphia.)



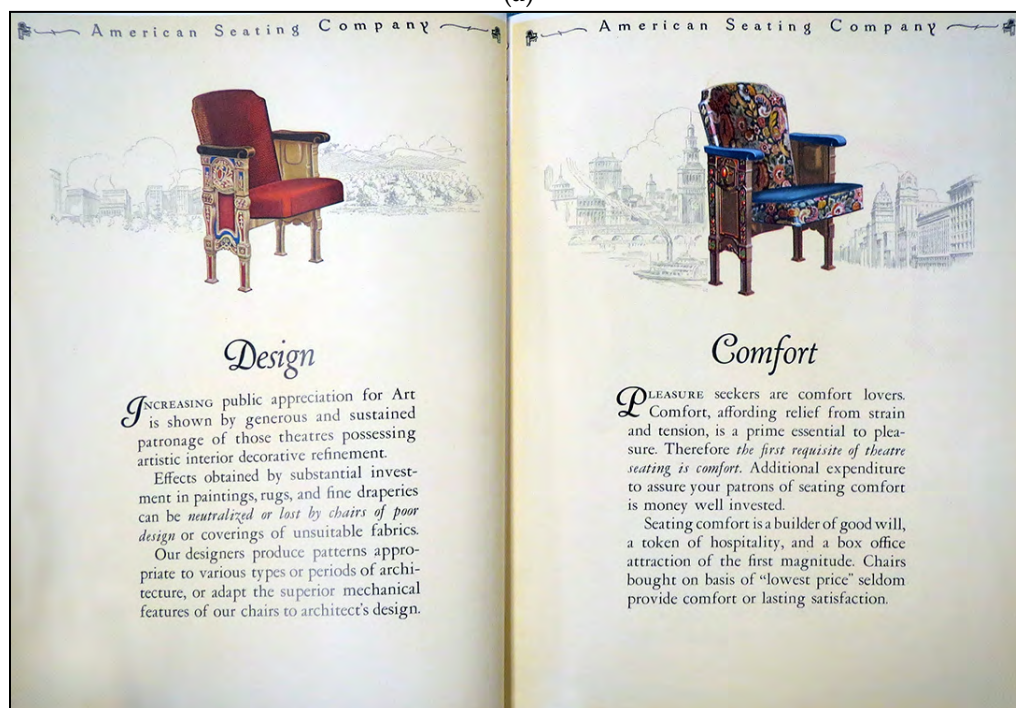
(a)

(b)

Fig. 3.51 Fantastic Mayan inspired seat designed by interior architects Grayven and Mayger for the Fisher Theatre, Detroit Michigan, 1928 and manufactured by the Heywood-Wakefield Company. (a. Detail of a Heywood-Wakefield advertisement, *Motion Picture News* 38, no. 22 December 1, 1928, 1662, Image courtesy of Levi Heywood Memorial Library, Gardner, Mass; b. Walter P. Reuther Library, Archives of Labor and Urban Affairs, Wayne State University.)



(a)



(b)

Fig. 3.52 (a) Theater row ends, Heywood-Wakefield Company, ca 1937 and (b) theater chairs 1920-1930 made by the American Seating Company. Plain ends suited ecclesiastical applications, while ornate, elaborately decorated standards were applied to movie theaters. Standards faced the aisles to cap rows of identical seats. (a. Heywood-Wakefield Co., *Auditorium Chairs* ca. 1937. 12-13, Image courtesy of Levi Heywood Memorial Library, Gardner, Mass; b. American Seating Co., *World Wide Seating Service for Theatres*, ca. 1930, np.)



(a)



(b)

Fig. 3.53 The New York Polo Grounds, 1905 World Series, New York Giants versus the Philadelphia Athletics – (a) on the corner of Eighth Avenue and East 155th Street looking toward Coogan’s Bluff in New York City. By 1914, the wooden stadium was replaced with a steel and concrete version. In the foreground detail (b) fans watch the game from carriages and automobiles. (Pictorial News Co., Boston Public Library, Michael T. “Nuf Ced” McGreevey Collection.)



(a)



(b)

Fig. 3.54 Fans gathered around the perimeter of fields (a) on the outskirts of cities to watch the first games. The detail of (b) implies women were fans from the earliest days of the game, watching from carriages as well as on the field (a. and b “The American National Game of Base Ball. Grand match for the championship at the Elysian Fields, Hoboken, N.J.” Currier & Ives, 1866, Library of Congress, LC-DIG-PGA-00600.)



Fig. 3.55 Union Grounds, Brooklyn, 1865 (*Frank Leslie's Illustrated Newspaper*, November 4, 1865, 104-105.)

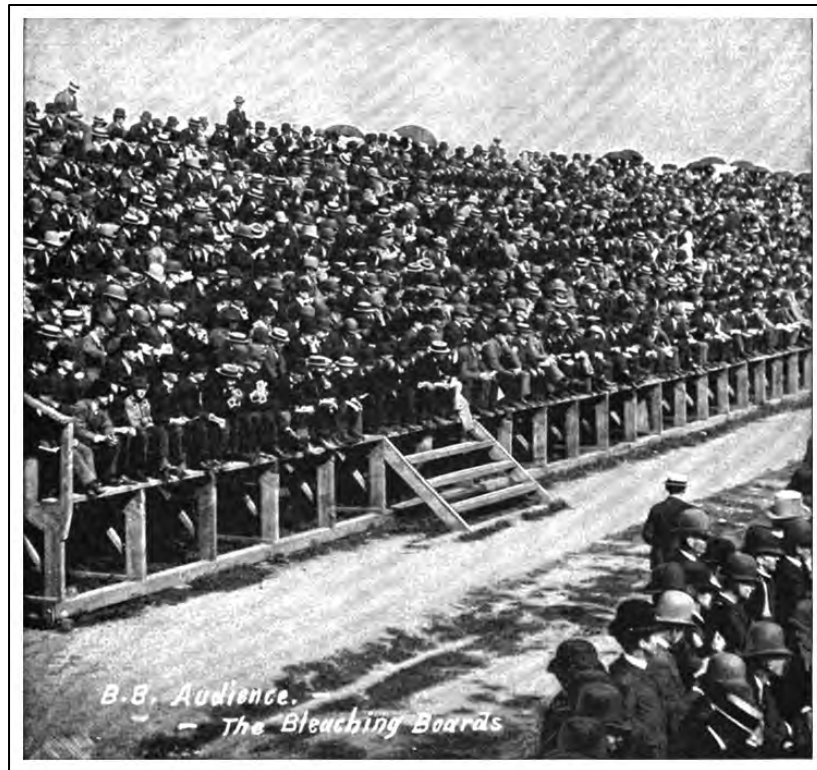


Fig. 3.56 Bleacher seats, circa 1888. Uncovered stands for spectators were referred to as “bleachers” or “bleaching Boards,” a reference to long hours sitting in the sun. The least expensive seats in the stadium offered very little in the way of conveniences but fostered camaraderie. (“Our National Game,” *Cosmopolitan Magazine* 5, no. 6, 1888, 455.)



Fig. 3.57 Standing room only fans lined the perimeter of Boston' s Huntington Grounds in this image from 1911 ([COMPOSITE] “ Huntington Avenue Grounds.” Photograph. 1911. Boston Public Library, <https://ark.digitalcommonwealth.org/ark:/50959/sf268662b> and “ Huntington Avenue Grounds.” Photograph. 1911. Digital Commonwealth, <https://ark.digitalcommonwealth.org/ark:/50959/sf268664w>.)

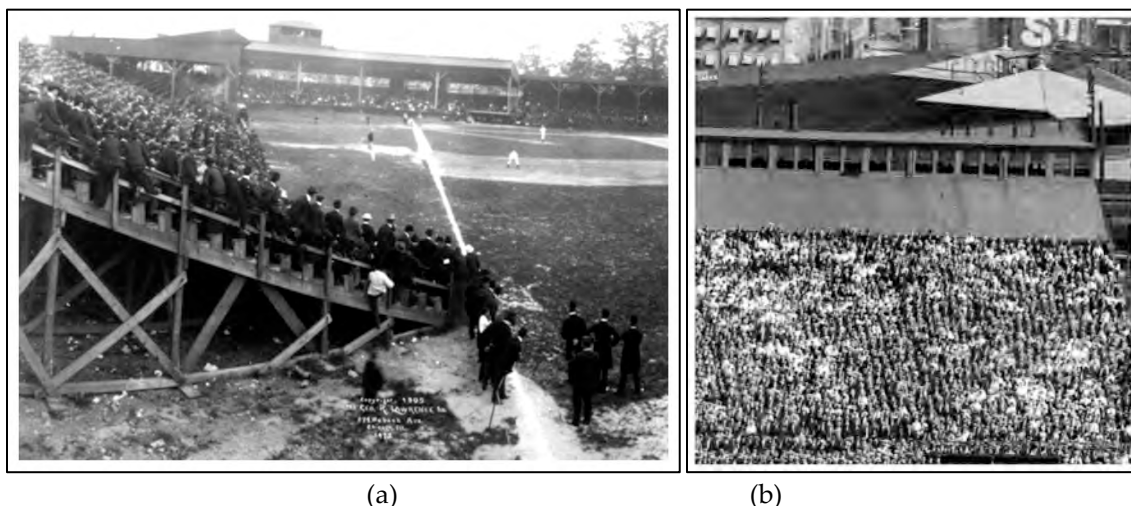


Fig. 3.58 (a) This image of American League Park, Washington, DC (Philadelphia vs. Washington, May 6, 1905) shows the simple wood construction for bleachers. Located far from the action, some of the men in the bleacher audience are standing on the seats and hanging off railings to get a better view. (b) View of the bleachers at Huntington Avenue Grounds, 1911 (Detail). No aisles are visible for circulation. The grandstand and bleachers of the South End Grounds where the Boston Braves played is visible in background center. (a. ([DETAIL] Geo. R. Lawrence Co., Library of Congress Prints and Photographs Division); b. [DETAIL] Michael T. “Nuf Ced” McGreevey Collection, Boston Public Library.)



Fig. 3.59 Bleachers at the Huntington Avenue Grounds, Boston, 1903 World’s Series, overall and detail. (Boston Public Library, Print Department, Michael T. “Nuf Ced” McGreevey Collection.)

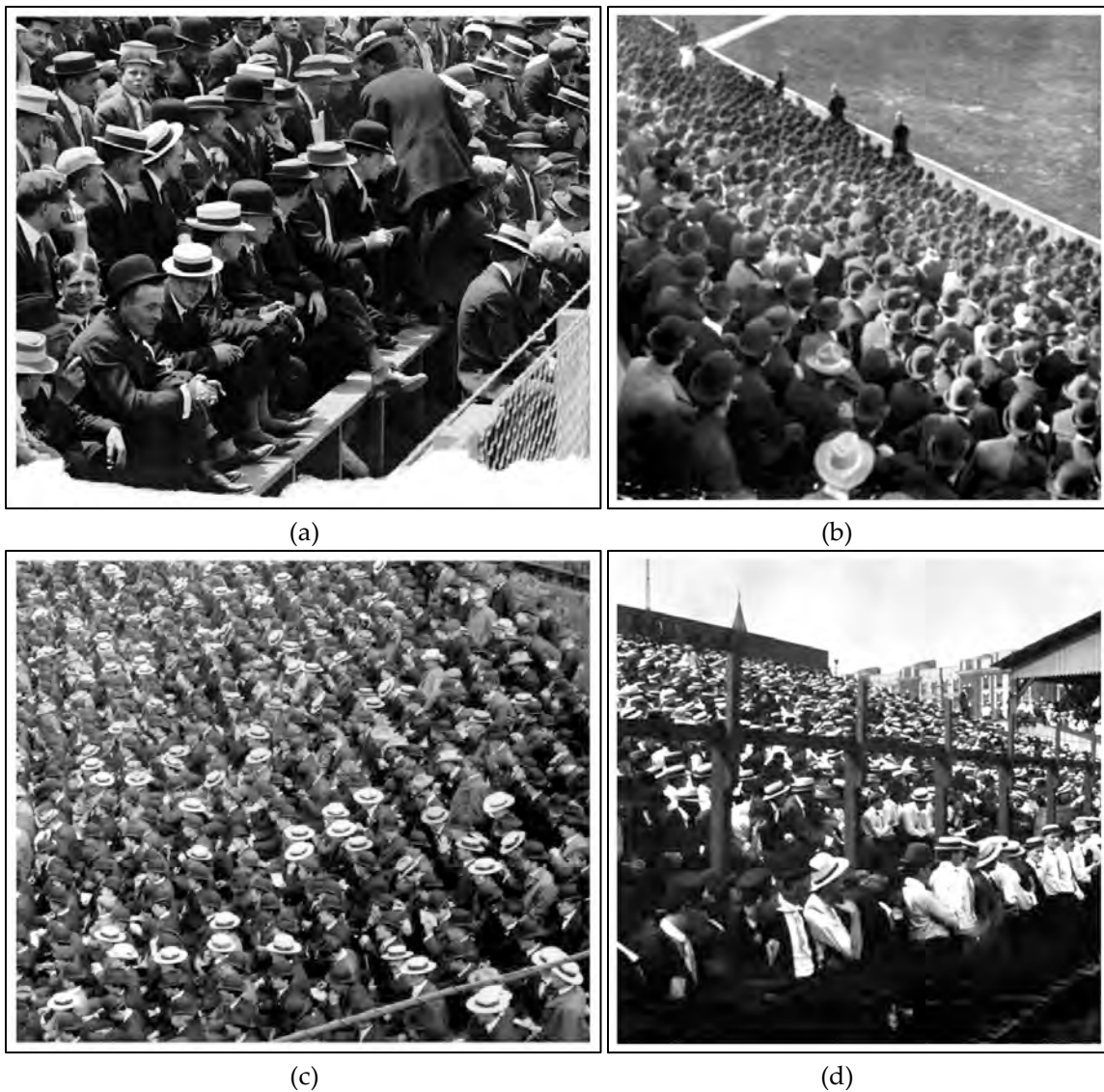
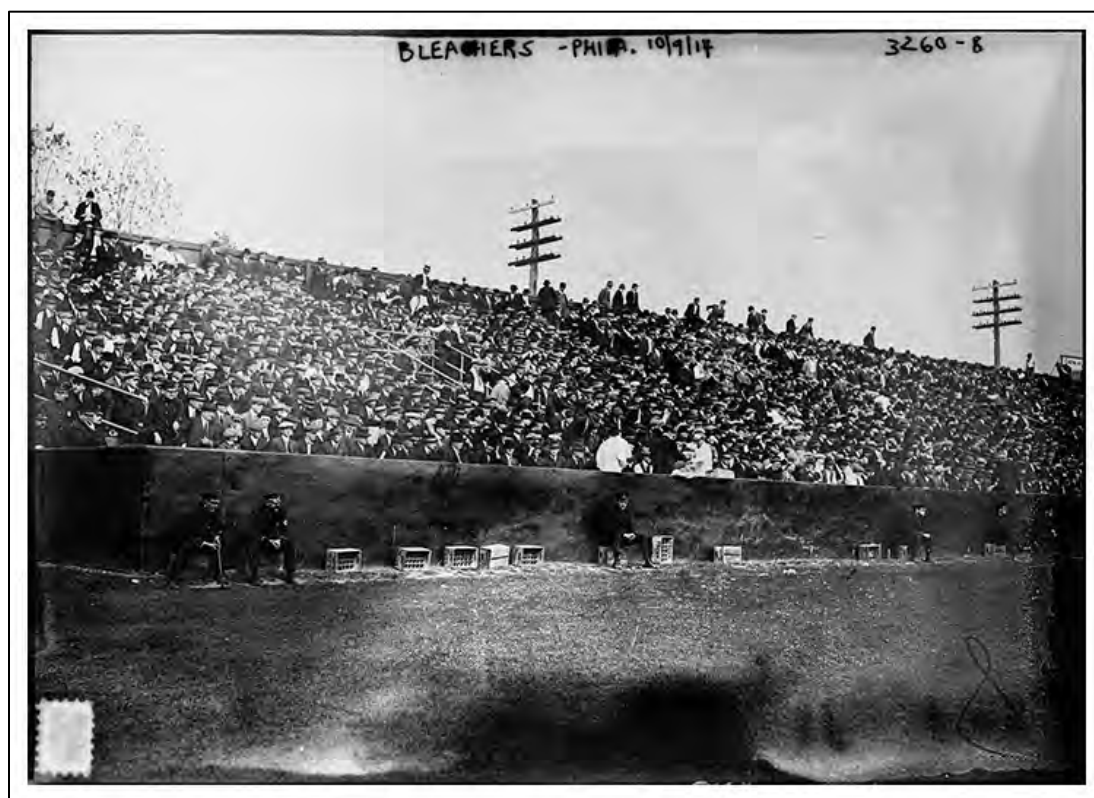


Fig. 3.60 Newspaper reports often describe bleacher fans as unruly and fervent fans. While that may have been the case during intense moments of competition, images of bleachers frequently show well-dressed men and boys, black and white, calmly attending games. (a) Forbes Field, 1909 (b) New York Polo Grounds, May 20, 1905, (c) Huntington Avenue Grounds (Boston), June 17, 1903 (d) Chicago South Side Grounds, July 2, 1908. (a. DETAIL from Detroit Publishing Company, Library of Congress, LC-DIG_det-fa10306; b) [DETAIL] Geo. R. Lawrence Co.; Library of Congress, PAN SUBJECT – Sports no. 83; c. Boston Public Library, Michael T. “Nuf Ced” McGreevey Collection; d. R. W. Johnston Studios, Library of Congress Prints and Photographs Division, PAN SUBJECT – Sports no. 5.)



(a)



(b)



(c)

Fig. 3.61 Ball clubs hired local police to keep the peace, and added fences, sometimes topped with barbed wire, to keep bleacher fans off the fields, and to keep them from throwing objects on to the fields. Some clubs stationed policemen adjacent to bleachers: (a) Philadelphia police in front of the bleachers at Shibe Park, 1914 World Series, and (b) Braves Field 2nd game of World Series, 10/9/16 showing fences and stationed police. The owners of Pittsburgh's Forbes Field (c) faced bleachers with an approximately seven foot high fence, topped with barbed wire to prevent fans from interfering with the game, 1909; d. (a. Bain News Service, Library of Congress Prints and Photographs Division Washington, LC-B2- 3260-8; b. Detroit Publishing Company, Library of Congress, LC-DIG_det-fa10306); c. Bain News Service, Library of Congress Prints and Photographs Division, LC-B2-4018-1.)



(a)



(b)

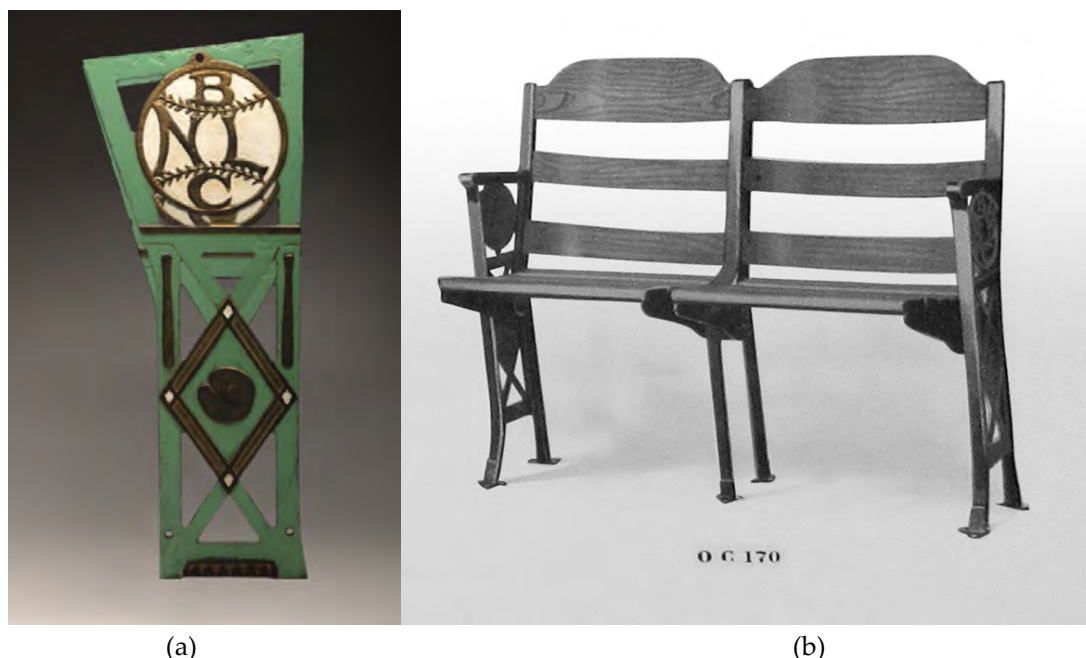
Fig. 3.62 a. West Side Park, Chicago, 1905, and b. 1906 World Series Game. Arrows added to indicate intentional breaks in the seating to keep fans from mixing. (a. SDN-004185, Chicago Sun-Times/Chicago Daily News collection, Chicago History Museum; b. George R. Lawrence Company, Boston Public Library, Print Department.)



(a)

(b)

Fig. 3.63 Early twentieth century baseball seats, Heywood Wakefield Company, Gardner, MA. The more elaborate standard has a baseball glove, baseball, and bat woven into its swirling iron work. (a. Heywood Brothers and Wakefield Co., *Opera Chairs Public Hall Seating*, 1912, 44; Ebbets Field Stadium Seat, circa 1913, Brooklyn, NY, circa 1915. National Baseball Hall of Fame Museum / Milo Stewart.)



(a)

(b)

Fig. 3.64 Decorated standards. (a. Braves Field end Standard, Boston Braves Stadium, 1915 circa, National Baseball Hall of Fame Museum / Milo Stewart; b. Heywood Brothers and Wakefield Co., *Opera Chairs Public Hall Seating*, 1912, 43.)



(a)

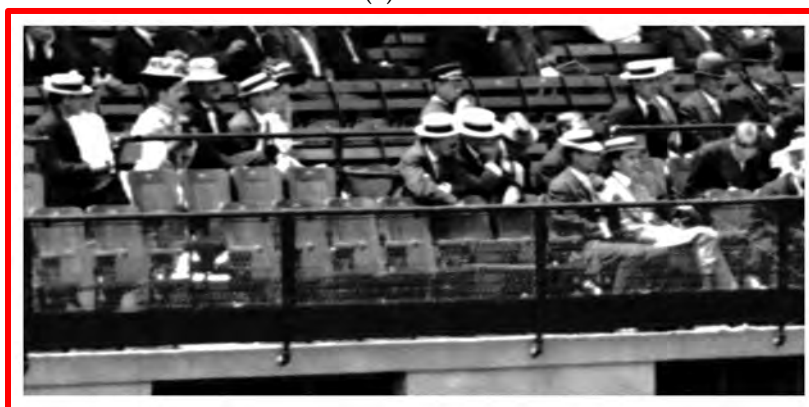


(b)

Fig. 3.65 Forbes Field, opened in 1909, one of the earliest concrete and steel constructions. Left field bleachers (in image (a) on the right side) were considerably closer than right field bleachers and sold for fifty cents rather than the usual twenty-five cents. The detail (b) shows the concrete and steel construction, and at lower left auxiliary benches and a line of laundry. (a. Detroit Publishing Company, 1909, Library of Congress, LC-DIG-ppmsca-40087; b. Detroit Publishing Company, Library of Congress, LC-DIG_det-4a10303.)



(a)



(b)



(c)

Fig. 3.66 (a) Forbes Field grandstand. The area indicated is the location of the detail showing eight-seat private boxes (b) indicated. The chairs were made by Heywood Wakefield Company and closely resembled their chair (c). (a. and b. Detroit Publishing Company, 1909, Library of Congress, LC-DIG_det-4a10304; c. Heywood Brothers and Wakefield Company, *Opera Chairs Public Hall Seating*, Boston, 1912, 29.)



(a)



(b)



(c)

Fig. 3.67 (a) Forbes Field grandstand seats. The area indicated is the location of the detail (b) private boxes with moveable seats (c). (a. and b. Detroit Publishing Company, Library of Congress, LC-DIG_det-4a10304; c. Heywood Brothers and Wakefield Company, *Opera Chairs Public Hall Seating*, Boston, circa 1912, 45.)



(a)

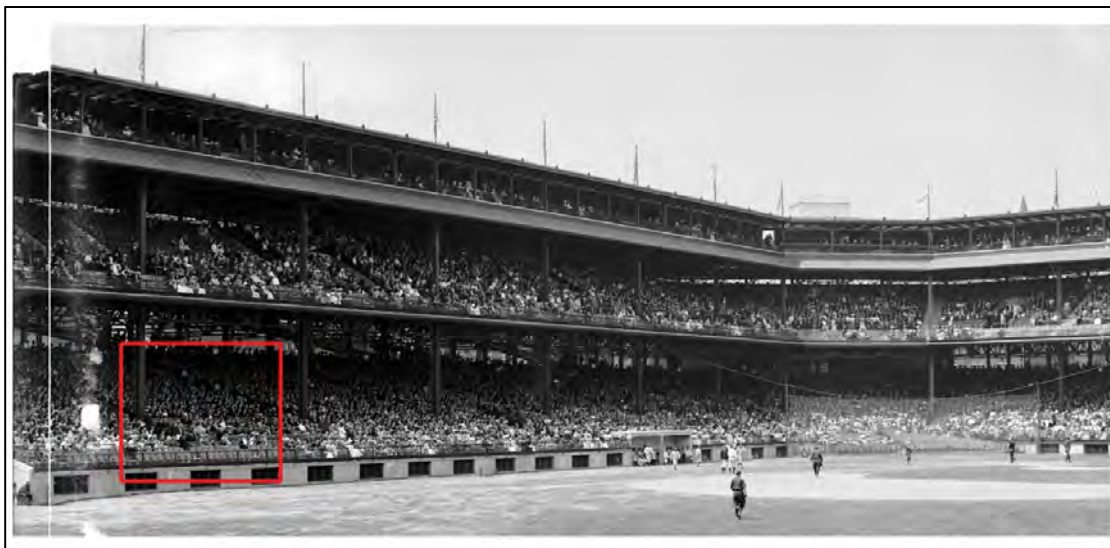


(b)

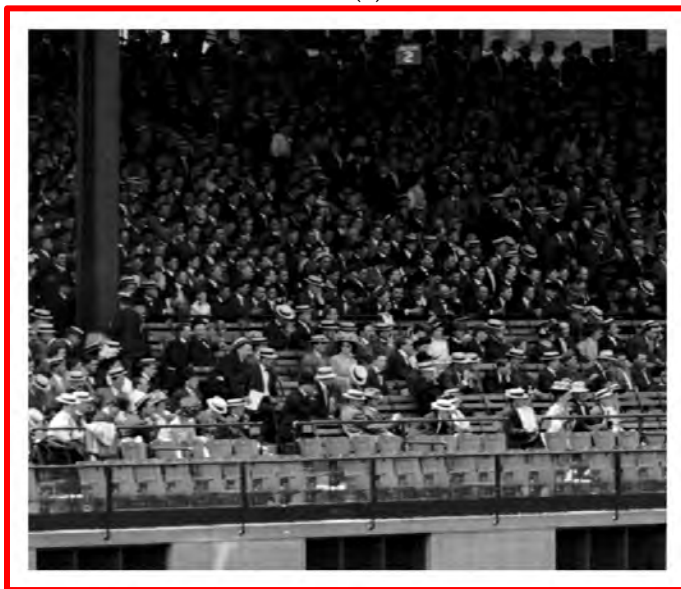


(c)

Fig. 3.68 (a) Forbes Field grandstand seats. The area indicated is the location of the detail (b) private boxes with moveable seats (c). (a. and b. Detroit Publishing Company, Library of Congress, LC-DIG_det-4a10304; c. Heywood Brothers and Wakefield Company, *Opera Chairs Public Hall Seating*, Boston, circa 1912, 45.)



(a)



(b)



(c)

Fig. 3.69 (a) Forbes Field lower level grandstand seats. The area indicated is the location of the detail (b) showing seven rows of partially occupied reserved seats, followed by twenty rows of unreserved seat. The chairs were flat backed slat wood with decorative cast iron standards arms (a. and b. Detroit Publishing Company, Library of Congress, LC-DIG_det-4a10304; c. Detail, Forbes Field demolition, June 19, 1970, Ross A. Catanza, *The Pittsburgh Press*, <http://www.post-gazette.com/gallery/June-28-1970-Last-day-at-Forbes-Field>, Access 07/18/2018.)

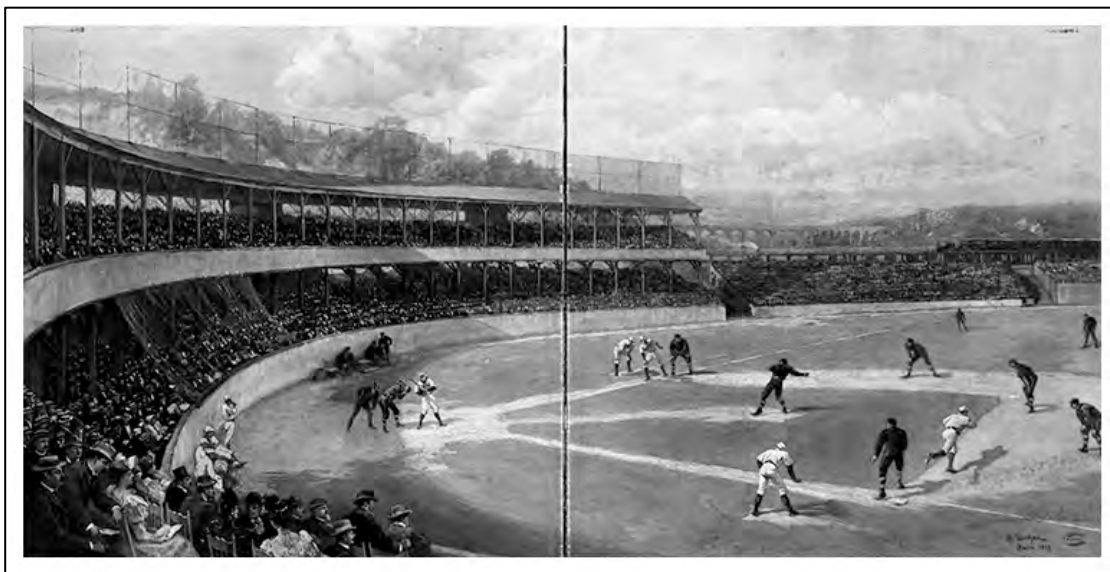


Fig. 3.70 Baltimore Orioles and New York Giants, Temple Cup Series, 1894, Printed in Paris in 1896 by Bousod Valadon & Co., In the lower left men and women appear seated in domestic chairs in private boxes. (Boston Public Library, Print Department.)

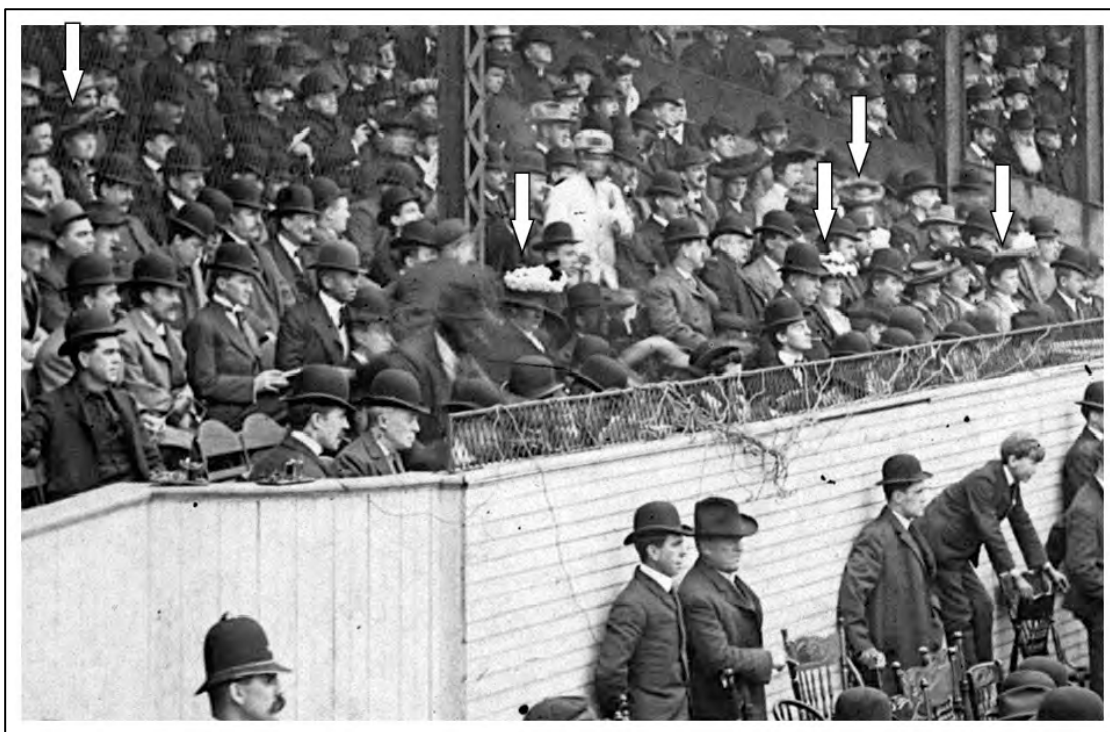


Fig. 3.71 The Rooters on the field at the Huntington Avenue Grounds, 1903 World Series, (Detail) with arrows added pointing to women seated in the grandstand. (Boston Public Library, Print Department, Michael T. "Nuf Ced" McGreevey Collection.)

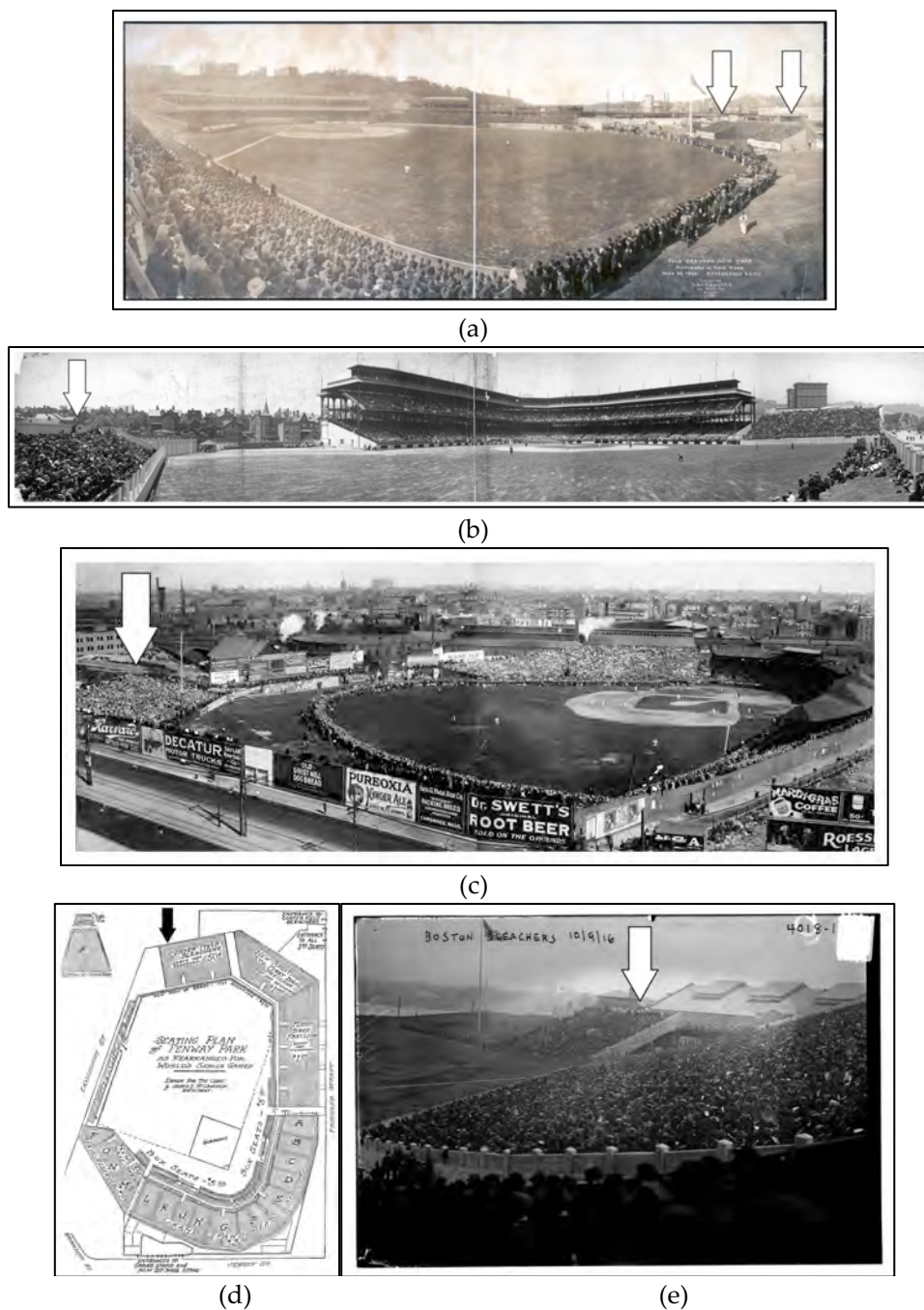


Fig. 3.72 The least expensive bleacher seats were often placed far away from the grandstands with separate entrances to visually and psychologically push immigrant bodies to the margins: (a) Polo Grounds, New York (1905); (b) Forbes Field, Pittsburg (1909); (c). Huntington Avenue Grounds, Boston (1911); (d) Fenway Park, Boston (1912); (e) Braves Field, Boston (1916). (a. Library of Congress, LC-DIG-ppmsca-40087; b. Library of Congress, LC-DIG-ppmsca-40087; c. Huntington Avenue Grounds, 1911, Boston Public Library Print Department, Michael T. “Nuf Ced” McGreevey Collection; d. *Boston Daily Globe*, October 4, 1912, 7; e. Bain New Service, “Boston bleachers, Braves Field 2nd game of World Series, 10/9/16,” Library of Congress, LC-B2- 4018-1.)



Fig. 3.73 Detail from a photograph of the big crowd at Braves Field to see Red Sox and Phillies in World Series. Several African American men are integrated into the crowd, 1915. Modified by author. (Leslie Jones, "Big crowd at Braves Field to see Red Sox and Phillies in World Series," Boston Public Library, Leslie Jones Collection.)

Chapter 4 Trains: Make room for the ladies

“As comfortable as parlor car seats,” was how a sports columnist described Philadelphia’s baseball stadium opera seats in 1909. For the writer, railroad parlor car seats epitomized comfort in commercial seating. Like opera seats in stadium grandstands, parlor car seats were marketed to a bourgeois female audience.¹ Similar to the strategy employed by theaters and stadiums to broaden the customer base, designers worked with railroads to manipulate physical and psychological comfort in seats to broaden the railroad customer base. Through form and function, passenger car designers sought to harmonize a culture dedicated to efficiency, nationalism, and morality with a society experiencing economic and demographic reformation. Seats stratified passengers to minimize conflict, but the result was a classed, gendered, and racialized spatial hierarchy. Passenger cars were a product in the marketplace that gathered crowds, acts, and symbols, described by Henri Lefebvre as places of “encounter, assembly and simultaneity” that constituted a social space.²

A potent site for the categorization of individuals, passengers lived on car seats for hours or days—relaxing, conversing, fighting, playing, eating, sleeping, and dreaming—while sealed in a space with twenty to seventy fellow travelers. By structuring bodies and interactions, car interiors became one of the “machineries of representation in a culture” identified by Stuart Hall as operating “a constitutive, and not

¹ “Philadelphia has the Finest Ball Park in the World,” *El Paso Times*, May 2, 1909, 5. “Car” was used in the United States to designate any vehicle on a railroad that did not provide motive power. The term coach was generally reserved for premium sleepers, parlor and dining cars. See Matthias Forney, *The Car-BUILDER’S Dictionary* (New York: The Railroad Gazette, 1879), 32, 43.

² Henri Lefebvre *The Production of Space* (Malden, MA: Blackwell Publishing, 1991), 101.

merely a reflexive, after-the event, role”³ The moment a passenger took a seat in a passenger car he or she became aware of layers of classification imposed by the railroad through the form, function and symbolism within the coach interior.⁴

In this chapter, I add to histories of inter-city rail travel by focusing on how car interiors acted on sensory experience.⁵ I deconstruct form and function to uncover political, economic, demographic, legal and technological changes upon design. This chapter complements and complicates Amy Richter’s thorough investigation of the feminization of railroad cars represented through narrative fiction and advice books. By augmenting an examination of the physical characteristics of car design with trade journals, etiquette books, novels, court cases and newspaper reports I amplify the voices of the working class, non-white and immigrant passengers who speak more quietly in the historical record than bourgeois travelers. European travel writers described details of construction and operation, though their emotional responses must be qualified since

³ Stuart Hall, “New Ethnicities,” in *Stuart Hall: Critical Dialogues in Cultural Studies*, ed. David Morley and Kuan-Hsing Chen (London: Routledge, 2006), 442-451.

⁴ Anthropologist Clifford Geertz’s denoted culture as “an historically transmitted pattern of meanings embodied in symbols, a system of inherited conceptions expressed in symbolic forms by means of which men communicate, perpetuate, and develop their knowledge about and attitudes toward life.” Geertz considers symbols “any object, act, event, quality, or relation which serves as a vehicle for a conception—the conception is the symbol’s ‘meaning.’” See Clifford Geertz, *The Interpretation of Cultures* (New York, NY: Basic Books, 1973), 89-91. For a discussion of cultural and social change in Victorian America see Daniel Walker Howe, *Victorian America* (Philadelphia, PA: University of Pennsylvania Press, 1984), 5-6.

⁵ Albro Martin, *Railroads Triumphant: The Growth, Rejection, and Rebirth of a Vital American Force* (New York: Oxford University Press, 1992); Amy G. Richter, *Home on the Rails: Women, the Railroad, and the Rise of Public Domesticity* (Chapel Hill, NC: University of North Carolina Press, 2005); John Stilgoe, *Metropolitan Corridor: Railroads and the American Scene* (New Haven, CT: Yale University Press, 1983); Carl W. Condit, *The Railroad and the City: A Technological and Urbanistic History of Cincinnati* (Columbus, OH: Ohio State University Press, 1977). H. Roger Grant, *Railroads and the American People* (Bloomington: Indiana University Press, 2012); Craig Miner, *A Most Magnificent Machine: America Adopts the Railroad, 1825-1862* (Lawrence, KS: University Press of Kansas, 2010).

many came with preconceived notions of American culture and society.

Space does not allow me to include a full discussion of rail travel history, nor do I cover every type of passenger car. I do not, for example, discuss commuter trains, nor do I examine streetcars and trolleys used for local travel. Though born of the same technological roots, local trains played a different social function and held a different place in the American imagination. I also do not discuss ultra-luxurious private cars because they were custom and made in small number. In this chapter I examine the development of standard passenger cars, produced in high volume, and used for trips of several hours to several days by citizens, immigrants, and visitors.

For nineteenth-century Americans, the railroad symbolized a young nation forging ahead into a prosperous industrial future, but along the way, railroads unsettled populations and reorganized society. In *The Machine in the Garden*, Leo Marx described the ambivalence of nineteenth century American authors for whom the railroad was simultaneously an optimistic symbol of human progress and a terrifying omen of the power of technology to destroy fundamental structures of society. According to Marx, the astute observer and chronicler Nathaniel Hawthorne considered the railroad a “counterforce,” reshaping society to meet “the singular conditions of life in nineteenth-century America.”⁶ Passengers struggled with how to behave within a new physical, social and psychological space that lacked etiquette rules.⁷ Though passenger cars came

⁶ Leo Marx, *The Machine in the Garden: Technology and the Pastoral Ideal in America* (New York: Oxford University Press, 1964,) 27.

⁷ Miner, *A Most Magnificent Machine*, 98-99; Martin, *Railroads Triumphant* 40, Authors tailored etiquette books to rail travel after mid-century, see Richter, *Home on the Rails*, 72, 93, 101-102, 202-203. At the 1848 and 1849 annual meetings of the New England Association of Railway Superintendents the members voted to establish a “uniform code of regulations for passengers.”

to support domestic activities of conversing, eating, resting and sleeping, etiquette rules for behavior in the private home did not always cover life in a rolling space filled with dozens of strangers. The lack of codes of conduct opened opportunities for experimentation and change. In rail cars passengers were freed (or condemned) to associate with others the railroad specified as compatible. For most passengers, the pre-determined classification with fellow passengers of different genders, races and classes was embraced, for some it was tolerated, and for a few, it was resisted.

Development of the railroad

American industry exploded in the first quarter of the nineteenth century, supported by roads and canals built to link the interior to the coast. In 1825, the Erie Canal opened the middle of the United States for the extraction of raw materials and the distribution of manufactured goods, but many subsequent canal projects failed to achieve profitability. Limitations on internal transportation stymied economic expansion. In the early 1830s, investors turned to the new technology of railroads. Low-friction iron rails and steam power increased efficiency and reliability well beyond canal boats. 7,500 miles of rail linked port cities to the interior by 1840. Though the impetus for railroad development was the shipment of freight, passenger fares were an important source of income.⁸

“Records of the New England Association of Railway Superintendents (Washington DC: Gibson Brothers, 1910, 19, 24-25); Etiquette writers that briefly addressed conduct within rail cars include A. Frost, *Frost’s Laws and By-Laws of American Society* (New York: Dick & Fitzgerald, 1869), 99-102 and Florence Hartley, *The Ladies’ Book of Etiquette* (Boston: G. W. Cottrell, 1860), 38-39.

⁸ Railroads were designed initially to carry freight; but through 1849 most generated a significant portion of their revenue from passengers. Albert Fishlow, “Internal Transportation,” in *American Economic Growth: An Economist’s History of the United States*, ed. Lance E. Davis, Richard A.

Before railroads, passengers in the United States traveled overland primarily via regularly scheduled stage coach lines.⁹ In a stagecoach, nine passengers bumped and swayed over unpaved roads while packed onto two or three transverse benches (**Fig. 4.1**). Long distance overland stages used on mail routes usually carried nine interior passengers on three transverse benches, and an additional five to seven on a bench behind the driver on top.¹⁰ Stagecoach drivers insisted black passengers travel atop the coach.¹¹ Those seated on the center bench had no back support. To minimize weight, a melon-shaped compartment stretched around bodies — widest at shoulder level and narrower toward the legs and feet.¹² A 1901 travel writer noted with frustration that “a person weighing perhaps less than 125 pounds, while being crowded by a fat fellow, would think it an imposition to be obliged to pay as much for passage as a man twice as heavy...still the stage company made no distinction.”¹³ During a stagecoach trip in 1832, abolitionist publisher William Lloyd Garrison complained of being “incarcerated—wedged—packed—consolidated.”¹⁴

Easterlin, and William N. Parker (New York, 1972), 473-74, 482, 496.

⁹ By the 1830s there were 79,140 miles of mainly short lines that ran about once a week, but in cities such as Boston, New York, Salem and Washington stages ran daily except Sundays. William Gannon, “Carriage, Coach and Wagon: The Design and Decoration of American Horse-Drawn Vehicles” (PhD diss., State University of Iowa, 1960), 41-45.

¹⁰ For a description of the arrangements and discomforts of the standard Abbot-Downing Company coach used on stage coaches traveling to the West see J. V. Frederick, *Ben Holladay The Stagecoach King* (Glendale, CA: The Arthur H. Clark Company, 1940), 81-86 and Frank Root and William Connelley, *The Overland Stage to California* (Topeka, KS: Crane & Co., 1901), 49-51.

¹¹ Elizabeth Pryor, *Colored Travelers: Mobility and the Fight for Citizenship before the Civil War* (University of North Carolina Press, 2016, 44-45; and Richard Archer, *Jim Crow North: The Struggle for Equality in Antebellum New England* (New York: Oxford University Press, 2017), 7-9.

¹² John White’s two volume survey *The American Railroad Passenger Car* is the seminal text documenting the engineering history of the passenger car. John. H. White, Jr. *The American Railroad Passenger Car 1* (Baltimore, MD: The Johns Hopkins University Press, 1978), 3.

¹³ Root, *The Overland Stage to California*, 49.

¹⁴ “Tour of the Editor,” *The Liberator*, October 13, 1832.

Stagecoach bodied rail cars

In 1830, stagecoach makers adapted the stagecoach form for horse-powered rail cars. Twelve to eighteen passengers squeezed onto interior benches and an additional twelve passengers sat on top (**Fig. 4.2**).¹⁵ When steam engines of the early 1830s vastly increased the pulling power, railroads commissioned stagecoach makers to design higher capacity cars.¹⁶ By combining three melon-shaped cars onto each set of four wheels, coach makers increased the number of passengers per car and eliminated the expense and friction of eight wheels.¹⁷ Larger rail cars sat thirty six passengers on benches in three separate compartments (**Fig. 4.3**). The ride was smoother than a stagecoach, but the design crushed riders into the same tight envelope of space.¹⁸

Each compartment contained approximately twelve passengers, six on a bench. In a land stagecoach that sat four bodies to a bench, a woman and companion could travel with her seated beside the window, and her companion blocking her body from contact with other passengers on the bench. But on the rail car benches, there was a much greater chance a woman would have to sit on an interior seat next to a stranger. To enter and exit a cab through the side door could potentially require a climb over and around a thicket of legs. Undifferentiated benches locked passengers into a confrontational face-to-face,

¹⁵ White, *The American Railroad Passenger Car*, 50-51.

¹⁶ A single horse could pull rail cars that contained more than fifty people. "Power!" *Weekly Raleigh Register*, January 7, 1830, 3; *The Horn of the Green Mountains*, June 15, 1830, 3.

¹⁷ J. L. Ringalt, "Development of Transportation Systems in the United States," *Railway World*, October 30, 1886, 1038.

¹⁸ For a discussion that compares railroad development in the United States with Britain see Charles More, *The Industrial Age: Economy and Society in Britain, 1750-1995* (London: Longman, 1997), 52; McShane and Tarr analyze the economics and social impact of horse power rail travel in Clay McShane and Joel A. Tarr, *The Horse in the City: Living Machines in the Nineteenth Century* (Baltimore, MD: The Johns Hopkins University Press, 2007), 2-5.

knee-to-knee posture, a body pressed in on each side. Etiquette rules were undefined for how men and women should negotiate crowded and confined spaces filled with strangers. Samuel Breck, a wealthy Philadelphia politician, recorded his frustrations after a summer 1835 rail journey:

They were huge carriages made to stow away some thirty human beings, who sit cheek by jowl as best they can. Two poor fellows, who were not much in the habit of making their toilet, squeezed me into a corner, while the hot sun drew from their garments a villainous compound of smells made up of salt fish, tar and molasses. By and by, just twelve — only twelve — bouncing factory-girls were introduced, who were going on a party of pleasure to Newport. “Make room for the ladies!” bawled out the superintendent. “Come, gentlemen, jump up on the top; plenty of room there.” “I’m afraid of the bridge knocking my brains out,” said a passenger. Some made one excuse and some another. For my part, I flatly told him that since I had belonged to the corps of Silver Grays I had lost my gallantry, and did not intend to move. The whole twelve were, however, introduced, and soon made themselves at home, sucking lemons and eating green apples. There is certainly a growing neglect of manners and insubordination to the laws, a democratic familiarity and a tendency to level all distinctions. The rich and the poor, the educated and the ignorant, the polite and the vulgar, all herd together in this modern improvement in travelling.¹⁹

Breck was offended that the conductor expected men of all ages and classes to “make room for the ladies,” and give priority to working class women in need of seats. The conductor cajoled men to clamber up to benches that swayed, exposed them to the elements, and threatened decapitation. Gentlemen were not the only passengers for whom Breck expressed concern. “Talk of ladies on board a steamboat or in a railroad car! There are none” Breck grouched; because he held that when “ladies” were jumbled into a class-diverse crowd he would “lose sight of their pretensions to gentility and view them as

¹⁹ Samuel Breck, “July 22, 1835” in *Recollections of Samuel Breck*, ed. H. E. Scudder (Philadelphia: Porter & Coates, 1877), 275-277.

belonging to the plebian herd.”²⁰ Visually inseparable from lower-class bodies, an American woman’s gentility was made invisible to Breck. Etiquette books stressed a woman’s appearance, behavior, and home decor as representative of her class, but enveloped in the heterogeneous public space of the early rail cars, genteel women exercised little control over their association with unappealing sights, sounds, smells, touches, and tastes.²¹

Open Compartment cars

Multi-compartment coaches built by stagecoach makers were an expedient, but not ideal, solution to the challenge of conveying passengers efficiently and comfortably. The melon shape, lightweight for horse-drawn travel over dirt roads, was unnecessarily compressed for powerful locomotives over steel rails. A new single-compartment car made in the mid-1830s was better suited to the physical and psychological comfort of passengers. Manufacturers installed high-backed arm chairs, fixed to the floor, arranged in pairs with a central aisle (**Fig. 4.4**).²² European visitors dubbed the arrangement an “American Railway Car” to differentiate it from multi-compartment cars with bench seats

²⁰ Breck, *Recollections of Samuel Breck*, 275-277.

²¹ John Kasson, *Rudeness & Civility: Manners in Nineteenth-Century Urban America* (New York: Hill and Wang, 1990), 174-180; According to Pierre Bourdieu control within domestic spaces was a means of making class distinction, see Pierre Bourdieu, *Distinction: A Social Critique of the Judgment of Taste* (New York: Routledge Classics, 2010), 244-247.

²² *The Great Industries of the United States* (Harford: J. B. Burr & Hyde, 1872), 548-549; Eaton and Gilbert of Troy New York had a reputation for building sturdy stage coaches and omnibuses before changing to focus on single-compartment passenger cars in the 1830s. Trenton W. Batson, “The Troy Car Works: A History of Eaton and Gilbert,” *The Railway and Locomotive Historical Society Bulletin*, no. 123 (October 1970): 5-22. The Eastern Railroad, running between Boston and Salem, was one of the earliest to change to single compartment cars in 1834. Francis Bradley, *The Eastern Railroad: a Historical Account of Early Railroad in Eastern New England* (Salem, MA: Essex Institute, 1917), 11 and 17.

prevalent on European railroads.²³ The elimination of interior walls increased capacity by ten to twenty riders, but a single compartment consolidated more potential strangers, a challenge overcome by a change from benches to arm chairs. Arms defined a passenger's domain, divided bodies seated side by side, and separated seated passengers from those passing in the aisle. Chairs arranged front-to-back diminished eye contact to reduce pressure to be sociable. Middle-class rules of polite conversation were complex and difficult to sustain, especially with those insufficiently well-bred to know all its rules.²⁴ Car designers replaced benches with armchairs for the primary reason theaters replaced benches with opera chairs – to increase patronage of bourgeois passengers. Like opera seats, railroad car seats supported genteel postures, restrained behavior, and control over physical, visual, and social distance from strangers.

Armchairs would seem ideal seats for a class and gender diverse ridership wary of contact and conversation with strangers, but chair cars did not become standard. A forest of legs inhibited cleaning food wrappers, newspapers, tobacco spit and other messes left behind by passengers. Railroads also lost valuable travel time and incurred labor costs to turn cars around for return trips because American passengers professed a strong dislike of riding backwards. Finally, arms between riders made entry and exit from the window seat awkward and reduced the width and comfort of individual seats. Overall seat width

²³ *London Illustrated News*, April 10, 1852; *A Visit to the States* (London: George Edward Wright, 1887), 364; "Adrift in the World," *Brown County World* (Hiawatha, KS), November 25, 1865; "Railway Traveling in America," *Scientific American* 2, no. 15 (January, 2, 1847): 1; "General Lee and His Family," *The Glasgow Daily Herald*, January 25, 1870, 2; "Secretary Marcy," *Buffalo Morning Express*, November 18, 1856; *The Bradford Observer* (Bradford, West Yorkshire, England), November 5, 1857, 7.

²⁴ See Karen Halttunen, *Confidence Men and Painted Women: A Study of Middle-class Culture in America, 1830-1870* (New Haven, CT: Yale University Press, 1982), 110-111.

was tightly limited by the standard width of a rail car which was constrained by the distance between platforms at stations and between double run tracks. On lines with copious space, the ratio of car width to track gauge (space between the rails) limited car width. Stability decreased as car width increased. For example, narrower gauge railroads typically used for short distance travel ran three-seat-wide cars (two seats on one side of the aisle and one on the other), rather than the standard four-seat-wide car.²⁵

Sofa Cars

By 1840, railroads replaced cumbersome armchairs with small sofas, a more comfortable and flexible solution (**Fig. 4.5**).²⁶ An innovative substructure reduced the number of legs from eight to two (and later to a single pedestal), reduced the weight and opened under-seat areas for rapid cleaning. By attaching the seat to the wall, designers freed space for a light-weight footrest intended for comfort and to discipline posture. Several illustrations and travel descriptions imply men frequently placed their feet on seats and seatbacks (**Fig. 4.6**). “Our seat companions...loll[ed] upon us, and doubled their legs back over the stiles of the seats before us, until they assumed the form and appearance of huge clasp knives, securing leg or foot-resters on the red velvet covered

²⁵ Narrow gauge was less than the standard 4 ft 8 1/2 inches between tracks, See C. Vann Woodward, *Origins of the New South: A History of the South 1877-1913* (Louisiana State University Press, 2006), 123-124.

²⁶ An 1887 broadside from the Davenport company in a scrapbook claims the company built 10 cars in 1834-35 that sat 24 passengers in fixed seats facing forward, in 1836-37 the company built twenty cars with a central aisle and seats that flipped, and in 1838-1839 built “a large number” of sixty-passenger cars with “very wide” backs and seats that and a “ladies’ saloon” in some cars; see Massachusetts Charitable Mechanics Association, Scrapbook, Massachusetts Historical Society. For the evolution of the forms see White, *Railroad Passenger Car 1*, 32-33. Claimants in a law suits described both double loaded single aisle cars and “omnibus style” cars with longitudinal seats in operation in 1835, see *Ross Winans Vs. The Eastern Railroad*, Boston, October 1853), 170, 358.

cushions of the seats,” an English journalist noted in 1857.²⁷ Footrests prescribed a location for the feet of restless passengers, a feature transferred to school, office and opera chairs, some of which were made by manufacturers of railroad furniture.²⁸

Sofa seats balanced comfort with the protection of women from unwanted physical contact. The design eliminated the arm between occupants seated in side-by-side armchairs. A woman more easily took a seat near the window without the obstructing arm. An uninterrupted 38-inch-wide seat was also more comfortable than two individual seats at 17 inches wide—a smaller framed person donated unused space to a larger framed seatmate. The seat maintained an arm between people that passed in the aisle and a seated passenger. Since respectable women traveled seated beside a chaperone, a dual-occupant seat adequately minimized contact of women with strangers.²⁹ If a woman and

²⁷ “American Railways,” *The Bradford Observer* (Bradford, West Yorkshire, England), November 5, 1857, 7; Benjamin F. Taylor, *The World on Wheels and Other Sketches* (Chicago: S. C. Griggs & Co, 1874), 54.

²⁸ Manufacturers of commercial furniture often produced for multiple institutions and transferred strategies and controls among institutions. Augustus Eliaers titled his innovative opera seat patent “Car Seats” to indicate he intended its applicability to trains. William Joeckel received patents for both a railroad car seat and a school seat incorporating the same basic structure; William Joeckel, “Improved seat for Railroad-cars and Schools,” U. S. Patent no. 33,887, December 10, 1861, and William Joeckel, “Improved Seat for Schools, &c.” U. S. Patent no. 33,994, December 24, 1861, Hale & Kilburn Company, one of the largest manufacturers of reclining rail seating also patented and manufactured rotating tilting office chairs. See U. S. Patent 175, 196 (March 21, 1876) and U. S. Patent 172,198 (January 11, 1876). Another large manufacturer of rail seating, Heywood-Wakefield, also was an early manufacturer of office chairs; see U.S. Patents 180,581 and 180,582 (August 1, 1876). John T. Hammitt of Philadelphia produced convertible office furniture and patented a reclining railroad chair, U. S. Patent 9,449 (December 7, 1852).

²⁹ According to German engineer Franz Von Gerstner, in 1842, the sofa seats of the Camden & Amboy railroad sat two passengers on a seat 38-inches wide, with 15 inches between the seat front and the back of the next seats and a 22-inch wide aisle. The dimensions had not changed in 1888 according to *The Car-BUILDER’s Dictionary*. Austrian engineer Von Gerstner toured the United States in the early 1840s to research American railroads and canals in preparation for civil engineering projects in Germany. Franz Anton Ritter Von Gerstner, *Die inner Communicationen der Vereinigten Staaten von Nordamerika 2* [The Inner Communications of the United States] (Vienna: L. Forster’s artstische Anstalt, 1843), 87. Measured drawings for a standard day coach appear in Matthias Forney, *The Car-BUILDER’s Dictionary* (New York: The Railroad Gazette, 1888), Fig. 170.

her companion entered to find only half-empty sofas, etiquette required a gentleman to surrender a full sofa. “She has only to intimate to any gentleman on a seat that she wishes to have it for herself or her companion,” an English newspaper reported in 1857, “and it is immediately surrendered to her.”³⁰ Seat backs reversed from front to back so railroads did not have to turn cars around. Passengers flipped the seats to limit or expand space for socializing. For example, a woman traveling with a companion and children flipped a seat back to double the space under her control.³¹

Though the new cars offered greater control over social interaction, the design continued to gather 50 or 60 people mixed in gender and class into a shared aural, olfactory, and visual space. Many genteel women objected to uncouth habits and random comings and goings of people in the cars. Spitting was a nuisance. An 1839 etiquette book advised women to dress plainly when traveling, because ‘few ladies that *are* ladies wear finery in rail cars.’³² It seemed some men spit carelessly: on the floor, on the seats, on women’s dresses, forcing women to walk through pools of saliva. Sofa car seats were too intimate for English travel writer Frances Kemble, who noted in 1834 that:

the seats, which each contain two persons (a pretty tight fit too), are placed down the whole length of the vehicle, one behind the other, leaving a species of aisle in the middle for the uneasy (a large portion of the

³⁰ *The Bradford Observer* (Bradford, West Yorkshire, England), November 5, 1857, 7.

³¹ The reversible back sofa was an adaptation of an existing form. Siegfried Giedion identified a similar swing-back bench in a 1438 altar painting of St. Barbara. School furniture manufacturers marketed swing back benches for Sunday schools where they were used to change from a consolidated group of listeners focused on a speaker, to smaller groups engaged in conversation. See Siegfried Giedion, *Mechanization Takes Command: A Contribution to Anonymous History* (New York: W. W. Norton & company, 1948), 285, 443-444. Joseph L. Ross and A. G. Whitcomb sold swing back benches for schools and Sunday Schools. For a discussion of how the benches operated in Sunday Schools see Waldo Abbot, *Our Sunday School* (Boston: Henry Hoyt, 1863), 215-225.

³² Eliza Leslie, *Miss Leslie’s Behaviour Book: A Guide and Manual for Ladies* (Philadelphia: T. B. Peterson and Brothers, 1839), 94-96, 124.

travelling community here) to fidget up and down, for the tobacco-chewers to spit in, and for a whole tribe of little itinerant fruit and cakesellers to rush through, distributing their wares at every place where the train stops.³³

Kemble griped that she could not escape “the foul atmosphere,” and “the poison emitted at every respiration from so many pairs of human lungs.” In winter, cast iron stoves radiated heat to the furthest reaches of the car only if passengers kept all the windows closed - roasting those seated closer to the stove. “A universal scowl and shudder” met passengers who opened a window. Frustrated, Kemble retreated with her children to an unheated “separate apartment for women.”³⁴

Ladies’ compartment Cars

Kemble found sanctuary in a small room partitioned from the main compartment for women traveling alone (**Fig. 4.7**). In 1838, the *Hartford Courant* trumpeted “the ‘Ladies’ car;’ a car specially appropriated to females and families, in which there is a private dressing room or apartment, with all necessary conveniences, exclusively for the use of ladies and families.”³⁵ A door or curtain secured a seven- to eight-foot-long room

³³ Kemble was English and familiar with the first-, second- and third-class carriages on British rail that separated passengers. Frances Kemble, *Records of Later Life* 1 (London: Richard Bentley and Son, 1882), 171-172.

³⁴ Kemble, *Records of Later Life*, 171, On the uneven heat of sofa-seat cars see Horace Porter, “Railway Passenger Travel,” in *The American Railway* (New York: Charles Scribner’s Sons, 1889), 234-235.

³⁵ Kemble dates her escape to a ladies apartment to 1834, but the earliest reference located for a car with a separate ladies apartment is in the *Hartford Courant* in December, 1838. The paper described it as an “original improvement,” as did papers describing cars with ladies apartments that appeared on other lines in 1839. The 1838 “Ladies’ car,” ran on the line between Philadelphia and Baltimore. The New York and Philadelphia line followed in 1839. “Railroad Travelling,” *Hartford Courant*, December 6, 1838, 2; “Ladies’ Car,” *Hartford Courant*, June 20, 1839, 2; “New-York and Philadelphia Railroad Line,” *The Evening Post* (New York, NY) September 18, 1839, 1; In 1842, Von Gerstner observed ladies’ compartment cars on the Wilmington & Raleigh Railroad, Philadelphia & Columbia, Baltimore & Susquehanna, Von Gerstner, Von Gerstner, *Die inner*

at one end of the car.³⁶ The apartment was nominally furnished: one or two sofas, a wash stand, and sometimes a free-standing rocking chair.³⁷ In her study of middle-class manners, Karen Halttunen noted that in the home, the parlor was a “front region,” that required “firm social discipline,” whereas in “back regions, the mask can be lowered and expressive control relaxed.”³⁸ The main compartment of the car was a mixed gender environment that demanded parlor-like manners, whereas the ladies apartment was like the back regions of the home. Sequestered from the main compartment women relaxed the vigilance and performance of gentility required in the parlor, reclined on sofas, conversed, and nursed infants, a task considered unseemly in mixed gender company. Railroads augmented physical comfort with the psychological reassurance of isolation to expand the pool of customers to women willing to travel alone.³⁹ Ladies’ compartments remedied “some serious objections that have hitherto existed against railroad travelling

Communicationen, 129, 224, 265. *Scientific American*, January 16, 1847, 131.

³⁶ Shipbuilders’ had provided a ladies cabin on the interior of steamships and canal boats to protect women from male sexual advances. Patricia Cohen, “Women at Large: Travel in Antebellum America,” *History Today* 44 (December 1994): 46; For a description of a similar arrangement in a canal boat see *Southern Literary Messenger* 2, no. 7 (June 1836), 447. An early railroad solution was to join two stagecoach bodies together and define one compartment as a ladies saloon and the other as a bar room (presumably a male-only space); both were reportedly “models of elegance and comfort.” The compartment solution was not ideal, however, as interior walls added weight and reduced passenger capacity, should only one or two women (or men) ride, much space was wasted. See “Cars of the Early Lines,” *Railway World*, October 30, 1886, 1036-1039.

³⁷ Four of the six cars produced in 1842 by Davenport and Bridges for the Auburn and Rochester Railroad contained “separate ladies’ apartments “with luxurious sofas for seats,” washstands “and other conveniences.” “Modern Luxuries—Magnificent (sic) Railroad Cars,” *Rochester Evening Post* reprinted in “Railroad Cars,” *American Railroad Journal and Mechanics’ Magazine*, June 15, 1842, 381.

³⁸ Halttunen, *Confidence Men*, 104. For an analysis of the spatiality of polite behavior see Chapter 3 “Regions and Region Behavior,” in Erving Goffman, *Presentation of Self in Everyday Life* (New York: Random House, Inc., 1959), 106-140. Douglas Galton, *Report on the Railways of the United States*, (London, 1857), 15.

³⁹ See Richter, *Home on the Rails*, 22-23.

on the part of families” *The Rochester Evening Post* reported in 1842, “...the ladies can now have their choice either of a sofa in their own apartment or a seat in the main saloon of the cars.”⁴⁰ Victorian mores insisted respectable women did not venture into public alone, but the ladies’ car, or at least the compartment within set aside for unaccompanied women, was an extension of domestic space in which unaccompanied women traveled safely ensconced in a private realm.

Though called a ladies’ car, antebellum railroads did not run women-only cars — it was unlikely enough women would purchase tickets to fill a 60-seat car. Like the parterre of a theater, the presence of respectable women in a ladies’ car defined a zone of gentility. Within the mixed gender environment, conductors and passengers policed behaviors and postures suitable to respectable domestic parlors.⁴¹ Although the name implies a gender segregated space, railroads used the moniker *ladies’ car* to disguise a class boundary.⁴² Sometimes when other cars were filled, railroads authorized conductors to invite men traveling without a female companion to sit in the ladies car if they deemed the men respectable.⁴³ Some railroads reserved ladies’ cars for those who paid the

⁴⁰ “Modern Luxuries—Magnificent (sic) Railroad Cars,” *Rochester Evening Post* reprinted in “Railroad Cars,” *American Railroad Journal and Mechanics’ Magazine*, June 15, 1842, 381.

⁴¹ Cohen, “Women at Large,” 47. Richter, *Home on the Rails*, 9-10. In practice, not all ladies’ cars had the separate compartment, see “American Locomotive Engine (and Carriage),” *The Practical Mechanic and Engineer’s Magazine*, January 1845, 103-104, and “Ladies’ cars,” *Scientific American* 2, no. 17 (January 16, 1847): 131.

⁴² Historian Evelyn Higginbotham noted that “Ladies were not merely women; they represented a class, a differentiated status within the generic category “women.” See Evelyn Higginbotham, “African-American Women’s History and the Metalanguage of Race,” *Signs* 17, no. 2 (Winter, 1992), 261.

⁴³ Richter, *Home on the Rails*, 87- 95; For examples of conductors using their discretion see “Communication,” *The Pilot and Transcript* (Baltimore), May 12, 1840, 2. O. M. Conover, *Reports of Cases Argued and Determined in the Supreme Court of the State of Wisconsin* 36 (Chicago, IL: Callaghan & Company, 1875), 450.

highest-priced through-passenger fares, while female passengers paying less expensive fares for interim stops had to make do in less comfortable cars among men traveling without female companions.⁴⁴

In ladies' cars, genteel men also insulated themselves from the cruder environment of all male cars where customers smoked, drank, and spit. Absent a female companion, however, genteel men's admission to a ladies' car was subject to a conductor's judgment of the passenger's character. "If you really want to travel for six months in the United States," a travel writer observed in 1870, "you had better marry, steal, or borrow a wife, than go alone."⁴⁵ Mark Twain's narrator in *The Gilded Age* suffered the insults of a manhandling conductor when he attempted to enter a ladies' car.⁴⁶ Genteel men were unhappy with the class reversal that could occur because of the ambiguity of using gender as a stand in for class. In an 1872 article titled "Ladies' car Humbug," Egbert Phelps argued "boors" traveled with their wives in comfort while gentlemen unaccompanied by women were "forced to ride in a carriage filthy and offensive in the extreme, in an atmosphere reeking with nauseating odors..."⁴⁷

Men sued after eviction from ladies' cars. In 1871, a Mr. Pike slipped into a ladies' car but was ejected by a crewman. Pike sued, but while he was awarded damages for rough treatment, the court argued that discrimination against men traveling without female companions was allowed because it was the duty of public carriers to preserve

⁴⁴ Modern Luxuries – Magnificent [sic] Railroad Cars," *American Railroad Journal and Mechanics' Magazine* 8, no. 1 (January 1, 1842).

⁴⁵ "American Railway Travelling," *Putnam's Magazine* 5, No 26 (February, 1870): 200.

⁴⁶ Mark Twain and Charles Dudley Warner, *The Gilded Age: A Tale of To-Day* (Hartford: American Publishing Company, 1874), 218.

⁴⁷ Egbert Phelps, "Ladies' car Humbug," *The Lakeside Monthly* 7, no. 39 (March, 1872), 254.

“good order”⁴⁸ The Wisconsin Supreme Court issued a similar verdict in an 1875 suit in which a male passenger claimed the right to a seat in a ladies’ car because the men’s coach was rudely furnished, with wooden seats, and was a second class car.”⁴⁹ In 1879, The *New York Times* reported additional examples of men denied entry to ladies’ cars and posed the question “has the ‘ladies’ car’ been altogether superseded by the Pullman and Wagner vehicles?”⁵⁰

The *New York Times* question referred to sleeping cars, a new car type designed to suit the needs of bourgeois passengers. Historians Stuart Blumin and Sven Beckert have outlined the emergence of the middle-class and the bourgeois class as separate groups, but in rail travel the wealthy capitalist owners and the petit-bourgeois artisans, managers and clerks who served them mixed in the better classes of cars, whereas the working class and poor suffered in a lower quality cars.⁵¹ European writers represented American rail cars as emblematic of the democratic values associated with the nation’s founding, even as they incongruously included descriptions of a segregated system.⁵² A

⁴⁸ Peck v. N. Y. C. & H. R. R. R. Co., 70 N. Y., 587 (Decided October 2, 1877), *New York Supreme Court Reports, January to June 1875* 6 (Albany, NY: John D. Parsons Jr, 1875), 437-439.

⁴⁹ Conover, *Reports of Cases Argued* (1875), 453.

⁵⁰ “The Ladies’ Car,” *The New York Times*, February 1, 1879. Ladies’ cars remained in use into the second decade of the twentieth century. In 1922 the Burlington Railroad introduced cars that reversed the gender proportions of the ladies’ cars of the 1840s, with a large section devoted to women-only, and smaller section where “Mere Man will be permitted.” See “Give Women Travel Luxury,” *The Chicago Daily Tribune*, April 28, 1911, 10.

⁵¹ On the development of the middle class see Stuart Blumin, *The Emergence of the Middle Class: Social Experience in the American City, 1760-1900* (New York: Cambridge University Press, 1989), and on the development of the capitalist class see Sven Beckert, *The Monied Metropolis: New York City and the Consolidation of the American Bourgeoisie, 1850-1896* (New York, NY: Cambridge University Press, 2003).

⁵² Irish economist Dionysius Lardner observed “The passenger carriages are not distinguished, as in Europe, by different modes of providing for the ease and comfort of the traveler. There are no first, second, and third classes,” see Dionysius Lardner, *Railway Economy* (New York: Harper & Brothers, 1850), 337, 346. Von Gertzner identified ten rail lines out of major cities that ran second

traveler in 1857 contrasted “the practice of the American doctrine of universal equality,” with English railroads:

There are no first, second, or third-class carriages as with us. The cars are for all white persons promiscuously, except that there is a select car for ladies, which is in better order than the general cars. For coloured persons there is the Negro car – coloured persons not being usually allowed to sit, eat, or ride with the whites. The Negro car is a rough heavy vehicle, very much like our luggage vans.⁵³

In 1852, *The London Illustrated News* observed:

There is nothing exclusive in an American car. ...The comfort afforded is sufficient to warrant this observation this observation, for, as “all men are equal,” so there is no second-class car, unless for excavators and such like persons...⁵⁴

And after an 1842 train ride, Charles Dickens explained (sarcastically):

There are no first and second class carriages as with us; but there is a gentlemen’s car and a ladies’ car: the main distinction between which is that in the first, everybody smokes; and in the second, nobody does. As a black man never travels with a white one, there is also a negro car; which is a great blundering clumsy chest, such as Gulliver put to sea in, from the kingdom of Brobdignag.”⁵⁵

Also, in 1842, Austrian engineer Von Gerstner observed that American passengers were not classed unless they were black, in which case they were housed in baggage or crew cars.⁵⁶

class cars: The Boston & Providence, The Boston & Lowell, the New York Providence & Boston, the Boston and Worcester, Norwich & Worcester, New Haven and Hartford, Camden & Amboy, Mauch-Chunk, and Central Railroad of Georgia. Von Gerstner, 88, 121-123, 90-92, 259, 289-290, 299, 312, and 314.

⁵³ *The Bradford Observer* (Bradford, West Yorkshire, England), November 5, 1857, 7.

⁵⁴ “Travelling in the United States,” *The Illustrated London News*, April 10, 1852.

⁵⁵ Charles Dickens, *American Notes* (London: Chapman and Hall, 1842), 156-157. Dickens, like Trollope, was a not particularly fond of American culture, but his widely disseminated observations, while strident, were corroborated by other sources.

⁵⁶ Austrian engineer Von Gerstner detailed a range of second-class cars in his extensive review of American railroads, Franz Anton Ritter Von Gerstner, *Early American Railroads: Franz Anton Ritter Von Gerstner*, Frederic C. Gamst, trans. David J. Diephouse and ed. John C. Decker

Sleeping Cars

Sleeping Cars (1850–1870)

During the 1850s, American rail lines quadrupled to 30,000 miles (**Fig. 4.8**). Sofa seats sufficed when trips rarely exceeded daylight hours, but as shorter lines consolidated into long distance routes, more comfortable over-night accommodations promised a competitive advantage.⁵⁷ The *Chambersburg*, a sleeping car made by the Cumberland Railroad in 1837, typified the rudimentary comforts of antebellum sleeping cars built to idiosyncratic designs (**Fig. 4.9**).⁵⁸ Longitudinal bench seats separated by vertical partitions lined the car, the back of each bench folded up to become a middle sleeping berth, and an upper sleeping berth folded down from the ceiling.⁵⁹ Passengers easily converted the car for night use. “Whenever an upper berth was desired,” a magazine observed in 1838, “it is only necessary to draw up the back to a horizontal position where it is sustained by an iron catch at each end, take a pillow and blanket from the rack above made for the purpose, and there is found at once a snug bed.”⁶⁰ The *Chambersburg* was

(Stanford, CA: Stanford University Press, 1997).

⁵⁷ Davis, *American Economic Growth*, 493; In 1851, nearly 15,000 persons per day were entering Boston in rail passenger cars, nearly equivalent to the number arriving in carriages and on horseback, “Railroad, Canal, and Steamboat Statistics,” *Hunt’s Merchants’ Magazine and Commercial Review*, December, 1851, 759. Martin, *Railroads Triumphant*, 47. White, *The American Railroad Passenger Car*, 22.

⁵⁸ The *Chambersburg* was first used on the New York Central Lines “Beautiful Railroad Cars,” *American Railroad Journal and Mechanics’ Magazine* 1, no. 10 (November 15, 1838): 328; *Carlisle Weekly Herald* (Carlisle, PA), October 30, 1838, 2; the *Washington Globe* reprinted in the *Railway Gazette*, June 29, 1872, 271; White, *The American Railroad Passenger Car*, 208. Porter, “Railway Passenger Travel,” 239-240. Sleeping cars ran on several lines in the 1840s, but most railroads only ran the cars for a single overnight trip.

⁵⁹ Railroads referred to seats in sleeping cars as “berths,” a reference to the berths on steamships.

⁶⁰ *American* (Baltimore), October 31, 1838, republished in August Mencken, *The Railroad Passenger Car* (Baltimore, MD: The Johns Hopkins University Press, 2000), 57. On some, the lower seat folded out to form a double berth near the floor.

divided into compartments for men and women.⁶¹

Railroad managers discovered sleeping cars attracted customers but were not profitable. The cars weighed more, carried fewer passengers, and were more laborious to maintain than sofa-seat cars. Passenger fares did not cover the extra costs. Passengers described the cars as dirty with infrequently laundered bedding. The variable needs of individual passengers and high maintenance costs of laundry conflicted with the hyper-efficient and regularized work processes developed by American railroad companies, but competition demanded railroads run sleeping cars. To maintain ridership, railroads outsourced production and management of sleeping cars to specialists.

In 1858, the T. T. Woodruff Company produced an American sleeping car with additional comforts and an improved maintenance system for which passenger eagerly paid surcharges sufficient to generate profit (**Fig. 4.10**). Woodruff mounted two-person sofa seats in facing pairs referred to as a *section*. The industry dubbed the cars *open-section* sleepers to distinguish them from closed compartment sleeping cars like those used in Europe. At night, a porter lowered hinged seats into a double platform bed and folded up the outer seat back to form a partition between sections. Inner seat backs folded

⁶¹ First person descriptions of several of the early cars appear in court testimony. See *George M. Pullman and Pullman's Palace Car Co. Versus The New York Central Sleeping Car Company and Webster Wagner*, United States Circuit Court, Northern District of Illinois, 1881, 60-62 [hereafter *Pullman v. Wagner*]; Mencken, 57. In 1840, the Philadelphia, Wilmington & Baltimore offered cars with seats that converted into "sleeping quarters" and the Philadelphia & Columbia offered cars with 42 sleeping berths. Von Gerstner, 129, 167, 238; Philadelphia Wilmington and Baltimore Railroad advertisement, *Public Ledger* (Philadelphia), April 1, 1840, 3; *The Buffalo Daily Republic* (Buffalo, NY), November 14, 1856, 3; "Berths in Railroad Cars," *American Railroad Journal* 29 (August 16, 1856), 520; Sleeping cars were running between Philadelphia and Baltimore in late 1838. The cars had berths for twenty-four people, *Railway World*, October 30, 1886, 1036-1039. S. C. Case, superintendent of the car shops of the Michigan Central Railroad, patented a mechanical sleeping car seat and berth in 1858 that was typical of the era, see S. C. Case, "Railroad Car Seat and Berth," U. S. Patent no. 20,622, June 22, 1858.

up to meet- a small table and form an individual middle berth, and an upper individual berth folded down from the ceiling. The porter retrieved bedding from the upper berth, unfolded a set of privacy curtains attached to the ceiling to cover the upper berth, and unfolded a second set of curtains attached to the upper berth front to cover for the middle berth.⁶² Unlike passengers in sofa-seat cars who sweated in the uncomfortably close air, sleeping car passengers moderated local temperature with a ventilation register in each section.⁶³ A popular car heating system developed in the 1880s piped steam under seats. When installed in sofa-seat cars the system distributed heat more evenly than a central stove, but passengers had no control over the car temperature. When the same system was applied to sleeping cars, the pipes were encased in insulation with openings in each section that passengers (or porters) opened and closed to adjust the section temperature.⁶⁴

In 1858, Woodruff ran cars on eight railways from Pittsburg and Buffalo to Fort Wayne, Indiana. The widespread adoption of Woodruff cars established the open section car as the standard sleeping car in the United States. Woodruff and other sleeping car concessionaires operated cars on multiple railroad lines to capitalize on economies of scale. The companies hired and trained porters and centralized laundry and maintenance

⁶² Woodruff patented a more refined version of the seats in 1860 that eliminated the awkward small table, raised the lower berth to standard seat height of about 18 inches, and hid the partitions in a pocket between the sections. The basic arrangement and operation remained the same. See T. T. Woodruff, "Improvement in Seats and Couches for Railroad-Cars," U. S. Patent no. 26,942, January 24, 1860.

⁶³ An 1863 advertisement praised the heating system of the cars, and emphasized the use of the car in daytime "regarded as indispensable on all through NIGHT TRAINS, but have become desirable, above all others, as DAY CAR. Advertisement, *American Railroad Journal*, October 10, 1863, 968; For a description of heat in early sleeping cars see Pullman vs. Wagner, 72, 97, 107.

⁶⁴ See "Baker's New Patent Car Heater," *American Railroad Journal* 38 no. 24 (June 24, 1882), 445-446.

of interiors.

Saloon cars (1870–1890)

In 1858, *Scientific American* noted that Woodruff sleepers were well-suited for businessmen who did not want to stop each evening, but women also traveled in Woodruff sleeping cars in private rooms (**Fig. 4.11**).⁶⁵ The *Chicago Tribune* described the rooms, located at the ends of the cars, as “not unlike the cabins in a first class steamer, where families can retire with as much privacy as in their homes.”⁶⁶ A separate compartment was a standard feature of sleeping cars, an extension of the ladies’ compartment in some sofa-seat cars. Americans did not, however, embrace cars filled only with private sleeping compartments. Manufacturers experimented with “saloon,” “state-room,” and “boudoir” sleeping cars in which passengers rode in walled compartments accessed from an interior aisle.⁶⁷ Five years before extolling the success of the open-section sleeping car, *Scientific American* had incorrectly predicted passengers would pay an “extravagant price” for a private room in a compartment car as journeys became longer.⁶⁸ The failure of the compartment car in the United States reveals bourgeois Victorian Americans’ suspicion of absolute privacy in the public sphere.

⁶⁵ *Scientific American*, September 25, 1858, 17. Economies of scale improved as the number of sleeping car passengers ballooned after the Civil War, see Joseph Frazier Wall, *Andrew Carnegie* (New York: Oxford University Press, 1970), 139-140; *Manufactories and Manufacturers of Pennsylvania of the Nineteenth Century* (Philadelphia: Galaxy Publishing Company, 1875), 489.

⁶⁶ “New Sleeping Cars,”; *Chicago Tribune*, June 5, 1864, 4;.

⁶⁷ Eaton and Gilbert “Saloon cars” ran on the Hudson River Railroad, and “state-room sleeping cars” were running west on express trains out from New York. See *Appleton’s Illustrated Railway and Steam Navigation Guide* (New York: D. Appleton & Co, 1865), 98, 202. John Walters, “Passenger-Car Construction,” *The Railroad Man’s Magazine* (October, 1910): 89-90.

⁶⁸ “State Room Railroad Car,” *Scientific American*, August 27, 1853, 396.

In the 1870s and 1880s the Mann Boudoir Car Company had limited success with luxury compartment cars (**Fig. 4.12**). Each car had six compartments that slept two to four passengers each, separate ladies' and gentlemen's toilets, a wholly isolated two-bed room for women traveling alone, and a buffet and smoking room for men. The company promoted the cars in an advertising book masquerading as a morality tale, *Cupid on the Rails or Romance of a Mann Boudoir Car*. In the story, a couple flirted with the limits of Victorian propriety. Each running from an arranged marriage, a young woman and man, meet and fall in love only to discover that each is the spouse their parents intended. In a secure compartment, the young couple discovered love, her permissive chaperone the only observer. The chaperone extolled the car as comfortable as a home "and as secluded... a lovely boudoir, with vaulted ceilings, handsome sofas, French upholstery, head rests, movable cushions, and a finish of amaranth wood and embossed leather."⁶⁹ The story appealed to young men and women awakening to greater power in selecting a spouse as some Victorian mores began to breakdown. However, the story also represented the privacy of the car as a threat to the control of a parents, for, it was far more likely that a young person would discover a stranger than serendipitously meet the spouse their parents intended.⁷⁰

In 1888 the Mann Boudoir company folded. Several factors contributed to its failure in the American market. Reduced capacity undermined profitability: Mann

⁶⁹ Mann Boudoir Car Company, *Cupid on the Rails or Romance of a Mann Boudoir Car* (New York, 1886-1887).

⁷⁰ For a discussion of changes in courtship rituals in the last quarter of the nineteenth century see Ellen K. Rothman, *Hands and Hearts: A History of Courtship in America* (Cambridge: Harvard University Press, 1987), 203-244.

Boudoir Cars slept 22 passengers, whereas Pullman open-section cars slept 34-48 in coaches of similar length and weight.⁷¹ Whereas theaters had successfully adopted the French word *parquette* to elevate the pit to a higher class in the 1850s, after the American Centennial of 1876, the word *Boudoir* emblazoned on the exterior of Mann cars may have been too sensual, exotic and aristocratic for American taste. The car should be “left to thrive in its native soil on the other side of the water, where the people know how to pronounce it properly” an American railroad journal jibed in 1884.⁷² European first-class cars may have been too foreign for bourgeois passengers whose wealth derived from American industry turning away from European precedents. Another factor may have been the vivid imagination and prudery of Americans who assumed illicit activity happened in complete privacy. An 1885 illustration in the risqué men’s magazine *The Police Gazette* hinted at immoral behavior in the cars (**Fig. 4.13**). A wife, reduced to an unladylike posture on hands and knees, peeks through louvers of a locked Boudoir Car door to spy on her husband and his mistress asleep, their clothes hastily piled atop and beside the bed. The magazine subtitled the image “He was a traveling man- How a New York Wife Trapped Her Husband Aboard the Cars of the Erie Line – Love in a palace Boudoir” a lampoon of the title of the Mann advertising pamphlet. The *Police Gazette* published salacious stories for a primarily male readership, but suspicion of illicit sexual activity behind locked doors may have helped to undermine the success of compartment cars. Like the purchasers of seats in the dress circle at the theater, bourgeois travelers

⁷¹ Forney, *Car-Builder’s Dictionary* (1888), Figs. 208, 212.

⁷² *National Car Builder*, 1884; quoted in White, *The American Railroad Passenger Car*, 229.

desired controlled visibility, not secrecy.

Visibility in sleeping cars reassured passengers that improper behavior was not happening in their vicinity, but more importantly for a newly aware bourgeois class of Americans, visibility fulfilled a desire to experience their elite status in the marketplace. Sleeping car passengers expected more than just a comfortable bed; they paid to see and be seen surrounded by elaborate ornamental décor.⁷³ Designers covered furniture in printed velvets, lined floors with brightly patterned rugs, gilded ceilings, inlaid walls with exotic wood, and hung gleaming metal fittings and mirrors that refracted and reflected the visage of passengers surrounded by kaleidoscopic ornament. “A degree of elegance that few first-class hotels in the country can boast,” *The Chicago Tribune* exclaimed in 1864, “with excellent quality bedding, splendidly upholstered seats and large French plate-glass mirrors in each compartment.”⁷⁴

American women read the complex overlaid patterns and colors of sleeping cars as a tasteful and therefore moral space. To decorate a Victorian home demanded specialized knowledge gathered from books and magazines published in the second half of the nineteenth century such as Charles Eastlake’s *Hints on Household Taste*. Domestic advice authors also offered guidance that associated décor with morality.⁷⁵ In their 1869

⁷³ Goffman, *The Presentation of Self*, 36; Bourdieu described a middle class committed to the symbolic representations of class, to “appropriating the appearances so as to have the reality, the nominal so as to have the real...[the individual] haunted by the appearance he offers to others and the judgment they make of it.” Bourdieu, 250-251; see also Grier, *Culture & Comfort*, 15, Halttunen, *Confidence Men*, 102-104.

⁷⁴ “New Sleeping Cars,” *Chicago Tribune*, June 5, 1864, 4; Joseph Frazier Wall, *Andrew Carnegie* (New York: Oxford University Press, 1970), 139-140; *Manufactories and Manufacturers of Pennsylvania of the Nineteenth Century* (Philadelphia: Galaxy Publishing Company, 1875), 489.

⁷⁵ Charles Eastlake was an architect and proponent of the English Art and Crafts movement. His book, published in 1868, was widely read in the United States. Charles Locke Eastlake, *Hints on*

guide to household management, the Beecher sisters counseled that interior aesthetic “contributes much to the education of the entire household in refinement, intellectual development and moral sensibility.”⁷⁶ After 1870, women traveled more frequently via train as newlyweds, with their husbands on business, to maintain family networks as the nation expanded, and as tourists to escape the boundaries of their home.⁷⁷ Car designers leveraged the visual expertise of women and their responsibility for creating a moral home to communicate trust and integrity. Manufacturers ornamented interiors according to the tenets of a range of high-style tastes: French neo-classical, Moorish, Eastlake, Gothic Revival, and Aesthetic movement.⁷⁸ Home décor and restrained behavior had been markers of class since the early nineteenth century, but with the development of a public culture, consumption, comfort and privacy joined taste as symbolic of elite status.⁷⁹

Between 1870 and 1920, the open section sleeping car dominated the sleeping car trade in the United States (**Fig. 4.14**).⁸⁰ Curtains mediated privacy and security—a passenger out of a berth was clearly visible to porters or conductors on guard through the

Household Taste in Furniture, Upholstery and Other Details (London: Longmans & Co, 1868).

⁷⁶ Catherine Beecher and Harriet Beecher Stowe, *The American Woman's Home, Or, Principles of Domestic Science* (New York, 1869), 84. Magazines that provided advice on the creation of aesthetically pleasing and therefore moral homes included: *Godey's Lady's Book*, *The Ladies' Repository and Home Magazine*, and *Harper's Weekly*.

⁷⁷ Richter, *Home on the Rails*, 36-37.

⁷⁸ Lucian Beebe illustrates several such elaborate interiors. See Lucian Beebe, *Mr. Pullman's Elegant Palace Car* (New York, NY: Doubleday & Company, 1961). On the meanings American women invested in such décor, see Katherine C. Grier, *Culture & Comfort: Parlor Making and Middle-class Identity, 1850-1930* (Washington, DC: Smithsonian Institution Press, 1988), 22-63, and 89-116.

⁷⁹ Richter, *Home on the Rails*, 7.

⁸⁰ State room cars and other variations were occasionally made in small number, but the majority of sleeping cars were designed with open sections, White, *The American Railroad Passenger Car*, 267.

night—and noisy activity, sexual or otherwise, would have been obvious to nearby passengers.⁸¹ But the limited privacy within a small curtained space also challenged decorum. Victorian etiquette specified genteel persons appear in public with clothing, hair, and face in perfect order. To adjust personal appearance in front of others was a serious faux pas.⁸² Undressing and dressing in front of mirrors within the privacy of a compartment car was simple compared to the contortions passengers went through in open-section cars. “Your only means of getting out of or into your clothes is by burrowing behind your curtain,” a female travel writer complained in 1887, “obstructing the narrow central passage and running a good chance of banging your head against the upper berth board, or of your curtains suddenly flying open to your great discomfiture at some critical moment.”⁸³ Another foreign visitor observed that curtains only partially hid undignified contortions: “nothing is more amusing than looking down the length of the car – to see the mysterious heaving and bulging of the curtains, and the protruding arms and legs.”⁸⁴ Passengers, especially women, were left standing on display at the end of the car waiting for the washroom to comb and affix their long hair. Newspapers and etiquette books reminded women to be expedient and, as one trade journal reported in 1891, not be

⁸¹ A case of accused theft included a description of a porter sitting on a camp stool at night watching the car. *Cases Determine in the St. Louis and the Kansas City Courts of Appeals*, Vo. 26 (Columbia, MO: E. W. Stephens, 1887), 24; Pullman Porters were supposed to be off duty from 10 p.m. to 3 a.m. but “when changing watch” could not leave until the other was on duty. Pullman Company, *Car Service Rules of the Operating Department of Pullman’s Palace Car Company* (Chicago, IL: W. H. Pottinger, 1893), 13, 56-57. “...privacy is secured, if not absolutely, at least to a great degree,” a British travel writer noted. “American Railway Travelling,” *Putnam’s Magazine* 5, no. 26 (February, 1870), 200.

⁸² Halttunen, *Confidence Men*, 103.

⁸³ Katherine E. Bates, *A Year in the Great Republic 2* (London: Ward & Downey, 1887), 23, 234.

⁸⁴ Mrs. Howard Vincent, *Forty Thousand Miles over Land and Water* (London: Sampson Low, Marston, Searle & Rivington, 1886), 44.

“the kind of woman who considers she has the right to use it [the dressing room] all day, to the exclusion of others.”⁸⁵ Passengers accepted the many inconveniences of an open section sleeping car in exchange for visibility and scrutiny of the behavior of fellow passengers.

Palace Cars (1865-1950)

By 1870 trains ran regularly from New York to Washington in about nine and a half hours, and by 1880 several lines stretched from the Mississippi to the Pacific—the era of modern, fast, through-passenger trains had begun (**Fig. 4.15**). It was also the start of the gilded age, the decade economic historian Sven Beckert identified when an urban American bourgeois class came to self-awareness “whose main elements were a theory of (often racial) hierarchy, a recast relationship between state and economy, and ambivalence about democracy.”⁸⁶ The emergent bourgeois class purchased experiences that separated themselves from the masses and reinforced their perceived superiority.⁸⁷

⁸⁵ Reported in *The Engineer* 22, no. 8 (October 10, 1891), 87. Newspaper columns, authors of advice books and fiction commented often on women’s etiquette (or lack of it) in sleeping cars. See “Sleeping-Car Discomforts,” in *Babyhood: The Mother’s Nursery* 5 (New York: Babyhood Publishing Company, 1889), 53; “Feminine Sleeping-Car Swine,” *Traveler’s Record* Vol. 26, no. 7 (October, 1890), 3; “In the Sleeping Car,” *Railroad Gazette*, November 16, 1888, 754; “That Awful Woman,” *Traveler’s Record* 28, no. 2 (May, 1892), 3; “The Discomforts of Sleeping Cars,” *Railroad Gazette* (January 3, 1890), 10; “A Woman in a Sleeping Car,” *The Railway Age* (August 26, 1886), 66; H. H. Nelly’s *Silver Mine: A Story of Colorado Life* (Boston: Roberts Brothers, 1888), 84-100; “For Women in Sleeping Cars,” *The Times-Democrat* (New Orleans, LA), June 7, 1896, 27; “Woman’s Rights in Sleeping Cars,” *Los Angeles Herald*, June 21, 1895, 12; “Sleeping-Car Customs,” *The Los Angeles Times*, June 11, 1893, 10; “The Proper Thing,” *The Topeka Daily Capital* (Topeka, KA), April 3, 1889, 7; “Selfish Women,” *The Boston Globe*, June 11, 1893, 24; “In the Sleeping Car,” *Lawrence Daily Journal* (Lawrence, KA), June 2, 1892; “Sleeping Car Customs,” *The Philadelphia Inquirer*, June 11, 1893, 19.

⁸⁶ Beckert, *Monied Metropolis*, 154.

⁸⁷ Daniel Walker Howe, “Victorian Culture in America,” in *Victorian America*, ed. Daniel Walker Howe (University of Pennsylvania Press), 18.

The era of railroad development coincided and contributed to a passenger's awareness of where they fit within a developing social hierarchy.⁸⁸ Class anxieties that pressured managers and owners to segregate theater audiences by race, class and gender into parterres and third-tiers in the 1850s, and stadiums into grandstands and bleachers in the 1880s, contributed to bifurcation of travel into premium cars for wealthy customers and cars for everyone else in the 1860s. Class formation was simultaneous and reciprocal, the process of the formation of the working class, by definition, included the presumption of another separate class and vice-versa. To ride in a premium railroad sleeper was to *be* bourgeois, to viscerally experience the isolating power of financial wealth. Traveling via sleeping car was one of an array of daily life experiences that defined class. Though a single bourgeois class traveled in sleeping cars, the experience differed for middle- and upper-class passengers. Whereas the extraordinarily-wealthy felt entitled to luxuries an emergent American middle-class aspired or fantasized about the wealthy lifestyle and solidified their sense of privilege by visible association during their stay in a sleeping car.⁸⁹

To emphasize their class superiority, railroads marketed sleeping cars with superlatives: “magnificent,” “superior”, “splendid”, “elegant,” “commodious”, and “luxuriously fitted up with every necessary for comfort.”⁹⁰ Bourgeois rail passengers

⁸⁸ On the development of bourgeois class in large cities see Glaab, Chapter 5 and Sven Beckert, *The Monied Metropolis*, and Christen Stansell, *City of Women Sex and Class in New York, 1789-1860* (New York: Knopf, 1986), 197-200.

⁸⁹ Stuart Blumin, 66-107, 231-242; Sean Wilentz, *Chants Democratic: New York City and the Rise of the American Working Class, 1788-1850* (New York, NY: Oxford University Press, 2004), 11-12.

⁹⁰ Knight and Meyers were two other major manufacturers of sleeping cars. *Appleton's Illustrated Railway and Steam Navigation Guide*, 102, 113, 124, 125, 185, 195, 209, and 213.

expected comforts and luxuries familiar from first-class cabins in steamships and parterre and dress circle seats in opera houses.⁹¹ Railroad managers courted elite theater-goers through the publication and distribution of theater seating guides with images of their special trains. Photo-like illustrations represent idealized views of passengers surrounded by luxurious and commodious rail cars, and as importantly, bourgeois bodies performing acts of gentility – mothering a child, arranging toilette, engaging in staid conversation. **(Fig. 4.16).**⁹² The premium passenger car of the 1870s joined other elite spaces to form a “geography of refinement,” described by historian Richard Bushman as encompassing steamships, pleasure gardens, hotels, fancy shops, resorts and theaters - places where respectable people could feel at ease.⁹³

Manufacturers marketed new ultra-luxurious sleeping cars as “Palace Cars,” to reinforce aristocratic associations **(Fig. 4.17)**. The Pullman Company dominated the palace car trade after the Civil War, and the Pullman name became synonymous with luxury rail travel by the late 1880s.⁹⁴ Physical and psychological comfort infused every aspect of a Pullman palace sleeper. Compared to day coaches, seats were more deeply padded and spacious, with additional inches of leg room **(Fig. 4.18)**. In a palace sleeper

⁹¹ John Gloag proposes the arrangement of berths in river steamboats as a precursor for American railroad cars; see John Gloag, *Victorian Comfort: A Social History of Design from 1830-1900* (Towbridge, Wiltshire: David & Charles, 1973), 141-144.

⁹² The Chicago History Museum holds a number of these guides published by the Chicago, Burlington and Quincy Railroad (1885), Union Pacific railroad (1900), and Chicago and North-Western (1904).

⁹³ John Stilgoe described class segregation around the railroad landscape, see John R. Stilgoe, *Metropolitan Corridor: Railroads and the American Scene* (New Haven: Yale University Press, 1983), 51-57; Richard Bushman, *Refinement of America: Persons, Houses, Cities* (New York: Random House, 1993), 353-354.

⁹⁴ Forney, *The Car-Builder's Dictionary* (1888), 133-134.

section, a passenger walked unimpeded through a gap of 21 to 24 inches to sit near the window, whereas in the day coach passengers sidled through a narrow fifteen-inch gap—a challenge for a woman in a bustle dress with a mass of fabric projecting at a right angle from her back.⁹⁵ In the palace car, carpets, window curtains and moreen upholstery (durable cut knap wool pile also used to cover better theater seats) deadened sound to a much greater extent than the hard wood floors, thin enamel cloth upholstery, and wood venetian blinds of a typical day coach. In a Pullman sleeper, “you converse as you would in your parlor at home; the noise of the train is as much lost to your consciousness as the steamship’s rush through the waters” a passenger observed in 1872.⁹⁶ Conversations were mediated by “the high back seat between the sections of the car proper,” that “precludes the spontaneous acquaintanceship” another observed.⁹⁷ In sleeping cars passengers lived effortlessly, their luggage transferred by porters from train to train; whereas day coach passengers booked on the same trip often had to change train cars and transfer their own baggage on long journeys that utilized the right-of-way of multiple companies (5 changes from New York to Jacksonville, Florida for example).

Pretentious individuals reserved entire Pullman sleeping car sections designed for four passengers for their personal use. Throughout the journey the individual would be viewed by other passengers protected from interaction by copious empty space. Like a pasha in a tent, this customer would sleep in a double height curtained space atop a

⁹⁵ The antebellum bell-shaped hoop skirts with crinolines had faded, to be replaced by a bustle in the 1870s and 1880s; see Jessica Glasscock, “Nineteenth-Century Silhouette and Support,” The Metropolitan Museum of Art, https://www.metmuseum.org/toah/hd/19sil/hd_19sil.htm, Accessed 03/16/2019 and Grier, *Culture & Comfort*, 127-128.

⁹⁶ Charles Nordhoff, “California,” *Harper’s New Monthly Magazine* 44, no. 264 (May, 1872), 871.

⁹⁷ *National Magazine* 7, no. 6 (March, 1898).

double mattress with twice as many pillows.⁹⁸ The practice was common enough that the Pullman Company charged individual passengers an extra half fare (4.5 fares in total) to reserve a whole section. In 1892, the cost of reserving an entire open section for a trip from New York to Florida was \$103, while the cost of reserving the car's state room with complete privacy and space was just \$85. The surcharge was not intended to discourage conspicuous displays of wealth but to limit the company having to run additional cars at great expense or turn away loyal customers who could not obtain a seat.⁹⁹ The company rule book specified that a passenger "will not be permitted to buy a whole section, to the exclusions of others unable to otherwise obtain a berth," except "in cases of sickness or ladies traveling alone."¹⁰⁰

Produced in 1865, the first Pullman-designed sleeper, *Pioneer*, established the palace car standard for luxury travel (**Fig. 4.19**).¹⁰¹ The *Chicago Tribune* described its elaborate decorations:

The wood of the interior is of black walnut so worked as to bring the beautiful grain of the wood out to the best advantage. Exquisite carving

⁹⁸ Pullman Company, *Car Service Rules*, 44.

⁹⁹ In 1892, the round trip rate for one two-person berth in a sleeping car between New York and Jacksonville, Florida was \$50 (\$25/person) including meals, an individual choosing to occupy an entire section (both top and bottom berths) paid two fares plus an additional \$13 (\$103/person), a one-person drawing room was \$85 (\$85/person), two-person drawing \$122 (\$61/person) and a three-person drawing room \$159 (\$53/person); J. R. Wood, *Florida* (Pennsylvania Railroad, 1892), 9.

¹⁰⁰ Pullman Company, *Car Service Rules*, 32.

¹⁰¹ Pullman and his partner Benjamin Field had remodeled a passenger coach into a sleeping car in 1859 and the partners purchased a sleeping car in 1863 from the Wason Car Company, but the design had longitudinal seats and was considerably different from the standard seat and berth arrangement of later Pullman sleeping cars. White, *The American Railroad Passenger Car*, 247-248. The Pullman Company experimented with other interior arrangements such as the saloon cars *Palmyra* and *Marquette* which also had longitudinal seats around a larger open room with permanent partitions, but the cars were one-offs. *Palmyra* was converted to a standard sleeping car arrangement and later used as a lower budget tourist car. See White, *The American Railroad Passenger Car*, 267 and Beebe, 119, 144.

adorns every place where it can be tastefully placed. Some of the principal pieces show the designers and executors [to be] masters of their art. In the day time, all portions of the furniture of the car, used for sleeping purposes, are carefully concealed from view by richly painted screens, which are carried to and kept in their places by a neatly arranged system of pulleys. The upholstery is of rich Brussels carpet, with curtains of heavy damask. The metal work is all silver plated – the mirrors (one, surrounded with rich carvings, to each sections) of heavy French glass. The windows are double, and so arranged as to assist the ventilation; each sash has a newly invented fastening working simply and effectively. Each car is heated by Westlake's patent heaters and ventilators, with registers in each section. The washing apparatus is beautiful and convenient. Each car has one state-room accommodating four persons, so arranged as to be, at will, completely separated by sliding doors, from the remainder of the car. The seats are commodious and luxurious; and each car is also provided with four sofas.¹⁰²

Though George Pullman claimed to have designed an innovative sleeping car, the *Pioneer* shared many features with earlier versions made by others. George Pullman's triumph was not to be the first to design a luxury rail car, though he did succeed at creating some very opulent cars, his triumph was to design the *experience* of luxury travel.¹⁰³ Furniture and fixtures coordinated and complemented fastidious maintenance, solicitous service, reserved seats, and effortless baggage handling.¹⁰⁴ The first rule of the 1893 Pullman employee manual stated "the Company may be extremely liberal in its expenditures and enterprising in the possession of the latest improved and most elegant

¹⁰² "Sleeping Cars," *Chicago Tribune*, May 21, 1866, 4.

¹⁰³ The Woodruff and Wagner car companies had leased luxury sleeping cars to railroads for ten years before Pullman fully entered the business. White, *The American Railroad Passenger Car*, 212-220.

¹⁰⁴ Service design (sometimes called user experience design) emerged in the late twentieth century as a distinct discipline in the design field, but careful attention to innovating, testing and shaping the customer experience has a much longer history. Just as industrial design as a practice existed a century before the moniker for the profession became popular in the 1930s, service design dates to the birth of mass services in the mid-nineteenth century, particularly in the marketplace of shopping, entertainment and transportation. Lynn Shostack coined the term "service design" in 1982, Lynn Shostack "How to Design a Service," *European Journal of Marketing* 16, no. 1 (1982): 49-63; and Lynn Shostack, "Design Services that Deliver," *Harvard Business Review* (January 1984): 133-139.

cars, the good effect of this upon the traveling public will be largely neutralized by inattention or indifferent service on the part of Conductors and Porters.”¹⁰⁵

Laborious customer service was the foundation of the Pullman empire.

Superficially, the *Pioneer* adopted the basic arrangement and mechanics of sleeping cars developed by competitors in the early 1860s, but Pullman stripped time and labor-saving conveniences.¹⁰⁶ To make up a sleeping berth in a competitor’s car, a porter removed clean linens and pillows from under the seat, let down seat cushions and installed sheets and pillowcases on the lower berth (**Fig. 4.20**). He closed a curtain or hinged panel to separate sections from floor to ceiling, let down the upper berth, flipped out the attached aisle curtains and installed sheets and pillowcases before moving to the next section. To convert a coach back to day mode in the morning, the porter removed the sheets and pillowcases, flipped up the aisle curtains into the top berth and closed it and pushed closed the partitions. He stowed pillows under seats and converted the lower berth back into seats. As he moved from section to section, he collected dirty linen.¹⁰⁷

¹⁰⁵ Pullman Company, *Car Service Rules*, 9.

¹⁰⁶ The Pullman lower berth design, with sliding cushions supported on rails, was nearly identical to a design of John Stephenson used on his “diamond” cars in the 1840s, and a patented seat by Meyer installed on several trains. *Pullman v. Wagner* 8, 685, and 710-711. Testimony in the 1881 court case described the evolution of the sleeping car from its earliest incarnation in the 1837 Chambersburg form up to the Pullman Palace Sleeping cars of the 1870s. Pullman attempted to sue his main competitor Wagner for patent infringement, but the testimony revealed Pullman had adopted many pre-existing features. Testimony of manufacturers, conductors and porters in the court case investigated the location and convenience of various amenities in each manufacturer’s cars. Attorneys repeatedly asked what type of bedding was used, where it was stored, and whether partitions and curtains were temporary or permanent as those were the elements that Pullman claimed made his cars unique. *Pullman v. Wagner*, 59, 60, 64, 70, 82, 83, 101, 120-121, 134, 232, 261, 457, 495, 540, 576, 686, 690, and 691.

¹⁰⁷ In 1858 *Scientific American* described all of the conveniences of a Woodruff sleeping car and lauded the car for “the ease and little labor with which the seats are transformed into sleeping berths or couches.” *Scientific American*, September 25, 1858, 17.

Pullman Company rules required porters perform an elaborately choreographed routine to make up a berth. The porter closed windows, wiped woodwork, fastened window curtains, dropped seats to form a lower platform, opened the upper berth, retrieved the lower mattress from the upper berth, laid it on the lower platform, and hung hammocks (for passenger belongings). He then fetched linen (one berth's only) from a closet at the end of the car, paraded linen to the berth, laid a sheet over the lower mattress, turned it under at front and back, laid a second sheet over the first, turned it under at the back and foot and folded it open at the upper corner "to make a neat appearance." He retrieved a blanket from the top bunk, spread it over the upper sheet so the top of the word "Pullman" embroidered on it faced the head of the berth, extracted pillows from boxes under seats, and slipped on pillowcases. After assembling the lower berth, he removed two folded aisle curtains from the top berth and hung them on a rod, hung a supplementary privacy curtain if the berth was occupied by a "lady," retrieved two partitions from the upper bunk and bolted them in place between sections. He then returned to the linen closet, removed another set of linen, paraded back to the berth, installed sheets, pillowcases and pillows, and blanket to the upper mattress as was done to the lower, hung a numbered section badge over the curtain, and buttoned curtains together at the ends and to the seat arms (**Fig. 4.21**). He repeated the entire performance each time a passenger requested one of the thirty berths made up—company rules forbid carrying more than a single berth's linen at one time or making up more than one berth at a time. The operation was reversed each morning; the porter stripped the linens and put it immediately in lockers (he was prohibited from laying it down on the floor or on the seats

to accumulate an armful), he stowed pillows and hammocks, uninstalled partitions and laid them on the top mattress, spread over them one blanket, laid over the blanket the curtains (folded to cover the hooks), spread the second blanket over the curtains, placed the folded lower mattress atop the curtains, and closed the upper berth, finally, he pulled up and secured the lower berth into sofa seats.¹⁰⁸ In his patent, Pullman claimed the complete disassembly of his sleeper from night to day mode resulted in “greater convenience and simplicity of construction” compared to competitors—while perhaps simpler to construct it was certainly not more convenient for the porter to operate.¹⁰⁹

Pullman claimed the design helped passenger breathe easier because, as he argued, “removable partitions between the berths” resulted in a car with better ventilation by day.¹¹⁰ But partitions played an additional role; their removal camouflaged nighttime berths so that during the day “the car has in every respect the appearance of an ordinary car,” as Pullman claimed in his patent. Passengers in the new Pullman sleepers thrilled to the surprise of “a magic transformation,” the *Chicago Tribune* claimed, as black porters changed the car from a room full of sofas into a room full of sleeping berths.¹¹¹ An 1879

¹⁰⁸ Pullman Company, *Car Service Rules*, 43-44. The first Pullman sleepers slept 60 passengers. “Sleeping Cars,” *Chicago Tribune*, May 21, 1866, 4

¹⁰⁹ Pullman Company, *Car Service Rules*, 48-49. In the separate enclosed drawing rooms curtains were left installed during the day.

¹¹⁰ *Pullman Versus Wagner*. Pullman successfully argued to the United States Senate that he deserved a virtual monopoly on some lines because he provided an important public service, “especially to ladies,” and because his cars improved upon competitors whose cars “were for the most part crude and unsatisfactory in their arrangement and appointments. Ben Field and George Pullman, Improvement in Sleeping-Cars,” U. S. Patent no. 42,182, April 5, 1864; Ben Field and George Pullman, Improvement in Sleeping-Cars,” U. S. Patent no. 49,992, September 19, 1865.

¹¹¹ “Sleeping Cars,” *Chicago Tribune*, May 21, 1866, 4. The Pullman patents emphasize bedding “wholly concealed from observation,” and “entirely out of the way, and the mattresses and bedding of both upper and lower berths are shut out of sight.” Ben Field and George Pullman, *Improvement in Sleeping-Cars*, U. S. Patent no. 42,182, April 5, 1864; Ben Field and George Pullman, *Improvement in Sleeping-Cars*, U. S. Patent no. 49,992, September 19, 1865.

excursion guide delighted in the novelty of the conversion: “It is not until night-fall that the full advantages afforded by these model traveling chambers of ease and repose are fully realized, . . . not until the liveried attendant has transformed the scene, and a series of cozy, fully draped beds have been fully prepared “in apple-pie order.”¹¹² Pullman designed his sleepers as a stage upon which porters enacted servitude for the consumption of an audience of well-to-do passengers. In 1895, journalist E. W. Sanborn detailed the ritual of a porter making up a berth:

With sleepy impatience we watched that familiar, deliberate process which never loses, in spite of itself, a certain charm — the black porter in his white jacket letting down the adjoining berth, taking out the shiny partition and sliding it into place, pushing the lower seats together, exhuming the sheets and pillows from the crypts, letting down the “upper,” reaching for the mattress and blankets. . . . The porter spreads the sheets with a sharp flip, and, leaning out of sight, slowly smoothes them. He takes the blanket by its middle fold, reaches in again and tucks it down. He holds the pillow under his chin, slips on its case and carelessly tosses it into place. He hangs the curtains on their hooks, buttons them together.¹¹³

Pullman’s crowning achievement — the complete transformation of cars from daytime to nighttime use — was predicated on the performance of black porters. Competitors cars were “crude and unsatisfactory in their arrangements and appointments,” according to Pullman, because curtains, partitions and other elements were left in place during the day.¹¹⁴ The extra time a porter spent to assemble and disassemble a Pullman berth may not seem significant, but a central tenet of Victorian American culture was a high value

¹¹² J. H. Newton, G. G. Nichols, and A. G. Sprankle, *History of the Pan-Handle* (Wheeling, WV: J. A. Caldwell, 1879), Appendix xx1.

¹¹³ E. W. Sanborn, “In the Pullman Car,” *New England Magazine* 12, no. 4 (June, 1895): 467-472; see also Nordhoff, “California,” 872; and Vincent, *Forty Thousand Miles*, 44.

¹¹⁴ *Pullman vs. Wagner*, 82, 211; *Report of the Select Committee on Transportation Routes to the Seaboard* 1, U. S. Senate Report, 1874, 150-152; Arthur Hoffman, “The Tzar of the Sleeping Car,” *The Chautauquan* (June, 1904): 361-364; *Railway World*, November 13, 1880, 1088.

of time-thrift and time accounting. The railroad industry effectively created standard time and helped to define labor tracking and efficiency. Rail travel was a space in which time and labor was lavished to emphasize a passenger's sense of privilege.¹¹⁵

“In your Pullman or Central Pacific palace car, you may pursue all the sedentary avocations and amusements of a parlor at home;” *Harper's Magazine* editorialized in 1872, “and as your housekeeping is done – and admirably done – for you by alert and experienced servants; you may lie down at full length or sit up, sleep or wake, at your choice...”¹¹⁶ The Pullman Company portrayed porters as the face of the company; their labor a commodity promoted as emblematic of luxury.¹¹⁷ The company marketed not just service, but servitude. In the last quarter of the nineteenth century, porters were protagonists in promotional images that portrayed them making up berths, a service that became more marketable in the 1890s as domestic service was declining in the United States (**Fig. 4.22**). The insistence that a porter only make up (or down) one berth at a time, made it appear that he was a personal servant to each pair of travelers in a berth. Unavailable to those in lesser cars, porter service defined class superiority for sleeping car passengers.¹¹⁸ In an 1884 memoir, an English aristocratic traveler seemed pleasantly

¹¹⁵ Howe, “Victorian Culture in America,” 19.

¹¹⁶ Charles Nordhoff, “California: How to Go There, and What to See by the Way,” *Harper's New Monthly Magazine* 46, no. 264 (May, 1872), 870.

¹¹⁷ “Conductors and Porters, being the medium of communication between the Company and the public, occupy a very responsible position.” Pullman Company, *Car Service Rules*, 9.

¹¹⁸ David Brody examines a related phenomenon of conspicuous leisure in hotels, see David Brody, *Housekeeping by Design* (Chicago: University of Chicago Press, 2016), 28- 29; Thorstein Veblen is well known for coining the term “conspicuous consumption,” but he also outlined a related phenomenon of the gilded age, “conspicuous leisure.” According to Veblen, though “mechanical contrivances” mitigated the difficulty of labor in the home, servants were still employed because servants within specific contexts bolstered the ability to consume conspicuously. In other words, modern life had created less of a need for the traditional labor of servant's, yet new social mores and rituals ensured that the servant's labor did not become obsolete. Thorstein Veblen, *The Theory*

surprised by the propriety of the Pullman porter: “It was a very strange sight to see these darkies at their bedmaking, their rapidity and dexterity were marvelous. Their civility and attention, too, were beyond praise.”¹¹⁹

Pullman designed an integrated system of form, function, and employee rules to make labor conspicuous. Among the many tasks required of a porter, the company insisted porters polish the boots of every person in a car, one section at a time, while seated on a camp stool “squarely facing the body of the car at the end of the aisle...under no circumstances must the work be done anywhere else.”¹²⁰ The location insured passengers could monitor porters with their belongings, but also underscored a porter’s personalized attention to help him generate tips (**Fig. 4.23**). The Pullman Company paid porters very low wages, and its rules specified porters were not to request remuneration outright, but could accept voluntary gratuities “for cleaning boots, or other special service.”¹²¹ “We pay them good salaries,” Pullman claimed of the company’s porters in 1892, but immediately qualified that assertion by also noting “we can get all the good porters we want at the price we want to pay them.”¹²²

By paying low wages, the Pullman Company forced porters into obsequious service to generate enough income. In 1883 porters were paid \$12 per month; by 1915 they earned \$27.50. They did not receive overtime pay until they had worked 400 hours

of the Leisure Class (New York: Oxford University Press, 2007), 46-47.

¹¹⁹ William Hardman, *A Trip to America* (London: T. Vickers Wood, 1884), 102. Sir William Hardman, was an English journalist, editor, and member of parliament.

¹²⁰ Pullman Company, *Car Service Rules*, 1893, 56.

¹²¹ Pullman Company, *Car Service Rules*, 1893, 12.

¹²² “Tipping,” *Railway Review*, April 9, 1892, 231.

in a month or traveled 11,000 miles.¹²³ The Pullman Company hired tens of thousands of black porters between 1867 and the 1950s. The number of black employees was a very deliberate decision, considering most Northern railroads hired few if any black employees in the 1870s and 1880s.¹²⁴ Pullman was able to run cars that required extra time and effort to operate because he tapped into a ready reserve of inexpensive labor among black Americans in the South. Former slaves were available, low wage workers, already associated by many white Americans with servitude. In a 1917 history of the Pullman Company, Joseph Husband, a writer on business and management, described the company's strategy of hiring black porters because they had been "trained as a race by years of personal service in various capacities, and by nature adapted faithfully to perform their duties under circumstances which necessitate unflinching good nature, solicitude, and faithfulness."¹²⁵

The Pullman Company built a business model that required a black male body live cheek-by-jowl among genteel white passengers.¹²⁶ The presence of a free black man amongst white women was normally problematic in Southern-American culture built

¹²³ Arthur C. McWatt, "A Greater Victory," *Minnesota History* (Spring 1997): 205.

¹²⁴ Walter Licht, *Working for the Railroad: The Organization of Work in the Nineteenth Century* (Princeton, NJ: Princeton University Press, 1983), 222-224.

¹²⁵ Joseph Husband, *The Story of the Pullman Car* (Chicago: A. C. McClurg & Co, 1917), 155; In 1916, Husband co-wrote a three-part series with the president of the Pullman Company "What a New System of Management Did for Us," *System: The Magazine of Business* 29, no. 2-4, 1916. See also Eric Arnesen, *Brotherhoods of Color: Black Railroad Workers and the Struggle for Equality* (Cambridge, MA: Harvard University Press, 2002), 14-18; Licht, *Working for the Railroad*, 224; Jack Santino, *Miles of Smiles, Years of Struggle: Stories of Black Pullman Porters* (Urbana, IL: University of Illinois Press, 1989), 6-7.

¹²⁶ Since the 1840s, railroads allowed black passengers subservient to white passengers into the genteel sphere of first-class travel. Slaves had ridden beside masters in first class rail cars before emancipation, while unsupervised slaves and free black Americans were barred, an observation made frequently by northern abolitionists. "Eastern Rail-Road Company," *The Liberator*, August 13, 1841.

upon white men's control over property—both their women and their offspring.¹²⁷

Passengers accepted a black Pullman porter because he was in a subservient role, and because he performed housekeeping, long considered women's work, that neutered him as a sexual threat.¹²⁸ In addition to making beds, polishing shoes, and brushing clothes, porters fetched pillows, card tables, and myriad comforts and conveniences at any moment and were responsible for managing books in the lending library. Porters wiped and brushed away the rapidly accumulated dust of travel from fabrics, glass mirrors, and highly polished wood and metal surfaces, scrubbed toilets, washbasins and spittoons shared by dozens of people, all while visible, but not inconveniencing passengers.¹²⁹ Passengers commonly called all porters "George" after George Pullman to emphasize their servitude, an extension of the practice of calling a slave by his master's name.

"'George' is bombarded with requests for making up berths," *The National Magazine*

¹²⁷ On the cultural work that the threat of rape performed see Barbara Welke, "When All the Women Were White, and All the Blacks Were Men: Gender, Class, Race, and the Road to Plessy, 1855-1914," *Law and History Review* 13, no. 2 (Autumn, 1995): 266. On the operation of rape within southern culture in the construction of whiteness see Richard Dyer, *White: Essays on Race and Culture* (New York, NY: Routledge, 1997), 26-28. On the relationship between lynching, rape and the hegemony of white men over white women, and black men and women see Jacquelyn Dowd Hall, "The Mind that Burns in Each Body: Women, Rape, and Racial Violence," in *Powers of Desire: The Politics of Sexuality*, ed. Ann Snitow, Chirstine Stansell, and Sharon Thompason (New York: Monthly Review Press, 1983), 328-349; and Crystal N. Feimster, *Southern Horrors: Women and the Politics of Rape and Lynching* (Cambridge, MA: Harvard University Press, 2009), 5-6, and 47-61.

¹²⁸ On the devaluation of women's labor see Ruth Schwartz Cowan, *More Work for Mother: The Ironies of Household Technology from the Open Hearth to the Microwave* (New York: Basic Books, 1983).

¹²⁹ Arthur Hoffman, "The Tzar of the Sleeping Car," *The Chautauquan* (June, 1904): 361:364. *Industrial Relations: Final Report and Testimony Submitted to Congress by the Commission on Industrial Relations* (Washington, DC: Gov. Print. Office, 1916), 9621-9629, the company rules specified that it was the conductor's responsibility to wake passengers, but the conductor could delegate that responsibility to a porter. Pullman Company, *Car Service Rules*, 47, 65, 71.

reported in 1898, “then he starts in like Abjeeb, the chess wonder, a human machine.”¹³⁰

Many white southerners accepted black porters but rejected the presence of black passengers in sleeping cars as customers. Pullman sleepers became racial combat zones after passage of the 1875 civil rights bill threatened to integrate public accommodations. Southern newspapers erupted with condemnation when the Pullman Company refused to segregate his cars. Editorials raised the specter of a black man raping a white woman in the cars as justification for segregation and violence.¹³¹ If a black man were to ride in a sleeping car, *The North Alabamian* encouraged men to “take the impudent darkey by the nape of the neck and pitch him headforemost off the train and break it;” an allusion to lynching by hanging.¹³² In 1875, the *Mercury Meridian* (Mississippi) expressed indignation that Pullman “put a buck Negro to sleep in the same section with an elegant Southern lady” who was forced to take “refuge in the passenger car, where she remained seated during the night.”¹³³ The paper contrasted a genteel white femininity with a bigoted bestial black masculinity to argue free black bodies had no place in civilized

¹³⁰ Joe Chapple, “Types of Railroad Travellers,” *The National Magazine* 7, no. 6 (March, 1898): 543-550. Andrew Kersten and Clarence Lang, *Reframing Randolph: Labor, Black Freedom, and the Legacies of A. Philip Randolph* (New York: New York University Press, 2014), 5-6. Ajeeb was a checkers-playing automaton (actually operated by human) built in 1868 that toured widely at expositions and fairs in the United States in the last quarter of the nineteenth century.

¹³¹ In Ida B. Wells’s influential and heroic pamphlet on lynching she wrote that Southerners justified segregated cars and disenfranchisement “behind the plausible screen of defending the honor of its women.” Ida Wells, “Southern Horrors: Lynch Law in All Its Phases” in *Southern Horrors and Other Writings* 2nd ed. Ed. Jacqueline Jones Royster (Boston: Bedford/ St. Martins, 2016), 58.

¹³² *The North Alabamian*, April 1, 1875, 2; another paper described the eviction of a black passenger from a sleeping car by 6 white “gentlemen” spitting on him and equated the treatment with lynching by the Ku Klux Klan and White League, *National Republican* (Washington D. C.) July 22, 1875, 2.

¹³³ “The Negro in the Palace Car,” *The Atlanta Constitution*, April 13, 1875, 2; the article was picked up and reprinted in editorials in at least seven papers in Tennessee Louisiana, Alabama, Indiana; “Sleeping Cars and Civil Rights,” *The Atlanta Constitution*, May 16, 1875, 2.

space where white women slept protected only by a flimsy penetrable curtain.¹³⁴ Instead of a relaxed ride prone in the comfort and privacy of her berth, the paper related that the Southern lady was forced to endure a night on an uncomfortable sofa seat in an uncivilized day coach where she was unprotected and exposed to men traveling without female companions, and the sights, sounds, smells and association of people of a lesser class.

Other papers implied black bodies polluted the upholstered environment of a sleeping car. The *Atlanta Constitution* scare mongered that Pullman “put negroes into berths along side of white men, and even into berths that might be occupied by white passengers on the next trip,” while the *Mobile Register* threatened that wives and daughters were coming into contact with “foul odors, vermin and disease,” carried by black bodies in the cars.¹³⁵ Unlike compartment cars, the open section sleeper was a shared olfactory space filled with odor-holding fabrics that augmented fears stirred up by white separatists’ long-held belief in North and South that black bodies were inherently dirty, unhygienic and contagious.¹³⁶ The focus on noxious odors at a moment when

¹³⁴ Dyer discusses how southern culture represented non-white rape of white women as “bestiality storming the citadel of civilization,” to construct a whiteness grounded in heterosexuality. See Dyer, *White*, 26.

¹³⁵ *The Atlanta Constitution*, May 16, 1875, 2.

¹³⁶ Both northern and southern white Americans had claimed that antebellum segregation was rooted in biology, not politics and that segregation was a necessity to protect white bodies from uniquely offensive black body odor, see Pryor, *Colored Travelers*, 68-69. In 1841, *The Liberator* printed an editorial that sarcastically pointed to the hypocrisy that permitted a black body to ride in first class as long as it was in servitude to a white master, “There is no 'offensive odor' to a servant or slave, but the colored freeman emits an intolerable stench,” “Eastern Railroad,” *The Liberator*, August 13, 1841. On white Southerners continued implication of African Americans as agents of contamination in the late nineteenth century see Tera Hunter, *To 'Joy My Freedom: Southern Black Women's Lives and Labors after the Civil War* (Cambridge, MA: Harvard University Press, 1997), 194-195.

integration was threatened, tapped into anxiety that miasmas (bad smells) carried diseases and therefore the lingering odor of black bodies would infect white passengers, in particular, elite white women who Southerners constructed as fragile beings in need of constant protection.¹³⁷ Southern white passengers' who resisted integrated sleeping cars claimed luxury sleeping cars as a white space based in racialized notions of the body: they presumed their white bodies left no traces.¹³⁸

The *Atlanta Constitution* threatened Pullman with a boycott. The paper claimed passengers would trade "long naps" in the berths of sleeping cars for "short naps" in day coaches rather than inhabit a space with black passengers.¹³⁹ The Georgia Rail Road threatened to remove all sleeping cars from a train should just one black passenger request a berth.¹⁴⁰ The boycotts did not materialize; bourgeois white passengers did not forego the experience of comfort and theatrical surroundings that allowed them to experience elite status.

The *Mercury* called Pullman "an ass," and "a mean Radical," who gratuitously put black passengers in his sleeping cars to "insult and provoke the Southern white

¹³⁷ In Atlanta, Stuart Galishoff argues that impoverished living conditions at the turn of the twentieth century, and limited access to clean water resulted in black communities suffering from high incidences of disease, though it was a prevalent belief among white people in the South that black bodies carried more disease they were "biologically and morally inferior to whites;" see Stuart Galishoff, "Germes Know No Colore Line: Black Health and Public Policy in Atlanta, 1900-1918," *The Journal of the History of Medicine and Allied Sciences* 40, no. 1 (1985): 22-41.

¹³⁸ Visual culture historian Richard Dyer has noted, "black people can be reduced to their bodies and thus to race;" whereas whiteness involves "something that is in but not of the body," and therefore white people cannot be reduced solely to the physical and biological, see Dyer, *White*, 14-18.

¹³⁹ *The Atlanta Constitution*, May 16, 1875, 2.

¹⁴⁰ Oral argument of Joseph B. Cumming (general counsel of the Georgia Railroad), cited in Barbara Welke, *Recasting American Liberty: Gender, Race, Law, and the Railroad Revolution, 1865-1920* (New York: Cambridge University Press, 2001), 268 n. 68.

Americans to violence.”¹⁴¹ The Pullman Company’s opinion on segregation was unclear. On the one hand, the Company hired solely black porters who reported to solely white conductors, on the other hand, the company refused to segregate its rail cars in the face of considerable negative publicity in the South. There were financial reasons to avoid segregated cars. Under segregation, the railroads would have had to lease additional sleeping cars for black passengers and might not have been able to recoup the costs if cars ran at less than full capacity. The Pullman Company would have had to manage the logistic and maintenance of under-capacity cars without enough revenue to cover expenses. For example, sleeping cars generally had capacity for 24 berths and a state room—if the railroad sold twelve berths to black passengers and twelve berths to white passengers, Pullman would have had to run two half empty cars instead of one full integrated car. The extra cost in labor and maintenance, when multiplied by the number of trains running Pullman cars, would have been considerable.

As Jim Crow segregation crushed the promise of black equality in the 1880s and 1890s, any appearance of black empowerment was suspect. Housekeeping responsibilities of the porter may have neutralized him as a sexual threat to women, but the technical expertise of porters threatened the dominance of white men who depended on black men to fully access the comforts of sleeping cars. Porters held specialized knowledge to operate complicated mechanical berths, adjust windows, install window ash deflectors, adjust ventilators, and operate advanced heating systems and artificial lighting

¹⁴¹ *The North Alabamian*, April 1, 1875, 2.

to compensate for changes in weather.¹⁴² The Pullman porter was a “monarch,” in control over when passengers slept, ate, and the quality of the air they breathed, according to an 1895 meditation on the Pullman porter published in *New England Magazine*. Each open section had independent ventilation but opening and closing the register required a special tool and was therefore “under the dominion of the porter” and his “scepter.”¹⁴³ Less respectful descriptions remained in awe of a porter’s power. In 1880, *The New York Times* reported that “the real despot of the sleeping car is the colored porter” who forces passengers to go to bed early and then takes their shoes for polishing to prevent them from getting out of bed without permission.¹⁴⁴ “In no other country would the traveler meekly lie down and let the sleeping-car porter roll the wheels of his car over his prostrate neck,” the paper claimed. The acerbic *New York Times* article voiced outrage that white passengers should be reliant on a black man, or under his power in any way. The paper suggested passengers gang together to gag and bind a porter and only release him to make their beds. The article concluded with a report of a porter murdered and eviscerated by a “brave Texan” because the porter made up a berth too early. A “bowing, scraping, obsequious autocrat...an imp of darkness,” was how the *Detroit Free Press* described the Pullman porter in 1892, but warned that “he can see to it with unerring accuracy that the conveniences that you desire are wanting and the inconveniences that you seek to avoid are all present in their most aggravating form.” Such vitriolic opinions,

¹⁴² Pullman Company, *Car Service Rules*, 51.

¹⁴³ E. W. Sanborn, “In the Pullman Car,” *New England Magazine* 12, no. 4 (June, 1895): 467-472.

¹⁴⁴ “The Travelling Tyrant,” *The New York Times*, June 24, 1880, 4; The trade journal *The Railway Age* chose to reprint the story but removed the retelling of the murder. “The Sleeping Car Porter,” *The Railway Age Monthly* 1, no. 9 (September, 1880):610-611. “The Palace Car Porter,” *The Detroit Free Press*, February 11, 1892, 4.

from two prominent Northern newspapers, reveal how the sense of supremacy of some white men was threatened by reliance upon black porters. Since the founding of the nation white supremacists perceived their superiority by repressing the rights of people of color whom they defined legally and culturally as subservient. However, free black male porters, empowered by the Pullman Company controlled the bodily comfort of white passengers by controlling the operation of the luxury appointments. For the fullest experience of privilege in the Pullman sleeper, white passengers were beholden to black men, creating a conflict for those white passengers whose sense of elevated status derived from the purchase of luxury travel, and the seemingly lower status they derived from reliance upon black men.¹⁴⁵

Whether the motivation to keep integrated sleeping cars was a progressive belief in equality, strictly a financial decision, or a combination of both, the outcome was the same. Black passengers who could afford the premium fare received the same bourgeois service and enacted genteel behavior alongside white passengers within a luxurious environment that matched their self-image as members of an elite class. Black Pullman sleeping car passengers also received additional comfort from a diminished likelihood of physical and psychological abuse from Pullman employees that had to adhere to the company's non-discrimination policy.¹⁴⁶ For more than a decade, the Pullman Company

¹⁴⁵ On constructions of whiteness see Matthew Jacobson, *Whiteness of a Different Color: European Immigrants and the Alchemy of Race* (Cambridge, MA: Harvard University Press, 1998), 22-31; Teresa Guess, "The Social Construction of Whiteness: Racism by Intent, Racism by Consequence," *Critical Sociology* 32, no. 4 (2006), 668; and Dyer, *White*, 24.

¹⁴⁶ Black passengers in Pullman sleeper still faced discrimination when railway officials occasionally stalled Pullman cars on sidings and refused to couple cars to their trains if they carried black passengers. Mia Bay, "From the 'Ladies' Car' to the 'Colored Car'" in *The Folly of Jim Crow: Rethinking the Segregated South*, ed. Stephanie Cole and Natalie Ring (Arlington, TX: Texas

challenged the goal of segregationists to strengthen racial boundaries threatened by emancipation, but eventually the sleeping cars were segregated. In the 1880s and 1890s most southern states passed laws that mandated separate black and white sleeping cars. Louisiana's law had far reaching consequences. Upheld by the U.S. Supreme court in the 1896 Plessy versus Ferguson case, the law enshrined separate but equal as a state right for the next fifty years.¹⁴⁷

The design of the Pullman car experience, predicated on the service and expertise of black porters, had long-term consequences. By 1914, the Pullman Company was the single largest employer of black Americans in the United States. Well into the twentieth century the company reflected and reinforced white America's association of servility with race: black porters always reported to a white Pullman conductor.¹⁴⁸ Porters had opportunities rarely afforded black Americans in the Jim Crow era. Porters earned regular income; traveled the country seeing how different types of American lived, and absorbed lessons in how to climb the social ladder from middle-class and wealthy customers. Many porters embraced education for their children who went on to form the core of a black professional class in the first half of the twentieth century some of whom became key

A&M University Press, 2012), 165. For literary description of the challenges black passenger faced when trains crossed into the South see Charles Chesnutt, *The Marrow of Tradition* (),

¹⁴⁷ Mia Bay, "From the 'Ladies' Car," 166; Jim Crow laws mandating separate cars for white and black passengers passed in the following years: 1888 Mississippi; 1891 Tennessee, Alabama, Arkansas, Georgia; 1892 Kentucky; 1894 Louisiana; 1898 South Carolina; 1899 North Carolina, 1900 Virginia. Racial segregation on commercial interstate travel was not struck down until the U. S. Supreme Court decided the case of Morgan v. Virginia in 1946. In the twentieth century black passengers sometimes rode in the "Lower 13" the separate 3-person compartment at the end of a sleeping car. A fully walled compartment hid a black passenger from view, and meals were served by the black porter. See Martin, *Railroads Triumphant*, 87.

¹⁴⁸ Arnesen, *Brotherhoods of Color*, 17.

players in the civil rights movement, among them Supreme Court Justice Thurgood Marshall, San Francisco Mayor Willie Brown, Los Angeles Mayor Tom Bradley, journalist Ethel L. Payne of the *Chicago Defender*, literary journalist Marvel Cooke of the Harlem Renaissance, civil rights lawyer Foreynce Rae Kennedy, and founder of the Chicago Negro Chamber of Commerce Walter L. Marshall.¹⁴⁹

Day Coaches (1870-)

By 1875 manufacturers had standardized three passenger car classes. The 1879 *Car Builder's Dictionary* classified cars by passenger fare: second class "inferior grade" cars for passengers that paid less than standard fares, first class cars for passengers that paid a standard fare, and premium cars for passengers that paid the standard fare plus a fee.¹⁵⁰ Sleeping cars were premium cars in which a passenger paid an extra fee for guaranteed access to a specific, comfortable and spacious seat during the day.¹⁵¹ "In the ordinary car the passenger takes his chance of seat when he enters," a railroad executive observed, "in the sleeping-car he is the absolute owner, for the journey of a certain selected portion, the purchase of one berth entitling him to a whole seat, or twice the

¹⁴⁹ Arnesen, *Brotherhoods of Color*, Chapter 1. Arnesen's book traces the complex history and legacy of black Americans working for the railroad as porters, waiters, cooks and cleaners in the Jim Crow era; also see Larry Tye, *Rising from the Rails: Pullman Porters and the Making of the Black Middle Class* (New York: Henry Holt and Company, 2005). See Charles L. Zelden, *Thurgood Marshall: Race, Rights, and the Struggle for a More Perfect Union* (Routledge, 2013), 13; "Assemblyman Willie Brown: A Name to Watch in Politics," *The Napa Valley Register*, November 23, 1972, 72; "Tom Bradley: Looking Up...Looking Ahead," *The Courier-Journal*, July 6, 1969, 178. On Payne and Cooke see Rodger Streitmatter, *Raising Her Voice: African-American Women Journalists Who Changed History* (University Press of Kentucky, 1994), 85 and 120, "Florynce Rae Kennedy" [obituary], *Star Tribune*, December 24, 2000, 27; "Walter L. Marshall, Entrepreneur," *Chicago Tribune*, February 14, 2000, 95.

¹⁵⁰ Manufacturers experienced with alternative cars used in small number, but the majority fit within three categories. See Forney, *The Car-Builder's Dictionary* (1879), 43, 73.

¹⁵¹ Porter, "Railway Passenger Travel," 242.

space belonging to him in the day car.”¹⁵² An assigned place also prevented random changing of seats to reduce uninvited social contact, whereas day coach passengers changed seats at will. As journalist Benjamin F. Taylor observed in 1874, a sleeping car passenger did not have to put up with the twenty-five year old woman in good health who “sails through the crowded car,” up to an elderly male passenger in a day coach seat and states loudly, “I know a gentleman when I see him!” to embarrass him into giving up his seat.¹⁵³

The poor, elderly, and infirm male passenger could only afford passage in a day coach, the continued incarnation of the sofa-seat car little-changed since the 1840s but in use for both long and short trips (**Fig. 4.24**). With the addition of a premium class of cars a seat in the day coach was demoted in status. The day coach seat lacked many of the comforts awarded to premium class customers. Court cases ruled that a day coach ticket was a contract that entitled the purchaser to half of a sofa seat if there was one available, but passengers were often left standing in the aisle, and a male passenger could be forced to surrender a seat to a woman.¹⁵⁴ Manufacturers did not design coach seats for night travel, though the cars were often attached to overnight trains. One European writer observed that to eke out a modicum of comfort for night travel in a day car was nigh impossible “without a proper place to stow away one’s hat, with no convenience even to

¹⁵² Newton, et. al., *History of the Pan-Handle*, Appendix xx.

¹⁵³ Benjamin F. Taylor, *The World on Wheels and Other Sketches* (Chicago: S. C. Griggs & Co, 1874), 54.

¹⁵⁴ Tennessee’s railroad statute required conductors to “see that no passenger occupies more room than he pays for, and that each passenger is provided with a seat as long as one remains vacant on his train.” See Regulations of the Railroads, Cars for Colored People 1881, ch. 55, Article V, 2263-2265, *The Code of Tennessee* (Nashville, TN, Marshall & Bryce, 1884), 408.

repose the head or back except to the ordinary height of a chair.” The discomfort of the seats virtually guaranteed passengers adopted indecorous postures (**Fig. 4.25**).¹⁵⁵ “The prospect of spending several nights in an ordinary car is enough to depress the mind and daunt the courage of the hardiest traveler” an Englishman warned after traveling to California in 1869.¹⁵⁶ “Working-men and working-women...are all packed like sardines in a box, it is a pathetic thing to see their nightly contrivances and poor shifts at comfort; the vain attempts to improvise out of their two or three feet of space a comfortable sleeping place,” *Frank Leslie’s Illustrated Newspaper* remarked in 1878.¹⁵⁷ “Sleep itself would have been perilous,” another writer cautioned in 1880, “since from the lowness of the seat-backs the sleeper’s head would have depended to the rear in an uncertain and suicidal manner.”¹⁵⁸ Over sixty patents issued between 1850 and 1875 for small modifications to sofa seats made little headway in improving comfort, neither did a dozen patents for bizarre prosthetics and personal headrests such as the “Portable Headrest or Pocket Berth,” an attachment to a sofa seat back supposedly comfortable enough for a “ride a week or longer in an ordinary car.” (**Fig. 4.26**).¹⁵⁹ Passengers who managed to twist their bodies into a comfortable position to sleep in a day coach were exposed in an

¹⁵⁵ Charles Mackay, *Life and Liberty in America* (New York: Harper & Brothers, 1859), 122.

¹⁵⁶ W. F. Rae, *Westward by Rail: A Journey to San Francisco and Back* (Leipzig: Bernhard Tauchnitz, 1874), 90.

¹⁵⁷ “Across the Continent,” *Frank Leslie’s Illustrated Newspaper*, February 9, 1878, 389.

¹⁵⁸ C. B. Berry, *The Other Side: How It Struck Us* (New York: E. P. Dutton & Co, 1880), 41.

¹⁵⁹ U. S. Patent Office Records. The first patent located for a walkover railway seat was issued in 1849 to Amos Snow (U.S Patent no. 6552). The granting of car seat patents peaked in 1858 when 19 patents were issued before dropping off precipitously. In the 1860-1863 period only 5 patents were issued for car seats as Americans faced the disruption of war. *American Railroad Journal*, August 25, 1866, 804; Classified Ad 10, *The New York Times*, May 11, 1866, 7; “Improved Headrest,” *Scientific American*, October 14, 1865;

unconscious state to passersby in ways that those in sleeping berths were not. Conductors presumed bourgeois passengers behaved well enough to be hidden behind privacy curtains, the passengers in day coaches, however, were exposed to surveillance of the conductor and other passengers to maintain control. Railroads required train crews to maintain order, but there was only so much control one or two men could exercise over seventy passengers in each of several cars. At night, asleep in a darkened day coach, a woman faced a greater possibility of unwanted physical contact than she did in a premium car.

Railroads administered sofas in day coaches like managers administered bleachers in baseball stadiums and benches in theater pits—a ticket purchased access to an available seat in a bounded area, but no promise of a seat, no specific seat, and no guarantee a seat would be kept if unoccupied for the briefest moment. The fungibility of seat assignment and ambiguity of space allotted per fare permitted the railroad to increase profits through the sale of tickets that exceeded the seat capacity – a frequent occurrence that left patrons standing in the aisles. In 1870, *Putnam's Magazine* noted that a cloak, book, or umbrella was no longer enough to mark a seat as occupied, and that a “weary traveler, who may have been sitting by his friend’s side for days and nights,” could be “unceremoniously ousted by a market-woman, who enters at some way station, and finding him absent for a moment, takes his seat and pleads a lady’s privilege in refusing to give way to the rightful owner.”¹⁶⁰ If all seats were occupied, a newcomer might choose to confront a “Railway Hog,” a selfish passenger journalist Taylor described in

¹⁶⁰ “American Railway Travelling,” *Putnam's Magazine* 5, no. 26 (February, 1870), 205.

1874 as “the man who takes two seats, turns them *vis-à-vis* [face-to-face], and makes a letter X of himself, so as to keep them all” preventing subsequent passengers from acquiring a seat.¹⁶¹ Taylor described a close relative, the “Railway Opossum,” who “enters a rapidly-filling car, drops into a whole seat, adjusts his blanket, chucks his soft hat under his head, swings up his feet to a horizontal—all this in two minutes—and is asleep!” Taylor premised his humor on the vague rules of ownership of day coach seats. “Hogs” and “opossums” contorted their bodies into unacceptable and crude postures to claim the privacy and space equivalent of a premium sleeping car berth unwarranted by both the fare they paid and their inconsiderate behavior.

A ride in the day coach could be socially, bodily, disgustingly, and infectiously intimate. Among Taylor’s other stereotypes of railroad travelers were young women who talked too loud of “private affairs,” the men who put their feet on chair backs, the man who “eats Switzer cheese, onions and sausages from over the sea, in the night time,” and the men whose “salivary glands are the most active part of him,” whose “poor spitting aim spoiled women’s dresses.”¹⁶² “To champion chewers the floor of a car is one vast spittoon, and he is the best fellow who covers the greatest amount of surface,” essayist Kate Field wrote in 1873.¹⁶³ Newspapers frequently printed letters and editorials against spitting. Several correspondents suggested a “Spitting Car,” equivalent to a smoking

¹⁶¹ Benjamin F. Taylor, *The World on Wheels and Other Sketches* (Chicago: S. C. Griggs & Co, 1874), 51-54.

¹⁶² Taylor, 51-54.

¹⁶³ Kate Field, *Hap-Hazard* (Boston: James R. Osgood and Company, 1873), 66.

car.¹⁶⁴ Spitting was not only disgusting to some passengers, it also put them at risk of contracting tuberculosis or other communicable diseases. Uncarpeted day coach floors slick with expectorant forced conscientious passengers to travel with their bags upon their laps.¹⁶⁵

To be locked in a room with thirty other passengers for a week-long trip across the continent in a sleeping car was tiring, but not as grim as passing those six nights in a day coach.¹⁶⁶ *Leslie's Illustrated Newspaper* warned potential day coach travelers from New York to California:

You will be worn out with fatigue; you will be cramped and stiff with the confinement; you will turn blacker than the Ethiop with tan and cinders and be rasped like a nutmeg-grater with alkali dust; you can never sleep a wink for the jarring and noise of the train, and never will be able to dress and undress and bathe yourselves like Christians; and, above all, your nearest and dearest, under the influence of the fatigue and the monotony and the discomfort, will be ready to turn and rend you before you get down into the Sacramento Valley, and *you* will desire nothing better than to make a burnt offering of them, and everyone else insane enough to shut themselves up seven days and nights in a railway car!¹⁶⁷

The lowly status of riding in a day coach for days and the elite status of riding in a sleeping car were mutually reinforcing.

¹⁶⁴ For newspaper articles bemoaning spitting on cars see: "Spitting," *The Advocate* (Buffalo, NY), December 6, 1855, 4; *The Burlington Free Press*, June 27, 1866, 2; "Letters from the People," *Reading Times*, October 31, 1867, 3; "The Spittoon," *The Wheeling Daily Intelligencer*, April 8, 1870, 3; *Hartford Courant*, June 21, 1873, 2; "A Nuisance," *The Valley Sentinel*, July 5, 1874; "About Tobacco Spitting," *National Republican*, January 11, 1876, 4; *Wilmington Post*, October 26, 1877, 2; "Some Observations on Good Breeding," *Davenport Democrat* (Davenport, IA), May 16, 1878, 1.

¹⁶⁵ Alexander Mackay, "Snowbound," *The Western World; or, Travels in the United States in 1847-1847* 1 (London: Lea & Blanchard, 1849), 30; Dickens, *American Notes*, 31.

¹⁶⁶ After the completion of the transcontinental railroad in 1869, a trip between New York and California required a week of travel. See Porter, "Railway Passenger Travel," 242.

¹⁶⁷ "Thirty-three Hundred Miles in a Pullman Hotel Car," *Frank Leslie's Illustrated Newspaper*, August 25, 1877, 422.

Dining Cars

Premium sleeping cars addressed the need for sleep on multi-day trips, but railroads made no provision for eating on trains until the 1860s. In the 1850s, trains had stopped at trackside canteens on an irregular schedule. A train might stop three times in the span of a few hours and not stop the rest of the day. An unseemly jumbled mob raced to exit the train, eat and re-board in the ten to twenty minutes permitted by conductors. “You cannot now tell the millionaire *en route* from... the Yankee peddler,” the *New York Sun* reported in 1844, “they now rush out like everybody else, at the eating houses along the line, and demolish a six-penny pie without self-reproach, and swallow a glass of root beer without commiserations.”¹⁶⁸ Two satirical prints from the mid-1880s show men of all-classes wildly trampling one another in a mad rush to get from the train to the house (Fig. 4.27). In one print women gesticulate from the train, perhaps begging someone to bring them a morsel of food.

In 1857 a writer in *The New York Times* worried trackside canteens put a strain on bourgeois passengers:

...three or four hundred men, women and children, some of whom must, of necessity, be ‘feeble folk’ and unaccustomed to roughing it, and all of whom have been used to the decencies and comforts of orderly homes...shall rush out helter skelter into a dismal long room and dispatch a supper, breakfast, or dinner in fifteen minutes... washing is out of the question, even if all conveniences were at hand, and he rushes into the “saloon,” where he is offered a choice of fried ham and eggs, or tough beefsteak soaked in bad butter, tea and coffee, stale bread, the inevitable custard pie and pound cake...¹⁶⁹

¹⁶⁸ “The Railroad Car,” reprinted in *The Times-Picayune* (New Orleans, LA), December 26, 1844, 2.

¹⁶⁹ “Railroad Refreshments,” *The New York Times*, July 10, 1857; Canteens served the same food every day. August Mencken, 26.

Passengers carried lunch baskets from home or purchased provisions at stations to avoid the rush and indigestion of canteen eating. In 1870 the Pacific Railway recommended travelers on a trip to California pack their baskets with:

French bread, pound and sponge cake, crullers, sandwiches, hard-boiled eggs, roast chickens, deviled ham, bacon cut thin and crisped brown, and perfectly dry; canned fruits and meats; take salt, pepper, a tin cup, spoon, etc.; also, comb, brush, towel, soap, sponge, soft paper, hand-mirror, and if you can stow away a very small basin, and a quart tin cup, all the better. - If you put a moist cloth around the articles likely to dry up, it will be an advantage.¹⁷⁰

Crumbs scattered across clothing and seats and food wrappers, chicken bones, eggshells, and apple cores fell to the floor when passengers ate in the cars. Eating and living in a single space may have been familiar to working-class day coach passengers who lived in boardinghouses and tiny apartments. As urban population expanded rapidly in the 1870s, landlords in Boston, New York, and other older cities, carved single-family row houses into one- and two-room tenement apartments and boardinghouses. Cooking, eating, conversation, washing and sleeping often took place in the same room, cheek-by-jowl with neighbors.¹⁷¹ Bourgeois passengers familiar with eating in private, dedicated dining rooms on linen table cloths would have been unfamiliar with eating en masse, in a multi-functional space, without a table, other than an occasional bucolic picnic.¹⁷²

¹⁷⁰ Alfred A. Hart, *The Traveler's Own Book* (1870), 12. Another pamphlet advised passengers to avoid all foods that emitted odors. Henry T. Williams, *The Pacific Tourist* (New York: Henry T. Williams, 1876), 11.

¹⁷¹ See Zachary Violette, "The Decorated Tenement: Working-class Housing in Boston and New York, 1860-1910," (PhD diss., Boston University, 2014), 74-78, 76 n. 32. See also Elizabeth Blackmar, *Manhattan for Rent: 1785-1850* (Ithaca, NY: Cornell University Press, 1991).

¹⁷² Mary Hern identified the picnic as an upper-class romantic activity of the early nineteenth century. Hern traced the beginnings of the picnic in the United States to a proliferation of paintings and notices in the 1830s. Mary Hern, "Picnicking in the Northeastern United States, 1840-1900," *Winterthur Portfolio* 24, no. 2/3 (Summer - Autumn, 1989), 139-152.

Following the Civil War, manufacturers designed premier cars to support respectable dining. At first, small kitchens, storage space for provisions, and portable tables were added to a portion of sleeping cars, but passengers disliked the lingering cooking smells and noise (**Fig. 4.28**).¹⁷³ In 1868 the Pullman Company produced the *Delmonico*, a dining car dedicated to food preparation and service and named after the notable New York restaurant (**Fig. 4.29**). Within two years most rail lines added dining cars for the use of their sleeping car passengers. The design encouraged bourgeois table manners. Wide tables covered in crisp linen were at an ideal height to eat a meal served on china, silver, and crystal. Some dining cars had seats “hinged to turn up like an opera chair, so persons can get seated at the table with greater ease” (**Fig. 4.30**).¹⁷⁴ No longer would sleeping car passengers join the crush of bodies sprinting to consume indigestible food in the canteen. They did not have to lug provisions to the train and eat lukewarm picnic food. In the dining car, passengers enjoyed a leisurely gourmet meal served by attentive waiters. One menu from the 1870s included over eighty dishes starting from Saddle Rock oysters on-the-shell, a choice of four soups, entrées that might include broiled trout, loin of veal, grilled mutton kidneys, a dozen vegetables and two dozen desserts. The price was 75 cents, about equal to that of a good restaurant, but well out of the range of a working-class traveler.¹⁷⁵

¹⁷³ Referred to as a “Hotel Cars,” Forney, *The Car-BUILDER’s Dictionary* (1879), 87.

¹⁷⁴ “The Michigan Central’s New Dining Cars,” *The Railway Review* 23 (June 9, 1883), 321; The 1888 *Car-BUILDER’s Dictionary* described the individual seats as “Theatre-seats,” with two separate seat-bottoms which can be raised up into a vertical position in the manner usual in theaters, in order to make the inner seats more easy [sic] of access. All modern dining cars have these seats.” Forney, *The Car-BUILDER’s Dictionary*, 1888, 179.

¹⁷⁵ White, *The American Railroad Passenger Car*, 313; An alternative solution was to improve trackside eating houses, see Lesley Poling-Kempes, *The Harvey Girls: Women Who Opened the*

Parlor Cars

Sleeping and dining cars offered bourgeois passengers a refuge from interaction with lower fare passengers on overnight trips, but shorter daytime runs required a different solution. In the 1880s, Pullman and other palace car makers designed parlor cars (sometimes called drawing-room cars) for passengers who wished the distinction of riding in the comfort, security and elegance of a sleeping car on daytime trips (**Fig. 4.31**).¹⁷⁶ For \$1.00 above the standard fare, a passenger reserved a specific, numbered, individual armchair beside a window within a tastefully decorated, hushed interior, with the oversight and service of a porter.¹⁷⁷ Within the parlor car passengers relaxed in a less crowded space: cars sat thirty to forty passengers — half the number of passengers in a standard day coach (**Fig. 4.32**).

For short trips, parlor cars offered bourgeois women greater security and comfort than a day coach. A fashionably dressed woman in a day coach tottered on the edge of her sofa seat prevented from sitting back by her bustled dress. She struggled to maintain an upright posture and proper distance from a seatmate as cars swayed and jolted. Individual parlor car chairs also lacked an opening for a bustle; however, arms stabilized

West (New York: Paragon House, 1989).

¹⁷⁶ White, *The American Railroad Passenger Car*, 286-291. The fare was about \$1.00 above the day coach fare for most of the nineteenth century. Parlor cars were also referred to as “Drawing Room Cars,” and “Chair Cars.” See Forney, *The Car-BUILDER’S Dictionary* (1879), 63, and Forney, *The Car-BUILDER’S Dictionary* (1888).

¹⁷⁷ For descriptions of parlor cars see *Railroad Gazette*, July 7, 1876, 302 and Horace Porter, “Railway Passenger Travel,” in *The American Railway: Its Construction, Development, Management, and Appliances*, ed. Thomas M. Cooley (New York: Charles Scribner’s Sons, 1892), 242; “Drawing Room Cars,” *Railroad Gazette*, April 28, 1882, 254. On the right to a seat in a parlor car see “The Law of Drawing-Room Cars,” *Evening Star* (Washington, D. C.), May, 24, 1879. On the procedure for reserving a parlor car see “Litigation Yesterday,” *The Courier-Journal* (Louisville, KY), December 16, 1884, 6; and “Sweet Revenge,” *The Osage City Free Press* (Osage City, KA), August 27, 1885, 6.

an upright posture. Women rested their shoulder blades on the high backs of parlor chairs or leaned sideways against an arm — the only two postures that many tightly corseted women found comfortable (**Fig. 4.33**).¹⁷⁸ Railroads promoted bourgeois ease through images of genteel white women seated in parlor cars. The parlor car chair became the embodiment of commercial comfort. The Chicago & Alton Railroad named one of its western routes as “The Great Palace Reclining Chair Route,” and in a promotional poster, symbolically turned its route map into a comfortable reclining parlor car chair supporting an elegantly dressed woman (**Fig. 4.34**).

Parlor car chairs were designed to augment physical comforts with the psychological comfort of control over sociability. Full rotation permitted a passenger to face forward, backward, or inward to face a companion, who could also shift one of the two or three rattan chairs that floated in the interior beside the fixed chair for conversation. Etiquette rules prohibiting women talking with strangers on trains had eased, helped by the exclusionary fares of premier cars. An 1869 etiquette book suggested a lady on a train car “may, under certain circumstances, as, if she be a married lady, and not too young, begin a conversation with a strange gentlemen; but he must not, under any circumstances, begin a conversation with her,” but warned that “an unmarried lady, unless advanced in life, is not supposed to begin conversation with a strange gentleman.”¹⁷⁹ Unlike the noise that reverberated from the hard surfaces of a crowded day coach, genteel women could enjoy a quiet conversation and not have to shout over

¹⁷⁸ Grier, *Culture & Comfort*, 128.

¹⁷⁹ S. A. Frost, *Frost's Laws and By-Laws of American Society* (New York: Dick & Fitzgerald, 1869), 101.

the “racket of the cars,” as etiquette writer Eliza Leslie had warned a generation earlier.¹⁸⁰ In parlor cars, noise was reduced by double paned windows, plush upholstery and carpets. Carpets and tasteful décor also encouraged polite mannered behavior and discouraged spitting.¹⁸¹ As an 1898 magazine noted, parlor car passengers engaged in “an occasional conversation – if two acquaintances are together—but nearly always the occupants are as solitary in themselves as an assortment of traveling statues.”¹⁸²

Though supportive of conversation, the arrangement of fixed individual seats telegraphed solitude, control, and ownership of personal space (**Fig. 4.35**). A passenger turned her chair to gaze out the window and signal a wish for solitary contemplation, a posture frequently represented in advertisements. She could be confident her private world would not be invaded. “There is simply a pretense at luxury and ease in the high-back, upholstered chairs, and here, as elsewhere, the order of the day appears to be nap—another nap, —every one caught napping at one time or another,” a travel writer noted in 1898.¹⁸³ Cocooned in ergonomic chairs, parlor car passengers were isolated from the sights, sounds and smells of fellow passengers and safe from the comings and goings of

¹⁸⁰ Eliza Leslie, *Miss Leslie's Behaviour Book: A Guide and Manual for Ladies* (Philadelphia: T. B. Peterson and Brothers, 1839), 94-96, 124; the noisy conditions had not changed much fifty years later when Horace Porter reported that in the day coach “the windows rattled like those of the modern omnibus, conversation was a luxury that could be indulged in only by those of recognized superiority in lung power;” Horace Porter, “Railway Passenger Travel,” in *The American Railway* (New York: Charles Scribner's Sons, 1889), 235.

¹⁸¹ Forney, *The Car-Builder's Dictionary* (1888), 199. Newspapers blamed the mixing of classes for the prevalence of spitting, one paper in 1874 decried “a spitting man” as “unfit company for ladies and gentlemen,” and suggested that the “nuisance” could partially be avoided by paying for a seat in a parlor car. “Spitting Nuisance,” *Holmes County Republican*, July 23, 1874.

¹⁸² Chapple, “Types of Railroad Travellers,” 547.

¹⁸³ Chapple, “Types of Railroad Travellers,” 547.

strangers in day coaches.¹⁸⁴ In 1882, *The Railroad Gazette* explained what “the drawing-room car caste are willing to pay for, is some measure of exclusiveness which will separate them from dirt and from people who drink whiskey and eat onions simultaneously, and despise personal cleanliness generally.”¹⁸⁵

As women traveled unaccompanied more frequently, parlor car seats inhibited random exchanges possible in day coaches. In a widely read and frequently reprinted 1882 essay, etiquette writer A. B. Philputt warned women that “when traveling, discretion should be used in forming acquaintances. Ladies may accept small favors, but any attempt at familiarity must be checked at once.”¹⁸⁶ Theodore Dreiser portrayed the ease of social intrusion in a day coach in his 1900 novel *Sister Carrie*. The story opens with the character Carrie traveling on the sofa seat of a day coach to Chicago. With most seats facing the same direction, her seat exposed her to surreptitious surveillance. A man seated behind Carrie easily peers over her shoulder at what she is reading and uses the information gleaned to open a conversation. The seats have placed her on display, but the visually permeable barrier of the seatback allows her to turn slightly and examine his clothes, and she assumes, his character, in detail. He puts his elbows upon the back of her seat, symbolically breaking into her personal space before sliding onto the sofa next to her — though his move was aggressive, Carrie held no claim to the other half of her seat.

¹⁸⁴ In 1873, the British trade journal *Furniture Gazette* commented on the extensive use of textiles within American parlor cars: “Upon them, the upholsterer’s art is almost exhausted, the floor is handsomely carpeted, easy chairs minister to personal comfort.” “Carriage Furniture and Decoration,” *Furniture Gazette* 1 no. 26 (October 4, 1873)

¹⁸⁵ “Drawing-Room Cars,” *The Railroad Gazette*, April 28, 1882, 254.

¹⁸⁶ A. B. Philputt, *American Etiquette and Rules of Politeness* (Indianapolis, IN: A. E. Davis, 1882), 108.

Parlor car seats impeded the kind of surveillance and effortless social interaction that led to his familiarity. Though Carrie was intrigued by his attention, she imagined the considerable amount of effort the man would have required to woo a “more pretentious woman” in a parlor car seat: the “burden of expense,” selecting a chair nearby, offering to lower a shade, having the porter bring her a footstool, finding her something to read, continuing with compliments and service he might “win her tolerance, and mayhap, regard.”¹⁸⁷

By the late 1880s, the Pullman Company attached parlor cars to over-night trains as an amenity for sleeping car passengers. On long-distance trips, parlor cars relieved “the insufferable tedium of sitting in one position,” in a sleeping car that troubled cranky English aristocrat Thérèse Yelverton, who complained that “staring at the same person for so long a time, gives you a sort of nervous fidget.”¹⁸⁸ Riding in the same car for hours and days, even a beautifully appointed sleeping car, could be tedious. “Travellers must often long to get away during the daytime from the long stuffy carriage in which they have passed the night,” another travel writer observed in 1887, “the sleeping cars in the daytime are very different from the luxurious parlour car with its arm-chairs and footstools,” in the sleeping car “the seats are narrow and the backs are straight.”¹⁸⁹ With a parlor car attached to a sleeping car, premium car passengers moved back and forth to seek sociability or solitude, whereas passengers in attached day coaches could only walk

¹⁸⁷ Theodore Dreiser, *Sister Carrie* (New York, NY: Doubleday, Page & C, 1900), 4. The man in pursuit of Carrie was a salesman, a ubiquitous character on the trains, and a vaguely threatening figure not too socially distant from the con man—both were constantly on the move and masters of persuasion.

¹⁸⁸ Thérèse Yelverton, *Teresina in America 2* (London: Richard Bentley and Son, 1875), 9-10.

¹⁸⁹ Bates, *A Year in the Great Republic*, 17-18.

up and down the aisles to perhaps change a seat.¹⁹⁰

Buffet Smoking Library Cars

As the name suggests, parlor cars imitated the domestic parlor, a mixed gender space for conversation and relaxation within the private home. The sleeping car similarly mimicked a bedroom and sitting room. In function and privacy, the sleeping, dining and parlor cars reproduced the privacy and separation of functions in a domestic space to help bourgeois women maintain respectability in a public setting.¹⁹¹ While premium car manufacturers prioritized the comfort of women; for nearly a decade, bourgeois gentlemen traveling in sleeping cars had no comparable space to meet their gender and class requirements. Since the 1840s, trains included a day coach or part of a car set aside as a smoking car for men, but the cars were mixed race and class environments—dirty with hard or minimally upholstered wood-slat, veneer or rattan benches and bare wood floors from which the ubiquitous spittle could be removed more easily. Because the smoker was placed behind the engine, sparks and ash flew into the car if windows were opened, and interiors became stifling and choking when windows were closed.¹⁹²

In 1887 manufacturers designed a buffet, smoking and library car [Library car] in

¹⁹⁰ Fatalities were common when passengers moved between cars. In the late 1880s, Pullman popularized a vestibule for safe conduct between sleeping, parlor and dining cars. White, *The American Railroad Passenger Car*, 449-451, and 298.

¹⁹¹ Richter, *Home on the Rails*, 169 n. 24. On the historiography of the separate spheres as explanatory model see Linda Kerber, “Separate Spheres, Female Worlds, Woman’s Place: The Rhetoric of Women’s History” in *No More Separate Spheres!: A Next Wave American Studies Reader*, ed. Cathy Davidson and Jessamyn Hatcher (Durham, NC: Duke University Press, 2002), 29-67.

¹⁹² *Car-Builder’s Dictionary* (1888), 162. Respectable women were not supposed to enter smoking cars, but the smoker was often the only option for both men and women who purchased lower price second class tickets; see Welke, *Recasting American Liberty*, 255.

which a bourgeois gentleman enacted masculine respectability and escaped from behavior considered objectionable to his perceived class. Ten to twenty men sat on a combination of lightweight moveable seats and built in sofas (**Fig. 4.36**).¹⁹³ The standard library car contained the functions of an office, club and barbershops — a microcosm of the landscape vital to an urban bourgeois man’s respectability.¹⁹⁴ A traveler enumerated the amenities in an 1893 edition of a literary magazine:

Forward of the sleepers is a smoking-car and library, containing lounges, couches, writing-desks, book-cases filled with standard and current literature, and tables supplied with the daily newspapers and the periodicals of the times. In a corner of this snug retreat, which to the male passengers serves temporarily all the purposes of a club, is a refreshment buffet, with which one may instantly communicate by means of an electric button always at hand. Beyond this is a barber's shop, through which is obtained entrance to the gentlemen's bath-room.¹⁹⁵

Railroads advertised trains with library cars in white collar periodicals such as *The Banker’s Magazine*, *The American Magazine*, and *Outing: An Illustrated Monthly Magazine of Recreation*.¹⁹⁶ A man who wished to separate himself from women and

¹⁹³ “Railway Gossip,” *Democrat and Chronicle* (Rochester, NY), December 19, 1887, 6. The car was sometimes referred to as a club car, a lounge car, a baggage smoking car, or simply a combination car. Some early parlor cars were divided into two compartments, a larger main saloon with about 20 upholstered chairs, and a smaller smoking room with wicker or cane seats, or sofas upholstered in leather. Men inhabited the smoking section, and men and women the main saloon.

¹⁹⁴ The separate spheres ideology that developed in the early nineteenth century in New England and described by Nancy Cott in 1977 was an ideal, a guideline for respectable behavior. In reality, the boundaries were permeable. Bourgeois American women inhabited the public sphere in philanthropy and activism and later department stores and tea rooms, See Andrea Davies and Brenda D Frink, “The Origins of the Ideal Worker: The Separation of Work and Home in the United States From the Market Revolution to 1950,” *Work and Occupations* 41, no. 1 (2014): 18-39, Stansell, *City of Women*; Nancy Cott, *The Bonds of Womanhood: “Woman’s sphere” in New England, 1780–1835* (New Haven, CT: Yale University Press, 1977).

¹⁹⁵ James Mortimer, “From London to Chicago,” *Strand Magazine* 6 (1893), 212-21. Mortimer was aboard the “Pennsylvania, Limited,” one of the most luxurious trains that ran without stop from Jersey City to Chicago.

¹⁹⁶ *The Banker’s Magazine* (January, 1888), 562; *Outing: An Illustrated Monthly Magazine of Recreation* 11 (1887/1888); *The American Magazine* 8, no. 1 (May, 1888), 4.

working class passengers took a seat in a car *Leslie's Weekly* described in 1902 as “especially adapted to the tastes of “the transcontinental traveler who loves the comforts of his well-appointed club.”¹⁹⁷ (Fig. 4.37). Like fraternal clubs, the library car was a space designed for men to ease the solicitude and vigilance over language, behavior and posture required in the presence of women in parlor and sleeping cars, but not the chaotic situation that was present in the smoking car.¹⁹⁸

Elites traveling by train to the distant West were emblematic of a new geography of capitalism, according to historian Noam Maggor argues. The elite old money families of Boston, New York and Philadelphia previously invested capital in land and local manufacturing sought new opportunities in the West in the 1880s. “As commercial pioneers, they moved through the landscape on trains, steamboats, coaches, and on foot, studying the terrain, inspecting old rail lines and projecting new ones, assessing the potential for future traffic, and evaluating business associates and investment opportunities.¹⁹⁹ They traveled aboard the Pullman cars of the *Western Express* and other named trains that originated in Eastern cities.²⁰⁰ The sleeping cars and buffet, library, smoking cars of trains were central to what landscape historian John Stilgoe termed a

¹⁹⁷ “The New Overland Limited,” *Leslie's Weekly*, May 22, 1902, 507.

¹⁹⁸ The period from 1870 to 1930 was referred to in its time as the “Golden Age of Fraternity”; see W. S. Harwood, “Secret Societies in America,” *North American Review* 164 (May 1897): 623; and William D. Moore, *Masonic Temples: Freemasonry, Ritual Architecture, and Masculine Archetypes* (Knoxville: University of Tennessee Press, 2006), xv, 76-77.

¹⁹⁹ Noam Maggor, *Brahmin Capitalism: Frontiers of Wealth and Populism in America's First Gilded Age*, (Cambridge, MA: Harvard University Press, 2017), 12, 96-126.

²⁰⁰ In 1884 the Pennsylvania Central Railroad's *Western Express*, ran daily from New York and Philadelphia to Logansport Indiana with no change required for those riding in its Pullman buffet sleeping cars. *Traveler's Official Guide of the Railway and Steam Navigation Lines* (New York: National Railway Publication Co), 174.

“metropolitan corridor,” that channeled the flow of modernization from east to west.²⁰¹

Manufacturers designed the library car for men who paid a fee to travel in cleaner, more comfortable surroundings with functions that maintained a bourgeois masculine lifestyle. The car was an alternative to smoking facilities in day coaches. By comparison, an image of a smoking section within a day coach in 1900 portrayed a narrow space outfitted with severely upright divided benches, and a single movable wicker chair. No porter awaited to take a passenger’s drink order. (**Fig. 4.38**). The Pennsylvania Railroad library cars included “camp-stools, card-tables, chessmen, checkers etc.” that supported conviviality.²⁰² Whereas in parlor cars, manufacturers bolted most of the chairs in a set pattern, in library cars chairs and tables could be rearranged at will. Photographs show chairs packed along the edges probably impeded furniture movement, but there was a *possibility* of moving the furniture not available in most other cars. Mixed-gender parlor cars were designed to communicate separation and controlled sociability, but library cars were designed to communicate conviviality. Absent of women, the railroad trusted bourgeois men possessed the ideal Victorian character: self-reliance, self-discipline, and responsibility to adjust the space as needed.²⁰³ Like seats in private boxes of theaters and stadiums, moveable furniture was symbolic of elevated status. In the easy chairs of the buffet, smoking, library car, men “may loll and lose the present,” the Central Railroad claimed, or they could engage with men they considered their peers.²⁰⁴ Though open to

²⁰¹ Stilgoe, *Metropolitan Corridor*, 3-4, and 47-72.

²⁰² *Summer Excursion Routes* (Pennsylvania Railroad, 1884).

²⁰³ Howe, “Victorian Culture in America,” 25.

²⁰⁴ Central Railroad, *New York and Washington Blue Line* (New York, 1892), 25.

anyone who paid the surcharge, the Lake Shore and Michigan Southern Railway admitted the cars were “in reality, a lounging room for gentleman.”²⁰⁵

A 1908 story and illustration in *System: The Magazine of Business* imagined the role the design of the cars could play in serendipitous meetings (**Fig. 4.39**).²⁰⁶ Seated in the buffet, smoking, library car, a sales manager eavesdrops while an energetic young man lectures his elderly boss. “In his eagerness, he hitched his chair round to face the elder man, his head and shoulders thrown forward, a furrow of purpose between his heavy brows.” After the elderly man leaves, the young man lights a cigar and shares a new philosophy of selling with the sales manager. In the illustration, the young man jabs his fingers to emphasize his point, while the sales manager eagerly leans into the conversation from his wicker armchair. In the cars, men socialized over cigars and cocktails from the bar set upon side tables by dutiful porters, but the cars also provided a desk for writing correspondence so passengers could remain connected to the world of business. The library car was an ideal amenity for traveling salesmen, an occupation that evolved with the geographically expanded markets enabled by the railroad. In the 1890s, the Pennsylvania Railroad provided a wire service and a stenographer to take letters.²⁰⁷ About 350,000 salesmen left behind their miniscule salesman’s desks in 1899 to meet in

²⁰⁵ Lake Shore & Michigan Southern Railway, *Lake Chautauqua* (1898). A list of library contents was distributed to passengers, and porters delivered requested items to their seat, so women did not need to enter the male domain to use the library, although some did enter the buffet section where snacks were served. *Democrat and Chronicle* (Rochester, NY), December 19, 1887.

²⁰⁶ Daniel Casey, “The Wider Horizon,” *System: The Magazine of Business* 14, no. 6 (December, 1908): 557-561.

²⁰⁷ *Railway World*, December 19, 1891, 1204; Classified advertisement, *Life*, February 25, 1892.

club cars designed to foster conversation and business connections.²⁰⁸ Constantly on the road, salesmen thrived in a burgeoning landscape of hotels, passenger cars and railroad depots where they established contacts and shared sales techniques.²⁰⁹

With the addition of the buffet, smoking, library car, manufacturers completely isolated premium fare passengers. Like theaters and stadiums built with separate entrances to classed seats, the inter-city train ensured premium fare passengers would not have to interact, or even be aware of lower fare customers who were removed from sight, hearing, and smell. Premier cars reproduced the ideal spatial experience of a bourgeois Victorian home in which separate spaces were dedicated to specific functions – parlors and drawing rooms, dining rooms, libraries, bedrooms, kitchens, bathrooms.²¹⁰ Passengers moved through different cars for relaxation, conversation, and eating and to find personal privacy considered essential to bourgeois white existence.²¹¹ To be white and bourgeois was to transcend the body, to be distanced and separated in a civilized public sphere.²¹² White passengers had bodily needs, but the design of cars ensured the visibility of those needs was diminished or obscured. Sleeping cars hid the need for sleep behind a curtain, dining cars ensured meals were as much about etiquette, manners, and erudition as nourishment, parlor cars and library cars permitted effortless relaxation. In

²⁰⁸ The estimate of the number of salesmen is from the testimony of P. E. Dowe before the from U.S. Industrial Commission, *Reports on Trusts and Industrial Combinations* (Washington, DC, 1900), 25;

²⁰⁹ Timothy B. Spears “All Things to All Men”: The Commercial Traveler and the Rise of Modern Salesmanship,” *American Quarterly* 45, no. 4 (December 1993): 524-557.

²¹⁰ Clifford E. Clark, “Domestic Architecture as an Index to Social History: The Romantic Revival and the Cult of Domesticity in America, 1840-1870,” *The Journal of Interdisciplinary History* 7, no. 1 (1976): 33-56.

²¹¹ Dell Upton, *Architecture in the United States* (New York: Oxford University Press, 1998), 46.

²¹² Dyer, *White*, 39.

comparison, day coach customers lived in a single room and could not escape their corporeality — the sight of bodies half prone sleeping, the noise of a crying baby or a snoring passenger, the smells and messes associated with eating without support, the odors of food and unwashed bodies.²¹³

Passenger trains helped construct hierarchies of class, race, and gender. In the years after the Civil War, writers that anticipated a return to a unified nation clung to the mythic classlessness of American rail travel. “A natural and legitimate product of American ideas... a democratic palace instead of a nest of aristocratic closets...” was how Horace Greeley described American passenger cars in 1874. But as growing income inequality and a lack of opportunity exasperated ethnic, racial and class tension, Americans were being pushed apart. In the next paragraph, with no indication of irony, Greeley described palace cars full of “showy trappings” and then included a table enumerating the descending construction costs of sleeper, passenger (day coach) and second-class cars. The table showed railroads invested two to four times as much in the comfort of palace car customers than they invested in cars for standard fare customers.²¹⁴ At the end of the century, the classed nature of American railroad cars could no longer be denied. In 1896, *The Railway Age* observed that while English trains were moving away from three classes to two, and perhaps even a single class, in the United States the tendency was in the opposite direction and, “though under other names, the construction

²¹³ To live in a day coach was likely not very different from the one or two room apartments lived in by most urban working class families. See David Handlin, *The American Home: Architecture and Society, 1815-1915* (Boston: Little, Brown, 1979).

²¹⁴ Horace Greeley, *The Great Industries of the United States* (Hartford: The J. B. Burr Publishing Co., 1874), 623-629.

of sleeping, parlor and emigrant cars has practically established class distinctions among travelers,” which the paper saw as “the outward and visible sign of a deep-seated change which is going on in the spirits of the two peoples.”²¹⁵ The *Railway Age* contrasted premium cars with a third class of cars frequently ignored or glossed over by travel writers and journalists that insisted American travel was egalitarian. Railroads used second class Jim Crow cars to carry non-white passengers and emigrant cars to transport immigrants and western settlers.

Jim Crow Cars

Railroads and passengers had wrestled with racial segregation on trains since the 1830s. The journey of David Ruggles in the summer of 1838 illustrates some of the early challenges black passengers faced. Ruggles, a black American from New York, paid four dollars to an agent for a first-class ticket for a combined steamer and train to take him to Boston, but the agent would only hand him a cheaper steamship ticket that did not give him access to the interior of the boat. Ruggles spent the fourteen-hour trip above deck exposed to the elements. On the second leg of his trip he took a seat in a first-class railcar but refused to pay an additional fifty cents extorted by the conductor who then insisted Ruggles leave the car. In a letter to the *Providence Courier*, Ruggles described how the conductor and “three others forcibly ejected me from the car and forced me into what they call the pauper (or jim crow car).”²¹⁶ Ruggles letter was an early published use of

²¹⁵ *The Railway Age and Northwestern Railroader* 21, no. 6 (February 8, 1896), 67.

²¹⁶ David Ruggles, “A Trip to the east—Defrauded on the Steamboat *Rhode Island* – And Lynched on the Stonington Rail Road,” reprinted in *The Colored American*, August 25, 1838.

Jim Crow as a moniker for a segregated space for black passengers.²¹⁷

Railroads used Jim Crow cars to reproduce the exteriority of steamship decks and stagecoach roofs where non-white passengers had been forced to travel. The Jim Crow car was not a specific or standard car design, but an ad hoc use of a car or section of car believed suitable for persons the railroads deemed unacceptable in civil society, a place to keep “the drunken, dirty, ragged and colored people from the others” according to the president of the Taunton and New Bedford Railroad.²¹⁸ Conductors banished black passengers to dirty cars used to haul animals and baggage, smoking cars, cars without seats, and worn out older cars. Whereas white riders could be sure of access to a first-class coach, black passengers faced an unpredictable experience on antebellum railroads.²¹⁹ In 1842, Austrian engineer Von Gerstner described how one railroad in the South that set aside half of one car for black passengers to ride at half-fare; another southern railroad that did the same, but allowed them to pay full fare and ride in the main passenger car; a railroad from Baltimore to Pennsylvania that set aside one third of the baggage car for baggage, one third for latrines, and one third for black passengers; and a Georgia railroad that provided a lower price second-class car that was “very bad and

²¹⁷ The term Jim Crow came from a comedic song and dance routine “Jump Jim Crow,” part of a minstrel show performed by “Daddy Rice.” Jim Crow became a popular trickster figure used to demean black Americans. *Jim Crow America: A Documentary History* ed. Catherine M. Lewis and J. Richard Lewis (Fayetteville, AK: The University of Arkansas Press, 2009), 1-3; See also Louis Ruchames, “Jim Crow Railroads in Massachusetts,” *American Quarterly* 8, no. 1 (Spring, 1956): 61-75.

²¹⁸ “Lynching in New-Bedford,” *The Liberator*, August 6, 1841. According to Elizabeth Pryor, black bodies in motion were always problematic for white Americans: “In the early nineteenth century the idea that people of color could be travelers contradicted popular notions of black mobility as criminal and fugitive.” Pryor, *Colored Travelers*, 44-55.

²¹⁹ In 1841, three Massachusetts railroads segregated Black passengers, but the largest did not. *Jim Crow Railroads*, 72.

uncomfortable mainly used by Negroes.”²²⁰

Conductors denied non-white passengers access to seats appropriate for bourgeois self-presentation: upright postures, quiet conversation, restrained emotions, and an orderly, clean appearance. Wooden benches, filthy from men’s boots, slippery with spit, steeped in smoke, set in cars with worn-out or inadequate suspensions that bounced and tossed passengers, inhibited genteel appearance and behavior. In 1838, the same year Ruggles was removed from a first-class car in Connecticut, a black man in Worcester Massachusetts decried that regardless of how much he paid, regardless of his “good behavior and good deportment,” he was insulted by having to ride in the “dirt car,” an alternative and illustrative term for Jim Crow cars.²²¹ In 1841, the Eastern Railroad ejected noted abolitionist Frederick Douglass from a first-class day coach seat on a train to Boston. In his memoirs, Douglass described his physical and metaphorical attachment to the seat and what it represented: “They however found me *much* attached to my seat, and in removing me I tore away two or three of the surrounding ones, on which I held with a firm grasp, and did the car no service in some other respects.”²²² Douglass’s friend, white anti-slavery champion James N. Buffman, suggested to the railroad

²²⁰ Von Gerstner, *Die inner Communicationen* II, 224, 238, 247, 251, and 283.

²²¹ Henry Scott, “Letter, December 4, 1838,” *Massachusetts Spy*, reprinted in *The Liberator*, December 14, 1838. A true dirt-car, as its name suggests, was used to haul dirt during railroad construction. Whether the “dirt cars” used to carry black passengers were actual dirt cars, or just called such is unclear.

²²² The superintendent of the railroad had trains bypass the city when Douglass was in town to prevent further protests. Massachusetts railroads “voluntarily” eliminated segregated cars in the early 1840s under threat of a legal ruling. Theaters and ferries were desegregated at the same time, but schools were not desegregated until 1855 in Massachusetts. See Frederick Douglass, *The Frederick Douglass Papers. Series One, Speeches, Debates, and Interviews* (New Haven: Yale University Press, 1979), 10 n2. “Rebuke of the Eastern Railroad Company, for their Treatment of Colored Passengers,” *The Liberator*, March 19, 1841; Frederick Douglass, *The Life and Times of Frederick Douglass* (Boston: De Wolfe & Fiske Co., 1892), 277-279.

superintendent that he get rid of the Jim Crow car. The superintendent replied he would get rid of Jim Crow cars when Buffman got rid of “colored” pews in the Quaker meeting house they both attended. The superintendent equated church pews and car seats—both undifferentiated benches where white anxieties over physical contact with black bodies overcame Northern liberal philosophical ideals of equality and self-improvement.²²³ No matter how well non-white Americans adopted the manners, dress, restraint, and seriousness, of bourgeois society, they were denied access to spaces designed to present gentility.²²⁴ As the United States shifted from a local agricultural economy in which individuals spent their entire lives in one location, to an urban, industrial economy, mobility became central to full citizenship. Segregated railroads became highly charged sites for contesting racism because to be American became increasingly associated with the power to move freely and safely in pursuit of jobs, to settle western lands, and to vacate states that maintained discriminatory political structures of the post-Civil War south.

In October 1839, only ten months after the Baltimore and Philadelphia line introduced a car for women and families, a black family was ousted from the ladies’ car.

²²³ Although referred to as a Jim Crow car, the second-class cars of the Eastern Railroad were also open to white passengers. Second-class seats were one-third the price of first-seats. Only some New England trains segregated cars—The Western, Nashua, Boston and Portland, Norwich, Lowell segregated not on class, but on manners, permitting every “well behaved” person to “select the car and seat which suit them.” Bradlee, *The Eastern Railroad*, 32. Conductors on the Eastern and several other New England railroads insisted that black passengers sit in the male-only smoking cars or on the hard benches of second-class coaches regardless of whether they had the financial wherewithal to purchase first class tickets. The Eastern, Taunton, New Bedford, and Providence placed black passengers in cars “neither decent or comfortable, and according to circumstances exposed to the in clemencies of the season.” “Massachusetts Rail-road Segregation, Senate no. 63” *Documents printed by order of The Senate of Commonwealth of Massachusetts During the Session of the General Court, AD 1842* (Boston: Dutton and Wentworth, 1842), 2.

²²⁴ Howe, “Victorian Culture in America,” 24.

Abolitionists targeted the railroad line for protest because it crossed between the non-slave state of Pennsylvania and the slave-holding state of Maryland. Their strategy followed a script later used by theater protestors in which a white customer purchased tickets from an agent on behalf of a black customer. Mr. Goodwin, a “respectable looking” white man, purchased six tickets for his wife and child and a black man, his wife and child. They all took up seats in the ladies’ car. When an agent told Goodwin there were “separate and comfortable accommodations” for black passengers, he appealed to his rights as a citizen, claiming that he was an “independent man,” and could travel with whom he liked. During a second attempt to remove them farther down the line, Goodwin’s wife appeared to be in ill health. The agent offered to allow the black woman to remain as an attendant but insisted the black man had to go to the separate Jim Crow car—Goodwin would have no part of it, and they remained. The trip required the passengers detrain and ferry across the Susquehanna River to Maryland. Railroad employees refused the black family re-entry to the ladies’ car on the other side, and instead escorted them to the Jim Crow car. The white family, “in a rage of indignation,” followed to sit with them. In this incident, the close association of bodies was leveraged by the families to call into question a value system that circumscribed the race of a *lady* as white. The conductor would have allowed the black woman to stay in the ladies’ car, not because she was a woman, but because she was in a subservient role as attendant. The conductor found a black man too threatening to remain under any circumstances.²²⁵ *The Sun* titled the article “Levelling” to suggest the group’s goal was to demand racial

²²⁵ “Levelling,” *The Baltimore Sun*, October 10, 1839, 2.

equality through access to equivalent seats.²²⁶

Jim Crow cars faded from railroads in the North in the 1840s but continued in the South after emancipation when states passed separate but equal laws. Southern railroads often ran just two cars—a ladies’ car and a colored car—both first class in name, ticket price, rules of conduct and design. In the clean and well-maintained ladies’ car for women and their escorts, conductors rigidly enforced rules against smoking, drinking, cursing and other rude behavior, in the often dirty and poorly maintained Jim Crow car for non-white passengers, conductors loosely enforced rules.²²⁷ White men moved from the ladies’ car to the Jim Crow car to smoke, drink and misbehave. Middle-class black women were sometimes forced out of the ladies’ car and into the Jim Crow cars where they were denied a space suitable to present both their class and gender.²²⁸ Post emancipation, Southern railroads could not devise a coherent policy for where black female passengers should sit.²²⁹

Black women had few published guidelines on how to protect themselves on a train. In 1860, etiquette writer Florence Hartley recommended respectable women should “choose, if possible, a seat next to another lady, or near an elderly gentleman.” Hartley’s advice presupposed the power of universal choice not available to black women who

²²⁶ “Levelling,” *The Baltimore Sun*, October 10, 1839, 2.

²²⁷ Welke, *Recasting American Liberty*, 260-261.

²²⁸ Mia Bay describes experiences of Black women on Southern railroads to argue that “middle-class black women fought for seats in the ladies’ cars and parlor cars of their era...not to escape the lower class of their own race but to enjoy the comforts available to other American women of means.” Mia Bay, “From the ‘Ladies’ Car, 150-175.

²²⁹ In 1883, congress repealed the Civil Rights Bill of 1875 which had guaranteed black Americans equal access to public transportation and accommodations. The repeal permitted passage of Jim Crow regulations at the state level.

wanted to ride in the ladies' car. In 1883, schoolteacher and prominent journalist Ida B. Wells typified the fight of black women for a dignified seat when she challenged her eviction from a ladies' car.²³⁰ The details of court testimony reveal how seat characteristics inflamed racial tensions.²³¹

Wells purchased a first-class ticket for a train ride of several hours. *First class* was an intentionally misleading term in American railroad parlance that has contributed to occasional confusion in histories of the Wells' case. Some historians have represented the case as a fight over an individual seat in a parlor car; other histories of the Wells case and similar law suits by middle-class black women leave the reader with an impression the fight was over a seat in cars that offered higher distinction.²³² Histories often focus on the deplorable conditions of the Jim Crow car, but have underexamined the conditions of alternative spaces designed without barriers to suit a dominant whiteness — the sofa seat, the sleeping car — and how white supremacists justified racist segregation based upon permeable boundaries. In practice, first class was the standard fare for a car with basic comforts.²³³ Black women did not demand to be treated in the most aristocratic manner;

²³⁰ Florence Hartley, *The Ladies' Book of Etiquette* (Boston: G. W. Cottrell, 1860), 38-39.

²³¹ The full testimony is published in *Chesapeake, Ohio & S. W. Railroad vs. Ida Wells*, Circuit Court of Shelby County, James O. Pierce, Judge, March 31, 1885.

²³² While black Americans were denied access to parlor cars, most court cases brought by middle-class black women against segregation were for access to a two-person seat day coach. Authors that mischaracterized the class of car include Kathleen Ann Clark, *Defining Moments: Black Commemoration & Political Culture in the South, 1863-1913* (Chapel Hill: University of North Carolina Press, 2005), 136-137 and Edward L. Ayers, *Southern Crossing a History of the American South, 1877-1906* (New York: Oxford University Press, 1996), 92-97; for a nuanced explanation of the geography of segregated cars see Charles A. Lofgren, *The Plessy Case: A Legal-historical Interpretation* (New York: Oxford University Press, 1988), 10-11.

²³³ Forney, *The Car-Builder's Dictionary* (1879), 731 Forney, *The Car-Builder's Dictionary* (1888), 75.

they asked to be awarded the basic comfort of a non-smoking day coach.²³⁴

The intimacy of a two-person sofa seat and the ambiguity of ownership were at the root of most railroad discrimination cases. Wells first-class ticket entitled her to ride in either of two identical first-class day coaches that satisfied the requirements of an 1881 Tennessee Jim Crow law for equal physical accommodations.²³⁵ The railroad deemed the forward car a colored car and the rear car a ladies' car for white ladies and gentlemen. The train also included a combination smoking and baggage car. In finding for Wells, the judge acknowledged the similarity of form and fixtures between the two first-class coaches, but found the railroad violated the law because the conductor failed to equally enforce conduct rules.²³⁶

Wells testified the ticket office was closed when she arrived at the station. She took a seat in the rear car, a ladies' car, in which she claimed black passengers rode

²³⁴ Most racial discrimination suits against the railroad were made by women. Black women traveling alone or with children appealed to a gendered threat in a car that included single men and crude behavior, an argument that could not be made by black men—their masculinity presumed to protect them in the colored car. Welke, “When All the Women Were White, 275 n.35, and 278; Pryor, *Colored Travelers*, 65.

²³⁵ “2364. All railroad companies in this State shall furnish separate cars, or portions of cars cut off by partition walls, which all colored passengers who pay first-class passenger rates of fare may have the privilege to enter and occupy. 2365. Such apartments shall be kept in good repair, and with the same conveniences, and subject to the same rules governing other first-class cars for preventing smoking and obscene language.” *The Code of Tennessee*, 408.

²³⁶ In testimony, it was revealed that the cars were identical in their design, and that the ladies' car became the “Coloured Car” on the return trip. Wells does not refer to the car as a parlor car in her autobiography, and court testimony clearly indicates she was seated in a two-person, reversible sofa seat, not an individual seat parlor car. See *Chesapeake, Ohio & W. W. Railroad vs. Ida Wells*,” (Supreme Court of Tenn., Circuit Court Shelby County, March 31, 1885). Wells followed a model that black protestors established in 1881 after Tennessee passed a law requiring railroads to provide separate first-class cars for passengers of each race. Soon after, for three successive days, black passengers took seats in white ladies' cars, the next day black passengers took seats in the white ladies' car and white passengers took seats in the car usually reserved for Black passengers. Eventually the legislature passed a fine for those who did not adhere to the segregation law. See Paula Giddings, *A Sword among Lions: Ida B. Wells and the Campaign against Lynching* 1st ed. (New York: Amistad, 2008), 58-59.

occasionally. Later, she exited, bought a ticket, and while returning saw a drunken white man in the colored car, a situation Wells alleged was common as she had seen white men, smokers and “rougher people ride in the front car” on previous trips. She described sitting alone on a sofa seat in the ladies’ car after the train departed, when the conductor insisted, she move to the colored car. Wells appealed to her right as a lady to the protection of the ladies’ car. According to Wells, he refused, but offered to treat her like a lady if she moved, to which she replied “if he wished to treat me like a lady, he would leave me alone” in the ladies’ car. Like Fredrick Douglass, she described grasping onto her seat as he seized her, but two white passengers managed to help him drag her to the platform. She got off the train and sued for assault and breach of contract. Several witnesses confirmed Wells’ account, among them a minister who testified people in the front car “were smoking, talking and drinking, very rough, it was no fit place for a lady.”²³⁷

In its defense, the railroad claimed the right and “duty” to segregate passengers to maintain order. The rear car for “white Ladies and Gentlemen,” was full, according to the conductor, so he “invited” Wells to occupy the front car “for colored ladies and gentlemen...equal in all respects in comfort and convenience and subject to the same rules.” The ladies’ car was full except for the half-seat next to Wells upon which she had placed her belongings, the conductor testified, and as a result white passengers chose to stand rather than take available seats in the colored car. He reiterated Wells’ testimony that he had asked her “as a Lady” to go to the colored car. According to the conductor, as he struggled with her removal passengers flipped the forward seat so she would have less

²³⁷ *Chesapeake, v. Wells.*

purchase. He admitted, and witnesses confirmed, white and black passengers frequently rode in both cars, and although the conductor claimed to banish passengers who smoked from the colored car to the combination smoking and baggage car, he acknowledged smoking in the colored car was a frequent occurrence. White passengers that attempted to circumvent the rules probably found the conditions in the smoking car unacceptable and so chose to smoke in the comfort of the colored first-class car.

In his finding in Wells' favor, the judge described the ladies' car and colored car as de facto first and second class based not on design differences, but on differences in behavior and rules enforcement. In effect, he agreed with testimony of the train's porter that "the rear coach was for the best passengers, and was the only first-class coach we had; the front car [was] our second class car."²³⁸ The Tennessee separate but equal law was intended to harmonize race relations through identical design as southerners came to terms with racial equality, but instead, the railroad created dissonance through a classification system based upon gender for one car, race for the other. The judge described Wells as "a person of lady-like appearance and deportment, a school teacher, and one who might be expected to object to traveling in the company of rough or boisterous men, smokers or drunkards."²³⁹ The ladies' car, where the conductor maintained "quiet and good order" was first class, according to the judge, but since "no adequate attempt was made to prevent in advance smoking in the forward car by either white or colored passengers" the colored car was second class based upon the legal

²³⁸ *Chesapeake, v. Wells.*

²³⁹ "Circuit Court of Shelby Co., Tenn.," *The Chicago Legal News*, January 3, 1885, 136.

definition. Wells was “thereby refused the first class accommodations to which she was entitled under the law,” he concluded.²⁴⁰ Racial segregation suits against the railroads in the 1880s echoed the earlier gender discrimination cases brought by men in which plaintiffs similarly argued against being forced into the equivalent of a second-class car, and courts upheld discrimination based on the legal duty of the railroad to preserve order. Both racial and gender discrimination resulted from the confusion of using gender to mask class discrimination.

The railroad’s mixed classification system resulted from the resistance of white-Americans to draw boundaries around whiteness. Had the railroad classified solely upon race and referred to the ladies’ car as a white car, Wells would have failed in her claim. But to define borders for whiteness was problematic within nineteenth century notions of race. Whiteness was rarely reduced to particularity, instead whiteness was the default—the universal that knew no boundaries or limitations. Only non-white races had to be identified, classified, and contained. Conversely, to have classified solely on gender and called the front car a gentlemen’s car, would have forced the railroad to either subdivide cars or run four cars, two for each gender and race to meet the requirements of the separate but equal law.²⁴¹

Because the colored car was the alternative to the ladies’ car, conductors could justify removal of non-white women from a car by claiming they were not “ladies,”—a

²⁴⁰ The judge quoted a passage of the 1881 law which prevented railroad companies from collecting first-class fare from non-white passengers and compelling them “to occupy second-class cars where smoking is allowed and no restrictions are enforced to prevent vulgar or obscene language.”

²⁴¹ For an analysis of the construction of whiteness and blackness in leisure and consumption see Karl Spracklen, *Whiteness and Leisure* (New York, NY: Palgrave Macmillan, 2013), 5-7.

strategy the railroad attempted to use in its argument against Wells. In dubious but revealing testimony, Virginius Kimbrough, a white man, insisted some Southerners were okay with black women in the ladies' car, it was only Wells' "insolence," and "insulting manner" that caused him to complain. His wife, Allene Kimbrough, testified she was seated alone on the sofa seat when "Wells came up to me and said get up you have my seat and where is my bag I left on it." She demanded her seat, Kimbrough continued, "in a very unlady like manner, and did start to take her seat—when I told her to get away and let me pass as I was not in the habit of sitting on the seat with negroes." Kimbrough testified that no other passengers objected to a black woman riding in the coach that day and that she had "often traveled in [a] coach with colored people, and never objected as long as I was not disturbed."²⁴² Kimbrough's testimony revealed how the intimacy of a day coach seat heightened racial tensions. White passengers did not object to black women in the ladies' car, if they sat separately and left when a white passenger needed a seat. The norms of a ladies' coach discouraged an unknown man from entering and sitting next to a woman traveling alone, but a woman could share a seat with a male relative or another woman. Like a fun-house mirror, the intimacy of the day coach seat distorted Kimbrough's perception of Wells' from an acceptable woman when seated separately, into an unacceptably disturbing and threatening menace.

²⁴² Allene Kimbrough testified that her interaction with Wells occurred in November or December, but the altercation happened in September, and no other witness corroborated her testimony. Kimbrough's husband claimed to witness the altercation from a seat across the car, and after Allene Kimbrough gave up her seat, that she came to sit "over where I was." Its suspect why his wife would have sat alone on the other side of the car from him, and not shared his seat from the start. For an analysis of the trials see Clark, *Defining Moments*, 137; and Ayers, *Southern Crossing*, 92-94.

The sofa seat design lacked enough controls to meet white needs to circumscribe black bodies. The two-person capacity, the undifferentiated seat, and the undefined ownership threatened to bring black and white bodies together, a potential closeness conductors used to justify the eviction of black women from ladies' cars. The presence of a white body constructed an unspoken impenetrable border of whiteness around a sofa seat, but non-white passengers had no such power over space. If a black person took a seat, as Wells discovered, the seat did not become a zone of blackness; her occupancy was subject to the caprice of white passengers and train crew. The same dynamic applied to the colored car, in which white passengers moved in and out freely. Because of its dominance, whiteness was privileged, and normalized, only non-whiteness had to be declared as other, a black person's ownership of space in the public commons tenuous, even within spaces white Americans defined as black. A French traveler on a Georgia railroad in 1847, after observing black passengers relegated to a baggage and smoking car, commented that "anyone with white skin, or to express myself according to American law, all that are American citizens, have equal rights to the same places, the price is the same for everyone."²⁴³ To be forced to ride in a car defined as colored banished black Americans outside the bounds of normativity, civility and citizenship.²⁴⁴

Between 1855 and 1914, Ida B. Wells and other middle-class black women successfully sued when forced from ladies' cars, but as legal scholar Barbara Welke argued, their success in appealing to gender, gave impetus to the 1896 ruling in *Plessy*

²⁴³ L. Xavier, "Souvenirs d'un voyage aux États-Unis en 1847," *L'Illustration*, July 22, 1848, 317.

²⁴⁴ For a discussion of the construction of whiteness and blackness in leisure and consumption see Karl Spracklen, *Whiteness and Leisure*, 5-7.

versus Ferguson that legalized separate but equal accommodations nationwide. To overturn the judgment in Wells' case, an appeals court judge did not deny Wells was a lady deserving the comforts of a first class car, rather he argued that both cars were first class based solely on form, and therefore satisfied a narrow interpretation of the Tennessee's separate but equal law.²⁴⁵ The justices who decided Plessy similarly ignored abundant evidence that colored cars were often not equal in quality or oversight.²⁴⁶ Court testimony and newspaper reports frequently described deplorable conditions in Jim Crow cars: "dusty, and dirty and at times as full of smoke as the adjoining compartment in which men were smoking," "exceedingly dirty," and "scarcely better than a cattle car."²⁴⁷ In such conditions, non-white bourgeois women could not express a lady-like gentility meant to shield them from unwanted sexual advances.²⁴⁸

Individual seats in parlor cars might have offered an alternative, but custom and later laws often barred independent black women from purchasing tickets to premium cars in both North and South.²⁴⁹ *The New York Times* explained the distinction in an 1894 editorial:

White people have a distinct aversion to "associating" with black people or meeting them in any relation that implies a social equality, even in

²⁴⁵ G. W. Pickle, *Reports of Cases Argued and Determine in the Supreme Court of Tennessee 1* (Nashville, TN: Marshall & Bruce, 1887), 613-615.

²⁴⁶ Homer Plessy challenged the constitutionality of Louisiana's 1890 Separate Car Act after being refused a seat in the white-only car. He failed, and the court ruled that separate but equal accommodations were legal within state boundaries.

²⁴⁷ "William H. Heard V. The Georgia R. R. Co.," *Interstate Commerce Commission Reports: Reports and Decisions of the Interstate Commerce Commission 1* (New York: L. K. Strouse & Co, 1888), 429; *Railway World*, April 8, 1893, 319; Charles George, *Forty Years on the Rail* (Chicago: R. R. Donnelley & Sons, 1887) 221.

²⁴⁸ Mia Bay, "From the 'Ladies' Car, 167.

²⁴⁹ Parlor cars only carried at most half the capacity of a 70-person day coach and were only profitable to run with a considerable surcharge. For an example of the justification for not adding additional parlor cars to a day train see "Parlor Car Fares," *Hartford Courant*, January 13, 1902, 10.

public conveyances or places of public resort. It is not that white people object to the presence of negroes. They only insist that negroes shall be kept “in their places.” A negress as an unoccupied passenger [i.e. not in service to a white person] in a parlor car would be looked sourly on by her white fellow-passengers, even if they did not enter protests against her presence, whereas the same negress, visibly employed as the nurse of white children, would be innocuous and welcome.²⁵⁰

White passengers viewed the prospect of a bourgeois black woman seated in an individual comfortable parlor car seat as a powerful threat of Negro Supremacy, a fear tactic middle-class white politicians used to regain dominance over Southern legislatures in the 1890s.²⁵¹ The laws they passed mandated segregation even in places where it had faded and where it had not been practiced. In 1900, after thirty years of waning segregation, Virginia passed its first statute requiring railroads furnish separate cars, or partitioned cars, four years later the state passed an even stricter law barring black passengers from dining, sleeper, and parlor cars.²⁵² “The classification of mankind by the owners or controllers of public places and institutions,” was justified to “avoid breaches of the peace or discomfort,” a court found in 1893, as long as “such accommodations are equally comfortable and decent.”²⁵³ To avoid the psychological discomfort of primarily white passengers, railroads were beholden only to provide equal physical comfort for black passengers. The strict segregation laws undermined any attempt by progressive

²⁵⁰ “‘Caste’ in Brooklyn,” *The New York Times*, October 2, 1894, 4.

²⁵¹ Patricia Minter, “The Failure of Freedom: Class, Gender, and the Evolution of Segregated Transit Law in the Nineteenth-Century South - Freedom: Personal Liberty and Private Law,” *Chicago-Kent Law Review* 70, no. 3 (April 1995), 1001-1002. Minter provides a thorough investigation of Southern legal cases addressing the intersection of race, class, and gender in transit.

²⁵² Charles E. Wynes, “The Evolution of Jim Crow Laws in Twentieth Century Virginia,” *Phylon* 28, no. 4 (1967): 416-25.

²⁵³ The judge equated racial discrimination with the separation of boys and girls at school, thereby rooting discrimination in a biological justification. *Smith et Al. v. Chamberlain*, Supreme Court of South Carolina, March 29, 1893.

judges to use gender and class to redress segregation practice.²⁵⁴

When seated in integrated day coaches, black women faced unwanted sexual advances from men.²⁵⁵ The story of white men mistakenly kissing, or coming close to kissing black women in railroad cars was a racist trope carried over from the close confines of the stagecoach.²⁵⁶ In an 1876 story, “The Parting Kiss,” a “gentleman” requests to share a seat with a veiled woman. In the close confines of the darkened car and the intimacy of the shared seat, they strike up a warm conversation, but when he asks her for a kiss, and he lifts her veil to discover “luscious lips, glistening teeth, extensive nose, white eyes, charcoal countenance, and wavy hair of a she American of African Descent...he did not take that kiss.”²⁵⁷ Currier and Ives produced a lithograph in 1881 in which a young man eyes a pretty woman and when the train enters a tunnel he makes his move and kisses her, only to miss his mark and kiss her black nanny (**Fig. 4.40**). The title, “A Kiss in the Dark,” titillated with its double meaning. The story implied some white men assumed all unescorted women were potential targets of sexual conquest.²⁵⁸

Many white Americans (both women and men) feared white men would fall for the wiles of black women who, historians have noted, lived with a presumption that they were more sexual than bourgeois white women.²⁵⁹ Within the ambiguity and permeable

²⁵⁴ Patricia Minter, “The Failure of Freedom,” 995.

²⁵⁵ Pryor, *Colored Travelers*, 62.

²⁵⁶ A similar version told of a stagecoach passenger, John C. Spencer, who permitted a veiled lady to sit on his lap because the coach was full, only to discover “a very ebony colored individual of the female gender.” Thurlow Weed, *A Chapter from the Autobiography of Mr. Thurlow Weed* (Albany, NY: Charles Van Benthuysen & Sons, 1870), 8-9.

²⁵⁷ “The Parting Kiss – A Railway Incident,” *The Railway Anecdote Book*, (New York: D. Appleton & Co, 1876).

²⁵⁸ Cohen, “Women at Large, 47.

²⁵⁹ Higginbotham, “African-American Women's History,” 262-266.

personal space of day coach seats, strangers claimed the right to share any available seat. Fearful white passengers believed it was safer for all black women to ride in segregated cars where they would not tempt white men. In an undated semi-autobiographical manuscript Mary Terrell described the peril black women faced from white men in Jim Crow cars. Betsy, an adolescent black woman rode a first-class car from the North to the South. At Cincinnati she changed to the Jim Crow Car, rather than face the ridicule of white passengers when the train crossed into Kentucky. She closed her eyes “to the scratched and marred woodwork, to the faded and worn covering on the seats and to all the other dilapidated, unsightly and inadequate appointments in the coach.” The Jim Crow car was a partitioned day coach, half set aside for Black passengers and the remainder as a smoking section. Betsy felt the eyes of white men upon her, trying to get her attention as they passed back and forth to smoke. After falling asleep, she was woken by the assault of a white man. Whereas white men used the threat of black men raping white women to suppress black male rights and repress the independence of white women, Southern white men were free to cross the color line and rape black women to reinforce their dominance.²⁶⁰ Betsy escaped, but had nowhere to turn for help because she feared no one would believe her.²⁶¹ A black woman faced a dilemma: if she traveled by train with a black male escort white conductors and passengers were more likely to force them into a dirty and dangerous smoker or Jim Crow car, but if she risked a trip alone in a ladies’ car and was later forced into the Jim Crow car unprotected, she faced insult and

²⁶⁰ Feimster, *Southern Horrors*, 49-52.

²⁶¹ Mary Eliza Church Terrell, “Betsy’s Borrowed Baby,” *Unpublished Papers of Mary Church Terrell* (Alexandria, VA: Alexander Street Press, 2004), 45-51.

assault.²⁶²

Emmigrant Cars²⁶³

Like Jim Crow cars for black passengers, railroads provided inferior cars for immigrants. In 1869, *Harper's Weekly* celebrated the completion of the intercontinental railroad with an illustration of a Pullman Palace Car (**Fig. 4.41**).²⁶⁴ In an ornate interior, black waiters served white passengers seated on upholstered sofas at elegantly set dining tables. Immediately below the image of the dining car the newspaper published an engraving of workers described as “—a medley of Irishmen and Chinamen—engaged in constructing the last line of the railroad. Thus, the very laborers upon the road typify its significant result, bringing Europe and Asia face to face, grasping hands across the American Continent” (**Fig. 4.42**). The artist represented the workers with exaggerated simian features, a convention some Victorian illustrators used to signify non-white race.²⁶⁵ Though the article extolled the union of European and Asian peoples, Irish and Chinese laborers would not have arrived in the plush upholstered dining car illustrated. If they did arrive by railroad, it would have been on the hard wooden benches of immigrant cars (**Fig. 4.43**).²⁶⁶

²⁶² A black woman could appeal to a white colleague to demand access to a ladies' car. Ida B. Wells remembered an 1886 rail journey to Kansas City, “they put us in a dingy old car that was very unpleasant,” but thanks to the assistance of a physician friend, they “secured a very pleasant place in a chair car.” Ida B. Wells and Miriam De Costa-Willis, *Memphis Diary of Ida B. Wells* (Boston: Beacon Press, 1995) 86.

²⁶³ In the nineteenth century, government officials and railroads used the term *emigrant* to refer to individuals arriving from foreign lands. In the literature and on the railroads the cars were referred to as emigrant cars. To avoid confusion, the nineteenth century term emigrant is only used in direct quotes for the remainder of the chapter.

²⁶⁴ “The Pacific Railroad,” *Harper's Weekly*, May 29, 1869, 341-342, 348.

²⁶⁵ Matthew Frye Jacobson, *Whiteness*, 48-55.

²⁶⁶ European immigrants were on a path to citizenship, Chinese and Native Americans were to be

In the early nineteenth century, Americans had warmly accepted white Protestants immigrants from Great Britain and Europe as potential future citizens, but as the rate of immigration increased from the tens of thousands per year in the 1820s to hundreds of thousands per year in the 1840s, Americans were less sanguine newcomers were worthy of the comforts and benefits of citizenship.²⁶⁷ Residents of Boston, Philadelphia, New York and San Francisco feared an inundation of immigrants with darker complexions, many who spoke unfamiliar languages and practiced different religions. Portrayed as a threat to public health because of diseases many acquired in the crowded ships; immigrants were also believed to compete with native born Americans for low wage jobs.

In the 1850s, the Federal Government built immigration centers to rush arrivals from ports to interior destinations.²⁶⁸ In 1851, the New York and Erie railroad estimated it carried one hundred first-class and fifty immigrant passengers from Jersey City to Lake Erie daily.²⁶⁹ Officials shunted immigrants from ships to dedicated waiting rooms to await the next available train. In 1885, five railroads that terminated across the Hudson

excluded, see Catherine Boland Erkkila, "American Railways and the Cultural Landscape of Immigration" *Buildings & Landscapes* 22, no. 1 (2015): 36-62.

²⁶⁷ See Matthew Jacobson, *Whiteness*, 7-8, 43; and Archdeacon, *Becoming American*, 113 and 148.

²⁶⁸ The first immigration center was opened in 1855 at Caste Garden at the southern tip of Manhattan, Ellis Island was opened in 1891.

²⁶⁹ Von Gerstner noted that from 1836 to 1839 the Utica and Schenectady railroad operated a half-fare second-class passenger coach, described as "quite ordinary and fitted with wooden seats" and used primarily by immigrants, while laborers who rode the Boston & Worcester line preferred to pay 50 cents more per trip rather than "be reduced" to riding in second class cars. On the Mohawk and Hudson railroad emigrants traveled at half fare (32.5 cents) in a freight car without seats or windows. Franz Anton Ritter Von Gerstner, *Die inner Commnicationen der Vereinigten Staaten von Nordamerica* [The Inner Communications of the United States] (Vienna: L. Forster's artstische Anstalt, 1842, 88, 121-123, 90-92, 259, 289-290, 299, 312, and 314, In 1851 the New York and Erie charged \$9 for a through fare to first class passengers and \$5 for emigrants. *Report of the Directors of the New York and Erie Railroad Company, February 15, 1851* (New York: Snowden, 1851), 11.

River from New York formed the Immigration Clearing House (ICH) to manage immigrant passenger traffic.²⁷⁰ ICH agents distributed passengers evenly among the five lines. When enough immigrants had arrived to fill an entire train, agents ferried them from the waiting room of the immigration center to the rail terminal.²⁷¹ Cars on lines that originated in other cities did not run as separate trains but instead were attached to freight trains and occasionally to passenger trains.

Railroads invested little on comfort within immigrant cars. Three- to four-thousand dollars purchased an immigrant car in 1874, when twelve- to twenty-thousand dollars purchased a Pullman sleeper.²⁷² “Though in theory all are equal there are practically various classes of passengers,” English traveler James Macaulay acknowledged in 1871, “on the main lines there are cheap trains for immigrants.”²⁷³ As early as 1841, Von Gerstner observed immigrant cars for which passengers paid half to two thirds the fare of a first-class ticket to ride in plain cars with at best a few wooden bench seats. Some immigrant cars were little more than empty boxcars without windows or seats.²⁷⁴

Immigrants journeyed across a landscape of hard wood benches from steamship berths to immigrant processing center to benches in immigrant cars (**Fig. 4.44**). In form, immigrant car benches were closer to outdoor furniture than any domestic cognate.

²⁷⁰ The Immigration Clearing House was part of the Trunk Line Association, a railroad association founded in the 1870s that maintained rates and controlled most west-bound traffic. “The Railway Traffic Agreements,” *The New York Times*, December 18, 196, 4.

²⁷¹ Erkkila, “American Railways, 58, n. 23

²⁷² Greeley, *Great Industries*, 625. A freight car cost \$700 to \$800.

²⁷³ James Macaulay, *Across the Ferry: First Impressions of American and its People* (London: Hodder and Stoughton, 1871), 137.

²⁷⁴ Isabella Lucy Bird, *The Englishwoman in America* (London: John Murray, 1856), 94. The comfort of the cars was not that different from the wagons emigrants used to travel west in the first half of the nineteenth century. Gannon, “Carriage, Coach and Wagon,” 66.

Scottish novelist and travel writer Robert Louis Stevenson described benches in an 1879 immigrant car as “too short for anything but a young child.”²⁷⁵ Not only were benches miniscule, railroads did not provide cushions or bedding for trips of several days to one week. Railroads feared upholstery would harbor lice, bed bugs and other infestations transferred from immigrant bodies. A board and some straw cushions covered with thin cotton could be purchased by passengers from entrepreneurs at stations and on cars. To build a makeshift bed, passengers placed the board and thin mattress across the seats.²⁷⁶ Manufacturers designed immigrant car seats with minimum comfort to suit their categorization of immigrant bodies. Based upon the racist beliefs of social Darwinists, immigrants from Ireland, Southern and Eastern Europe and China were considered less evolved, less civilized than Northern European Anglo Saxon races, their bodies, deemed stronger, suited to menial labor, and able to withstand greater discomfort.²⁷⁷ Adherents believed immigrants were suited to the rudimentary comfort of wood-slat seats.²⁷⁸

²⁷⁵ Stevenson’s train consisted of a car for the Chinese, his car for single men, and then a car for immigrant families. Robert Louis Stevenson, *Across the Plains: With Other Memories and Essays* (Leipzig: Bernhard Tauchnitz, 1892), 33-44; see also Anthony Bianculli, *Trains and Technology: The American Railroad in the Nineteenth Century 2* (Newark, DE: University of Delaware Press, 2002), 33-34. The price for a board and cushions started at \$2.50 but dropped to \$1.50. as the departure time approached, another source indicated cushions sold for \$1.25 on the train, but for 35 cents at some stations, see Ben Goodkind, *Roughing It from California Through France* (A. J. Johnston & Co, 1886), 5.

²⁷⁶ The makeshift solution only worked in a partially filled car since two prone passengers occupied the space of four seated passengers.

²⁷⁷ Chinese immigrants were considered savage and barbaric and could not ride in first class regardless of their ability to pay. See Hiroshi Motomura, *Americans in Waiting: The Lost Story of Immigration and Citizenship in the United States* (New York: Oxford University Press, 2006), 19; Erkkila, and Kvale have noted that railroads treated emigrant trains passengers as inferior to the general population, see Nicole Kvale, “Emigrant Trains: Migratory Transportation Networks through Germany and the United States, 1847–191” (PhD diss., University of Wisconsin, 2009), 238; and Erkkila, “American Railways,” 37-39.

²⁷⁸ Forney, *Car-Builder’s Dictionary* (1888), 125.

Native-born Anglo-Saxon white Americans, on the other hand, believed themselves to be highly civilized, evolved away from the strength required of menial labor and therefore more in need of upholstered comfort. Car manufacturers designed interiors to suit their conviction that bourgeois white bodies needed to be cosseted like invalids. Feminist scholars have described how conservative Victorians portrayed and even encouraged white women to appear weak and susceptible to illness. Elites worried the sedentary lifestyle of bourgeois white made them less able to bear children and viewed non-white Americans as fecund and physically strong. The philosophy was used to justify a whole host of oppressive behaviors including Jim Crow segregation, anti-miscegenation laws, lynching, medical testing and forced sterilization.²⁷⁹ For fragile elite male bodies, neurasthenia also served as a convenient justification for extra comforts and segregation. An 1899 report in *The Medical Record* warned neurasthenia had “increased in frequency as social, political, and economical conditions have made the struggle for existence more violent and the prospects of a quiet life more perilous.”²⁸⁰ Physicians argued that bourgeois white men, separated from the honest physical work of craft and farm, had become over civilized.

On their bench seats, immigrants endured a long and uncomfortable trip. Entire

²⁷⁹ L. Briggs, “The Race of Hysteria: ‘Overcivilization’ and the ‘Savage’ Woman in Late Nineteenth-Century Obstetrics and Gynecology,” *American Quarterly* 52, no. 2 (June, 2000): 246-73; Carroll Smith-Rosenberg, “The Hysterical Woman: Sex Roles and Role Conflict in 19th-Century America,” *Social Research* 39, no. 4 (1972): 652-78.

²⁸⁰ Joseph Collins and Carlin Phillips, “The Etiology and treatment of Neurasthenia,” *Medical Record* 55, no. 12 (March 25, 1899): 413-422. Men were slightly more than half of those diagnosed with neurasthenia in an 1899 study of 333 cases of neurasthenia published in *The Medical Record*. Indoor workers, eighty percent of their population, were considered to be especially susceptible to the disease.

trains of immigrant cars streamed from New York as specials. Frequently side tracked to make way for regularly scheduled trains, immigrants spent hours idling between stations.²⁸¹ Trackside food was too expensive and stops too unreliable, so families with children used their meager resources to purchase food baskets at stations and cooked meals on cast iron stoves in the cars (**Fig. 4.45**).²⁸² At infrequent stops, passengers dashed to wash and fill jugs with water.²⁸³ The design of the car resulted in an overwhelming atmosphere of sights, sounds and smells. Minimal opportunities to bathe and lingering odors of cooking in a poorly ventilated space virtually guaranteed a malodorous car. Hard walls, floors, ceilings, and furniture reflected the sound of shakes, bumps and rattles, the cries of babies, and the snores of passengers into a resounding and inescapable cacophony. White Americans that witnessed such a tableau would have found their preconceived notions of immigrant incivility realized. The contrast with the expansive personal space of a well ventilated and hushed sleeping, parlor, or dining car interior, or even the interior of a day coach, would have been shocking. One conductor deemed the conditions so awful he banished an Englishman to the immigrant car in 1856 after he refused to give his seat in a first-class coach to a lady. English travel writer Francis Bird equated his punishment to a lynching.²⁸⁴

Racialized conceptions of immigrant bodies influenced the design decisions of immigrant car manufacturers, but so did practical and financial constraints. Though

²⁸¹ Erkkila, "American Railways, 40.

²⁸² Car Builders Dictionary, 69, White, *The American Railroad Passenger Car* 1 and 35.

²⁸³ John Remeus, "Journey of an Immigrant Family," reprinted in *Wisconsin Magazine of History* 29, no. 2 (December 1945): 217.

²⁸⁴ Bird imagined the spirit of Judge Lynch "stood by with an approving smile," see Bird, *The Englishwoman in America*, 160-161.

immigrants were screened for diseases, many were coming from crowded conditions on ships and presumed to bring with them lice, bedbugs, and communicable diseases. The idea of the immigrant body as diseased was an outgrowth of the portrayal of crowded tenement neighborhoods as slums in the popular press.²⁸⁵ Railroads quickly and effectively hosed off hard wood walls, benches, and floors for each new group. The model of minimal comfort seats and an option to purchase cushions was equivalent to the nickel cushions sold to bleacherites in baseball stadiums. Immigrants could provide bedding to save a little money, but railroads saved a considerable amount by outsourcing maintenance of upholstery to third-party sellers. Finally, because immigrant traffic was one-way, from the coasts to the interior, simple bench seats, hard surfaces, and minimal windows permitted some railroads to fill immigrant cars with freight on return journeys rather than run cars empty.²⁸⁶

Market considerations also contributed to design decisions. Passengers in premier coaches would likely return on the same train and the railroad hoped treating them well would encourage them to become future customers, immigrants paid for a basic one-way service from port to a new home. Railroads had little incentive to provide additional

²⁸⁵ Like the institutions under study in this dissertation, cities experienced class separation and concentration from relatively class mixed neighborhoods to class stratified neighborhoods including neighborhoods for poor immigrants portrayed in the popular press as diseased, blighted slums. See Violette, 30-31 Immigrant tenement districts teemed with bedbugs, lice, cockroaches, and rats that influenced the notions of immigrants as dirty and diseased. The settlement house movement attempted to change the image of immigrants through groups like the “Anti-Filth Society” in New York. See Morris Berger, “The Settlement, the Immigrant and the Public School” (PhD diss., Columbia University, 1956), 9.

²⁸⁶ In 1855, the Illinois Central and Michigan Central Railroads installed benches into grain cars and used them as emigrant cars for westbound travel, and then removed them and carried grain back east, see Nicole Kvale, “Emigrant Trains,” 242.

comfort in hopes low income immigrants would be future customers. Ticket prices and passenger volume regulated by state legislatures and later by the Immigrant Clearing House further reduced incentives to improve service.²⁸⁷ Immigrants had almost no ability to choose a rail line before purchasing a ticket. For the many immigrants that landed in New York, it was not possible to evaluate trains until they were ferried to the terminals. Within a tightly regulated market with little or no competition possible, railroads provided the cheapest, minimal accommodation for immigrants.

Immigrant Sleeper

A new car design emerged when competition entered the immigrant passenger market. After several intercontinental railways extended settlement in the 1870s, railroad executives hoped immigrants settled on land grants would increase future passenger and freight traffic. But railroad executives did not want to settle just any immigrant on their western lands. Influenced by Victorian racial distinctions among European ethnic groups, railroads focused recruitment efforts on what they considered the whitest of the white races—Northern Europeans. Executives believed in a poetic vision of American settlement reliant upon virtuous republicans tied to the land, capable of building civilized communities out of untamed wilderness. “Economic and social development,” historian Henry Nash Smith argued “did not originate in the picturesque Wild West beyond the

²⁸⁷ An act of the state legislature in 1853 set a maximum rate of 1.25 cent per mile for passage from New York to the interior in 1853. A second-class ticket for a day coach from New York to Chicago cost \$17 while the immigrant rate was \$13, the four-dollar difference was a significant amount when multiplied by a large family. - New York State Legislature, Chapter 218, Section 7, April 13, 1853, Henry Davies, *A Compilation of the Laws of the State of New York* (New York, 1855), 1110.

agricultural frontier, but in the domesticated West that lay behind it.” According to Smith, settlement was centered upon the “heroic figure of the idealized frontier farmer.” Railroad developers’ recruitment philosophy expressed deeply held racialized beliefs of what nationalities had the strength of character to maintain and build upon America’s founding ideology.²⁸⁸

To woo Northern European settlers, railroad lines set up immigration agencies in European nations, provided low cost or free transportation to the United States, paid to have baggage shipped, and helped immigrants purchase homes along their lines. Railroads also replaced immigrant cars with a low cost version of a standard sleeper without the fine ornamental décor or the porter service, but with basic bodily comforts suitable to people railroads deemed on a path to citizenship (**Fig. 4.46**).²⁸⁹ The 1888 *Car Builder’s Dictionary* described the immigrant sleeping car as “a cheaply finished car without springs or mattresses, but in other respects similar to ordinary sleepers, for the use of emigrants.”²⁹⁰ Passengers unfolded facing bench seats to form a lower berth and opened upper berths hinged to the ceiling (**Fig. 4.47**). Cars had at least one lavatory with a water tank for washing, and some had separate men’s and women’s toilets. Passengers modulated light and ventilation through a wall of regularly spaced windows with wooden

²⁸⁸ Jason Pierce describes railroads rejection of black Americans escaping post-reconstruction south, and a focus on Northern Europeans—“English, Scots, Welsh, Norwegians, Germans, Swedes, and Russo-German Mennonites were all groups Americans felt could enter the country and be productive citizens.” See Jason Pierce, *Making the White Man’s West: Whiteness and the Creation of the American West*. Boulder, Colorado: University Press of Colorado, 2016, 172-173. Pierce quotes from Henry Nash Smith, *Virgin Land: The American West as Symbol and Myth* (Cambridge, MA: Harvard University Press, 1978), 123.

²⁸⁹ Kvale, “Emigrant Trains,” 237; and *Car Builders Dictionary*, 161.

²⁹⁰ Forney, *Car-builder’s Dictionary*, 188 and 69.

venetian blinds. A special “Emigrant’s Friend,” heating and cooking stove, with tasteful aesthetic movement ornamentation, was designed to improve ventilation (**Fig. 4.48**).²⁹¹ “Until late years economically constructed day-cars were alone used, but in these the immigrants suffered great discomfort in long journeys,” the Vice President of the Pullman Company lamented, but “an immigrant sleeper is now used...and the long transcontinental journeys of the immigrants are now made without hardship,”²⁹²

Equality in the market

In the pursuit of a broad customer base, railroads used price discrimination to segment the market for rail travel into premier, first-class and discount fares based on customers’ willingness and ability to pay.²⁹³ Regardless of fare paid, passengers on a train traveling from New York to Chicago or California left from the same point and arrived at the same point; discount fare passengers were not dropped farther from a destination than premier fare passengers. The railroad could not slow down some cars and speed up others; most passengers arrived at the same time.²⁹⁴ An entire train passed

²⁹¹ In 1882, it was reported that the Pacific railroads were building emigrant cars with seats convertible into sleeping berths, but for which the traveler had to furnish his own top mattress “Reform in Passenger Car Accommodations,” *The American Railroad Journal* 38, no. 35 (September 9, 1882), 664-665. Erkkila, “American Railways,” 38; Ben Goodkind, *Roughing It from California Through France* (A. J. Johnston & Co, 1886), 5; “Emigrant Sleepers,” *Railway Review*, September 8, 1883, 532. First class and premium cars had stoves only for heating, cook stoves were only used in emigrant cars. See *Car Builder’s Dictionary*, 1888, 172.

²⁹² Horace Porter, “Railway Passenger Travel,” 251-252.

²⁹³ “Price discrimination is the practice of charging different prices for the same (or very similar) products that have the same costs, based solely on different consumers’ willingness to pay.’ Though it could be argued that the cost of premier travel cars and service was higher, the marginal cost compared to the overhead cost of the railroad infrastructure was small. See Peter Belobaba, “Fundamentals of Pricing and Revenue Management,” in *The Global Airline Industry* ed. Peter Belobaba, Amedeo Odoni, and Cynthia Barnhart (Chichester, UK: John Wiley & Sons, Ltd, 2009), 77.

²⁹⁴ The exception being limited trains of only premier cars.

through the same right of way; some cars could not be sent down a less well-maintained set of tracks. The most powerful tool railroads used to justify price differences was the design of the car interior and the experience of service; and often, as in the case of Pullman sleepers, design and service were intertwined.²⁹⁵ Designers adjusted passenger comfort and control to suit different fare levels: Ornamental, ergonomic, quiet, well ventilated, spacious and tightly controlled premier car seats, plain, uncomfortable, noisy, poorly ventilated, crowded and ambiguously controlled first-class day-coach seats, dirty, dysfunctional, cacophonous, miasmic, jam packed and unsupervised emigrant and Jim Crow seats.

In theory, price discrimination did not conflict with the ideals of egalitarianism when, in theory, each passenger had the opportunity, if not the financial wherewithal to sit in any part of the train. In practice, however, the intersection of race and gender with financial means constructed barriers to equality in the marketplace. Railroad passenger cars graduated in control and comfort did more than justify a price discrimination, design choices also reflected and constituted social groups. Identical seats that structured interactions in enclosed environments activated rail cars as highly charged zones for

²⁹⁵ First class cars cost more to manufacture than Jim Crow cars, which were often either converted box cars or later worn out first-class coaches, but the difference in marginal cost was not always significant compared to the fixed personnel and maintenance costs of a combined freight and passenger railroad. In 1837 the price for a coach capable of carrying 60 passengers “comfortably” and “finished in handsome style” was \$1,750, a coach similar but not so well finished, \$1,600 and one presumably even less well finished \$1,550 - prices for cars offered by Richard Imlay related in a letter to locomotive builder M. W. Baldwin dated February 176, 1837 reprinted in White, *The American Railroad Passenger Car*, 13. In 1839, Betts, Pusey & Harlan offered a first class car that sat 60 at \$2,400 “with spring seats crosswise, with shifting backs, trimmed in best style, with silk or worsted, venetian blinds, for \$2,400 and the lowest priced car, a 4th class car with plain wood seats with reversible painted wood backs for \$1,400. *1836 Semi-Centennial Memoir of the Harlan & Hollingsworth Company* (Wilmington, DE: Harlan & Hollingsworth, 1886), 208-209.

categorizing individuals.

A ride in a rail car visually and viscerally informed passengers of their legal and institutional classification in the public sphere.²⁹⁶ In his 1901 novel *The Marrow of Tradition*, Charles Chesnutt ridiculed the supposed separate but equal doctrine. A mulatto doctor forced into the Jim Crow car describes how the railroads inscribed race through conspicuous signs “Colored” and “White” at either end of the Jim Crow and first-class cars:

“Lest a white man should forget that he was white, — not a very likely contingency, —these cards would keep him constantly admonished of the fact; should a colored person endeavor, for a moment, to lose sight of his disability, these staring signs would remind him continually that between him and the rest of mankind not of his own color, there was by law a great gulf fixed.”²⁹⁷

According to W. E. B. Du Bois, blackness was not intrinsic, defined by a biology of skin color, hair quality, facial features, or a genealogy of mulatto, quadroon, or octoroons, rather blackness was extrinsic, defined through subjugation, as when an individual, regardless of biology or genealogy was forced to ride in an uncomfortable Jim Crow car. “The black man is a person who must ride Jim Crow in Georgia” Du Bois argued in

²⁹⁶ Historian Thomas Cole has described racialization as the traumatic confrontations black men and women had with “the Other that fixes the meaning of one's self before one even has had the opportunity to live and make a self more nearly of one's own choosing,” see Thomas C. Holt, “Marking: Race, Race- Making, and the Writing of History.” *American Historical Review* 100, no. 1 (February 1995):1-20.

²⁹⁷ Charles Chesnutt, *The Marrow of Tradition* (New York: Houghton, Mifflin and Company, 1901), 54-58. Chesnutt’s story is like the Ida B. Wells incident. After the removal of the sleeping car they are riding in, a mulatto doctor and his white companion, also a doctor, are forced to separate into a white day coach and a Jim Crow car. The white doctor is prohibited from accompanying his black companion. But a different white man is allowed into the Jim Crow car to smoke a cigar until the black passenger successfully protests that he has paid first class and should not be subjected to smoke. The white man leaves in disgust, spitting on the floor.

a 1923 essay in the literary magazine *The Smart Set*.²⁹⁸ When railroads put immigrants from Southern and Eastern Europe, China and black Americans into cars designed without the comforts deemed necessary for the survival of civilized bodies, those passengers came to know they were outside the boundaries of full citizenship, conversely, a ride in a more comfortable immigrant sleeper instructed Northern European passengers of their probationary status within the hierarchy of citizenship and class. To be bourgeois was to ride in a premier car, to be middling or working class was to ride in a day coach. To be a lady, was to ride in a ladies' coach, to be a gentleman was to ride in a buffet, library, smoking car. White men made up the one population designers did not particularize, border, or tie to a specific interior and seat - white men moved through them all. If anything, white men experienced a sense of superiority by the absence of borders, through their absolute and universal mobility.

²⁹⁸ W. E. B. Du Bois, "The Superior Race," *The Smart Set* LXX, no. 4 (April, 1923): 55-60.

Chapter 4 Figures

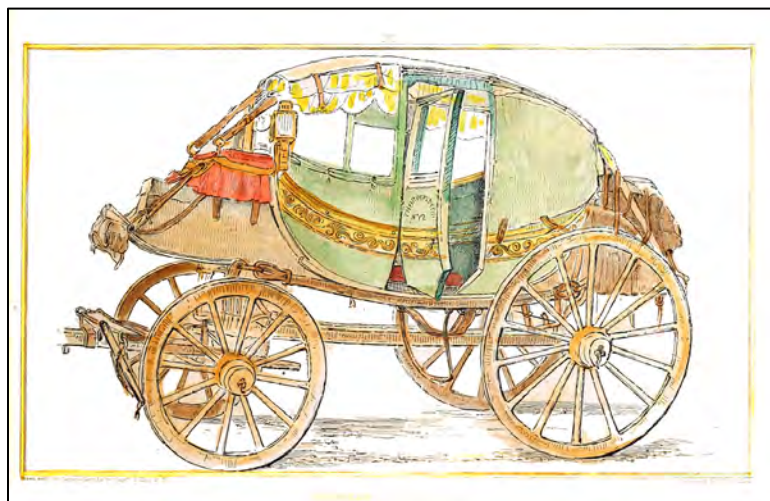
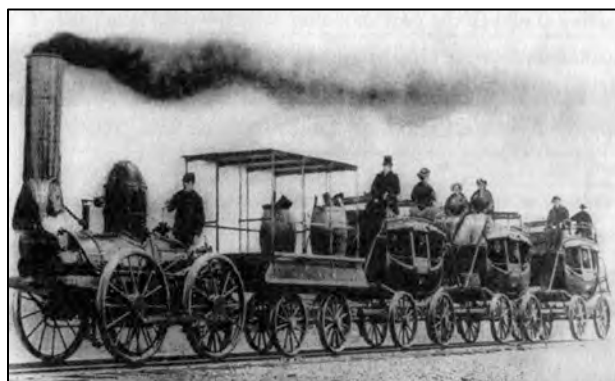
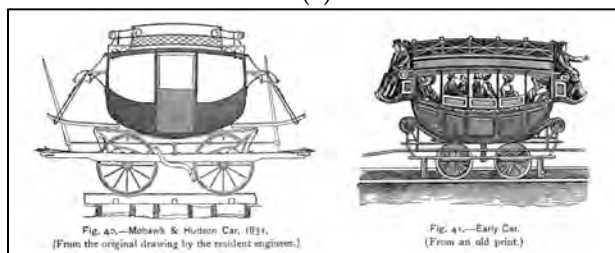


Fig. 4.1 “American Stage Coach” (Captain Basil Hall, *Forty Etchings, from Sketches Made with the Camera Lucida in North America in 1827 and 1828*, 1829, np.)



(a)



(b)

Fig. 4.2 The first American passenger cars built in the early 1830s used stage coach bodies set upon flanged wheels. The photograph (a) is likely from the 1876 Philadelphia Centennial showing the De Witt Clinton locomotive and cars, built in 1831. The drawing (b) illustrates the 1831 stagecoach cars used on the Mohawk & Hudson (a. Library of Congress, Wittmann Collection, LC-USZ62-73422; b. Cooley, *The American Railway*, 1889, 139.)

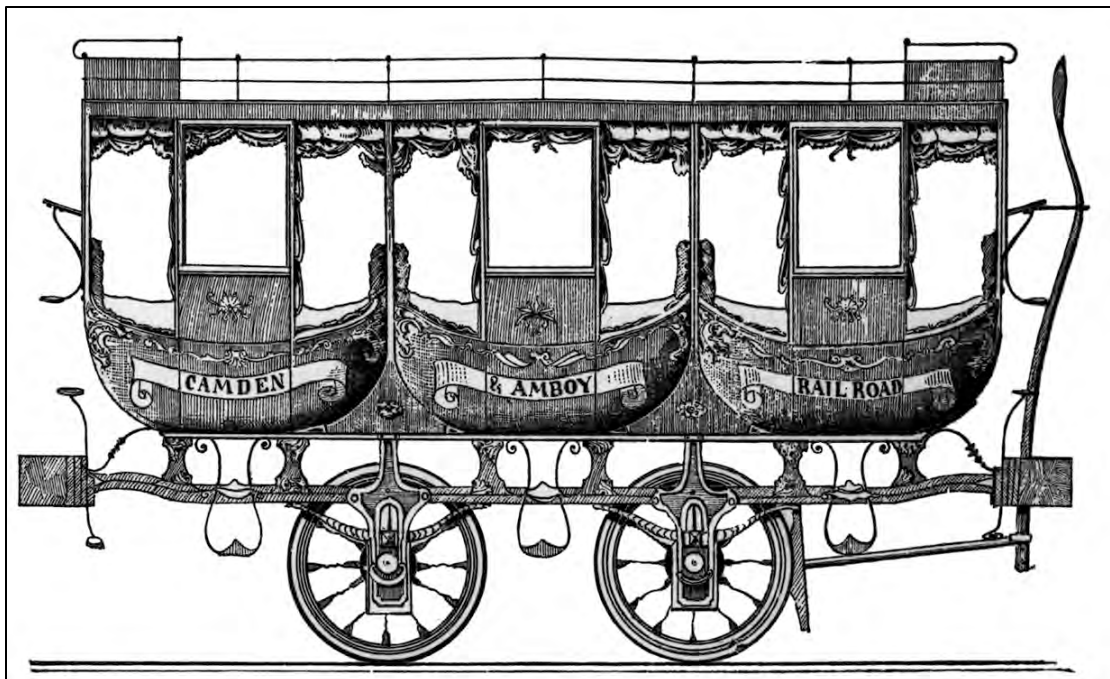


Fig. 4.3 Camden and Amboy, Lithograph, 1831 (John H. White, Jr. Railroad Reference Collection, Archives Center, National Museum of American History, Smithsonian Institution, negative 25012-E.)

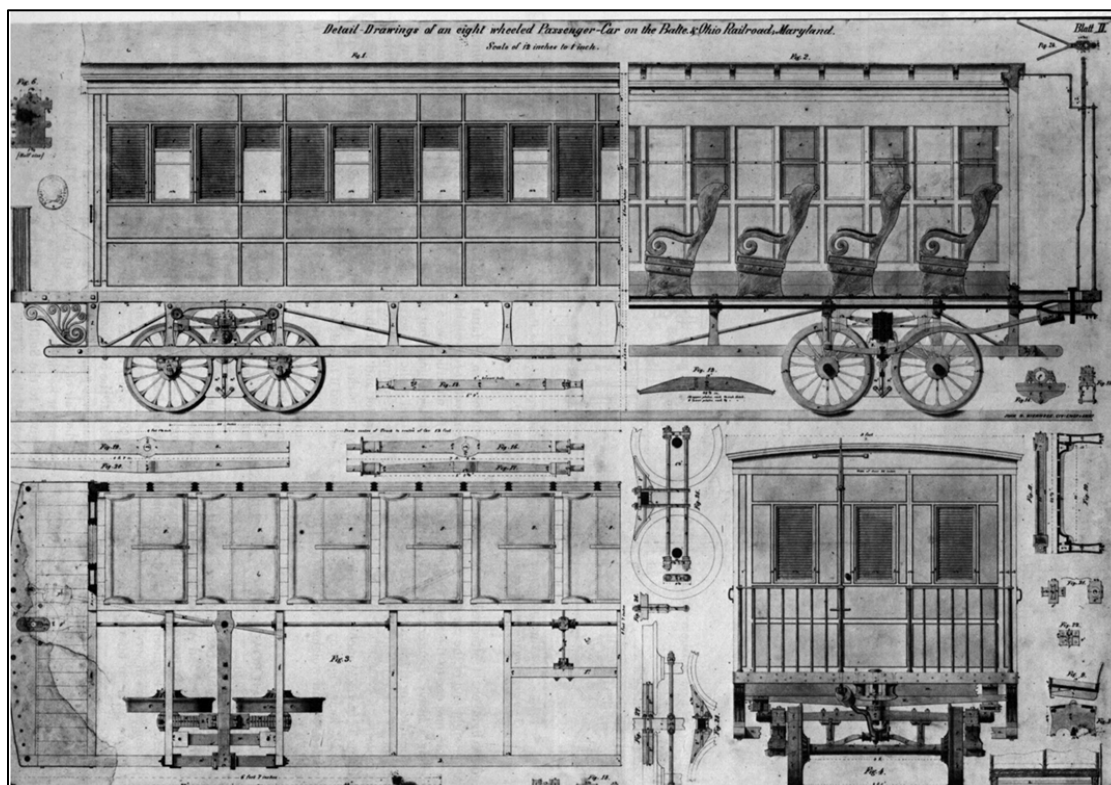


Fig. 4.4 Baltimore & Ohio coach, 1835 (Deutsches Museum, Munich Germany, White, *Railroad Passenger Car*, Figure 1.70.)

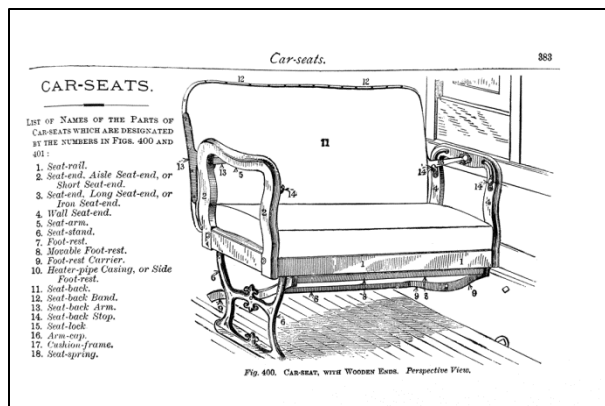
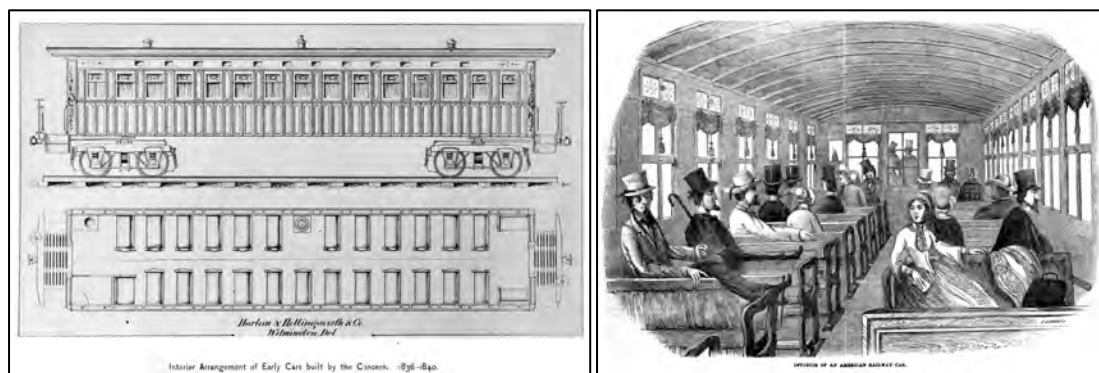


Fig. 4.5 Standard sofa seats with wood arms, cast-iron standard, and foot rest (Forney, *The Car-Builder's Dictionary*, 1879, 383.)



(a)

(b)



(c)

Fig. 4.6 a. Standard arrangement for a day coach; b. An English illustration subtitled “Interior of an American Railway Car”; and c. an American illustration of similar postures subtitled “General View of a Night-Car on the Central.” (a. Harlan & Hollingsworth, *Semi-Centennial* 1886, 206-207; b. “Travelling in the United States,” *The Illustrated London News*, April 10, 1852, 285; c. General View of a Night-Car on the Central, *Harper's Illustrated Weekly*, October 2, 1858, 632.)

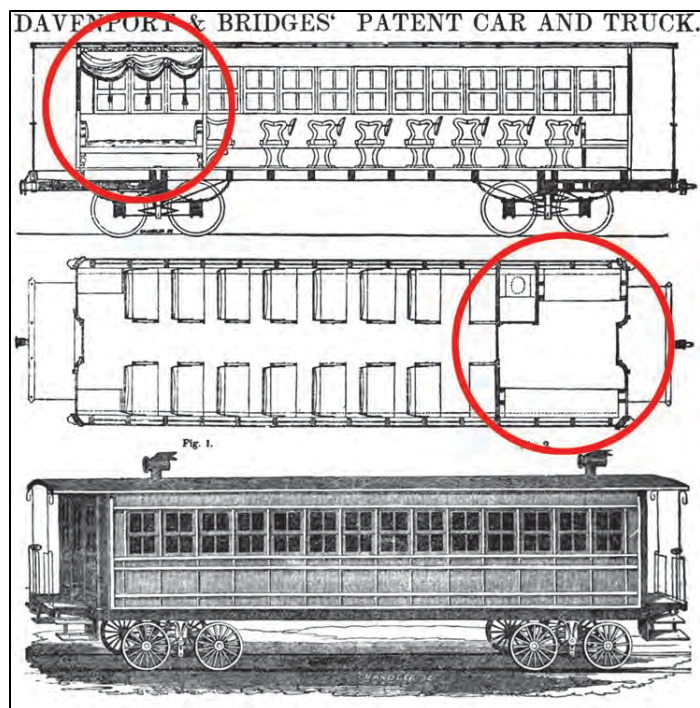


Fig. 4.7 Davenport & Bridges ladies' car, 1845 section, plan and perspective views showing reversible back car seats and a separate seating area with privacy curtains, a wash stand and two sofas for ladies at the top left in section and right in Fig. 21 in plan. Circles indicated by author (*American Railroad Journal*, July 24, 1845, 467, 478.)

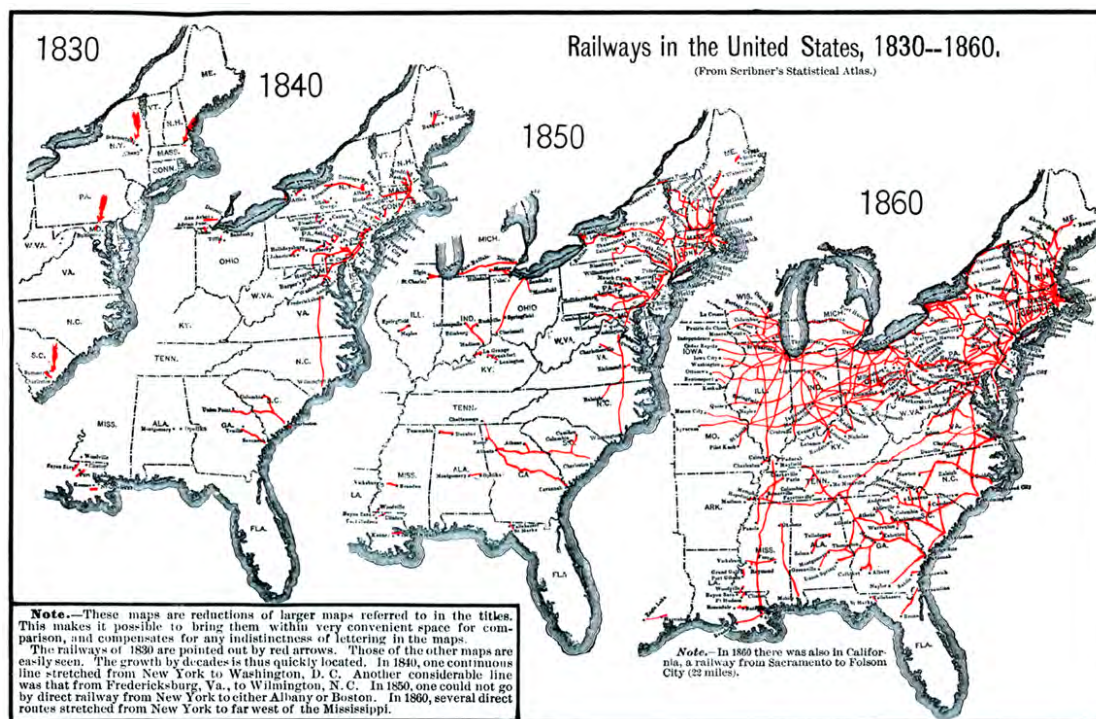


Fig. 4.8 Growth of the American railway system, 1830-1860 (Cooley, *The American Railway*, 1892, 430.)

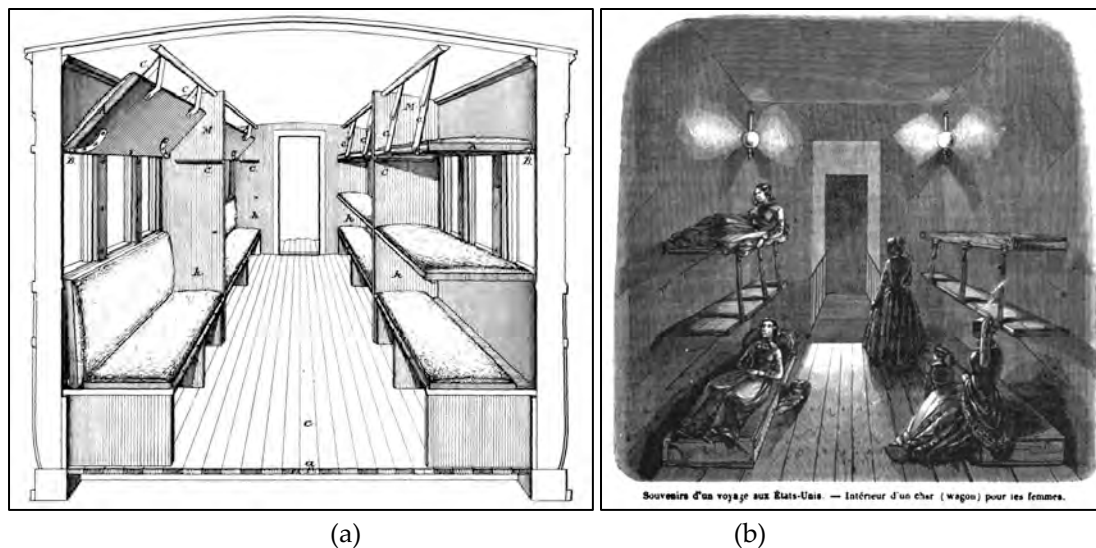


Fig. 4.9 a. One of the first sleeping cars, the *Chambersburg*, first used in 1837; and b. a crudely drawn illustration by a French traveler of the women's section of a similar car on a Georgia railroad in 1847 (a. From an exhibit in a patent suit, *George M. Pullman and Pullman's Palace Car Co. Versus The New York Central Sleeping Car Company and Webster Wagner*, United States Circuit Court, Northern District of Illinois, 1881; exhibit book, 377; b. *L'Illustration*, July 22, 1848, 317.)

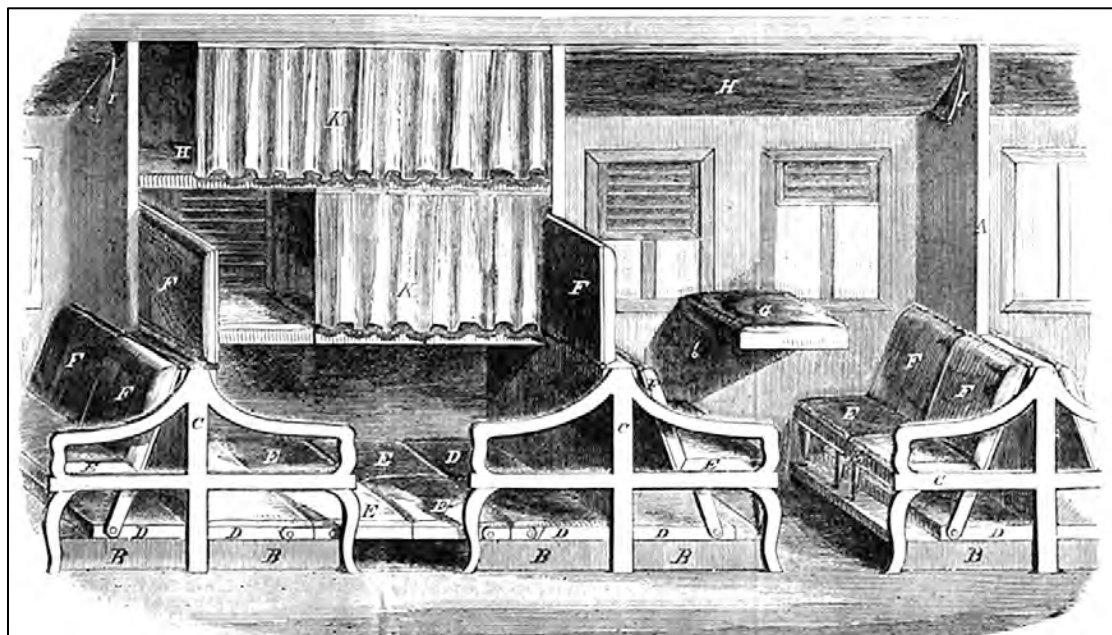


Fig. 4.10 Interior of Theodore Woodruff's patented sleeping car showing the seats converted for sleeping (left) and for daytime use (right) (*Scientific American*, September 25, 1858, 17.)

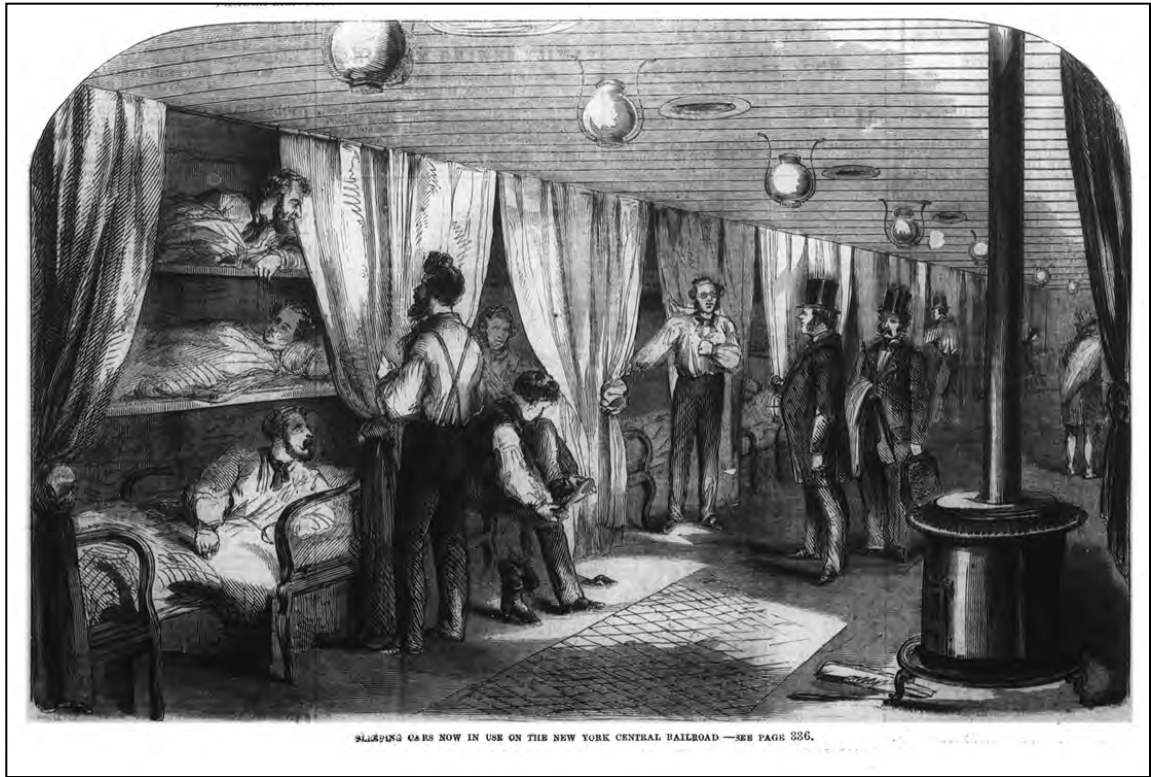
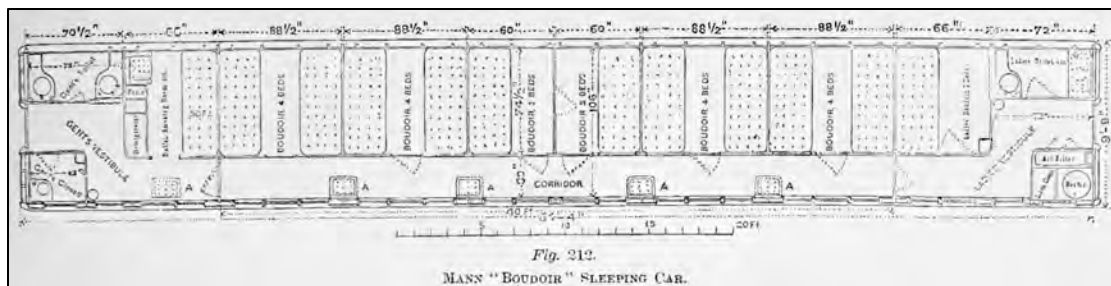


Fig. 4.11 Interior of a Wagner Sleeping car on the New York Central, 1859 (*Frank Leslie's Illustrated Newspaper*, April 30, 1859, 1.)



(a)



(b)



(c)

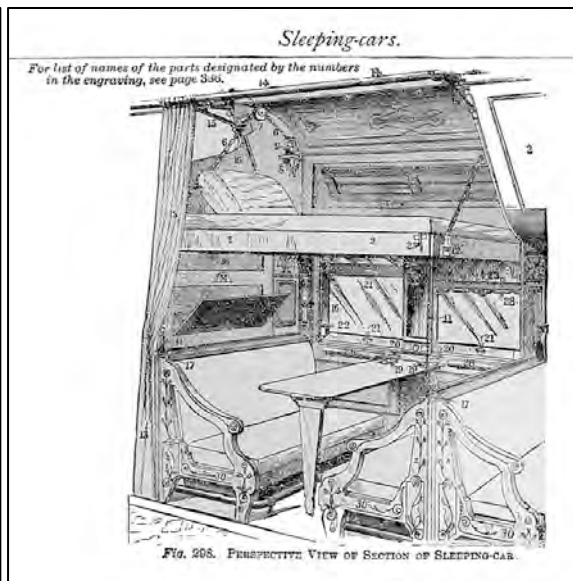
Fig. 4.12 Mann Boudoir Car, circa 1885. a. Plan includes a separate Gentleman's smoking room at left, and a bedroom behind a separate door described as a "Ladie's Boudoir 2-beds" at right, 6 compartments in the center slept 2 to 4 passengers. The car has two basins and a larger washroom for men, and a single basin and a smaller washbasin for women. Most manufacturers of sleeping cars provided more toilet capacity for men because they made up most travelers. b. Illustrations of the interior of a compartment; and c. the smoking buffet room (a. *The Car-BUILDER'S Dictionary*, 1888, fig. 212 E95; b. and c. Lucian Beebe, *Mr. Pullman's Elegant Palace Car*, 1961, 255)



Fig. 4.13 “He was a Traveling Man – How a New York Wife Trapped Her Husband Aboard the Cars of the Erie Line – Love in a Palace Boudoir,” *Police Gazette*, 1885 reprinted in Lucius Beebe, *Mansion on Rails*, 254.)



(a)



(b)

Fig. 4.14 a. Interior of a Woodruff sleeper, circa 1875, three berths are made up at using a mechanical arm to elevate the seat backs into berths, at right a fold down berth at the top (a. White, *American Railroad Passenger Car*, fig 3.17; b. *Car Builder's Dictionary*, 1879, 367.)

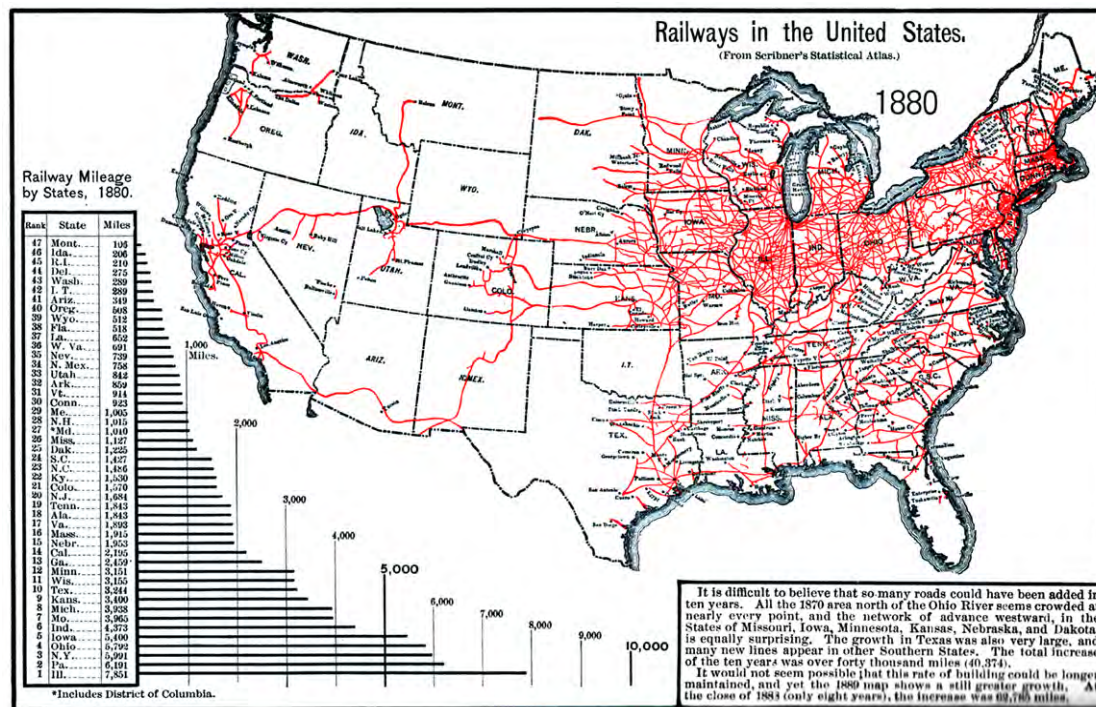
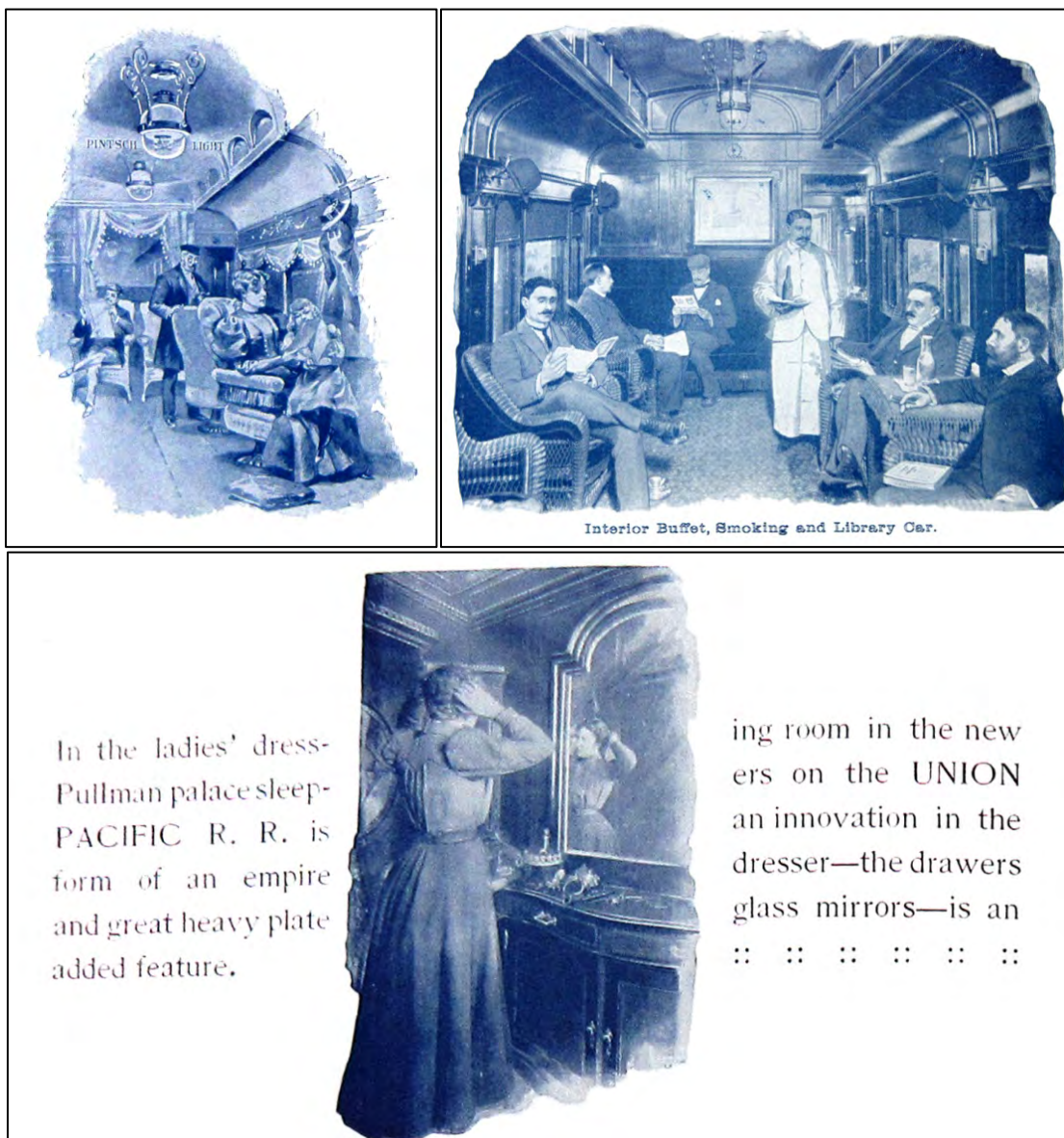


Fig. 4.15 The American railway system achieved regular through traffic among most major cities and more than one coast-to-coast connection by 1880 (Cooley, *The American Railway*, 1892)



Interior Buffet, Smoking and Library Car.

In the ladies' dress-
Pullman palace sleep-
PACIFIC R. R. is
form of an empire
and great heavy plate
added feature.

ing room in the new
ers on the UNION
an innovation in the
dresser—the drawers
glass mirrors—is an
:: :: :: :: :: ::

Fig. 4.16 Images of rail cars published in a theater seating guide by the Union Pacific Railroad (Union Pacific Railroad Co., *Diagrams Chicago Theaters*, 1900, 1900, np)



Fig. 4.17 Pullman Palace Sleeping Car Interior, 1870-1875 with one berth made up and removable panels and curtains in place (Carleton Watkins, Pullman Palace Sleeping Car (Interior), 1870 - 1875, 2000.53.1, The J. Paul Getty Museum, Los Angeles, Digital image courtesy of the Getty's Open Content Program.)

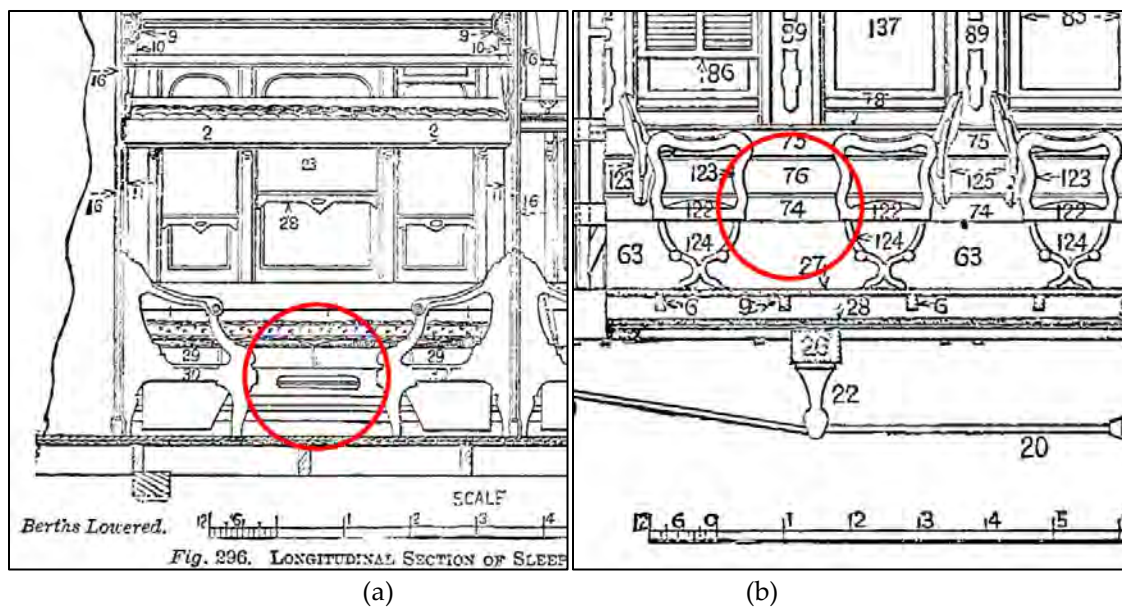


Fig. 4.18 In these measured section-drawing details, the foot well distance between the seats of the sleeper (a) was six or more inches greater than the distance between seats in a day coach (b), making ingress and egress more comfortable and elegant, and giving occupants more leg room. Circled areas called out by the author (Forney, *The Car-Builder's Dictionary*, 1879, Figs. 215 & 296.)



Fig. 4.19 a. An 1869 engraving of one of the first Pullman sleeping cars; and b. a photograph circa 1890 of the Pullman sleeping car “Anton” showing the basic form remained the same throughout the nineteenth century. In the photograph the partition at the foot of the berth has yet to be bolted in place, by the porter and the rod for the curtains appears at center. (a *London Illustrated News*, October 2, 1869, 336; b. Pullman Palace Car Company Photographs, Archives Center, National Museum of American History, Smithsonian Institution, Pullman negative 2827.)

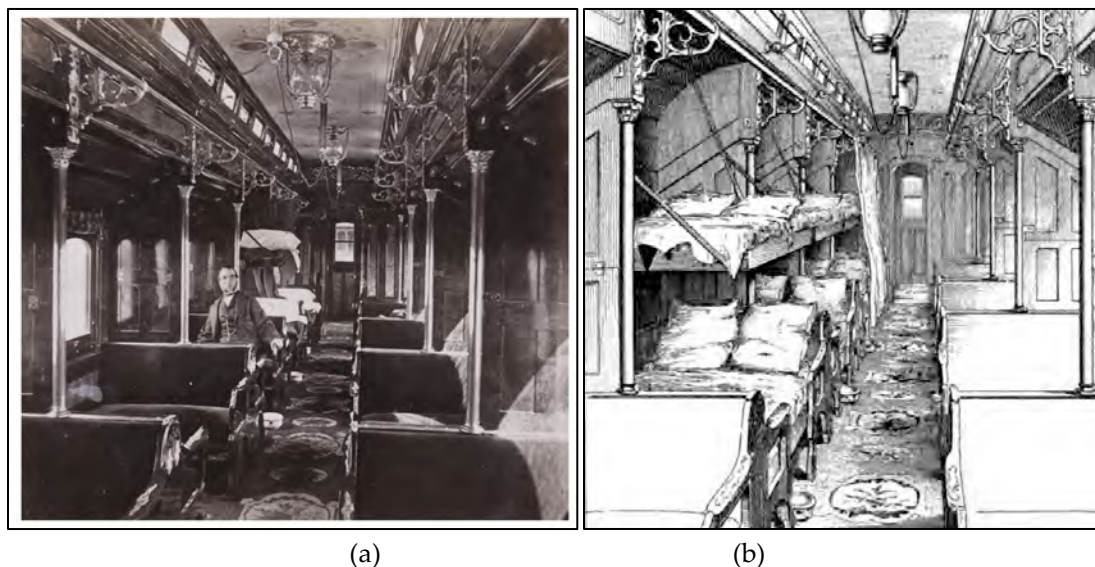


Fig. 4.20 Interior views of a Wagner Silver Palace car, a. 1870 with most seats in day mode and partitions showing between the columns; b. an 1873 engraving taken from a photograph of the same car with berths partially made down for night mode (a. *Interior View of Silver Palace Car*, Lawrence & Houseworth, 1870, LH1494, Courtesy of The Society of California Pioneers; b. E. Malézieux, *Travaux Publics des États-Unis d'Amérique en 1870*, Paris: Dunod, 1873.)

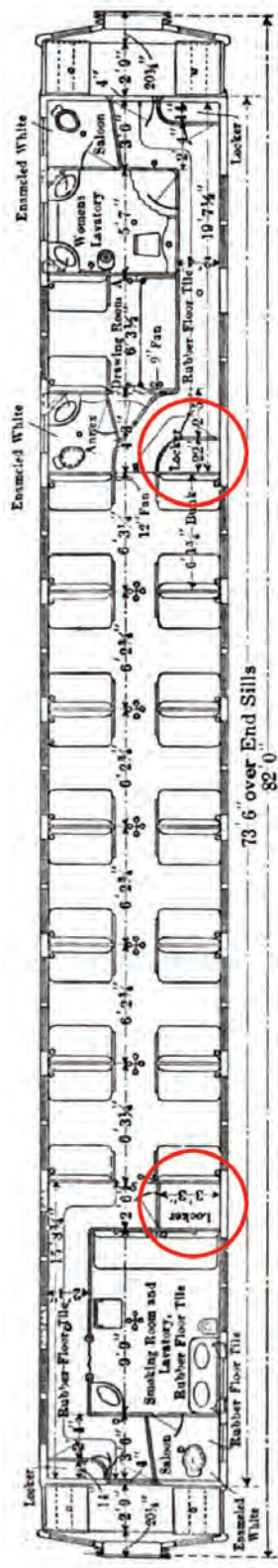


Fig. 4.21 Standard plan for a twelve section Pullman sleeper, 1910. Lockers for storing linens are at either end of the open section are circled A private drawing room is at center right with its own toilet, a women's lavatory is at the right end is with two basins and a smoking room with three basins and a larger men's lavatory is at the left end. ("All Steel Pullman Cars," *American Engineer and Railroad Journal*, October 1910, 385.)

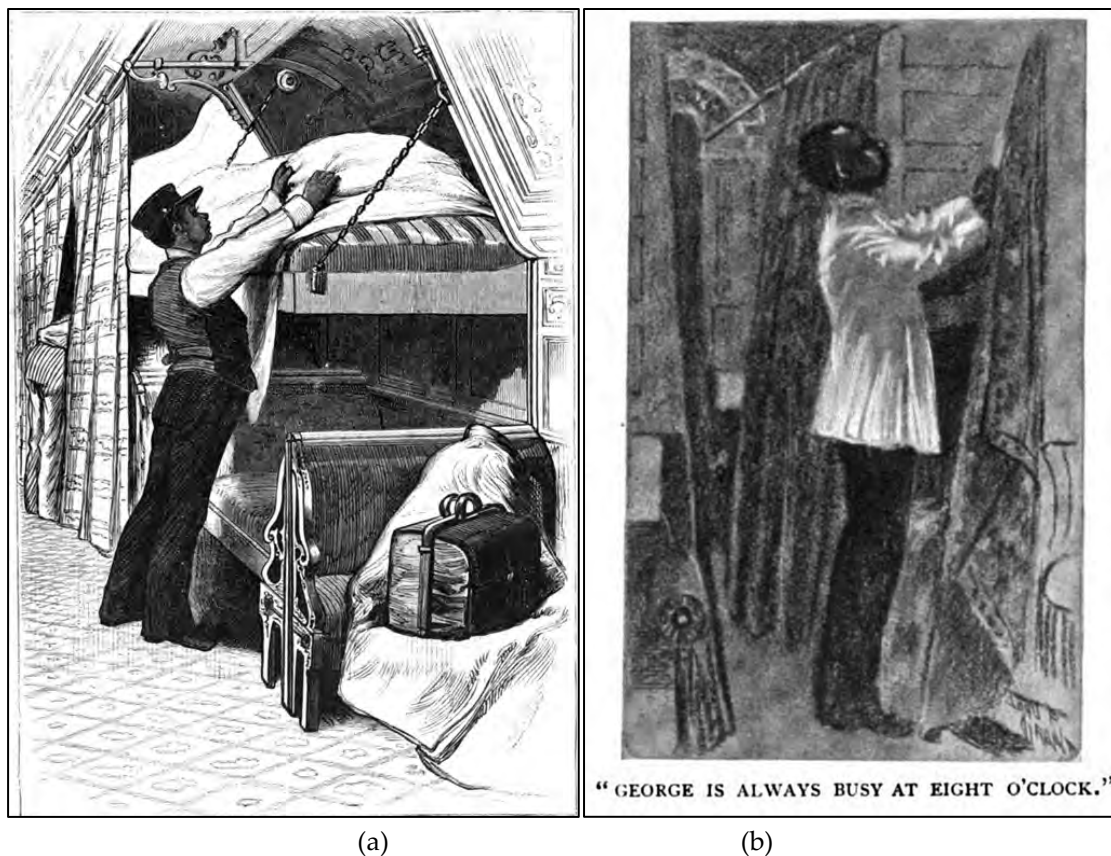


Fig. 4.22 Illustrations of the Pullman Porter making up a berth. (a. *Frank Leslie's Illustrated Newspaper*, August 25, 1877, 420; b. *The National Magazine*, March 1898, 546.)

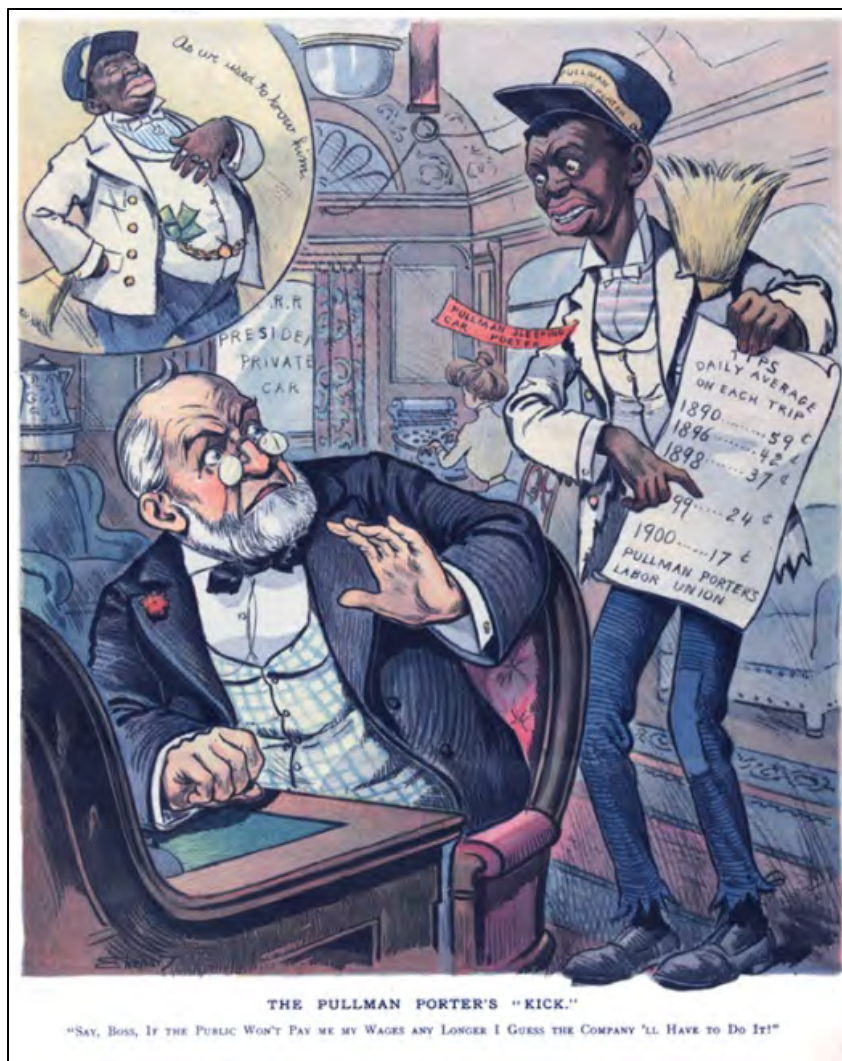


Fig. 4.23 “Pullman porters were paid low wages and relied upon tips which generated a comfortable income in the 1870s, but by 1901 had diminished considerably. In the foreground of this illustration from the cover of *Puck*, a porter carries a whisk broom to represent his pleas for tips (brushing the clothes of a passenger was commonly known to represent an unspoken request for a tip), but wears patched and tattered pants and jacket to indicate his financial strain. To highlight his plight, the scene is set inside the supreme luxury of a railroad president’s private car (presumably George Pullman). The president is seated at a roll-top desk and over his shoulder, a secretary tabulates at an adding machine to hint at the profitability of the enterprise and thereby the stinginess of its pay. The porter looms over the president pointing to a ten-year account showing rapidly diminishing daily income from tips while the executive trains his terrified gaze on the visage of the porter and ignores the accounts. The sub-caption reads, “SAY, BOSS, IF THE PUBLIC WON’T PAY ME MY WAGES ANY LONGER I GUESS THE COMPANY ‘LL HAVE TO DO IT!” The inset at top left shows the same porter in the past, in a proud, dignified pose, brandishing his whisk brush. He appears well-fed and rotund in fresh clothes, with rings on his fingers, a gold watch chain, and cash protruding from his pockets. The image and inset caption “As we used to know him,” intended to communicate to readers that porters had received a comfortable income from tips in the past. (S. D. Erhart, “The Pullman Porter’s “Kick,”” *Puck* 50, no. 1279, September 4, 1901, cover, Library of Congress, LC-DIG-ppmsca-25560.)

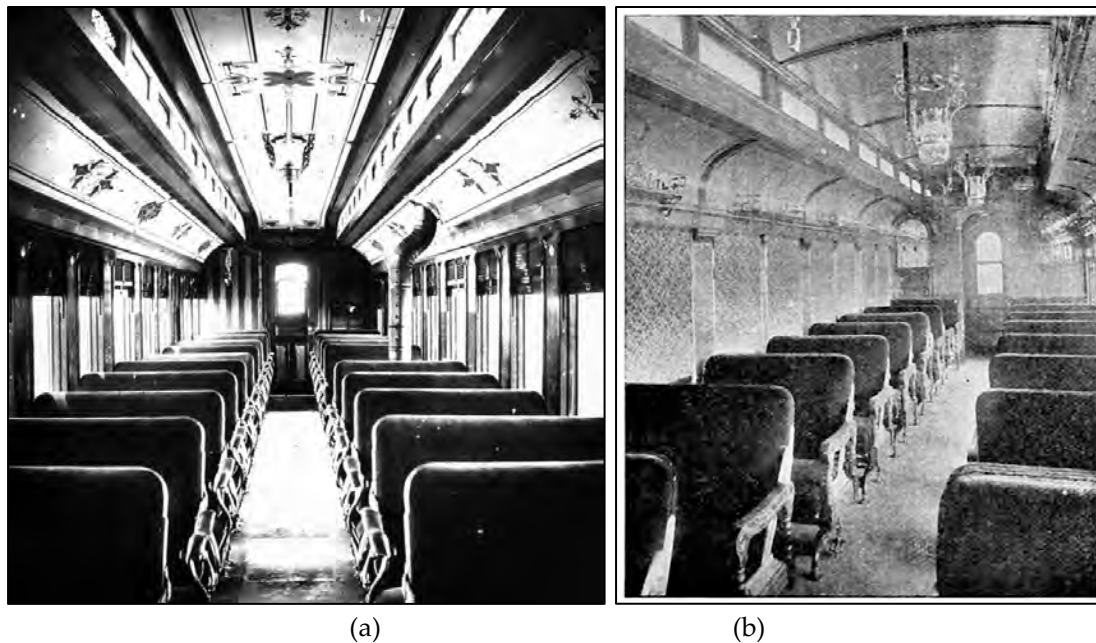


Fig. 4.24 Day coach seats were not designed for nighttime travel. An 1870s day coach (a) closely resembled (b) a day coach in 1898 (a. Jackson and Sharp Company of Wilmington Delaware, circa 1870, Delaware Public Archives; b. Waite, *The Car Builder's Dictionary*, 1895, fig. 90.)



Fig. 4.25 "Across the Continent," *Frank Leslie's Illustrated Newspaper*, February 9, 1878, 389.)

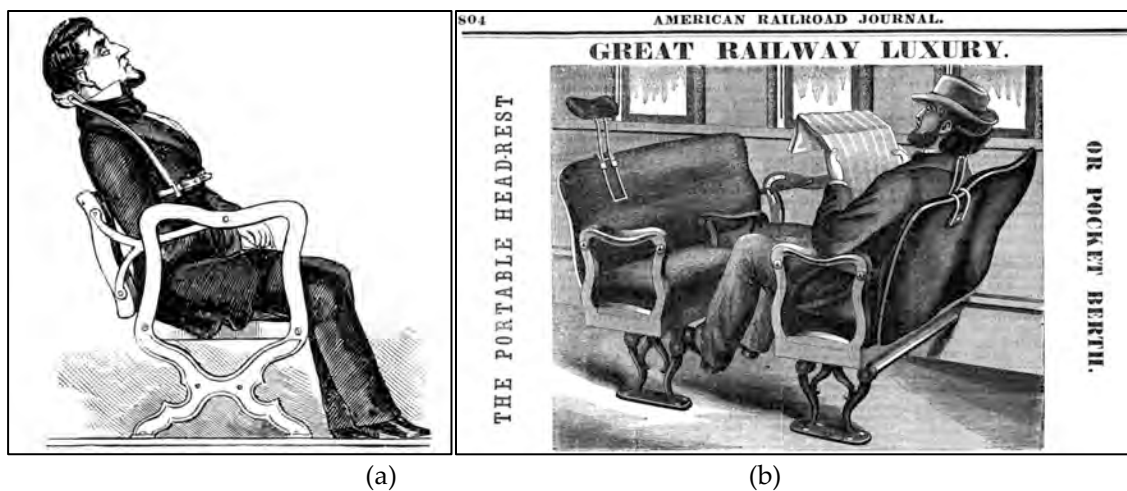
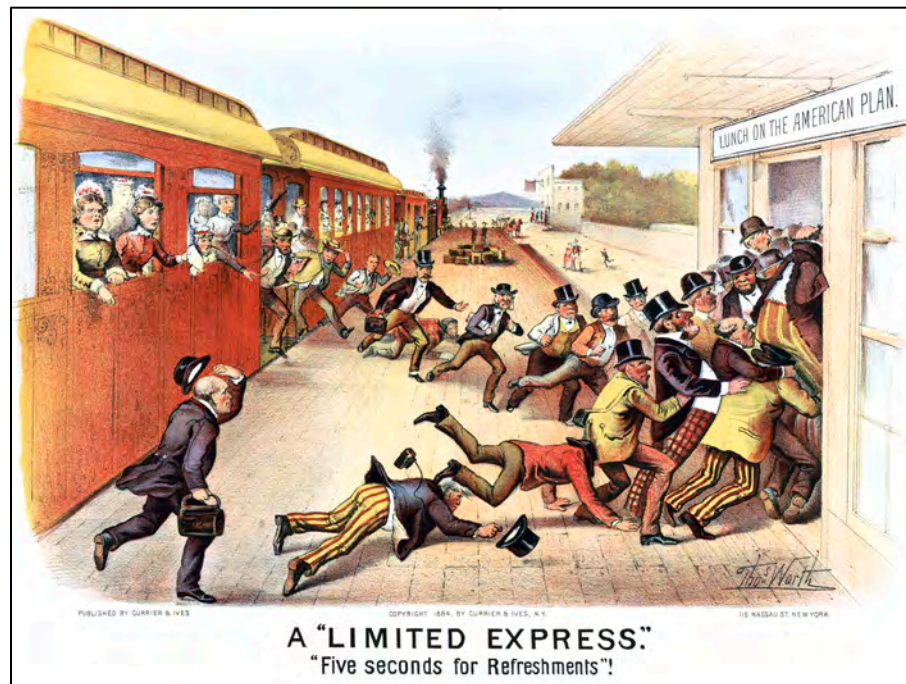


Fig. 4.26 Day coach sleeping braces (a. *American Railway Review*, April 16, 1860; b. *American Railroad Journal*, August 25, 1866, 804.)



(a)



(b)

Fig. 4.27 Humorous illustrations of the mad rush to eat at a trackside refreshment house. The "Limited Express," a pun on an express train and the rushed time for eating. (a. Currier & Ives, and Thomas Worth, *A limited express: five seconds for refreshments!*, New York: Currier & Ives, 1884, <https://www.loc.gov/item/97507578/>; b. The Great American Tea Co., *Ten Minutes for Refreshments*, New York: 1886, Library of Congress, <https://www.loc.gov/pictures/item/2003688790/>.)



Fig. 4.28 Interior of the hotel car "Huron" in dining mode circa 1870. (Lawrence & Houseworth, Courtesy of The Society of California Pioneers, LH1538.)

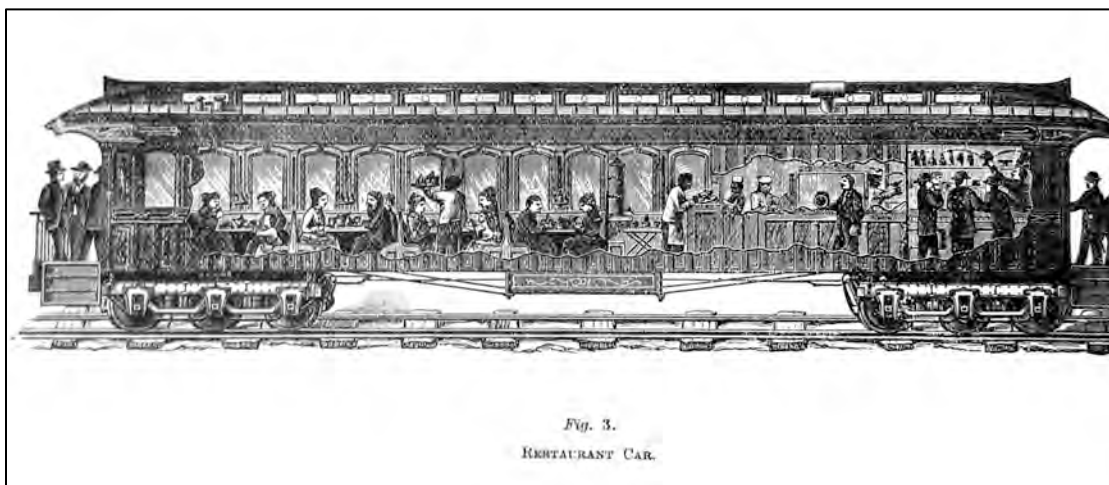
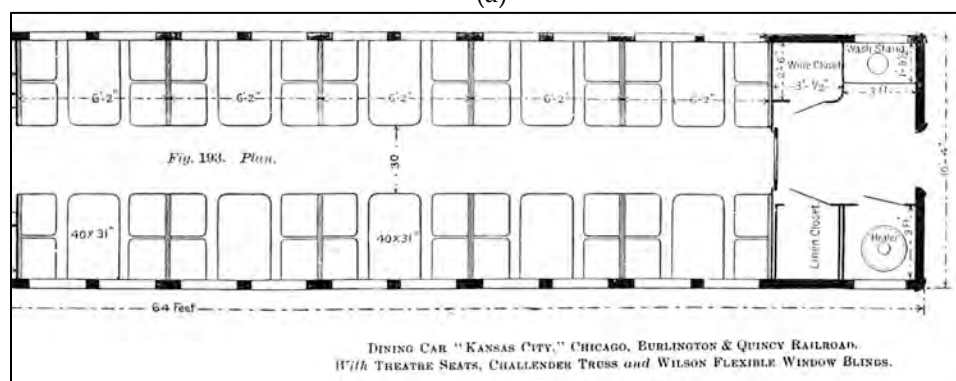


Fig. 4.29 "Restaurant Car," 1879 with black wait staff, and a separate bar saloon on the right for men. (Forney, *The Car-BUILDER'S Dictionary*, 1879, 192)



(a)



(b)

Fig. 4.30 a. Interior of the Pullman dining car *Cosmopolitan* built in 1869 and b. plan of the Dining Car "Kansas City" in 1888 showing individual opera seats. (a. Courtesy of The Society of California Pioneers, LH1489; b. Forney, *The Car-BUILDER'S Dictionary*, 1888, Figs. 191-194.)

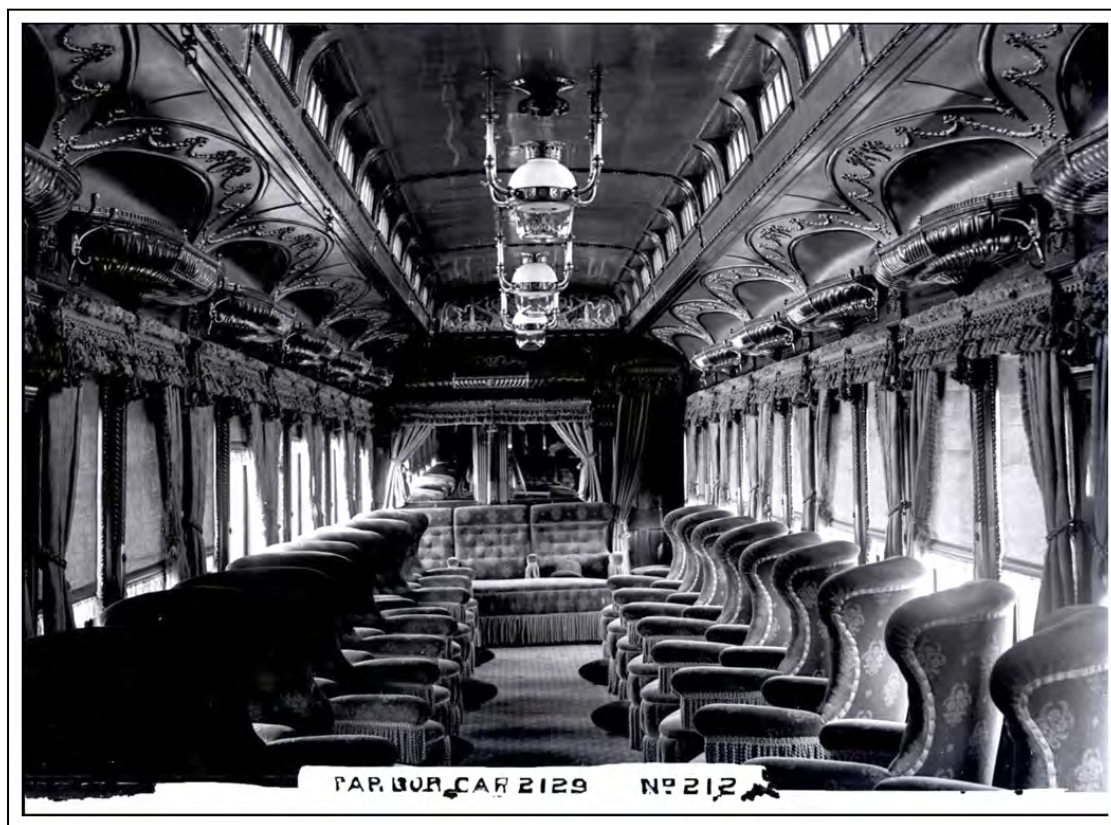


Fig. 4.31 Interior of Pullman Parlor Car 2129 (“Interior of Pullman Parlor Car 2129,” New York, New Haven & Hartford Railroad Glass Negative Collection, Courtesy of Archives & Special Collections, University of Connecticut Library.)

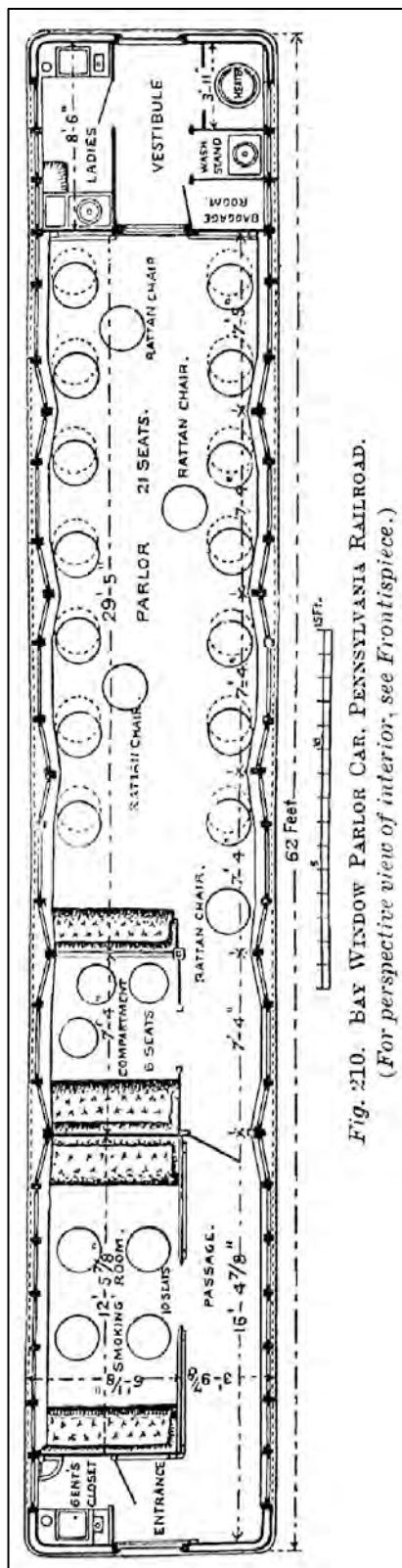
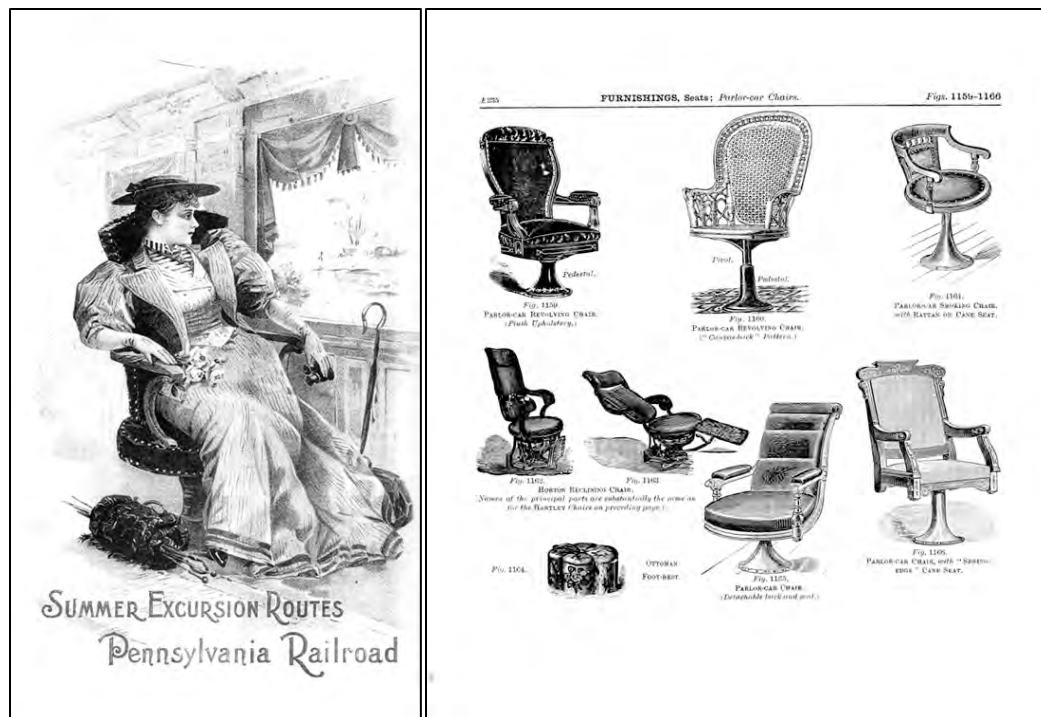


Fig. 210. BAY WINDOW PARLOR CAR, PENNSYLVANIA RAILROAD.
 (For perspective view of interior, see Frontispiece.)

Fig. 4.32 Plan of a Pullman parlor car, 1888. Circles with overlapping dotted lines indicate rotating fixed chairs. Solid circles labeled “Rattan Chairs,” were light weight repositionable seats that floated in the space. A smoking compartment is at the left, along with a men’s toilet. A ladies’ toilet is at the right. The car had bay windows that emphasized an outward facing posture (Forney, *The Car-Builder’s Dictionary*, 1888,



(a)

(b)

Fig. 4.33 Corseted and bustled women could find some comfort in the support of a parlor car seat. (a. Pennsylvania Railroad, *Summer Excursion Routes*, circa 1890; b. Forney, *The Car-BUILDER'S Dictionary*, 1888, E235- Figs. 1159-1166.)



Fig. 4.34 Parlor Car promotional advertisements (Chicago & Alton Railroad Poster, 1880-1900, Library of Congress, LC-USZC2-4891.)



Fig. 4.35 Parlor car with individual seats (Pennsylvania Railroad Co., *Summer Excursion Routes*, 1878, v.)

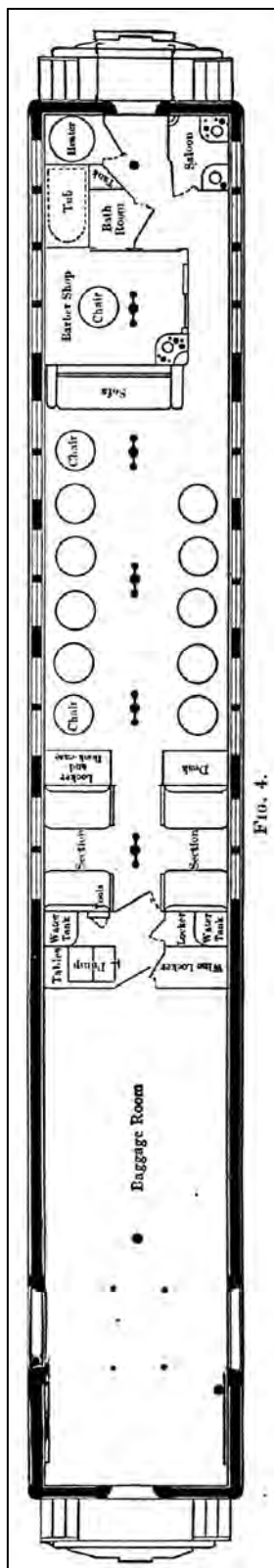
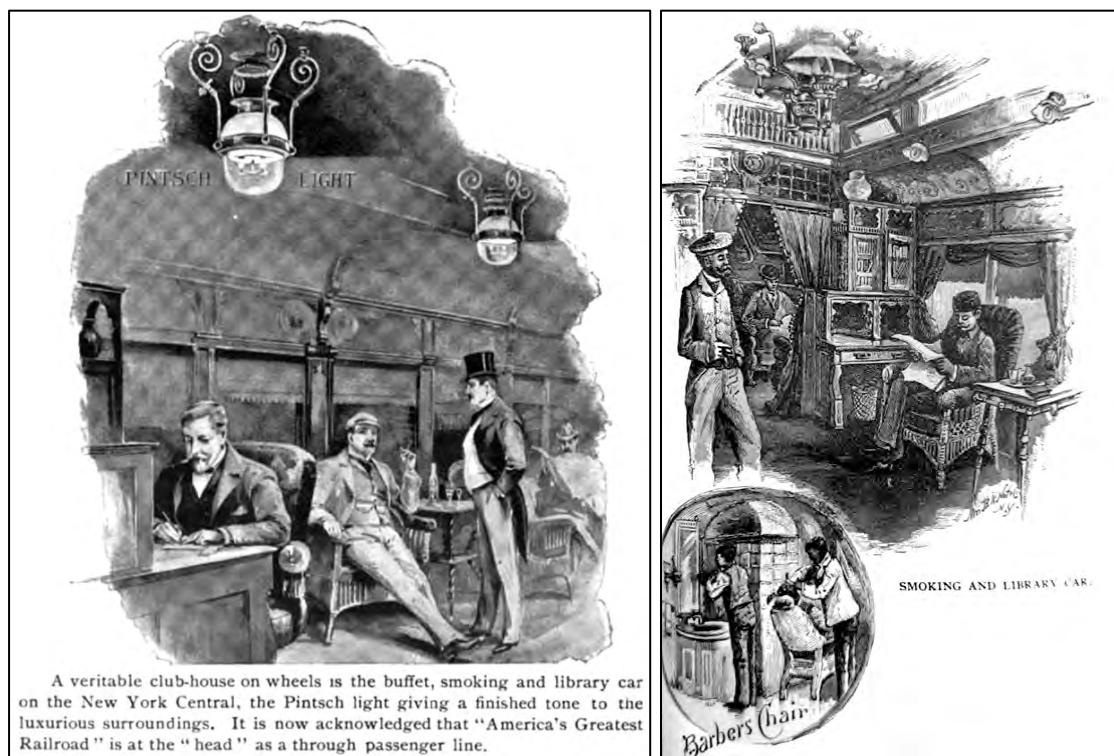


FIG. 4.

Fig. 4.36 Plan of a Pullman baggage and smoking car (1889), with a wine locker, desk, bookcase (library), barber shop, and bathroom including bathtub. (“The ‘Montezuma Special’ – Some New Ideas in Passenger Cars,” *The Railway Review* 29, no. 45, 1889, 645-646.)



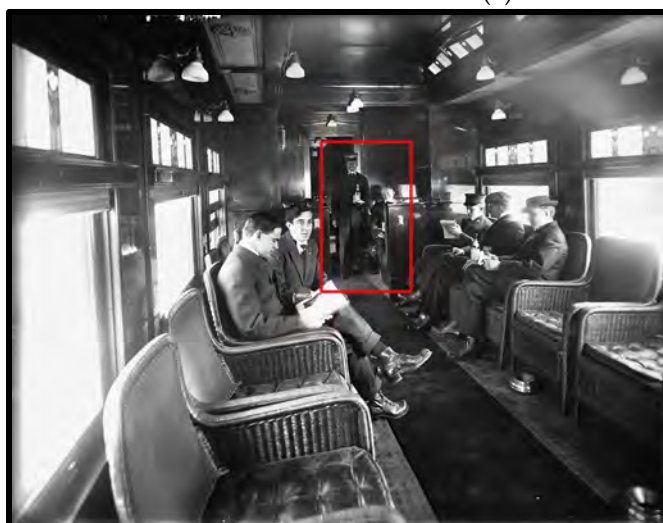
(a)

(b)

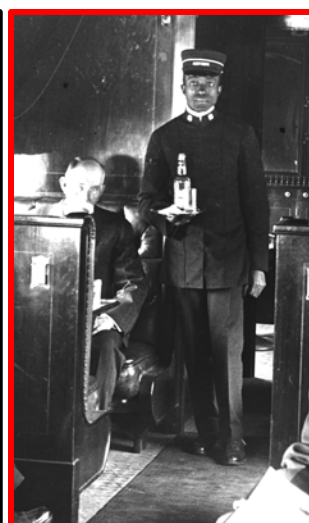
Fig. 4.37 Buffet, smoking and library cars (1895), "A veritable club-house on wheels," (a. Daniels, *Health And Pleasure*, 1895, 441; b. Pennsylvania Railroad Co., *Summer Excursion Routes*, 1891, 269.)



(a)



(b)



(c)

Fig. 4.38 (a) smoking section within a day coach, Union Pacific Railroad, 1900; b. Smoking, library and buffet car, 1910-1920, c DETAIL of (b). showing attentive porter at attention with a drink on a tray (a. Union Pacific Railroad, *Chicago Theatres*, 1900; b. & c. Detroit Publishing Co., *Library of Congress*, LC-D41-140 [P&P].)

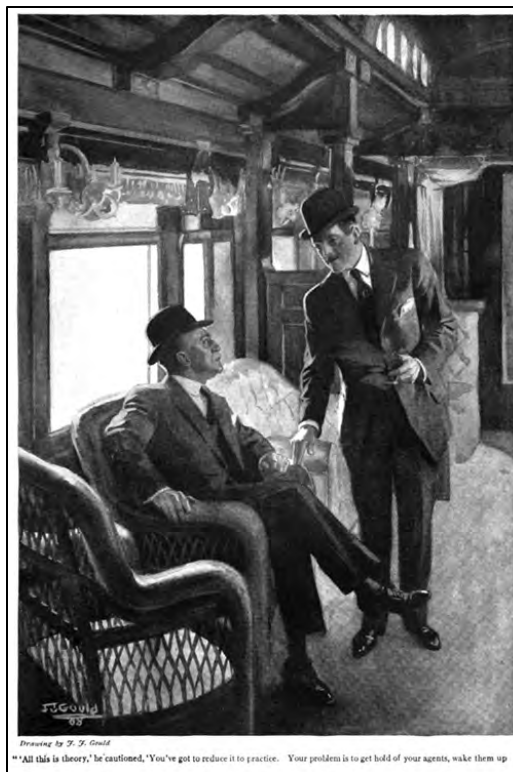


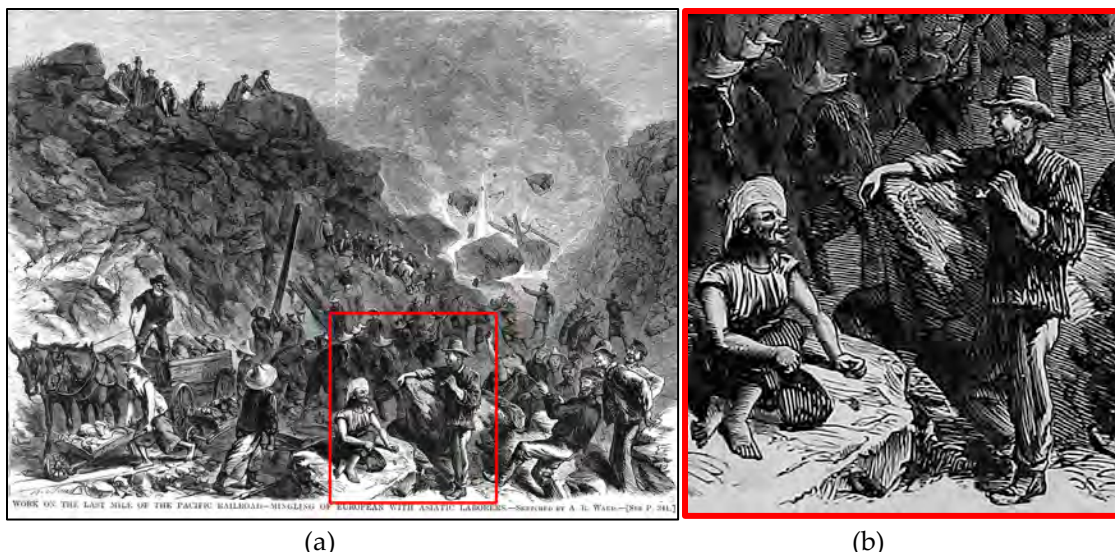
Fig. 4.39 Illustration from a story in *System: The Magazine of Business*, 1908 (Daniel Casey, "The Wider Horizon," *System: The Magazine of Business* 14, no. 6, 1908, 557-561)



Fig. 4.40 Black women were both threatened and a threat in popular culture (Currier & Ives, "A Kiss in the Dark," Museum of the City of New York, 56.300.558.)



Fig. 4.41 “Interior of a Palace Hotel Car Used on the Pacific Railroad. – Sketched by A. R. Waud.”
(*Harper’s Weekly* May 29, 1869, 348.)



(a)

(b)

Fig. 4.42 a. “Work on the Last Mile of the Pacific Railroad – Mingling of European with Asiatic Laborers. – Sketched by A. R. Waud.” B. (Detail) The simian features were a Victorian pictorial convention that communicated non-white status. The text describes the workers as European and Asiatic laborers—geographic terminology that displaced them outside the borders of American citizenship. (*Harper’s Weekly* May 29, 1869, 348.)

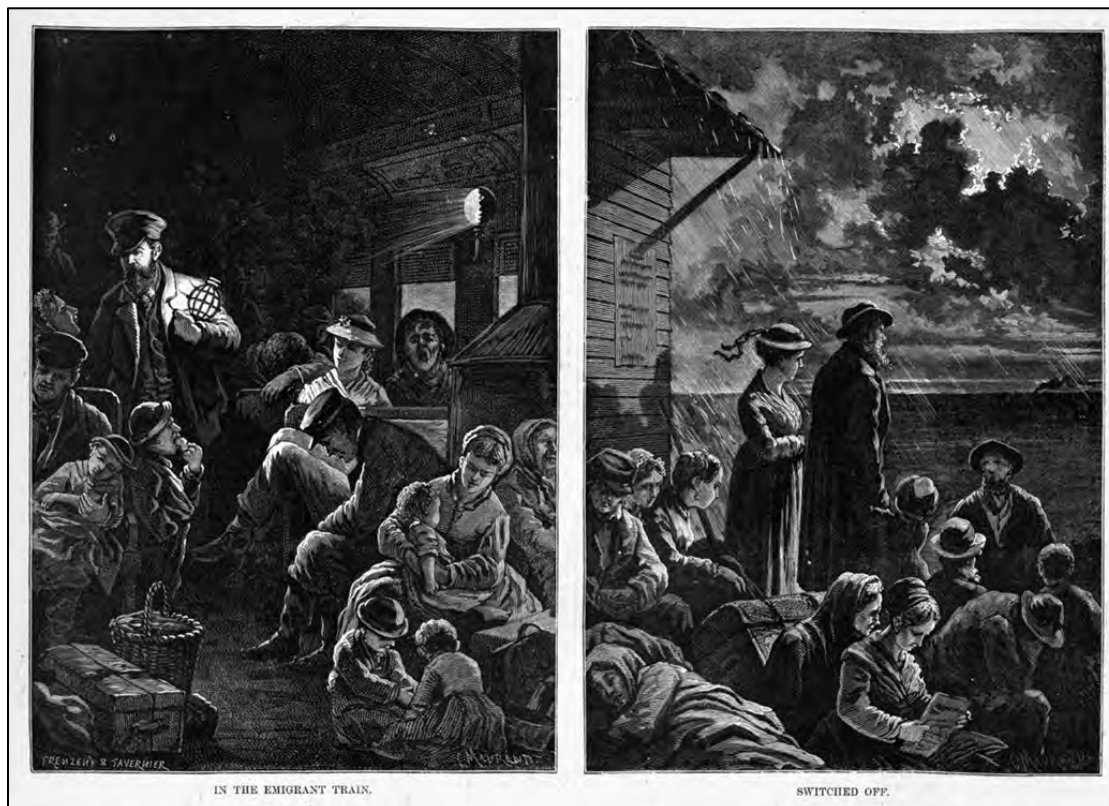


Fig. 4.43 The first emigrant trains were merely box cars with benches and a stove. Immigrants were treated as freight, and when necessary, decoupled and “switched off” to a siding to wait for the next train, often with no accommodations. (*Harper’s Weekly*, January 24, 1874, 76.)



(a)

(b)



THE MODERN SHIP OF THE PLAIS.—Drawn by R. F. Zornack.—[See Page 715.]

(c)

Fig. 4.44 Emigrant landscapes from ship, to processing center to emigrant car were consistent in materiality and comfort, hard wood, and close bodies. (a. *London Illustrated News*, May 10, 1851, 387; b. “Immigrants at Ellis Island, New York” 1913, From The New York Public Library <https://digitalcollections.nypl.org/items/510d47e2-8e9d-a3d9-e040-e00a18064a99>; c. *Harper’s Weekly*, November 13, 1886, 728.)



Fig. 4.45 Emigrant waiting room on the Union Pacific Railroad Depot at Omaha (Ogden and Yeager, *Frank Leslie's Illustrated Newspaper*, August 18, 1877, 404.)

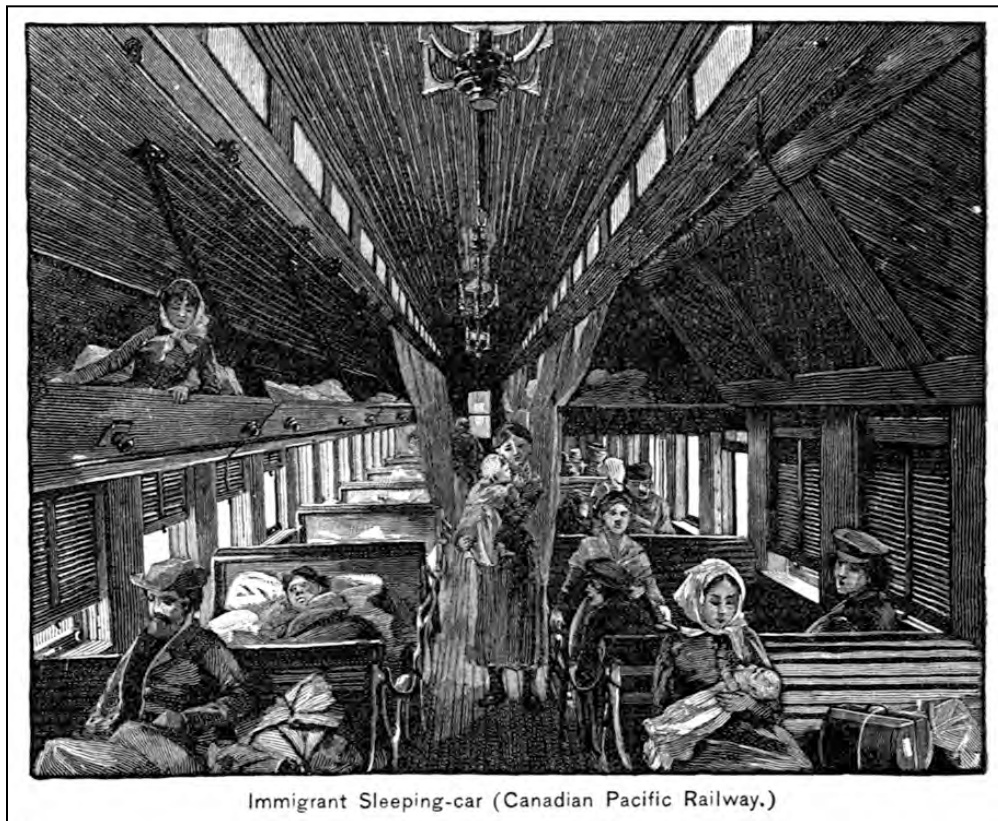
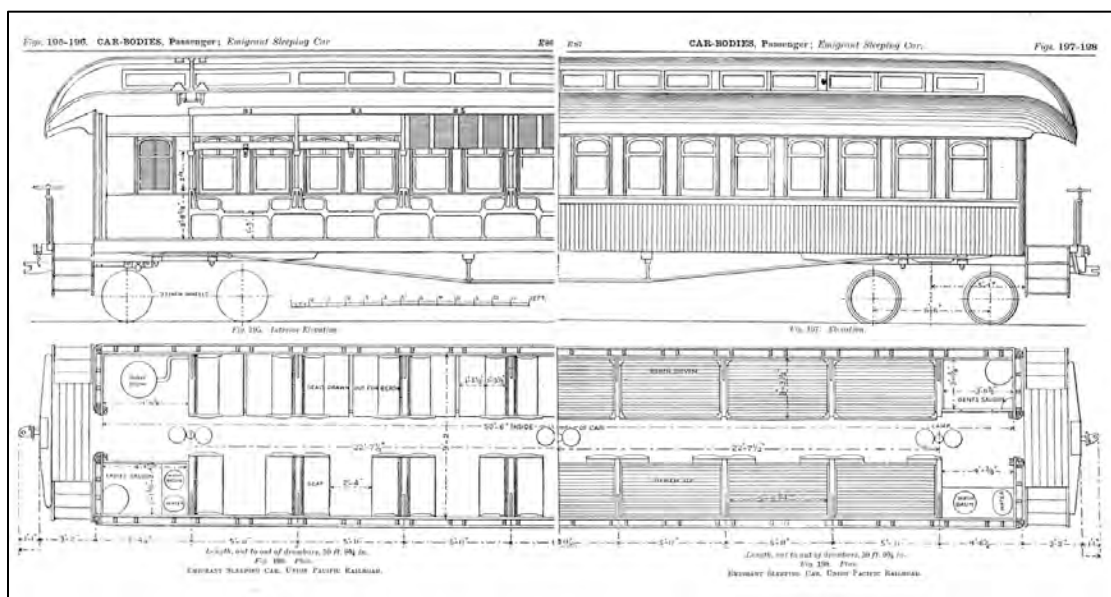
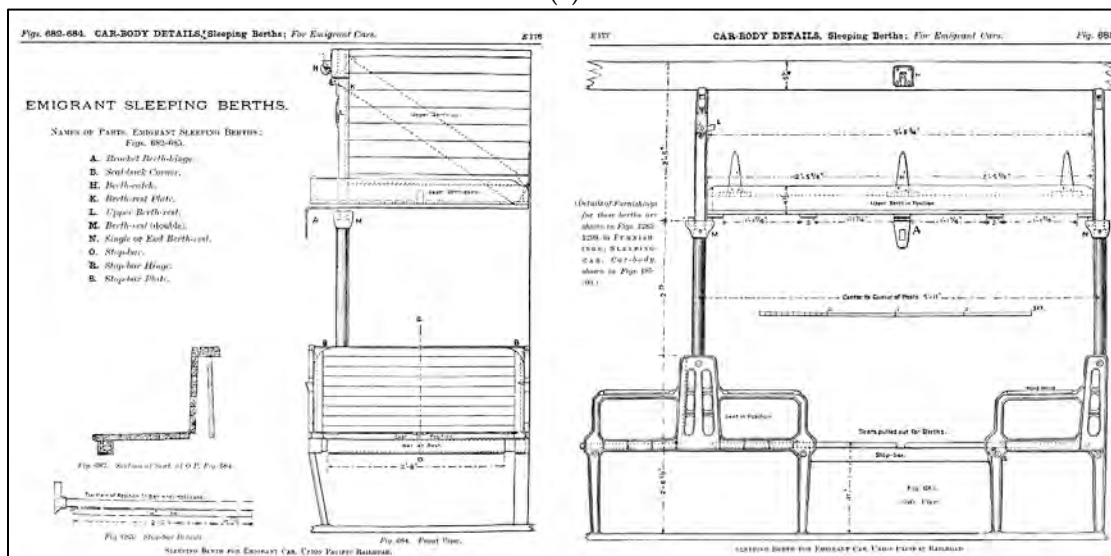


Fig. 4.46 Immigrant Sleeping Car, ca 1889. (Cooley, *The American Railway*, 1889, 251.)



(a)



(b)

Fig. 4.47 Standard emigrant sleeper, Union Pacific Railroad, 1888. a. The elevation at top left shows the facing berths, the top of the plan view at the bottom left shows the berths made down for night travel. A car heater, and ladies' toilet are on the left, and a men's toilet is on the right. b. Berth details. The section at the left shows a severely upright back that would not have been comfortable for extended periods of time without a cushion of some kind (Forney, *The Car-Builders Dictionary*, 1888, Figs 196-198.)

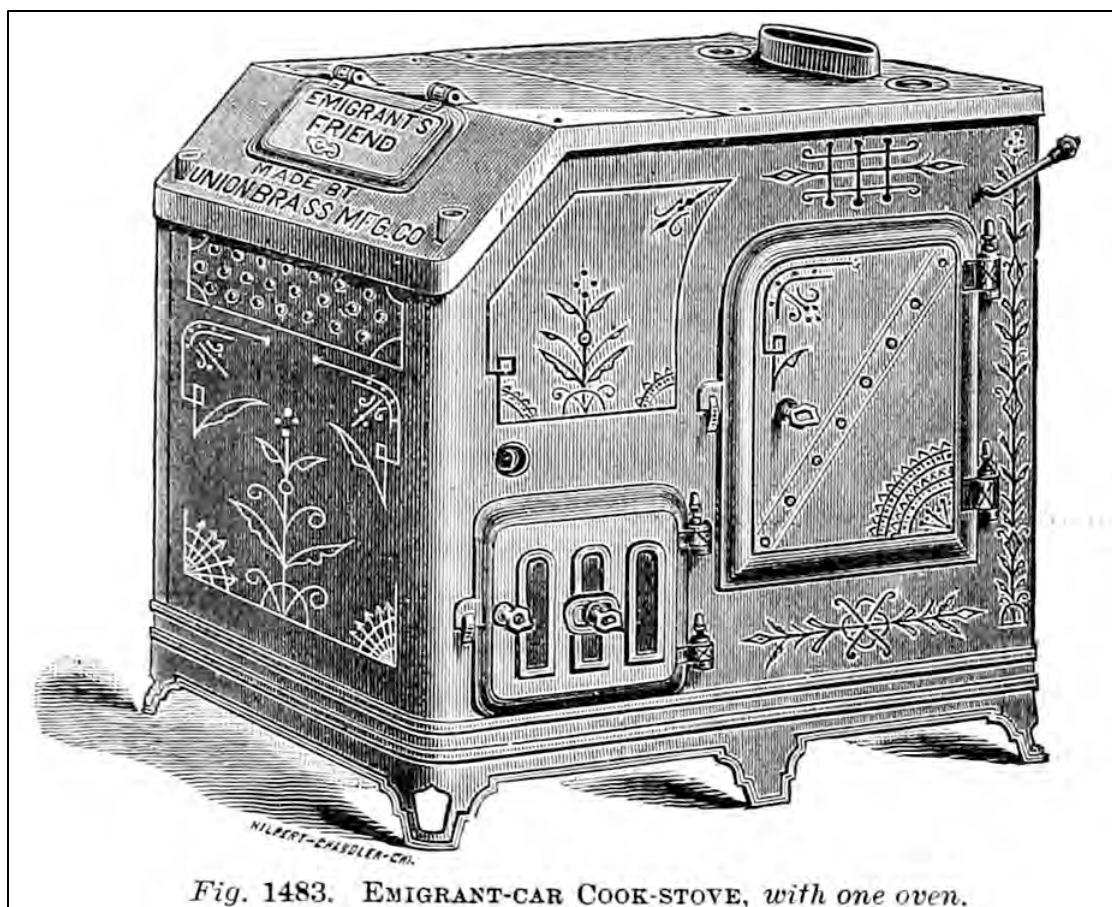


Fig. 1483. EMIGRANT-CAR COOK-STOVE, with one oven.

Fig. 4.48 “Emigrant’s Friend,” cooking stove especially designed for emigrant cars. It could be expanded to include 3 ovens. (Forney, *The Car-Builders Dictionary*, 1888, Fig. 1483)

Conclusion: There was no place for them

In his 1884 eulogy for fellow abolitionist Wendell Phillips, Henry Ward Beecher revisited the exclusion of African Americans from Brooklyn's public spaces thirty years earlier:

“When I came here there was no place for them in the theater except the negro gallery; no place in the opera for colored men or women, no place in the church except in the negro pew; no place in any lecture hall; no place in the first-class car on the railways.”¹

Beecher illustrated his speech with interiors that had become the modern American commons. In public interiors, African Americans came to know the limits the dominant American culture had placed around their participation – limits enforced through the design and use of commercial furniture. African Americans experienced the success of protest and resistance to their marginalization in the seats of commercial furniture. The years between 1850 and 1884 that Beecher identified as a period of diminished exclusion coincided with the development of commercial furniture as a tool to broaden participation in civic life.

Nineteenth-century American cities can be conceived of as collections of public spaces in which people of different backgrounds came to understand, accept, and protest their differences in the transition to modern urban life. The urban trend in the United States was unmistakable when mass-manufacturing of commercial furniture began in earnest in the 1850s. Over the following seven decades, American cities absorbed millions of immigrants and migrants with different cultural backgrounds. Mobility

¹ “Beecher and Phillips,” *Evening Star*, Washington, DC, February 11, 1884.

continually reshaped the social space of cities. People seemed to be relentlessly on the move: from neighborhood to neighborhood, village to city, city to city, and nation to nation in pursuit of occupational opportunities. The pace of life changed as hourly wage labor and corporate office work replaced seasonal agriculture and craft at the center of the American economy. The large extended family, necessary in labor-intensive farming, melted to the nuclear family, easier to manage in the crowded and expensive cities. The pace of economic and demographic change overwhelmed structures that had ordered daily life. The family, the church, and the community were replaced by new institutions – government bodies and corporations. Interior institutional spaces replaced the village greens and streets as the public commons making furniture a site for categorization, assimilation, and resistance. Within public interiors, furniture tamed unruly male bodies and brought together diverse people to share in the benefits of modern life. In school and office furniture, and in the seats of theaters, stadiums, and trains, immigrants, migrants, women, and African Americans were awarded or fought for a place in American society.

Their place, however, was not equal. It would be tempting to say that commercial furniture produced a universal “capitalist” or “democratic” body – an intent expressed by nineteenth-century education reformers. But outside of public schools, the design and use of commercial furniture did not try to overcome race, gender, and class divides. Quite the opposite, to maximize income, ameliorate potential conflict and to preserve the cultural domination of white native-born Americans, commercial furniture disaggregated and filtered bodies into protected zones that *engendered* social stratification. Furniture in offices, theaters and trains standardized the de-valuation and othering of some people and

elevation of others by literally building status hierarchy into architectural space. To reduce the possibility that persons of different status would be brought into one another's immediate physical presence, individuals and groups were bounded by furniture – boundaries that organized people into hierarchical categories.

Furniture that fractured the public commons along race, gender and class lines challenged the rhetoric of democracy and a notion of a single American identity. An important question is whether an impulse toward segmentation and segregation arose because of the massive social changes that accompanied modernization, or did industrial manufacturing expand a pre-existing characteristic of American culture to operate on a wider public? The question is impossible to answer definitively from the venues of this study because schools, offices, and trains did not exist in their modern form before industrialization. But related public venues including churches, stagecoaches and early theaters exhibited an impulse toward segregation and segmentation by race, class, and gender in the pre-industrial era. An examination of changes in furniture design and use showed that commercial furniture expanded an existing practice to new venues and newly arrived people, providing finer gradations of separation and hierarchy, and more clear demarcation between groups of people.

How furniture operated as an agent of cultural production

The primary objective in this dissertation was to elucidate how commercial furniture operated as a catalyst of to produce the cultural scripts for diverse Americans to co-exist in public space. The previous four chapters showed furniture's primary generative agency was to create, disseminate and inculcate psycho-social and physical

limits that classified individuals into legible, predictable, and efficient categories: to sit at an executive desk with its peculiar capabilities was to be an executive and a man, a roll-top desk a manager, a flat top desk a clerk; to work at a file cabinet was to be a middle-class white woman; to sit in a ladies car was to be bourgeois; to sit in a smoking car was to be a man. Americans anticipated character based on the type of furniture that surrounded people. The stranger became less unknown because their attributes – occupation, race, class, and gender – could be decoded from the furniture they occupied. The parsing of Americans through furniture in public space was a corollary to the predictability and efficiency of standardization. No longer did you need to know the individual for months or years or know their family; if you knew where they sat in interiors space, and what furniture they occupied you had an immediate sense of their character. Individuals formed an instantaneous expectation of the demands they could make on the behavior of the stranger and norms they could anticipate that person would exhibit. Shorthand knowledge was not always reassuring or helpful. It could be anxiety producing when an individual was forced to occupy furniture that did not match their self-perceived social rank: a black woman forced to sit in a smoking car, for instance, anticipated rude behavior, crude language, and possible assault from the men likely to surround her. The classification system eroded comity between people of different classes and races by distancing them physically in space. Individuals of diverse race, class and ethnic backgrounds were successfully brought together in equal conditions only in the public-school classrooms of New England, the Northern Midwest, and communities with just a handful of African American students. Even then, integration was usually

accompanied by considerable social tension.

The standardization of mass-produced furniture held magnificent social and political power to disseminate classification systems geographically and across institutions. As school bureaucracies, corporations, theater and cinema syndicates and railroads stretched into national organizations, furniture was one element of rationalization processes that reduced overwhelming complexity to legibility. Standardization served institutional leaders who could define efficient procedures and train workers with the assumption of a specific set of furniture-based tools in the spaces where employees would work regardless of their geographic location in the United States. Standardization provided a three-dimensional guide an occupant read for how to navigate and conform to norms of behavior. A child who transferred to any school in the nation in 1920 immediately understood the social dynamic of the classroom; a file clerk quickly adapted to the system of a new corporation; a railroad passenger boarding a first-class car on the Pennsylvania Railroad train in San Bernardino anticipated being surrounded by the same kind of fellow bourgeois riders as a passenger who purchased a ticket on the New York Central in Albany.

The agency of furniture to classify individuals through bordering was often less overt than legal classifications and political statements. However, through its silence furniture was, in some ways, more capable of negotiating and manipulating powerful ideological messages. Through physical restraint, regulation, presentation, sensory experience, and possession commercial furniture communicated a set of cues for how to navigate and behave in shared space. Prompts could be obvious or subtle. Obvious

indicators such as ticket price, location within interior space, amount of personal storage overtly spoke of status hierarchies. Occupants read more subtle cues through the senses – the viewscape from the furniture, the quality and amount of ornamentation, amount of upholstery, exposure to surveillance, sound levels, smells, tactility, temperature, and closeness of bodies.

The politics of commercial furniture design

The secondary objective in this dissertation was to encourage readers to consider design a mutable process situated within a complex political field. The stakeholders who influenced design in this dissertation are numerous but can be summarized in five categories by the nature of their expectations: manufacturers, purchasing agents, experts, managers, and occupants. Each influenced the form and function of commercial furniture during three temporal phases: production, installation, and utilization.

Power in the production phase

The production phase shaped the form and functions of furniture that acted on the bodies of occupants. Furniture oriented bodies and compelled postures that structured power relationships: student to teacher, clerk to manager, audience member to actor, passenger to conductor. Fixed legs, footrests, chair arms, the placement and volume of storage, wheels, and proportions constrained the possible behaviors of occupants, impeded physical contact and controlled circulation. Individuals were both subject and object of sensory experience through sound, touch, sight, and smell. Some furniture permitted occupants to control privacy while some was designed to ensure the occupant's

body was always visible.

In the production phase, the manufacturer made the final decisions of form and function that controlled bodies and behaviors. Every design begins in a realm of unlimited possibilities where the needs of all stakeholders can be met, but it was the manufacturer who mediated between the heavenly realm of ideal solutions and the earthly realm of realistic constraints. Within a capitalist economy, manufacturers were always concerned with profitability, the more so for a product that would be produced in the thousands and multiply any additional costs or potential savings. The manufacturer's design decisions about furniture form were influenced by competition from similar products, the skill needed for construction, the degree of standardization and mechanization in the manufacturing process, and the logistics of storage and shipping.

Manufacturers also had the power to transfer functional characteristics developed for one institution to others. Commercial furniture taught through acts of cultural construction – a footrest cued quiet feet, an arm rest indicated quiet arms, upholstery signaled a quiet body, the small detail of a numbered tag on a reserved seat in a theater or stadium implied ownership and a higher status. Similarities in formal attributes taught people how to react when faced with new situation through cognitive association gleaned from experience with analogous objects and interiors: furniture designed to be arranged in a grid in classrooms made public spaces of theaters, offices and trains familiar and legible; trained to sit upright and focused in a theater chair, a baseball fan adapted the restrained behavior in a nearly identical grandstand seat.

Though the manufacturer held ultimate power in the production phase, a range of

actors influenced the manufacturer's decisions over form; their power to shape the product waxing and waning across venues and over time but following a general hierarchy. Experts, among them reformers, government bureaucrats and physicians, who were interested in social improvement and stable civic society attempted to influence manufacturers through the writing of regulations, the publishing of detailed treatise that included images and descriptions of furniture forms, and the promise of endorsements in books, journals and in manufacturers trade catalogs and advertisements. The purchasing agent held greater influence on manufacturers than experts, for without the literal buy-in of the purchasing agent, furniture would not be successful in the market. The school buildings administrator, the corporate purchasing agent, the theater and stadium manager, and the railroad buyer wanted to minimize the price of the furniture and the cost of its installation and maintenance and maximize income generation (in theaters and trains). Purchasing agents ensured furniture met the basic functional needs of managers and occupants, but when faced with choosing from similar products in the market, purchasers sometimes sacrificed improved features and functions in exchange for cost savings. Managers of space – teachers, office and theater managers, and railroad conductors – were next in level of influence on manufacturers after the purchasing agent. Managers sought to save labor through functional characteristics that made operation easier and more comfortable for themselves and occupants. Their needs were communicated indirectly to manufacturers via the purchasing agent. The individuals who inhabited furniture typically held almost no power to influence furniture design. Occupants could convey their desires and complaints to managers who might share them with purchasing

agents who in turn might relate them to manufacturers, but through each level of translation the influence of occupants on manufacturers weakened.

Power in the installation phase

Commercial furniture also created borders that managers used to filter individuals into hierarchical groups. Because most commercial furniture was permanently affixed to the floor the geography of placement — amount of personal space, adjacencies, entry and exit patterns, mobility — established status hierarchies that forged group affinity. In collaboration with institutional owners, architects and engineers determined the number of internal divisions, and for each division they specified the envelope of space, the location within the interior relative to other divisions, the number of individuals within the division (capacity), the space per individual, and furniture type.² Owners, architects and engineers specified minimally comfortable seats in theater galleries to relocate and circumscribe a low status contingent, moved executive furniture out of the general office and into a separate, private, more ornamental suite, and located bleachers in the outfield to marginalize the working class baseball fan. It was engineers that set the maximum width of rail cars that resulted in the standard two-by-two seating in day coach cars and sleeping berths. However, manufacturers exerted some influence on architects and engineers in the arrangement of furniture. Furniture designed to be bolted to the floor or

² For a discussion of architects power over space see Michel Foucault, *Discipline and Punish* (New York: Vintage Books, 1995) and “Space, Knowledge and Power,” in *Power*, ed. James D. Faubion, trans. Robert Hurley et al. (New York: The New Press, 1994), 349-364; Anna Andrzejewski, *Building Power: Architecture and Surveillance in Victorian America* (Knoxville: University of Tennessee Press, 2008); and Dell Upton, *Another City: Urban Life and Urban Spaces in the New American Republic* (New Haven: Yale University Press, 2008).

ganged together in long straight or curved rows suggested gridded arrangements and set the spacing of aisles and the depth and width of internal divisions. Manufacturers also published floor plans with standard layouts that served as reference sources for architects and engineers.

Power in the utilization phase

Spatial practices of use activated furniture-based status hierarchy through controls over access and possession. Institutions that permitted an individual to reserve a specific piece of furniture for an agreed duration elevated that person above those who experienced the anxiety of not knowing whether they would have access to a seat, how long they would have access, or where that seat would be located. Because its occupant was free to come and go at will, an assigned seat had higher status than a seat where possession was predicated on physical presence such as bleachers or day-coach train seats. Though they had only minimal power in the production and arrangement of furniture, managers determined who had access to what seat for how long. Teachers, office managers, theater managers, and ticketing agents and conductors on trains participated directly in use and could choose to resist and thwart arrangements prescribed by architects, school bureaucracies, efficiency analysts and other experts, such as allowing an African American man to travel in the enclosed suite of a sleeper car against local statutes. They could also violate norms and legal statutes by denying black women access to a ladies' car or a black couple passage in a sleeping car. African Americans and women used resistance to in-use spatial practices to transform furniture from an agent of control to an agent of empowerment. Successful lawsuits for access to furniture changed

the acceptability of racial discrimination. More subtly, a young white middle-class woman used the protection of office furniture intended to prevent fraternization with men as a tool through which to gain control over courtship.

How furniture classified people

Furniture operated on different kinds of bodies in particular ways to produce a multiplicity of groupings among individuals of different genders, races, classes, and nationalities. Freedoms and restrictions varied in different kinds of spaces, so for example, a white, immigrant, working-class man could sit in the gallery of the theater, but his white sister could not without the possibility of being mistaken for a prostitute. In a baseball stadium he could sit in the better “ladies” seats if he was with his sister or be forced to sit in less comfortable seats if alone. If they had just arrived in the United States both would probably travel to a distant city via emigrant car, but in later train travel she might be able to sit in a ladies’ coach if traveling alone, whereas he might have to sit in a second-class coach. Because commercial furniture operated within spheres of exchange (broadly defined to include schools as a site of work), class was an overarching framework for the organization of racialized and gendered bodies in public spaces.

White-working class bodies were categorized as marginal, not to be fully excluded but to be kept at a distance from higher-income Americans. Although spatially marginalized through price restrictions, working-class men and women experienced minimal physical control and restraint from the furniture designed for them. They typically sat in unreserved seats that permitted them to move about and change seats at will. Seats were un-upholstered and minimally comfortable for bodies presumed to be

dirty, bad smelling, and strong. In stadium bleachers, theater galleries, and second-class rail cars, bodies shifted and moved in response to discomfort. Furniture brought working-class bodies close together in specific patterns, inviting sociability that was frowned upon by more well-off patrons who admired a cool restraint. Densely packed, distantly located seating visually consolidated a working-class made up of different ethnicities, races and genders into an undifferentiated, unrestrained mass seen from the perspective of bourgeois and wealthy patrons.

The nineteenth century also saw the development of a self-aware upper-class. Institutions developed new arrangements of segregated space for their wealthier clientele. Upon the luxurious, thickly upholstered seats of premier passenger cars, opera parterres, private theater boxes and executive suites an emergent American aristocracy engaged in conspicuous displays of wealth and privilege that contrasted with early nineteenth century values of restraint. Furniture situated wealthy bodies to display expensive clothing, accessories, and refined behavior through which they projected to others and themselves their sense of superiority. Patrons sat in reserved and assigned seats that limited the body to a separate bounded space, but in the berths of trains and the private boxes of theaters they had the power and were entrusted to withdraw from view as desired. Access to every form of furniture covered in this study reinforced the wealthy white male as the universal American body defined by its lack of boundaries.

Commercial furniture targeted at the middle-class body was the most restrictive. Furniture was designed to restrain the bodies of boys and middle-class men: to keep their feet in place, to keep their arms at their sides, to keep them quietly in their seat, away

from one another and especially away from girls and women. In multiple spheres, commercial furniture targeted the bodies of middle-class white girls and women for control and support, and undermined protections for African American women. Anxiety over a perceived threat to white dominance due to demographic change led to a culture that gave the highest status to white women locked away in a private domestic sphere safe from the threats of moral corruption, rape, and miscegenation. But a value on women restricted to the domestic sphere was in tension with a capitalist desire to expand markets. Re-classifying white middle-class women as a potential labor source and as consumers welcome in the public sphere was critical to economic expansion. To integrate women into the classroom, the office, commercial leisure and transportation, furniture was designed to support a corseted and bustled woman, and to construct a boundary around a woman's body that discouraged fraternization between the sexes. Protective furniture opened occupational opportunities through which women could inhabit new professional roles as teachers, file clerks, and stenographers and partake of commercial leisure in theaters and stadiums. In return for the new freedom women enjoyed, they had to do the cultural work of improving male behavior. Though set aside in a bubble of protection, commercial furniture literally positioned the female body under the surveillance of boys and men to redefine appropriate male public behavior. Though it may seem a form of passive work to simply be visible in space, a woman had to perform considerable physical and psychological work to obtain and wear the proper clothes and accessories that communicated her upright morals and to continually monitor her body and behavior.

As standard forms of commercial furniture came to be associated with class,

furniture was used to stigmatize African Americans. Conflict arose when bourgeois black Americans were assigned to commercial furniture in theaters and on trains they believed to be beneath their class. African Americans protested the hypocrisy of the market, supposedly a democratic arena of equal opportunity, to insist on inclusion among those they believed to be their peers. In many cases protest eventually led to anti-discrimination legislation and changes in spatial practice.

The political agency of manufactured things

In response to a seemingly incomprehensible amount of change in the structures that ordered society, nineteenth-century Americans designed commercial furniture that shaped twentieth-century standards of public behavior. Mass-manufactured commercial furniture produced and reproduced stable social structures for how to learn, work, play and travel in modern urban society. Men and women, black and white, rich, and poor were welcomed into the public sphere contingent on the demonstration of appropriate behavior defined by furniture. But with new freedom to enter public life came new restrictions. Commercial furniture established boundaries and borders between individuals and groups that were not easily crossed. Ostensibly equal in the marketplace working class, ethnic and non-white Americans found themselves ghettoized within public venues. Each found a place, but it was a separated place in the commons. Despite the optimism in Beecher's observations of progress toward inclusion African Americans had made by 1884, commercial furniture failed to welcome African Americans into full communion. Instead, African Americans moved from ostracized to marginalized in interior space. In a reflection of Beecher's emphasis on commercial furniture, the

powerful symbolism of race-based exclusion from the equality implied by identical school desks, bus seats, and lunch-counter stools fueled twentieth-century civil rights protests.

This dissertation examined artifacts designed to structure modern life in specific environments. Close reading of furniture and interiors reveals multiple pathways and agents that categorized Americans in the public sphere, opening and limiting their possibility for interaction and sense of place. Individuals believe themselves free to make choices, to be self-defining, and yet their social status, moral values, privacy, and experience of power is mediated by a designed world. Where a person believes they fit in society is inextricably bound to their experiences in everyday life. In an increasingly digital world, it is easy to overlook the importance of biological reality, but the unconscious experience of self is determined by myriad sensory perceptions gathered primarily from man-made space. As modern subjects, individuals are defined in social relationships constructed within a designed world. They may resist the definition those structures place upon them; they may struggle against artifacts that control who they talk with and how they behave, and yet they still define themselves through the very artifacts and within the structures that control them. The power of objects to impose limits on an individual's sense of self, to fracture or instill group affinity, has important implications for re-forming an increasingly divided public sphere.

Appendix A

Analytical Procedure

Factors internal to the object

- Formal characteristics
 - Ergonomic Comfort
 - Customizability
 - Adjustability
 - Relationship to the body
 - Support and impairment of activities and postures
 - Tactile Comfort
 - Warmth/Cool, Smooth/Rough, Hard/Soft
 - Aural Comfort (sound)
 - Reverberant / Absorptive
 - Contained (Private), Uncontained (Public)
 - Olfactory Comfort (Smell)
 - Create smells
 - Retain / Repel smells
 - Ventilation
 - Visual
 - Degree of control over sightlines (Private versus public)
 - Degree and type of ornamentation
 - Emotional association with materials and ornamentation
 - Alignment in form or iconography with domestic or occupational cognates
 - Cleanability
 - Eye contact (sociability)
 - Taste
 - Support for eating and drinking types of foods
- Freedom of motion [Space and motion of the individual]
 - Universe of movements of the occupant
 - Universe of movement for the object
 - Universe of movement in the space (circulation and social distance)
- Possession [Time]

Number of users	Individual, Shared by a known few, Shared by an unknown many
Duration of use	Permanent (domestic, private rail car), Annual single owner (classroom furniture), Annual renewable (theater seats, church seats, stadium box seats), Episodic (theater tickets), Contractual (office furniture)

Security	Locks, Visual permeability
Customizability	Ergonomics (see sensory above), Choice of ornament, Re-configurability of the object, movability, portability

- Financial factors

Materials	Cost, Availability
Labor	Skill needed for Construction Method, Degree of Mechanization
Rationalization	Design for Manufacturing (DfM), Reproducibility and risk, Precision Number of parts, Standardization of parts, Interchangeability,
Logistics	Storage and shipping
- Precedent
 - Previous iterations of the design
 - Borrowing of aesthetics and function
 - Symbolism of analogous objects

Factors external to the object

- Determine the social pressures that impelled design change
 - Demographic, Economic, Political, Ideological, Legal, Technological
- Identify the expectations of stakeholders

Reformers	Moral, Educational, Charitable, Religious
Executives	School superintendents, Theater proprietors, Church leaders, Stadium owners, Corporate executives, Railroad executives
Administrators	Corporate purchasing agents, School Committees
Managers	Teachers, Office managers, Theater managers, Train crews
Users	Teachers, Students, Clerks, Office managers, Corporate executives, Audience members, Train porters, Train passengers
Experts	Physicians, Safety officials, Efficiency specialists, Engineers, Interior designers, Architects
Manufacturers	Owners, Stockholders, Workers, Distributors, Retailers
- Analyze installation [Space, Time, Motion]

Arrangement	Access, egress and circulation pathways, Density of bodies, Sight lines, Adjacencies, Orientation, Vertical distribution
-------------	--
- Analyze use (spatial practice)

Access	Free selection by occupant, assigned by manager, or reserved
Exchange	Financial exchange, Work exchange, Behavioral exchange

Spatial Practice Sanctioned and unsanctioned usage, Integration and segregation, Prescriptions of use defined by experts, Lifestyle advertisements, Prescriptions of use defined by manufacturers in promotional materials

- Analyze Outcomes

Success Intended and unintended outcomes, Degree the design satisfied the expectations of each stakeholder

Scale Duration and volume of production, Geographic distribution

Alternatives Relative success of alternatives

Standardization Time frame for widespread adoption, Imitation

Contestation User's resistance to power in the object and spatial practice

Appendix B

High-School and College Graduates - Number, by Sex: 1870 to 1950

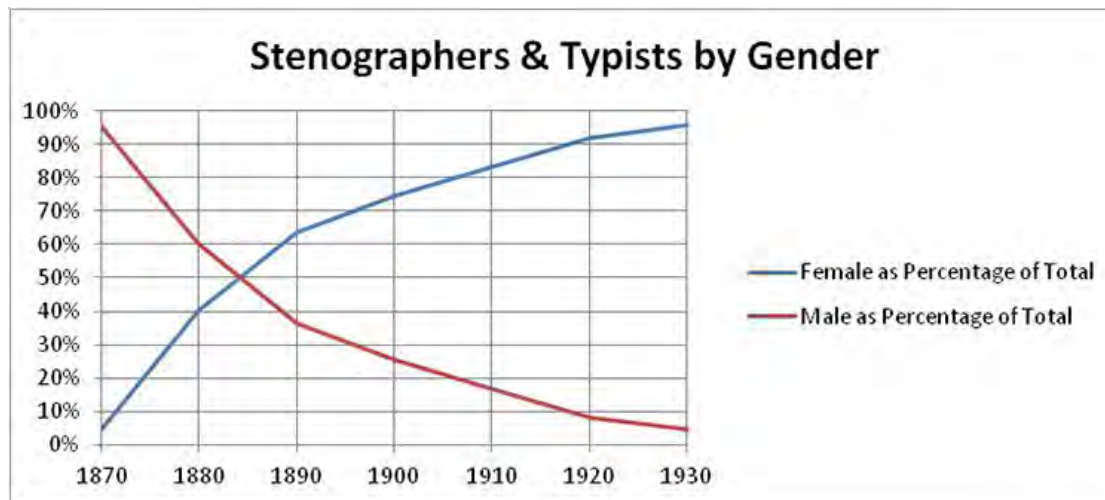
[Data cover graduates of both public and private institutions]

Table 1 High School and College Graduates

Year of Graduation	High School			College		
	Total	Men	Women	Total	Men	Women
1870	16,000	7,064	8,936	9,371	7,591	1,780
1880	23,634	10,605	13,029	10,353	7,868	2,485
1890	43,731	18,549	25,182	14,306	10,157	4,149
1900	94,883	38,075	56,808	25,324	17,220	8,104
1910	156,429	63,676	92,753	34,178	22,557	11,621
1920	311,266	123,684	187,582	48,622	31,980	16,642
1930	666,904	300,376	366,528	122,484	73,615	48,869
1940	1,221,475	578,718	642,757	186,500	109,546	76,954
1950	1,199,700	570,700	629,000	432,058	328,841	103,217

Source: Federal Security Agency, Office of Education, *Biennial Survey of Education* chapter on Statistical Summary of Education. Cited in *Statistical Abstract of the United States*, 1952.

Table 2 Stenographers & Typists by Gender



Compiled from Alba M. Edwards, *Population: Comparative Occupation Statistics for the United States, 1870 to 1940* Part 2 (Washington: Government Printing Office, 1943, Tables 9 & 10).

Albany Team Balance Sheet, 1878	
<u>Income</u>	
Gate and Grandstand	12,699
Season Tickets	830
Refreshment stand	110
Sundries	<u>16</u>
Total Income	\$13,655
<u>Expenses</u>	
Payments to visiting clubs	5,104
Miscellaneous Expenses	3,329
Payments to players	2,821
Police	561
Umpires	179
To be spent on new stand	<u>1,660</u>
Total Expenses	\$13,654

Appendix 0.1 Team expenses of the Albany Governors baseball club, a member of the short-lived International League (1878-1880 & 1880-1890), a competitor to the National League. ("Base-Ball," *The Chicago Tribune*, December 22, 1878, 12)

Sources Consulted

Primary Sources- Published (listed by chapter):

Abbreviations used in the bibliography

AAS	American Antiquarian Society
BPL	Boston Public Library
CHS	Chicago Historical Society
HFM	Henry Ford Museum
HML	Hagley Museum & Library
LOC	Library of Congress
MMA	Metropolitan Museum of Art, New York, Drawing and Prints Collection
NMAH	Smithsonian Museum of Natural History
NMAH-W	Smithsonian Museum of Natural History, Warshaw Collection
NYPL	New York Public Library
PJC	Author's collection
PPL	Philadelphia Free Public Library
UCSB	University of California, Santa Barbara
WML	Winterthur Museum & Library

Introduction

Turner, Frederick Jackson. *The Frontier in American History*. New York: Henry Holt and Company, 1920.

Chapter 1 Schools: Uneasy bodies, uneasy minds

“Recommendations to School Masters...October 15, 1789.” *The American Museum or Universal Magazine* VII, Appendix II (1790): 44.

A. H. Andrews & Co. *A. H. Andrews & Co's Illustrated Catalogue of School Merchandise. Also Plans, Specifications and Estimates for the Construction, Heating and Ventilation of Modern School Houses*. Chicago, 1881. [LOC]

A. H. Andrews & Co. *Furniture & Supplies for Schools & Colleges*. Chicago, 1924. [NMAH]

A. H. Andrews & Co. *Illustrated Price list of School, Church and Hall Furniture*. Chicago, 1874. [CHS]

A. H. Andrews & Co. *School Furniture and Hall Settees*. Chicago, 1873. [AAS]

A. Robert Paton. *Illustrated Catalogue of School Furniture, Church and Lecture Room Settees, &c., &c.*, New York: S. D. Affleck, 1872. [NMAH]

- Abbott, Jacob. *The Teacher: Or, Moral Influences Employed in the Instruction and Government of the Young*. Cooperstown: H. & E. Phinney, 1844.
- Acts and Laws of the Commonwealth of Massachusetts*. Boston: Adams & Nourse, 1894.
- Address delivered in Christ Church at the Funeral of Joseph W. Ingraham*. Boston: J. H. Eastburn, 1848.
- Alcott, William A. *Confessions of a School Master*. New York: Gould, Newman and Saxton, 1839.
- Alcott, William A. *The Library of Health and Teacher on the Human Constitution I*. Boston: George W. Light, 1837.
- Alfred Andrews. *Genealogical History of John and Mary Andrews*. Chicago, IL: A. H. Andrews & Co, 1872.
- Allen, Nathan. *The Law of Human Increase or Population Based on Physiology and Psychology*. New York: Moorhead, Simpson & Bond, 1868.
- American Association for the Advancement of Physical Education. *Report of the Tenth Annual Meeting of the American Association for the Advancement of Physical Education*, 1895. Concord, NH: Republican Press Association, 1896.
- American Institute of Instruction. *Annual Meeting of the American Institute of Instruction Addresses, Discussions and Proceedings, Bethlehem, N. H. July 9-13, 1896*. Boston: American Institute of Instruction, 1896.
- American Institute of Instruction. *Lectures Delivered Before the American Institute of Instruction...August 17, 1842*. Boston: William D. Ticknor, 1843. 128.
- American Institute of Instruction. *The Introductory Discourse and Lectures Delivered in Boston Before the Convention of Teachers and Other Friends of Education Assembled to Form the American Institute of Instruction, August, 1830*. Boston: Hilliard, Gray, Little and Wilkins, 1831.
- American Institute of Instruction. *The Lectures Delivered before the American Institute of Instruction in Boston August, 1831*. Boston: Hillard, Gray, Little and Wilkins, 1832.
- American Institute of Instruction. *The Lectures Delivered Before the American Institute of Instruction, at Boston, August 1841*. Boston: William B. Ticknor, 1842.
- American Institute of Instruction. *The Lectures Delivered Before the American Institute of Instruction, at Providence (R.I.) August, 1840*. Boston: William D. Ticknor, 1841.
- American Institute of Instruction. *The Lectures Delivered Before the American Institute of Instruction at Bangor, Me., August, 1848*. Boston: William D. Ticknor & Co., 1848.

- American Seating Company. *School Furniture and School Supplies* Cat. no. 55, 1923. Chicago, 1923. [NMAH]
- American Seating Company. *School Furniture*, Cat. no. 255. Chicago, 1956. [HML]
- Annual Report of the School Committee of the City of Boston, 1873*. Boston: Rockwell & Churchill, 1874.
- Baker Pratt & Co. *Improved Plans for Modern School Houses*. New York, circa 1878.
- Barnard, Henry, *Report on the Condition and Improvement of the Public Schools of Rhode Island*. Providence: B. Cranston & Co, 1846.
- Barnard, Henry. "Report on School Architecture and Plans for Graded Schools by the Commissioner of Education. Washington: Government Printing Office, 1871.
- Barnard, Henry. "Schools as They Were Sixty Years Ago." *American Journal of Education* 13 (March 1863): 126.
- Barnard, Henry. *Practical Illustrations of the Principles of School Architecture*. Hartford, CT: Tiffany and Company, 1851.
- Barnard, Henry. *Report and Documents Relating to the Public Schools of Rhode Island, For 1848*. Providence, 1849.
- Barnard, Henry. *School Architecture; or Contributions to the Improvement of School-Houses*. New York: A. S. Barnes & Co., 1848.
- Barnard, Henry. *School Architecture; or Contributions to the Improvement of School-Houses*, 2nd edition. New York: A. S. Barnes & Co., 1849.
- Barnard, Henry. *Special Report of the Commissioner of Education on the Condition and Improvement of Public Schools in the District of Columbia...June 13, 1870*. Washington, DC: Government Printing Office, 1871.
- Bishop, Nathan. *First Semi-Annual Report of the Superintendent of Public Schools of the City of Boston*. Boston: J. H. Eastburn, 1852.
- Boston Board of Education. *Ninth Annual Report of the Board of Education Together with the Ninth Annual Report of the Secretary of the Board*. Boston: Dutton & Wentworth, 1846.
- Boston School Committee. *Annual Report of the School Committee of the City of Boston, 1873*. Boston: Rockwell & Churchill, 1874.
- Boston School Committee. *Annual Report of the School Committee of the City of Boston, 1860*. Boston: Geo. C. Rand & Avery, 1860.
- Boston School Committee. *Documents of the School Committee of the City of Boston for the Year 1895*. Boston: Rockwell and Churchill, 1895.
- Boston School Committee. *Fifteenth Annual Report of the Superintendent of Public Schools of the City of Boston*. Boston: Rockwell and Churchill, 1895.

- Boston School Committee. *Majority and Minority Report of the Special Committee on Subject of Co-education of the Sexes*. Boston: Rockwell and Churchill, 1890.
- Boston School Committee. *Report of the Annual Examination of the Public Schools of the City of Boston*. Boston: J. H. Eastburn, 1849.
- Boston School Committee. *Report of the Annual Examination of the Public Schools of the City of Boston*. Boston: J. H. Eastburn, 1848.
- Boston School Committee. *Report of the Annual Examination of the Public Schools of the City of Boston*. Boston: J. H. Eastburn, 1849.
- Boston School Committee. *Reports of the Annual Visiting Committees of the Public School of the City of Boston, 1844*. Boston: J. H. Eastburn, 1845.
- Boston School Committee. *Reports of the Annual Visiting Committees of the Public School of the City of Boston, 1845*. Boston: J. H. Eastburn, 1846.
- Boston School Committee. *Reports of the Annual Visiting Committees of the Public School of the City of Boston, 1846*. Boston: J. H. Eastburn, 1847.
- Boston School Committee. *Reports of the Annual Visiting Committees of the Public School of the City of Boston, 1847*. Boston: J. H. Eastburn, 1848.
- Boston School Committee. *Reports of the United States Commissioners to the Paris Universal Exposition, 1878 Vol 1*. Washington: Government Printing Office, 1880.
- Boston School Committee. *School Committee Report on the Distribution of the Students in the Grammar Schools of the City of Boston*. Boston: John H. Eastburn, 1837.
- Boston School Committee. *School Document no. 19, Committee on Rules and Regulations on the Subject of Corporal Punishment, 1889*. Boston: Rockwell and Churchill, 1889.
- Boston School Committee. *School Document no. 19: Committee on Rules and Regulations, 1889*. Boston: Rockwell and Churchill, 1889.
- Brayley, Arthur. *Schools and Schoolboys of Old Boston*. Boston: Louis P. Hager, 1894.
- Burrage, Severence and Henry Bailey. *School Sanitation and Decoration: A Practical Study of Health and Beauty in Their Relations to the Public Schools*. Boston: D. C. Heath, 1899.
- Burrowes, Thomas. *Pennsylvania School Architecture: A Manual of Directions and Plans*. Harrisburg: A. Boyd Hamilton, 1855.
- Burton, Warren. *The District School as it Was*. Boston: R. R. Marvin, 1852.
- Cameron, R. M. *Catalogue of School Furniture & Fittings for Board Schools*. Edinburgh, Scotland, ca. 1880.

- Chase, C. Thurston. *A Manual on School-Houses and cottages for the People of the South*. Washington: Government Printing Office, 1868.
- Chicago Board of Education. *Report of the Department of Child Study and Pedagogical Investigation, 1900-1901*. Chicago, 1902.
- Chicago Board of Education. *Report of the Department of Child-Study and Pedagogic Investigation, 1899-1900*. Chicago, 1901.
- Codman, John. *The Report of the Annual Examination of the Public Schools of the City of Boston*, 1849. Boston: J. H. Eastburn, 1849.
- Crowell, William, Joseph W. Ingraham, and David Kimball. *Report of the Primary School Committee, June 15, 1846 on the Petition of Sundry Colored Persons for the Abolition of the Schools for Colored Children*. Boston: J. H. Eastburn, 1846.
- Currier, D. M. "Sanitary Conditions of School Life. *Seventh Annual Report of the State Board of Health of the State of New Hampshire*. Manchester, NH: John B. Clarke, 1888.
- Cushing, Luther S. *Reports of Cases Argued and Determined in the Supreme Judicial Court of Massachusetts V*. Boston: Little, Brown and Company, 1853.
- Dallinger, F. W. *Recollections of an Old Fashioned New Englander*. New York: Roundtable Press, Inc., 1941.
- Davis, J. C. Bancroft. *United States Reports* 163 October Term, 1895. New York: Banks & Brothers, 1896.
- Dean, Benjamin, and Zephania H. Thomas. *Proceedings of the Massachusetts Council of Deliberation* Boston: Alfred Mudge & Son, 1880.
- Decisions of the Commissioner of Patents*. Washington, DC: Government Printing Office, 1904.
- Dewey, John, and Evelyn Dewey. *Schools of Tomorrow*. New York: E. P. Dutton & Company, 1915.
- Dewey, John. *The School and Society*. Chicago, IL: University of Chicago Press, 1915.
- Duffin, E. W. *The Influence of Physical Education in Producing and Confirming in Females, Deformity of the Spine*. London: George Swire, 1829.
- Durm, Josef, Hermann Ende, and Eduard Schmitt. *Handbuch der Architektur*, Arnold Bergsträsser, Stuttgart, 1903.
- Eaton, John. *A Statement of the Theory of Education in The United States of America as Approved by Many Leading Educators*. Washington: Government Printing Office, 1874.
- Edward E. Babb & Company. *Illustrated Catalogue of School Supplies*, Boston, 1897-1898. [WML]

- Emery, Sarah Anna. *Reminiscences of a Nonagenarian*. Newburyport: William H. Huse & Co., 1879.
- First Century of National Existence; The United States as They Were and Are*. Hartford: L. Stebbins, 1875.
- Fortescue, Harritt, & Co. *Illustrated Catalogue of the Most Approved Styles of School, church, Hall and Office Furniture*. Philadelphia, ca. 1871. [AAS]
- Fourth Annual Report of the Board of Commissioners of Common Schools in Connecticut*. Hartford: Case, Tiffany & Burnham, 1842.
- Fowle, William. *The Teachers' Institute*. Boston: William B. Fowle, 1847.
- G. A. Bobrick. *School Furniture and Supplies*. Boston, 1895. [NMAH]
- G. A. Bobrick. *Hygienic Requirements of School Furniture*. New York: Exchange Printing Co, 1892. [LOC]
- G. A. Bobrick. *School Furniture: A Treatise on the Construction in Compliance with Hygienic Requirements*. Boston: Rockwell and Churchill, 1887. [LOC]
- George & C. W. Sherwood. *Catalogue of School Furniture*. Chicago, 1864. [LOC]
- Gregory, John M. *School Funds and School Laws of Michigan*. Lansing: Hosmer & Kerr, 1859.
- Hall, Samuel R. *Lectures on School-Keeping*. Boston: Richardson, Lord and Holbrook, 1829.
- Hartwell, Edward M. "A Preliminary Report on Anthropometry in the United States." In *Publications of the American Statistical Association, 1892-1893* 3, 554-68. Boston: W. J. Schofield, 1893.
- Hartwell, Edward M. *Report of the Director of Physical Training School Document no. 8 – 1894*. Boston: Rockwell and Churchill, 1894.
- Heller, John S. "Civil War Anthropometry: The Making of Racial Ideology." *Civil War History* 16, no. 4 (December 1970): 309-324.
- Heywood-Wakefield Co. *School Furniture*. Gardner, MA, 1937. [NMAH]
- Higginson, Thomas Wentworth. *Out-Door Papers*. Boston: Lee and Shepard 1886.
- Hitchcock, Dr. E. *An Anthropometric Manual, Giving the Average and Mean Physical Measurements and Tests of Male College Students*. Amherst, MA: J. E. Williams, 1887.
- Hosea, Easton. *A Treatise on the Intellectual Character and Civil and Political Condition of the Colored People of the United States and the Prejudice Exercised Towards Them: With a Sermon on the Duty of the Church to Them*. Boston: Isaac Knapp, 1837.

- Hoyt, John W. *Reports of the Commissioners of the United States to the International Exhibition Held at Vienna, 1873*. Washington: Government Printing Office, 1876.
- Iowa Board of Health. *Report of the Board of Health of the State of Iowa*. Des Moines: George E. Roberts, 1885.
- J. A. Bancroft & Co. *Descriptive and Illustrated Catalogue of School Furniture*. Philadelphia, 1872. [NMAH-W]
- J. A. Bancroft & Co. *Descriptive and Illustrated Catalogue of School Furniture, Church, Hall and Lecture Room Seating, &c.* Philadelphia, 1871. [AAS]
- J. W. Schermerhorn & Co. *Our Illustrated Catalogue of School Material for 1869 and 1870*. New York: J. W. Schermerhorn & Co, 1869/1870. [NMAH-W]
- Jackson, Edmund, and H. I. Bowditch. *Report of the Minority of the Committee of the Primary School Board, on the Caste Schools of the City of Boston*. Boston: A. J. Wright's Steam Press, 1846.
- Johnson, Clifton. *The Country School in New England*. New York: D. Appleton and Company, 1893.
- Johonnot, James. *Country School-Houses*. New York: Ivison and Phinney, 1859.
- Joseph L. Ross. *Illustrated Catalogue of Ross' Improved School Furniture*. Boston, 1864. [NMAH-W], [HFM]
- Joseph L. Ross. *Illustrated Catalogue*. Boston, 1872. [LOC]
- Journal of the Senate of the Thirty-Eight General Assembly of the State of Illinois*. Springfield, IL: H. W. Rokker, 1893.
- Kimball, James. "Notes on the Richardson and Russell Families." In *Essex Institute Historical Collections XVI*, 171-191. Salem: Essex Institute, 1879.
- Kotelmann, Ludwig. *School Hygiene*. Syracuse, NY: S. W. Bardeen, 1899.
- Lancaster, Joseph. *The British System of Education*. London: Royal Free School, 1810.
- Loudon, J. C. *Encyclopaedia of Cottage, Farm, and Villa Architecture and Furniture*. London: Longman, Rees, Orme, Brown, Green & Longman, 1835.
- Maine Board of Health. *Report of the State Board of Health of the State of Maine*. Augusta: Burleigh & Flynt, 1892.
- Maine Board of Health. *Seventh Annual Report of the State Board of Health of the State of Main, 1891*. Augusta, ME: Burleigh & Flynt, 1892.
- Mann, Horace. *Fourth Annual Report of the Secretary of the Board of Education*. Boston: Dutton and Wentworth, 1841.
- Mann, Horace. *Lectures on Education*. Boston: Marsh, Capen, Lyon, and Webb, 1840.
- Mann, Horace. *Lectures on Education*. Boston: Wm. B. Fowle and N. Capen, 1845.

- Mann, Horace. *Report of the Secretary of the Board of Education on the Subject of School Houses*. Boston: Dutton and Wentworth, 1838.
- Mann, Mary Tyler Peabody, and Elizabeth Palmer Peabody. *Moral Culture of Infancy, and Kindergarten Guide: With Music for the Plays*, 4th ed. New York: J. W. Schermerhorn.
- Mann, Mrs. Horace, and Elizabeth Palmer Peabody. *Moral Culture of Infancy, and Kindergarten Guide*. Boston: T. O. H. P. Burnham, 1863.
- Massachusetts Board of Education. *Abstract of the Massachusetts School Returns for 1845-46*. Boston: Dutton and Wentworth, 1846.
- Massachusetts Board of Education. *Laws and Resolves Relating to Public Instruction in Massachusetts*. Boston: William White, 1853.
- Massachusetts Board of Health. *Annual Report of the State Board of Health of Massachusetts*, January 1874. Boston: Wright & Potter, 1874.
- Massachusetts Charitable Mechanic Association. *The Fourth Exhibition of the Massachusetts Charitable Mechanic Association at Quincy Hall in the City of Boston, September 16, 1844*. Boston: Crocker and Brewster, 1844.
- Massachusetts Charitable Mechanic Association. *Twelfth Exhibition of the Massachusetts Charitable Mechanic Association*. Boston: Alfred Mudge & Son, 1874.
- Mayhew, Ira. *A Compilation from the Annual Reports of the Superintendent of Public Instruction of the State of Michigan, For the Years 1845 and '46, with Important Additions, Embracing the Report for the Year 1847*. Detroit: Bagg & Harmon, 1848.
- Monroe, Lewis B. *Manual of Physical and Vocal Training: For the Use of Schools and for Private Instruction*. Philadelphia: Cowperthwait & Co, 1869.
- Montessori, Maria. *The Montessori Method* translated by Anne Everett George. New York: Frederick A. Stokes Company, 1912.
- Morris, R. Anna. *Physical Education in the Public Schools*. New York: American Book Company, 1892.
- Mott-Ville Iron Works. *School and Garden Furniture*. New York, ca. 1845. [AAS]
- Murray, Pauli. *Proud Shoes: The Story of an American Family*. New York: Harper & Row, 1956.
- National School-Furniture Co. *Illustrated Catalogue of School and Church Furniture*, Chicago, 1872. [LOC]
- New Hampshire Board of Health. *Seventh annual Report of the State Board of Health of the State of New Hampshire*. Manchester, NH: John B. Clark, 1888.
- Northend, Charles. *The Teacher & Parent*. New York: A. S. Barnes & Co, 1867.

- Official Catalogue of the Great Exhibition of the Works of Industry of All Nations, 1851.* London: Spicer Brothers, 1851.
- Pennsylvania School Furniture Company. *The 'Perfect Favorite,' School Desk.* Philadelphia, 1890.
- Philbrick, John Dudley. "City School Systems in the United States. *Circulars of Information of the Bureau of Education no. 1-1885.* Washington: Government Printing Office, 1885.
- Pierson, Abel L. *Physical Education: A Lecture Delivered Before the American Institute of Instruction, at its Annual Session, August 1839.* Boston: Marsh, Capen, Lyon and Webb, 1840.
- Proceedings of the Supreme Council of Sovereign Grand Inspectors-General of the Thirty Third and Last Degree Ancient Accepted Scottish Rite.* Binghamton, NY: George J. Reid, 1881.
- Public Documents of Massachusetts, 1860, I.* Boston: William White, 1861.
- Quincy, Josiah. *A Municipal History of the Town and City of Boston During Two Centuries: From September 17, 1630, to September 17, 1830.* Boston: C. C. Little and J. Brown, 1852.
- Quincy, Josiah. *Report of a Sub Committee of the School Committee Recommending Various Improvements in the System of Instruction.* Boston: Press of Nathan Hale, 1828.
- Rhode Island Board of Education. *Fourteenth Annual Report of the Board of Education.* Providence, RI: E. L. Freeman & Co., 1884.
- Riant, A. *Hygiene Scolaire.* Paris: Librairie Hacette & Cie, 1874.
- Roberts, Benjamin F. *Report of the Colored People of the City of Boston on the Subject of Exclusive Schools,* 1850.
- Russell, Charles. *Report of the Minority of the Committee on the Petition of John T. Hilton.* Boston: J. H. Eastburn, 1842.
- Russell, William. *Manual of Mutual Instruction Consisting of Mr. Fowle's Directions for Introducing in Common Schools the Improved System Adopted in the Monitorial School.* Boston, 1826.
- Samuel Wales, Jr. *The Guide: A Description of Modern School Furniture.* Boston, 1850/1855.
- Scudder, Charles L. *Seating of Pupils in the Public Schools,* School Document no. 9-1892. Boston: Rockwell and Churchill, 1892.
- Sidney School Furniture Co. *Patented T-Head School Furniture.* Sidney, OH, circa 1881.
[PJC]

- Spencer, H. C. *Spencerian Key to Practical Penmanship*. New York: Ivison, Phinney, Blakeman & Co, 1868.
- St. Louis Public School Committee. *Seventeenth Annual Report of the Board of Directors of the St. Louis Public Schools*. St. Louis: Plate, Olschauen & Co, 1872.
- The Committee of Council on Education: Correspondence, Financial Statements, &c. and Reports by Her Majesty's Inspectors of Schools*. London: George E. Eyre and William Spottiswoode, 1851-52.
- The Daisydingle Sunday-School*. Philadelphia: American Sunday-School Union, 1849.
- The Fourth Exhibition of the Massachusetts Charitable Mechanic Association... September 16, 1844*. Boston: Crocker and Brewster, 1844.
- The Marsh Foundation School. *First Year Book, 1927*. Van Wert, OH, 1927.
- Thomas Kane & Company. *School Furniture*. Chicago, 1880-1889.
- Todd, John. *The Student's Manual: Designed, by Specific Directions, to Aid in Forming and Strengthening the Intellectual and Moral Character and Habits of the Student*. Northampton, MA: J. H. Butler, 1835.
- Union School Furniture Co. *School, Hall, and Opera Furniture*. Albany, 1885. [NMAH-W]
- Vermont Board of Education. *First Annual Report of the Secretary of the Vermont Board of Education*. Ludlow, VT: Rufus S. Warner, 1857.
- Vermont Board of Education. *The Sixth Annual Report of the Vermont Board of Education*. Burlington: Free Press Printers, 1862.
- Virginia Board of Education. *First Annual Report of the Superintendent of Public Instruction of Virginia...August 31, 1871*. Richmond: C. A. Schaffer, 1871.
- Washington, Booker T. "Education of the Negro." In *Monographs on Education in the United States*, ed. Nicholas Butler, 894-936, U.S. Department of Education, 1900.
- Wellington, Leah. *History of the Bowdoin School, 1821-1907*. Manchester, NH: The Ruemely Press, 1912.
- Wheelwright, Edmund. *School Architecture*. Boston: Rogers & Manson, 1901.
- Wightman, Joseph M. *Annals of the Boston Primary School Committee*. Boston: Geor. C. Rand & Avery, 1860.
- William O. Haskell & Son. *Illustrated catalogue of the Boston School Furniture Manufactory*. Boston, 1870. [LOC]
- Wisconsin Board of Health. *Annual Report of the State Board of Health of the State of Wisconsin*. Madison: David Atwood, 1878.

Chapter 2 Offices: The brain in the box

- A. Cutler & Son. *Descriptive Catalogue and Price List of Cutler's Patent Business Desks, 1884*. Buffalo, NY, 1884. [UVA]
- A. Cutler & Son. *The Famous Cutler Desks* Cat. no. 12. Buffalo, NY, 1894. [HML]
- A. H. Andrews & Co. *Business Furniture*. Chicago, 1896. [CHS]
- A. H. Andrews & Co. *Illustrated Catalogue Office Furniture, School Furniture, Church Furniture Hall Settees, Holbrook's Apparatus, Maps, Globes, &c.* Chicago, 1873.
- A. H. Andrews & Co. *Illustrations of Plain and Elaborate Office Desks, Tables, Chairs, Book Cases, Etc.* Chicago, 1874. [CHS]
- A. H. Andrews & Co. *Medium Grade Furniture*. Chicago, 1905. [CHS]
- A. H. Andrews & Co. *Office Furniture: Medium Grade*. Chicago, ca. 1905. [CHS]
- A. H. Andrews & Co. *School Furniture and Apparatus; Church, Hall, and Office Furniture*. Chicago, 1873. [UVA]
- A. H. Andrews & Co. *School Furniture and Hall Settees*. Chicago, 1873. [AAS]
- A. H. Andrews & Co. *The Evolution of the Chair*. Chicago, 1895. [PJC]
- A. T. Andreas. "William A. Amberg." In *History of Chicago Volume 3*, 688-689. Chicago: A. T. Andreas Company, 1886.
- A. W. Shaw Co. *How to Double the Day's Work*. Chicago: A. W. Shaw Company, 1910.
- A. W. Shaw Co. *How to Manage an Office: Making Conditions Right for Fast Work*. Chicago: A. W. Shaw Company, 1914.
- A. W. Shaw Co. *How to Sell Office Appliances and Supplies*. Chicago: A. W. Shaw Company, 1911.
- A. W. Shaw Co. *Office Manual Including Policy Book and Standard Practice Instructions*. (1917).
- A. W. Shaw Co. *Office Methods*. Chicago: A. W. Shaw Company, 1908.
- A. W. Shaw Co. *Personality in Business*. Chicago: A. W. Shaw Company, 1916.
- Alger, Horatio. *Silas Snobden's Office Boy*. Garden City, New York: Doubleday & Company, Inc, 1973.
- Amberg File & Index Co. (Cameron, Amberg & Co.). *Amberg's System of Letter Filing*, Chicago, 1881. [BPL]
- Amberg File & Index Co. *Instructions Vertical Filing The Amberg Way Published for the Benefit of the File Clerk*. Chicago, 1910. [NMAH]
- Amberg File & Index Co. *Vertical Filing Cabinets Guides, Folders, Transfer Cases, etc.* Chicago, 1909. [NMAH]

- Amberg File & Index Co. *Vertical filing Cabinets*, Cat. no. 18. New York, 1912. [UVA]
- Amberg File & Index Co. *Vertical Filing Cabinets*. Chicago, 1906. [NMAH]
- American Desk Manufactory. *American Desk Manufactory* (Broadside). New York, 1885. [NMAH-W]
- American Desk Manufactory. *Illustrated Catalogue of Office and Library Furniture*. New York, 1883. [WML]
- Andrews Manufacturing Company. *Teachers' Desks and Chairs*, Broadside. New York, ca. 1875. [HML]
- Andrews, Charles C. *The History of the New-York African Free-Schools*. New York: Mahlon Day, 1830.
- Arlidge, John Thomas. *The Hygiene, Diseases and Mortality of Occupations*. London: Percival & Co, 1892.
- Art Metal Construction Co. *Steel Cabinets and Furniture*. Jamestown, NY, 1906. [UVA]
- Art Metal Construction Co. *Steel Office Equipment*, Cat. no. 765. Jamestown, NY, 1926. [NMAH]
- Art Metal Construction Co. *Steel Office Furniture and Filing Equipment*, Cat., no. 758. Jamestown, NY, 1916. [NMAH]
- Art Metal Construction Co. *The 1919 Book of Better Business*. Jamestown, NY, 1919. [NMAH-W]
- Asher & Adams. *Asher & Adams' New Columbian Rail Road Atlas and Pictorial Album of American Industry*. New York: Asher & Adams, 1876.
- Ashmore, Ruth. *The Business Girl in Every Phase of Her Life*. Philadelphia: Curtis, 1898.
- Baker, Arthur M. *How to Succeed as a Stenographer or Typewriter*. New York, 1888.
- Barnaby, John. *Standardization of Office Equipment*. New York: American Management Association, 1925.
- Barnard, Henry. *Report and Documents Relating to the Public Schools of Rhode Island for 1848*. Providence, 1848.
- Barr, Robert. "The Typewritten Letter." *McClure's Magazine*, April 1894.
- Beach, E. H. *Tools of Business: An Encyclopaedia of Office Equipment and Labor Saving Devices*. Detroit: The Book-Keeper Publishing Co., Ltd., 1905.
- Bowditch, H. I. "Consumption in America." *Atlantic Monthly*, January 1869.
- Brown's Business College. *The Student Hand Book of Brown's business College, 1903-1904*. Bloomington, IL, 1902, [CHS]
- Church, Ella Rodman. *How to Furnish a Home*. New York: D. Appleton and Company, 1881.

- Clarke, James Freeman. *Self-culture: Physical, Intellectual, Moral and Spiritual*. Boston: Ticknor and Company, 1880.
- Connecticut Fire Insurance Company. *Photo-views of the Connecticut Fire Insurance Company's Home Office*. Hartford: Connecticut Fire Insurance, 1887.
- Daniels, R. A. *Desk System*. Chicago: The McCollum Mfg. Company 1907.
- de Champeaux, Alfred. *Le Meuble II*. Paris: Société Française d'édition d'art, 1885.
- Derby & Kilmer Desk Co. *Fifteenth Illustrated Catalogue and Price List Derby Roll-Top Desk*. Boston, 1891. [NMAH-W]
- Derby & Kilmer Desk Co. *Second Illustrated Catalogue of the Derby Roll-Top Desk*. Boston, 1881. [WML]
- Derby & Kilmer Desk Co. *Tenth Illustrated Catalogue and Price-List of the Derby Roll-Top Desks*. Boston, ca. 1889. [WML]
- Derby Desk Co. *Derby Roll-Top Desks and Fine Office Furniture*, Catalog 18, Boston, 1896. [NMAH]
- Dewey, Melvil. *Library Notes: Improved Methods and Labor-savers for Librarians, Readers and Writers*. Library Bureau, 1887.
- Doten-Dunton Desk Co. *Commercial Furniture*, Cat. no. 215, Boston, ca. 1910. [NMAH]
- Dreiser, Theodore. *Sister Carrie*. New York: Doubleday, Page & Co, 1900.
- E. B. Estes & Sons. *Roll-top Desks*. New York, ca. 1880. [NMAH-W]
- Eastlake, Charles L. *Hints on Household Taste*. London: Longmans, Green, & Co., 1878.
- Eastman National Business College. *Catalogue and Prospectus of the Eastman National Business College*, Poughkeepsie, NY, 1898. [HML]
- Fire-Proof Furniture & Construction Co. *The Security Steel Line*, Cat. no. 92. Syracuse, 1916, [HFM].
- Fortescue, Harritt, & Co. *Illustrated Catalogue of the Most Approved Styles of School, Church, Hall, and Office Furniture*. Philadelphia, 1872. [AAS]
- Fothergill, J. Milner. *The Disease of Sedentary and Advanced Life*. New York: D. Appleton & Co, 1885.
- Galloway, Lee. *Office Management: Its Principles and Practice*. New York: The Ronald Press Company, 1919.
- Gilbreth, Frank B. *Primer of Scientific Management*. New York: D. Van Nostrand Company, 1912.
- Gladwyn, Helen B. "How I became a Confidential Secretary." *Ladies' Home Journal* (September 1916): 32.

- Grand Rapids Furniture Mfg. Co. *Grand Rapids Furniture Mfg. Co.* Grand Rapids, MI, ca. 1900. [MMA]
- Hepplewhite, George. *The Cabinet-Maker & Upholsterers Guide* 3d ed. of 1794. New York: Dover Publications.
- Heywood Bros. & Co. *Chairs, Cane and Wood Seat.* Philadelphia, PA, 1897. [WML]
- Heywood Bros. & Co. *Chairs, Rattan Furniture and Chair Cane.* Gardner, MA, 1878. [WML]
- Hill, George. "Some Practical Limiting Conditions in the Design of the Modern Office Building." *Architectural Record* 2 (July 1892-July 1893): 445-468.
- Hill, George. "The Economy of the Office Building." *Architectural Record* 15 (April 1904): 313-327.
- Howe, G. L., and O. M. Powers. *The Secrets of Success in Business.* Chicago: Metropolitan Publishing Company, 1883.
- Huling, Caroline. A. *Letters of a Business Woman to Her Niece.* New York: R. F. Fenno, ca. 1906.
- J. Brewi & Co. *Designs of Writing Desks, Tables, Bookcases, Secretaries, &c. Manufactured at the Original American Desk Manufactory,* 1871. [NMAH]
- J. T. Hammitt. *Bank, Office and Counting House furniture* (Broadside). Philadelphia, 1856. [PPL]
- Johnson, James Weldon. *The Autobiography of an Ex-Colored Man.* Boston: Sherman, French, and Co., 1912.
- Jones, A. D. *The Illustrated American Biography* 2. New York: J. Milton Emerson & Co, 1854.
- Kipling, Rudyard. *The Complete Works of Rudyard Kipling.* New Delhi, India: General Press, 2017.
- Leffingwell, William H. "Finding the One Right Way." In *Shaw Management Service: Finding the One Right Way in Office Work* 6. Chicago: A. W. Shaw Company, 1917. [NYPL]
- Leffingwell, William H. "The First Half Century of Office Management." In *Proceedings of the 10th Annual Conference National Office Management Association, 1929*, 11. 1930.
- Leffingwell, William H. *Making the Office Pay.* Chicago: A. W. Shaw Company, 1918.
- Leffingwell, William H. *Office Management: Its Principles and Practice.* Chicago: A. W. Shaw Company, 1926.
- Leffingwell, William H. *Office Management: Principles and Practice.* Chicago: A. W. Shaw Company, 1925.

- Leffingwell, William H. *Scientific Office Management*. Chicago, IL: A. W. Shaw Company, 1917.
- Lewis, Sinclair. *The Job an American Novel*. New York: Harper & Brothers, 1917.
- Library Bureau. *Classified Illustrated Catalog of the Library Bureau*. Boston, 1900. [NMAH]
- Library Bureau. *Filing as a Profession for Women*. Boston, 1919. [UCSB]
- Library Bureau. *Furniture, Equipment and Supplies for Public and Private Libraries*. Boston, 1902. [NMAH]
- Library Bureau. *Library Bureau Systems of Vertical Filing with Interchangeable Unit Cabinets*. Boston, 1903. [NMAH]
- Library Bureau. *The New Method for Indexing Cards*. Boston, ca. 1915. [NMAH]
- Library Bureau. *Unit Filing Cabinets in Wood*. Boston, 1914. [NMAH]
- Library Bureau. *Unit Vertical Files*. Boston, 1904. [NMAH]
- Library Bureau. *Unit Vertical Files*. Boston, ca. 1903. [NMAH]
- Library Bureau. *Vertical Filing*. Boston, 1917-18. [NMAH]
- Massachusetts Charitable Mechanic Association. *Report of the Sixteenth Triennial Exhibition*. Boston: Mills, Knight & Co., 1888.
- Massachusetts House of Representatives. *Documents Printed by the Order of the House of Representatives of the Commonwealth of Massachusetts During the Session of the General Court, 1885*. Boston: Wirth & Potter Printing Co., 1885.
- McClees & Warren. *School, Church, Hall and Office Furniture*. Philadelphia, ca. 1879. [HML]
- Melville, Herman. "Bartleby, the Scrivener, Part 1." *Putnam's Magazine*, November, 1853.
- Melville, Herman. "Bartleby, the Scrivener, Part 2." *Putnam's Magazine*, December, 1853.
- Montgomery Ward & Co. *High Grade Furniture*. Chicago, 1902. [NMAH-W]
- Moore Combination Desk Company. Flyer, 1880-1894. [NMAH-W].
- National Office Furniture. *Catalogue of National Office Furniture*. Washington, DC, 1883. [NMAH]
- New York School of Filing. *Fifth Year*. New York, 1918.
- Osgood, Merrill W. "Standardizing Methods of Standardization. *Proceedings of the National Office Management Association*. (1921).
- Parker Brothers. *Office Boy*, Boardgame. Salem, Mass: Parker Bros., ca. 1889.

- Parker Brothers. *Office Boy*, Boardgame. Salem, Mass: Parker Bros., 1893.
- Parker Brothers. *Office Boy*, Boardgame. Salem, Mass: Parker Bros., 1896.
- Parsons, Carl C. *Office Organization and Management*. Chicago: LaSalle Extension University, 1921.
- Perkins, Agnes F. *Vocations for the Trained Woman: Opportunities Other than Teaching*. Boston: Women's Educational and Industrial Union, 1910.
- Poole, Hester. "Dining Room Decorations and Service." *The Decorator and Furnisher* 16, no. 2 (May, 1890): 41-42.
- Reed, F. R. *Experience of a New York Clerk*. New York: F. R. Reed, 1877.
- Robert Paton. *Illustrated Catalogue of School Furniture, Church and Lecture Room Settees, &c., &c.* New York: S. D. Affleck, 1872. [NMAH]
- Schulze, J. William. *The American Office: Its Organization, Management and Records*. New York: The Ronald Press Company, 1914.
- Scott, Walter Dill. *Increasing Human Efficiency in Business*. New York: The Macmillan Company, 1911.
- Sears Roebuck & Co. *Catalogue, 1902*. Chicago, 1902.
- Seward, George Harvey. *Shall Filing be Taught in the Business School?* A paper before the private commercial school managers' association, Boston Meeting, 1903.
- Shaw-Walker Co. *Filing Cabinets of Steel and Wood*, no. 522. Muskegon, MI, 1919. [NMAH]
- Shaw-Walker Co. *Filing Cabinets: Steel and Wood*. Muskegon, MI, 1916. [NMAH]
- Sheraton, Thomas. *The Cabinet-maker and Upholsterer's Drawing-Book*, 1793.
- Simmen, Homan & Sebastian. *Illustrated Catalogue of Office Desks*. Chicago, 1884. [NMAH-W]
- Sorelle, Rupert Pitt. *Office Training for Stenographers*. Boston: Gregg Publishing Company, 1916.
- Spencer, Ellen Lane. *The Efficient Secretary*. New York: Frederick A. Stokes, 1916.
- T. G. Sellew. *Designs of Office Desks and Tables*. New York, 1877. [NYHS]
- T. G. Sellew. *Illustrated Catalogue of Desks, Office and Library Furniture*. New York, ca. 1885. [UVA]
- Taylor, Frederick W. *The Principles of Scientific Management*. New York, NY: Harper, 1911.
- The Fred Macey Co. *Business System: Card Indexes and Filing Cabinets*. Grand Rapids, MI, 1901. [NMAH]
- The Fred Macey Co. *Christmas Gifts*, Grand Rapids, MI, 1903. [WML]

- The Fred Macey Co. *Christmas Gifts*, Grand Rapids, MI, ca. 1902. [NMAH-W]
- The Fred Macey Co. *Office and Library Furniture*. Grand Rapids, MI, ca. 1904. [NYPL]
- The Fred Macey Co. *The Bookcase for the Home*. ca. 1907. [NMAH]
- The Globe Co. *Catalogue of Business Furniture: Filing Cabinets, Desks, and Office Appliances*. Cincinnati, 1895-1896. [NMAH]
- The Globe Co. *Catalogue of Globe Filing Cabinets and General Business Furniture*. Cincinnati, 1896-1897. [NMAH]
- The Globe Co. *Catalogue of Globe Office Desks, Tables, Chairs, Couches, &c.* Cincinnati, 1897-98. [NMAH]
- The Globe Co. *Catalogue of Office Appliances, Filing Cabinets, Desks, Book Cases, Etc.*, Cincinnati, ca. 1884-1889. [NMAH]
- The Globe-Wernicke Co. *Desks and Tables*, Cat. 525. Cincinnati, 1926. [NMAH]
- The Globe-Wernicke Co. *Filing and Finding Papers by the Globe-Wernicke Safe Guard Method of Vertical Filing*, Cincinnati, 1908-1913. [NMAH]
- The Globe-Wernicke Co. *Filing and Finding Papers*. Cincinnati, 1913. [NMAH]
- The Globe-Wernicke Co. *Filing and Finding*. Cincinnati, 1921 [NMAH]
- The Globe-Wernicke Co. *Filing Cabinets Wood and Steel*, Cincinnati, ca. 1921. [NYHS]
- The Globe-Wernicke Co. *Filing Cabinets*, Cat. 807. Cincinnati, 1907. [NMAH]
- The Globe-Wernicke Co. *Filing Cabinets*, Cat. 808. Cincinnati, 1907. [HFM]
- The Globe-Wernicke Co. *Filing Cabinets*, Cat. 816. Cincinnati, ca. 1917. [NMAH]
- The Globe-Wernicke Co. *Filing Cabinets: Wood and Steel*, Cat., no. 822. Cincinnati, ca. 1920. [NMAH]
- The Globe-Wernicke Co. *Steel Filing Equipment*, Cat. 1430, Cincinnati, 1931. [NMAH].
- The Journeymen Cabinet and Chair-makers Philadelphia Book of Prices*. Philadelphia: Omrod and Conrad, 1795.
- The Macey Co. *First Principles of Filing Systems*. Grand Rapids, MI: The Covell-Hensone Co. Press, 1915.
- The Macey Co. *Sectional Bookcases for the Home*, Cat., no. 1316. Grand Rapids, 1916.
- The New-York Book of Prices for Cabinet and Chair Work*. New York: Southwick and Crooker, 1802.
- Thomas, Alfred A. *National Cash Register Factory*. National Cash Register, 1904.
- Torson, Gladys. "Ask My Secretary.": *The Art of Being a successful Business Girl*. New York: Greenberg, 1940.

- Traili, T. S. "Medical Jurisprudence. in *Encyclopaedia Britannica* 8, no. 14. Boston: Little, Brown, & Co., 1857.
- Tyler Desk Co. *Catalogue of the Tyler Desk Company*. St. Louis, MO, ca. 1887.
- U. S. Desk & Office Fitting Co. *Letter and Document Files*. Chicago, 1892. [CHS]
- Union Desk Co. *Illustrated Catalog Union Desk Company*. Boston, 1887. [UVA]
- Union School Furniture Co. *Principals' and Office Desks, Opera Chairs, Etc.* Battle Creek, MI, ca. 1885. [CHS]
- U. S. Congress, House of Representatives, Select Committee on Reform in the Civil Service. *Hearing on Segregation of Clerks and Employees in the Civils Service*, 63rd Congress, 2nd session, March 6, 1914. Washington: Government Printing Office, 1914.
- Wagemaker, Isaac. *A Comprehensive Text Book on Business and Office Systematizing* 1. Grand Rapids: Isaac Wagemaker, 1907.
- Wigent, W. D., Burton D. Housel, and E. Harry Gilman. *Modern Filing: A Textbook on Office System*. Rochester, NY: Yawman and Erbe Mfg. Co., 1916.
- Woods, Kate Tannatt. *The Duncans on Land and Sea*. New York: Cassell & Company, 1883.
- Wooton Desk Co. *Descriptive Catalogue of Wooton's Patent Cabinet Office Secretary*. Indianapolis, 1875. [NMAH-W]
- Wooton Desk Co. *Illustrated Catalogue of Wooton's Patent Cabinet Secretaries and Rotary Office Desks*. Indianapolis, 1876. [NYPL]
- Yawman & Erbe Mfg. Co. *Efficiency Desks*. Brochure, 1921. [HML]
- Yawman & Erbe Mfg. Co. *Filing Equipment Cat.*, no. 3220. Rochester, 1920. [HML]
- Yawman & Erbe Mfg. Co. *Modern Filing: A Textbook on Office System*. Rochester, 1916.
- Yawman & Erbe Mfg. Co. *Rapid Roller Letter Copier*. Rochester, 1905. [HML]
- Yawman & Erbe Mfg. Co. *Record Filing Cabinets Cat.* 916E. Rochester, NY, 1910. [HML]
- Yawman & Erbe Mfg. Co. *Record Filing Equipment*. Rochester, 1920. [HML]
- Yawman & Erbe Mfg. Co. *Steel Filing Equipment Cat.* no. 3500. Rochester, 1922. [UVA], [HML]
- Yawman & Erbe Mfg. Co. *Suggestions*. Rochester, ca.1898-1902, [NYPL]
- Yawman & Erbe Mfg. Co. *The Executive's Workshop*. Rochester, 1921. [HML]
- Yawman & Erbe Mfg. Co. *Wood Filing Equipment*, Cat. no. 3600, Rochester, 1923. [HML]

Chapter 3 Theaters: Gallery gods and bleacherites

- “An Act to Provide for Stability of Construction.” *The American Architect and Building News* 6, no. 193 (September 6, 1879): 76.
- “M. Éliaers (A. – E.).” In *Rapports Du Jury International, Paris*, 66. Paris: Imprimerie Nationale, 1891.
- “Pews Versus Opera Chairs.” *The Church at Home and Abroad* 18, no. 108 (December 1895): 497-498.
- “Report of the Tremont Theatre Investigating Committee.” *The American Monthly Magazine*. (December 1830): 2.
- A. H. Andrews & Co. *Catalogue of Improved Opera Chairs*, 2nd ed. Chicago, 1886. [NMAH], [MMA]
- Account of the Terrific and Fatal Riot at the New -York Astor Place Opera House*. New York: H. M. Ranney, 1849.
- Agnew, D. Hayes. *Theatrical Amusement*. Philadelphia: Wm. S. Young, 1857.
- American Seating Co. *Opera Chairs*. Chicago, 1907. [CHS]
- American Seating Co. *World Wide Seating Service for Theatres, Chicago*, ca. 1930. [NMAH]
- Beecher, Henry Ward. *Lectures to Young Men, on Various Important Subjects*. Salem: John P. Jewett & Co, 1846.
- Beecher, Lyman. *Autobiography, Correspondence, Etc., of Lyman Beecher*, ed. Charles Beecher. New York: Harper Brothers, 1864.
- Benjamin, Asher. *A Country Builder's Assistant, 1798*. New York: The Architectural Book Publishing Company, 1917 (reprint).
- Birkmire, William H. *The Planning and Construction of American Theaters*. New York: John Wiley & Sons, 1903.
- Black, J. “Younger v. Judah.” Missouri Supreme Court, 1892.
- Bowler, George. *Chapel and Church Architecture with Designs for Parsonages*. Boston: Jewett, 1856.
- Bugbee, James M. “Boston under the Mayors.” In *The Memorial History of Boston* 3, Justin Windsor, ed. 217-292. Boston: Ticknor and Company, 1881.
- Cannon, Lucius H. *Motion Pictures: Laws, Ordinances and Regulation*. St. Louis Public Library, 1920.
- Chester, Arthur H. *Trinity Church in the City of Boston: An Historical and Descriptive Account with a Guide to Its Windows and Paintings*. Cambridge, MA: John Wilson and Son, 1888.

- Clarke, James Freeman. *Self-culture: Physical, Intellectual, Moral and Spiritual*. Boston: Ticknor and Company, 1880.
- Crawford, Mary. *Romantic Days in Old Boston*. Boston, Little, Brown, and Company, 1910.
- Dunlap, William. *A History of the American Theatre*. New York: J. & J. Harper, 1832.
- Eaton, Walter Prichard. "Class-consciousness and the 'Movies'." *The Atlantic Monthly*, January 1915.
- Fowler, O. S. *Self-culture and Perfection of Character including the Management of Youth*. New York: Fowlers and Wells, 1847.
- Frost, S. A. *The Art of Dressing Well*. New York: Dick & Fitzgerald, Publishers, 1870.
- Gardner & Co. *Perforated Veneer Seats, Charis, Settees Etc. Etc.* New York, 1884.
[WML]
- Graham, Sylvester. *A Lecture to Young Men, on Chastity*. Boston: George W. Light, 1838.
- Grau, Robert. *The Stage in the Twentieth Century* 3. New York: Broadway Publishing Co., 1912.
- Grund, Frances J. *Aristocracy in America* 1. London: Richard Bentley, 1839.
- Hamilton, J. W. *The People's Church Pulpit*. Boston: The People's Church, 1885.
- Hanson, Jr., Willis T. *The Early Life of John Howard Payne*. Boston, 1913.
- Hapgood, Norman. "The Upbuilding of the Theatre." *The Atlantic Monthly*, April 1899.
- Harwood Chair Seat Co. *Catalogue of Assembly Chairs and Settees*. Boston, 1883.
[HFM]
- Hawes, Joel. *Lectures Addressed to The Young Men of Hartford and New Haven*. Hartford: Oliver D. Cooke and Co., 1828.
- Headley, J. T. *The Great Riots of New York, 1712 to 1873*. New York: E. B. Treat, 1873.
- Heywood Brothers and Wakefield Co. *Opera Chairs Public Hall Seating*. Boston, ca. 1912. [CHS]
- Heywood-Wakefield Co. *Auditorium Chairs*. Chicago, Chicago, ca. 1937. [NMAH]
- Heywood-Wakefield Co. *Theatre and Assembly Chairs, Public Hall Seating*. Chicago, ca. 1921. [UVA]
- Irving, Washington. *Letters of Jonathan Oldstyle*, London: Effingham Wilson, 1824.
- Izenour, George C., Vern O. Knudsen, and Robert B. Newman. *Theater design*. New York: McGraw-Hill, 1977.

- Jeffery, Jno B. *Guide and Directory to the Opera Houses, Theatres, Public Halls*, 5th ed. Chicago, 1882.
- Jobson, F. J. *Chapel & School Architecture*. London: Hamilton, Adams & Co, 1851.
- Johonnot, James. *School-Houses*. New Yorker: J. W. Schermerhorn, 1871.
- Keith, B. F. *B. F. Keith's New Theatre Boston, Mass.* Boston: George H. Walker & Co, 1894.
- Kidder, Frank E. *Churches and Chapels: Their Arrangements, Construction and Equipment*. New York: W. T. Comstock, 1900.
- Kidder, Frank E. *Churches and Chapels: Their Arrangements, Construction and Equipment*. New York: W. T. Comstock, 1910.
- Leathes, Edmund. *An Actor Abroad*. London: Hurst and Blackett, 1880.
- Lorimer, George C. *Tremont Temple Sketch Book*. Boston: St. Botolph Press, 1896.
- Meloy, Arthur S. *Theatres and Motion Picture Houses*. New York: Architects' Supply & Publishing Company, 1916.
- Morford, Henry. *Rhymes of Twenty Years*. New York: H. Dexter & Co, 1859.
- Motherwell, Hiram. *The Theatre of To-day*. New York: John Lane Company, 1914.
- New York magazine; or Literary Repository* 5, no. 4 (April 1794). [HUTC]
- Norworth, Jack and Albert Von Tilzer. *Take Me Out to the Ball Game*. New York: The New York Music Co., 1908.
- Odell, George C. D. *Annals of the New York Stage* 5, 1843-1850. New York: Columbia University Press, 1931.
- Particular Account of the Dreadful Fire at Richmond, which Destroyed the Theatre*. Baltimore, J. Kingston, 1812.
- Power, Tyrone. *Impressions of America*. Philadelphia: Carey, Lea & Blanchard, 1836.
- Reed, Raymond S. "The Rise of the Movie Seat." *Cavalcade*. New York: The Film Daily, 1939.
- Renton, Edward. *The Vaudeville Theatre: Building Operation Management*. New York: Gotham Press, Inc., 1918.
- Saunders, Johns. *The People's Journal* 1. London: People's Journal Office, 1846.
- Secretary of the Commonwealth. *Ms. Legislative Package of "An Act forbidding unjust discrimination on account of color or race. Chap. 277.* 1865. Massachusetts Archives.
- Secretary of the Commonwealth. *Ms. Legislative Package of "An Act in relation to public places of amusement. Chap. 252.* 1866. Massachusetts Archives,

- Sexton, R. W., and B. F. Betts. *American Theatres of Today*. New York: Architectural Book Publishers, 1927.
- Shinn, Earl. *A Century After: Picturesque Glimpses of Philadelphia*. Philadelphia: Allen, Lane & Scott and J. W. Lauderbach, 1875.
- Spalding, Albert Goodwill. *America's National Game*. New York: American Sports Publishing Company, 1911.
- Spink, Alfred Henry. *The National Game*. St. Louis, MO: National Game Publishing, 1910.
- Sterrett, J. J. "Drew v. Peer." In *Pennsylvania State Reports* 12, 239-242. Philadelphia: Kay & Brother, 1882.
- The Great Industries of the United States*. Harford: J. B. Burr & Hyde, 1872.
- Thomas Kane & Co. *Assembly Chairs*. Chicago, ca. 1887. [HML]
- Tompkins, Eugene. *The History of the Boston Theatre 1854-1901*. Boston: Houghton Mifflin Company, 1908.
- Trollope, Frances. *Domestic Manners of Americans*. New York: Whittaker, Treacher, & Co., 1832.
- Van Vecthen, Carl. *Nigger Heaven*. Chicago: University of Illinois Press, 1926.
- Waters, Ethel, and Charles Samuels. *His Eye Is on the Sparrow: An Autobiography*. Garden City, NY: Doubleday & Company, Inc., 1951.
- Waylen, Edward. *Ecclesiastical Reminiscences of the United States*. New York: Wiley and Putnam, 1846.

Chapter 4 *Trains: Make room for the ladies*

- “American Railway Travelling.” *Putnam’s Magazine*, February 1870.
- “Circuit Court of Shelby Co., Tenn.” *The Chicago Legal News*, January 3, 1885.
- “Massachusetts Rail-road Segregation, Senate no. 63.” In *Documents printed by order of The Senate of Commonwealth of Massachusetts During the Session of the General Court, AD 1842*, 1-12. Boston: Dutton and Wentworth, 1842.
- “Regulations of the Railroads, Cars for Colored People 1881” Ch. 55, Article V, 2363-2365. In *The Code of Tennessee*, 408. Nashville, TN, Marshall & Bryce, 1884.
- “Sleeping-Car Discomforts.” In *Babyhood: The Mother’s Nursery* 5, 53. New York: Babyhood Publishing Company, 1889.
- “The Parting Kiss – A Railway Incident.” In *The Railway Anecdote Book*, 187. New York: D. Appleton & Co, 1876.
- “William H. Heard V. The Georgia R. R. Co.” In *Interstate Commerce Commission Reports: Reports and Decisions of the Interstate Commerce Commission* 1, 111-127.” New York: L. K. Strouse & Co, 1888.
- Abbot, Waldo. *Our Sunday School*. Boston: Henry Hoyt, 1863.
- Appleton’s Illustrated Railway and Steam Navigation Guide*. New York: D. Appleton & Co, 1865.
- Bates, Katherine E. *A Year in the Great Republic* 2. London: Ward & Downey, 1887.
- Beecher, Catherine, and Harriet Beecher Stowe. *The American Woman's Home, Or, Principles of Domestic Science*. New York, 1869.
- Berry, C. B. *The Other Side: How It Struck Us*. New York: E. P. Dutton & Co, 1880.
- Bird, Isabella Lucy. *The Englishwoman in America*. London: John Murray, 1856.
- Breck, Samuel. *Recollections of Samuel Breck*, ed. H. E. Scudder. Philadelphia: Porter & Coates, 1877.
- Cases Determined in the St. Louis and the Kansas City Courts of Appeals* 26. Columbia, MO: E. W. Stephens, 1887.
- Central Railroad. *New York and Washington Blue Line*. New York, 1892.
- Chapple, Joe. “Types of Railroad Travellers.” *The National Magazine* 7, no. 6. March 1898.
- Chesnutt, Charles. *The Marrow of Tradition*. New York: Houghton, Mifflin and Company, 1901.
- Circuit Court of Shelby County. *Chesapeake, Ohio & S. W. Railroad vs. Ida Wells*, James O. Pierce, Judge. March 31, 1885.

- Collins, Joseph, and Carlin Phillips. "The Etiology and treatment of Neurasthenia." *Medical Record* 55, no. 12 (March 25, 1899): 413-422.
- Conover, O. M. *Reports of Cases Argued and Determined in the Supreme Court of the State of Wisconsin* 36. Chicago, IL: Callaghan & Company, 1875.
- Cooley, Thomas, ed. *The American Railway: Its Construction, Development, Management, and Appliances*, New York: Charles Scribner's Sons, 1892.
- Daniels, George H. *Health and Pleasure on "America's Greatest Railroad": Descriptive of Summer Resorts And Excursion Routes*. New York: American Bank Note Co., 1895.
- Dickens, Charles. *American Notes*. London: Chapman and Hall, 1842.
- Douglas, Frederick. *The Life and Times of Frederick Douglass*. Boston: De Wolfe & Fiske Co., 1892.
- Dubois, W. E. B. "The Superior Race." *The Smart Set* LXX, no. 4 (April 1923): 55-60.
- Eastlake, Charles Locke. *Hints on Household Taste in Furniture, Upholstery and Other Details*. London: Longmans & Co, 1868.
- Erie Railroad Co. *Report of the Directors of the New York and Erie Railroad Company, February 15, 1851*. New York: Snowden, 1851.
- Field, Kate. *Hap-Hazard*. Boston: James R. Osgood and Company, 1873.
- Forney, Matthias. *The Car-BUILDER's Dictionary*. New York: The Railroad Gazette, 1879.
- Forney, Matthias. *The Car-BUILDER's Dictionary*. New York: The Railroad Gazette, 1888.
- Frost, S. A. *Frost's Laws and By-Laws of American Society*. New York: Dick & Fitzgerald, 1869.
- G. W. Pickle. "Reports of Cases Argued and Determine in the Supreme Court of Tennessee 1." Nashville, TN: Marshall & Bruce, 1887.
- Galton, Douglas. *Report on the Railways of the United States*. London, 1857.
- George, Charles. *Forty Years on the Rail*. Chicago: R. R. Donnelley & Sons, 1887.
- Goodkind, Ben. *Roughing It from California Through France*. A. J. Johnston & Co, 1886.
- Greeley, Horace. *The Great Industries of the United States*. Hartford: The J. B. Burr Publishing Co., 1874.
- H. H. Nelly's *Silver Mine: A Story of Colorado Life*. Boston: Roberts Brothers, 1888.
- Hall, Capt. Basil. *Forty Etchings, From Sketches Made with the Camera Lucida*. London: Simpkin & Marshall, and Moon, Boys & Graves, 1829.
- Hardman, William. *A Trip to America*. London: T. Vickers Wood, 1884.

- Harlan & Hollingsworth. *1836 Semi-Centennial Memoir of the Harlan & Hollingsworth Company*. Wilmington, DE: Harlan & Hollingsworth, 1886.
- Hart, Alfred A. *The Traveler's Own Book*. Horton & Leonard, 1870.
- Hartley, Florence. *The Ladies' Book of Etiquette*. Boston: G. W. Cottrell, 1860.
- Harwood, W. S. "Secret Societies in America." *North American Review* 164 (May 1897): 623.
- Hoffman, Arthur. "The Tzar of the Sleeping Car." *The Chautauquan*. (June 1904): 361-364.
- Husband, Joseph. *The Story of the Pullman Car*. Chicago: A. C. McClurg & Co, 1917.
- Industrial Relations: Final Report and Testimony Submitted to Congress by the Commission on Industrial Relations*. Washington: D.C. Gov. Print. Office, 1916.
- Kemble, Frances. *Records of Later Life* 1. London: Richard Bentley and Son, 1882.
- Lake Shore & Michigan Southern Railway. *Lake Chautauqua*. 1898.
- Leslie, Eliza. *Miss Leslie's Behaviour Book: A Guide and Manual for Ladies*. Philadelphia: T. B. Peterson and Brothers, 1839.
- Macaulay, James. *Across the Ferry: First Impressions of American and its People*. London: Hodder and Stoughton, 1871.
- Mackay, Alexander. "Snowbound." *The Western World; or, Travels in the United States in 1847*. London: Lea & Blanchard, 1849.
- Mackay, Charles. *Life and Liberty in America*. New York: Harper & Brothers, 1859.
- Mann Boudoir Car Co. *Cupid on the Rails or Romance of a Mann Boudoir Car*. New York, 1886-1887. [UVA]
- Manufactories and Manufacturers of Pennsylvania of the Nineteenth Century*. Philadelphia: Galaxy Publishing Company, 1875.
- McWatt, Arthur C. "A Greater Victory." *Minnesota History* (Spring 1997): 205.
- Minter, Patricia. "The Failure of Freedom: Class, Gender, and the Evolution of Segregated Transit Law in the Nineteenth-Century South - Freedom: Personal Liberty and Private Law." *Chicago-Kent Law Review* 70, no. 3 (April 1995): 993-1009.
- Mortimer, James. "From London to Chicago." *Strand Magazine* 6 (1893).
- New York State Legislature. "Chapter 218, Section 7, April 13, 1853, Henry Davies," In *A Compilation of the Laws of the State of New York*. New York, 1110. 1855.
- Newton, J. H. G. G. Nichols, and A. G. Sprankle. *History of the Pan-Handle*. Wheeling, WV: J. A. Caldwell, 1879.
- Nordhoff, Charles. "California." *Harper's New Monthly Magazine*, May 1872.

- Peck v. N. Y. C. & H. R. R. R. Co., 70 N. Y., 587 (Decided October 2, 1877). *New York Supreme Court Reports, January to June 1875* 6. Albany, NY: John D. Parsons Jr, 1875.
- Pennsylvania Railroad Co. *Summer Excursion Routes, 1878*. Philadelphia, 1878.
- Pennsylvania Railroad Co. *Summer Excursion Routes, 1884*. Philadelphia, 1884.
- Pennsylvania Railroad Co. *Summer Excursion Routes, 1891*. Philadelphia, 1891.
- Philputt, A. B. *American Etiquette and Rules of Politeness*. Indianapolis, IN: A. E. Davis, 1882.
- Porter, Horace. "Railway Passenger Travel." In *The American Railway: Its Construction, Development, Management, and Appliances*, ed. Thomas M. Cooley, 228-266. New York: Charles Scribner's Sons, 1892.
- Pullman and Pullman's Palace Car Co. Versus The New York Central Sleeping Car Company and Webster Wagner*, United States Circuit Court, Northern District of Illinois. 1881.
- Pullman Co. *Car Service Rules of the Operating Department of Pullman's Palace Car Company*. Chicago, IL: W. H. Pottinger, 1893.
- Rae, W. F. *Westward by Rail: A Journey to San Francisco and Back*. Leipzig: Bernhard Tauchnitz, 1874.
- Root, Frank, and William Connelley. *The Overland Stage to California*. Topeka, KS: Crane & Co., 1901.
- Ross Winans Vs. The Eastern Railroad*, Boston, October 1853
- Ruggles, David. "A Trip to the east—Defrauded on the Steamboat *Rhode Island* – And Lynched on the Stonington Rail Road." reprinted in *The Colored American*, August 25, 1838.
- Sanborn, E. W. "In the Pullman Car." *New England Magazine*, June 1895).
- Stevenson, Robert Louis. *Across the Plains: With Other Memories and Essays*. Leipzig: Bernhard Tauchnitz, 1892.
- Supreme Court of South Carolina. *Smith et Al. v. Chamberlain*. March 29, 1893.
- Taylor, Benjamin F. *The World on Wheels and Other Sketches*. Chicago: S. C. Griggs & Co, 1874.
- Terrell, Mary Eliza Church. "Betsy's Borrowed Baby." *Unpublished Papers of Mary Church Terrell*. Alexandria, VA: Alexander Street Press, 2004.
- The Great Industries of the United States*. Harford: J. B. Burr & Hyde, 1872.
- Twain, Mark, and Charles Dudley Warner. *The Gilded Age: A Tale of To-Day*. Hartford: American Publishing Company, 1874.

- U.S. Industrial Commission. *Reports on Trusts and Industrial Combinations*. Washington, D.C., 1900.
- Union Pacific Railroad Co. *Diagrams Chicago Theaters, 1900*. Chicago: Union Pacific Passenger Dept, 1900. [CHS]
- United States Circuit Court, Northern District of Illinois. *George M. Pullman and Pullman's Palace Car Co. Versus The New York Central Sleeping Car Company and Webster Wagner*. 1881.
- Veblen, Thorstein. *The Theory of the Leisure Class*. New York: Oxford University Press, 2007.
- Vincent, Mrs. Howard. *Forty Thousand Miles over Land and Water*. London: Sampson Low, Marston, Searle & Rivington, 1886.
- Von Gerstner, Franz Anton Ritter. *Die inner Communicationen der Vereinigten Staaten von Nordamerika 2* [The Inner Communications of the United States]. Vienna: L. Forster's artistische Anstalt, 1843.
- Von Gerstner, Franz Anton Ritter. *Early American Railroads: Franz Anton Ritter Von Gerstner*, Frederic C. Gamst, trans. David J. Diephouse and ed. John C. Decker. Stanford, CA: Stanford University Press, 1997.
- Waite, John C. *The Car Builder's Dictionary*. New York: The Railroad Gazette, 1895.
- Walters, John. "Passenger-Car Construction." *The Railroad Man's Magazine*, October 1910.
- Week, Thurlow. *A Chapter from the Autobiography of Mr. Thurlow Weed*. Albany, NY: Charles Van Benthuysen & Sons, 1870.
- Wells, Ida B., and Miriam DeCosta-Willis. *Memphis Diary of Ida B. Wells*. Boston: Beacon Press, 1995.
- Wells, Ida. "Southern Horrors: Lynch Law in All Its Phases." In *Southern Horrors and Other Writings* 2nd ed., ed. Jacqueline Jones Royster, 46-68. Boston: Bedford/ St. Martins, 2016.
- Williams, Henry T. *The Pacific Tourist*. New York: Henry T. Williams, 1876.
- Wood, J. R. *Florida*. Pennsylvania Railroad, 1892.
- Yelverton, Thérèse *Teresina in America 2*. London: Richard Bentley and Son, 1875.

Periodicals

American Annals of Education

American Cabinet Maker and Upholsterer

The American Journal of Education

The American Railroad Journal
The American Stationer
Boston Recorder
The Brickbuilder
The Business Woman's Journal
Business: A Practical Journal of the Office
The Common School Journal
Connecticut Common School Journal
The Crisis
The Decorator and Furnisher
The Efficiency Magazine
Filing: A Magazine on Indexing and Filing
The Furniture Gazette
The Furniture Record
The Furniture Trade Review and Interior Decorator
The Grand Rapids Furniture Record
Heating and Ventilation
Journal of the Rhode Island Institute of Instruction
The Liberator
The Massachusetts Teacher
Motion Picture World
The National Stenographer
The New England Magazine
The Office
Office Appliances
The Office Economist
The Office Journal
Penman's Art Journal
Pennsylvania School Journal
The Philadelphia Stenographer
Practical Educator and Journal of Health

Railroad Gazette

Railway World

Remington Notes

The American School Board Journal

The School Journal

System: The Magazine of Business

Theatre Magazine

The Typewriter and Phonographic World [The Phonographic World]

Objects and Interiors

Putterham School, Brookline, MA

Eastham Historic Society Schoolhouse Museum, Eastham, MA

Grand Rapids Public Museum

Maine Narrow Gauge Museum

Scranton Trolley Museum

Seashore Railway Museum

Winterthur Library and Museum

Manuscript Collections

Theaters

Boston Athenaeum

Hollis Street Theatre, Programs 1886-1933.

Howard Athenaeum, Programs 1847-1892.

Miscellaneous Theatre Programs, Boston.

Tremont Theatre, Programs, 1863-1903.

Boston Public Library

Boston Colonial Theatre Collection.

Boston Hollis Street Theatre Collection.

Boston Theatre and Opera House (Washington Street)

Federal Street Theatre Collection.

Bostonian Society

Architectural Drawings, Boston Theatre.

Harvard University

Harvard Theatre Collection, Prints (Visual Works) of Theaters in the United States

Winterthur Museum & Library

Grossman Collection

Joseph Downs Collection

Theater scrapbooks and programs, 1863-1957, Col. 894.

Furniture Makers*Massachusetts Historical Society*

Massachusetts Charitable Mechanics Association, Scrapbook

Nickerson Library (Barnstable, MA)

Stephen Smith Papers,

Sturgis Library (Barnstable, MA)

Stephen Smith Papers,

University of Michigan

Stephen Smith Papers, Clement Library

Winterthur Museum & Library

Joseph Downs Collection

Trade Literature Collections Consulted

American Antiquarian Society

Boston Public Library

Chicago History Museum

Grand Rapids Public Library

Grand Rapids Public Museum

Levi Heywood Library, Gardner, MA

Hagley Museum & Library

Henry Ford Museum

Herkimer Historical Society

Massachusetts Historical Society

Metropolitan Museum of Art

New-York Historical Society

New York Public Library

Smithsonian National Museum American History Warshaw Collection

Smithsonian National Museum of American History Library

University of California, Santa Barbara

University of Virginia

Winterthur Museum & Library

Secondary Sources (all chapters)

- Alexander, Charles C. *Our Game: An American Baseball History*. New York: Henry Holt, 1991.
- Ames, Kenneth L. *Death in the Dining Room and Other Tales of Victorian Culture*. Philadelphia: Temple University Press, 1992.
- Ames, Kenneth. "Meaning in Artifacts: Hall Furnishings in Victorian America." *The Journal of Interdisciplinary History* 9, no. 1 (Summer, 1978): 19-46.
- Anderson, James D. *The Education of Blacks in the South, 1860-1935*. Chapel Hill: The University of North Carolina Press, 1988.
- Andrzejewski, Anna Vemer. *Building Power: Architecture and Surveillance in Victorian America*. Knoxville: University of Tennessee Press, 2008.
- Anzaldúa, Gloria. *Borderland / La Frontera: The New Mestiza*. San Francisco, CA: Aunt Lute Books, 1987.
- Archdeacon, Thomas. *Becoming American: An Ethnic History*. New York: Free Press, 1938.
- Archer, Richard. *Jim Crow North: The Struggle for Equal Rights in Antebellum New England*. New York: Oxford University Press, 2017.
- Arjun Appadurai, ed. *The Social Life of Things: Commodities in Cultural Perspective*. New York: Cambridge University Press, 1986.
- Arnesen, Eric. *Brotherhoods of Color: Black Railroad Workers and the Struggle for Equality*. Cambridge, MA: Harvard University Press, 2002.
- Augst, Thomas. *The Clerk's Tale: Young Men and Moral Life in Nineteenth-Century America*. Chicago: The University of Chicago Press, 2003.
- Ayers, Edward L. *Southern Crossing a History of the American South, 1877-1906*. New York: Oxford University Press, 1996.
- Bailey, Beth. *From Front Porch to Back Seat: Courtship in Twentieth-Century America*. Baltimore: Johns Hopkins University Press, 1988.
- Barth, Gunther Paul. *City People: The Rise of Modern City Culture in Nineteenth-Century America*. New York: Oxford University Press, 1980.
- Batson, Trenton W. "The Troy Car Works: A History of Eaton and Gilbert." *The Railway and Locomotive Historical Society Bulletin*, no. 123 (October 1970): 5-22.

- Bay, Mia. "From the 'Ladies' Car' to the 'Colored Car.'" In *The Folly of Jim Crow: Rethinking the Segregated South*, edited by Stephanie Cole and Natalie Ring, 150-175. Arlington, TX: Texas A&M University Press, 2012.
- Beckert, Sven. *The Monied Metropolis: New York City and the Consolidation of the American Bourgeoisie, 1850–1896*. New York: Cambridge University Press, 2001.
- Beebe, Lucian. *Mr. Pullman's Elegant Palace Car*. New York, NY: Doubleday & Company, 1961.
- Bell, Marion L. "Religious Revivalism in Philadelphia: From Finney to Moody." PhD diss., Temple University, 1974.
- Belobaba, Peter. "Fundamentals of Pricing and Revenue Management." In *The Global Airline Industry*, edited by Peter Belobaba, Amedeo Odoni, and Cynthia Barnhart, 73-111. Chichester, UK: John Wiley & Sons, Ltd., 2009.
- Benes, Peter. *Meetinghouses of Early New England*. Amherst: University of Massachusetts Press, 2012.
- Benson, Michael. *Ballparks of North America: A Comprehensive Historical Reference to Baseball Grounds, Yards, and Stadiums, 1845 to Present*. Jefferson, NC: McFarland & Company, Inc., 1989.
- Benson, Susan Porter. *Counter Cultures: Saleswomen, Managers, and Customers in American Department Stores, 1890-1940*. Chicago: University of Illinois Press, 1988.
- Berebitsky, Julie. *Sex and the Office: A History of Gender, Power, and Desire. Society and the Sexes in the Modern World*. New Haven: Yale University Press, 2012.
- Berger, Morris. "The Settlement, the Immigrant and the Public School." PhD diss., Columbia University. 1956.
- Betty Lawson Walters. "The King of Desks: Wooton's Patent Secretary" In *Smithsonian Studies in History and Technology*, no. 3, 1-31. Washington, DC: Smithsonian Institution Press, 1969.
- Bianculli, Anthony. *Trains and Technology: The American Railroad in the Nineteenth Century 2*. Newark, DE: University of Delaware Press, 2002.
- Bijker, Wiebe, Thomas Hughes, and Trevor Pinch, eds. *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology*. Cambridge, MA: The MIT Press, 2012.

- Bittlingmayer, George. "Did Antitrust Policy Cause the Great Merger Wave?" *The Journal of Law & Economics* 28, no. 1 (1985): 77-118.
- Bjelopera, Jerome P. *City of Clerks Office and Sales Workers in Philadelphia, 1870-1920*. Urbana: University of Illinois Press, 2005.
- Blackmar, Elizabeth. *Manhattan for Rent: 1785-1850*. Ithaca, NY: Cornell University Press, 1991.
- Blumin, Stuart M. *The Emergence of the Middle Class: Social Experience in the American City, 1760-1900*. New York: Cambridge University Press, 1989.
- Boaz, Franz. *Primitive Art*. New York: Dover, 1955.
- Bourdieu, Pierre. *Distinction: A Social Critique of the Judgment of Taste*. New York: Routledge, 2010.
- Bowser, Eileen, and Charles Harpole. *History of the American Cinema 2*. Detroit: Charles Scribner's Sons, 1990.
- Bowser, Eileen. *The Transformation of Cinema, 1907-1915*. Detroit: Charles Scribner's Sons, 1991.
- Bradlee, Francis. *The Eastern Railroad: A Historical Account of Early Railroading in Eastern New England*. Salem, MA: Essex Institute, 1917.
- Braverman, Harry. *Labor and Monopoly Capital: The Degradation of Work in the Twentieth Century*. New York: Monthly Review Press, 1974.
- Briggs, L. "The Race of Hysteria: 'Overcivilization' and the 'Savage' Woman in Late Nineteenth-Century Obstetrics and Gynecology." *American Quarterly* 52, no. 2 (2000): 246-73.
- Brody, David. *Housekeeping by Design*. Chicago: University of Chicago Press, 2016.
- Brooklyn Museum. *The American Renaissance, 1876-1917*. Brooklyn: Brooklyn Museum, 1979.
- Brown, Adrienne. *The Black Skyscraper: Architecture and the Perception of Race*. Baltimore: Johns Hopkins University Press, 2017.
- Brubaker, Rogers, and Frederick Cooper. "Beyond 'Identity'." *Theory and Society* 29, no. 1 (2000): 1-47.
- Bruchey, Stuart Weems, and Robert Oliver. *Merchant of Baltimore, 1783-1819*. Baltimore: Johns Hopkins, 1956.

- Buckley, Peter George. "To the Opera House: Culture and Society in New York City, 1820-1860." PhD diss., State University of New York, 1984.
- Butler, Elizabeth Beardsley. *Women and the Trades: Pittsburgh, 1907-1908*. New York: Charities Publication, 1909.
- Butsch, Richard. "Bowery B'hoys and Matinee Ladies: The Re-Gendering of Nineteenth-Century American Theater Audiences." *American Quarterly* 46, no. 3 (September 1994): 381.
- Butsch, Richard. ed. *For Fun and Profit: The Transformation of Leisure into Consumption*. Philadelphia: Temple University Press, 1990.
- Butsch, Richard. *The Citizen Audience: Crowds, Publics and Individuals*. New York: Routledge, 2008.
- Butsch, Richard. *The Making of American Audiences from Stage to Television, 1750-1990*. New York: Cambridge University Press, 2000.
- Calkins, Earnest Elmo. "What Consumer Engineering Really Is." In *Consumer Engineering; A New Technique for Prosperity*, edited by Roy Sheldon and Egmont Arens, 1-14. New York: Harper and Bros, 1932.
- Carita Constable Huang. "Making Children Normal: Standardizing Children in the United States, 1885-1930." PhD diss., University of Pennsylvania, 2004.
- Carlino, Philip. "Enduring Furniture at an Affordable Price." Master's thesis, Cooper Hewitt Museum, 2012.
- Carlino, PJ. "The Art and Science of Examination Furniture." *Modern American History* 2, no. 2 (2019): 237-47.
- Casway, Jerrold. *The Culture and Ethnicity of Nineteenth Century Baseball*. Jefferson, NC: McFarland & Company, Inc., 2017.
- Çevik, Gülen. "American Style or Turkish Chair: The Triumph of Bodily Comfort." *Journal of Design History* 23, no. 4 (2010): 367-385.
- Chandler Jr., Alfred D. *The Visible Hand: The Managerial Revolution in American Business*. Cambridge, MA: Harvard University Press, 1977.
- Clark, Clifford E. "Domestic Architecture as an Index to Social History: The Romantic Revival and the Cult of Domesticity in America, 1840-1870." *The Journal of Interdisciplinary History* 7, no. 1 (1976): 33-56.
- Clark, Kathleen Ann. *Defining Moments: Black Commemoration & Political Culture in the South, 1863-1913*. Chapel Hill: University of North Carolina Press, 2005.

- Cohen, Lizabeth. *Making a New Deal: Industrial Workers in Chicago, 1919-1939* 2 Edition. New York: Cambridge University Press, 2008.
- Cole Jr., Charles C. "The Free Church Movement in New York City." *New York History* 34, no. 3 (July 1953): 284-297.
- Condee, William Faricy. *Coal and Culture: Opera Houses in Appalachia*. Ohio University Press, 2005.
- Condit, Carl. W. *The Railroad and the City: A Technological and Urbanistic History of Cincinnati*. Columbus, OH: Ohio State University Press, 1977.
- Cott, Nancy F. "Passionlessness: An Interpretation of Victorian Sexual Ideology, 1790-1850." *Signs* 4, no. 2 (1978): 219-36.
- Cott, Nancy. *The Bonds of Womanhood: "Woman's sphere" in New England, 1780-1835*. New Haven, CT: Yale University Press, 1977.
- Courtwright, David T. *Violent Land: Single Men and Social Disorder from the Frontier to the Inner City*. Cambridge: Harvard University Press, 1996.
- Cowan, Ruth Schwartz. *More Work for Mother: The Ironies of Household Technology from the Open Hearth to the Microwave*. New York: Basic Books, 1983.
- Crane, Diana. *Fashion and Its Social Agendas: Class, Gender, and Identity in Clothing*. Chicago: University of Chicago Press, 2000.
- Crowley, John E. "The Sensibility of Comfort." *The American Historical Review* 104, no. 3 (Jun. 1999): 749-782.
- Cuban, Larry. *How Teachers Taught: Constancy and Change in American Classrooms 1890-1990* 2 edition. New York: Teachers College Press, 1993.
- Current, Richard N. *The Typewriter and the Men Who Made It*. Urbana, 1954.
- Darling, Sharon. *Chicago furniture: Art, Craft, & Industry, 1833-1983*. New York: W. W. Norton & Co., 1984.
- David M. Katzman, *Before the Ghetto: Black Detroit in the Nineteenth Century* (Chicago: University of Illinois Press, 1973).
- Davidson, Cathy N., and Jessamyn Hatcher, eds. *No More Separate Spheres*. Durham, NC: Duke University Press, 2002.
- Davies, Andrea, and Brenda D Frink. "The Origins of the Ideal Worker: The Separation of Work and Home in the United States from the Market Revolution to 1950." *Work and Occupations* 41, no. 1 (2014): 18-39.

- Davies, Margery. *Woman's Place is at the Typewriter: Office Work and Office Workers, 1870-1930*. Philadelphia: Temple University Press, 1982.
- de Swaan, Abram. *In Care of the State: Health Care, Education, and Welfare in Europe and the USA in the Modern Era*. New York: Oxford University Press, 1988.
- Deetz, James. *In Small Things Forgotten: The Archaeology of Early American Life*. Garden City, NY: Anchor Books, 1977., 30-31.
- Deloria, Philip, and Alexander I. Olson. *American Studies: A User's Guide*. Berkeley: University of California Press, 2017.
- Denker, Ellen, and Bert Denker. *The Rocking Chair Book*. New York: Mayflower Books, 1979.
- Deutsch, Sarah. *Women and the City: Gender, Space, and Power in Boston, 1870-1940*. New York: Oxford University Press, 2000.
- Dewey, Donald. *The 10th Man: The Fan in Baseball History*. New York: Carroll & Graf Publishers, 2004.
- Dickinson, Joan Younger. *The Role of Immigrant Women in the U. S. Labor Force, 1890-1910*. New York: Arno Press, 1980.
- Dormer, Peter. *The Meanings of Modern Design: Towards the Twenty-first Century*. New York, NY: Thames and Hudson, 1990.
- Douglas, Davison M. *Jim Crow Moves North: The Battle over Northern School Segregation, 1865-1954*. New York: Cambridge University Press, 2005).
- Du Bois, W. E. B. "The Superior Race." *The Smart Set* LXX, no. 4 (April 1923): 55-60.
- Du Bois, W. E. B., Elijah Anderson, and Isabel Eaton. *The Philadelphia Negro a Social Study*. Philadelphia: University of Pennsylvania Press, 1996.
- Dublin, Louis I. *A Family of Thirty Million: The Story of the Metropolitan Life Insurance Company*. New York: Metropolitan Life Insurance Company, 1943.
- Dyer, Richard. *White: Essays on Race and Culture*. New York, NY: Routledge, 1997.
- Edwards, Alba M. *Population: Comparative Occupation Statistics for the United States, 1870 to 1940* Part 2. Washington: Government Printing Office, 1943.
- Edwards, Clive. *Victorian Furniture*. New York: Manchester University Press, 1993.
- Enders, Eric. *Ballparks Then & Now*. San Diego: Thunder Bay Press, 2015.

- Ensign, Forest Chester. "Compulsory School Attendance and Child Labor." PhD diss., Columbia University, 1921.
- Erenberg, Lewis A. *Steppin' Out: New York Nightlife and the Transformation of American Culture, 1890-1930*. Westport, CT: Greenwood Press, 1981.
- Erickson, Ethel. "The Employment of Women in Offices." *Women's Bureau bulletin* 120 (1934).
- Erkkila, Catherine Boland. "American Railways and the Cultural Landscape of Immigration." *Buildings & Landscapes* 22, no. 1 (2015): 36-62.
- Evans, Nancy Goayne. *American Windsor Furniture: Specialized Forms*. New York: Hudson Hills Press, 1997.
- Evans, Nancy Goayne. *Windsor Chair Making in America: From Craft Shop to Consumer*. Lebanon, NH: University Press of New England, 2006.
- Fairbanks, Jonathan L., and Elizabeth Bidwell Bates. *American Furniture, 1620 to the Present*. New York: Richard Marek Publishers, 1981.
- Fallan, Kjetil, *Design History Understanding Theory and Method*. Oxford: Berg Publishers, 2010.
- Feimster, Crystal N. *Southern Horrors: Women and the Politics of Rape and Lynching*. Cambridge, MA: Harvard University Press, 2009.
- Filene, Peter G. *Him/Her/Self: Gender Identities in Modern America*, 3rd ed. Baltimore, MD: The Johns Hopkins University Press, 1998.
- Filene, Peter G. *Meanings for Manhood, Him, Her, Self: Gender Identities in Modern America*. Baltimore: The Johns Hopkins University Press, 1998.
- Fishlow, Albert. "Internal Transportation." In *American Economic Growth: An Economist's History of the United States*, edited by Lance E. Davis, Richard A. Easterlin, and William N. Parker, 468-547. New York: Harper & Row, 1972.
- Fleming, E. McClung. "Artifact Study: A Proposed Model." *Winterthur Portfolio* 9 (1974): 153-73.
- Forty, Adrian. *Objects of Desire: Design and Society Since 1750*. New York: Pantheon Books, 1986.
- Foucault, Michel. *Discipline and Punish: The Birth of the Prison*. New York: Vintage Books, 1995.
- Foucault, Michel. *Power: The Essential Works* 3rd ed. James Faubion, trans. Robert Hurle, 201-238. New York: New York Press, 1994.

- Frederick, J. V. *Ben Holladay The Stagecoach King*. Glendale, CA: The Arthur H. Clark Company, 1940.
- Friedman, Walter A. *Birth of a Salesman: The Transformation of Selling in America*. Cambridge: Harvard University Press, 2009.
- Fry, Tony, Clive Dilnot, and Susan C. Stewart. *Design and the Question of History*. London: Bloomsbury Academic, 2015.
- Galishoff, Stuart. "Germs Know No Color Line: Black Health and Public Policy in Atlanta, 1900-1918." *Journal of the History of Medicine and Allied Sciences* 40, no. 1 (1985): 22-41.
- Gannon, William. "Carriage, Coach and Wagon: The Design and Decoration of American Horse-Drawn Vehicles." PhD diss., State University of Iowa, 1960.
- Gappa, Judith & Barbara S. Uehling. *Women in Academe: Steps to Greater Equality*. Washington DC: The American Association for Higher Education, 1979.
- Gayle, Margot, and Carol Gayle. *Cast-iron Architecture in America: The Significance of James Bogardus*. New York: W. W. Norton, 1998.
- Geertz, Clifford. *The Interpretation of Cultures*. New York: Basic Books, 1973.
- Gelber, Steven. "Do-it-yourself: Constructing, Repairing and Maintaining Domestic Masculinity." *American Quarterly* 49, no. 1 (1997): 66-112.
- Giddings, Paula. *A Sword among Lions: Ida B. Wells and the Campaign against Lynching*. New York: Amistad, 2008.
- Giedion, Siegfried. *Mechanization Takes Command a Contribution to Anonymous History*. New York: Oxford University Press, 1948.
- Glaab, Charles Nelson, and A. Theodore Brown. *A History of Urban America*, 3rd ed. New York: Collier Macmillan, 1983.
- Gladys Hasty Caroll. "Schooling in the Early Nineteen Hundreds." *The New England Galaxy* XIV, no. 2 (Fall 1972): 15-23.
- Glasscock, Jessica. "Nineteenth-Century Silhouette and Support. The Metropolitan Museum of Art, https://www.metmuseum.org/toah/hd/19sil/hd_19sil.htm, Accessed 03/16/2019.
- Glassie, Henry. *Pattern in the Material Folk Culture of the Eastern United States*. Philadelphia: University of Pennsylvania Press, 1968.

- Glassie, Henry. "Meaningful Things and Appropriate Myths: The Artifact's Place in American Studies." *Prospects: An Annual Journal of American Cultural Studies* 3 (1977): 1-49.
- Gloag, John. *Victorian Comfort: A Social History of Design from 1830-1900*. Towbridge, Wiltshire: David & Charles, 1973), 141-144.
- Goffman, Erving. *Gender Advertisements*. New York: Harper & Row, 1979.
- Goffman, Erving. *The Presentation of Self in Everyday Life*. New York: Random House, 1959.
- Golderber, Paul. *Ballpark: Baseball in the American City*. New York: Random House, 2019.
- Grant, H. Roger. *Railroads and the American People*. Bloomington: Indiana University Press, 2012.
- Grier, Katherine C. *Culture & Comfort: Parlor Making and Middle-Class Identity, 1850-1930*. Washington, DC: Smithsonian Institution Press, 1988.
- Grosvenor, Ian, Martin Lawn, and Kate Rousmaniere, eds. *Silences & Images: The Social History of the Classroom*. Boston: Peter Lang, 2014.
- Grover, Kathryn, and Janine V. da Silva. "Historic Resource Study: Boston African American National Historic Site." National Park Service, https://www.nps.gov/parkhistory/online_books/bost/hrs.pdf, accessed 10/06/2019.
- Guess, Teresa. "The Social Construction of Whiteness: Racism by Intent, Racism by Consequence." *Critical Sociology* 32, no. 4 (2006): 668.
- Guidotti-Hernández, Nicole M. "Borderlands Scholarship for the Twenty-First Century." *American Quarterly* 68, no. 2 (June 2016): 487-498, 501.
- Gulliford, Andrew. *America's Country Schools*. Washington, DC: The Preservation Press, 1984.
- Hall, Edward T. *The Hidden Dimension*. Garden City, NY: Anchor Books, 1966.
- Hall, Stuart. "New Ethnicities." In *Stuart Hall: Critical Dialogues in Cultural Studies*, edited by David Morley and Kuan-Hsing Chen, 441-449. London: Routledge, 2006.
- Halttunen, Karen. *Confidence Men and Painted Women: A Study of Middle-Class Culture in America, 1830-1870*. New Haven: Yale University Press, 1982.
- Handlin, David. *The American Home: Architecture and Society, 1815-1915*. Boston: Little, Brown, 1979.

- Harwood, Barry R. "Two Early Thonet Imitators in the United States: The Henry I. Seymour Chair Manufactory and the American Chair-Seat Company." *Studies in the Decorative Arts* 2, no. 1 (1994): 92-113.
- Haskins, James. *Black Theater in America*. New York: Harper Collins, 1982.
- Henneke, Ben Graf. "The Playgoer in America (1752-1952)." PhD diss., University of Illinois, 1956.
- Hern, Mary. "Picnicking in the Northeastern United States, 1840-1900." *Winterthur Portfolio* 24, no. 2/3 (1989), 139-152.
- Heskett, John. *Industrial Design*. New York: Oxford University Press, 1980.
- Hessinger, Rodney. *Seduced, Abandoned, and Reborn: Sexual and Social Stress and the Role of Youth in Defining Bourgeois America, 1780-1850*. Philadelphia: University of Pennsylvania Press, 2005.
- Higginbotham, Evelyn. "African-American Women's History and Metalanguage of Race." *Signs* 17 (1992): 262-266.
- Hobson, Barbara Meil. *Uneasy Virtue: The Politics of Prostitution and the American Reform Tradition*. Chicago: University of Chicago Press, 1990.
- Hofstadter, Richard. *American Higher Education: A Documentary History*. Chicago: University of Chicago Press, 1961.
- Hoke, Donald R. *Ingenious Yankees: The Rise of the American System of Manufactures in the Private Sector*. New York: Columbia University Press, 1990.
- Holt, Thomas C. "Marking: Race, Race- Making, and the Writing of History." *American Historical Review* 100, no. 1 (February 1995):1-20.
- Horton, James, and Lois Horton. *In Hope of Liberty Culture, Community, and Protest among Northern Free Blacks, 1700-1860*. New York: Oxford University Press, 1998.
- Hoskins, Keith. "Foucault Under Examination: The Crypto-educationalist Unmasked." In *Foucault and Education: Disciplines and Knowledge*, edited by Stephen J. Ball, 29-56. London: Routledge, 2012.
- Hounshell, David A. *From the American System to Mass Production, 1800-1932*. Baltimore: Johns Hopkins University Press, 1984.
- Howe, Daniel Walker. *Victorian America*. Philadelphia, PA: University of Pennsylvania Press, 1984.

- Hoy, Suellen. *Chasing Dirt: The American Pursuit of Cleanliness*. New York: Oxford University Press, 1995.
- Hunter, Tera W. *To 'joy My Freedom: Southern Black Women's Lives and Labors After the Civil War*. Cambridge, MA: Harvard University Press, 1997.
- Huston, James Lynn. "The Panic of 1857 and the Coming of the Civil War." PhD diss., University of Illinois, 1980.
- Jackson, Kenneth T., and Stanley K. Schultz. *Cities in American History*. New York: Knopf, 1972.
- Jacobson, Matthew. *Whiteness of a Different Color: European Immigrants and the Alchemy of Race* (Cambridge, MA: Harvard University Press, 1998).
- Johnson, Charles Spurgeon. *Patterns of Negro Segregation*. New York: Harper & Bros, 1943.
- Johnson, Claudia D. "That Guilty Third Tier: Prostitution in Nineteenth-Century American Theaters." *American Quarterly* 27, no. 5 (December 1975): 577-578.
- Johnson, David A., and Humayun J. Chaudhry. *Medical Licensing and Discipline in America: A History of the Federation of State Medical Boards*. Lanham, MD, 2012.
- Kasson, John F. *Rudeness & Civility: Manners in Nineteenth-century Urban America*. New York: Hill and Wang, 1990.
- Katz, Michael. *The Irony of Early School Reform: Educational Innovation in Mid-Nineteenth Century Massachusetts*. Boston: Beacon Press, 1968.
- Kempes, Lesley Poling. *The Harvey Girls: Women Who Opened the West*. New York: Paragon House, 1989.
- Kerber, Linda. "Separate Spheres, Female Worlds, Woman's Place: The Rhetoric of Women's History." In *No More Separate Spheres!: A Next Wave American Studies Reader*, edited by Cathy Davidson and Jessamyn Hatcher, 29-67. Durham, NC: Duke University Press, 2002.
- Kersten, Andrew, and Clarence Lang. *Reframing Randolph: Labor, Black Freedom, and the Legacies of A. Philip Randolph*. New York: New York University Press, 2014.
- Kessler-Harris, Alice. *Out to Work: A History of Wage-Earning Women in the United States*. New York: Oxford University Press, 1982.
- Keyssar, Alexander. *The Right to Vote: The Contested History of Democracy in the United States*. New York: Basic Books, 2000.

- Kilde, Jeanne Halgren. *When Church Became Theatre: The Transformation of Evangelical Architecture and Worship in 19th-Century America*. Oxford: Oxford University Press, 2005.
- Kingery, David. *Learning from Things: Method and Theory of Material Culture Studies*. Washington, DC: Smithsonian, 1996.
- Klein, Maury. *The Genesis of Industrial America, 1870-1920*. New York: Cambridge University Press, 2007.
- Klein, Maury, and Harvey A. Kantor. *Prisoners of Progress: American Industrial Cities, 1850-1920*. New York: Macmillan, 1976.
- Knepper, Edwin G. *History of Business Education in the United States*. Bowling Green, OH: Edward Brothers, 1941.
- Knights, Peter R. *The Plain People of Boston, 1830-1860: A Study in City Growth*. New York: Oxford University Press, 1971.
- Krajewski, Markus. *Paper Machines: About Cards & Catalogs, 1548-1929*. Cambridge, MA: The MIT Press, 2011.
- Kvale, Nicole. "Emigrant Trains: Migratory Transportation Networks through Germany and the United States, 1847-191." PhD diss., University of Wisconsin. 2009.
- Kwolek-Folland, Angel. *Engendering Business: Men and Women in the Corporate Office, 1870-1930*. Baltimore: Johns Hopkins University Press, 2010.
- Lazerson, Marvin. *Origins of the Urban School: Public Education in Massachusetts, 1870-1915*. Cambridge: Harvard University Press, 1971.
- Lefebvre, Henri. *The Production of Space*. Malden: Blackwell, 2016.
- Levine, David. "Chapter Three: Reform and Conflict in U.S. Urban Education During the Early Twentieth Century: Reflections on the Interpretive Struggle." *Counterpoints* 218 (2003): 29-47.
- Levine, Lawrence W. *Highbrow / Lowbrow: The Emergence of Cultural Hierarchy in America*. Cambridge, MA: Harvard University Press, 2002.
- Lewis, Catherine M., and J. Richard Lewis, ed. *Jim Crow America: A Documentary History*. Fayetteville, AK: The University of Arkansas Press, 2009.
- Licht, Walter. *Working for the Railroad: The Organization of Work in the Nineteenth Century*. Princeton, NJ: Princeton University Press, 1983.
- Limerick, Patricia Nelson. *The Legacy of Conquest: The Unbroken Past of the American West*. New York: W. W. Norton & Co, 2006.

- Lindert, Peter H., and Jeffrey G. Williamson. *Unequal Gains American Growth and Inequality Since 1700*. Princeton: Princeton University Press, 2016.
- Lofgren, Charles A. *The Plessy Case: A Legal-historical Interpretation*. New York: Oxford University Press, 1988.
- Lofland, Lyn H. *A World of Strangers: Order and Action in Urban Public Space*. Prospect Heights, Ill: Waveland Press, 1985.
- Loth, Calder, and Julius Trousdale Sadler. *The Only Proper Style: Gothic Architecture in America*. Boston: New York Graphic Society, 1975.
- Luskey, Brian P. *On the Make Clerks and the Quest for Capital in Nineteenth-century America*. New York: New York University Press, 2010.
- Lyons, Clare Anna. *Sex Among the "Rabble": Gender Transitions in the Age of Revolution, Philadelphia, 1750-1830*. Chapel Hill: University of North Carolina Press, 2006.
- Mabee, Carleton. *Black Education in New York State*. Syracuse: Syracuse University Press, 1979.
- MacKay, Robert Edward. "Managing the Clerks: Office Management from the 1870's through the Great Depression." Ph. D. dissertation, Boston University, 1985.
- Marco, Guy A. *The American Public Library Handbook*. Denver, CO: Abc-Clio, 2012.
- Martin, Albro. *Railroads Triumphant: The Growth, Rejection, and Rebirth of a Vital American Force*. New York: Oxford University Press, 1992.
- Martin, Ann Smart, and J. Ritchie Garrison. *American Material Culture: The Shape of the Field*. Knoxville, TN: University of Tennessee Press, 1997.
- Martin, Ann Smart. "Makers, Buyers, and Users: Consumerism as a Material Culture Framework." *Winterthur Portfolio* 28, no. 2/3 (1993): 141-57.
- Marx, Leo. *The Machine in the Garden: Technology and the Pastoral Ideal in America*. New York: Oxford University Press, 1964.
- Massachusetts Historical Society. *Proceedings of the Massachusetts Historical Society*, 3rd Series 62 (1928/1929).
- Mauss, Marcel. "Techniques of the Body." *Economy and Society* 2, no. 1 (1973): 70-88.
- McAllister, Marvin. *White People Do Not Know How to Behave at Entertainments Designed for Ladies & Gentlemen of Colour: William Brown's African & American Theater*. Chapel Hill, NC: The University of North Carolina Press, 2003.

- McGee, Bob. *The Greatest Ballpark Ever: Ebbets Field and the Story of the Brooklyn Dodgers*. New Brunswick: Rutgers University Press, 2005.
- McNamara, Brooks. *The American Playhouse in the Eighteenth Century*. Cambridge, MA: Harvard University Press, 1969.
- McPherson, James M. "Abolitionists and the Civil Rights Act of 1875." *The Journal of American History* 52, no. 3 (December 1965): 493-510.
- McShane, Clay, and Joel A. Tarr. *The Horse in the City: Living Machines in the Nineteenth Century*. Baltimore, MD: The Johns Hopkins University Press, 2007.
- Meikle, Jeffrey L. *Design in the USA*. Oxford: Oxford University Press, 2005.
- Melman, Seymour. "The Rise of Administrative Overhead in the Manufacturing Industries of the United States 1899-1947." *Oxford Economic Papers* 3, no. 1 (February 1951): 62-112.
- Mencken, August. *The Railroad Passenger Car*. Baltimore, MD: The Johns Hopkins University Press, 2000.
- Ment, David Martin. "Racial Segregation in the Public Schools." Ph. D. Dissertation. Columbia University, 1975.
- Metropolitan Museum of Art. *19th-Century America: Furniture and Other Decorative Arts*. New York: Metropolitan Museum of Art, 1970.
- Michael, Richard B. "The American Institute of Instruction." *History of Education Journal* 3, no. 1 (Autumn, 1951): 27-32.
- Miller, Daniel. *Material Culture and Mass Consumption*. New York, NY: B. Blackwell, 1987.
- Mills, C. Wright. *White Collar: The American Middle Classes*. New York: Oxford University Press, 1969.
- Miner, Craig. *A Most Magnificent Machine: America Adopts the Railroad, 1825-1862*. Lawrence, KS: University Press of Kansas, 2010.
- Mohraz, Judy Jolley. *The Separate Problem: Case Studies of Black Education in the North, 1900-1930*. Westport, CT: Greenwood Press, 1979.
- Montgomery, David. *The Fall of the House of Labor*. New York: Cambridge University Press, 1999.
- Moore, William D. *Masonic Temples: Freemasonry, Ritual Architecture, and Masculine Archetypes*. Knoxville: University of Tennessee Press, 2006.

- More, Charles. *The Industrial Age: Economy and Society in Britain, 1750-1995*. London: Longman, 1997.
- Moss, Hilary J. *Schooling Citizens: The Struggle for African American Education in Antebellum America*. Chicago: The University of Chicago Press, 2009.
- Motomura, Hiroshi. *Americans in Waiting: The Lost Story of Immigration and Citizenship in the United States*. New York: Oxford University Press, 2006.
- Müller, Thomas, and Romana Schneider. *The Classroom: From the Late 19 Century Until the Present Day*. Tübingen, Germany: Wasmuth, 2010.
- Murtagh, John M., and Sara Harris. *Cast the First Stone*. New York: McGraw-Hill, 1957.
- Mussey, Jr., Robert D. *The Furniture Masterworks of John & Thomas Seymour*. Salem, MA: Peabody Essex Museum, 2003.
- Nasaw, David. *Going Out: The Rise and Fall of Public Amusements*. New York: Harper Collins, 1993.
- Noel, Rebecca. "Schooling the Body: The Intersection of Educational and Medical Reform in New England, 1800-1860." PhD diss., Boston University, 1999.
- Norman, Donald. *The Design of Everyday Things*. New York: Doubleday, 1990.
- Omori, Kazuteru. "Race-Neutral Individualism and Resurgence of the Color Line: Massachusetts Civil Rights Legislation, 1855-1895." *Journal of American Ethnic History* 22, no. 1 (Fall, 2002): 32-58.
- Osgood, Robert L. *For "Children Who Vary from the Normal Type": Special Education in Boston, 1838-1930*. Washington, DC: Gallaudet University Press, 2000.
- Osmond, Humphry. "Function as the Basis of Psychiatric Ward Design." *Psychiatric Services* 8, no. 4 (April 1957): 23-28.
- Painter, Nell Irvin. *Standing at Armageddon: The United States, 1877-1919*. New York: W. W. Norton & Co., 1987.
- Parille, Ken. *Boys at Home: Discipline, Masculinity and the Boy-Problem in Nineteenth-Century American Literature*. Knoxville, TN: The University of Tennessee Press, 2009.
- Paul, William. *When Movies Were Theater: Architecture, Exhibition, and the Evolution of American Film*. New York: Columbia University Press, 2016.
- Peiss, Kathy. "Charity Girls and City Pleasures." *OAH Magazine of History* 18, no. 4 (2004): 14-16.

- Peiss, Kathy. "Going Public: Women in Nineteenth-Century Cultural History." *American Literary History* 3, no. 4 (Winter, 1991): 817-828.
- Peiss, Kathy. *Cheap Amusements: Working Women and Leisure in Turn-of-the-Century New York*. Philadelphia: Temple University Press, 1986.
- Pescosolido, Bernice A., and Jack K. Martin. "Cultural Authority and the Sovereignty of American Medicine: The Role of Networks, Class, and Community." *Journal of Health Politics, Policy and Law* 29, no. 4–5 (2004): 735–56.
- Pierce, Jason. *Making the White Man's West: Whiteness and the Creation of the American West*. Boulder, Colorado: University Press of Colorado, 2016.
- Pleck, Elizabeth Hafkin. *Black Migration and Poverty, Boston, 1865–1900*. New York: Academic Press, 1979.
- Prown, Jules David, and Kenneth Haltman, eds. *American Artifacts: Essays in Material Culture*. East Lansing, MI: Michigan State University Press, 2000.
- Prown, Jules David. "Mind in Matter: An Introduction to Material Culture Theory and Method." *Winterthur Portfolio* 17, no. 1 (1982): 1-19.
- Pryor, Elizabeth. *Colored Travelers: Mobility and the Fight for Citizenship before the Civil War*. University of North Carolina Press, 2016.
- Pulos, Arthur J. *American Design Ethic: A History of Industrial Design to 1940*. Cambridge, MA: The MIT Press, 1983.
- Redmond, Patrick R. *The Irish and the Making of American Sport*. Jefferson, NC: McFarland & Company, Inc., 2014.
- Remeeus, John. "Journey of an Immigrant Family." *Wisconsin Magazine of History* 29, no. 2 (December 1945): 217.
- Rice, Edwin Wilbur. *The Sunday-School Movement, 1780-1917, and the American Sunday-School Union, 1817-1917*. Philadelphia: American Sunday-school union, 1917.
- Richter, Amy G. *Home on the Rails: Women, the Railroad, and the Rise of Public Domesticity*. Chapel Hill, NC: University of North Carolina Press, 2005.
- Riess, Steven A. *City Games: The Evolution of American Urban Society and the Rise of Sports*. Chicago: University of Illinois Press, 1989.
- Riordan, Cornelius. *Girls and Boys in School: Together or Separate*. New York: Teachers College Press, 1990.

- Roberts, Craig. "Learning to File." *History of Technology and Culture*, 58, no. 4 (October 2017): 955-981.
- Robinson, Frazier, and Paul Bauer. *Catching Dreams: My Life in the Negro Baseball Leagues*. Syracuse: Syracuse University Press, 1999.
- Rodgers, Daniel T. *The Work Ethic in Industrial America 1850-1920*. Chicago: Chicago University Press, 1978.
- Rosenkrantz, Barbara. "The Search for Professional Order in 19th-Century American Medicine." In *Sickness and Health in America: Readings in the History of Medicine and Public Health*, 3rd ed., edited by Judith Leavitt and Ronald L. Numbers, 219-232. Madison, WI: University of Wisconsin Press, 1997.
- Rosenzweig, Roy. *Eight Hours for What We Will: Workers & Leisure in an Industrial City, 1870-1920*. New York: Cambridge University Press, 1983.
- Rotella, Elyce J. *From Home to Office: U. S. Women at Work, 1870-1930*. Ann Arbor, 1981.
- Rothman, Ellen K. *Hands and Hearts: A History of Courtship in America*. Cambridge: Harvard University Press, 1987.
- Rotundo, E. Anthony. *American Manhood: Transformations in Masculinity from the Revolution to the Modern Era*. New York: Basic Books, 1993.
- Ruchames, Louis. "Jim Crow Railroads in Massachusetts." *American Quarterly* 8, no. 1 (Spring, 1956): 61-75.
- Ryan, Mary P. *Women in Public: Between Banners and Ballots, 1825-1880*. Baltimore: The Johns Hopkins University Press, 1990.
- Schlereth, Thomas J. *Cultural History and Material Culture: Everyday Life, Landscapes, Museums*. Charlottesville: University Press of Virginia, 1992.
- Schlereth, Thomas J. *Material Culture Studies in America*. Nashville, TN: The American Association for State and Local History, 1982.
- Schlereth, Thomas J. "Material Culture Studies and Social History Research." *Journal of Social History* 16, no. 4 (Summer 1983): 111-143.
- Schultz, Stanley K. *The Culture Factory: Boston Public Schools, 1789-1860*. New York: Oxford University Press, 1973.
- Scott, James C. *Seeing Like A State: How Certain Schemes to Improve the Human Condition Have Failed*. New Haven: Yale University Press, 1998.
- Sekula, Allan. "The Body and the Archive." *October* 39. (Winter, 1986): 3-64.

- Sellers, Charles. *The Market Revolution: Jacksonian America, 1815-1846*. New York: Oxford University Press, 1991.
- Sewell, Jessica Ellen. *Women and the Everyday City: Public Space in San Francisco, 1890-1915*. Minneapolis: University of Minnesota Press, 2011.
- Shain, Barry Alan. *The Myth of American Individualism: The Protestant Origins of American Political Thought*. Princeton, NJ: Princeton University Press, 1994.
- Shostack, Lynn. "Design Services that Deliver." *Harvard Business Review* (January 1984): 133-139.
- Shostack, Lynn. "How to Design a Service." *European Journal of Marketing* 16, no. 1 (1982): 49-63.
- Showalter, J. Camille., and Driesbach, Janice Tolhurst. *Wooton Patent Desks: A Place for Everything and Everything in Its Place*. Indianapolis, IN: Indiana State Museum, 1983.
- Shrock, Joel. *The Gilded Age. American Popular Culture through History*. Westport, CT: Greenwood Press, 2004.
- Sicherman, Barbara. "The Uses of a Diagnosis: Doctors, Patients, and Neurasthenia." In *Sickness and Health in America: Readings in the History of Medicine and Public Health*, edited by Judith Walzer Leavitt and Ronald L. Numbers, 22-38. Madison: The University of Wisconsin, 1985.
- Skemer, Don C. "David Alling's Chair Manufactory: Craft Industrialization in Newark, New Jersey, 1801-1854." *Winterthur Portfolio* 22, no. 1 (1987): 1-21.
- Slater, Don. *Consumer Culture and Modernity*. Cambridge, U.K: Polity Press, 1997.
- Smethurst, James. *The African American Roots of Modernism: From Reconstruction to the Harlem Renaissance*. Chapel Hill: University of North Carolina Press, 2011.
- Smith, Henry Nash. *Virgin Land: The American West as Symbol and Myth*. Cambridge, MA: Harvard University Press, 1978.
- Smith-Rosenberg, Carroll. "The Hysterical Woman: Sex Roles and Role Conflict in 19-Century America." *Social Research* 39, no. 4 (1972): 652-78.
- Smuts, Robert W. *Women, and Work in America*. New York: Schocken Books, 1976.
- Smythe, Donald. "A Schumpeterian View of the Great Merger Movement in American Manufacturing." *Cliometrica* 4.2 (2010): 141-70.
- Snitow, Ann, Christine Stansell, and Sharon Thompson, eds. *Powers of Desire: The Politics of Sexuality*. New York: Monthly Review Press, 1983.

- Sommer, Robert. *Personal Space: The Behavioral Basis of Design*. Englewood Cliffs, NJ: Prentice-Hall, Inc., 1969.
- Sotiropoulos, Karen. *Staging Race: Black Performers in Turn of the Century America*. Cambridge, MA: Harvard University Press, 2006.
- Spears, Timothy B. "'All Things to All Men': The Commercial Traveler and the Rise of Modern Salesmanship." *American Quarterly* 45, no. 4 (1993): 524-57.
- Spracklen, Karl. *Whiteness and Leisure*. New York, NY: Palgrave Macmillan, 2013.
- Srole, Carol. *Transcribing Class and Gender: Masculinity and Femininity in Nineteenth-Century Courts and Offices*. Ann Arbor: University of Michigan Press, 2009.
- Stansell, Christine. *City of Women Sex and Class in New York, 1789-1860*. New York: Knopf, 1986.
- Starr, Paul. *The Social Transformation of American Medicine*. New York, 1982.
- Steffes, Tracy L. *School, Society, and State: A New Education to Govern Modern America, 1890-1940*. Chicago: The University of Chicago Press, 2012.
- Steiner, Bernard C. *Life of Henry Barnard*. Washington, DC: Government Printing Office, 1919.
- Stilgoe, John. *Metropolitan Corridor: Railroads and the American Scene*. New Haven, CT: Yale University Press, 1983.
- Stoddard, Richard. "A Reconstruction of Charles Bulfinch's First Federal Street Theatre, Boston." *Winterthur Portfolio* 6 (1970): 185-208.
- Streitmatter, Rodger. *Raising Her Voice: African-American Women Journalists Who Changed History*. University Press of Kentucky, 1994.
- Strom, Sharon. *Beyond the Typewriter: Gender, Class, and the Origins of Modern American Office Work, 1900-1930*. Urbana: University of Illinois Press, 1992.
- Stuart, M. S. *An Economic Detour; a History of Insurance in the Lives of American Negroes*. College Park, MD: McGrath Pub., 1969.
- Thayer-Bacon, Barbara. "Maria Montessori, John Dewey, and William H. Kilpatrick." *Education and Culture*, 28 (2012): 3-20.
- Thompson, E. P. "Time Work Discipline and Industrial Capitalism." *Past and Present*, no. 38 (December 1967): 56-97.

- Thompson, Ross. *Structures of Change in the Mechanical Age: Technological Innovation in the United States, 1790-1865*. Baltimore: Johns Hopkins University Press, 2009.
- Tilley, Christopher. *Handbook of Material Culture*. London: SAGE, 2006.
- Trembanis, Sarah L. *The Set-Up Men: Race, Culture and Resistance in Black Baseball*. Jefferson, NC: McFarland & Company, Inc., 2014.
- Turner, Bryan S. *The Body & Society: Explorations in Social Theory*. Los Angeles: SAGE, 2008.
- Tyack, David B. *The One Best System: A History of American Urban Education*. Cambridge: Harvard University Press, 1974.
- Tyack, David B., and Elizabeth Hansot. *Learning Together: A history of Coeducation in American Public Schools*. New York: Russell Sage Foundation, 1992.
- Tyler, Imogen. "Resituating Erving Goffman: From Stigma Power to Black Power." *The Sociological Review Monographs* 66, no. 4 (2018): 744-765.
- Upton, Dell, and John Michael Vlach, eds. *Common Places: Readings in American Vernacular Architecture*. Athens: University of Georgia Press, 1986.
- Upton, Dell. "Lancasterian Schools, Republican Citizenship, and the Spatial Imagination in Early Nineteenth Century America." *Journal of the Society of Architectural Historians* 55, no. 3 (September 1996): 238-253.
- Upton, Dell. *Another City: Urban Life and Urban Spaces in the New American Republic*. New Haven, CT: Yale University Press, 2008.
- Upton, Dell. *Architecture in the United States* (New York: Oxford University Press, 1998).
- Violette, Zachary. "The Decorated Tenement: Working-class Housing in Boston and New York, 1860-1910." PhD diss., Boston University, 2014.
- Wadewitz, Lissa. *The Nature of Borders: Salmon, Boundaries, and Bandits on the Salish Sea*. Seattle: University of Washington Press, 2012.
- Walker, John Albert, and Judy Attfield. *Design History and the History of Design*. London: Pluto Press, 2013.
- Walter, Betty Lawson. *The King of Desks: Wootton's Patent Secretary*. Washington: Smithsonian Institution Press, 1969.
- Wall, Joseph Frazier. *Andrew Carnegie*. New York: Oxford University Press, 1970.

- Welke, Barbara. "When All the Women Were White, and All the Blacks Were Men: Gender, Class, Race, and the Road to Plessy, 1855-1914." *Law and History Review* 13, no. 2 (Autumn, 1995): 266.
- Welke, Barbara. *Recasting American Liberty: Gender, Race, Law, and the Railroad Revolution, 1865-1920*. New York: Cambridge University Press, 2001.
- Welter, Barbara. "The Feminization of American Religion 1800-1860." In *Clio's Consciousness Raised: New Perspectives on the History of Women*, edited by Mary S. Hartman and Lois W Banner, 137-157. New York: Octagon Books, 1976.
- White, Jr., John. H. *The American Railroad Passenger Car*. Baltimore, MD: The Johns Hopkins University Press, 1978.
- Wilentz, Sean. *Chants Democratic: New York City and the Rise of the American Working Class, 1788-1850*. New York: Oxford University Press, 2004.
- Wilk, Christopher. *Thonet: 150 Years of Furniture*. Woodbury, NY: Barron's, 1980.
- Wilkie, Jacqueline S. "Submerged Sensuality: Technology and Perceptions of Bathing," *Journal of Social History*, 19, No. 4 (Summer, 1986): 649-664.
- Williams, Christine L. *Still a Man's World: Men Who Do "Women's Work."* Berkeley: University of California Press, 1995.
- Wilmeth, Don B. and Christopher Bigsby, eds. *The Cambridge History of American Theatre*, Vol. 1. New York: Cambridge University Press, 1998.
- Wilson, Sloan. *The Man in the Gray Flannel Suit*. Cambridge: MA, Da Capo Press 1983.
- Wisman, Jon D., and Matthew E. Davis. "Degraded Work, Declining Community, Rising Inequality, and the Transformation of the Protestant Ethic in America: 1870-1930." *The American Journal of Economics and Sociology* 72, no. 5 (2013): 1075-105.
- Witham, Barry B. *Theatre in the United States 1750-1915*. Cambridge, UK, Cambridge University Press, 1996.
- Woll, Allen. *Black Musical Theatre: From Coontown to Dreamgirls*. Baton Rouge, LA: Louisiana State University Press, 1989.
- Woodward, C. Vann. *Origins of the New South: A History of the South 1877-1913*. Louisiana State University Press, 2006.
- Wren, Daniel A. *The Evolution of Management Thought*. New York, 1972.

- Wynes, Charles E. "The Evolution of Jim Crow Laws in Twentieth Century Virginia." *Phylon* 28, no. 4 (1967): 416-25.
- Yates, JoAnne. "Investing in Information: Supply and Demand Forces in the Use of Information in American Firms, 1850-1920." In *Inside the Business Enterprise: Historical Perspectives on the Use of Information*, edited by Peter Temin, 117-159. Chicago: University of Chicago Press, 2014.
- Yazawa, Melvin. *From Colonies to Commonwealth: Familial Ideology and the Beginnings of the American Republic*. Baltimore: The Johns Hopkins University Press, 1985.
- Yellin, Eric S. *Racism in the Nation's Service: Government Workers and the color Line in Woodrow Wilson's America*. Chapel Hill: University of North Carolina Press, 2013.
- Yosifon, David, and Peter N. Stearns. "The Rise and Fall of American Posture." *The American Historical Review* 103 (1998): 1057-95.
- Young, James Allen. "Height, Weight, and Health: Anthropometric Study of Human Growth in Nineteenth-Century American Medicine." *Bulletin of the History of Medicine* 53, no. 2 (Summer 1979): 214-233.
- Zakim, Michael. *Accounting for Capitalism: The World the Clerk Made*. Chicago: The University of Chicago Press, 2018.
- Zakim, Michael, and Gary J. Kornblith. *Capitalism Takes Command: The Social Transformation of Nineteenth-Century America*, 223-248. University of Chicago Press, 2012.
- Zelden, Charles L. *Thurgood Marshall: Race, Rights, and the Struggle for a More Perfect Union*. Routledge, 2013.
- Zunz, Olivier. *Making America Corporate: 1870-1920*. Chicago: University of Chicago Press, 1995.

CURRICULUM VITAE

