

**OUT OF THE SHADE:
UNCOVERING THE MANUFACTURE AND USE
OF UMBRELLAS AND PARASOLS, 1830 - 1850**

by

Rosalie K. Hooper

A thesis submitted to the Faculty of the University of Delaware in partial fulfillment
of the requirements for the degree of Master of Arts in American Material Culture

Spring 2016

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ABSTRACT

Though umbrellas and parasols have yet to claim a significant scholarly presence, they remain ubiquitous in material, documentary, and visual sources from the antebellum period. The papers of David Harriot & Co., a small umbrella and parasol making firm that operated in New York City between 1831 and 1845, facilitate a deeper study of this industry and the objects it produced. This thesis puts the production practices of David Harriot & Co. in context, analyzing data patterns in the firm's records and situating the firm within the umbrella and parasol industry in the United States and worldwide. It investigates the materials, methods of production, and networks of trade that made possible the manufacture and distribution of umbrellas and parasols in the United States, and touches upon the social meanings communicated through the use of umbrellas and parasols.

The American umbrella and parasol making industry grew rapidly during the antebellum period as it began to transition from an artisanal, craft-based form of production to an increasingly mechanized, industrialized, and standardized system of manufacture. The use of outwork, task payments, and assembling processes characterized the production processes of many firms, particularly smaller ones like David Harriot & Co. Recognizing the variety of production and distribution techniques used throughout the umbrella and parasol industry gives a fuller sense of the spectrum of manufacturing that existed in the 1830s and 1840s.

This study concludes by raising questions about the larger social and cultural ramifications of how these objects were used. Through a careful analysis of the many

methods used to make umbrellas and parasols, this thesis hopes to facilitate greater consideration of the American umbrella and parasol making industry and the complicated products of these firms.

Chapter 1

BROLLIOLOGY

“Brolliology, the science of the umbrella, awaits development. It owns no Nuffield professorship, no Rockefeller research studentship; it exists, if at all, still nebulous, in one of the loftier intellectual atmospheres, into which even the aspiration of post-graduate scholarship in search of a thesis has yet to penetrate.” – David Piper¹

In the 64 years that have elapsed since David Piper made these claims about the study of umbrellas, little has changed. Umbrellas, and their object-cousins, parasols, remain largely beyond the scope of the academy and museums. They are complicated objects, made from a bevy of materials including textiles, metal, wood, ivory, baleen, bone, and sometimes even ceramics and glass. They are practical, fashionable, and social objects with a long history that has roots across the globe. Though there have been numerous changes in the appearance and technological innovations that affect these objects, elements of their use have remained remarkably consistent for thousands of years.

Most contemporary readers probably own their own umbrella, or even multiple umbrellas. We view them as ephemeral objects; when you break an umbrella, you buy a new one rather than repairing it. Scholars have projected their own experiences upon

¹ David Piper, “Geo-brolliology, or Climate and the Umbrella”, *The Geographical Magazine*, vol. 25, no 8 (1952): 30, Quoted in T.S. Crawford, *A History of the Umbrella* (Newtown Abbot, Devon: David & Charles, 1970), 13.

the study of these objects, treating them as transitory objects that could not offer significant insights as the subject of a material culture analysis. The challenges inherent in studying these objects, particularly due to their limited survival rates, has led scholars to overlook their utility as sources.

Though umbrellas and parasols have yet to claim a significant scholarly presence, they remain ubiquitous in material, documentary, and visual sources from the past. Found on the exterior of a Chinese export porcelain teapot and in a city street scene, umbrellas and parasols leave an indelible trace in early American visual culture. Umbrellas and parasols had a significant presence in the material experience of many antebellum Americans, who used them as both practical and fashionable objects.



Figure 1 Teapot. Soft paste porcelain with lead glaze, 1760 – 1778, Worcester Porcelain Factory, Worcestershire, England, Gift of Mr. and Mrs. John Mayer, 1977.0088 a, b. Courtesy, Winterthur Museum.



Figure 2 Sunday Morning in Front of Arch Street Meeting House, Philadelphia. John Lewis Krimmel (attr.), Watercolor, black ink, and graphite on white laid paper, ca. 1811. The Metropolitan Museum of Art. 42.95.17 Rogers Fund, 1942. Public domain via Open Access for Scholarly Content.

This thesis will build upon the limited existing scholarly treatment of umbrellas and parasols, particularly in regards to the American umbrella and parasol making industry. It investigates the materials, methods of production, and networks of trade that made possible the manufacture of umbrellas and parasols in the United States, and touches upon the social meanings communicated through the use of these objects. This paper closely examines the surviving business records of one umbrella making firm, David Harriot & Co., which operated in New York City during the 1830s

and 1840s. Harriot's papers are the only surviving records of an umbrella or parasol maker that have currently been identified. While the paper will contextualize the practices of Harriot's firm within the larger realm of the American umbrella and parasol manufacturing industry and the international trade in these objects throughout the nineteenth century, the span of the thesis reflects the surviving documentary evidence and thus focuses primarily upon umbrella and parasol making in New York City during the 1830s and 1840s.

Umbrella and parasol making existed on the border between artisan and industrialized production. The primary "manufacturing" done by most umbrella and parasol makers was a process of assembling completed parts into final products. The many raw materials and finished pieces put together by umbrella and parasol manufacturers, as well as their limited reliance on mechanized processes, challenge typical narratives of industrialization and manufacturing. Considering Harriot's position within the wider spectrum of umbrella and parasol makers further complicates this narrative. The firm of David Harriot & Co. was relatively small in terms of the number of objects made and sold, number of employees, and size of capital investment when compared to evidence of other umbrella and parasol makers from this period. The survival of Harriot's records inserts the voice of a smaller firm to the spectrum of production practices, joining the larger firms who often dominate the historical record. The variations in production and distribution methods found across the umbrella and parasol making industry reflect the diversity of manufacturing in this period.

Critically interrogating the notion of manufacturing in the umbrella and parasol industry, particularly in terms of its applicability to the outwork and piecework that characterized small-scale manufacturing of these objects, adds new layers to the

meaning of production during a time of transition in this industry. This thesis also highlights the personal, business, and transportation networks operating locally, domestically, and internationally that made the production of these objects possible. Approaching these objects with a wide range of questions about production and use allows for a broad but introductory examination of the umbrella and parasol industry in the United States in the 1830s and 1840s. This thesis begins to address the many questions surrounding these pervasive but understudied objects, while offering avenues for further possible research.

The paper begins with a chapter addressing the basics of understanding umbrellas and parasols. This section examines the differences between umbrellas and parasols, in terms of both terminology and physical appearance. It identifies each part of an umbrella or parasol, explaining how and from what materials each part was made. Understanding the pieces and terminology used to describe these objects is a necessary precursor to examining the records of David Harriot & Co. This chapter draws primarily upon period dictionaries and encyclopedias for its discussion of word usage, and upon the papers of David Harriot, a published article entitled “Something About Umbrellas,” and surviving umbrellas and parasols to situate a discussion of the parts of umbrellas and parasols.

The third and fourth chapters closely examine the evidence provided in the papers of David Harriot & Co., highlighting patterns in the data drawn from the firm’s account books and tying this evidence back to surviving objects. This chapter builds upon the knowledge of the parts and pieces of umbrellas and parasols introduced in the first chapter to create a fuller picture of the processes that shaped the creation and distribution of these objects. Using the patterns evident in Harriot’s papers creates a

better understanding of the methods of production, materials, employment practices, and business structure of this firm. These chapters identify production practices that were used throughout the umbrella and parasol making industry, as well as variations between firms of various sizes.

The fifth chapter contextualizes the evidence and arguments from the previous chapter, situating Harriot and his production within the world of craftsmen in New York City and within the realm of American umbrella and parasol manufacturing. Considering the role of government regulations and tariffs on the development of this industry, as well as the impact of the international trade in umbrellas and parasols imported to and exported from the United States, generates a more thorough picture of this domestically and internationally relevant industry.

The concluding chapter examines the broader implications of umbrella and parasol production, raising questions about the larger social and cultural ramifications of how these objects were used. The evidence about the production of umbrellas and parasols presented earlier in the paper lays the groundwork for further studies of these complex objects.

Sources

Though this thesis will rely on many types of documentary and visual sources, each chapter remains rooted in a close study of surviving umbrellas and parasols from the antebellum era. No museum, historical society, or historic house boasts a comprehensive collection of umbrellas and parasols, but many collections include a few examples of these objects. Historical societies have proven to be a particularly rich source, with collections that frequently include well-provenanced and documented items from local families. This thesis draws primarily upon umbrellas and

parasols from the collections of the New Bedford Whaling Museum, Shippensburg University Fashion Archives and Museum, Virginia Historical Society, Plymouth Antiquarian Society, and Chester County Historical Society.

The limited survival rate of these objects in collections perhaps results from the condition issues that frequently affect old umbrellas and parasols, as well as the difficulty of storing and displaying these objects. There are significant challenges in conserving umbrellas and parasols, many of which inherently result from their form, structure, and the repeated actions of opening and closing. Different types of umbrellas and parasols have unequal rates of survival. Individuals are more likely to save and donate objects that are particularly fine specimens, thus skewing collections towards more expensive and elaborate objects. Recognizing the uneven rates of survival allows for a more accurate interpretation and understanding of surviving collections of umbrellas and parasols.

Precisely dating umbrellas and parasols has proven to be another challenge of this project. Firmly identifying when and where an umbrella or parasol was made is difficult unless that object has well documented provenance. Few umbrella and parasol makers marked their products, though the practice became more common as the nineteenth century progressed. Comparison with evidence from manufacturing records, patents, fashion plates, and well-provenanced umbrellas and parasols allows these objects to be dated with some confidence to the first half of the nineteenth century. Identifying where an umbrella or parasol was made remains an elusive task, as designs, materials, and parts were exchanged between manufacturers throughout the United States and Europe. Without well-established provenance or a maker's mark (and sometimes even with this evidence), it is not possible to conclusively determine

the origin of an umbrella or parasol. As the study of these objects continues, it may yet become possible to identify distinctively American, English, or French styles or materials.

This thesis will focus upon umbrellas and parasols with ribs made of baleen. This flexible substance was the primary material used for ribs until 1852, when Samuel Fox, a British umbrella manufacturer, patented a design for U-shaped steel ribs.² Steel ribs were significantly lighter and stronger than those made of baleen, and were soon adopted as a superior material. The decline of the American whaling industry and technological developments of industrialization facilitated this transition. By 1865, the Committee of Umbrella and Parasol Manufacturers was able to report in a petition to Congress that “Whalebone was formerly used extensively by us.”³ Although umbrellas and parasols with baleen ribs were certainly used after the 1850s, this shift in production is a convenient and relatively definitive marking point that can be used to identify objects from the first half of the nineteenth century.

The surviving documentary evidence about the production of umbrellas and parasols paints a rich picture of this industry and complements the material evidence provided by surviving objects. This thesis uses city directories, newspaper advertisements, and industrial directories to illustrate the world of American umbrella and parasol manufacturing, as well as a set of manuscript material from the Warshaw

² Samuel Fox, Umbrella and Parasol, US Patent No. 9,725, issued May 17, 1853, 19th Century Masterfile.

³ David Ames Wells, *Report of The Committee of Umbrella and Parasol Manufacturers of New York, to the Hon. D. A. Wells and Others, Commissioners of Tariff and Revenue* (New York: [?], 1865), 8, *The Making of the Modern World*.

Collection of Business Americana housed at the Archives Center of the National Museum of American History of the Smithsonian Institution. The “Umbrellas” box in the Warshaw Collection includes receipts, records, trade cards, and import records from American umbrella and parasol makers of the nineteenth and early twentieth centuries. The impact of the American government upon this trade is explored through published tariff records and umbrella and parasol manufacturers’ petitions to Congress. The volume and nature of international trade in umbrellas and parasols is made apparent through a study of import and export rates published by the United States Government, and through the umbrella and parasol section of the *Reports by Juries on the Thirty Classes into which the Exhibition was Divided* of the Great Exhibition in 1851. The general information provided in these sources about the practices of umbrella and parasol makers in the United States and abroad contextualizes the specific information provided in the David Harriot & Co. Records.

The short article “Something About Umbrellas,” published in the *Journal of Useful Information* in New York in 1853 adds considerably to the knowledge of umbrella and parasol manufacturing techniques used by larger firms.⁴ The article explains the materials and methods that were used to make umbrellas and parasols by an unnamed firm in New York City, describing in detail how diverse parts came together into a finished object. Though this article was published fourteen years after the dissolution of Harriot’s firm, it offers a helpful complement and occasional contrast to the information in Harriot’s surviving papers. Comparing these documents illuminates the differences between larger, mechanized firms, and smaller firms more reliant on hand production.

⁴ The article is transcribed in its entirety in Appendix B.

processes of these objects, making this article particularly helpful to understanding Harriot's firm and the industry more generally.

The collection of "David Harriot & Co. Records, 1831 – 1845" is held in the Special Collections and University Archives of Rutgers University Libraries. While several surviving daybooks, ledgers, and diaries record the purchase and use of umbrellas and parasols throughout the nineteenth century, this is the only set of manufacturer's records that is currently known. These documents include an account book with wage and wholesale information, receipts from the firm, and documents relating to the settling of the estate of John Engold, Harriot's business partner.

Though David Harriot and his firm play a central role in this thesis, Harriot has left only a small historical trace beyond his firm's records and remains a relatively enigmatic figure. Harriot was born to farmers Ephraim and Mary Harriot in Woodbridge, Middlesex County, New Jersey in 1788.⁵ Records suggest that he served in some capacity in the War of 1812.⁶ He moved to New York City in the 1820s, where he married a woman named Sarah Edgar on October 28, 1824.⁷ By 1827, Longworth's *American Almanac, New York Register, and City Directory*, identified

⁵ "Ten Dollars Reward," *The Centinel of Freedom*, (Newark, New Jersey), September 15, 1801, America's Historical Newspapers; Ray Harriot, "David Harriot," Find a Grave, Last Modified July 9, 2010, Accessed March 20, 2016, Find A Grave Memorial # 54698531, <http://www.findagrave.com>.

⁶ "David Harriot," *New York, Military Equipment Claims, War of 1812* [database online], Provo, UT: Ancestry.com Operations Inc., 1999. Ancestry.com.

⁷ "Married," *Spectator* (New York, NY), November 2, 1824, America's Historical Newspapers.

Harriot as “Harriot, David grocer Chapel c. Reed h. 81 Chapel.”⁸ He had changed career paths by 1831, listed in that year as the proprietor of “David Harriot & Co, umbrella-m.,” of 70 Maiden-lane.⁹ He continued in this trade until 1845, his last listing in any New York City directory.¹⁰ Harriot appears in the 1830 federal census living in the fifth ward of New York City with his wife, another woman aged 15-20, and two girls under five, but could not be found in the 1840 or 1850 censuses.¹¹ Harriot moved out of New York City after 1845, eventually returning to his hometown of Woodbridge before he passed away on August 15, 1855.¹²

John F. Engold, Harriot’s business partner, left a greater trace in surviving records. Engold was a European immigrant who arrived in New York City in the 1830s before his untimely death on October 30, 1839.¹³ Records of a John F. Engold’s naturalization at the Marine Court of New York City on November 1, 1834 survive,

⁸ Thomas Longworth and Jonathan Seymour, *Longworth’s American Almanac, New-York Register, and city directory, for the Fifty-Second Year of American Independence...* (New York: Thomas Longworth, 1827), 238, GooglePlay Books.

⁹ Thomas Longworth and Jonathan Seymour, *Longworth’s American Almanac, New-York Register, and city directory, for the Fifty-Sixth Year of American Independence...*, (New York: Thomas Longworth, 1831), 309.

¹⁰ John Doggett Jr., *Doggett’s New-York City Directory, for 1845 & 1846, Fourth Publication* (New York: John Doggett, Jr., 1845), 163.

¹¹ “David Harriot,” *1830 United States Federal Census*, (Provo, UT: Amcestry.com Operations Inc., 2010), Ancestry.com.

¹² Harriot, “David Harriot,” Find a Grave.

¹³ “John F. Engold,” *U.S. Newspaper Extractions from the Northeast, 1704 – 1930* (Provo, UT: Ancestry.com Operations Inc., 2014), Ancestry.com.

listing Engold's former nationality as English.¹⁴ However, another Index of New York Passenger Lists notes the arrival of a "John Ingold." This John Ingold was a 42 year old Swiss weaver who came to New York on the ship Helvetia from Le Havre, France.¹⁵ Engold's receipts included debts owed to a German language newspaper, which suggest he may have been Swiss. In either case, the deceased John F. Engold was likely an immigrant who brought his skills in umbrella making over to New York from Europe, eventually putting them to practical use through his partnership with David Harriot.

Understanding the backgrounds of both Engold and Harriot help situate their firm and its business practices. Harriot's background as a grocer likely informed how he conducted his wholesale umbrella and parasol business and his decision to operate his own shop as well as a manufactory. Engold's previous experience working in some facet of the clothing and textile manufacturing industry in Europe speaks to the permeable boundaries between nations in the Atlantic world.

The records of David Harriot & Co. supplement other documentary evidence about the lives of Harriot and Engold. The account book used by Harriot's firm includes the bulk of the recordkeeping material in the "David Harriot & Co. Records." The account book is fairly small and portable, with a leather cover, and handwritten entries in what appears to be iron-gall ink. The paper pages are unlined and have no

¹⁴ "John F Engold," *U.S. Naturalization Record Indexes, 1791 – 1992 (Indexed in World Archives Project)* (Provo, UT: Ancestry.com Operations Inc., 2010) Ancestry.com.

¹⁵ "John Ingold," *New York, Passenger Lists, 1820 – 1957* (Provo, UT: Ancestry.com Operations Inc., 2010), Ancestry.com.

markings. A small sheet of paper adhered in the front cover indicates that the book was sold by J. B. Jansen, bookseller and stationer, of No. 150 Nassau Street, New York. The same cover page also includes a note to “Leave this Book at Andrew Sembler, 90 Reed, for David Harriot.”¹⁶ (See Figure 21) Why Harriot would ask for this book to be returned to a different person in New York, rather than to his own house or shop, remains unclear. Andrew Sembler appears in city directories as first a shoemaker living at 90 Reade Street, and eventually as a carter still living at that address.¹⁷

The book is divided into two sections, one of which records Harriot’s payments to his employees and one of which records his wholesale business. The employee payment information chronicles the variable wages paid to workers weekly for performing certain tasks. The second section of Harriot’s account book includes information about his wholesale business, in which he describes the type, size, and style of umbrellas and parasols sent in shipments to businesses throughout the United States.

Thirty-five pages of the account book are covered with receipts from the firm that have been adhered onto the pages with glue. Nearly all of the receipts are related to Harriot’s involvement in settling the estate of John F. Engold, though some are for

¹⁶ Account Book, David Harriot & Co. Records, 1831 – 1845 (Inclusive), Special Collections and University Archives, Rutgers University Libraries, n.p.

¹⁷ Thomas Longworth, Charles Lansing, and George P. Scott and Co., *Longworth’s American Almanac, New-York Register, and city directory, for the Sixtieth Year of American Independence...* (New York: Thomas Longworth, 1835), 585; and Thomas Longworth, Joline J. Butler, and George P. Scott and Co., *Longworth’s American Almanac, New-York Register, and city directory, for the Sixty-Fourth Year of American Independence...* (New York: Thomas Longworth, 1839), 584.

business expenses of the firm. The receipts are a mixture of the personal and professional expenses of Harriot and Engold. In addition to the account book and receipts, the records of David Harriot & Co. also include a set of loose papers from the administration of John F. Engold's estate. These papers identify David Harriot as the surviving business partner of John F. Engold, and record personal and business debts collected and paid by Harriot on Engold's behalf as well as other financial information.

The manuscript papers also include an inventory and appraisal of Engold's household goods and of the items and fixtures found in the 70 Maiden Lane shop at the time of Engold's death. Both inventories offer an invaluable glimpse into the material world of an umbrella maker, revealing the tools, materials, furniture, and other objects that made the production and distribution of umbrellas and parasols possible. Despite the richness and depth of these sources, neither can be treated as an entirely complete or accurate representation of Engold's material world. These inventories, like all other documents, were made with a specific agenda in mind. The inclusion of certain tools and materials that could be considered invaluable information to a contemporary researcher may have been deemed unnecessary for probate purposes and omitted by the surveyor and appraiser of an estate. Making use of these inventories, as well as the other documents in Harriot's papers, thus reflects an active process of reading and drawing information from absences as well as what is included in the sources.

The comprehensive information about the inner workings of an umbrella manufacturer provided in these documents make the records of David Harriot & Co. an invaluable source in the study of umbrella and parasol production, particularly

when contextualized with other documentary, material and visual evidence. Closely analyzing Harriot's surviving papers illuminates an aspect of umbrella making that has been largely omitted from the historical record, and highlights a size and type of business that is left out of many economic and manufacturing histories.

Historiography

Though umbrellas and parasols have been largely overlooked as a subject of modern scholarly analysis, there is an existing literature devoted to the history of these objects. Interest in these items throughout the nineteenth century manifested in the publication of many books, pamphlets, and articles on the subject. As scholars turned their attention to ancient patterns of human existence from across the globe, they uncovered visual, literary, and archeological evidence that described and depicted the use of parasols. Famed European travelers, historians, and archeologists of the seventeenth, eighteenth, and nineteenth centuries, including Sir John Malcolm, A.H. Layard, John Morrison, Jean-Baptiste Tavernier, and Sir Gardner Wilkinson noted the appearances of umbrellas and parasols in ancient and non-European cultures in their publications, shaping American and European audiences' views of these objects.¹⁸ Interest in the use of umbrellas and parasols by ancient Greeks and Romans was part of a larger cultural turn after the discovery of Pompeii, culminating in the flourishing Neo-Classical and Empire styles of the late eighteenth and early nineteenth centuries.¹⁹ Interest in ancient habits, including patterns of parasol use, was especially

¹⁸ As referenced in William Sangster, *Umbrellas and their History* (London: Cassell, Petter, and Gilpin, [1871]), 15 – 20, 27.

¹⁹ *Pompeii As Source and Inspiration: Reflections in Eighteenth- and Nineteenth-Century Art, An Exhibition Organized by the 1976-77 Graduate Students in the*

strong in the newly formed United States, where individuals crafted their identities in response to republican traditions of the past.²⁰

The burgeoning world of print culture in the nineteenth century created even more avenues through which authors could describe the history of parasols and umbrellas. Newspapers and magazines contained articles which explored the history of accessories, including the umbrella and parasol.²¹ Many magazines and newspapers couched their descriptions of historical or foreign peoples by highlighting their use of these accessories.²²

This fascination with the history of and traditions associated with umbrellas and parasols culminated in the publication of several books devoted to the subject. William Sangster, a British umbrella manufacturer, published *Umbrellas and Their History* in 1855, with later editions published in 1864 and 1871. Sangster's small book includes content similar to a chapter about umbrellas and parasols in Octave Uzanne's

Museum Practice Program (Ann Arbor: The University of Michigan Museum of Art, [1977]) and Wendy Cooper, *Classical Taste in America, 1800-1840* (New York: The Abbeville Press Publishers, 1993).

²⁰ Meyer Reinhold, *Classica Americana: The Greek and Roman Heritage in the United States* (Detroit: Wayne University Press, 1984).

²¹ "Of Domestic Pleasures at First Condemned," *Godey's Lady's Book*, (January 1833), Accessible Archives; Angus B. Reach, "A Gossip About Umbrellas," *Sharpe's London Magazine*, n.s. v. 3 (1853): 372-376, HathiTrust; "The Antiquity of the Umbrella," *Godey's Lady's Book*, (February, 1863), Accessible Archives; "How and About Umbrellas," *Godey's Lady's Book*, (July 1856), Accessible Archives.

²² "Umbrellas," *Godey's Lady's Book*, (February 1832), Accessible Archives; and "Umbrellas in the East." *The Penny Magazine*. (December 5, 1835) 470, 480, Umbrellas Series, Warshaw Collection of Business Americana, Archives Center, National Museum of American History. Smithsonian Institution, Box 1, Folder 31.

1884 publication *The Sunshade, The Glove, and the Muff* and a chapter from Max von Boehn's 1928 *Modes & Manners: Ornaments*.²³ All of these books trace the history of umbrellas and parasols from their earliest iterations through to contemporaneous patterns of production and use. Each book relies heavily on illustrations to amplify its text, laying the foundations for a scholarly treatment of umbrellas and parasols that is visually appealing but contextually limited. Though each of these books relies in part on the works of the archeologists and historians mentioned above, the authors use predominantly anecdotal evidence to support their arguments.

Publications about the history of umbrellas and parasols shaped how Americans understood and interacted with these objects in the nineteenth century and laid the groundwork for modern scholarship on umbrellas and parasols, much of which follows in the traditions established by these early authors. Three texts published in the last fifty years focus exclusively on the history of umbrellas and parasols: T.S. Crawford's 1970 publication *A History of the Umbrella*, Jeremy Farrell's 1985 contribution to *The Costume Accessories Series: Umbrellas & Parasols*, and Nigel Rogers' small, 2013 book *The Umbrella Unfurled: Its Remarkable Life and Times*.

Both *A History of The Umbrella* and *The Umbrella Unfurled* trace the parasol and umbrella from their earliest inceptions in ancient China, Egypt, and Mesopotamia through to contemporary mass production of these objects. The large scope of these books, which encompass the development of umbrellas and parasols across the globe throughout all of human history, does not allow for an in-depth interrogation of

²³ Sangster, *Umbrellas and their History*; Octave Uzanne, *The sunshade, the glove, the muff* (London: J.C. Nimmo and Bain, 1884); and Max Von Boehn, *Modes & Manners, Ornaments: Lace, Fans, Gloves, Walking Sticks, Parasols, Jewelry, and Trinkets* (London: J.M. Dent & Sons Ltd., 1929).

manufacturing processes or social meanings from any specific moment in time.²⁴

Though both books recognize the global origins of parasols and umbrellas, chapters about the eighteenth, nineteenth, and twentieth centuries reflect the implicit biases of their British authors. These texts focus primarily on British and European patterns of manufacturing and use, to the exclusion of production and consumption anywhere else. Rogers and Crawford both write in a casual style intended for the public, filling their books with lightly cited anecdotes rather than references to scholarly sources.

Jeremy Farrell's book in *The Costume Accessories Series: Umbrellas & Parasols*, offers a much more nuanced and well-cited explication of umbrella and parasol history. The book begins with a particularly helpful description of nineteenth century British manufacturing methods, identifying the major developments in production and the principal firms and individuals responsible for these developments. The book focuses almost exclusively on the production and consumption of umbrellas and parasols in Great Britain, but offers an excellent starting point from which to consider these objects.²⁵

A few other scholars have begun to address the function of umbrellas and parasols as social and cultural objects. Ariel Beaujot's chapter "'Underneath the Parasol': Umbrellas as Symbols of Imperialism, Race, Youth, Flirtation, and Masculinity" from her book *Victorian Fashion Accessories* explores the role played by umbrellas and parasols in constructing various aspects of identity among the populace

²⁴ Crawford, *A History of the Umbrella*; and Nigel Rodgers, *The Umbrella Unfurled: Its Remarkable Life and Times* (London: Bene Factum Publishing, 2013).

²⁵ Jeremy Farrell, *The Costume Accessories Series: Umbrellas & Parasols* (London: B.T. Batsford, 1985).

of Great Britain at the end of the nineteenth century.²⁶ Benjamin Schmidt's chapter "Collecting Global Icons: The Case of the Exotic Parasol," in *Collecting Across Culture: Material Exchanges in the Early Modern Atlantic World* explores the idea of the parasol as an exotic icon, transferred from early modern visual representations of Asia to America, Africa, and back to Asia. Schmidt makes a compelling case of the malleability and durability of the parasol as a symbol of constructed exoticism.²⁷ Both of these chapters indicate the promising directions that scholarship about these objects are taking, recognizing the ubiquity of these objects in many different moments across the globe. Neither book, however, makes connections between their documentary and visual sources and any surviving umbrellas and parasols. Were these authors to supplement their studies with material culture approaches, they could strengthen their claims about the roles played by umbrellas and parasols in various societies.

The study of umbrellas and parasols is part of a larger body of scholarship about the history of accessories, and a still larger history of costume and fashion. General histories of fashion usually devote a few lines to the re-emergence of parasols in Europe during the eighteenth century and the continued usage of these items during the nineteenth and early twentieth centuries.²⁸ More specialized histories of fashion

²⁶ Ariel Beaujot, *Victorian Fashion Accessories* (London: Berg Publishers, 2012).

²⁷ Benjamin Schmidt, "Collecting Global Icons: The Case of the Exotic Parasol," in *Collecting Across Cultures: Material Exchanges in the Early Modern Atlantic World* edited by Daniela Bleichmar and Peter C. Mancall, (Philadelphia: University of Pennsylvania Press, 2011).

²⁸ For examples of general costume histories with images or descriptions of umbrellas and parasols, see Phyllis Totoro, *A Survey of Historic Costume* (New York: Fairchild Publications, 1989); Akiko Fukai, *The Collection of the Kyoto Costume Institute. Fashion: A History from the 18th to the 20th Century* (London: Taschen, 2002); Dorine van den Beukel, ed. *A Pictorial History of Costume* (New York: Costume & Fashion

and costume that focus on the nineteenth century or the Victorian era frequently include some description of the decoration and use of umbrellas and parasols.²⁹ Histories of accessories often devote a chapter to the history of umbrellas and parasols, citing and imitating the nineteenth century histories described above.³⁰ Many of these texts contain illustrations that include umbrellas and parasols, a visual supplement to the often limited textual descriptions of these objects.³¹ While umbrellas and parasols are mentioned in many fashion histories, they are rarely described in more than a few sentences and never include a description of the objects beyond their use as fashionable accessories or any information about when, where, how, and by whom they were made.

Press, 1998); and Susan Brown, *Fashion: The Definitive History of Costume and Style* (New York: DK Publishing, 2012).

²⁹ For examples of nineteenth century costume histories with images or descriptions of umbrellas and parasols, see Vanda Foster, *A Visual History of Costume: The Nineteenth Century* (London: B T Batsford Ltd., 1984); Penelope Byrde, *Nineteenth Century Fashion* (London: B.T. Batsford Limited, 1992); and Ann Buermann Wass and Michelle Webb Fandrich, *Clothing through American History: The Federal Era through Antebellum, 1786-1860* (Santa Barbara, CA: Greenwood, 2010).

³⁰ For examples of histories of accessories with entries about umbrellas and parasols, see Katherine Morris Lester and Bess Viola Oerke, *Accessories of Dress: An Illustrated Encyclopedia* (Mineola, NY: Dover Publications, Inc., 2004); Valerie Cumming, *The Visual History of Costume Accessories* (New York: Costume & Fashion Press, [1998]); Geoffrey Warren, *Fashion Accessories Since 1500* (New York: Drama Book Publishers, 1987); and Celia Stall-Meadows, *Know Your Fashion Accessories* (New York: Fairchild Publications, 1989).

³¹ Books that collect period images are also a useful source base for the study of umbrellas and parasols, including Vyvyan Holland, *Hand Coloured Fashion Plates, 1770 – 1899* (Boston: Boston Book and Art Shop, 1955); Doris Langley Moore, *Fashion through Fashion Plates, 1771 – 1970* (London: Ward Lock Limited, 1971); and Stella Blum, *Ackermann's Costume Plates: Women's Fashions in England, 1818 – 1828* (New York: Dover Publications, Inc., 1978).

This thesis will join a scholarly discourse about the role played by fashion, clothing, and accessories in creating identity. Authors such as Lou Taylor have explored the critical trajectory of understandings of dress, and suggest avenues for further research on the subject.³² Though this thesis does not focus on the use of umbrellas and parasols, it makes use of multidisciplinary approaches and draws upon diverse source materials in the hopes of putting Taylor's recommendations into action and opening avenues for future investigation.

This paper will also draw upon existing work about antebellum trade networks and manufacturing to better situate the roles of American umbrella and parasol manufacturers within the larger realms of national and international trade. The practices involved in making umbrellas and parasols add to the growing literature addressing outwork and female piecework labor in various industries in the United States and Great Britain during the first half of the nineteenth century.³³ This thesis

³² See Lou Taylor, *The Study of Dress History* (Manchester, UK: Manchester University Press, 2002) and Lou Taylor, *Establishing Dress History* (Manchester, UK: Manchester University Press, 2004). For other works that explore the relationship between fashion and issues of politics, technology, and identity, see Christopher Breward, *The Culture of Fashion: A New History of Fashionable Dress* (Manchester: Manchester University Press, 1995); Phyllis Totoro, *Dress, Fashion, and Technology from Prehistory to Present* (London: Bloomsbury, 2015); Barbara Clark Smith and Kathy Peiss, *Men and Women: A History of Costume, Gender, and Power* (Washington, Dc: Smithsonian Institution Press, 1989); Heidi Brevik-Zender, *Fashioning Spaces: Mode and Modernity in Late-Nineteenth-Century Paris* (Toronto: University of Toronto Press, 2015); Mina Roces and Louise Edwards, eds., *The Politics of Dress in Asia and the Americas* (Brighton: Sussex Academic Press, 2007); Linda Welters and Abby Lillethun, eds., *The Fashion Reader* (Oxford: Berg Publishers, 2011); and Peter McNeil, *Fashion: Critical and Primary Sources: The Nineteenth Century* (Oxford: Berg Publishers, 2008).

³³ Sean Wilentz, *Chants Democratic: New York City & The Rise of the American Working Class, 1788 – 1850* (Oxford: Oxford University Press, 1984); Duncan

responds to scholarship of the many types of manufacturing structures that existed between the heavily industrialized factories and artisan workshops that are used so often to characterize nineteenth century American production.³⁴ The approaches in this thesis were particularly inspired by Philip Scranton's analysis of the role of small and mid-sized firms among textile manufacturers in Philadelphia, *Proprietary Capitalism: The textile manufacture at Philadelphia, 1800 – 1885*.³⁵

Any study of umbrellas and parasols must be firmly rooted in both the real and imagined histories of umbrellas and parasols, as understandings of the history of these objects shaped how antebellum Americans thought about and used them. Applying a critical lens to the interpretation of umbrellas and parasols complicates their current roles and adds depth to existing scholarship on the subject. Bringing these complex objects to the forefront, this thesis uncovers the unusual manufacturing methods of umbrella and parasol makers as well as the networks of exchange that facilitated their

Bythell, *The Sweated Trades: Outwork in Nineteenth-Century Britain* (London: Batsford Academic, 1978); Thomas Dublin, *Women at Work: The Transformation of Work and Community in Lowell, Massachusetts, 1826 – 1860* (New York: Columbia University Press, 1979); Wendy Gamber, *The Female Economy: The Millinery and Dressmaking Trades, 1860 – 1930* (Urbana: University of Illinois Press, 1997); and Alice Kessler-Harris, *Out to Work: A History of Wage-Earning Women in the United States* (Oxford: Oxford University Press, 1982).

³⁴ Bruce Laurie, *Working People of Philadelphia, 1800 – 1850* (Philadelphia: Temple University Press, 1980); Alan Dawley, *Class and Community: The Industrial Revolution in Lynn* (Cambridge, Mass.: Harvard University Press, 1976); and Jonathan Prude, *The Coming of Industrial Order: Town and Factory Life in Rural Massachusetts, 1810 – 1860* (Cambridge: Cambridge University Press, 1983).

³⁵ Philip Scranton, *Proprietary Capitalism: The Textile Manufacture at Philadelphia, 1800 – 1885* (Cambridge: Cambridge University Press, 1983).

construction and distribution. Answering the call issued by David Piper, this thesis will begin to bring these objects out of the shadows.

Chapter 2

INTRODUCING UMBRELLAS & PARASOLS

Though umbrellas and parasols are objects that are likely familiar to all readers, many of the words used to describe these objects and their parts are not. In order to provide a foundation for understanding the vocabulary of umbrella and parasol makers, this section explains the differences between the words umbrella and parasol, and the various parts that are used to make them.

Umbrellas vs. Parasols

Current popular understandings of umbrellas and parasols seem to be rather straightforward: a parasol is an object that shades you from the sun, and an umbrella is an object that (attempts to) keep you dry in the rain. In the twenty-first century world of the United States, these objects are fairly distinct. Umbrellas are far more common than parasols. But even modern perceptions of umbrellas and parasols may not be as clear cut as they initially appear, as occasionally on a hot summer day individuals can be seen shading themselves with umbrellas.

A degree of murkiness clouds period definitions of umbrellas and parasols. Authors of magazines, account books, and advertisements from the 1830s and 1840s use both terms, usually without any situating details that could allow one to tease out differences in their meaning.³⁶ The *Oxford English Dictionary* dates the word

³⁶ *The Connecticut Courant*, “Lorin Sexton’s,” July 20, 1839, America’s Historical Newspapers; Account Book, Harriot Records, Rutgers University Special Collections;

umbrella to 1611 and defines it as “a light portable screen or shade, usually circular in form and supported on a central stick or staff, used in hot countries as protection for the head or person against the sun.” An alternate definition, in use from 1634, identifies an umbrella as “a portable protection against bad weather, made of silk or similar material fastened on slender ribs, which are attached radially to a stick and can be readily raised so as to form a circular arched canopy.” Still another interpretation dating to 1654 defines an umbrella as “anything serving as a protection or shelter from the sun, rain, etc.”³⁷ These definitions support the understanding of umbrellas as multi-purpose objects, used to shield oneself from excess rain or sun. The word *parasol*, dating to 1616, is defined more narrowly as “something that gives shade from the rays of the sun; *spec.* a screen or canopy, usually in the form of a small light umbrella, often ornamental or brightly coloured; (hence more generally) a sunshade, sun-umbrella.”³⁸ Parasols are defined as a subset of umbrellas, although they are commonly believed to have been invented before umbrellas.

Other references from the period echo the differences delineated in the *Oxford English Dictionary*, but do not reach consensus on the distinctions between these objects. William Grimshaw’s *Etymological Dictionary*, published in Philadelphia in

and Virginia F. Townsend, “Jessie Moore’s Journal,” *Godey’s Lady’s Book* (December 1858), Accessible Archives.

³⁷ Oxford English Dictionary Online, s.v. “umbrella,” March 2016, Oxford University Press, <http://www.oed.com/view/Entry/208852?redirectedFrom=umbrella>, accessed March 15, 2016.

³⁸ Oxford English Dictionary Online, s.v. “parasol,” March 2016, Oxford University Press, <http://www.oed.com/view/Entry/208852?redirectedFrom=umbrella>, accessed March 15, 2016.

1826, identifies a parasol as “A portable shelter from the sun,” and an umbrella as “A portable skreen, used as a shelter from the sun, or from the rain.”³⁹ Abraham Rees’ *Cyclopaedia: or Universal Dictionary of Arts, Sciences, and Literature* was published in Philadelphia during the first quarter of the nineteenth century. Rees’ work does not include an entry defining umbrellas, but identifies a parasol as:

A little moveable, in the manner of a canopy, borne in the hand to screen the head from the sun, rain, &c. more usually called umbrella. It is made of leather, taffety, oil-cloth, &c. mounted on a stick, and opened or shut at pleasure, by means of pieces of whalebone that sustain it. The East Indians never stir without a parasol. The word is French, and that used against rains is sometimes called *parapluie*.⁴⁰

Rees conflates the meanings and uses of umbrellas and parasols. He recognizes the terms as separate words, and even describes the French “parapluie” as a word referring exclusively to an object used in the rain. Yet, Rees suggests that the wider use of the word umbrella is the only difference between umbrellas and parasols. In Rees’ entry, umbrellas and parasols share a history and are made of the same materials.

In some of the dictionary entries defining umbrellas and parasols, differences are delineated primarily through the subset of people that use them, not through the weather conditions in which they are used. In the *Oxford English Dictionary*, examples of the usage of the word parasol from period documents refer only to its use by women and foreigners, while umbrellas are described as used by British men and

³⁹ William Grimshaw, *An etymological Dictionary and Expositor of the English Language*, s.v. “parasol” and s.v. “umbrella,” (Philadelphia: John Grigg, 1826).

⁴⁰ Abraham Rees, *The Cyclopaedia: Or, Universal Dictionary of Arts, Sciences, and Literature*, s.v. “parasol” and s.v. “umbrella,” (Philadelphia, PA: Published by Samuel F. Bradford and Murray, Fairman and Co., [1802 – 1824?]).

women.⁴¹ Francis Lieber's 1835 *Encyclopaedia Americana* does not include an entry for umbrellas, but describes the history of parasols and notes that they were used by men as well as women in a manner that suggests that this may have been surprising to his readers.⁴² The 1832 edition of Noah Webster's *American Dictionary* offers an indistinct separation between the uses of umbrellas and parasols, defining an umbrella as "A shade, screen, or guard, carried in the hand for sheltering the person from the rays of the sun, or from rain or snow," and defines a parasol as "A small umbrella used by ladies to defend themselves from rain, or their faces from the sun's rays."⁴³ Webster does not distinguish between the uses of these objects, but rather between those who use them. He specifies that parasols were used by ladies, but does not iterate a gendered user of umbrellas. While these entries certainly indicate that gender was shaping how Americans thought about and defined the use of umbrellas and parasols, they also express a degree of ambiguity. A modern umbrella scholar notes that, "Men, did not, as a rule, carry parasols... Men, however, did carry umbrellas as sunshades," suggesting that umbrellas were multipurpose objects and that the difference between umbrellas and parasols was demarcated through gender as well as use.⁴⁴ Yet, evidence from dictionaries and encyclopedias does not suggest a clear

⁴¹ Oxford English Dictionary Online, s.v. "umbrella" and s.v. "parasol."

⁴² Francis Lieber, *Encyclopaedia Americana: A Popular Dictionary of Arts, Sciences, Literature, History, Politics and Biography, brought down to the present time*, s.v. "parasol," (Philadelphia: Carey, Lea and Blanchard, 1835).

⁴³ Noah Webster, *An American Dictionary of the English Language*, s.v. "umbrella" and s.v. "parasol," (New York: S. Converse, for White, Gallagher, and White, 1832), Google Books.

⁴⁴ Jeremy Farrell, *Umbrellas and Parasols*, 26.

enough distinction between male and female use of umbrellas to definitively identify parasols as “female” objects and umbrellas as “male” objects in this period.

The understanding of parasols as protection from the sun and umbrellas as protection from the rain and sometimes the sun is supported by practical considerations. Much more effort is needed to make an object that can withstand rain than an object that can withstand sun exposure. Objects made to protect individuals from rain could also be used to protect from excessive sunlight, but this relationship was not reciprocal. Many of the decorations and embellishments used on parasols would simply not have been able to survive use during inclement weather.



Figure 3 Parasol. 1999.1040. Chester County Historical Society, West Chester, PA.

Surviving umbrellas and parasols seem to support this interpretation. Some can be clearly identified as parasols: highly decorated objects that could not successfully shield anyone from rain or snow. Other objects are clearly umbrellas, offering protection from rain due to their heavier construction, larger size, and oiled, water resistant coverings. On the whole, umbrellas tend to be more utilitarian than parasols, with fewer intricate decorations that could be damaged in a storm. Although some umbrellas have carved or decorated tips and handles, these objects generally have plain covers and none of the delicate carvings that characterize the finest parasols.



Figure 4 Umbrella. 2001.1144. Chester County Historical Society, West Chester, PA.

Just as distinctions in this terminology are vague, some surviving objects also occupy an indistinct middle ground. These “in between” objects appear larger and more utilitarian than many parasols, yet smaller and more delicate than most umbrellas. These objects challenge a simple understanding of the differences between umbrellas and parasols, and suggest that exceptions exist to challenge any clear cut distinction between umbrellas and parasols.



Figure 5 Possible Parasol or Umbrella. 2000.581. Chester County Historical Society, West Chester, PA.

For convenience, this paper will adhere to the general understanding of umbrellas as objects used to shield from the rain and occasionally sun, and parasols as objects used to shade from the sun. While these definitions were not clearly stated by all authors of dictionaries, they appear often enough to suggest this interpretation. When referring to specific surviving examples or images, the word umbrella or parasol will be used as appropriate. However, when referring to larger groups or indeterminate objects, the phrase “umbrella or parasol” will be used.

Parts of Umbrellas and Parasols

Even the simplest, least embellished umbrella or parasol is made of many different component parts. By one author’s estimate, “a full sized umbrella is

composed of *one hundred and twelve* different pieces.”⁴⁵ At least a rudimentary understanding of how each component part was made, the materials each part could be made from, and the variations in design and styling that were available for each part is necessary to grasp how these parts came together in completed umbrellas and parasols. Although many of the terms used to describe these parts may seem self-evident to readers, deciphering both material and documentary evidence requires a thorough description of each part’s function, and decoration. The words used to describe these parts were not standardized during this period and continue to vary today, but the images and descriptions below identify the terminology that will be used in this paper.⁴⁶ The inconsistencies in terminology between documentary sources, and even within the pages of the Harriot’s account book, demonstrate the lack of a common vocabulary of umbrellas and parasols in this period.

⁴⁵ “Something about Umbrellas,” *Journal of Useful Knowledge, Monthly Record of New Publications*. Vol. IV, no. 3 (March, 1853), 29, Umbrellas Series, Warshaw Collection of Business Americana, Box 1, Folder 31.

⁴⁶ These descriptions are primarily based on observational evidence gathered from handling and viewing many examples of antebellum umbrellas and parasols. The unequal rates of survival between types of umbrellas and parasols tend to favor fancy, more expensive umbrellas and parasols, so while I will mention different types of designs and materials that survive, I will not take this set of objects to be representative in terms of style.



Figure 6 Carved ivory or bone handle and shaft. 1999.995. Chester County Historical Society, West Chester, PA.

Beginning at the bottom of an umbrella or parasol, the first component is the handle. Handles took many different forms, but ostensibly served the practical purpose of offering an area upon which bearers could easily grasp these objects. On heavier umbrellas, handles often were sturdier and weightier, while on smaller, lightweight parasols, handles were accordingly minimal additions. Handles could either be a separate part added onto the shaft, or could be a distinctively shaped portion made of the same material as the shaft. Handles were made of many materials, including ivory, bone, wood, metal, and in some rare cases, coral. The article “Something About Umbrellas,” refers to handles as “heads,” and notes that “The ivory for heads is procured in Salem, which is the great ivory market of the country... Heads vary in price from \$4 per gross to \$12 a piece.”⁴⁷ Most handles take the shape of rounded c-curve or jut out at a perpendicular angle from the shaft, though many other shapes also existed. The fanciful shapes that appear on some handles reflect the artisanal production of individual carvers. Handles could be engraved with an owner’s name or

⁴⁷ “Something About Umbrellas,” 29, Umbrellas Series, Warshaw Collection of Business Americana.

initials or enhanced with other carved designs. The handle was a principal spot for embellishment on umbrellas, whether through shape, decoration, or materials.



Figure 7 An unusual carved umbrella handle. 2001.563. Chester County Historical Society, West Chester, PA.

Harriot's wage book records payments to workers for making handles. The wage book also includes payments for the creation of "hooks" and "heads," both synonyms for handles. Bottoms and butts might also refer to the bottom half of a shaft under a joint. Harriot's payments describe hooks using the words "turned," "common," and "parasol." The 1839 inventory of Harriot's shop also includes "One

Groce Parasol Hooks.”⁴⁸ Harriot also paid employees for jointing and putting in handles. Harriot does not ever describe the materials used to make these hooks or handles, nor does he include any references to decorative elements like specialized engraving or unusual carvings on these parts. Harriot may not have included such intricate pieces on the umbrellas and parasols made by his firm, or he may have acquired completed examples from other craftsmen.

Shafts are the central part of an umbrella or parasol, from which nearly all of the other parts extend. As such, their design is principally a function of the practical purposes which they must serve. On bulkier umbrellas, the shafts are correspondingly longer, thicker, and weightier. On smaller parasols, shafts appear with a smaller diameter and length and are lighter. Shafts were principally made of wood and occasionally bamboo. “Something About Umbrellas” describes the types of woods used to make shafts, their geographic origins, and their costs, stating that:

France contributes the palm-wood, satin-wood, rosewood, partridge (or hare) wood and the white holly stocks, in a finished state. India supplies the bamboo, and our American forests furnish the hard maple. The imported sticks cost from \$3 to \$10 per dozen, and the American maple from \$1 to \$2 50 per gross, in the rough.⁴⁹

“Something About Umbrellas” describes in some detail how saws and lathes were used to “fit the wood for duty as an umbrella stick.” After sticks were turned into the proper shape, they were processed still further, as an “ingeniously geared saw cuts the

⁴⁸ Inventory and appraisement of the Personal property belonging to the Late firm of David Harriot & Co., Harriot Records, Special Collections and University Archives, Rutgers University Libraries, n.p.

⁴⁹ “Something About Umbrellas,” 29, Umbrellas Series, Warshaw Collection of Business Americana.

inclined grooves in which the springs are to play.” A worker then “colors the edges which have been whitened by the action of the saw” before the upper and lower springs were put in place in the shaft with a wire peg and the runner was positioned on the stick.⁵⁰ Some shafts were made of metal, though observational evidence suggests that most metal shafts were used during the second half of the nineteenth century. On very rare occasions, shafts could be made of ivory or bone. Shafts were typically cylindrical in shape, and were sometimes also decoratively carved. The most common carving pattern that survives is a faux-bamboo pattern, though other linear designs also appear. Shafts were often painted or varnished black, white, brown, and occasionally other colors. Wooden shafts were also sometimes stained.

Harriot does not use the word shaft in any of his surviving papers, referring instead to “sticks” and “pillars.” Harriot’s wage book includes payments for tasks that refer to sticks and pillars as “fluted,” “new,” and “bundled.” He also pays employees for filing, jointing, pointing, polishing, and varnishing sticks. Filing and pointing gave shafts their distinctive shapes, while jointing, polishing, and varnishing added non-essential decorative or folding features to umbrellas and parasols. Harriot’s inventory also includes “6 1/4 Groce Twisted & Cut Sticks Polished, 4 4/12 Groce Plane Sticks Polished, 4 9/12 Butt & Common Sticks, 1 Groce 9/16 Fluted But Sticks, A Lot of Old Fashion Parasol Sticks [and] 1 Groce 11/16 Cut Sticks.”⁵¹ The variations between twisted, polished, plain, common, fluted, and old fashioned sticks suggest that the sticks were made to fit various design aesthetics. The many references to sticks and

⁵⁰ Ibid., 29.

⁵¹ Inventory, Harriot Records, Special Collections, Rutgers, n.p.

pillars found in Harriot's inventory and wage book reflect the central role of the shaft in an umbrella or parasol.



Figure 8 Wire spring installed within parasol shaft. 2001.606. Chester County Historical Society, West Chester, PA.

Several other parts of umbrellas and parasols are located upon the shaft, including springs. Springs are found at the top and sometimes the bottom of the shaft. Top springs hold a runner in place and keep an umbrella or parasol open, while bottom springs function to keep an umbrella or parasol closed. These springs were usually made by creating a long, narrow hole in the shaft. Then a piece of bent wire (the spring), would be inserted into the shaft. The bent portion protruded from the hole in such a manner to hold the runner in place until the spring was depressed by a user, at which point the spring receded into the shaft and the umbrella or parasol could be accordingly furled or unfurled. Most springs on surviving umbrellas and parasols are still functioning, a testament to the workmanship of their makers.

Harriot paid employees five times for making 216 springs. Each of these payments was made in either 1838 or 1839, raising questions about where he got the springs that were undoubtedly on the umbrellas and parasols he made before then. When Harriot does pay employees for making springs, he refers to both “thumb springs” and “hand springs.” The distinction between the two types of springs is not immediately apparent, though it is possible that they correspond to top and bottom springs.



Figure 9 Parasol with bent joint and decorated brass joint holder. 1999.1049. Chester County Historical Society, West Chester, PA.

Other features of umbrellas and parasols located upon the shaft are the joint and joint holder. Some umbrellas and parasols were made with joints in their shafts so that they could be folded for easier mobility and portability. This feature is especially prevalent on smaller parasols, where joints are typically found in the midpoint of a shaft. Some larger umbrellas also have joints, frequently positioned very close to the

handle. The location of a joint was determined in part by the length of ribs and stretchers. A joint could not be made higher than the lowest point on the shaft to which the runner extended when a parasol or umbrella closed. Joints were typically made by cutting the shaft in half, and then attaching a hinge to both sides that kept the pieces together and aligned when extended into a straight line. Joints also sometimes marked a transition point of the material of the shaft. On some surviving parasols, the handle and portion of the shaft located beneath a joint were made of a single piece of ivory or bone with the portion of the shaft above the joint made of wood.

Joint holders were used to keep the hinges extended in a straight position when an umbrella or parasol was unfurled. Joint holders were cylindrical pieces of metal fitted around the shaft above the joint. When the joint was extended straight, the joint holder slid down into place around the joint and kept it in place. Both hinges and joint holders were made of metal, with joint holders typically made of copper alloy. They were sometimes painted or varnished black, white, or brown to match the color of the shaft. Joint holders bear similar appearances across surviving umbrellas and parasols, with many looking to have been made in uniform sizes and occasionally with similar decorative patterns such as ribbing and spiral designs. One exceptional example survives at the Chester County Historical Society of a joint holder engraved with an owner's name.



Figure 10 Joint holder with inscription reading, “Janie B. Jacobs/ West Chester, Pa”. 2001.552. Chester County Historical Society, West Chester, PA.

Though Harriot makes no explicit mentions of joints, hinges, and joint holders as parts in his wage book, he does frequently record payments for the action of “jointing” something. Harriot pays employees for jointing and varnishing unspecified parts, jointing ivory handles, jointing parasol handles, jointing parasols, and jointing sticks. Harriot also mentions “barrels,” which may be a synonym for joint holders, or perhaps for runners. Harriot’s inventory includes a lot of “¼ Groce Parasols Jointpipes,” which may be another synonym for joint holders.⁵²

⁵² Ibid., n.p.



Figure 11 Brass runner with attached stretchers. 1999.1052. Chester County Historical Society, West Chester, PA.

The runner is another umbrella and parasol part located on, but not directly a part of, the shaft. This small piece of metal fits around the shaft and is the juncture to which the stretchers attach. “Something About Umbrellas” states that runners were “made of brass or iron,” and by 1853 were primarily “manufactured in Frankfort, Pa., and in Connecticut, at a cost of \$1 50 to \$2 25 per gross.”⁵³ The runners have a notch around the edge, through which a wire runs that attaches through a hole in each

⁵³ “Something About Umbrellas,” 29, Umbrellas Series, Warshaw Collection of Business Americana.

stretcher. The runner slides up and down the shaft, furling and unfurling an umbrella or parasol through its movements. Most runners also have a rectangular notched hole which fits the springs, securing the umbrella or parasol in an open or closed position. Runners appear to have been made in fairly standardized shapes across surviving umbrellas and parasols. Those on larger and sturdier umbrellas tend to be correspondingly longer and stronger, while those on smaller parasols are shorter.

Harriot's wage book includes no payments that directly record runners, unless, as noted above, his use of the word "barrels" refers to runners. His inventory, however, does include a lot of "7 Groce Runners Umbs [and] 2 $\frac{3}{4}$ Groce Parasols Runners."⁵⁴ The inclusion of these items in Harriot's inventory rather than his wage book supports the idea that he purchased these pieces ready-made from other craftspeople rather than paying his own employees to make them. It is also possible that he included payments for the creation of runners under a more general task such as "frames."

⁵⁴ Inventory, Harriot Records, Special Collections, Rutgers, n.p.



Figure 12 A runner painted cream attached to forked stretchers also painted cream, which are attached to baleen ribs covered in fabric. 1999.1003. Chester County Historical Society, West Chester, PA.

The stretchers, which attach to the runner and the ribs, also perform the integral functions of furling and unfurling an umbrella and parasol and supporting the cover and ribs when the umbrella or parasol is open. Most umbrellas and parasols have eight stretchers, each corresponding with one of the ribs. Each stretcher has a hole at one end, through which a wire attaches it to the central runner. The other end forks out into two prongs, which span the width of a rib. The stretchers are secured through the ribs. While the stretchers were always metal, they were sometimes painted black or white. The simple design of these objects is very consistent across surviving umbrellas and parasols and seems to have been relatively standardized according to the lengths

of the shaft and ribs. “Something About Umbrellas” notes that a transition in the manufacture of stretchers occurred shortly before the publication of this essay, stating, “Until recently these stretchers have all been imported, but a Yankee has invented a simple machine which receives the wire from the coil, and turns it out a perfect stretcher ready for service. They are made from Pennsylvania iron, and are worth about 9 cents per pound.”⁵⁵ Just as runners were made according to standard sizes and designs, so too were stretchers. Umbrella manufacturers did not make their own stretchers or runners, but rather purchased them from international and domestic producers of these parts.

Harriot includes no direct references to stretchers in the wage book, though all of the completed umbrellas and parasols which he made would require these pieces to function. The 1839 inventory of his firm mentions “520 Ms Black Streachers and 23 Doz. Sets Parasol Streachers.”⁵⁶ The inclusion of these items in Harriot’s inventory rather than his wage book suggests that his firm purchased rather than made these parts.

⁵⁵ “Something About Umbrellas,” 29, Umbrellas Series, Warshaw Collection of Business Americana.

⁵⁶ Inventory, Harriot Records, Special Collections, Rutgers, n.p.



Figure 13 Forked stretcher attached to baleen rib. 2001.559. Chester County Historical Society, West Chester, PA.

Ribs also facilitate the opening and closing of an umbrella or parasol, supporting and spreading the cover as it unfurls. Though the metal ribs used in most modern umbrellas and parasols are u-shaped in profile, the whalebone ribs found in nearly all surviving umbrellas and parasols are cut to be rectangular or square in profile. The length of the ribs depended on the length of the shaft and size of the cover, while the width of ribs depended upon the size of cover and weight of the material that the ribs needed to support. Wider ribs add significantly to the total weight of an umbrella or parasol. Most umbrellas and parasols had eight ribs equally distributed around an umbrella or parasol. The author of “Something About Umbrellas” stresses the importance of balancing the weight of ribs around an umbrella

or parasol, stating that “in no part of an umbrella are care and judgment more necessary than in the selection and preparation of the ribs.”⁵⁷

Each of the ribs terminates in a small metal piece, called a top tip, through which a wire passes that is also attached to an area called the notch found at the top of the shaft. These parts that attach the ribs to the shaft facilitate the motion of opening and closing the umbrella or parasol. The joint between the ribs and the shaft sits under the cover and top and above the top spring of the umbrella or parasol. At the other end, the ribs ended in some sort of tip. The movement of the ribs was controlled by the attached stretchers. The juncture where stretchers attach to the ribs is one of the weakest points of the umbrella. To prevent breakage at this point, ribs were sometimes reinforced with a small metal wrap where the stretchers were attached.

The material used to make the ribs, baleen, has the benefit of high flexibility and plasticity.⁵⁸ These qualities allowed makers of umbrellas and parasols to create umbrellas and parasols that unfurled into unusual shapes. These differing shapes were not achieved by cutting or shaping the ribs in particular shapes or patterns, but rather by attaching them in different spots to covers of certain shapes. The same baleen ribs could be used on umbrellas or parasols with straight or curved profiles. While the material properties of baleen allowed umbrella and parasol makers additional creativity in their designs, baleen is frequently the source of condition problems on

⁵⁷ “Something About Umbrellas,” 29, Umbrellas Series, Warshaw Collection of Business Americana.

⁵⁸ Valerie Steele, *The Corset: A Cultural History*. (New Haven, CT: Yale University Press, 2001) 6-7.

surviving umbrellas and parasols. Many of these objects have one or two ribs that have broken at some point.

The essay “Something About Umbrellas” speaks extensively about the materials and processes used to make ribs, noting that these were perhaps the most important parts of an umbrella or parasol. The author compares the costs and methods of preparing raw materials to use as ribs, stating:

Ribs are generally made of whalebone... Whalebone has risen enormously within the recollection of the firm whose establishment furnishes the groundwork for this article – say from 12 ½ to 51 cents per pound, in the slab; although within a few weeks it has receded to 35 cents. The annual demand for whalebone throughout the world is nearly 4 millions of pounds... The ribs are wrought into long strips to the pound, and so accurately are they gauged that the difference does not amount to three per cent... This house uses over three million pieces in a year. Cane or rattan is often used for common ribs. It is imported from the East Indies, in bundles of 100 pounds, and fitted for ribs by running through a machine which shaves off three sides of the cane... Steel ribs are also used to some extent, and when the material is good, they answer the purpose extremely well. But a good deal of inferior steel has been used, which has brought the steel ribs into general discredit.⁵⁹

Patents for metal ribs had been introduced shortly before the publication of this article, perhaps generating the author’s skepticism towards the material. In addition to describing these materials, the article also explains specifically describes the steps done by workers to transform baleen into ribs.⁶⁰

⁵⁹ Raising another objection to the use of steel in umbrellas, the author also states that “Besides, the ladies are opposed to the use of steel in umbrellas.” “Something About Umbrellas,” 29, Umbrellas Series, Warshaw Collection of Business Americana.

⁶⁰ For a full description of the manufacturing of ribs, please refer to Appendix B.

Though no ribs are mentioned in the inventory of Harriot's stores, Harriot paid his employees four times for making a total of 120 "rib frames" and once for making 144 "rib parasol bone." Harriot's conflation of rib and frame into one task supports the idea that his usage of the word frame could include several different component parts, such as ribs, stretchers, runners, and perhaps also shafts. Harriot's inventory also includes a mention of "1 sorting gage," which was likely the measuring tool used to ensure that ribs were evenly balanced.⁶¹



Figure 14 Baleen ribs attached to top tips, which fit into notches at the top of an umbrella's shaft. 2001.607. Chester County Historical Society, West Chester, PA.

⁶¹ Inventory, Harriot Records, Special Collections, Rutgers, n.p.

The top tips, which affix the rib to the top of the shaft, are described in “Something about Umbrellas” as “made of brass, and... are manufactured in Frankfort, Pa., at 28 cents per gross.”⁶² These top tips were then attached to a notch, which was “the piece into which the bones or ribs are all inserted at the upper end of the stick. It is made of brass at the same factories as the runners, and costs \$1 37 per gross.”⁶³ Top tips and notches were important structural parts in any umbrella or parasol. Though “Something About Umbrellas” suggests that firms purchased their top tips and notches rather than making them, top tips are mentioned frequently in Harriot’s wage book. In 108 different recorded payments, his employees made 4,169 top tips. Harriot’s inventory also includes “4 5/12 Groce Top Notches” and “16 Groce Top taps.”⁶⁴ The large number of both top notches and top tips on hand in Harriot’s store suggest their important role in any umbrella or parasol.

As noted above, Harriot’s records do not include as many instances of making or processing parts like ribs, stretchers, and runners as would be expected for the number of finished umbrellas and parasols he made. The inclusion of these items in Harriot’s inventory rather than the firm’s wage book suggests that Harriot purchased them from others. Whether purchased or made by Harriot’s employees, runners, stretchers, ribs, top tips, and notches were combined into a single unit, which was

⁶² “Something About Umbrellas,” 29, Umbrellas Series, Warshaw Collection of Business Americana.

⁶³ *Ibid.*, 29,

⁶⁴ Inventory, Harriot Records, Special Collections, Rutgers, n.p.

called a frame.⁶⁵ Shafts, covers, tops, handles, and any other parts were attached to a frame to create a finished umbrella or parasol. The methods used to make frames would change drastically throughout the nineteenth century due to the growing popularity of frames made entirely of metal.⁶⁶

Frames are the second most frequently listed part in Harriot's wage book, appearing in 136 different payments. Frames also appear in several lots included in Harriot's inventory, including "268 Parasols Frames Good, 249 Parasols Frames Common, 41 Framed W Tops, 50 Framed Common Spliced, 176 Framed Common Spliced, 36 Ivory But Parasols Frames, 102 Frames, [and] 34 Frames."⁶⁷ The large number of frames included in the inventory suggest their importance in the creation of umbrellas and parasols.

The chart below highlights all of the tasks in Harriot's wage book that make reference to frames, including a generic task simply identified as "frames," which likely referred to the assembly of various parts into each frame.⁶⁸ The descriptions of these tasks disclose some of the actions used to make frames and the types of materials Harriot used to construct frames. By comparing the different details included by Harriot in tasks relating to frames, patterns in pricing and production begin to emerge.

⁶⁵ "Something about Umbrellas" describes the process used to assemble these pieces in detail, and can be read in Appendix B.

⁶⁶ Farrell, *Umbrellas & Parasols*, 11 - 13.

⁶⁷ Inventory, Harriot Records, Special Collections, Rutgers, n.p.

⁶⁸ Here, and throughout the thesis when referring to Harriot's wage book, I use the word "task" to mean each line in a wage entry. In the task payment system, employees were paid for completing individual tasks, such as "varnishing top tips." The total payment that an employee received on a pay day was the sum of all of the payments he or she received for each task completed.

Table 1 : Tasks involving frames in the wage book of David Harriot & Co.

Task performed	Total instances of task in book	Total number of items made	Avg. number of items made per task	Total pay for all tasks	Avg. pay per item made	Avg. pay per task
Altering frames	2	120	60	\$2.75	\$0.02	\$1.38
Bone frames	9	427	47	\$19.76	\$0.05	\$2.20
Cane frames	1	72	72	\$3.00	\$0.04	\$3.00
Common frames	6	408	68	\$18.50	\$0.05	\$3.08
Double tops frames	2	67	33.5	\$7.80	\$0.12	\$3.90
Frames	57	3,30	58.4	\$166.31	\$0.05	\$2.92
Parasol frames	37	2,295	62	\$121.31	\$0.05	\$3.28
Parasol frames black tips	5	300	60	\$17.19	\$0.06	\$3.44
Rattan frames	1	75	75	\$3.12	\$0.04	\$3.12
Rib frames	4	120	30	\$6.11	\$0.05	\$1.53
Salt tip frames	1	36	36	\$3.56	\$0.10	\$3.56
Self typed frames	2	72	36	\$7.21	\$0.10	\$3.61
Shifling frames	1	18	18	\$0.25	\$0.01	\$0.25
Splicing frames	4	235	58.8	\$27.56	\$0.12	\$6.89
Splicing parasol frames	1	36	36	\$3.00	\$0.08	\$3.00
Umbrella frames	2	74	37	\$5.61	\$0.08	\$2.81

Isolating one part of an umbrella or parasol allows for a clearer comparison and analysis of the price differentials of the materials and processes that could be used to make frames. The generic tasks “frames” and “parasol frames” were the most commonly used and had the most items made per task. Both “frames” and “parasol frames” average out to a relatively low payment per item of \$0.05, probably a result of these general categories including frames that were both more and less expensive than \$0.05. The tasks “splicing frames” and “splicing parasol frames” occurred much less often than the general tasks of “frames” and “parasol frames,” but were compensated

at a much higher rate. “Splicing frames” generated a particularly high \$0.12 average payment per item, and a very high average total payment per task of \$6.89. Though “Splicing frames” was never done in large quantities, it was paid at such a high rate that if an employee was paid for splicing frames, the payment was on average 81% of that employee’s weekly payment. “Double top frames” were also compensated at the high average rate of \$0.12 per item, but were made in even fewer quantities than the spliced frames.

The chart above facilitates an easy comparison of the costs involved in making frames out of different materials. Three different frames materials are specified in the task payments made by Harriot: bone, cane, and rattan.⁶⁹ Harriot’s indication of these materials refer just to the rib component of the frame, not the stretcher or runner, which were always metal. Of the surviving umbrellas and parasols studied for this paper, nearly all had baleen ribs. Harriot’s wage book thus provides an important complement to the material evidence examined in this project. Though none of the surviving umbrellas or parasols examined for this project had ribs made of cane or rattan, Harriot’s records and other documentary sources such as “Something about Umbrellas” reveal that these materials were used for this purpose.⁷⁰

The differing survival rates of umbrellas and parasols made with these materials are perhaps foreshadowed by their differing rates of use by employees at

⁶⁹ Harriot’s use of the word “bone” in reference to frames is very likely a shorthand for whalebone, or baleen. The brittle nature of bone would not be suitable as a material for ribs, which needed to be flexible.

⁷⁰ “Something About Umbrellas,” 30, Umbrellas Series, Warshaw Collection of Business Americana.

Harriot's firm. Many more bone frames (427) were made by Harriot's firm than cane (72) or rattan frames (75). Beyond the scale of production, there are not significant differences between the payments made for these types of frames. The fabrication of bone frames was paid on average at the rate of \$0.05 per item and \$2.20 per task, while cane frames averaged \$0.04 per item and \$3.00 per task, and rattan frames averaged \$0.04 per item and \$3.12 per task. The relative similarities in payment for making these frames suggests that other reasons beyond cost, time required, and difficulty of manufacturing frames out of each material were responsible for the much greater number of bone frames produced. Fashion and availability of material both played a significant role in determining what material was used to make frames.



Figure 15 Ivory tips attached to the end of parasol ribs. 1999.993. Chester County Historical Society, West Chester, PA.



Figure 16 Whalebone ribs tapered and carved into tips. 1999.1049. Chester County Historical Society, West Chester, PA.



Figure 17 End of whalebone rib with no tip, covered by hanging fabric cover. 1999.1041. Chester County Historical Society, West Chester, PA.

Tips were either attached to or carved from the end of each rib of most umbrellas and parasols, meaning that most umbrellas or parasols had eight tips per object. Tips are also sometimes referred to as ferrules, though this term is also used to mean the top of an umbrella or parasol.⁷¹ Tips served to protect the ends of the ribs and to secure fabric covers onto the frame of the umbrella or parasol. Some umbrellas and parasols have fabric covers which extended over the ends of their ribs, rendering tips unnecessary. Some umbrellas and parasols survive which have ribs with ends carved to look like tips, but many more objects survive which bear tips that were created out of a different material and attached to the ribs over the cover. Many surviving umbrellas and parasols have tips made out of bone and ivory. Some tips were also made of wood, a more readily available and less expensive material. “Something about Umbrellas” confirms this observed evidence, stating that “*tips*, which are made of ivory or some description of wood to correspond with the stick, are used to give a finish to the outer ends of the ribs. In many umbrellas the bone itself is turned into a tasteful shape, when tips are dispensed with.”⁷² In the 1850s, when umbrellas and parasols were increasingly made with metal ribs after Samuel Fox’s patent for u-shaped steel ribs, tips also began to be made increasingly from metals.⁷³

Tips are mentioned very frequently in Harriot’s wage book. 108 different tasks involving tips were paid to Harriot’s employees, who made, altered, or embellished

⁷¹ Fox Umbrellas Limited, “Parts of an Umbrella,” accessed Oct. 20, 2015, <http://www.foxumbrellas.com/index.php/faqs/parts-of-an-umbrella>.

⁷² “Something About Umbrellas,” 30, Umbrellas Series, Warshaw Collection of Business Americana.

⁷³ Fox, Umbrella and Parasol, US Patent 9,725.

27,650 tips, by far the highest volume of objects made. This high level of production appears to have been a common feature of the umbrella and parasol industry. Another firm reported that “several persons are constantly employed on the premises in turning the tips.”⁷⁴ Harriot’s wage records include references to actions done to tips, such as altering, shifting, putting on, turning, and varnishing, as well as descriptions of the types of tips made, such as bone, black, and white. Harriot’s inventory also includes “45 Groce black parasol tips [and] 54 Groce white parasol tips,” a total of 14,256 tips on hand in the store.⁷⁵ Harriot’s wage books also surprisingly includes references to both “metal tips” and “tin tips.” While evidence on umbrellas and parasols would suggest that metal tips were not used until after the greater use of metal ribs in the 1850s and 1860s, the documentary evidence provided by Harriot’s wage book proves that tips made from various metals were being used as early as the 1830s.

The covers of most umbrellas and parasols consist of eight three-sided panels of fabric hand-sewn together. Covers were sewn onto the ribs at several points, and attached beneath the tips and at the uppermost point of the shaft below the top. Covers survive made out of silk, gingham, oilcloth or oiled silk, and cotton. The size of covers varies significantly according to the size of an umbrella or parasol’s shaft, ribs, and frames. Covers were made to be large enough to cover entirely the length of the ribs of an umbrella. The different textiles used as covers were frequently dyed in a range of colors, sometimes woven with figured designs, and occasionally embroidered with

⁷⁴ “Something About Umbrellas,” 29, Umbrellas Series, Warshaw Collection of Business Americana.

⁷⁵ Inventory, Harriot Records, Special Collections, Rutgers, n.p.

intricate designs in geometric or floral patterns.⁷⁶ The shapes of individual panels could be manipulated to create different shapes of unfurled umbrellas and parasols. The shape of a cover dictated the shape taken by the flexible baleen ribs when opened. Some surviving umbrellas and parasols have an additional interior fabric lining that attached to and covered the ribs, stretchers, and runners.

“Something about Umbrellas” extensively evaluates the relative merits of the three materials chiefly used on umbrellas and parasols in 1853: “silk, gingham, and alpaca.”⁷⁷ Silk was primarily imported from France, and was “all manufactured for the purpose” of being used on umbrellas, “requir[ing] that it should be thick and close, yet at the same time soft. The designs for parasol silks are often very beautiful, and large sums are expended every year in producing new designs, which last but the short life of a season. The silks used cost from 50 cents to \$4 per yard.” Gingham, on the other hand, was primarily domestically produced, with “some imported from Scotland... woven to order.” Gingham was dyed in a variety of colors, but “the color most in demand is black, blue follows next, and green – once most fashionable – is far in the rear.” Gingham covers were also produced in much greater volumes than those of other fabrics, with one estimate stating that “The proportion of gingham umbrellas manufactured to those of silk as 100 to 1.” The range of fabrics used to cover

⁷⁶ Most surviving covers appear to be earth tones, though this may be a product of how certain dyes’ appearances change and fade over time.

⁷⁷ “Something About Umbrellas,” 30, Umbrellas Series, Warshaw Collection of Business Americana.

umbrellas and parasols served a variety of stylistic and practical purposes, each catering to a different audience.⁷⁸

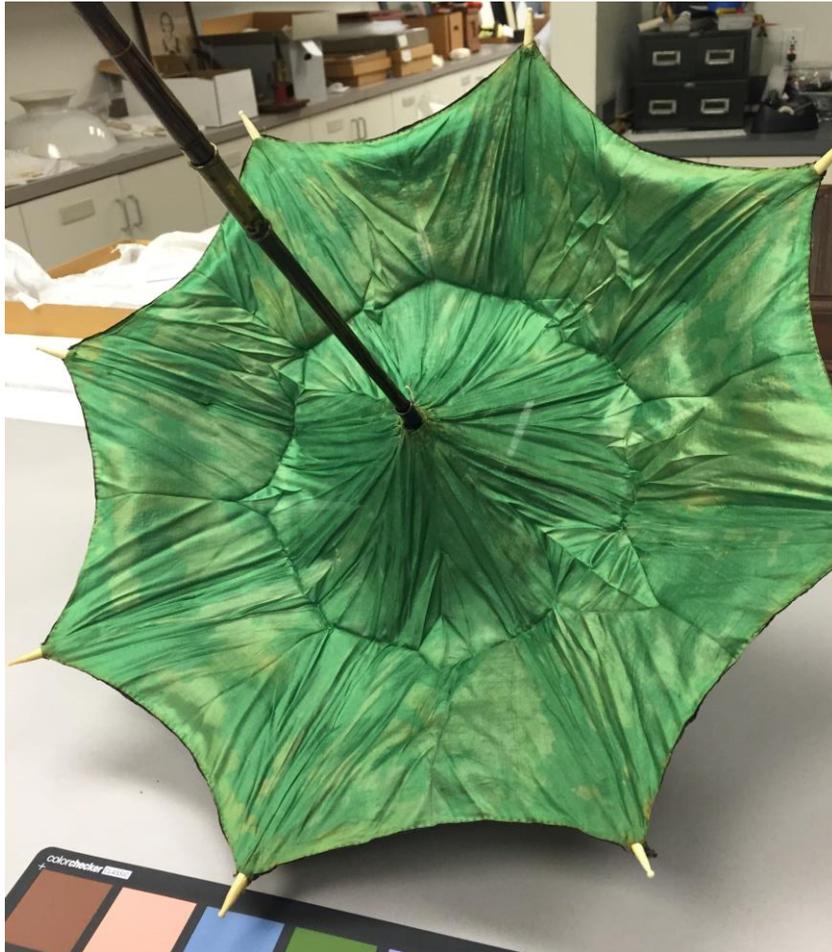


Figure 18 Interior lining on a parasol. 1999.1031. Chester County Historical Society, West Chester, PA.

⁷⁸ Ibid., 30.

Harriot's wage book never mentions covers or any work with textiles, a telling omission, as the receipts, inventory, and wholesale information included in his papers include many references to the fabrics used on umbrellas and parasols. Harriot's inventory includes "1035 $\frac{3}{4}$ Yds Blue Umb Cloth, 1272 Yds Black Umb Cloth, 778 Yds Fine Umbrella Gingham Cloth, 32 $\frac{3}{4}$ Best Silk, [and] 140 $\frac{3}{4}$ Best Silk." The inventory also includes a reference to a set of "A lot of Umbs & Parasols Patrons," which likely refers to a set of patterns used to cut out the materials for umbrellas and parasols of various sizes.⁷⁹ Harriot's receipts also record a purchase of "blk sewg cotton."⁸⁰

The umbrellas and parasols Harriot lists in his wholesale records are predominantly listed according to the fabric used for their cover. While some of the fabrics mentioned in these records are ones with which contemporary readers are likely familiar, such as cotton and silk, others are more obscure. Drawing upon definitions provided in Florence Montgomery's *Textiles in America*, many of the fabrics used to cover these umbrellas and parasols can be identified. The fabrics used by Harriot's firm included florrence, identified as "a lightweight taffeta dress silk;" gingham, identified as "a striped cloth with multiple-stranded warps and wefts and noted for toughness of texture... of pure cotton woven with dyed yarns often in stripes and checks;" and taffeta, identified as "plain woven silks with weft threads slightly thicker than warp."⁸¹ A reference to "sarsanet" indicated the use of "sarcanet... a think

⁷⁹ Inventory, Harriot Records, Special Collections, Rutgers, n.p.

⁸⁰ Inventory and Receipts, Harriot Records, Special Collections, Rutgers, n.p.

⁸¹ Florence Montgomery, *Textiles in America, 1650 – 1870: A Dictionary Based on Original Documents, Prints and Paintings, Commercial Records, American*

transparent silk of plain weave”, while references to “sinshuo” likely described the use of “sinchaw... “A silk imported from China from the late eighteenth century.”⁸² A series of references to materials variously identified as “gordunap,” “grodanap,” and “grodanople” may refer to gros de naples, “silk textiles of plain weave with a corded effect.”⁸³ A material Harriot identifies as “marsalin” may refer to the fine quilted material “marcella.”⁸⁴ The precise words used to describe covers suggest the importance of textiles to both producers and consumers of umbrellas and parasols. While Harriot’s records reflect the different types of fabrics used in umbrellas and parasols, they do not suggest any variations in the shapes or forms of the covers, parasols, or umbrellas.

Several other pieces of fabric were also added to most umbrellas and parasols. “Something About Umbrellas” reports that on each umbrella or parasol made at that firm:

*A cord is sewn into the outer edge of all covers to render them firm. A rose, made of leather, is placed under the runner to protect the hand, another above the notch shields the cover from the chafing of the top tips, and a third is placed outside the cover, under the ferule. The guard is a piece of muslin which serves to protect the cover from the ends of the stretcher, and the cap is a circular piece of ornamental glazed cloth at the top of the stick on the inner side of the cover.*⁸⁵

Merchant’s Papers, Shopkeepers’ Advertisements, and Pattern Books with Original Swatches of Cloth, (New York: W. W. Norton & Co., 2007), 239, 247, 358.

⁸² *Ibid.*, 339, 349.

⁸³ *Ibid.*, 250.

⁸⁴ *Ibid.*, 289 – 292.

⁸⁵ “Something About Umbrellas,” 30, Umbrellas Series, Warshaw Collection of Business Americana.

These pieces are seen on most, but not all surviving umbrellas and parasols. Like the covers, none of these textile pieces are mentioned in any of Harriot's surviving papers.

Tops were attached to the shafts above the covers and, like handles, were a focus for embellishment. The level of decoration and weight of a top depended on whether its umbrella or parasol was intended to be more decorative or practical. Many different variations of tops existed, from intricately carved, fragile, ivory and bone tops, to much cheaper and more durable wooden or cast metal tops. "Something About Umbrellas" uses the word "ferules" to refer to tops, and states that they were "made of ivory, bone, horn, or iron. The best iron ferules are imported from England, and the more common are made in Connecticut. They cost from 75 cents to \$4 per gross."⁸⁶ Tops are unsurprisingly a part of surviving umbrellas and parasols which often suffer from considerable wear. As the pole of the object which was not usually directly handled, this point would be among the most exposed on a furled or unfurled umbrella or parasol. Most surviving umbrella and parasol tops are made by either carving or casting materials. Some tops have multiple pieces, with a reinforced material at the end of the top to further protect it. Though many different shapes of tops survive, the tops on many umbrellas are cylindrical and narrow to a rounded point. Though made of varying materials, the top, cover, frames, and tips generally matched aesthetically.

⁸⁶ Ibid., 29.



Figure 19 Unusual carved parasol top. 1999.1045. Chester County Historical Society, West Chester, PA.



Figure 20 Frequently appearing design for brass umbrella tops. 2001.1144. Chester County Historical Society, West Chester, PA.

Tops are the parts most frequently mentioned in Harriot's wage book, included in 390 task payments for the creation of 21,661 parts. The wage book records actions done to tops, such as notching, putting on, splicing and varnishing, and different words used to describe types of tops, such as single, double, plain, black, tin, and self-tipped. The black tin, single, and double tops are especially prevalent in his wage book.

The wage book also includes references to tops made specifically for parasols and for umbrellas. Harriot's inventory lists several direct references to tops, including "18 Gingham Umbs W Top, 34 Silk Umbs Finished W Top, 66 Silk Umbs Finished W Top, 11 Silk Umbs Finished W Top, 6 Silk Umbs Finished W Top, 6 Silk Umbs Finished W Top, 16 Groce Top Taps, 1 ½ Groce Parasols Tops, [and] 41 Framed W Tops."⁸⁷ The frequent mention of tops in the inventory, both as parts in their own right and as pieces of frames or finished umbrellas and parasols, indicates their importance as decorative and practical elements of these objects. Both Harriot's wage book and inventory also mention parts referred to as "bottoms" or "butts" which may be other words used to refer to tops. Harriot's inventory also lists "silvered caps ferrels," "lackered caps" and "japaned caps farrels," which may refer to either tips or tops.⁸⁸

A wide range of options were available for many of the parts used by umbrella and parasol makers. They came together in objects which varied widely in prices. This is seen in both the finished products found in Harriot's wholesale accounts, and in the records of the firm described in "Something about Umbrellas." Harriot's goods ranged from cane umbrellas which cost \$0.96 per item and an "Umbrella gordunap" which cost \$7.50 per item⁸⁹. The author of "Something About Umbrellas" cites an even wider range of prices, noting that "The cheapest gingham [umbrella] may be had for *twenty-four cents*, and the most highly finished silk umbrella is worth *eighteen dollars*."

⁸⁷ Inventory, Harriot Records, Special Collections, Rutgers, n.p.

⁸⁸ Ibid., n.p.

⁸⁹ Wholesale Accounts, Harriot Records, Special Collections, Rutgers, n.p.

Parasols vary ... in price from *twelve cents* to *eight dollars*.”⁹⁰ The twenty year time span represented in these costs show that these objects were available at many price levels throughout the antebellum period.

Recognizing the many parts and pieces that went into each umbrella or parasol generates a familiarity with these objects that is a necessary precursor to analyzing the papers of David Harriot & Co. The terminology used by makers and users of umbrellas and parasols could vary from person to person, but seems to have generally coalesced around the definitions delineated above.

⁹⁰ “Something About Umbrellas,” 29, Umbrellas Series, Warshaw Collection of Business Americana.

Chapter 3

THE PAPERS OF DAVID HARRIOT & CO.

The scope of the David Harriot & Co. papers create a remarkably rich source of information about Harriot's practices, the state of the umbrella-making industry in the 1830s, and craft and manufacturing practices. Closely examining the two most substantial parts of the Harriot papers, his wholesale accounts and accounts of wages paid to employees, reveals patterns in the firm's production and distribution of umbrellas and parasols. A description of each section is followed by a quantitative and qualitative analysis of its contents, providing a clearer representation of what actions were performed by Harriot and his employees.

Harriot's Wage Book

The wage book is the largest portion of Harriot's papers, made up of 130 pages recording the variable wages Harriot paid workers for performing certain tasks. The wage book lists payments made to employees on nearly every Saturday between June 19, 1835 (which was actually a Friday) and July 27, 1839, with a few weeks of gaps. The book records 498 payments made to 12 different employees for 1,488 individual tasks completed, general jobs, or time worked. The amount employees were paid, which employees were paid, and the tasks performed by employees changed from week to week. Though most of the payments were made for the performance of particular tasks, some of the employees were also paid fixed amounts for general "jobs" or for a given number of "days worked." Closely analyzing which employees

did which tasks, seasonal changes, and how payment varied for different types of tasks generates a better understanding of the many factors at play in the production of umbrellas.

The methods used to record the wages vary throughout the text, but generally include the date of pay, the person being paid, what and how many items were made or tasks performed, what size the items were, the cost per item or task, the total payment per task, and the total wage payment, less any cash advances or purchases.⁹¹ The recording of payments seems to have been done by Harriot, or another individual on his staff, rather than by a professional accountant. There are some mathematical mistakes in the recorded wages, the spelling of employees' names occasionally changes, and the penmanship is not always legible. The author frequently makes use of shorthand and abbreviations, and the methods of delineating separate payments vary from page to page.⁹² These variations and discrepancies suggest that Harriot did not take advantage of the emerging class of white collar workers in New York City by hiring out his financial work. While he did hire middlemen to manage things like his domestic shipping, Harriot seems to have kept his own books. This in turn perhaps that he had received some basic training in finance and accounting.⁹³

⁹¹ As noted in an earlier footnote, I use the word task to refer to each of the jobs completed by an employee during a pay period. The sum of all of the payments received for tasks was the total wage payment an employee received in a given week.

⁹² Hereafter, the author of this account book will be referred to as David Harriot, for the sake of simplicity, though I recognize that John Engold, another employee, or even a member of Harriot's family may have been the true author.

⁹³ Several surviving American educational work books from the first half of the nineteenth century in the Joseph Downs Collection of Manuscripts and Printed Ephemera at the Winterthur Library include mathematical problems and exercises that taught accounting practices. See bibliography for full references to these work books.

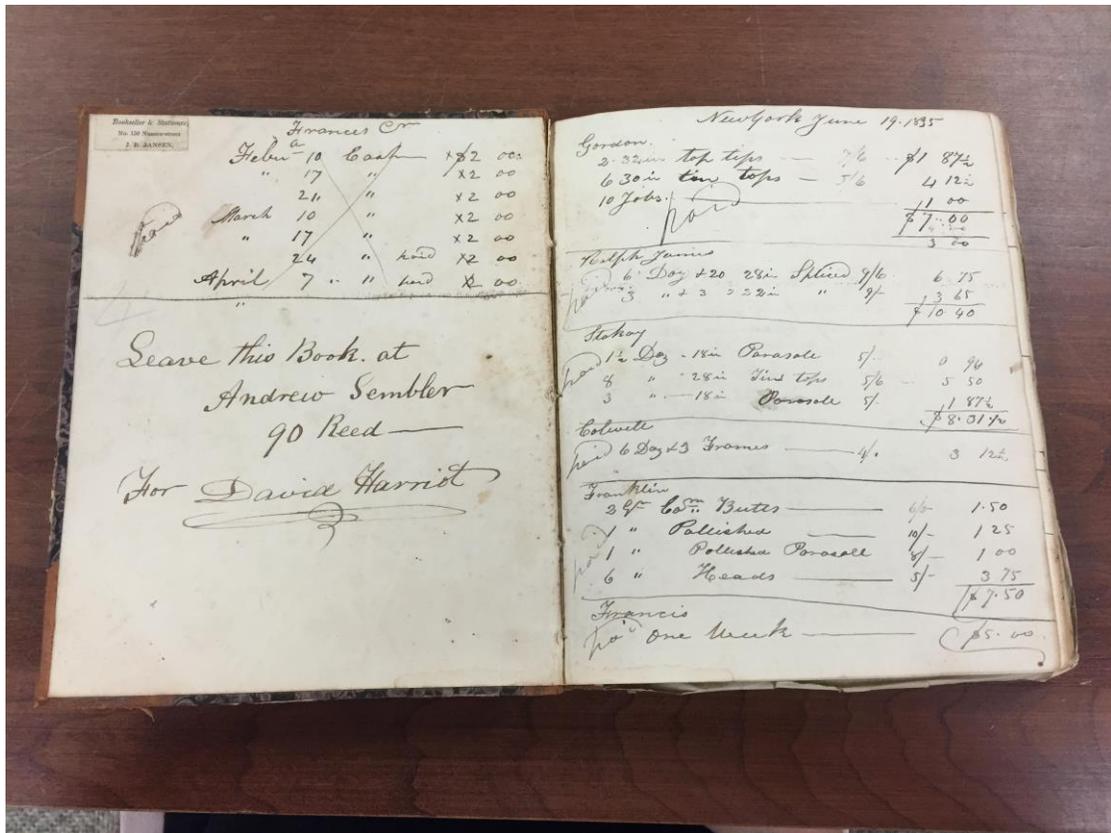


Figure 21 The first page of David Harriot's wage book. Special Collections and University Archives, Rutgers University Libraries.

The image above shows the earliest wage payment in the book, from June 12, 1835, which includes payments to six different employees for the completion of specific tasks, general "Jobs," and a time payment for "One Week." This payday includes a sampling of the various ways in which Harriot recorded the payments of his employees. The level of information included in each task varies from line to line. Of

Stuart M. Blumin, *The Emergence of the Middle Class: Social Experience in the American City, 1760-1900* (Cambridge: Cambridge University Press, 1989) 76 – 77.

the 1,488 payments for tasks, time worked, or general jobs in the book, 827 payments identify the specific part of an umbrella or parasol being made in that task. For example, in the image above, Colwell is paid for making “9 Doz. 26 in. **Frames.**” The specific parts mentioned in wage book include: barrels, bottoms, butts, frames, handles, heads, hooks, pillars, ribs, springs, sticks, tips, tops, and top tips. Other tasks include descriptive details about the kind of objects made, such as Franklin’s payment for “1/2 Gross **Common** butts” or the payment to Stokay for “3 Doz. **Black** tin tops.” Harriot’s usage of descriptive words is not consistent. Although most tasks in the book do not include any of these descriptive words, those found in the payment information include: black, bone, cane, common, double, fluted, gingham, ivory, metal, new, plain, rattan, salt, “self tipped,” single, tin, unvarnished, whalebone, white, and wood. Other tasks record payment for the completion of a specific action, such as Ralph James’ payment for “3 Doz. **Spliced** Parasoll frames.” Other actions for which individuals were paid in this book include: altering, filing, jointing, planing, polishing, putting on, turning, and varnishing.

Most entries recording payment for task completion do not specify whether the object made was intended to be used on umbrellas or parasols, though as the payment to Ralph James for “3 Doz. Spliced **Parasoll** frames” indicates, some did include this information. Of the 1,488 tasks in the book, nine mentioned parts for umbrellas and 156 mentioned parts for parasols. Ninety-six other tasks are simply recorded as making “Umbrellas” or “Parasols,” including no additional information about the pieces or actions used in the tasks. The completion of these 96 tasks produced 7,856 finished umbrellas and parasols. The vague and general terminology of “umbrellas” and “parasols” obfuscates the individual tasks that went into the assembling of

finished umbrellas and parasols. Which parts were assembled to make these finished items? What actions and processes were necessary to assemble individual parts into one cohesive item? Some of these gaps in surviving documentary evidence about the making of umbrellas and parasols can be filled by closely examining surviving umbrellas and parasols. By noting which pieces, parts, and necessary construction processes are seen on these objects and are not mentioned in Harriot's wage book, one can begin to recover the information omitted from tasks that only state "umbrellas" or "parasols."

Patterns in Harriot's Wage Book

Transferring the contents of this wage book into a spreadsheet has facilitated a more detailed study of payment and production patterns within Harriot's business. Organizing the information in this manner allows for an analysis of which tasks happened most often, when demand for certain tasks and parts occurred, which employees did which type of work, and which tasks were most highly compensated. Manipulating and studying the data in this spreadsheet elucidates such patterns in the practices of Harriot and his workers.⁹⁴ For the purposes of this paper, any payments of a fraction of a cent in the spreadsheet are rounded to the nearest cent.

⁹⁴ For the purposes of this paper, any payments of a fraction of a cent in the spreadsheet are rounded to the nearest cent.

Table 2 The most commonly paid tasks listed in Harriot's wage book

Tasks performed	Number of times task is done	Total number of items made	Avg. number of items made per task	Total pay for all iterations of task	Avg. pay per item made	Avg. amount paid per task	Avg. percent of daily pay
"Jobs"	182	n/a	n/a	\$155.00	n/a	\$0.86	9%
Self typed	158	8,600	54.4	\$566.17	\$0.07	\$3.58	31%
Black tin tops	155	8,930	576	\$560.32	\$0.06	\$3.61	39%
Double tops	122	6,068	49.7	\$692.13	\$0.11	\$5.67	56%
Parasols	87	6,890	79.2	\$318.96	\$0.05	\$3.67	39%
Tin tops	68	3,870	56.9	\$246.36	\$0.06	\$3.62	36%
Frames	57	3,330	58.4	\$166.31	\$0.05	\$2.92	47%
Top tips	52	1,903	36.6	\$149.40	\$0.08	\$2.87	33%
Rattan	42	4,006	95.4	\$176.01	\$0.04	\$4.19	40%
Turning tips	42	23,364	556.3	\$104.31	\$0.00	\$2.48	24%
Parasol frames	37	2,295	62	\$121.31	\$0.05	\$3.28	38%

The chart above lists the tasks for which Harriot most frequently paid his employees. Certain tasks appear again and again in the pages of the wage book, especially the general payment for "Jobs." Of the 182 payments for "Jobs," 171 went to John Gordon and 10 to Ralph James, the two most consistently and highest paid of Harriot's employees. The other tasks which were paid most often represent a range of different activities, pieces, and materials used to make umbrellas and parasols. Many of them involve the creation of tops or tips to augment the frame of an umbrella or parasol.

This chart also illuminates some of the discrepancies between the number of objects usually made in certain tasks and the variations in payment for these tasks. An

immense number of tips were made in the 42 instances in which an employee was paid for “Turning Tips,” with an average of 556 tips made per payment and 23,364 tips made in total throughout the course of the account book. Although Harriot’s employees made more tips than any other parts, the compensation workers received for each tip was minimal and averaged out to less than one cent per object. The ease with which tips could be turned on a lathe (perhaps one of the lathes listed in Harriot’s shop inventory) allowed employees Gale and John Gordon to finish large amounts of tips quickly. This ease of production made turning tips a less valued skill, and thus a task that received lower compensation.

The task of making “Double tops,” though less productive in terms of objects made than “turning tips,” generated far more income for employees Antonay, Colwell, and Ralph James. These employees were paid for making double tops 122 times throughout the account book, making a total of 6,068 double tops and an average of 50 double tops per wage payment. Making double tops must have necessitated a good deal more skill and time than turning tips, as employees were compensated at a much higher rate for this task. Employees received on average eleven cents per double top made. If an employee was paid for making double tops, they received an average of \$5.67 payment for total double tops made, one of the greatest pay amounts per task. Making double tops was a significant investment of time for these employees as well as a significant financial investment for Harriot. Precisely what is meant by a “double top” is unclear. Harriot does not use this designation in any papers other than his wage book, nor does it appear in any other documentary sources. None of the tops on the surviving umbrellas and parasols consulted for this project could be distinctively identified as a “double top.” While it is not obvious exactly what made these tops so

valuable, so time-consuming or so difficult to make, the large number made in total and the large amount of money that Harriot paid his workers for making them suggest that they were an important part of his umbrella manufacturing business.

As the chart above indicates, the tasks for which Harriot paid his employees were not evenly distributed; some tasks appear far more frequently than others. The various parts made by Harriot's firm follow similar patterns, with certain parts made more often and in much greater volume than others. These uneven ratios of production may indicate a division between the parts made by Harriot's employees and those which he purchased or contracted out from other craftspeople. For example, many more tops and tips are mentioned than handles or bottoms, let alone finished umbrellas and parasols. It is important to consider, however, the different sizes and numbers of pieces required to make an umbrella or parasol. Though not every surviving umbrella or parasol has tips, most do. There are usually eight tips on an umbrella or parasol, meaning that Harriot would need 8 tips for every one top, frame, or cover that he produced to make one finished umbrella or parasol. This helps account for the discrepancies in production between these parts, as seen on the chart below.

Table 3 Umbrella and parasol parts made by employees of David Harriot & Co., as recorded in Harriot's wage book

Part	Total number of parts made	Number of times an employee was paid for this	Total pay	Avg. pay per task	Avg. pay per item
Tips	27,650	108	\$267.58	\$12.74	\$0.06
Tops	21,661	390	\$1,718.51	\$61.38	\$0.09
Sticks	9,542	23	\$72.87	\$8.10	\$0.02
Heads	8,424	12	\$41.83	\$10.46	\$0.02
Frames	7,757	136	\$413.42	\$24.32	\$0.06
Barrels	5,904	4	\$15.37	\$7.69	\$0.00
Butts	4,581	12	\$37.37	\$18.69	\$0.01
Top tips	4,169	108	\$330.55	\$20.66	\$0.08
Bottoms	2,600	8	\$59.00	\$14.75	\$0.02
Pillars	2,532	4	\$9.94	\$4.97	\$0.00
Hooks	1,374	6	\$27.38	\$9.13	\$0.02
Handles	1,236	5	\$15.13	\$3.78	\$0.02
Springs	216	6	\$12.76	\$2.55	\$0.06
Ribs	164	5	\$13.61	\$6.81	\$0.05

Many more tips were made than any other type of object, though not eight times more. This chart also highlights the large quantity of tops made at the firm. An umbrella or parasol would only have at most one top, yet many more tops were made than nearly any other part. It is possible that Harriot was making parts such as tops not only for use in the parasols and umbrellas assembled by his firm, but also for other umbrella-makers in the city. The top is a particularly vulnerable part of any umbrella or parasol, so the excess tops made by Harriot's firm may also have been used as replacement parts.

The amount that Harriot paid workers for completing certain tasks stayed remarkably consistent throughout his wage book. For example, Harriot paid his employees 155 times for completing the task "Black tin tops." Though the number of black tin tops made and the size of the umbrella or parasol for which the tops were

made changed with each task, in all but four of the instances employees were compensated at the rate of \$0.06 per completed black tin top. The 155 appearances of this task span nearly the entirety of the wage book, appearing from June 12, 1835 to June 29, 1839. Other tasks described in the book do not show quite the same level of consistency, with slight differences in compensation resulting primarily from the different sizes of umbrellas and parasols for which parts were made. Parts for larger umbrellas and parasols generally cost more due to their greater use of material. Despite these slight variations, on the whole, Harriot's compensation remained relatively stable.⁹⁵



Figure 22 Total number of items made by employees each month in Harriot's wage book

⁹⁵ Harriot's relatively consistent pricing methods also allow me to feel comfortable using averages for much of my analysis. Though using averages does erase some of the variations present in the data, it greatly simplifies the process of working with this large amount of data and makes it much easier to identify patterns and trends within the information.

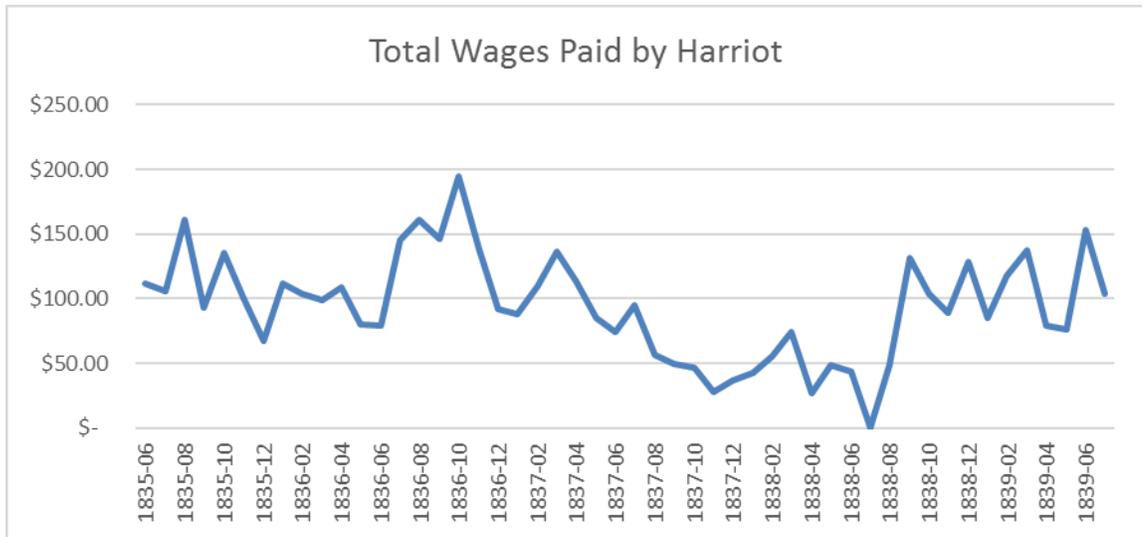


Figure 23 Total wages paid each month as recorded in Harriot’s wage book

Although the amounts paid for completing certain tasks were relatively stable, the total amounts of items made by employees and the total amounts of compensation which Harriot paid his employees varied drastically over the course of the wage book. As the graphs above illustrate, there were significant dips in production and payment, particularly as the effects of the Great Panic of 1837 set in.⁹⁶ However, the wages paid by Harriot show less variation than the number of items made and the number of tasks completed during this period. Seasonal change does not account for the variations seen in numbers of parts and finished umbrellas and parasols made by employees. The number of employees working for the firm at any given time also seems unrelated to

⁹⁶ Jerry W. Markham, “The Panic of 1837,” *A Financial History of the United States*, (Armonk, NY: M.E. Sharpe, Routledge, 2002) Credo Reference, <https://udel.idm.oclc.org/login?url=http://search.credoreference.com/content/title/sharpe/pefhus>.

seasonal changes in demand. Instead, all of these changes and variations in employment, production, and compensation correlated to shifts in the economy, fashion, material availability and consumer demand.

Absences from Harriot's Wage Book

The information included in this wage book allows for a rich examination of the production practices of an antebellum umbrella-maker. Even more information about the firm can be understood, however, by recognizing the absences in this material.

While payments made for the fashioning of tips, tops, parasols, frames, and top tips, as well as the completion of general jobs, appear most frequently in the pages of the account book, there are also many tasks for which individuals were only paid once or twice. Because the level of detail included changed with each task recorded, tasks described in a very precise manner usually only appear in the wage records a few times. Specifically descriptive words and actions such as unvarnished, gingham, fluted, wood, ivory, and planing each appear only once or twice. A high level of detail was not needed in order to achieve the wage book's function of recording accurate payments. The tasks which are most often repeated over the course of the book are the tasks with the least specific information included; for instance, the task "parasols" appears 87 times, but the task "varnishing bone parasol tips" appears only once. The sporadic use of words such as wood and ivory does not necessarily indicate that they were particularly uncommon materials used in Harriot's shop, but rather that whoever recorded the wage information rarely felt this information needed to be included. Most of the tasks in the wage book do not describe specific attributes or materials of the pieces, generating speculation about what their true appearance might have been.

The terminology used to describe these parts is not consistent throughout the papers' span of over ten years. Harriot's usage of descriptive terms can challenge attempts to understand exactly what types of objects made by his firm. The descriptor "Self-tiped" was included in 172 different tasks, making it the fourth most commonly appearing phrase in the wage book. The lack of context clues mentioned in reference to this phrase in Harriot's wage book raise questions about exactly what a "self-tiped" umbrella or parasol was. Perhaps this refers to umbrellas or parasols such as that pictured in Figure 16, which has ribs with ends carved into tips rather than separate attached tips. Though descriptions of how these parts were made hint at their meanings, it is impossible to determine precisely what these mysterious parts looked like.

The absence of women, particularly women's work with textiles, is a conspicuous omission from Harriot's wage book. The transformation from frames, tips, and tops to completed umbrellas and parasols was achieved at least in part through the labor of female seamstresses who made the covers for these objects. Jeremy Farrell states that in Britain, "From the mid-nineteenth century, and, one suspects, before... covers were made both in the workshops and by outworkers; in all cases by women."⁹⁷ This was almost certainly the case in the United States as well. A surviving document written by several American proprietors of umbrella and parasol making firms states that they "give employment to some 5,000 operatives, the greater part of them females."⁹⁸ Another reports that among their "thousands of hands" are

⁹⁷ Farrell, *Umbrellas & Parasols*, 15.

⁹⁸ Wells, *Report of the Committee*, 4.

found “a great portion of worthy and industrious females.”⁹⁹ Still another firm reported that “About 300 hands are employed on the premises; four fifths of whom are females.”¹⁰⁰ Women were, by the ready admission of umbrella and parasol manufacturers, a significant part of the labor force in this industry.

In Harriot’s inventory and wholesale descriptions of finished products, umbrellas and parasols are most often identified by their fabric covers. Aside from one payment of \$6.00 to Ralph James on September 1, 1838 for “96 Black Gingham,” textiles are never mentioned in the wage book. A single surviving receipt pasted into Harriot’s account book provides evidence of the female labor that went into these objects, and thus highlights the omission of any wage payments to women. On August 22 1839, Mrs. Elizabeth C. Engold, the wife of Harriot’s business partner, received a payment of \$12.38 for “Making 44 Dox Cases for Umb [and] Covering 36 Umbarillas.”¹⁰¹ This receipt is the only surviving evidence of the women’s work that was a critical piece of each umbrellas and parasols produced by the firm, and thus hints at other documentary material that has not survived. Whether Harriot worked directly with individual women like Elizabeth Engold or contracted with them through an agent, he almost certainly paid for the labor of female workers. Although there are no payments to women recorded in Harriot’s account book, other surviving documentary and material evidence highlight this absence from the historical record.

⁹⁹ *Tariff Proceedings and documents 1839 – 1857 accompanied by Messages of the President, Treasury Reports, and Bills*, (Washington, DC: Govt. print. off., 1911), 125, Hathitrust.

¹⁰⁰ “Something About Umbrellas,” 29, Umbrellas Series, Warshaw Collection of Business Americana.

¹⁰¹ Receipts, Harriot Records, Special Collections, Rutgers, n.p.

On November 3, 1838, Harriot paid his employee Gordon \$0.75 “For boy.”¹⁰² This is the only reference to another laboring population that has been largely omitted from Harriot’s papers: children. Though children are mentioned in surviving documents less frequently than either adult male or female employees, articles from the 1850s report a number of boys and girls working at umbrella and parasol manufacturing firms in New York City, London, and Paris.¹⁰³ Statistics from Paris from 1847 reported that the 1,429 persons employed in the umbrella and parasol making industry included 45 boys and 31 girls. The firm described in “Something About Umbrellas” employed several boys, who were paid for important tasks like cutting sticks and weighing ribs.¹⁰⁴ The recorded employment practices of other umbrella and parasol making firms suggest that Harriot likely employed other children beyond the single surviving payment he made “for boy.”

The fact that the only reference to a women in Harriot’s papers was to a female family member of an employee does suggests that female relatives of his employees and Harriot’s wife and daughters may have worked for his firm and been hidden from the historical record. It was common practice in many trades for male outworkers to draw upon the skillsets of their entire family in order to complete their labor. For example, “the outwork system in shoemaking and the needle trades built on

¹⁰² Wage book, Harriot Records, Special Collections, Rutgers, n.p.

¹⁰³ “Something About Umbrellas,” 29, Umbrellas Series, Warshaw Collection of Business Americana; and *Reports by the Juries on the Subjects in the Thirty Classes into which the Exhibition was Divided*, (London: Printed for the Royal Commission by William Clowes & Sons, 1852), 657.

¹⁰⁴ “Something About Umbrellas,” 29, Umbrellas Series, Warshaw Collection of Business Americana.

shoemakers' and tailors' traditional claims to their wives' and children's labor."¹⁰⁵

The action of bringing work into one's house as outwork made it possible to incorporate all members of a family in wage labor. Though it may have been possible that Harriot's recordkeeping practices obscured the presence of female labor by recording wage payments under the name of a woman's husband or father, the nature of the tasks in the wage book suggests that each of the employees mentioned was a man. The records of the women and children who made parts for Harriot's umbrellas and parasols appear to have been largely lost to history, but looking at the recorded employment patterns from other firms and industries allow us to recognize their absence.¹⁰⁶

Harriot's Wholesale Business

The second section of Harriot's account book records information about his wholesale business. This section begins on the back cover and moves backwards through the book until it meets the section of employee wage records. The wholesale information predates the employee payment information, beginning with a shipment made on August 12, 1830 and ending with a shipment on September 1, 1835. Though the information included varies with each order, most entries include the date of the shipment, the individual or firm receiving the order, where the receiving firm was located, the total cost for the order, and whether the cost for the order has been paid.

¹⁰⁵ Elizabeth Blackmar, *Manhattan for Rent: 1785 – 1850*, (Ithaca, NY: Cornell University Press, 1989), 124.

¹⁰⁶ For more information on how female labor has been obscured in the historical record, see Jeanne Boydston, *Home & Work: Housework, Wages, and the Ideology of Labor in the Early Republic*, (New York: Oxford University Press, 1990), 124, 132.

The orders can be divided into several categories based on the amount of information included, namely whether the orders were itemized or were general bills of sale, did or did not include a location, and did or did not include a total price. The itemized orders typically mentioned how many umbrellas or parasols of each size and style were ordered, the cost per item for each size and style of umbrella or parasol, and the total cost of each type of umbrella or parasol ordered. Some of the entries also provide additional information about the shipping of items, which could include the ship on which the order was sent, the cost of shipping, methods of packaging, and the name of an intermediary in a port city who took temporary custody of the goods.

Closely examining and analyzing the information included in this book illuminates the many processes that facilitated the movement of Harriot's goods from his shop to retailers found across the country, uncovering the transportation and economic networks that made the wide reach of this firm possible. The wholesale information also reveals patterns in the styles and materials of umbrellas and parasols ordered and offers a chance to examine seasonal and geographic patterns in distribution.

There are some limits inherent in using the account book. The wholesale records include only 66 orders, of which 35 are itemized and describe the different types of objects ordered.¹⁰⁷ Like Harriot's wage book, the individual or individuals who recorded these entries made occasional math mistakes and only included as much information as was necessary for the firm to successfully account for its goods and

¹⁰⁷ Of the 31 general orders, 15 noted the total amount of the order, while 16 orders specified neither the types of goods ordered nor the total cost of the order. 14 of the orders included the name of a firm, but omitted the location of the firm.

sales. The use of this source was complicated still further by the fact that all of the pages of the account book that recorded Harriot's wholesale orders have been covered at some point in the past by a set of Harriot's receipts adhered to the pages with glue. While I was able to peek under these receipts and discern most of their contents, some portions of the information were blocked entirely by the receipts and glue. Despite these challenges, the evidence presented in this account book offers a tantalizing glimpse into the often overlooked processes of distribution.

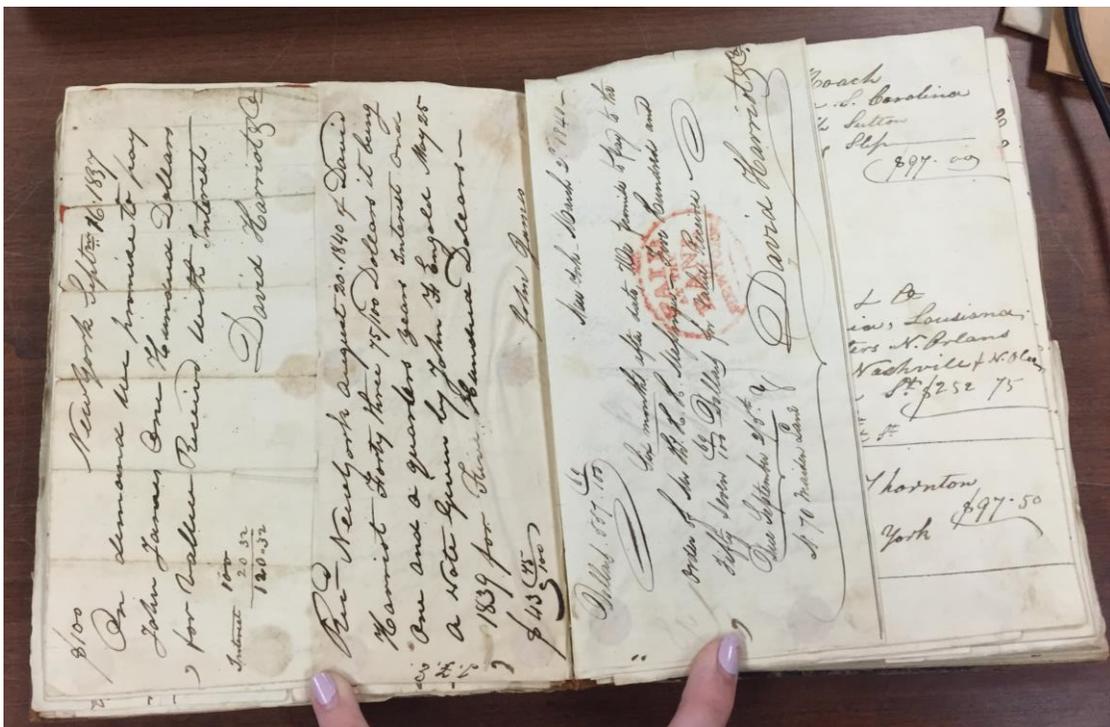


Figure 24 Receipts Pasted in to the Account book of David Harriot. Special Collections and University Archives, Rutgers University Libraries.

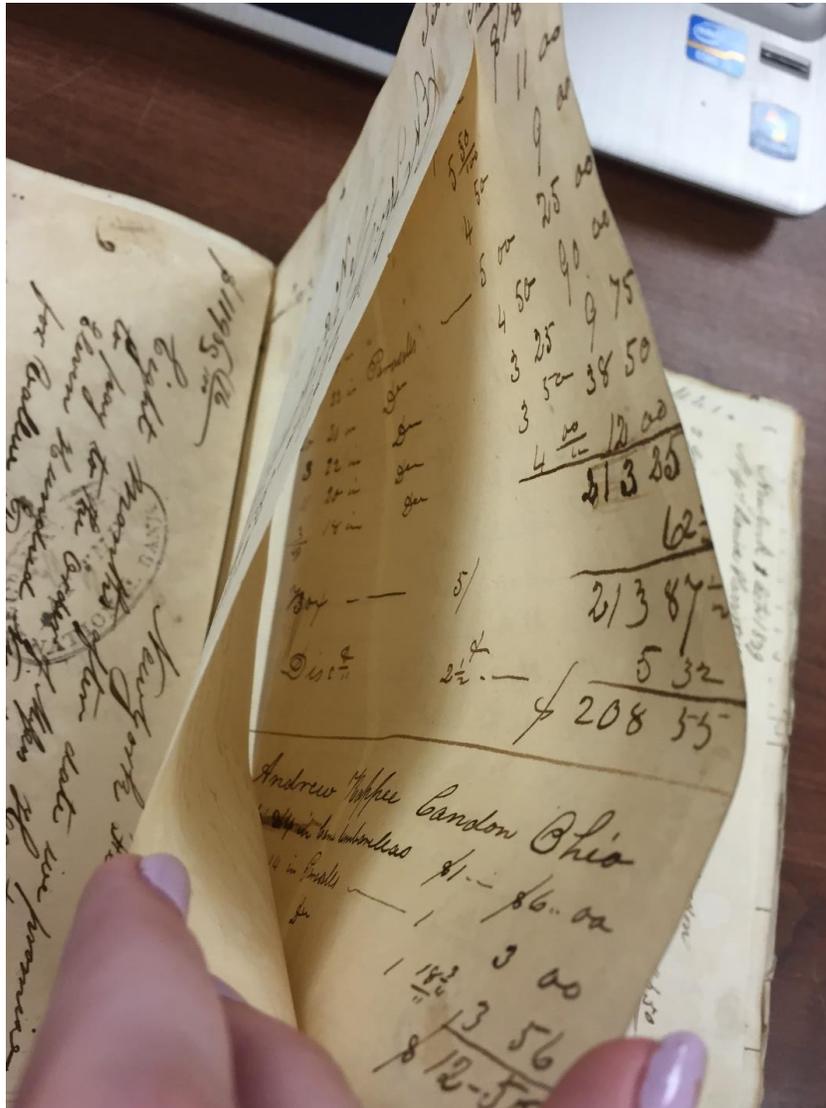


Figure 25 The challenge of accessing Harriet's wholesale information. Special Collections and University Archives, Rutgers University Libraries.

The orders recorded in the book vary significantly in terms of total cost and items ordered. The smallest order had a total cost of only \$1.00, while the costliest order was \$292.42. Most of the orders that had a total cost closer to the average total cost per order of \$108.65. The itemized orders had a slightly lower average cost per

order, \$98.82 than the general orders for a “bill of goods,” which had an average cost per order of \$131.60. The itemized orders contained on average a total of 37 umbrellas or parasols per order. The total volume of sales recorded in the book is \$5,432.70. Six orders had discounts of 2.5 or 3.5 percent removed from the total cost, though no pattern could be discerned as to which customers received these discounts. One order included a note specifying that the objects should consist of “½ Green, ½ Blue” umbrellas.¹⁰⁸

Surprisingly few of the firms and individuals listed in the wholesale accounts made repeat orders from Harriot. The firm of Price and Mallory, located in Savannah, Georgia, ordered from Harriot on October 27, 1832 and on March 13, 1834. A firm identified as Binford & Brooks in New York placed an order on May 25, 1823, while the similarly named Benford & Brooks (this time operating out of Richmond, Virginia) placed an order on March 20, 1833. A May 4, 1832 order made by the firm of Wildman & Hambleton, a firm with an unspecified location, was likely the same firm as Weldman & Hamblston of New Belden, Connecticut which made an order on June 5, 1833. Harriot does not list any orders from repeat customers beyond these three firms.¹⁰⁹

Harriot’s customers ordered more umbrellas (653) than parasols (289). Twenty-five customers placed orders for umbrellas, while only fifteen ordered parasols. The total cost of the umbrellas, \$1,849.08, was much greater than that of the parasols, \$771.52, though the average cost per item of umbrellas, \$2.83, and parasols,

¹⁰⁸ Wholesale Accounts, Harriot Records, Special Collections, Rutgers, n.p.

¹⁰⁹ Ibid., n.p.

\$2.67, are fairly similar. Umbrellas were made in larger sizes than parasols and the greater use of materials for the larger sizes of umbrellas slightly increased their cost.

The umbrellas and parasols in the wholesale accounts are described primarily in terms of the fabric used for their covers or any particularly fine embellishments, such as gold, ivory, and fluting. The words used to describe these finished products reflected how members of the public perceived the objects, highlighting the most stylish and expensive elements of the umbrellas and parasols. The emphasis on the fabric covers of these objects further highlights the absence of textile processing from Harriot's wage book.

Table 4 Textile covers mentioned in Harriot's wholesale accounts

Type of Textile	Number of orders in which word appears	Total number sold	Average items per order	Total cost	Average cost per item
Cotton	1	30	7.5	\$36.75	\$1.23
Figarese Taffata	5	36	3.3	\$116.25	\$3.23
Fine Gingham	2	23	3.3	\$52.53	\$2.28
Florence	4	28	3.5	\$68.50	\$2.45
Gingham	13	194	5.9	\$299.60	\$1.54
Gordunap	2	27	4.5	\$120.75	\$4.47
Marsalin	1	9	4.5	\$17.25	\$1.92
Sarsanet	8	97	6	\$214.99	\$2.22
Scotch Gingham	1	6	6	\$13.50	\$2.25
Silk	11	216	4.5	\$826.75	\$3.83
Sinshuo	4	47	11.75	\$186.00	\$3.96
Taffata	7	97	5	\$244.85	\$2.52

The many words used to describe the fabric covers of these objects facilitates an analysis of the cost differentials between the various types and styles of objects made by Harriot. Of the fabrics included in the book, silk and gingham appear most frequently. Silk is mentioned in eleven different orders to describe 216 total umbrellas and parasols. Gingham, and its variants “fine gingham” and “scotch gingham” appear in thirteen different orders to describe 223 total umbrellas and parasols. Though gingham covers were used on more objects than silk ones, the total cost for all of the gingham objects, \$365.63, was much less than that of the silk umbrellas and parasols, \$826.75, which had the most expensive total cost of any of the fabrics listed in the account book. The average cost for a silk umbrella or parasol, \$3.83, was much higher than that of a gingham umbrella or parasol, \$1.64. Variations existed within the different types of gingham, as “fine gingham” and “scotch gingham” both had higher average costs of \$2.28 per object and \$2.25 per object, respectively, while plain “gingham” had an average cost of only \$1.54, the lowest of any of the fabrics. The fabrics with the highest average cost per item were specific types of silk fabrics, “sinshuo,” which had an average cost per object of \$3.96, and “gordunap,” which had the highest average cost per object of \$4.47.

Of course, these differences in price represent more than just differences between the costs of each type of fabric. Gingham and cotton umbrellas and parasols tended to be at the lower end of the price range, made of cheaper fabric, with less embellishments, and more easily available materials. Silk covers tended to be used on more ornate umbrellas and parasols. In Harriot’s wholesale accounts, some of the silk umbrellas also had embellishments such as “rich figured” designs, “fluted handles,”

and “gold caps,” all of which would have increased the cost of the object beyond that of the textile cover.

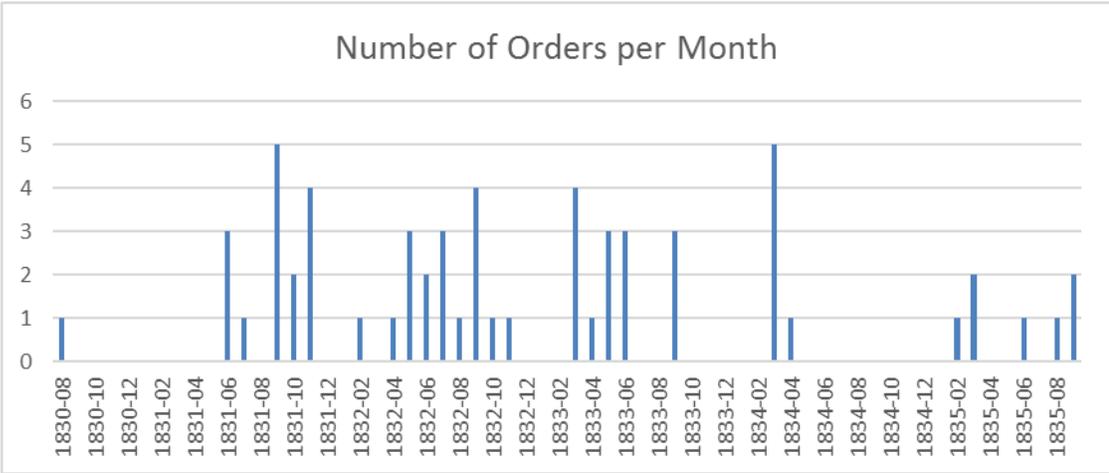


Figure 26 Total wholesale orders made each month in Harriot’s account book

The limited number of orders that appear in Harriot’s account book do not appear to follow specific seasonal patterns, as visualized in the graphs above and below. In the first three years of orders included, more orders were filled during autumn, especially in the month of September, while in the last two years the highest volume of sales occur in March. The patterns of these wholesale orders were driven by Harriot’s customers, rather than by any particular schedules of production.

The total volume of the wholesale business began to decline in 1834. This reduction in sale volume may have been a true downturn in Harriot’s business, or perhaps Harriot began using a different account book to record these sales. He started to use this book to record wages in 1835, and may have stopped using it for wholesale records at that point. The sporadic nature that defines wholesale ordering frustrates

efforts to spot trends in Harriot’s business, and suggests that Harriot must have kept other account books that have not survived. Though his papers reveal he operated a retail business on the premises of 70 Maiden-lane, no information about the volume of sales occurring in that location survives. The limited income provided by Harriot’s wholesale business would not be enough to sustain this firm, indicating that he must have had other revenue streams that are unaccounted.

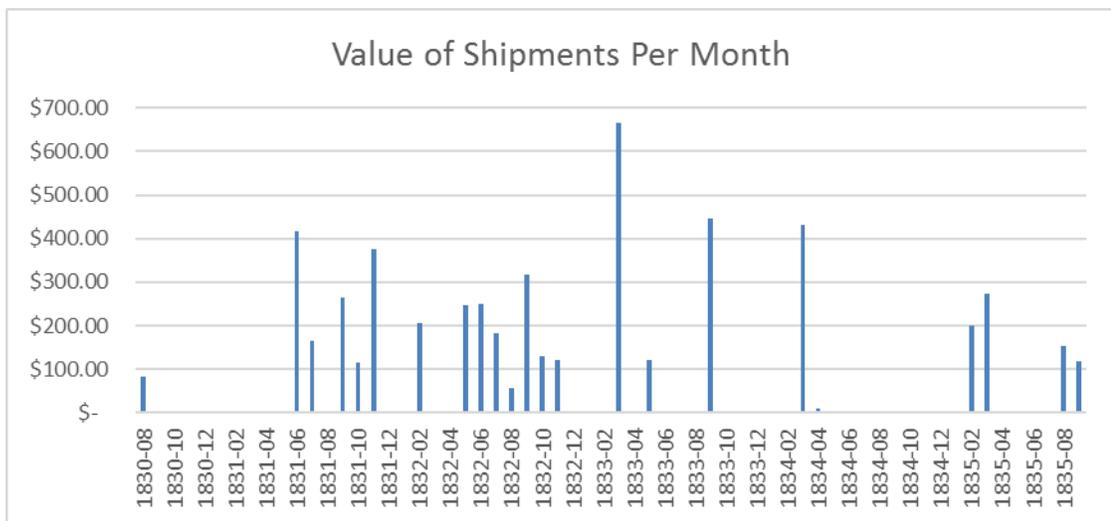


Figure 27 Total value of wholesale orders made each month

The locations of the firms to which Harriot shipped orders are found across the country, spanning a range from New Orleans to St. Louis to Lake Champlain. Though sixteen of the orders went to unspecified locations, the geographic spread of the remaining orders indicates the wide markets that could be reached by even a relatively small umbrella and parasol manufacturing firm. The cities that most frequently received goods shipped from Harriot were Savannah, Georgia, to which five orders

were delivered, and New York, from which four wholesale orders were made. Other cities that received multiple shipments of wholesale goods from Harriot include Alexandria, Louisiana; New Orleans, Louisiana; Vicksburg, Mississippi; Utica, New York; and Columbia, South Carolina. Harriot seems to have received orders relatively evenly from across the northern and southern states. Twenty-two of his orders were delivered to states in the North, of which ten went to cities in New York State, seven went to cities in New England, and five went to cities in the mid-Atlantic. Twenty-five of Harriot's shipments went to states in the South, including Alabama, Georgia, Louisiana, South Carolina, and Virginia, and three shipments went to the western states of Missouri, Ohio, and Tennessee.

A record of another wholesale order Harriot and Engold filled for a customer in New York City survives in the record of a case tried before the Court of Common Pleas in New York on April 9, 1838. Harriot and Engold sued the recently formed firm of John H. Amidon & Champlin. Champlin had bought \$500 of umbrellas from them for his store on 112 Broadway, and was now attempting to have his firm cover the cost because he was now selling the umbrellas at "the store of Champlin & Amidon, No. 138 Broadway." The judge ruled that "one partner is not liable for the goods bought by another partner before partnership commenced." Amidon was cleared of any financial responsibility, and Champlin was ordered to pay the \$500 owed to Harriot and Engold for the umbrellas. There is no record of this case in Harriot's surviving accounts, but it shows the lengths to which Harriot and Engold were willing to go to recoup money from customers. ¹¹⁰

¹¹⁰ "Common Pleas, Monday, April 9th," *Morning Herald* (New York, New York), April 10, 1838, Accessed March 30, 2016, Nineteenth Century U.S. Newspapers.

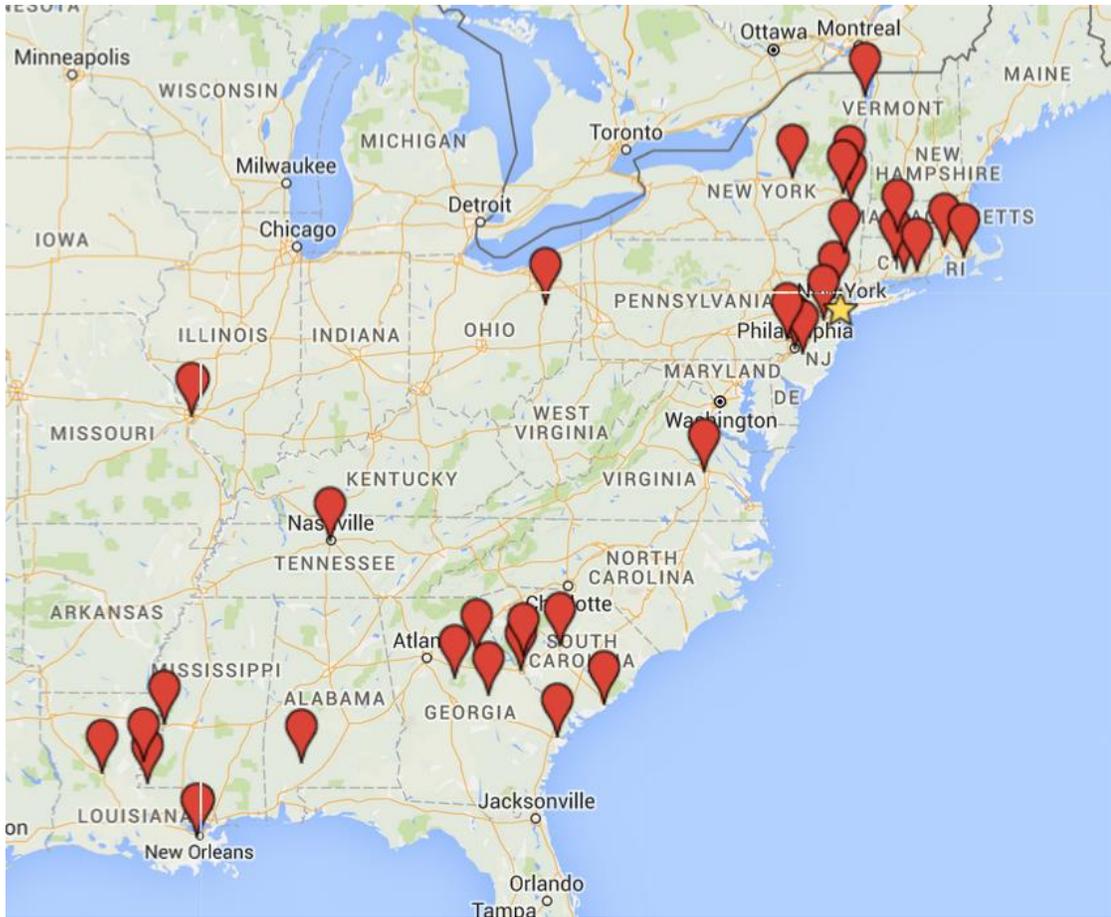


Figure 28 Map of the identifiable locations to which Harriot made wholesale shipments, with Harriot’s shop represented as a star. Created by the author using Google Maps.

The evidence presented in this account book does not suggest any correlations in types of materials or styles of umbrellas or parasols sent to specific regions. Based on the limited sample of Harriot’s 35 itemized orders, Harriot’s goods were evenly distributed across much of the country. Many of the general orders for a “bill of goods” and “sundry goods” were sent to cities in the South. A large concentration of umbrellas were also shipped to the South. Of the 25 orders that mention 653 total

umbrellas, three orders sent 79 umbrellas to Northern states, three orders sent 63 umbrellas to western states, nine orders sent 184 umbrellas to unspecified locations, and ten orders sent 327 umbrellas to the south. Southern states received at least half of the total number of umbrellas wholesaled by Harriot. Parasols, however, were sold evenly throughout the country. Of the fifteen orders that distributed a total of 289 parasols, six orders sent 127 parasols to northern states, one order sent six parasols to western states, four orders sent 56 parasols to unspecified states, and four orders sent 100 parasols to southern states. Though the limited sample size of the wholesale accounts cannot offer definitive evidence, the patterns in Harriot's shipments suggest that more umbrellas were ordered by Southern customers.

Harriot's records only hint at patterns of sending specific goods to specific markets, but other makers targeted their goods for certain audiences much more directly. A circular produced by Edward Cazeneau for the Hingham Umbrella Manufactory in 1834 advertises that "Constantly on hand for sale, cases of 26, 28, and 30 inch Gingham, Cane Sticks, for Southern Market."¹¹¹ A note on the back of a catalogue made by John I. Smith, a manufacturer from New York, advertises that he had on hand "Umbrellas & Parasols, *by the case*, adapted to the Mexican, South American, Canadian, and California Markets," suggesting a target audience well beyond the confines of the United States.¹¹² While these are the most explicit references, other receipts and advertisements suggest that many of these firms,

¹¹¹ Edward Cazeneau and Hingham Manufactory Circular, Folder 9, Umbrellas Series, Warshaw Collection of Business Americana.

¹¹² John I. Smith Catalogue, Folder 19, Umbrellas Series, Warshaw Collection of Business Americana.

particularly the larger ones, sent goods around the country. An 1858 note from the Isaac Smith & Son firm of New York City described the need for their firm to move across Broadway to the west side of the city. This printed note was sent to customers around the country so that they would have the correct address for placing orders. This was especially important to the firm, as “many of our customers have dealt with us for over 20 years, some of whom, intrusting to us their orders, have seldom entered our store.”¹¹³ This reference to the size of their wholesale and retail customer bases suggests that many firms, like Harriot & Co., had customers found across the country and even across the globe.

The account book records some of the practical details that made the distribution of umbrellas and parasols across the country possible. Eight of the orders include a charge for a box, which cost an average of \$0.62 per box. One note in the margin of an order states that the items were “to be put in coarse paper; [on] Brig Madison.”¹¹⁴ Eleven of the orders include the details of which ship or captain would be responsible for delivering the orders to their purchaser, while eleven other orders included information about intermediaries in port cities who would receive and take responsibility of the goods until they were shipped to their final destination.

The presence of these intermediaries likely shaped Harriot’s customer base, as they allowed him to access retailers in smaller towns outside of the major port cities. Harriot shipped his goods to four different intermediaries in New Orleans and to five different intermediaries in Savannah, through whom his goods were distributed

¹¹³ Isaac Smith & Son Letter, Folder 21, Umbrellas Series, Warshaw Collection of Business Americana.

¹¹⁴ Wholesale Accounts, Harriot Records, Special Collections, Rutgers, n.p.

throughout the southern United States. Harriot does not include any records in this account book of sending goods to the same intermediary twice. Though the account book records the names and locations of these intermediaries, no evidence survives explaining how Harriot initially made contact with the individuals who sold or took temporary possession of his goods. Harriot probably worked with distribution agents or merchants also operating in New York City to access these markets. These merchants could fill the empty hulls of ships that had brought cotton to New York City with finished consumer goods manufactured in the north. Filling their ships with these goods allowed them to make further revenue from the already profitable cotton trade.¹¹⁵ Harriot likely employed factors to manage shipments of his goods to other ports in New England and to destinations in the west like St. Louis, Missouri, and Canton, Ohio. While Harriot's records only directly mention the use of intermediaries to take care of his goods in shipments going south, he does record that that an order of goods sent to Albany was sent on "Board ship Ohio" and that an order intended for New Belden, Connecticut was sent "on Board Norwhich Boat."¹¹⁶ The evolving networks of land and water transportation that characterized the antebellum United States made possible the distribution of Harriot's goods.

Other umbrella makers also made use of these emerging transportation systems. American production of umbrellas and parasols was concentrated in cities in the northeast, predominantly occurring in Boston, New York, and Philadelphia. Firms

¹¹⁵ K. Jack Bauer, *A Maritime History of the United States: The Role of America's Seas and Waterways*, (Columbia, SC: University of South Carolina Press, 1988), 106-107.

¹¹⁶ Wholesale Accounts, Harriot Records, Special Collections, Rutgers, n.p.

in these cities were able to make and sell large quantities of these objects, far greater than could be sustained by relying only upon the local market, because they could transport their goods for sale around the country. Operating on an even larger but similar scale, finished umbrellas and parasols as well as pieces and parts for these objects were also imported from abroad. Recognizing the networks that made these sales possible, as well as the patterns inherent in the wholesale orders of Harriot's products, illuminates another aspect of this complicated industry.

The rich information contained in this rare survival offers a glimpse into the methods of productions of umbrella and parasol makers. Studying both sections of Harriot's wage book in tandem generates a clearer picture of the scope of activity conducted by the firm, while examining patterns of production and distribution in these documents reveals practices from which larger trends of the umbrella and parasol industry may be extrapolated. Examining this account book through both numerical analysis and recognition of its omissions lays a groundwork for further consideration of Harriot's production within the contexts of both New York City and the United States.

Chapter 4

DISTINCTIVE FEATURES OF PRODUCTION

The connections that emerge between David Harriot and his employees, suppliers, and other craftsmen help explicate Harriot's business decisions and reveal the close personal and professional networks undergirding trade in New York City. Examining the physical space of Harriot's shop and his employment patterns uncover the outwork that characterized the production of Harriot and other small-scale manufacturers. Umbrella and parasol makers assembled the parts created by their employees or purchased from other craftspeople, often individuals in emerging corollary trades such as umbrella furniture makers. Assembling umbrellas and parasols from various parts, rather than making them from start to finish, made up the bulk of the work completed by small firms like Harriot's. For firms of all sizes, this assembling process was made possible by the increasing standardization of parts throughout the industry. Proprietors of firms carefully managed all of these factors in order to meet their production schedules and successfully complete enough umbrellas and parasols for shipments and inventories. Recognizing the distinct patterns in Harriot's records allows one to trace the variations and shared practices of the umbrella and parasol making industry.

While it is relatively simple to understand how the many pieces of an umbrella or parasol are assembled into a coherent whole, the prospect of making more than one of these objects for sale significantly complicates production processes. Antebellum manufacturers of umbrellas, parasols, and many other items recognized the advantages

of theories expounded earlier by theorists such as Adam Smith. In his 1776 book *The Wealth of Nations*, Smith recommended that manufacturers institute a division of labor into discrete tasks, which would improve the dexterity of their workers, reduce time spent transitioning between tasks, and increase productivity through the use of properly applied machinery.¹¹⁷ Craftsmen and manufacturers in Europe and the United States followed Smith's suggestions, taking advantage of economies of scale by dividing the production of complicated items like watches, clocks, tools, furniture, clothing, and shoes, as well as umbrellas and parasols, into separate tasks.¹¹⁸ By having each worker only perform certain tasks, sending work out to other shops and to employees' houses, and assembling parts into finished umbrellas and parasols in their shops, makers of umbrellas and parasols participated in what Alan Dawley defines as a "transitional mode of organization that combines both artisan and factory techniques."¹¹⁹ These manufacturers operated in a middle ground in the transition

¹¹⁷ Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, (London: W. Strahan and T. Cadell, 1776), Representative selections reprinted with introduction by Bruce Mazlish. (Mineola, NY: Dover, 2002), 5-10.

¹¹⁸ Brian Grinder, Vincent J. Pascal, and Robert G. Schwartz, "Entrepreneurship and the early American clock industry," *Journal of Research in Marketing and Entrepreneurship*, Vol. 12, No. 1 (2010): 54-70; Michael C. Harrold, *American Watchmaking: A Technical History of the American Watch Industry, 1850-1930*, (Columbia, PA: National Association of Watch and Clock Collectors, 1984), 9, 12-14; Henry J. Kauffman, *Metalworking Trades in Early America: The Blacksmith, The Whitesmith, The Farrier, The Edge Toolmaker, The Cutler, The Locksmith, The Gunsmith, The Nailer, The Tinsmith*, (Mendham, NJ: Astragal Press, 1995), 97, 101; Kessler-Harris, *Out to Work*, 46 – 48; and Michael Zakim, *Ready-Made Democracy: A History of Men's Dress in the American Republic*, (Chicago: University of Chicago Press, 2003), 136 - 140.

¹¹⁹ Dawley, *Class and Community*, 29 – 30.

occurring in many industries during the nineteenth century as “artisan makers became capitalist manufacturers.”¹²⁰ By the time David Harriot began making umbrellas and parasols in the 1830s, manufacturers had long been taking advantage of these insights and had restructured their production methods to increase efficiency. Rather than having workers make one object from start to finish in its entirety, proprietors of firms recognized that large quantities of objects could be produced more quickly and cheaply by buying finished parts from other craftsmen and sending out specific tasks for individuals to complete in their homes.

The surviving papers of David Harriot & Co. illustrate how umbrella and parasol makers took advantage of divisions of labor and economies of scale. Much of the “manufacturing” done by umbrella and parasol makers consisted of assembling many component parts into one final product. Unlike other products commonly made using outwork in this period, such as shirts and boots, umbrellas and parasols were assembled from parts made of many different materials.¹²¹ In industries like furniture, clock, and tool making, manufacturers relied less on outwork from their employees and purchased pieces from other craftspeople, using a similar final assembly process as umbrella and parasol makers.¹²²

¹²⁰ Seth Rockman, *Scraping By: Wage Labor, Slavery, and Survival in Early Baltimore*, (Baltimore: Johns Hopkins University Press, 2009), 24.

¹²¹ Dawley, *Class and Community*, 29; Rockman, *Scraping By*, 126; and Zakim, *Ready-Made Democracy*, 136.

¹²² Harrold, *American Watchmaking: A Technical History of the American Watch Industry*, 9, 12-14; and Kauffman, *Metalworking Trades in Early America*, 97.

Studying this trade allows scholars to better understand how proposed tenets of industrialization were actually enacted by manufacturers. Though Harriot's papers are a necessarily incomplete rendering of the intricate processes and coordination required to make umbrellas and parasols on a larger scale, they begin to fill a gap in existing scholarship of antebellum manufacturing, industry, and mechanization.

Harriot's Shop

The size and contents of Harriot's shop determined the type of work that could be completed within. David Harriot & Co. operated out of their premises on 70 Maiden-lane throughout the 1830s and early 1840s. In a *Longworth's New York City Directory* published in 1831, a listing for Harriot simply states, "Harriot & Co. David, umbrella-m. 70 Maiden-l. h. 81 Chapel."¹²³ Harriot's home address changed three times in the next ten years, but Harriot continued to work in the umbrella trade at the address of 70 Maiden-lane until 1845, when he moved to 93 William Street.¹²⁴ Following the death of Harriot's business partner, John Engold, in 1839, Harriot was listed in city directories as an individual umbrella maker, rather than as the proprietor of a partnership.¹²⁵

¹²³ Longworth, *Longworth's American Almanac*, 1831, 325.

¹²⁴ Longworth, *Longworth's American Almanac*, 1831, 325; Longworth, *Longworth's American Almanac*, 1835, 310; Thomas Longworth, Joline J. Butler, and George P. Scott and Co., *Longworth's American Almanac, New-York Register, and city directory, for the Sixty-Second Year of American Independence...* (New York: Thomas Longworth, 1837), 297; Doggett, *Doggett's City Directory*, 1845, 163.

¹²⁵ The change in Harriot's business is reflected in the terminology used in his listings in the *Longworth's Directory*. In 1839, Harriot's listing states "David Harriot & Co.," while in 1840 he is listed only as "David Harriot." See Thomas Longworth,

The location of Harriot's umbrella and parasol shop and store at 70 Maiden-lane situated him and his workers in the heart of a bustling neighborhood of active craftsmen and retail shops. Many of his neighbors were also his suppliers and customers. Harriot's shop was only a few blocks from the site of P.T. Barnum's first museum, City Hall, a customs house, a post office, and Trinity and St. Paul's churches.¹²⁶ Harriot was not the only umbrella manufacturer and retailer in the area during the 1830s and 1840s. Isaac Smith worked in the umbrella trade at the nearby address of 362 Pearl Street, continuing the business of his father, James T. Smith, who began making umbrellas there in 1802.¹²⁷ John I. Smith opened an umbrella shop in 1840 just two blocks from Harriot's, located at 232 Pearl St.¹²⁸ The map below shows the high concentration of individuals who made umbrellas and parasols in the neighborhood surrounding Harriot's shop as listed in the 1839 *Longworth's New York City Directory*. Harriot is indicated by the white star, while individuals with a trade listed as "umbrellas" are indicated by a blue dot, those listed as "umbrella furniture" have a green dot, those listed with a trade of "umbrella store" have a purple dot, and those listed as an "umbrella manufacturer" have a red dot.

Longworth's American Almanac, New-York Register, and city directory, for the Sixty-Sixth Year of American Independence... (New York: Thomas Longworth, 1841), 333.

¹²⁶ Zahava Friedman-Stadler, "The Spectacle of Downtown Broadway," *Visualizing 19th-Century New York Digital Publication*, Bard Graduate Center, 2014, <http://visualizingnyc.org/essays/the-spectacle-of-downtown-broadway/>.

¹²⁷ Isaac Smith Advertisement, Folder 20, Umbrellas Series, Warshaw Collection of Business Americana.

¹²⁸As far as I can tell, John I. Smith is no relation to James and Isaac Smith. John I Smith Receipts, Folder 21, Umbrellas Series, Warshaw Collection of Business Americana.

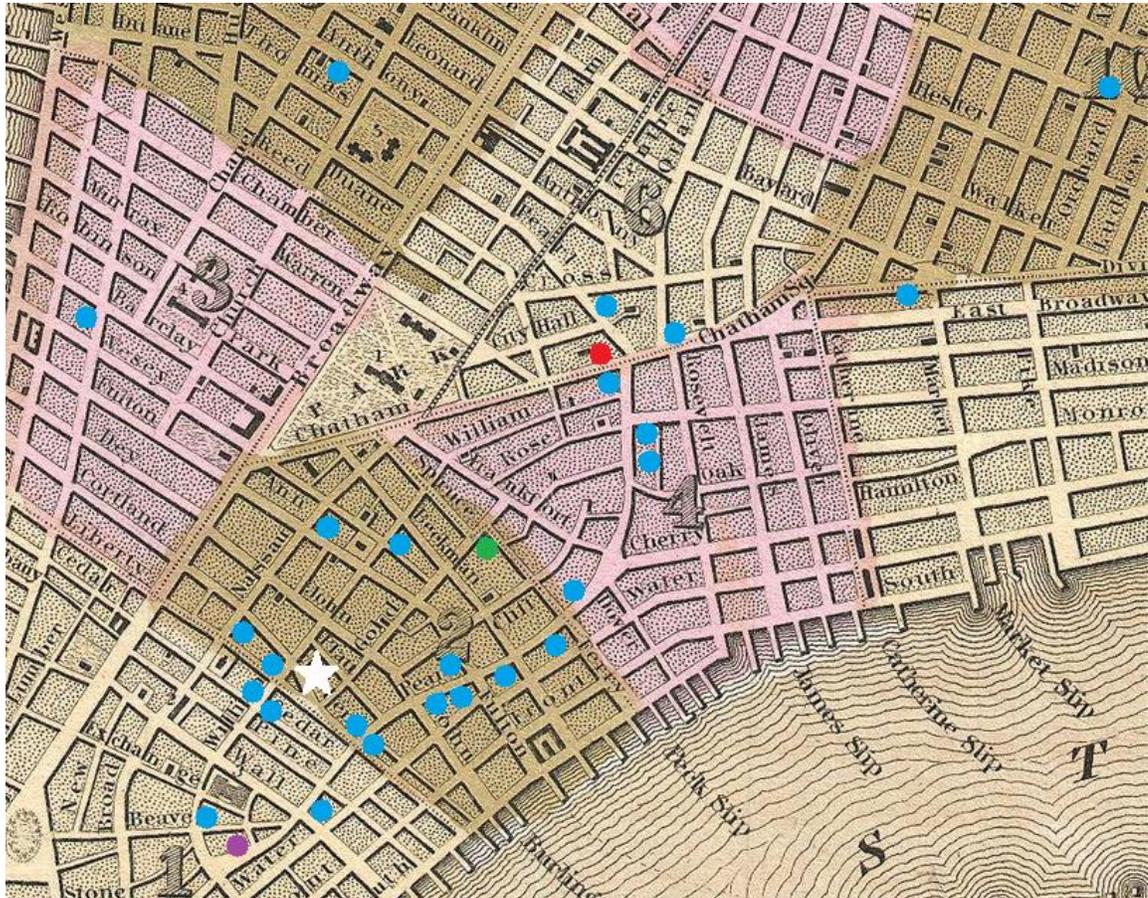


Figure 29 Umbrella and parasol makers in the neighborhood of David Harriot, as listed in the 1839 *Longworth's New York City Directory*. Alterations made to a detail of New York City Map, plate 18, from Thomas Bradford, *An Illustrated Atlas, Geographical, Statistical, and Historical, Of the United States and the Adjacent Countries*. Boston, Weeks, Jordan, 1839. Accessed via Wikimedia Commons, courtesy Geographicus Rare Antique Maps.

Although no images of David Harriot's umbrella shop have yet been found, surviving receipts from other umbrella and parasol making firms include illustrations of their shops. Images of John I. Smith's shop at 232 Pearl Street, the shop into which his firm would move in 1858 at 234 and 235 Broadway, and the shop of Bacon &

Eaton suggest that the shops of umbrella and parasol makers were constructed and decorated in a similar fashion. In the image of John I. Smith's first store, for example, the proprietor's name, what was sold within, and the distinction of being "THE FASHIONABLE MANUFACTORY" are emphasized in clear, large signage on both exposed sides of the building. Four open umbrellas dangle on a line suspended from the front face of the building, making clear to all what type of objects could be bought within. Naturally, this advertising image also includes a street full of individuals carrying umbrellas and parasols.¹²⁹

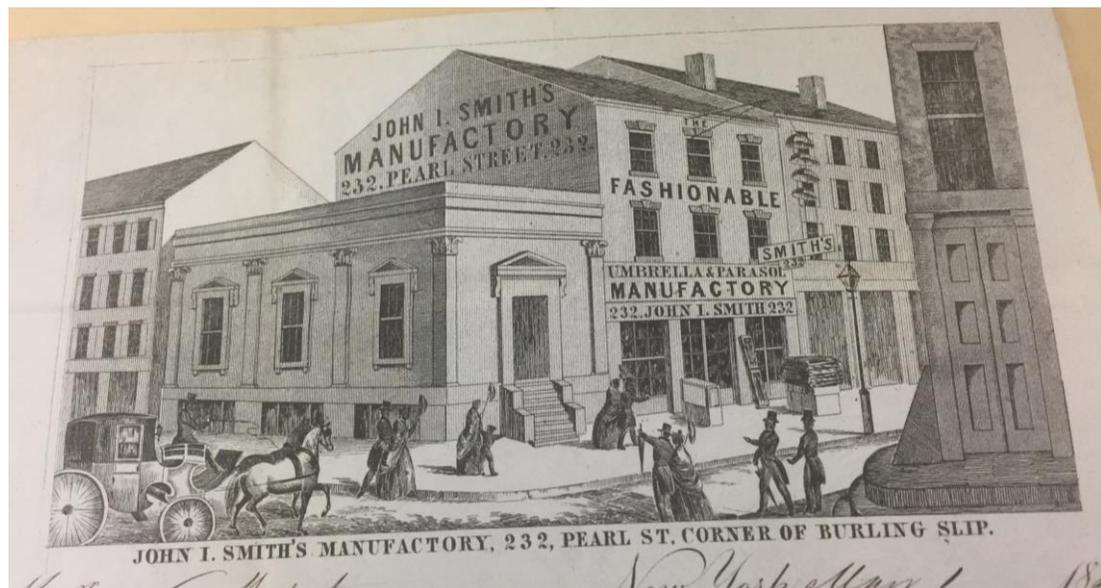


Figure 30 John I. Smith's Umbrella and Parasol Manufactory. Detail from Catalogue. Folder 20, "Umbrellas" Box, Warshaw Collection of Business Americana, Archives Center, National Museum of American History, Smithsonian Institution.

¹²⁹ Smith receipts and Bacon and Eaton receipts, Folders 4 and 20, Umbrellas Series, Warshaw Collection of Business Americana.

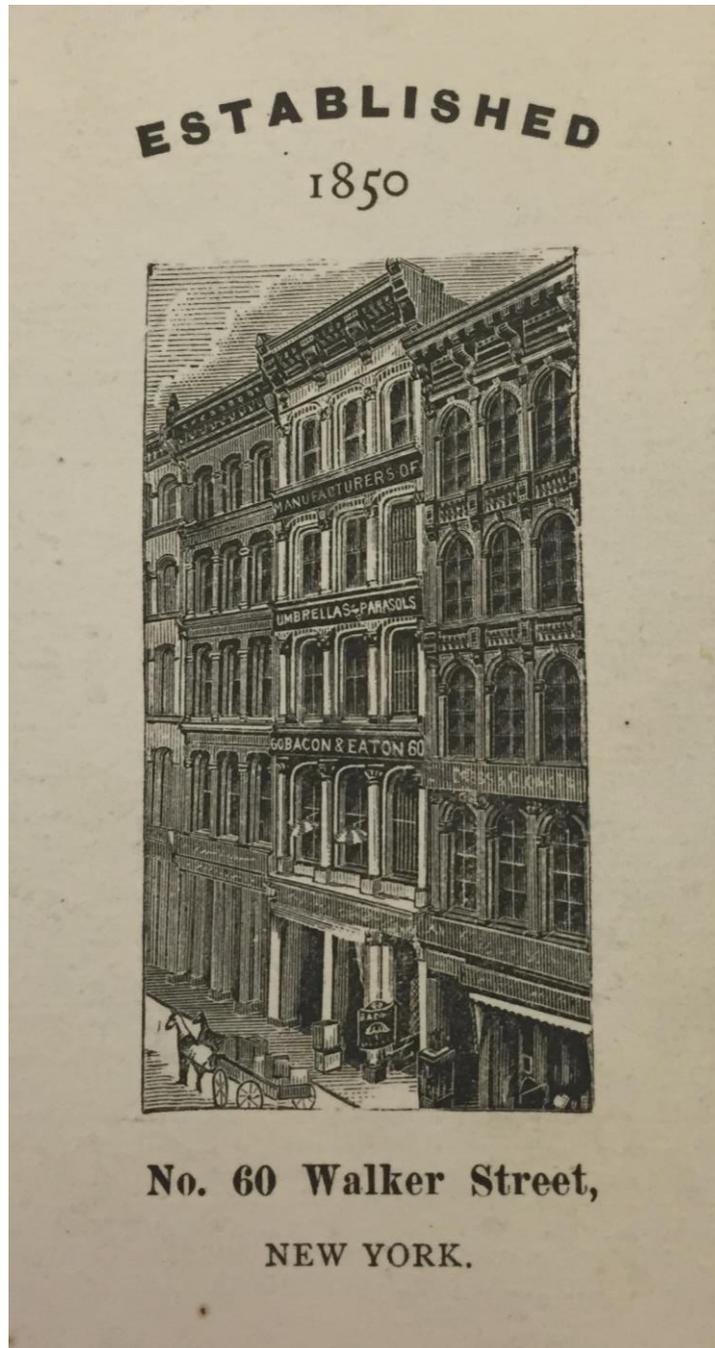


Figure 31 Trade Card from the Bacon & Eaton firm. Folder 5, "Umbrellas" Box, Warsaw Collection of Business Americana, Archives Center, National Museum of American History, Smithsonian Institution.



Figure 32 Detail of John I. Smith’s notice advertising his move into a new building. Folder 20, “Umbrellas” Box, Warshaw Collection of Business Americana, Archives Center, National Museum of American History, Smithsonian Institution.

Harriot was not the only craftsman operating in the space of 70 Maiden-Lane in 1839. Even during the antebellum period, retail and manufacturing space in New York City was at a premium. Many craftspeople, artisans, and store and factory owners ran their firms out of buildings shared with or rented from others.¹³⁰ In 1839, six men in addition to David Harriot and John Engold were listed in the *Longworth’s New York City Directory* with a business address at 70 Maiden-lane. These men worked in a variety of trades, and included a cutler, a needle maker, and a lace maker. The *Directory* specified that two of the men could be found upstairs at the address, suggesting that the rest (including David Harriot & Co.) operated on the ground

¹³⁰ Elizabeth Blackmar, *Manhattan for Rent*, 78 – 79, 197 – 199.

level.¹³¹ The surviving documentary evidence does not, however, indicate which of these businesses occupied the storefront of the property.¹³² The high turnover of other craftsmen working in 70 Maiden-lane, as well as the many times in which Harriot's home address changed during the period of study suggest a high level of mobility of personal and professional spaces of craftsmen in New York City. The fact that Harriot shared this space with other craftsmen limited the size of his production and necessitated his reliance on outwork. Larger manufacturers, like Smith and Bacon & Eaton, required greater space for their manufacturing and inventory, particularly if they relied on mechanized production methods.

Harriot's shop on the premises of 70 Maiden-lane included a retail space. The furniture listed in the firm's inventory included seventeen chairs, ten stools, an iron safe, show signs, and "store furniture such as desks and drawers." The inventory also included a quantity of "rappin paper" which could be used to protect customers' purchases.¹³³ While there were many other dry goods and fine goods stores in New York City, and even quite a few in the immediate vicinity of Harriot's store, it is clear that Harriot operated a retail as well as a wholesale business on the premises.¹³⁴ Harriot was only one of many umbrella and parasol makers in New York who did the

¹³¹ *Longworth's American Almanac*, 1839.

¹³² The fact that Harriot may not have occupied the storefront perhaps lessens the similarity of his operation to the receipt image of John I. Smith's umbrella store and factory, which was illustrated at the front of the property.

¹³³ Inventory, Harriot Records, Special Collections, Rutgers, n.p.

¹³⁴ Smith receipts, Folder 20, Umbrellas Series, Warshaw Collection of Business Americana.

same. Norman Cook, for example, advertised on a trade card that his store at 100 Bowery was “now Retailing our Wholesale Stock at Factory Prices.”¹³⁵ Umbrella and parasol manufacturers in other cities, such as Boston and Philadelphia, also followed this pattern.¹³⁶ Some umbrella and parasol makers also purchased other goods like gloves, fans, and musical instruments which they sold alongside their parasols and umbrellas.¹³⁷

Harriot’s inventory also indicates that his shop was a manufacturing as well as a retail space. In addition to the furniture and signs described above, the inventory included several tools, listing, “3 lathes, 3 vices, sorting gage, grindstone, stoves, lamps, cutting table, [and] other laths, vices, and tools.”¹³⁸ Many more tools and materials would have been needed to make all the parts of an umbrella or parasol from start to finish, further emphasizing the limited types of production that actually occurred within the shop.

Employees and Employment Practices

Harriot’s wage book records payments made to twelve employees. The employees included in the book are listed by last name, though occasionally their first names are also included. Though wages were paid nearly every week, most of the

¹³⁵ Norman & Cook Trade Card, Folder 4, Umbrellas Series, Warshaw Collection of Business Americana.

¹³⁶ Nathaniel Ellis Receipts, Garner Advertisement, Folders 6 and 8, Umbrellas Series, Warshaw Collection of Business Americana.

¹³⁷ Bates & Jordan Receipts, Folder 2, Umbrellas Series, Warshaw Collection of Business Americana.

¹³⁸ Inventory, Harriot Records, Special Collections, Rutgers, n.p.

employees were not paid that regularly. Seven of the twelve employees worked for less than a year, suggesting a worker turnover rate that was probably shared across the industry. Some employees were not paid for months at a time but eventually returned to the firm, while others were only paid regularly once a month. Only two of the employees, John Gordon and Ralph James, worked consistently throughout the period represented in the wage book. Yet even they were not paid every week, perhaps an inconsistency resulting from shifts in demand for umbrellas caused by seasonal and economic changes. There does not appear to be any regular seasonal change determining when employees were hired at the firm, though employee pay does seem to correlate with shifts in the American economy, most notably in accordance with the Panic of 1837. The chart below describes the vital statistics about each employee and their payment entries in Harriot's wage book.

Table 5 Employees of David Harriot & Co.

Employee name	First pay date	Last pay date	Total number of pay dates	Total pay received	Average pay per payday	Total number of tasks paid for	Total number of items made
Antonay	5/7/1836	6/??/1836	5	\$36.64	\$7.33	16	531
Colwell	6/12/1835	9/8/1838	45	\$202.02	\$4.49	70	2,986
Fisher	9/24/1836	4/14/1837	27	\$246.39	\$9.13	62	4,555
Francis	6/12/1835	7/25/1835	4	\$20.00	\$5.00	4	n/a
Franklin	6/12/1835	10/29/1836	33	\$246.39	\$7.47	96	35,932
Gale	11/17/1838	11/17/1838	1	\$20.05	\$20.05	5	1,116
John Gordon	6/12/1835	6/15/1839	185	\$1,855.00	\$10.03	742	59,243
Ralph James	6/12/1835	6/15/1839	149	\$1,444.22	\$9.69	366	22,355
James Milligan	7/9/1836	9/17/1836	11	\$83.44	\$7.59	23	1,932
Navarro	12/1/1838	4/27/1839	15	\$112.87	\$7.52	35	2,028
Stokay	6/12/1835	8/27/1836	14	\$92.97	\$6.64	35	1,863
Wilson	11/24/1838	11/24/1838	1	\$4.50	\$4.50	2	108
Wood	5/11/1839	7/27/1839	8	\$87.25	\$10.91	21	1,524

Harriot's payment records reveal a degree of specialization among his employees. Most of the twelve employees performed a range of tasks throughout the period of their employment. Although nearly all of the employees did many tasks, there were certain tasks that a specific employee usually performed. John Gordon was paid more money more often than any other employee for performing a total of 742 different tasks. The most highly paid and regular employee, Gordon was also the only person who did certain tasks. For example, only Gordon was paid for nearly all of the

tasks in the books involving metal tips, jointing, turning, “self tipped” pieces, general “jobs”, filing, and hooks. He also was responsible for nearly all of the tasks involving processing or creating pieces from bones and ivory.¹³⁹ Though Gordon was Harriot’s most prolific employee, others also specialized in certain tasks. Ralph James made nearly all of the tops described as “metal” or “single” and did much of the splicing and varnishing work. An employee named Franklin was responsible for all objects specified as made of wood, and for all of the barrels, butts, heads, and pillars made. Franklin produced an astonishing 35,932 objects in just 33 pay periods, suggesting that he primarily produced parts that could be made in high volumes.

Several of Harriot’s employees can be positively identified in New York City directories, though none appear in directories for the entire period of their employment at David Harriot & Co. The trades and addresses of these employees suggest that some had their own businesses as umbrella-makers independent of their work for Harriot’s firm. None of the employees who could be identified in city directories listed 70 Maiden-lane as a work address. John Gordon, an umbrella maker, appears in the 1834, 1835, 1836, and 1839 *Longworth’s New York City Directories*, moving to three different locations during these years.¹⁴⁰ A William H. Fisher is listed as “umbrellamaker 162 Franklin” in the 1835 *Directory*, though does not appear in any

¹³⁹ Further information on the skills and training needed to work with ivory in the antebellum United States, see Julia Rowland Myers’ article on Philadelphia sculptor Robert Wylie, who was also a carver of ivory umbrella and parasol handles. Julia Rowland Myers, “Robert Wylie: Philadelphia Sculptor, 1856 – 1863,” *Archives of American Art Journal*, vol. 40, no. ½ (2000): 4-17.

¹⁴⁰ “Gordon, John,” *Longworth’s American Almanac*, 1834, 1835, 1836, 1839.

other directories.¹⁴¹ Henry D. Gale is listed in the 1837 *Directory* as “umbrellamaker 49 Maiden-lane,” an address just a few buildings down from Harriot’s 70 Maiden-lane shop.¹⁴² Gale is listed at a different address in both the 1838 and 1839 directories in entries which state “umbrellas 44 Fulton h. 91 William.”¹⁴³ A man named Israel Navarro is also listed in the trade of “umbrellas,” operating at “rear 11 Centre.”¹⁴⁴ Fisher, Gale, Gordon, and Navarro are the only of Harriot’s paid employees who appear in city directories listed with a trade of “umbrellas.” It is possible that other employees were also listed in the city directories, but they cannot currently be identified using only their last name and the knowledge that they worked at least part time in the umbrella making industry. A man named Robert Wilson is listed as a wireworker in 1836, and a Robert Milliken (a possible misspelling of Milligan) is listed as a carver in 1837 and 1839. It cannot be proven that these men were also Harriot’s employees, though the skills of working with wire and carving would certainly have many applications within the umbrella and parasol making trade.

Since umbrellas and parasols were made from many different materials, umbrella makers drew upon skillsets from many trades. It is thus highly likely that any of Harriot’s employees with special skills in working with bone, ivory, metal, or cane or making certain parts also completed these tasks for other umbrella makers or other tradesmen. There were enough umbrella-makers in New York to support this degree of

¹⁴¹ “Fisher, William H.,” *Longworth’s City Directory*, 1835.

¹⁴² “Gale, Henry,” *Longworth’s City Directory*, 1837.

¹⁴³ “Gale, Henry,” *Longworth’s City Directory*, 1838, 1839.

¹⁴⁴ “Navarro, Israel,” *Longworth’s City Directory*, 1838.

specialization. The irregularity and relative inconsistency of the payments recorded in Harriot's wage book also suggest that some, or perhaps even all, of the workers at the firm may have found additional employment in order to sustain themselves. Whether working for other umbrella makers, practicing other trades, or even running their own umbrella businesses, it seems likely these employees had sources of income beyond the wages recorded in Harriot's account book. The fact that each of Harriot's employees who can be identified as an umbrella maker in city directories lists a work address that is not at Harriot's shop at 70 Maiden-lane further suggests that employees' time spent making things for Harriot was only a portion of their total production of umbrellas and parasols.¹⁴⁵

Harriot's wage book records occasional cash payments he made to employees that were subtracted from their weekly salary. An informal network of exchange and credit existed between Harriot and his employees, extending beyond the purchase of materials for personal or professional use. Employees John Gordon and Ralph James, the most consistent of Harriot's employees, appear in Harriot's settling of Engold's accounts. Engold's estate paid Ralph James \$26.50 for "attendance when sick," and John Gordon was paid \$11.36 for an unspecified reason.¹⁴⁶ Two of the receipts pasted into Harriot's wage book were paid to Ralph James. The first settles accounts related to Engold's funeral. Harriot pays James on behalf of Engold's estate for "expenses to the country, carriages at the funeral, expenses at the house, [and] 4 Days & 2 Nights Servaces," for a total of \$26.50. The second receipt, from August 26, 1840, pays a

¹⁴⁵ If any other umbrella and parasol maker's records are found, it could be possible to check for any cross-listings of names between firms.

¹⁴⁶ Debts of John F. Engold, Harriot Records, Special Collections, Rutgers, n.p.

debt of \$217.55 plus interest from Harriot to James.¹⁴⁷ Both of these financial transactions indicate both a personal and financial connection existed between Harriot, Engold, and their long term employees, especially Ralph James.

A better understanding of the working practices of Harriot's employees reveals their specialization within his firm and within the umbrella and parasol making industry, as well as the cross-pollination that likely occurred as employees worked for other umbrella makers, in other trades, and perhaps at their own businesses. The personal, financial, and professional connections that existed between owners of firms and their employees generated a close network of craftsmen in New York City, facilitating the exchanges of goods, people, and materials necessary for small-scale producers like David Harriot.

Materials, Parts, and Outwork

Many of the parts used by Harriot's firm were made from raw materials by employees working in their own homes or businesses, a consequence of the limited space in Harriot's shop and the apparent part time employment of most of his workers. Yet, Harriot's papers rarely mention the materials needed to make these parts. Though the only raw materials listed in Harriot's inventory were yards of fabric, he may have had other such items on hand to sell to employees that were not included in the inventory. In three instances, Harriot deducted from an employee's weekly wages to account for a purchase of tin or wire.¹⁴⁸ It remains unclear if these employee

¹⁴⁷ Receipts, Harriot Records, Special Collections, Rutgers, n.p.

¹⁴⁸ Wage Book, Harriot Records, Special Collections, Rutgers, n.p.

purchases were for personal use, or if employees used them to make umbrella and parasol parts for Harriot.

Evidence from other industries suggest that firms sending work out to employees often provided them with raw materials. Bruce Laurie's account of the antebellum textile industry in Philadelphia states that, "Boss hand loom weavers, for example, were usually merchant capitalists who maintained warehouses and controlled large stocks of raw materials but did not own their own the machinery. They simply gave out yarn to weavers who worked at home on their own frames."¹⁴⁹ If umbrella manufacturers followed the patterns of these weavers, then they likely distributed materials and parts to their employees for them to assemble or make in their homes, using their own tools or machinery. However, the fact that umbrellas and parasols were made out of many more materials than other products commonly made with outwork, such as shirts and shoes, may have complicated the process of providing raw materials. The challenges inherent in distributing and managing so many different materials may have been one of the reasons that most umbrella and parasol making firms with a high volume of production did not rely on outwork as much as smaller firms.

The limited number and nature of the tools listed in Harriot's inventory supports the idea that his employees primarily used their own tools to make these parts. Some of the tasks for which employees were paid, such as "gilling [getting?] out bone," "varnishing," and "splicing," required specialized tools and materials beyond the few listed in the inventory. The omission of these tools suggests that employees

¹⁴⁹ Laurie, *Working People of Philadelphia*, 25.

completed the tasks off-site or brought their own tools with them. If employees were involved in other trades or had their own shops, they could easily use their own tools to accomplish these tasks and thus reduced the capital investment that Harriot needed to make in his firm.

The method of task-based payment used by Harriot and the sporadic nature of the payments in the wage book further support the notion that much of the work performed by Harriot's employees was outwork. There is only one direct mention of outwork in all of Harriot's surviving papers. On April 16, 1836, Ralph James was paid \$0.50 for "Out work," a small fraction of the \$6.12 he received in total wages that day.¹⁵⁰ Despite this singular usage of the phrase, the limited materials and tools in Harriot's shop inventory and the patterns of outwork practiced in other trades strongly suggest that most employees' work compensated by Harriot was outwork, even if Harriot did not directly identify it as such.¹⁵¹ Harriot's employees made most parts in other spaces, such as their homes or shops, and brought them in once a week or once a month to receive payment.

This type of outwork characterized Harriot's production, but not the practices of all umbrella and parasol manufacturers. Larger firms tended to rely on less outwork, though the work done by women to make covers was almost always performed as outwork at firms of any size. At the large New York firm described in "Something About Umbrellas," for example, "Many of the girls sew the gores together and prepare them for the frames at their homes, and in that state bring them to the general work-

¹⁵⁰ Wage Book, Harriot Records, Special Collections, Rutgers, n.p.

¹⁵¹ Dawley, *Class and Community*, 29 – 30; Zakim, *Ready-Made Democracy*, 136 - 140.

room, and attach them to the frames.”¹⁵² As production of umbrellas and parasols became increasingly mechanized throughout the nineteenth century, particularly in large firms, manufacturing became correspondingly centralized and outwork was used less.

Purchased Parts and Trade Networks

The debts owed to and paid by Harriot’s firm provide proof of the financial connections between the firm and other craftsmen who made parts for their umbrellas and parasols. Harriot documented his efforts to settle the firm’s debts after the death of John Engold in receipts and in a listing of individuals and firms who owed money to David Harriot & Co. and who were owed money by the firm. Harriot’s firm exchanged money, credit, and materials with these individuals. Using the names and information included on the receipts, it is possible to use New York City directories to identify some of the members of Harriot and Engold’s professional and personal networks, as well as their trades and addresses. The individuals who have been identified reveal a diverse group of artisans and professionals operating within New York City.¹⁵³

¹⁵² “Something About Umbrellas,” 30, Umbrellas Series, Warshaw Collection of Business Americana.

¹⁵³ I do not know if all of the individuals and firms with whom Harriot settled debts operated within New York City, but I condensed my search to this city. Most of the addresses listed on Harriot’s receipts were located in New York City, leading me to believe that most of his financial dealings remained largely confined to the city, though his wholesale records certainly prove that he was exchanging products and money throughout the country. I matched these individuals up using the 1839 *Longworth’s Directory*, since most of the receipts and debts were from the settling of Engold’s estate in 1839.

The debts paid off by Harriot represent a mixture of Engold's personal debts and the professional debts of their firm. While some of the receipts and debts clearly relate to the umbrella trade, others can be more difficult to determine. Harriot paid debts to lawyers, merchants, and newspaper printers for unspecified reasons, each of which is impossible to identify as a personal or professional debt without further details. Other debts with itemized receipts are clearly from Engold's personal purchases, such as receipts for an otter cap, haircuts, "shaving the body," various dry goods, visits from a doctor, and black fabric purchased by Engold's widow.¹⁵⁴ Five of the debts owed by Engold exceeded \$900. While many of the debts owed by Engold do not specify how they were accrued, it is clear that he conducted financial transactions with a wide range of people including a mason, a victualler, grocers, a jeweler, and various merchants. Many of the names listed in the debts have distinctly Germanic last names, suggesting that Engold may have been an active member of the growing community of German immigrants in New York City. The newspaper to which he owed a debt was the *New York Register*, a German newspaper. Whether Engold advertised in or subscribed to this newspaper, he displayed a certain level of commitment to this community.

The range of individuals who owed money to Engold is similarly diverse, and included tailors, merchants, a cabinetmaker, a maker of hardware, a dry goods merchant, carters, grocers, a hat maker, and a wheelwright. Both firms and individuals owed money to Engold, with sizes of debts ranging from forty dollars to several thousand dollars. The largest debt owed to Engold was from another umbrella maker,

¹⁵⁴ Receipts, Harriot Records, Special Collections, Rutgers, n.p.

A. A. Edgar, in the amount of \$3,384.55. While there is no further information specifying the nature of this debt, the very large size of the debt and Edgar's work as an umbrella maker may indicate that Edgar was purchasing parts, umbrellas, or parasols from Harriot and Engold.

Though not all of the people listed in Engold's debts could be identified in this analysis, this limited selection still demonstrates the wide range of people who interacted financially with Engold. Harriot's papers record a total of \$16,064.28 debts owed to the firm and Engold, and \$17,071.64 in debts owed by the firm and Engold. These papers include a high volume of large transactions, as 21 of the 155 debts settled were over \$500. These debts are in much greater amounts than the dollar amounts represented in the weekly wage payments or in Harriot's wholesale records. These debts may have accumulated over time and been settled only in the case of major events such as a death or the dissolution of a firm. Yet, the sheer volume of these debts is on a much greater scale than any of the other financial information recorded in the account books. The close mixture of professional and private finances found in Harriot's settling of John Engold's estate clarifies the networks between craftspeople that shaped the availability of parts and materials to umbrella makers like David Harriot.

Specialized equipment, knowledge, and materials beyond those represented in the papers of David Harriot & Co. were needed to craft many of the decorative elements of umbrellas and parasols, especially those made from expensive and exotic materials such as fringe, lace, silk, and ivory. Harriot's inventory includes several sets of small finished items that could be used to embellish umbrellas and parasols, such as

“2 Grose Tassels, A Lot of Roses, [and] A Lot of Fringe.”¹⁵⁵ Harriot’s wage book includes no references to paying employees for completing any tasks involving textiles or these types of embellishments. Rather, Harriot probably purchased these pieces from a specialized craftsperson. Harriot’s papers include a receipt pasted into his account book from October 1, 1839 documenting a purchase from Thomas Gordon, who was listed in *Longworth’s New York City Directory* as a fringeweaver.¹⁵⁶ Perhaps the quantity of fringe listed in this inventory was an earlier purchase from Gordon.

Several of the transactions settled after Engold’s death are directly related to obtaining parts for umbrellas and parasols. Some of the receipts pasted into Harriot’s wage book are itemized, providing proof of the completed parts that Harriot purchased from other craftspeople. Harriot paid Mrs. Engold \$12.38 for covering 36 umbrellas and making “44 Doz cases,” while Thomas Gordon was paid \$6.50 for “2 Gross Umbrella Tapets.” Harriot’s other itemized receipts include a payment of \$2.25 to W & J Morrison & Co, “wholesale and retail thread and needle store” for black sewing cotton; a payment of \$9.25 to Taylor Thomas & Co, silkgoods merchants, for 1 pound of “Italian Sewings;” a payment of \$18.19 to John Booth for “Parasol Hooks;” a payment of \$44.00 to brassfounder James S. Moffett for 2 gross 3.5 in ferrules, “cutting 2000 lb bone,” half a gross of runners, half a gross of top notches, and 8 gross of top tips; and a \$3.62 purchase of tools from hardware craftsman Samuel Whitney for one pair of shovel and tongs, a fluting machine, a hammer, and a slop pail. In addition to the purchases recorded on itemized receipts, Harriot’s papers list a general

¹⁵⁵ Inventory, Harriot Records, Special Collections, Rutgers, n.p.

¹⁵⁶ Longworth, *Longworth’s New York City Directory*, 1839, 286.

payment of \$181.95 to L.P. Prescott, maker of umbrella furniture, and another payment, this time non-itemized, to James Moffett for \$323.24.¹⁵⁷

The payments to brass-founders and umbrella furniture makers prove that Harriot was buying parts like runners and stretchers from other craftspeople, parts that employees were not paid for making in his wage book. These receipts even show that some parts that he did pay his employees to make, such as top tips, were also purchased ready-made from other craftspeople. Harriot's inventory includes "6 Groce Caps Silvered, 7 Groce Parasols Runners, 23 Doz Sets Parasol Streachers [and] 4 Groce Top Notches," pieces that are never mentioned in his wage book.¹⁵⁸

Umbrella furniture makers were specialized workers who made parts integral to the structure and function of umbrellas and parasols. The sheer existence of a trade identified as "umbrella furniture" in an 1839 city directory suggests that there was a large market of umbrella makers who bought finished parts, which they then assembled into complete umbrellas and parasols.¹⁵⁹

Harriot appears to have dabbled in the umbrella furniture industry, particularly in his excessive production of tops. The practice of making both parts and completed umbrellas and parasols for sale seems to have been fairly common in the 1830s. Many surviving receipts from this period note that various parts and pieces "for the trade" were available for sale in addition to the umbrellas and parasols purchased through firms' wholesale or retail businesses. While specialized firms devoted exclusively to

¹⁵⁷ Receipts, Harriot Records, Special Collections. Rutgers, n.p.

¹⁵⁸ Inventory, Harriot Records, Special Collections, Rutgers, n.p.

¹⁵⁹ Longworth, *Longworth's American Almanac*, 1839, 534.

producing umbrella furniture did exist as early as the 1830s, many firms participated in this trade as one portion of their total production and sales. A set of surviving receipts from 1834, 1838 and 1841 from Erasmus J. Pierce & Co., a Philadelphia umbrella and parasol making firm, states that the firm had “Every Material for Umbrella Makers always for Sale.”¹⁶⁰ Surviving receipts from 1842, 1846, 1847, 1851, 1852, and 1857 of Wright & Brothers & Co., another Philadelphia manufacturer, bear the same message that “Every Material for Umbrella Makers always for sale.”¹⁶¹ In addition to manufacturing their own umbrella furniture for sale, other firms re-sold imported umbrella furniture and other materials. An 1848 receipt from Binney & Ellis, a firm in Boston, notes that the firm acted as “Importers and Dealers in Musical Merchandise, Canes, Silks and Ginghams, Whalebone, Ivory, and Umbrella Furniture for Manufacturers.”¹⁶² In 1853, Nathaniel Ellis advertised his role as a “Dealer in Scotch and Domestic Ginghams, Whalebone, and Trimmings for Umbrella Manufacturers.”¹⁶³ The distinctions between makers of umbrellas and parasols and makers of umbrella furniture blurred during the middle decades of the nineteenth century.

¹⁶⁰ Erasmus J. Pierce Receipt, Folder 15, Umbrellas Series, Warshaw Collection of Business Americana.

¹⁶¹ Wright & Brothers & Co. Receipt, Folder 28, Umbrellas Series, Warshaw Collection of Business Americana.

¹⁶² Binney & Ellis Receipt, Folder 3, Umbrellas Series, Warshaw Collection of Business Americana.

¹⁶³ Ellis Receipt, Umbrellas Series, Folder 6, Umbrellas Series, Warshaw Collection of Business Americana.

Attempting to distinguish between the products of outwork and parts purchased from other craftsmen based on Harriot's surviving records can be challenging. When Harriot paid his employees (some of whom, like John Gordon, may have had their own businesses) and other craftspeople for the creation of the same parts, like top tips, was there an effective difference between the two methods of obtaining parts? Though it may be primarily notational, Harriot seems to have perceived a difference between the two. The distinction between outwork and buying from other craftspeople lies in where and how Harriot documented these transactions. Harriot recorded payments to his employees in the wage book, compensating them for not only making parts, but also altering, decorating, and combining pieces as well. Harriot's purchases from other craftspeople were recorded on separate individual receipts, which, though often itemized, do not reveal any of the detailed steps of production and decoration found in Harriot's wage book. Though the actions completed by both employees and other craftspeople in making parts for Harriot may have been largely the same, the distinctions in how they were recorded and compensated by Harriot show that he did perceive a difference between the two methods of obtaining parts.

The emergence of specialist trades like umbrella furniture makers facilitated the increased production of umbrellas and parasols as well as a move towards specialization and increased distribution of labor. Harriot's purchases of parts for his umbrellas and parasols complicates the understanding of his role as an umbrella and parasol manufacturer. What do the words "production" and "umbrella maker" mean when finished parts are purchased from other craftsmen, and how does that challenge our interpretations of craft production? Defining Harriot's production as

“manufacturing” is further complicated upon recognition of the assembling process that was a predominant part of his firm’s production.

Assembling

In order for the system of production practiced by Harriot to yield umbrellas and parasols for sale, the various pieces made by employees and purchased from other craftspeople had to be assembled into singular finished products. Though limited information from Harriot’s papers survives detailing how or where these assembling processes occurred, evidence suggests that much of this work happened within Harriot’s shop. Because Harriot’s firm did not make all of the pieces used in their umbrellas and parasols, assembling processes defined Harriot’s production and constituted a large portion of the “manufacturing” done by the firm. Though Harriot and his employees did not manufacture umbrellas and parasols in the sense that they made them entirely from start to finish, they did manufacture completed umbrellas and parasols from the parts made by employees and purchased from other craftspeople.

Though the tools found in Harriot’s inventory were not enough to make all of the parts of umbrellas and parasols, employees could have used them to assemble various pieces into a final product. Completed umbrellas and parasols and individual parts appear in larger numbers than any raw materials listed in Harriot’s inventory. One of the adjectives used to describe the umbrellas and parasols listed in the inventory was whether the objects were “finished” or “not finished.” This allusion to a finishing process refers to the process of assembly, suggesting that these processes were completed in Harriot’s shop. The word assembling is never mentioned in Harriot’s wage book. It is implied, however, whenever Harriot paid his employees for the tasks “umbrellas” and “parasols.” The products of these general task descriptions

were completed umbrellas and parasols, thus suggesting that individual pieces had to be assembled in order to complete them.

The finishing processes of umbrellas and parasols took advantage of the economies of scale that umbrella and parasol makers had begun to adopt by the antebellum era. By having out-working employees and other craftspeople manufacture the pieces of the umbrellas and parasols, Harriot and other umbrella makers only had to assemble parts together to make a finished product. This greatly reduced the level of human management and necessary capital investments that firm owners needed to make in their businesses. This process was only successful, however, because the employees and craftsmen made large batches of individual parts at once and because the sizes and styles of umbrella and parasol parts began to standardize.

Standardization

Harriot's records bear many traces of the umbrella and parasol making industry's move towards standardization. The author of "Something About Umbrellas" stresses the importance of this standardization, stating that:

There is, in the manufacture of even the cheapest umbrella, extraordinary pains taken to ensure the greatest perfection and accuracy in each component part of an umbrella, as upon the exact fitting of each part depends the value of the whole. Like a regulation musket, each part of one umbrella, must, if required, fit every other part of another umbrella of the same grade.¹⁶⁴

Individual parts and completed umbrellas and parasols are almost always described by their size in Harriot's wage book, inventory, itemized receipts, and wholesale

¹⁶⁴ "Something About Umbrellas," 29, Umbrellas Series, Warshaw Collection of Business Americana.

accounts. These trends are also found on receipts and catalogues from other makers. A receipt from Halsted, Haines & Co., a firm operating out of 376 and 378 Broadway, includes a list of umbrella prices that vary according to size, just as some of Harriot's wholesale prices did.¹⁶⁵ For completed umbrellas and parasols, this measurement was based upon the length of the shaft. Among Harriot's products, sizes ranged from the smallest 14" parasols to the longest 34" umbrellas, with two inch size increments offered at every length in between. Once the shaft length of an umbrella or parasol had been determined, the rest of the pieces were sized accordingly, with frames, covers, tips, tops, and handles made to fit. Some pieces, especially those fitting onto or around the shaft, were sized based upon the diameter of the shaft in measurements of sixteenths of an inch. These methods of sizing umbrellas and parasols according to particular measurements appear to have been relatively standard throughout the umbrella and parasol making industry. These size measurements appear on the receipts of Harriot's purchases from other umbrella makers as well as on surviving receipts of finished umbrellas and parasols from other umbrella makers.¹⁶⁶

Harriot's inventory also includes a listing of "A Lot of Umbs and Parasol Patrons," which likely indicates a set of patterns used to cut the covers for umbrellas and parasols of different styles, materials, and sizes.¹⁶⁷ The usage of these patterns is described in "Something About Umbrellas" as follows: "The materials for covers are

¹⁶⁵ Halsted, Haines & Co Tradecard, Folder 9, Umbrellas Series, Warshaw Collection of Business Americana.

¹⁶⁶ Umbrellas Series, Warshaw Collection of Business Americana, Archives Center, National Museum of American History, Smithsonian Institution, Box 1.

¹⁶⁷ Inventory, Harriot Records, Special Collections, Rutgers, n.p.

in charge of a woman who has a series of thin pattern boards of the exact dimensions of every gore which may be required. The material is laid down in four thicknesses, and then doubled; the pattern board is put on and the cloth cut, giving at once the full number of gores necessary for an umbrella.”¹⁶⁸ The usage of these patterns would lead to relatively standardized appearances among covers, though the hand cutting and sewing that produced these parts would prevent them from being identical.

Other trades that provided parts to the makers of umbrellas and parasols, such as brass-founders and ivory carvers, also made their pieces to fit the increasingly standardized forms of umbrellas and parasols. By making these parts according to standard sizes of the industry, craftspeople could sell their wares to any umbrella maker rather than making parts that would only fit the umbrellas and parasols of a particular maker. This had particularly strong consequences for smaller producers like David Harriot. As part sizes standardized, smaller firms could purchase the same types of parts made in significant quantities for larger firms. The higher volumes of production made possible by making parts for any producers in the industry lowered costs per part, making them increasingly accessible for firms of any size.

Evidence from surviving umbrellas and parasols further supports the conclusion that firms of all sizes purchased parts in standardized sizes. Many of the metal pieces on umbrellas and parasols such as the runners, tops, and stretchers appear to have been made in uniform sizes and with certain repetitive designs. The relative standardization of pieces and lack of metalworking equipment in the inventory of

¹⁶⁸ “Something About Umbrellas,” 29, Umbrellas Series, Warshaw Collection of Business Americana.

Harriot's shop suggest that for many umbrella makers, these pieces were also made in large quantities by a more specialized metalworker or umbrella furniture maker.

There were limits, however, to the level of standardization that could be achieved in this industry. While the descriptions of objects included in Harriot's wage book, inventory, and wholesale are frequently grouped by their sizes, umbrella and parasol parts were not yet interchangeable in the 1830s and 1840s.¹⁶⁹ Umbrella and parasol makers of this period had begun to adopt the notions of economies of scale through a division of labor, sending work out, and making parts in large quantities, but the process of assembling umbrellas and parasols was difficult to mechanize and standardize.¹⁷⁰ Umbrellas and parasols continued to be assembled into complete products using hand techniques throughout this period. Harriot's employees likely had to do some degree of alteration to the parts used on every umbrella and parasol they made to insure that the disparate parts and pieces came together into a smoothly working finished product.¹⁷¹ Though altering is only directly mentioned three times in Harriot's wage book, it was a necessary part of the finishing process and was hidden by the usage of the general tasks "umbrellas" and "parasols." Ralph James was paid \$0.55 for "Altering & shifting tips" on September 17, 1836, and John Gordon was paid \$0.75 for altering 24 frames on October 21, 1837 and \$2.00 for altering 96 frames

¹⁶⁹ David Hounshell, *From the American System to Mass Production, 1800-1932: The Development of Manufacturing Technology in the United States*, (Baltimore: Johns Hopkins University Press, 1984), 48.

¹⁷⁰ Smith, *Wealth of Nations*, 5-10.

¹⁷¹ Hounshell, *American System*, 39.

on June 15, 1839.¹⁷² These rare mentions gesture towards the altering practices that went into each umbrella and parasol.

Production Schedules

Ensuring that various craftspeople and outworkers provided the necessary pieces needed to assemble a finished umbrella or parasol was an intricate negotiation of schedules, expectations, and insuring that shipments of completed pieces could be fulfilled on time. Although most of the pieces of umbrellas and parasols used by Harriot's firm were not made in his shop, the shop was a hub for the coordination of production of these pieces. This type of coordination was less necessary for larger firms, where nearly all parts were made in the shop.¹⁷³

As noted in the above discussion of the preponderance of tops made by Harriot's firm, the tasks iterated in Harriot's wage book were not completed at equal rates, or even at rates equal to their expected use in umbrellas and parasols. Harriot's records suggest that some parts that were used more regularly, such as tin tops, tips, and frames, were made in large quantities to supply the shop for extended periods of time. More unique and specific pieces that required additional workmanship, such as "varnished bone parasol tips" and "fluted umbrella sticks," were made in smaller quantities as needed for orders.

The evidence of production found in the wage book and listings of finished and unfinished umbrellas and parasols in the inventory of Harriot's shop suggest that while

¹⁷² Wage book, Harriot Records, Special Collections, Rutgers, n.p.

¹⁷³ "Something About Umbrellas," 29 - 30, Umbrellas Series, Warshaw Collection of Business Americana.

the firm predominantly made umbrellas and parasols to order, they also kept up at least a minimal stream of production throughout the year, perhaps to supply the retail shop. While the firm's inventory gives an excellent snapshot of their stock at one moment in time, it does not provide any sense of change or of how quickly the stock of umbrellas and parasols built up, was sold, and was subsequently replaced. The mention of several "old fashioned parasols" found in Harriot's inventory indicates that some items did end up lingering in his shop for prolonged periods and that Harriot did attempt to maintain his stock to match the current dictates of fashion.¹⁷⁴

This may not have been the case with all umbrella and parasol makers. In 1865, a group of manufacturers stated that

"in order to secure a supply for our spring trade, we are obliged to place orders for them months in advance of demand, in July and August, for use in the following spring season, which is the principal one in our business, embracing as it does both the Umbrella and Parasol Department, and exceeding the trade of the balance of the year over three hundred (300) per cent."¹⁷⁵

The larger firms represented in this report did experience seasonal shifts in demand, and apportioned their production schedules accordingly. While Harriot had a consistent level of small production that was supplemented by special parts for specific orders, the large firms represented in this document targeted their production to meet meteorological periods when umbrellas and parasols could be expected to be in highest demand.

¹⁷⁴ Inventory, Harriot Records, Special Collections, Rutgers, n.p.

¹⁷⁵ Wells, "Report of Committee of Umbrella and Parasol Manufacturers," 5.

Each of these aspects of Harriot's production processes highlights a distinct element of umbrella and parasol making. These processes shaped the nature of manufacturing and production in this industry, and helped make the increasingly large production of umbrellas and parasols possible. Umbrellas and parasols, whether from the nineteenth or twenty-first centuries, are complex objects designed to serve fashionable, symbolic, and practical purposes, and are assembled from a wide array of materials. Manufacturers of umbrellas and parasols sought to expedite production processes of these intricate objects, and thus to maximize their profits. To do so, they adopted production methods such as employee specialization, purchasing pieces and materials from other craftsmen, and relative standardization of parts. Assembling and outwork processes were distinct elements of small scale umbrella making, setting Harriot and his peers apart from the larger firms who industrialized, mechanized, and came to dominate the industry by the end of the nineteenth century. Studying the records and practices of the umbrella making firm of David Harriot & Co., as well as surviving umbrellas and parasols, show the patterns of a trade in transition, highlight the network of craftsmen in New York City, and challenge commonly-held historical narratives of industrialization and mechanization.

Chapter 5

HARRIOT AND THE WIDER WORLD

The patterns evident in Harriot's papers gain further relevance when considered in relation to the practices of Harriot's suppliers and competitors among the larger American umbrella and parasol making industry. Looking at the range of production evident in this industry during the 1830s and 1840s reveals a transitional moment in the making of these objects, both within the United States and abroad. Examining the government regulation of and international trade in umbrellas and parasols creates a picture of the patterns of supply and demand that shaped the business of David Harriot & Co. and those of other umbrella and parasol manufacturing firms.

The American Umbrella and Parasol Production Industry

Umbrellas and parasols were sold across the country during the antebellum era, but the manufactories in which they were produced were primarily concentrated in cities. Surviving newspaper advertisements for umbrella and parasol manufacturing firms show evidence that many of these firms were located in the northeastern cities of Boston, New York, and Philadelphia. These large metropolitan areas were likely the only areas of the growing United States in which the concentration of specialized labor, parts, and materials needed to make umbrellas and parasols could be found. Manufacturers of high end umbrellas and parasols relied on access to ports to obtain

imported materials such as ivory, silk, and fringe. Access to ports was also important for manufacturers like Harriot who distributed their goods across the country.

David Harriot was one of a large and growing community of umbrella and parasol makers operating in antebellum New York City. *Longworth's New York City Directory* from 1826 lists seventeen individuals whose trades related to umbrellas and parasols, including twelve listed as umbrella makers or manufacturers, one person whose trade was simply “umbrella,” one “umbrella furnisher,” and three individuals involved in selling umbrellas: an umbrella merchant, an umbrella store operator, and Mary Spencer, a widow who operated a parasol store.¹⁷⁶

Thirteen years later, the number of New York residents listed in the 1839 *Longworth's City Directory* with trades related to umbrellas had more than doubled to 45. Thirty-two of these individuals (including David Harriot and his employee John Gordon) were listed with a trade of “umbrellas.” Four of these individuals were identified as umbrella manufacturers or umbrella makers, and two were listed as makers of umbrella furniture.¹⁷⁷

¹⁷⁶ The listings from this directory related to umbrella and parasol making are included in full in Appendix C. Thomas Longworth, *Longworth's American Almanac, New-York Register, and city directory, for the Fifty-First Year of American Independence...*, (New York: Thomas Longworth, 1826), Internet Archive, <https://archive.org/details/longworthsameric1826newy>.

¹⁷⁷ The listings from this directory related to umbrella and parasol making are included in full in Appendix C. Longworth, *Longworth's American Almanac*, 1839, Internet Archive, <https://archive.org/details/longworthsameric1839newy>.



Figure 33 Address listings of persons who are involved in umbrella and parasol making listed in the 1839 *Longworth's New York City Directory*, with David Harriot indicated with a star. Alterations made to a detail of New York City Map, plate 18, from Thomas Bradford, *An Illustrated Atlas, Geographical, Statistical, and Historical, Of the United States and the Adjacent Countries*. Boston, Weeks, Jordan, 1839. Accessed via Wikimedia Commons, courtesy Geographicus Rare Antique Maps.

Only six years later in 1845, the number of individuals listed in *Doggett's New York City Directory* with trades related to umbrellas and parasols had nearly doubled again, to 82 persons. Sixty-nine of these individuals, including David Harriot, had a trade listed simply as “umbrellas.” Nine were specifically identified as umbrella makers or umbrella manufacturers. One individual was identified as an “umbrella finisher,” while another was a maker of “umbrella sticks,” reflecting the increased specialization that accompanied the growth of this industry and the subsequent emergence of corollary trades. The *Directory* included one advertisement for J.C. Booth & Co., vendor of umbrellas, and a listing for Mary Wickstead, a widow whose trade was listed as “umbrellas.” It is unclear whether this was her trade, the trade of her deceased husband, or if she had continued to operate her deceased husband’s business.¹⁷⁸

¹⁷⁸ The listings from this directory related to umbrella and parasol making are included in full in Appendix C. Doggett, *Doggett's New-York City Directory, for 1845*, Internet Archive, <https://archive.org/details/doggettsnewyorkc1845dogg>.

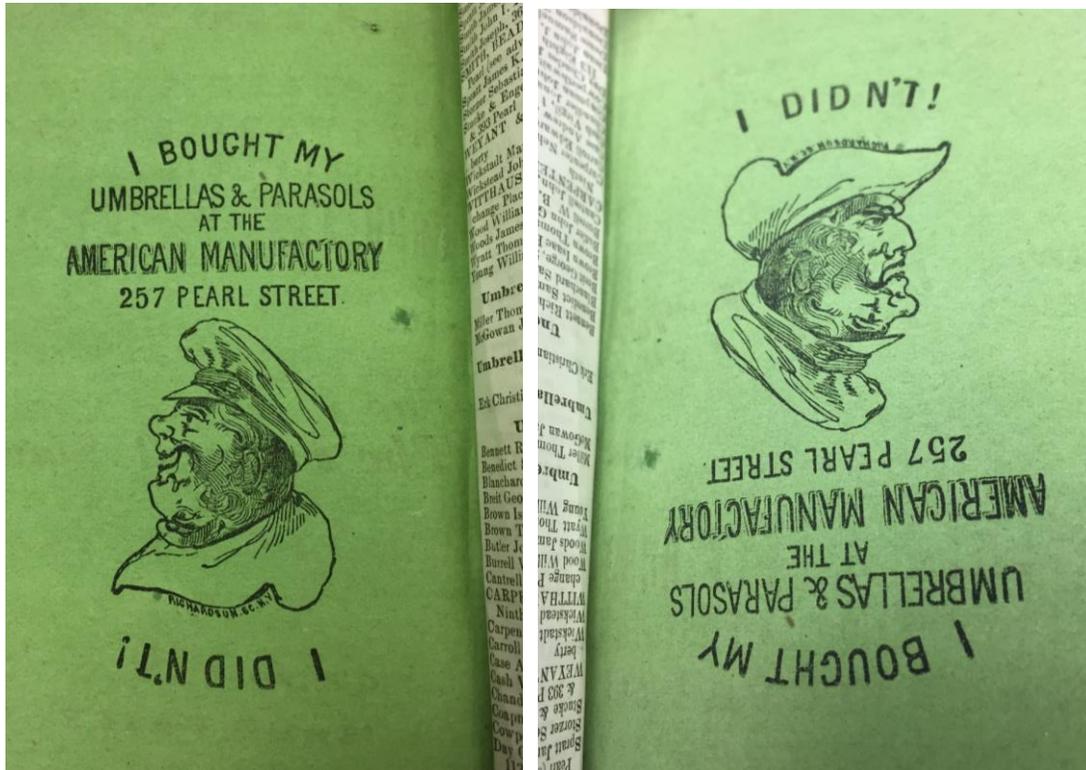


Figure 34 Ambigram advertisement from *Wilson's Business Directory of New York City*, 1851, viewed as printed and upside down. Courtesy, The Winterthur Library: Printed Book and Periodical Collection.

The changing listings in these directories show how quickly this trade grew in New York City. City directories are not entirely representative sources, as the omissions of some of Harriot's employees from these directories attest. Longworth's directories, for example, "listed approximately one of five New Yorkers."¹⁷⁹ Both Doggett's and Longworth's directories listed mostly men, omitting the many women

¹⁷⁹ Philip Sutton, "Direct Me NYC 1786: A History of City Directories in the United States and New York City," *New York Public Library*, Last Modified June 8, 2012, <http://www.nypl.org/blog/2012/06/08/direct-me-1786-history-city-directories-US-NYC>.

and children who worked in the umbrella and parasol industry. Those who worked part time in the umbrella trade may also have been listed in city directories with a different trade. All of these factors suggest that the number of individuals working in the umbrella and parasol trade in New York City was even greater than the numbers represented in directories.

A thorough description of a large firm operating in New York City in 1853 is given in the article “Something About Umbrellas,” which has been referenced throughout this thesis. The article describes the production practices of a firm:

which makes on average *fifteen hundred* umbrellas per day, and has sometime turned out as many as 2,070 in a single day. About 300 hands are employed on the premises... A ten horse power steam engine drives the machinery, and throughout the building every attention is paid to promote the comfort, health, and convenience of the operatives.¹⁸⁰

This description paints a picture of a firm quite different than Harriot’s in terms of its volume of production, number of employees, level of mechanization, and concentration of manufacturing. Recognizing the variations in the production of these objects brings to light the wide range of businesses that must have been represented by the names in the city directories above.

Philadelphia may have had an even more prolific manifestation of this industry than New York City. An 1857 survey, *Philadelphia and its Manufactures: A Hand-Book Exhibiting the Development, Variety, and Statistics of the Manufacturing Industry of Philadelphia in 1857. Together with Sketches of Remarkable Manufactories; and a List of Articles Now Made in Philadelphia*, written by Edwin

¹⁸⁰ “Something About Umbrellas,” 29, Umbrellas Series, Warshaw Collection of Business Americana.

Freedley, explores the size and nature of various industries in Philadelphia and addresses many similar themes as “Something About Umbrellas.” One of the industries highlighted by Freedley is that of parasol and umbrella manufacturing. Freedley writes with a boosterish voice, trying to stop the “declension of [Philadelphia’s] foreign commerce” and counter the “reports” made by Philadelphia’s “enemies... which, if unexplained, must prove detrimental to her interests.”¹⁸¹ He does not cite his sources, but claims “to have acted with strict impartiality, both as respects persons and facts.”¹⁸² Despite these qualifications, and the fact that he wrote about fifteen years after Harriot stopped working in the trade, *Philadelphia and its Manufactures* provides a very useful and detailed look at the manifestation of this industry in Philadelphia.

Freedley identifies the size and nature of this industry, stating that:

The Umbrella and Parasol manufactories in Philadelphia, it is supposed, are more extensive than any others of the kind in the United States; and their products have proverbially a better reputation for quality than any others. It is probable there are more than a hundred places in Philadelphia where Umbrellas and Parasols are made to some extent, but the very extensive establishments are limited to four or five.¹⁸³

¹⁸¹ Edwin Freedley, *Philadelphia and its Manufactures: A Hand-Book Exhibiting the Development, Variety, and Statistics of the Manufacturing Industry of Philadelphia in 1857; Together with Sketches of Remarkable Manufactories; and a List of Articles Now Made in Philadelphia* (Philadelphia: Edward Young, 1857), 17.

¹⁸² He even goes on to state that “It would have been easy by less exactness as to the accuracy of matters of fact to multiply the details, and to increase the interest or “spiciness” of the volume; but even in a dearth of real facts “doubtful facts” have not been resorted to.” Freedley, *Philadelphia and its Manufactures*, 19.

¹⁸³ *Ibid.*, 390.

He continues, identifying the amount of human and monetary capital that Philadelphia manufacturers have invested in this industry, as well as the size of their sales:

The Umbrella and Parasol manufacture in Philadelphia employs directly about 1,500 persons, and indirectly, and in all its branches, 2,500. A large proportion of the employees are females, whose earnings average from \$2 to \$5 per week. A capital of about \$700,000 is invested, and the average annual product is about \$1,275,000, though in 1853 it was nearly two millions of dollars; the sale of one firm exceeding a half million of dollars. The value produced in Philadelphia is nearly equal to that of Paris in 1847, when the product was stated at £296,000.¹⁸⁴

Freedley attributes the growing success of this industry partially to “The mechanical genius of the manufacturers [that] has been active... a number of very important improvements, which facilitate the manufacture, have originated here.”¹⁸⁵ He goes into detail about the importance of associated industries that support the manufacture of umbrellas and parasols in Philadelphia by providing high quality parts and materials, stating that:

The causes that have contributed to the supremacy of Philadelphia in this manufacture, are principally those which have led to a like result in other branches; but there are also special and particular reasons for the superiority. The *sticks* and *metal mountings* made in Frankford, a populous suburb of the city, are unsurpassed for excellence and efficiency. The *stretchers*, made from the best Pennsylvania iron – the wire, drawn at Easton, and formed, forked, and japanned at the House of Refuge, under the superintendence of a firm in this city – are tougher, and less disposed to rust or oxidize, than any in the world.¹⁸⁶

¹⁸⁴ Ibid., 392.

¹⁸⁵ Ibid., 390.

¹⁸⁶ Ibid., 390.

Freedley later clarifies that “The establishments in Frankford for the manufacture of Metal Mountings, Tips, &c., are deservedly noted, and supply not only the manufacturers of this city but New York,” establishing that trade in both parts and finished products was conducted between American cities.¹⁸⁷ Freedley also highlights the role of other suppliers of materials in Philadelphia, stating that:

The Ivory and Bone Turners, and Carvers, perform their part well in ornamenting the handles... There is also an extensive establishment in the city for the manufacture of WHALEBONE and RATTAN, and is said to be the only factory in the country where Whalebone is prepared for all the purposes to which it is adapted... Previous to the great advance in Whalebone, this manufactory consumed annually 150,000 to 200,000 lbs; but at present, the consumption is much reduced by the introduction of substitutes at much lower cost. Rattan is now a leading articles in the manufacture of Umbrellas, Parasols, Chair Seating, Skirt Hoopes, &c., and this firm consume annually about 200,000 lbs.¹⁸⁸

Even at a moment of transition in the umbrella and parasol industry, as manufacturers moved from whalebone to rattan (and eventually would move to steel and other metals) as the materials used for ribs, the supporting industries in Philadelphia made it possible for manufacturers to continue producing at a high volume. This description suggests that the network of craftsmen evident in the receipts from Harriot’s papers also existed in Philadelphia, and was a common feature of urban manufacturing communities.

Freedley includes a list of articles at the end of his book, identifying the manufacturers of certain items and the addresses of these firms. This list includes eleven major producers of umbrellas and parasols, but states that “many others”

¹⁸⁷ Ibid., 393.

¹⁸⁸ Ibid., 393 – 394.

operated in the city. He also mentions five different makers of “Umbrella & Parasol Furniture,” one producer of “Umbrella Makers’ Tools,” and one maker of “Umbrella and Parasol Sticks.”¹⁸⁹ The description of these firms adds credence to Freedley’s claims that Philadelphians’ success in manufacturing these items arose principally from the confluence of specialized trades and producers of parts within the city and its environs, and further demonstrates the growth of these corollary industries as the nineteenth century progressed.

Freedley describes in further detail the practices of the five principal umbrella and parasol manufacturers operating in Philadelphia: Wright, Brothers & Co., Sleeper & Fenner, Wm. A. Drown & Co., Simon Heiter, and Wm. H. Richardson. He identifies Wright, Brothers & Co. and Sleeper & Fenner as “probably the largest, and certainly among the largest Umbrella manufacturing concerns in the Union.”¹⁹⁰

Freedley describes the production of Wright, Brothers & Co., citing an article from the *Pennsylvania Inquirer* that describes the firm as follows:

This house produces an average of 2,200 Umbrellas and Parasols a day, to about 700,000 per annum: and consumes one million yards, equal to 570 miles, of Silks, Cottons, and Gingham; upward of 200,000 pounds of Rattan, and about seventy-five tons of Horn, Bone, Ivory, and other materials, for ornamental mountings. Of Whalebone, the house alluded to above consumes over 100,000 pounds, equal to about one-thirtieth of the average products of whale fisheries of the world. Such are the extent and variety of the mechanism used, and the perfection and nicety with which it is adapted to the purpose, that, with the help of ample steam-power, all this vast quantity of material changes its form, and 700,000 Umbrellas are manufactured in the establishment of the Messrs. Wright, with the help of only 450 hands constantly employed

¹⁸⁹ Ibid., 488.

¹⁹⁰ Ibid., 391.

under one roof. All parts of the Umbrella are now arranged with mathematical accuracy by the machinery used, some of which was invented by one of the proprietors of the establishment... The system to which all parts of this manufacture is reduced is now so perfect as to place the cost of production very low, and far below the competition from hand labor and ordinary machinery – in addition to forming the article with a beauty and accuracy only to be obtained from the best mechanical means.¹⁹¹

A receipt from an import record challenges Freedley's assertions that Wright, Brothers, & Co.'s success was a direct result of the other manufacturers of umbrella and parasol parts found in Philadelphia. Though Wright, Brothers & Co. may have gotten most of their parts locally by the time of Freedley's publication in 1857, an 1835 receipt survives from the firm's order of 570 "black japanned umbrella stretchers" of various sizes from a manufacturer in Liverpool.¹⁹² This receipt proves that umbrella and parasol firms obtained parts not only from their local networks, but imported them from abroad as well. In addition to producing the vast number of finished umbrellas and parasols described above, Wright, Brothers & Co. also advertised on its receipts from the 1840s that the firm had "Every Material for Umbrella Makers always for sale."¹⁹³ The firm continued to grow after the publication of *Philadelphia and its Manufactures*, and by the 1870s had warehouses not only in Philadelphia, but also in New York, Boston, and Baltimore.¹⁹⁴

¹⁹¹ Ibid., 391.

¹⁹² Wright, Brothers & Co. Import Record, Folder 30, Umbrellas Series, Warshaw Collection of Business Americana.

¹⁹³ Wright, Brothers & Co. Receipts, Folder 28, Umbrellas Series, Warshaw Collection of Business Americana.

¹⁹⁴ Ibid., n.p.

Freedley draws attention to the domestic distribution networks of the United States when describing the “prominent firm” of Sleeper & Fenner, stating that the firm “rank[s] among the most extensive makers of Umbrellas in this country [and that] the products of their establishments are sold largely in Boston, and other parts of New England, and are highly and deservedly appreciated, where appreciation is a compliment.”¹⁹⁵ Philadelphia umbrella and parasol manufacturers shipped their goods to other American cities, even those in which several umbrella and parasol manufacturers operated.

The international exchanges of designs and styles that occurred between umbrella and parasol makers around the globe are also emphasized by Freedley. He notes that Simon Heiter and his firm produced “All the styles usually made in this country... and by means of connection with houses in Europe, he is in early and constant receipt of whatever novelties are originated in the workshops of Paris or elsewhere.”¹⁹⁶ The personal and professional ties that existed between umbrella and parasol makers fueled innovation within the United States and around the globe.

Freedley highlights the innovation of another firm’s proprietor, William H. Richardson. Freedley states that Richardson “has been connected with the trade for many years, and during the period of this connection he has introduced several novelties that can be highly commended.”¹⁹⁷ Freedley refers to the mechanical and design innovations made to umbrellas and parasols by Richardson, but evidence

¹⁹⁵ Freedley, *Philadelphia and its Manufactures*, 391.

¹⁹⁶ *Ibid.*, 392.

¹⁹⁷ *Ibid.*, 392.

survives attesting to his innovation as an advertiser as well. A small metal token used by Richardson for advertising survives in the Archives Center of the National Museum of American History. The token reads on one side: “Umbrellas Parasols Very Superior Expressly for Retailers,” and on the other: “Wm H. Richardson 418 Market St. Philad’a 229 Broadway N.Y.”¹⁹⁸ The message on this undated token suggests that Richardson sold his goods to other retailers, rather than directly to members of the public. The firm seems to have had a sizable wholesale business catering to retailers, while surviving receipts from Richardson’s “extensive manufactory” in Philadelphia suggest that the firm did make normal retail sales to local Philadelphians as well.¹⁹⁹



Figure 35 Front and back of advertising token of Wm. H. Richardson & Co., Umbrellamakers of Philadelphia. Folder 16, “Umbrellas” Box, Warshaw Collection of Business Americana, Archives Center, National Museum of American History, Smithsonian Institution.

¹⁹⁸ W.H. Richardson Coin, Folder 16, Umbrellas Series, Warshaw Collection of Business Americana.

¹⁹⁹ W.H. Richardson Receipts, Folder 16, Umbrellas Series, Warshaw Collection of Business Americana.

These descriptions allow for the comparison of production practices and output between David Harriot & Co. and the Philadelphia firms. Surviving receipts and Freedley's characterizations of manufacturing in Philadelphia suggest that similarities existed between the methods, advertising strategies, and types of goods made by firms of all sizes. Some major differences between the firms emerge as well. Harriot's records show much less evidence of mechanization and capital investment than the Philadelphia firms described by Freedley. Some of these firms made use of steam power and sorting machines to expedite their production, technologies never mentioned or even alluded to in Harriot's papers. Harriot also had a much smaller volume of production than the large Philadelphia firms, perhaps because these technologies were not yet widely available to umbrella and parasol makers in the 1830s. Freedley cites only the most exceptional and largest producing firms in *Manufacturing in Philadelphia*, giving a perhaps inflated sense of one end of the spectrum of umbrella and parasol production. Though Harriot's papers are incomplete, the total numbers of completed umbrellas and parasols included in his wholesale and wage records from a period of about ten years number approximately 8,000. Even if we were to assume that Freedley inflated his numbers by a factor of ten in a patriotic effort to bolster Philadelphia manufacturing, the 700,000 umbrellas reportedly made by Wright, Brothers, & Co. dwarfs the output of Harriot. Taking into account other documents from the firm that have not survived and the fifteen to twenty years separating Harriot's records and *Philadelphia and its Manufactures*, one can surmise that Harriot was a small to mid-size producer of umbrellas and parasols in the 1830s. This is certainly not a precise comparison, but does offer a helpful means with which

to consider varying levels of production, what causes growth in production, and the impact of mechanization on production of these goods.

As production of umbrellas and parasols became increasingly specialized and divided into certain discrete and relatively standardized tasks, this industry gained more avenues of possible entry from other trades. Craftspeople who had specialties in working with wire, ivory, cane, rattan, baleen, or textiles could find employment working in or supplying the umbrella and parasol trade. Working with these materials within the umbrella and parasol making industry was seen as such a profitable career path that boys at the Philadelphia House of Refuge during the 1840 and 1850s were taught to make “razor strops or wire umbrella ‘furniture,’” as well as to fork and japan wire stretchers.²⁰⁰ As production of umbrellas and parasols continued to increase and spread, individuals with skills related to umbrella and parasol making began to set up their own shops rather than working under the umbrella of a particular firm. C.H. Forster & Sons, for example, worked in New York City as “Turners of Umbrella and Parasol Sticks, Chair Rounds, Etc.”²⁰¹ By 1881, James Conaway & Co. operated a “Steel Umbrella Frame Works” in Philadelphia, producing only one type of part used on umbrellas and parasols.²⁰² Just as umbrellas and parasols were made of many

²⁰⁰ Nina E. Lerman, “Industrial Genders: Constructing Boundaries,” in *Gender & Technology: A Reader*, Nina E. Lerman, Ruth Oldenziel, and Arwen P. Mohun, eds., (Baltimore: Johns Hopkins University Press, 2003), 128; and Freedley, *Philadelphia and its Manufactures*, 390.

²⁰¹ Ch. Forster & Sons Trade Card, Folder 7, Umbrellas Series, Warshaw Collection of Business Americana.

²⁰² James Conaway & Co. Receipt, Folder 30, Umbrellas Series, Warshaw Collection of Business Americana.

materials, the production of these objects was characterized by the involvement of many individuals with a variety of skillsets. As the volume of items produced increased during the nineteenth century, individuals working in related trades such as making umbrella furniture or turning sticks formed their own firms which made parts used by umbrella and parasol makers.

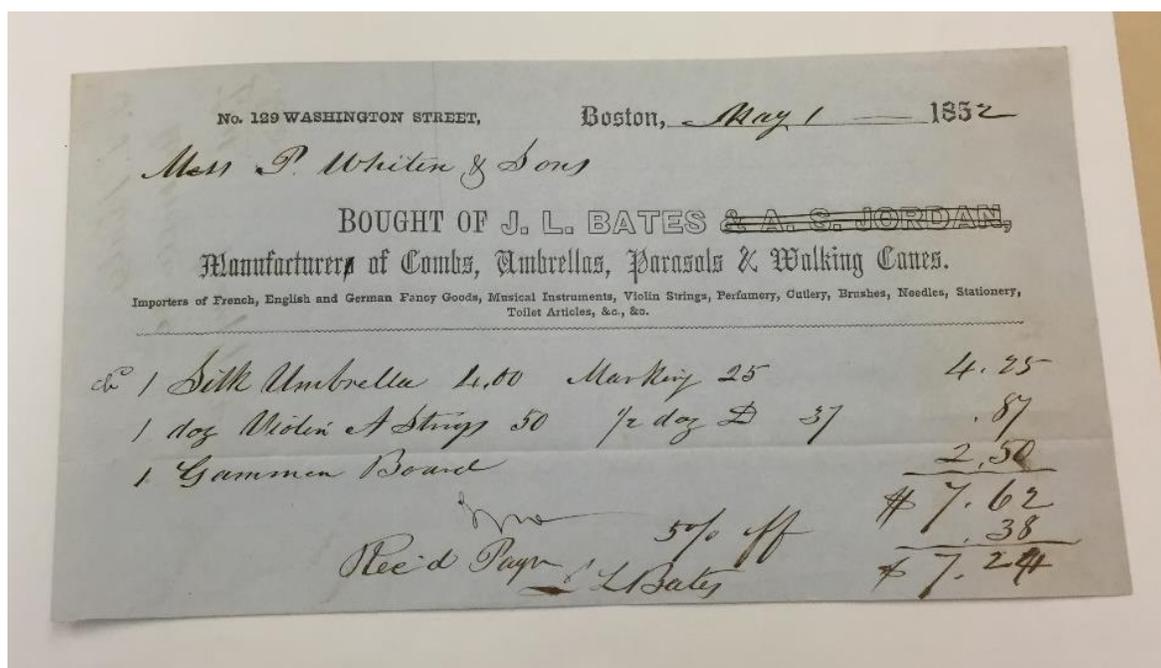


Figure 36 Receipt from the firm of J.L. Bates (Formerly Bates & Jordan), Folder 2, "Umbrellas" Box, Warshaw Collection of Business Americana, Archives Center, National Museum of American History, Smithsonian Institution.

Another pattern evident across the surviving records of many of these firms is a high level of changeover in proprietorship. Typical of many antebellum industries, partnerships formed and dissolved, proprietors moved away, and new family members joined the rosters of many of these firms. The names identified on receipts reveal the

changing patterns of ownership, similar to those seen in David Harriot's records after the death of his partner John Engold. The proprietors of several of the firms represented in surviving receipts and documents visibly change over the course of the first half of the nineteenth century. The firm of Bates and Jordan, for example, began manufacturing and selling umbrellas and parasols in the 1840s, but an 1852 receipt with a deliberate set of horizontal lines reveals that Jordan had left the firm. All surviving receipts from this firm after 1852 only include Bates' name as proprietor.²⁰³ Similar patterns are seen in other firms' receipts. Binney and Ellis, a firm operating in 1848, became the firm of Matthew Binney and Sons by 1856 and by 1861 had become the firm of Matthew Binney's Sons.²⁰⁴ Similarly, William Sleeper and Co., which sold umbrellas and parasols in Philadelphia as early as 1832, became Sleeper and Brothers by 1838, and Sleeper and Fenner by 1847.²⁰⁵ A form letter distributed by Charles King to his customers in September 1846 informed them that "My arrangements with HENRY KEEP, over Alfred Edwards & Co., 122 Pearl-street, having terminated in June last, I have commenced business in my own name and on my own account at 24 Liberty-Street... where I shall be pleased to see my old friends and to make as many new ones as possible."²⁰⁶ Freedley also mentions the changes in ownership of these

²⁰³ Bates & Jordan Receipts, Bates Receipts, Folder 2, Umbrellas Series, Warshaw Collection of Business Americana.

²⁰⁴ Binney & Ellis Receipts, Matthew Binney & Sons Receipts, Matthew Binney's Sons Receipts, Folder 1, Umbrellas Series, Warshaw Collection of Business Americana.

²⁰⁵ William Sleeper & Co. Receipts, Sleeper & Brothers Receipts, Sleeper & Fenner Receipts, Folder 18, Umbrellas Series, Warshaw Collection of Business Americana.

²⁰⁶ Charles King Letter, Folder 12, Umbrellas Series, Warshaw Collection of Business Americana.

various firms when he notes that the firm of William A. Drown & Co. are the “successors of Erasmus J. Pierce, one of the pioneers of this manufacture... Mr. Pierce retired from active participation in the business about 1836, and at the time of his retirement was accounted among the very largest manufacturers.”²⁰⁷ Pierce had been operating his umbrella and parasol business in Philadelphia as early as 1819, leading William Drown to eventually make the claim in promotional materials distributed at the Centennial Exhibition in Philadelphia that his firm was “the oldest umbrella manufactory.”²⁰⁸ The ever-changing cast of characters who ran umbrella and parasol manufacturing firms reveals the volatile but dynamic nature of this growing industry.

Stylistic and technological innovations also emerge from surviving documentary and material evidence as key elements of the umbrella and parasol making industry. As Jeremy Farrell states, “Perhaps more than any other costume accessory, the umbrella has attracted the inventor.”²⁰⁹ Though Farrell was writing about the British umbrella and parasol industry, the United States patent office has many records of patents from this era attempting to improve the design, function, and manufacture of these objects.²¹⁰ By the 1850s, organizations like the American Institute in New York and the Franklin Institute in Philadelphia included umbrellas and parasols among the objects judged in their annual fairs. These organizations

²⁰⁷ Freedley, *Philadelphia and its Manufactures*, 391 – 392.

²⁰⁸ William A. Drown Receipt, Folder 5, Umbrellas Series, Warshaw Collection of Business Americana.

²⁰⁹ Jeremy Farrell. *The Costume Accessories Series: Umbrellas and Parasols*, 17.

²¹⁰ United States Patent Office, Umbrella Patent records 1835 - 1839, Nineteenth Century Masterfile.

rewarded craftsmen, inventors, and manufacturers who made technical developments in the design or manufacture of these objects. For example, the Twenty-Second Exhibition of American Manufactures, held by the Franklin Institute in Philadelphia in 1852, “boasted nearly 900 items spread over several galleries and arranged in twenty-three categories ranging from ‘Models and Machinery’ to ‘Carpets, Oil cloths, Silks, and Umbrellas.’”²¹¹ An 1858 receipt from the firm of Clyde and Black in New York proudly displays the seal of the American Institute and notes that Clyde & Black was awarded the prize for Best Silk Umbrellas in 1856.²¹² Clearly, the proprietors of Clyde and Black believed that their customers would be impressed by this formal recognition of their products. The ingenuity and innovation displayed by Clyde and Black and other umbrella and parasol makers would come to be a hallmark of this industry, as these objects continued to attract the attention of inventors throughout the nineteenth century.²¹³

²¹¹ Nina Lerman, “Industrial Genders: Constructing Boundaries,” in *Gender and Technology: A Reader*, 125.

²¹² Clyde & Black Receipt, Folder 4, Umbrellas Series, Warshaw Collection of Business Americana.

²¹³ Von Boehn, *Modes & Manners*, 148.



Figure 37 1858 Receipt from the Firm of Clyde & Black, including Seal of the American Institute, New York. Folder 3, “Umbrellas” Box, Warshaw Collection of Business Americana, Archives Center, National Museum of American History, Smithsonian Institution.

Freedley also emphasized the importance of innovation, particularly in relation to proprietor William H. Richardson. In addition to their advertising tokens mentioned earlier, Richardson’s firm was well known for having “introduced several novelties that can be highly commended.”²¹⁴ Richardson was apparently also very concerned about offering the best stock and responding to customer complaints, as on July 20, 1837, he printed a letter to his customers stating that:

²¹⁴ Freedley, *Philadelphia and its Manufactures*, 392.

In consequence of great complaint against the present make of Umbrellas, on account of the whalebone being too light to stretch the cover, or the cover not fitting, but flapping at the edge, I have taken considerate pains to get up a Stock of goods entirely free from these objections. I have now on hand a complete assortment of first class umbrellas, ranging from 35 cts to 7.00 each, all of which are perfect as possible. They have been made of the best materials, by the best workmen, with particular regard to having the whalebone strong and the cover to fit perfectly smooth. Thirty years experience enables me to promise satisfaction to all who are in want of superior umbrellas, expressly for retail. I will guarantee every article perfect or it may be returned at my expense. The prices are but little higher than those at which inferior grades are sold. I would also invite attention to the Paragon Umbrella made with the hollow frame and the India Bamboo handle. It is as light as a Parasol, Strong as Hickory and really the very best umbrella that has ever been made.²¹⁵

Richardson was anxious to respond to the concerns of his customers, to uphold his reputation as an innovator, and to overcome the challenges inherent in umbrella and parasol production. He emphasizes distinct design advantages that his products had over those of his competitors, drawing attention to their desirable qualities of strength, lightness, and superior materials. His recognition of design flaws that had marred his products is unusual, but demonstrates his willingness to adapt his designs to fit customers' needs. This letter further documents the difficulties of manufacturing umbrellas and parasols and the skill involved in creating an object that was the work of many different hands. Richardson participated in a dialogue between consumers and producers that shaped the appearance, materials, and design of the umbrellas and parasols he made.

²¹⁵ Wm. A Richardson Letter, Folder 16, Umbrellas Series, Warshaw Collection of Business Americana.

Neither this section nor this thesis attempt to be a representative survey of all of the major umbrella and parasol manufacturers of the United States from the 1830s through 1850s. Many more firms are found in newspaper advertisements, city directories, and surviving receipts that can be included here. Yet, by surveying some of the most pertinent of these surviving documents, characteristics that defined Harriot's production and that were shared across the industry begin to emerge, including a reliance on other craftsmen for parts and a commitment to innovation.

Role of the United States Government

The United States government played an important role in shaping many American industries, including umbrella and parasol making, through its tariff policies during the first half of the nineteenth century.²¹⁶ Levels of tariffs and duties on both imported finished umbrellas and parasols as well as imported pieces and materials used to make umbrellas and parasols shaped the level of competition finished American umbrellas and parasols faced in the market and the availability of many crucial parts for American manufacturers.

As early as the Tariff Acts of 1832 and 1833, American governmental bodies showed an interest in regulating this trade. Several items in this document directly mention umbrellas and parasols and state precisely what percent of taxes must be paid on the value of these imported items, including "Square wire, used for the manufacture of stretchers for umbrellas, and cut in pieces, not exceeding the length used for

²¹⁶ Douglas A. Irwin, "Historical Aspects of U.S. Trade Policy," *The National Bureau of Economic Research Reporter: Research Summary* (Summer 2006), <http://www.nber.org/reporter/summer06/irwin.html>.

stretchers – 12 per cent... Sticks or frames for umbrellas and parasols – 25 per cent... Tips, horn or bone, for canes and umbrellas –Free... Umbrellas and parasols, of whatever materials made – 25 per cent.”²¹⁷ Because umbrellas and parasols were assembled from so many different component parts, the regulation of many types of materials had an impact on the umbrella and parasol manufacturing industry. The early interest that the government displayed in regulating this trade demonstrates its significance. Members of the federal government knew that there was money to be made in collecting taxes on these increasingly popular items. Yet, by setting a higher rate for the importation of finished umbrellas and parasols, they also attempted to protect this burgeoning American industry.

This attempt to promote the American umbrella industry was, unsurprisingly, not enough to entirely satisfy umbrella and parasol makers. On February 14, 1840, a “Petition of a number of manufacturers of umbrellas and parasols in the city of Philadelphia, praying the imposition of a duty on imported silk umbrellas and parasols” was presented to Congress. This petition, signed by Samuel Wright (of the aforementioned highly producing Philadelphia firm Wright Brothers & Co.) and “626 others,” claimed that the Tariff Act from March 1833 included an ambiguously worded clause that created a loophole allowing silk umbrellas and parasols to be imported free from duty. Wright couched his argument in a likely inflated description of the size of this industry, stating that “upon your action depends the support of the many thousands who are engaged in this hitherto growing branch of domestic industry, which has amounted to millions of dollars per annum.”²¹⁸ He begged

²¹⁷ *Tariff Proceedings and documents 1839 – 1857*, 188, Hathitrust.

²¹⁸ *Ibid.*, 124.

Congress to prevent umbrella and parasol manufacturers from being further “seriously oppressed” by these regulations, and to encourage American manufactures over those imported from abroad.²¹⁹

This petition was not the last time that umbrella and parasol manufacturers would take up their case with Congress. A pamphlet entitled “Report of the Committee of Umbrella and Parasol Manufacturers of New York, to the Hon. D. A. Wells and Others, Commissioners of Tariffs and Revenue,” was written by Nathaniel Ellis, a proprietor of the aforementioned Boston firm Binney & Ellis, and published in New York in 1865. This pamphlet explained how the distinct production processes and materials used by umbrella and parasol manufacturers made them particularly susceptible to ruination from current tariffs, duties, and tax regulations. Though this document was made well after Harriot’s records end, the issues raised by the Committee of Umbrella and Parasol Manufacturers are similar to the concerns of Samuel Wright, suggesting that they were shared by many umbrella and parasol manufacturers.

In this report, the Committee of Manufacturers petition the Commissioners of Tariffs and Revenue to re-evaluate the existing American tariff policy to create a protectionist environment for American umbrella and parasol manufacturers. The distinct manufacturing processes used by umbrella and parasol makers, in which they assembled various parts and pieces into finished objects, were particularly hard hit by the tariffs in place in 1865. The Committee members devoted a page of the publication to a list of the various tariffs and taxes they were required to pay on the materials and

²¹⁹ Ibid., 125.

parts used to make finished umbrellas and parasols, transcribed fully in Appendix D. One excerpt from this “Report” further explains the discrepancies in taxation faced by American manufacturers:

*We receive different articles from nine separate manufacturers, each of whom pays an Internal Revenue Tax of six per cent; we put them together, and then pay an additional tax of six percent upon the entire value of our sale. The same umbrella or parasol, if made in either England or France (where labor is three-fourths less than in this country), would pay an import duty of only thirty-five per cent, and no Internal Revenue tax whatever, except a nominal tax of one-tenth of one per cent, which is a discrimination against us in favor of the foreign manufacturer of fully forty per cent... **There is not an article of our manufacture that can not be imported at a less price than we can make it.**²²⁰*

Labor and taxation discrepancies severely advantaged the producers of umbrellas and parasols from abroad exporting their wares into the United States, who only had to pay one thirty-five percent import duty, over American manufacturers producing goods for the domestic market, who had to pay to import many different materials and parts. The Committee members relay their fears over this imbalance in tax policy in a distinctly eschatological manner, stating that “Unless relief is speedily obtained we can perceive no other possible course to pursue, but the alternative of retiring entirely from the field, and leaving it to foreign hands.”²²¹ Particular fear and animosity was reserved by the committee for the British. The members of the Committee of Umbrella and Parasol Manufacturers declared themselves “doubly opposed to giving up the ship to England, who stands ready with traditional avarice to grasp the life-blood of American

²²⁰ Emphasis in document. Wells, *Report of the Committee*, 3 – 4.

²²¹ *Ibid.*, 3.

manufacturing industries.”²²² Though it is possible that a larger concern for the sanctity of American manufacturing shaped this response to British manufacturers’ decision to take advantage of the United States’ tax policies, members of the Committee were likely much more concerned about the possibility of losing the large amounts of capital they had invested in their firms.

The Committee included in their petition a proposed resolution to the Commissioners of Tariffs and Revenue which could be brought before Congress. They begged that the government “Place us on an equal footing with [foreign manufacturers in terms of] the raw material, and we will take care of our branch of industry. We do not ask a *reduction of Tariff*, but to have the Tariff on every description of Umbrella and Parasol ***placed at 70 to 75 per cent.***”²²³ Positioning their request as a call for republican equality, they declared that “*the Internal Revenue Taxes should, in justice to all, be laid upon the sales of the country.* Let the percentage be what it may, but so adjusted that the burden shall fall equally upon all.”²²⁴ The manufacturers believed that these proposed changes would level the playing field between their products and those imported to the United States. They apparently made a convincing case to the Commissioners, as the “Report” concludes with a resolution from the members Committee thanking the commissioners for supporting their plan and presenting it to Congress.²²⁵ Further success was achieved in 1867, when Congress passed a Tariff

²²² Ibid., 3.

²²³ Ibid., 7.

²²⁴ Ibid., 3, 5.

²²⁵ Ibid., 9.

Joint Resolution stating that “upon umbrellas, parasols, and sunshades, imported from foreign countries, when made of silk, no lower rate of duty than that now imposed upon piece and dress silks, namely, sixty per centum ad valorem, and when made of other materials than silk, the duty shall be fifty per centum.”²²⁶ Though this tariff amount was less than the seventy-five percent rate suggested by the Committee of Umbrella and Parasol, it was a welcome change from the low duty rate of thirty-five percent so assiduously protested by the Committee.

The care taken to put together this document highlights the important role that government regulation could play in shaping an industry. Umbrella and parasol manufacturers petitioned Congress throughout the antebellum era to alter existing tax and duty regulations to create an economic environment favorable to domestic production. As these manufacturers knew and recognized, government regulations could and did play a critical role in shaping the development of American industry.

International Trade in Umbrellas and Parasols

The umbrellas and parasols made by David Harriot and other American manufacturers were sold in the same market as umbrellas and parasols imported from abroad, as seen in an advertisement from the *Baltimore Gazette and Daily Advertiser* on August 7, 1830, which advertised English made and American made umbrellas side by side.²²⁷ The designs, materials, and manufacturing methods foreign manufacturers used to make these objects influenced the practices of American makers. Documentary

²²⁶ *Tariff Proceedings and documents 1839 – 1857*, 38 – 39, Hathitrust.

²²⁷ *Baltimore Gazette and Daily Advertiser*, “Umbrellas, Parasols, &c.,” August 7, 1830, America’s Historical Newspapers.

evidence and surviving objects suggest that most imported umbrellas and parasols came to the United States from Europe, especially from France and Great Britain, though some umbrellas and parasols also came to the United States from Asia and the Indian subcontinent.²²⁸ All of these objects influenced the practices of American manufacturers and the preferences of American consumers. Recognizing the distinctions between American made umbrellas and parasols and those imported from abroad gives a fuller picture of how these objects functioned in American society.

The Great Exhibition of the Works of Industry of All Nations held in London in 1851 provided an opportunity to compare the manufactures of Great Britain with those of other nations from across the globe as a means of assessing British industrial progress. The *Reports by Juries on the Thirty Classes into which the Exhibition was Divided* recorded the outcomes of these comparisons for posterity, and offers a glimpse (through a decidedly pro-British lens) into the state of umbrella and parasol manufacturing across the globe in 1851. These objects were discussed within the class of “Umbrellas, Parasols, and Walking Sticks,” one of 33 categories considered by the juries. The designation of a category devoted to these objects suggests their importance in international trade, particularly to Great Britain.

The discussion of these objects begins with histories of the parasol and of the umbrella, tracing the origin of these objects from ancient times through to contemporary production practices. The report then describes the state of umbrella and parasol production in each of the countries that submitted objects for consideration, a group of nations and territories consisting of Austria, Belgium, the British Colonies,

²²⁸ Harnes Receipt, Umbrellas Series, Folder 31, Umbrellas Series, Warshaw Collection of Business Americana.

China, France, Portugal, Prussia, Tunis, Turkey, the United Kingdom, and Wurtemberg. The entries for each nation or region include information about quality of goods, where they were sold, prices, variations in style and production techniques, and patterns of use as well as reviews of the objects submitted to the Juries. The length of each entry varies significantly, from a single paragraph to the page long entries for Great Britain and France, reflecting the fact “that from England and France the largest quantities [of umbrellas and parasols] have been received.”²²⁹

The authors of the *Report of the Juries* used the submissions from non-Western colonies and nations to highlight social differences that they believed marked the other cultures as inferior. When discussing objects sent from the British colonies of the East Indies and Ceylon, the authors recognized the workmanship of the highly embellished “state Parasols or Umbrellas, many splendid examples of which adorn the Indian Courts,” while implicitly critiquing the “undemocratic” nature of limiting these objects to the courts.²³⁰ When discussing umbrellas and parasols made to be used by those outside of the Indian court, the authors are quick to criticize, stating:

as if to illustrate how difficult it is for the native taste to adapt itself to European requirements, there is a very inferior imitation of an English umbrella, having ten ribs, covered with crimson calico, and lined and fringed with dark green. This umbrella, it appears, is generally used by Europeans throughout India.²³¹

The patterns of umbrella usage in China were perceived as slightly better, as “in China the Umbrella is still a mark of high rank, but not exclusively so; it must not, however,

²²⁹ *Reports by the Juries*, 657.

²³⁰ *Ibid.*, 657.

²³¹ *Ibid.*, 657.

be inferred that it is as commonly used among the middle classes of society as in England, for this is far from being the case.” Turkey was paternalistically commended for “the very prevalent employment of these useful shelters by the *middle-classes* of Turkey as a remarkable instance of the introduction of European customs into that country.”²³²

While the unnamed authors of this text were undoubtedly British, it is likely that many Americans shared their attitudes towards the production and usage of umbrellas by individuals in non-Western nations. An article published in Godey’s *Lady’s Book* from 1832, for example, stated that:

IN the rainy weather at Morocco as it would be at least imprudent to appear in the streets, with an umbrella, one must remain within doors; the privilege of making use of an umbrella is very different from what it is in Europe or America; where every person may keep his head dry without asking leave so to do. In Morocco, the umbrella is the privilege of royalty alone, and should any one of his subject slaves dare to make use of one, it would be an act of high treason for which his head would be the forfeit.²³³

The history and patterns of use of umbrellas and parasols were matters of popular consideration and discussion in the antebellum United States. Umbrellas and parasols, as objects used around the globe, became tools through which foreign cultures could be understood and evaluated. This is especially important when considering how any umbrellas or parasols imported to the United States from these regions were perceived by Americans. As the authors of the *Report by Juries* note, “Umbrellas and Parasols are made in considerable numbers in the provinces of Kwang-tung, Fo-kien, and Hoo-

²³² Ibid., 658.

²³³ “Umbrellas,” *Godey’s Lady’s Book*, (February 1832), Accessible Archives.

kwang, and form an important branch of commerce.” While the authors only specifically note that umbrellas and parasols “are exported from Canton, Amoy, and Shanghae, to India, the Indian Archipelago, and even to South America,” surviving objects in the collections of museum and documentary evidence suggest that some of the parasols and umbrellas exported from China made it to the United States.²³⁴ In 1846 alone, the *Report* notes that 300,000 were sent out from the ports listed above.²³⁵ A surviving invoice also describes “Merch’d imported in the ship Panama from Canton by F & N Harnes,” consisting of “4 cases [of] 30 Blue, 12 Brown, [and] 8 Green... Silk Umbrellas.” The firm imported a total of 200 umbrellas at a cost of \$1.90 each, for a total cost of \$380. The order was shipped from Canton in February 1831, proving the direct trade in umbrellas and parasols from China to the United States.²³⁶

While the *Report* does emphasize the patterns of use of umbrellas and parasols in China, they also carefully explain the different production techniques used by Chinese manufacturers. The authors felt that the two umbrellas exhibited by the Chinese “present nothing remarkable beyond the great number of ribs, which amount to forty-two,” but did take care to explain at length the methods used to make these ribs, stating:

These ribs are formed of wood; and instead of being embraced by the fork of the stretcher, as is the case in European umbrellas, they have a

²³⁴ *Ibid.*, 658.

²³⁵ *Ibid.*, 658.

²³⁶ Harnes Receipt, Folder 31, Umbrellas Series, Warshaw Collection of Business Americana.

groove cut in the middle of their length, into which the stretcher is secured by studs of wood. The head of each rib fits into a notch formed in the ring of wood, which is fastened onto the top of the stick, there being a separate notch for each rib. The slider is of wood, has forty-two notches, namely, one for each stretcher, which, like the ribs, is formed of wood. Almost all the parasols and umbrellas are covered with oiled paper, which is afterwards painted and varnished.²³⁷

These techniques produced umbrellas and parasols that, while functioning similarly to European and American objects, are visually distinctive. A surviving example of a parasol made in China in the collections of the Chester County Historical Society shows these characteristic construction patterns and materials. Though these production methods were not adopted by American umbrella and parasol manufacturers, they did impact fashions in umbrellas and parasols as orientalist styles such as faux-bamboo carving on handles and pagoda shapes appeared in this period.



Figure 38 Unfurled parasol of Chinese origin. 1989.8.4. Chester County Historical Society, West Chester, PA.

²³⁷ *Reports by the Juries*, 658.



Figure 39 Detail of construction techniques on 1989.8.4. Chester County Historical Society, West Chester, PA.

The *Report* does not record the patterns of use of umbrellas and parasols made in other European nations, focusing instead on the production and design of these objects. The authors are fairly critical of many of these submissions, noting, for example, that “the Parasols and Umbrellas of Austria are gaudy, and not very well finished, and, indeed, evince but little skill or taste on the part of her two manufacturers who exhibit finished articles.”²³⁸ Though the *Report* tends to look favorably upon the British submissions, the authors state that

²³⁸ *Ibid.*, 657

Our umbrella-manufacturers would, indeed, do well to profit by the example of their French brethren, by calling artistic talent to their aid in devising new models... A little artistic help is likewise desirable in the assortment of harmonious tints; and, at the next Exhibition, there will be no examples of crimson parasols with yellow fringes.²³⁹

The embarrassment of a crimson and yellow parasol was enough to make the British authors recognize the stylistic achievements of their political and economic rivals, the French.

The *Report* is very positive about the objects submitted for review by French manufacturers, stating that “In the higher class of Umbrellas and Parasols, France undoubtedly stands pre-eminent.”²⁴⁰ Though recognizing the quality of the high-style French umbrellas and parasols, the authors exhibit a certain degree of nationalistic pride in stating that “England is without a rival in the production of parasols and umbrellas of the plainer descriptions.”²⁴¹ The evaluations of both French and British umbrellas and parasols favorably note recent changes in manufacturing that have made production cheaper and faster while also making these objects more attractive, lighter, and easier to handle. The authors include statistics about the number of patents related to umbrella and parasol manufacturing taken out by firms and individuals in both nations in recent years, as well as information about the high levels of production of these objects. According to statistics gathered by the authors, “several of the large city houses [in London] dispose of from 250 to 500 dozens of parasols and umbrellas weekly [of which] the prices of the commoner kinds is marvelously low.”²⁴² Drawing

²³⁹ Ibid., 659.

²⁴⁰ Ibid., 658.

²⁴¹ Ibid., 659.

²⁴² Ibid., 659.

upon the *Statistique de l'Industrie à Paris*, the *Report* states that in 1847 “there were in Paris 377 masters engaged in the business of umbrella and parasol making ... who, according to M. Natalis Rondot’s estimate produced goods to the amount of 296,320 *l.* in that year; ... there were [also] in 1847 in Paris 74 manufacturers... engaged in the production of sticks, handles, and tips, whose returns were 30,400 *l.*”²⁴³ The large number of individuals involved in making umbrellas and parasols, as well as the high levels of production, clearly show the importance of this international trade.

The numbers of exported French parasols are particularly significant when considering American makers and consumers of umbrellas and parasols, as the *Report* claims that “The French parasols and umbrellas have, in consequence of their lightness and elegance, acquired a high reputation in America and Italy, to which countries large quantities are annually exported, as well as to the French colonies.”²⁴⁴ The *Report* charts the growing quantity and value of the finished silk umbrellas and parasols as well as the uncovered frames exported from France. Though the authors do not cite the source of these numbers, the patterns presented are suggestive and seem to align with larger patterns in the industry. From 1827 to 1836, the total value of these French exports was 43,520 *l.* Between 1837 and 1846, the total value grew to 63,287 *l.*, and by 1847 the value of these exported objects was 79,368 *l.* in one year alone.²⁴⁵ The increasing levels of French export production in the 1830s and 1840s would have impacted the market for goods made by American umbrella and parasol manufacturers like David Harriot.

²⁴³ *Ibid.*, 659.

²⁴⁴ *Ibid.*, 658.

²⁴⁵ *Ibid.*, 658.

Americans are only mentioned in this section of the report as consumers of exported French parasols. No references are made to the burgeoning American umbrella and parasol manufacturing industry, perhaps suggesting that the British authors did not believe that American makers were a factor in this international trade. This omission supports the idea that most American umbrellas and parasols were being made for a domestic market. Harriot's records show no evidence of objects being made to export, though government records of imports and exports published annually in the "Report of the Secretary of the Treasury of the Commerce and Navigation of the United States" reveal that the American manufacturers did export umbrellas and parasols during this era. Most of these goods were sent to Asia, Africa, and Central and South America. American manufacturers exported \$12,260 worth of umbrellas and parasols in 1851, the year of the Great Exhibition, but the fact that none of these objects were exported to European countries likely made the British authors overlook American umbrella and parasol makers.²⁴⁶ The lack of European audiences for American made umbrellas and parasols probably informed American manufacturers' decisions to send no specimens to the Great Exhibition for consideration.

The array of production methods and patterns of use reported in the pages of the *Report by Juries*, though told from a distinctly pro-British perspective, help

²⁴⁶ For a fuller description of the trade in American exported umbrellas and parasols, please see Appendix E. Thomas Corwin, "Report of the Secretary of the Treasury, Transmitting A report from the Register of the Treasury of the Commerce and Navigation of the United States for the year ending the 30th June, 1850," ([Washington, D.C.]: Dept. of the Treasury, 1851), 38 – 39, Hathitrust, <http://hdl.handle.net/2027/hvd.32044106525611>.

contextualize the production of American manufacturers like David Harriot. The British and French umbrellas and parasols imported to the United States were made using the same processes and materials described in Harriot's papers, though they seem to have been made in greater quantities. The distinctions between production and perceptions of umbrellas and parasols from the United States and those imported from abroad allows for further understanding of the practices of consumers and producers of these objects.

Contextualizing Harriot within the spectrum of American umbrella and parasol producers illuminates the spectrum of producers that existed within this and other industries. The interest shown by the United States government and the juries of the Great Exhibition in regulating and evaluating the products of umbrella and parasol makers demonstrates the importance of this industry on a national and global scale.

Chapter 6

BEYOND PRODUCTION

When umbrellas and parasols left the shops of makers like David Harriot & Co., they entered the lives of men and women throughout the United States. These objects were sold at a wide range of prices and were accessible to nearly every American. Visual, documentary, and material sources from this period depict them as ubiquitous objects in the public sphere, and they accordingly became a fixture of cultural representations. Even those who did not own an umbrella or parasol knew for what purposes these objects were used. The cultural, social, and political meanings attached to these objects were less clearly defined. Umbrellas and parasols proved to be malleable symbols, repurposed by many authors and artists to suit their own purposes in literature, visual depictions, fashion plates, cartoons, and representations of other cultures.

Authors drew upon the wide use of umbrellas and parasols in their works, using these familiar objects to illustrate particular traits and qualities of their characters. In the eighteenth century, Daniel Defoe emphasized the ingenuity of the titular character of *Robinson Crusoe* through a depiction of Crusoe crafting his own umbrella. This depiction had a wide impact, sparking a craze for the umbrella in England and leading to the early eighteenth century British name for umbrellas, “Robinsons.”²⁴⁷ Charles Dickens continued this trend in the nineteenth century with

²⁴⁷ Farrell, *Umbrellas & Parasols*, 24.

his depiction of the character Mrs. Gamp in *Martin Chuzzlewit*. Dickens tied Mrs. Gamp's representation to her ownership and usage of an umbrella, to the point that a later commentator noted that Mrs. Gamp, "with her receptacle for unconsidered trifles, cannot be realised apart from her umbrella."²⁴⁸ The literary representation of umbrellas also sparked a new nickname, as "Sairey Gamp gave her name to a particularly large and misshapen umbrella."²⁴⁹ Literary representations of umbrellas and parasols had a demonstrable impact on the names, designs and methods of use of these objects during the eighteenth and nineteenth centuries.

Many artists of the nineteenth century included figures holding umbrellas and parasols in their works. They are particularly common in representations of public spaces such as parks or street scenes. Umbrellas and parasols were primarily public objects, used to shield their bearers from the elements encountered when venturing outside. These objects function in images as fashionable and practical tools, mediating the relationship between individuals and their rural or urban surroundings.

²⁴⁸ Sangster, *A History of the Umbrella*, 66.

²⁴⁹ Farrell, *Umbrellas & Parasols*, 37.



Figure 40 United States Capitol, Washington. Possibly Hippolyte Louis Garnier or Victor de Grailly. France, 1840 – 1850. Oil on Canvas. 1956.784. Bequest of Henry Francis du Pont. Courtesy, Winterthur Museum. (Circle added to emphasize presence of parasol)

As the nineteenth century progressed, an increasing number of publications devoted to fashion emerged. Though umbrellas and parasols were rarely the primary focus of the fashion plates in these magazines, they frequently appear held in hand by the subjects of these images. *Godey's Lady's Book* often featured images of women

holding delicate parasols during the 1840s and 1850s.²⁵⁰ These fashion plates contributed to the gendered understandings of these objects, depicting women with small, embellished objects that were unmistakably parasols rather than umbrellas.



Figure 41 Detail of female figure holding a parasol from fashion plate, from *Godey's Lady's Book*, April 1839. Courtesy: The Winterthur Library: Printed book and Periodical Collection

²⁵⁰ "Description of Fashions, For the Summer of 1839," *Godey's Lady's Book*, (June 1839), Accessible Archives; "Description of Fashion Plate," *Godey's Lady's Book*, (May 1853), Accessible Archives; and "Description of Fashion Plate," *Godey's Lady's Book*, (June 1840), Accessible Archives.

Cartoonists also used umbrellas and parasols as tools with which to satirize their subjects. A notable example of this appears in the “Life in Philadelphia” series of prints, in which creator E.W. Clay used as props to communicate his racist message. These prints, published between 1828 and 1830, were made with the intention of mocking wealthy members of Philadelphia’s free black community. Clay and many other Philadelphians were prejudiced and uncomfortable with what they saw as African Americans acting “above their station.”²⁵¹ These cartoons amplified these beliefs, portraying buffoonish African American figures in ornate clothing speaking in crude dialects. The image below depicts a female figure with a parasol that acts as a prop to her outlandish fashion, a symbol of her choice to “aspire too much” by wearing and using the same types of garments and accessories as wealthy white women.²⁵² This image also illustrates the boundaries of acceptable usage patterns. Though the real members of Philadelphia’s free black community would certainly have been able to afford to buy a parasol, images like those in the “Life in Philadelphia” series and the behavior of racist Philadelphians could have potentially restricted the number of individuals who felt that they could safely own an umbrella or parasol. Social and cultural strictures played a role in determining who could use umbrellas and parasols, as well as how, when, and where these objects could be used.

²⁵¹ Stephen Railton, “E.W. Clay’s Life in Philadelphia Series,” *Uncle Tom’s Cabin & American Culture: Anti-Abolitionist Images*, The University of Virginia, Last modified 2012, <http://utc.iath.virginia.edu/abolitn/gallclayf.html>.

²⁵² In response to the question “How you find yourself dis hot weader Miss Chloe?” the figure of Miss Chloe states in Plate 4 of this series, “Pretty well I tank you Mr. Cesar only I aspire too much!” Railton, *Uncle Tom’s Cabin*, n.p.



Figure 42 Edwin Clay. Life in Philadelphia, Plate XI. Colored Aquatint Engraving. Published by W. Simpson, Philadelphia, May 1829. Accessed via the Library of Congress, Prints & Photographs Online Catalog.

Another very common visual and racialized trope of umbrellas and parasols was their usage in orientalist imagery. Umbrellas and parasols became closely associated with the exotic, the oriental and the “other” across many media as early as the seventeenth century. As Benjamin Schmidt notes, “An iconic object reproduced by printers, painters, ceramicists, enamellists, and weavers with workmanlike regularity,

the parasol showed remarkable variability and plasticity in its representational form.”²⁵³ Schmidt argues that early modern representations of the parasol were used to understand the “other,” whether in Asia, Africa, or the Americas. The parasol “in its wide iterations... and its seemingly random zigzags between east and west... loses any trace of geographic specificity. It becomes simply exotic.”²⁵⁴ Though parasols and umbrellas were still used as malleable and frequently repurposed imagery, by the nineteenth century this imagery had coalesced around an association with an imagined, exoticized Asia. The orientalism that characterized many rococo designs of the eighteenth century persisted through the nineteenth. The 1830s, for example, saw the emergence of “a fashion trend that favored articles of clothing or household objects decorated in the chinoise fashion—Western in origin but modeled in a style perceived as Chinese... In 1831, *Godey’s Lady’s Book*, a popular magazine that both reflected existing fads and initiated new ones, taught women how to decorate plain objects ‘in the Chinese style.’”²⁵⁵ The article in *Godey’s* notes that the subjects represented on these decorated objects were “Chinese figures and landscapes,” likely including many figures holding umbrellas and parasols.²⁵⁶

²⁵³ Schmidt, “Collecting Global Icons,” 53.

²⁵⁴ Schmidt, “Collecting Global Icons,” 53.

²⁵⁵ John Rogers Haddad, *The Romance of China: Excursions to China in U.S. Culture, 1776 – 1876*, Gutenberg-e Series, (New York: Columbia University Press, 2008), <http://www.gutenberg-e.org/haj01/index.html>.

²⁵⁶ “The Ornamental Artist,” *Godey’s Lady’s Book*, (April, 1831), Accessible Archives.



Figure 43 Fashion plate depicting female figure with folded parasol in front of a pagoda. *Godey's Lady's Book*, April 1853. Courtesy, The Winterthur Library: Printed Book and Periodical Collection.

The mere act of holding an umbrella or parasol could be enough to signify to an American viewer that the bearer was “Asian.” In a children’s book entitled *The Chinese; or, Conversations on the Country and People of China*, written by D.P. Kidder in 1846, a character states that “When I see Chinese figures on tea-chests, they have almost always fans or umbrellas in their hands; and then there are sure to be two

or three temples at no great distance.”²⁵⁷ The depiction of Chinese, and more generally “Asian” figures with umbrellas and parasols had become normalized enough to be mentioned in children’s literature. Most children reading this book would likely already be familiar with this visual trope from objects in their own homes. Images of Asian figures with umbrellas are found on a plethora of objects from this era, ranging from printed textiles and japanned furniture to porcelain and fireplace bellows.

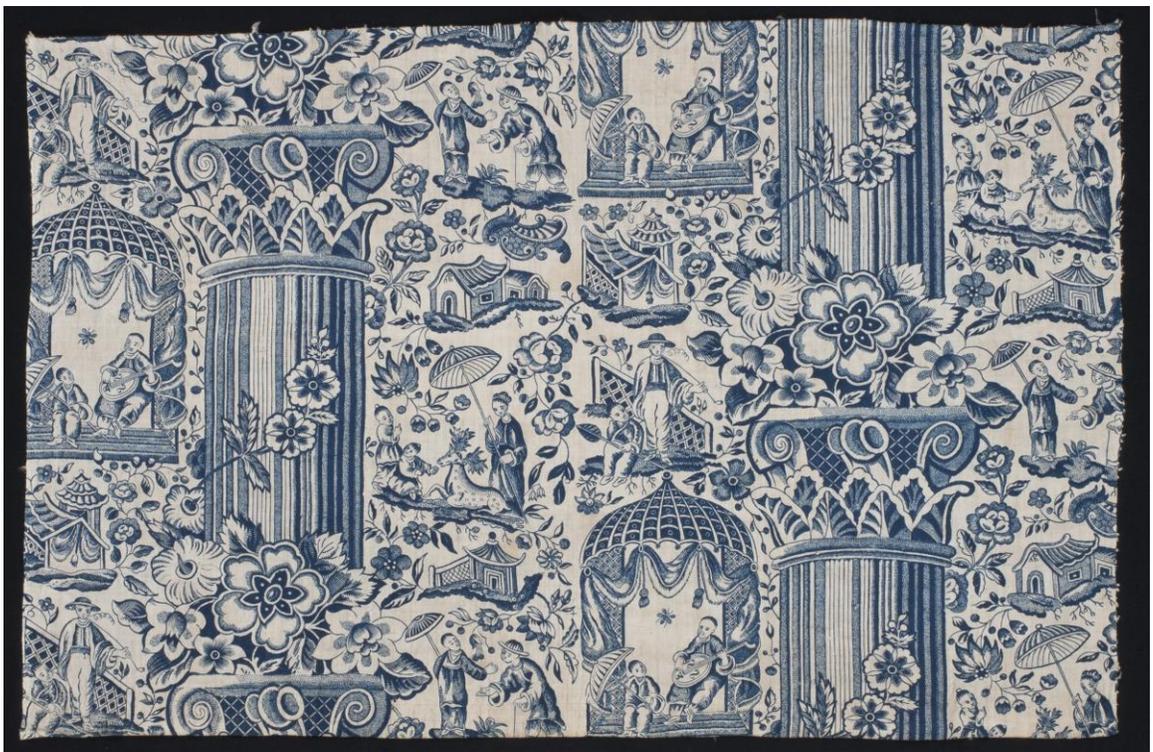


Figure 44 Printed textile with several depictions of parasols. England, 1815 – 1825, Cotton. Museum Purchase, 1966.0098. Courtesy, Winterthur Museum.

²⁵⁷ Quoted in Haddad, *The Romance of China*, e-book.

The close ties between Asian imagery and umbrellas and parasols took physical form in the designs of these objects. Pagoda shaped covers, made by using distinctly shaped cover panels and springs around the shaft between the top tips and top, became an especially popular style of parasols in the nineteenth century. Many parasols also featured carving on the bottom half of the shafts, near the handle, that made the shaft appear to have been made of bamboo. The American makers of these umbrellas and parasols responded to the associations between their products and Asia, capitalizing on the fashion for oriental and exotic imagery and goods.



Figure 45 Detail of the top of a pagoda shaped parasol. S2010-23-039, Schwuchow. Courtesy of the Fashion Archives and Museum of Shippensburg University.



Figure 46 Parasol Shaft carved to look like bamboo. 1999.1039. Chester County Historical Society, West Chester, PA.

The power of this imagery extended well past the antebellum era. At the 1876 Centennial Exhibition in Philadelphia, visitors could stop at an exhibit from China where "for less than one dollar a visitor could outfit him or herself with a paper fan, a bamboo hat, a hand gong, and a parasol."²⁵⁸ This exhibit speaks to the complicated nature of the association between an imagined Asia and umbrellas and parasols, as it was perpetuated not just by Americans but by visitors from China as well. Further interrogating the origins and development of this association, as well as its many iterations across various media, can bring to light the orientalist imagery that continues to saturate American culture today.²⁵⁹

Antebellum conceptions of ownership are communicated through the visual and documentary representations of umbrellas and parasols, as well as through

²⁵⁸ Haddad, *The Romance of China*, e-book.

²⁵⁹ You need look no further than the images of idealized Asian women holding parasols grace the covers of many a Chinese take-out menu to find examples of the continued association between an imagined Asia and umbrellas and parasols. The fabric covering the chair in which the majority of this thesis was written, for instance, has a representation of an idealized "Asian" landscape, replete with female figures shading themselves with parasols in front of pagodas.

surviving objects. Nineteenth century users of umbrellas and parasols treated these objects in some ways very similarly to their contemporary usage. Umbrellas and parasols were social objects, facilitating interactions as they were shared, lost, borrowed, and returned. An anecdote about borrowing umbrellas included by Douglas Jerrold in *Punch's Letters to his Son* illustrates attitudes about the exchange of these objects:

Hopkins once lent to Simpson, his next-door neighbor, an Umbrella. You will judge of the intellect of Hopkins, not so much from the act of lending an Umbrella, but from his insane endeavour to get it back again. It poured in torrents. Hopkins had an urgent call. Hopkins knocked at Simpson's door. "I want my Umbrella." Now Simpson had also a call in directly opposite way to Hopkins; and with the borrowed Umbrella in his hand, was advancing to the threshold. "I tell you," roared Hopkins, "I want my Umbrella." "Can't have it," roared Simpson. "Why, I want to go to East-end; it rains in torrents; what" – screamed Hopkins – "what am I to do for an Umbrella?" "Do!" answered Simpson, darting from the door, "do as I did – BORROW ONE."²⁶⁰

The nature of umbrella and parasol use in the nineteenth lead to owners frequently misplacing these objects or losing them to the "frightful morality that exists with regard to borrowing Umbrellas," much as many umbrella owners experience today.²⁶¹

Though umbrellas and parasols were not particularly expensive objects, their owners did attach value to them. A surviving advertisement in the collections of the Virginia Historical Society offers "heartfelt thanks and a small pecuniary regard" to

²⁶⁰ Douglas William Jerrold, *Punch's Letters to His Son* (London: Wm. S. Orr & Co., Paternoster Row, 1843) 92-93, quoted in Sangster, *A History of the Umbrella*, 64 – 65.

²⁶¹ Sangster, *A History of the Umbrella*, 64.

the person who returned a lost “New Green Sun Shade.”²⁶² These umbrellas and parasols had a longer projected lifespan than their modern counterparts. Many umbrella and parasol makers maintained active repair shops. These objects were built and designed with the expectation of being repaired, though Harriot’s papers include no direct mentions of his firm doing any repairs. In the description of how to make an umbrella or parasol given in the article “Something about Umbrellas,” the author states that the method used to affix tops was chosen to facilitate easy repairs in the future: “The ferule [or top] is put in its place, and indented by a punch so as to keep it there firmly. This indentation is preferred to riveting, as when it becomes necessary to remove the ferule for the purpose of repairing the frame, it is accomplished more easily.”²⁶³ Repair became a distinctive part of the umbrella and parasol making industry, and spawned another corollary trade as independent umbrella and parasol repairmen began to emerge in the nineteenth century. The importance of this repair business led some manufacturers to stay involved with the objects they made long after the objects left their shops. The many materials and construction techniques that went into each umbrella or parasol made most repairs beyond the scope of the average owner, further encouraging the growth of the repair business. Although umbrellas and parasols were frequently misplaced and, in some ways, treated as ephemeral, they were not disposable objects. Manufacturers of umbrellas and parasols shaped attitudes

²⁶² “Lost Parasol,” Meade Family Papers, 1851 – 1885, Section 4, Virginia Historical Society, Manuscripts.

²⁶³ “Something About Umbrellas,” 29, Umbrellas Series, Warshaw Collection of Business Americana.

towards ownership as they made these objects in a manner that facilitated easy repairs, extending their projected lifespans.

Rates of umbrella and parasol ownership continued to increase at the end of the nineteenth century, as these objects maintained their position as both practical and fashionable items. Manufacturing levels similarly increased to meet this demand, accelerating the elevated production rates already seen in some accounts of the industry from the 1850s. As metal frames became widely accepted, processes became easier to mechanize and production concentrated among fewer firms that made a high volume of umbrellas and parasols.²⁶⁴ The umbrella and parasol manufacturing business continued to be a significant industry throughout the nineteenth and into the twentieth, especially in the United States and Great Britain.

Thinking critically about the roles of umbrellas and parasols in the past invites us to consider the role they play today. Umbrellas remain an important part of day-to-day life for many around the world. Parasols have seen a slight resurgence in recent years, though they remain highly gendered objects predominantly used by women.²⁶⁵ Umbrellas and parasols maintain their importance as social and cultural signifiers, still used in the aforementioned orientalist designs and acting as fashionable, gendered, and racialized objects. Though they continue to function in largely the same manner as

²⁶⁴ Farrell, *Umbrellas and Parasols*, 68.

²⁶⁵Josette R. McMichael, Jennifer Ezirike, Emir Veledar, Jessica E. Rice, and Suephy C. Chen, "The social acceptability of handheld umbrellas for sun protection," *Photodermatology, Photoimmunology & Photomedicine*. Vol. 30, no. 4 (2014): 220-227; Master Blaster, "Japan and the rise of the male parasol: They're not just for Lolitas anymore!" *Rocket News 24*, August 14, 2013, Accessed April 3, 2016, <http://en.rocketnews24.com/2013/08/14/japan-and-the-rise-of-the-male-parasol-theyre-not-just-for-lolitas-anymore/>.

they have for the hundreds of years, umbrellas remain a site of innovation as new generations of inventors apply the latest technologies in attempts to improve these objects.²⁶⁶ Most users may not actively consider the associations and assumptions they have about umbrellas. Umbrellas occupy a unique space, as objects frequently lost and frequently needed, as fashionable and practical items, as a stimulant for and site of social interaction, and as an object that can elicit strong emotional reactions. While writing this thesis in the Winterthur Library, for example, I fortuitously overheard another patron stating, “It’s raining? Oh no! I hate having to use my umbrella. I just don’t trust it!” Though we may not often ponder our relationships with these objects, umbrellas occupy a significant place in many lives.

Despite the fact that umbrellas and parasols occupied similarly significant positions in the lives of antebellum Americans, the production and consumption of these objects has been largely ignored in contemporary scholarship. A few scholars like Valerie Beaujot, in her chapter “‘Underneath the Parasol’: Umbrellas as Symbols of Imperialism, Race, Youth, Flirtation, and Masculinity,” and Benjamin Schmidt, in his essay “Collecting Global: The Case of the Exotic Parasol,” have set examples of how these objects and their representations in visual and documentary sources can be incorporated into social and cultural histories. Both authors use umbrellas and parasols

²⁶⁶ “Nubrella: Go Hands Free!”, Accessed April 3, 2016, <http://www.nubrella.com/>; Tina Roth Eisenberg, “An inflatable cloud umbrella,” *Swiss Miss*, March 9, 2009, Accessed April 3, 2016, <http://www.swiss-miss.com/2009/03/an-inflatable-cloudumbrella.html>; “Blade Runner Style LED Umbrella,” *ThinkGeek*, Accessed April 3, 2016, <http://www.thinkgeek.com/product/d163/>; Kazuya Koike, “Unnurella for World Party Inc,” *Doog Design*, February 2015, Accessed April 3, 2016, <http://en.doogdesign.jp/project/unnurella-for-wpc/>; “Oombrella: Unforgettable Umbrella,” Accessed April 3, 2016, <http://www.wezzoo.com/oombrella>.

and the associations projected onto these objects by their users, observers, and makers to better understand elements of society. They provide a model for the type of information that might be uncovered by applying these approaches to the study of umbrellas and parasols in the United States, revealing the larger implications of the manufacture and use of these objects.

Neither Beaujot nor Schmidt, however, considers the manufacturing of umbrellas and parasols. The production processes used to make these objects shaped the cultural and social patterns explored in both pieces. Through a careful analysis of the many methods used to make umbrellas and parasols, this thesis hopes to facilitate greater consideration of the American umbrella and parasol making industry and the complicated products of these firms.

The umbrella and parasol making industry was a big business in the antebellum United States, with increasing numbers of men and women working in the trade throughout the nineteenth century. Enough of these objects were produced that the government saw fit to tax and regulate their importation to and exportation from the United States. American umbrella and parasol manufacturing firms were in direct competition with each other, but also worked together by exchanging parts and materials. The connections that existed between these firms lead to the formation of groups such as the Committee of Umbrella and Parasol Manufacturers, who petitioned Congress in 1865. This industry involved many more people who did not directly identify as “umbrella makers,” with out-workers, piece workers, and many other full or part time employees and suppliers working in related trades like ivory carving, turning, and brass founding.

This industry, like many others during this period, included firms with varying levels of mechanization, volumes of production, and numbers of employees. Yet common threads run through the production methods of large firms like Wright Brothers & Co., who reportedly produced 700,000 umbrellas a year, and the more modestly sized David Harriot & Co. Nearly all umbrella and parasol makers relied on other craftspeople to make at least some parts, increasingly purchasing pieces from the emerging specialized trade of umbrella furniture makers. Firms of all sizes benefited from the increasingly standardized sizes of finished umbrellas and component parts, and frequently distributed their goods over wide geographic ranges.

A close analysis of the surviving records of David Harriot & Co. allows for distinct features of smaller firms to emerge. Smaller firms in urban areas were characterized by assembling processes, limited capital investment, and small manufacturing and retail spaces, leading to a prevalence of outwork and close connections between proprietors, their employees, and other craftspeople in the neighborhood. These personal and professional networks made both the acquisition of parts and materials and the distribution of completed umbrellas and parasols possible. Small firms' reliance on outwork and purchased parts made assembling processes the principal kind of manufacturing done by these firms, a challenge to conventional understandings of this term. Recognizing the variety of production methods used throughout the umbrella and parasol making industry in the United States and around the world gives a sense of the full spectrum of manufacturing techniques that coexisted in the 1830s and 1840s.

I began researching this thesis with the intention of focusing upon the issues mentioned briefly in the paragraphs above: the social and cultural meanings of umbrella and parasol usage, and how these objects were used to communicate and perform aspects of identity such as race, gender, and class. I soon realized that without an understanding of where, when, how, and by whom these objects were made, it would be impossible to speak with any authority about their use. I thus turned my attention to the production of these objects, and after the discovery of the records of David Harriot & Co., quickly realized just how much could be said about the American umbrella and parasol making industry. With this thesis, I hope to lay a groundwork for a more thorough understanding of the diverse nature of antebellum manufacturing and for future scholars who may attempt to uncover the many uses and meanings of umbrellas and parasols. Restoring umbrellas and parasols to a position in the historical narrative will allow us to begin to understand the distinct meanings these objects had for the people who made and used them.

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Appendix A

INVENTORY AND APPRISEMENT OF THE LATE FIRM OF DAVID HARRIOT & CO.

Note: The document form which this was transcribed is torn in several places, and leads to some information missing from the transcription.

Inventory and Apprisement of the Late firm of David Harriot & Co.

Oct 5th 1839

Inventory and apprasement of the Personal property belonging to the Late firm of David Harriot & Co. Umb manufactors at the Deceased of John F. Ingold, consisting of the following goods and fixtures found in the Store and Shops. No 70 Maiden Lane, October 5th, 1839

43	24 In	Bone Umbs	Finished		.67	28.81
70	24 In	“	“	Not Finished	.59	41.30
164	26 In	“	“	Finished	.70	114.80
250	28 In	“	“	“	.84	210.00
190	30 In	“	“	“	.90	171.00
19	32 In	“	“	“	1.00	19.00
370	28 In	Gingham Umbs	“		1.00	379.00
103	30 In	“	“	“	1.09	112.27
18	32 In	“	“	“ W Top	1.32	23.76
9	32 In	“	“	Not Finished	1.24	11.16
84	30 In	“	“	“ “	1.00	84.00
12	28 In	“	“	“ “	.90	10.80
115	30 In	“	“	“ “	1.00	115.00
41	28 In	Bone	“	Not Finished	.75	30.75
34	30 In	“	“	“ “	.80	27.20
?	?	Rattan	“	Finished	.70	172.20
?	?	?	“	“	.65	120.90
?	?	?	“	“	.60	45.00
?	?	?	“	“	.55	12.10
?	?	?			2.50	67.50
?	?	?			2.75	<u>77.00</u>
34	28 In	Silk Umbs	Finished W Top	85	2.70	91.80

66	30 In	“	“	“	“		2.95	194.70
11	32 In	“	“	“	“		3.46	38.06
6	34 In	“	“	“	“	100	4.00	24.00
6	36 In	“	“	“	“	“	4.50	27.00
155		Assorted Parasols Old Fashion					.75	116.25
67/12	Groce	11/16	Caps	Ferrels	Silvered		4.50	29.62
89/12	“	“	“	“	Japaned		3.25	28.43
7	“	“	Runners	Umbs	“		3.25	28.43
2 ¾	“		Parasols	Runners			2.50	6.87
¼	“		“	Jointpipes			2.50	.62
4 5/12	“		Top	Notches			2.50	11.05
16	“		“	Taps			.70	11.20
520			Ms	Black	Streachers		.12 ½	65.00
23	Doz		Sets	Parasol	Streachers		.60	13.80
48	“		Cossets	Boards			.06	2.88
2	Groce		Tassels				3.25	6.50
5			Ms	Thread			1.25	6.25
2			“	Shelack			25	.50
5 ½	Groce		Buttons				.12	.66
2 ¾	“		Com	Heads			?	?
121	Twisted				“		?	?
3 ½	Groce		Black	Heads			?	?
3 ½	Doz		Umb	H?			?	?
1	Groce		“	?			?	?
128	Com		H?				?	?
245			Wood	Heads	Umbs.		3.50	5.70
2 ½	Groce	“	“	“	With Perl		6.00	15.00
½	Doz		Com	Heads			2.00	1.00
1	Groce		Parasols	Hooks			5.00	5.00
1 ½	“		“	Tops			5.00	7.50
¾	“		“	Heads			3.00	2.25
2	“		“	“			4.00	8.00
1	“		Lackered	Caps			1.00	1.00
45	“		Black	Parasols	Tips		.25	11.25
54	“		White	“	“		.50	27.00
			A Lot of	Buck	Horn	Heads	5.00	5.00
			A Lot of	Rappin	Pappir		3.50	3.50
			A Lot of	Roses			7.00	7.00
268			Parasols	Frames	Good		.25	67.00
249			“	“	Common		.12	29.88
41	30 In		Framed	W	Tops		.58	23.78
50	30 In		“	Common	Spliced		.42	21.60
176	28 In		“	“	“			.40

6 ¼	Groce	Twisted & Cut Sticks Polished	10.00	62.50
4 4/12	“	Plane “ “	4.50	17.49
4 9/12	“	Butt & Common “	4.50	21.37
1	“	9/16 Fluted But Sticks	3.00	3.00
36		Ivory But Parasols Frames	.50	18.00
		A Lot of Old Fashion Parasols Sticks	2.00	2.00
1 ½	Groce	of Cut V Twisted Parasols	10.00	15.00
?	?	Jointed	16.00	8.00
?	?	?an Umbs. Not Finished	.52	94.12
?	?	? “ “ “	.57	63.84
?	?	? “ “	.62	16.12
?	?	? Umbs “ “	.62	7.64
?	?	? “ “		.76 <u>2.28</u>
8	30 In	Bone Umbs Not Finished	.80	6.40
12	28 In	Gingham “ “ “	.90	10.80
1	Groce	11/16 Cut Sticks	11.00	11.00
½		Ms Sewing Silk	3.00	3.00
		A lot of fringe	5.00	5.00
102	28 In	Frames	.42	42.84
34	26 In	“	.38	12.92
37	28 In	Bone Umbs Not Finished	.76	28.12
10	30 In	“ “ “ “	.80	8.00
17		Chairs	.25	4.25
10		Stools	.15	1.50
1		Cutting Table	2.00	2.00
		A lot of Umbs & Parasols Patrons	2.00	2.00
3	Lathes 3 Vices & 1 Sorting Gage & Poanihes [?] in Shop		20.00	20.00
1		Grindstone	1.00	1.00
2000		MS Whale Bone	360.00	360.00
		Lathe Vices & Tools in Store	15.00	15.00
		Stoves	7.00	7.00
		Iron Safe	15.00	15.00
2		Lamps	2.00	2.00
3		Show Signs	.50	1.50
		Store Furniture such as Desk & Drawers	60.00	60.00
1035 ¾	Yds	Blue Umb Cloth	16 ½	170.89
1272	“	Black “ “	13	165.36
778	“	Fine “ Gingham “	17	132.26
32 ¾	“	Best Silk	?	?
140 ¾	“	“ “	?	?
		A Lot Small ?	?	?

Appendix B

SOMETHING ABOUT UMBRELLAS

Transcribed from the *Journal of Useful Knowledge, Monthly Record of New Publications*. March, 1853. New York: H. Wilson, 49 Ann Street.

SOMETHING ABOUT UMBRELLAS

[...] We have from time to time given sketches of many of the different branches of manufactures conducted in this city, and shall, as occasion may offer, continue the series.

The subject of our notice to-day is the manufacture of *Umbrellas*.

American umbrellas are superior to the English or French. The low grades of the former can be afforded cheaper, but they are so heavy and clumsy, that the trifling difference is readily paid for the superior American article. The French umbrellas approach more nearly to the American, but lack the firmness and strength of the latter, while they have the reputation of being “skinned,” as the dealers express it, or scant, in measure: - that is, a French umbrella, rated at 32 inch, will, perhaps, measure an inch and a half less than an American of the same grade. The French umbrellas cannot be furnished at so low a price as the English, but many are sold in this market, because they *are* French, and partly because they are got up with a good deal of taste. IT is a fact worth noticing, that the demand in Canada for American umbrellas equals at least that for the English; while American parasols are fast superseding the English, notwithstanding a duty of 12 ½ per cent. California has been overstocked with French umbrellas, and shipments hither for some time to come would meet a very heavy loss.

Umbrellas vary in size from 22 to 42 inches. The former suffices to cover the little urchin on his way to school, while the latter is known to the trade as the “buggy” umbrella. Nor is the name suggestive of any thing unpleasant, or calculated to cause a creeping sensation. A buggy umbrella when spread, measures some six feet across, and has a stout stick about seven feet long, and is intended to be raised over a wagon which has no other cover; the stick being secured through a hole in the seat to the bottom of the wagon, in the same manner that the mast of a sail boat is secured. But if your horse is skittish, beware how you spread your gingham to the breeze.

The proportion of gingham umbrellas manufactured to those of silk as 100 to 1. The cheapest gingham article may be had for *twenty-four cents*, and the most highly finished silk umbrella is worth *eighteen dollars*. Parasols vary in size from 9 to 18 inches, and in price from *twelve cents* to *eight dollars*.

There is one establishment in New York city which makes on average *fifteen hundred* umbrellas per day, and has sometime turned out as many as 2,070 in a single day. About 300 hands are employed on the premises; four fifths of whom are females. These girls earn from two to five dollars per week; and sometimes an active hand has earned \$7 50 in a week. Their average earnings when in full work is from \$4 50 to \$4. The men in the establishment earn on an average \$9 per week. A ten horse power steam engine drives the machinery, and throughout the building every attention is paid to promote the comfort, health, and convenience of the operatives.

There is, in the manufacture of even the cheapest umbrella, extraordinary pains taken to ensure the greatest perfection and accuracy in each component part of an umbrella, as upon the exact fitting of each part depends the value of the whole. Like a regulation musket, each part of one umbrella, must, if required, fit every other part of

another umbrella of the same grade; and when it is remembered that a full sized umbrella is composed of *one hundred and twelve* different pieces it will readily be perceived that great care, skillful workmanship, and accurate machinery are necessary to ensure the desired result. Having detained the reader so long with the general subject, we will now tell him something about

WHAT UMBRELLAS ARE MADE OF.

And first let us take the umbrella by the handle, and ascertain of what kind of wood the stick is made. France contributes the palm-wood, satin-wood, rosewood, partridge (or hare) wood and the white holly stocks, in a finished state. India supplies the bamboo, and our American forests furnish the hard maple. The imported sticks cost from \$3 to \$10 per dozen, and the American maple from \$1 to \$2 50 per gross, in the rough. The maple sticks are obtained thus. Some clear-headed man wanders through the woods in Pennsylvania, examines the quality and dimensions of the trees, and the water power within a given circuit. Having satisfied himself on these points, he consults the county records, ascertains the owner, and makes him an offer for the timber upon his land, with the privilege of occupying it for some fixed time for the purpose of removing the timber. The bargain closed, our friend proceeds to fell his trees, erect his mill, and the maples are soon lying prone upon the carriage of the mill, the swift moving saws cut it to the very core, and a few twirls in a lathe adjoining, fit the wood for duty as an umbrella stick. Chair rounds are manufactured by a similar process, and are made of refuse stuff not suitable for umbrella sticks. These maple sticks are varnished and finished on the premises we have described.

The *heads* to be attached to the sticks are made of ivory, bone, horn or pearl. The ivory for heads is procured in Salem, which is the great ivory market of the

country, and is turned and carved in this city [New York]. The taste of the designs and the elegance of the workmanship on these carved heads challenge admiration. The bone handles are manufactured in this city, as are also the horn handles, which are made from the tips, which are unavailable to the comb makers. The pearl heads are chiefly imported from France. Heads vary in price from \$4 per gross to \$12 a piece.

The *ferules* used are made of ivory, bone, horn, or iron. The best iron ferules are imported from England, and the more common are made in Connecticut. They cost from 75 cents to \$4 per gross.

The slide is grasped by the hand in raising an umbrella is called the *runner*. It is made of brass or iron, and manufactured in Frankfort, Pa., and in Connecticut, at a cost of \$1 50 to \$2 25 per gross.

The *notch* is the piece into which the bones or ribs are all inserted at the upper end of the stick. It is made of brass at the same factories as the runners, and costs \$1 37 per gross.

The *stretchers* support the bones or ribs, and, acted upon by the runner, spread the umbrella. Until recently these stretchers have all been imported, but a Yankee has invented a simple machine which receives the wire from the coil, and turns it out a perfect stretcher ready for service. These are fully equal to the English hand made. They are made from Pennsylvania iron, and are worth about 9 cents per pound. There is a little incident in connexion with the manufacture of these stretchers which is worth relating. Some three years ago an English manufacturer called at the manufactory which we have instanced, when one of the firm remarked to him that he felt convinced that some machine would be invented to convert wire into a stretcher by a single operation. "Nonsense," replied John Bull, "that will never be done; for there has

already been more money sunk in fruitless experiments in England than there is invested in the whole umbrella trade in the United States, and all further attempts are hopeless.” The manufacturer replied that his faith in American ingenuity and perseverance was unshaken by all the costly failures. Nor was he mistaken, for in less than two years thereafter, a Yankee accomplished the Englishman’s impossibility!

The *top tips* are made of brass, and serve to fasten the upper ends of the bones or ribs to the notch, which has already been described. These are manufactured in Frankfort, Pa., at 28 cents per gross.

Each umbrella has two *springs*, upper and lower. They are made on the premises, of the best quality imported wire.

The *stop* is a small strong wire which passes through the stick, and serves the important purpose of preventing the umbrella from turning inside out. Unhappy is the man who is caught in a gale of wind with an umbrella defective in this essential point.

The *ribs* are generally made of whalebone, and in no part of an umbrella are care and judgment more necessary than in the selection and preparation of the ribs. Whalebone has risen enormously within the recollection of the firm whose establishment furnishes the groundwork for this article – say from 12 ½ to 51 cents per pound, in the slab; although within a few weeks it has receded to 35 cents. The annual demand for whalebone throughout the world is nearly 4 millions of pounds – a considerable proportion of which is required by ladies for their dresses. The ribs are wrought into long strips to the pound, and so accurately are they gauged that the difference does not amount to three per cent: that is, every 5, 10, or 50 strips in a lot, will weight precisely the same as any other 5, 10, or 50 strips in the same lot. This house uses over three million pieces in a year. Cane or rattan is often used for common

ribs. It is imported from the East Indies, in bundles of 100 pounds, and fitted for ribs by running through a machine which shaves off three sides of the cane, and the strips thus planed off form the strips which make cane seats to chairs: the part not wanted for umbrellas being the very portion of the cane that is indispensable to the chairmaker. Steel ribs are also used to some extent, and when the material is good, they answer the purpose extremely well. But a good deal of inferior steel has been used, which has brought the steel ribs into general discredit. Besides, the ladies are opposed to the use of steel in umbrellas. Many a fair one who would boldly face death – painful and lingering – encased in garments which will not permit the lungs to play or the blood to course, will shrink timidly from the remotest possibility of a sharp and sudden encounter with the tyranny under a steel-ribbed umbrella, in a summer shower.

Besides the essential articles we have enumerated, there are *tips*, which are made of ivory or some description of wood to correspond with the stick, and are used to give a finish to the outer ends of the ribs. In many umbrellas the bone itself is turned into a tasteful shape, when tips are dispensed with. Several persons are constantly employed on the premises in turning the tips. *Name-plates* of brass are also affixed to the handles; and immediately above the head, where it joins the stick, is a piece of brass called a *swedge*. The *cup* covers and closes the tips to keep them from wandering about when the umbrella is shut is made of ivory, or of wood to correspond with the stick. *Eyes* of bone, boxwood, or brass are inserted in the stick, and a *cord and tassel* of worsted or silk give it a finish. These are manufactured on the premises. *Beads* are used as a slide, and a little acorn-shaped knob of ivory or wood, to match the handle, is sometimes appended to the cord.

Having pretty nearly disposed of the frame, we will now direct our attention to the *covers*. Three materials are used, - silk, gingham, and alpacca. The silk used is chiefly French, and is all manufactured for the purpose. The service to which it is exposed requires that it should be thick and close, yet at the same time soft. The designs for parasol silks are often very beautiful, and large sums are expended every year in producing new designs, which last but the short life of a season. The silks used cost from 50 cents to \$4 per yard. The gingham or cloth for covers is mostly of domestic manufacture, although some is imported from Scotland, and is woven to order. It is received from the mills “in the brown,” and finished blue, green, or black, as may be desired. In the process of dyeing, the cloth gains 2 1.2 per cent in length, and loses to a like extent in width. A raised border is often interwoven. The color most in demand is black, blue follows next, and green – once most fashionable – is far in the rear. Alpacca has been but recently introduced as a covering for umbrellas. It is found to answer a very good purpose, but being more expensive than cotton, and less dressy than silk, it has not obtained any great favor.

Common umbrellas are fastened by a button and loop, but for the best, *termitures*, imported from Paris are used. They are made of India rubber cord, with a knob at one end and a pair of claws at the other, and answer perfectly the purpose for which they are used. A *cord* is sewn into the outer edge of all covers to render them firm. A *rose*, made of leather, is placed under the runner to protect the hand, another above the notch shields the cover from the chafing of the top tips, and a third is placed outside the cover, under the ferule. The *guard* is a piece of muslin which serves to protect the cover from the ends of the stretcher, and the *cap* is a circular piece of

ornamental glazed cloth at the top of the stick on the inner side of the cover. Upon this the girl who sews the umbrella works her number.

A good umbrella is not considered complete unless it is provided with a case. The case is made of glazed cloth, by hands who do no other work. The best imported *thread* is used for sewing all kinds of umbrellas; and here we will sever the thread of our discourse about materials, and try to convey some idea of

HOW UMBRELLAS ARE MADE.

The first step that is taken in the manufacturing department is to sort the whalebone into three grades, according to quality, - the best bone for the highest priced umbrellas – and the inferior for those of the second and third qualities. Another workman counts out the bones into setts, and apportions them among those who are to carry forward the manufacture.

The workman who receives the ribs inserts one end into an orifice within which is working some hidden machinery, moved by steam, which almost instantly tapers it gracefully to a point. He then throws it to another man who by a few dexterous twirls in a lathe, converts the tapered end into a beautifully shaped tip. Or, if ivory tips are to be used on the rib, it for the present only undergoes the tapering operation. Another operator now applies the rib to a fine circular saw, and reduces it to the desired length; after which he passes it to a man who inserts the end which has just been cut, into a machine which instantly tapers it sufficiently to receive the top-tip. The rib has now been cut and twirled, and tapered enough for one day; and it is allowed to rest, for which purpose it is taken to the varnishing room, where, after receiving two coats of varnish, it remains to be thoroughly hardened.

Thus refreshed, its trials commence again by being again subjected to the dominion of the top-tip, which is put on by an ingeniously contrived machine which accurately adjusts it. By this time the fragment of Leviathan is so subdued that a little boy takes it in hand, and with a marvellous dexterity acquired by long practice, winds a piece of tin around the middle of the rib. This is done with a pair of plyers, and the object is to strengthen the bone at the point where the fork of the stretcher is secured, and to prevent the bone from splitting which it would otherwise do. These tins are cut from the plates by lever shears. In all these operations gauges are used, as the utmost accuracy is indispensable. A driller then pierces a hole through the top-tip and bone, and passes it to another, who also pierces a hole at the place where the stretcher is to be fastened, when a third received it and drills a hole at the end through which the cover is to be secured. The riveting hand now receive the rib, and the first places the rivet through the top-tip – the second fastens that rivet, - the third places the rivet through the stretcher and bone, - and the fourth secure the rivet; - which completes the rib and its furniture.

It will be remembered that these ribs have been already assorted as accurately as can be done by a practised hand and eye, into three grades; but now each member of a grade is to be submitted to a more minute testing process: and nowhere in the whole process of umbrella making is there a greater exhibition of delicacy and accuracy than in the operation we shall now attempt to describe. Upon a table are 28 boxes or small bins, regularly numbered from one upwards. The bins are to receive all the ribs, which are rated at their respective numbers, and all the ribs which are used in an umbrella must come from one bin, for all in that bin have been subjected to the same test, and are found to possess precisely the same power of resistance. By this the

purchaser is assured that his umbrella is perfectly balanced, and he does not have to wait until a North East gale shall prove that some of the ribs are stiffer and stronger than others, and leave him in that miserable yet laughable plight – the master of a wrecked umbrella. Standing upon this table, and facing the operator is an upright board about three feet square. On the left hand side of this board is a brass scale, numbered 1 to 28, running from top to bottom. On the right hand side near the top is a socket into which the top-tip of the rib is inserted, the part where the stretcher is fastened resting on a steel peg which projects from the face of the board, on the left of the socket, and on a line a little above it. A weight running in a groove now descends upon the pointed end of the rib, which carries it down as far as the stiffness of the bone will permit, and when it stops, a steel pointed projecting from the weight indicates on the brass scale the number to which that rib belongs, and it is thrown into the bin bearing the number corresponding. This delicate operation, which is called, technically, “sorting,” is performed by a lad, who, from long practice sorts the ribs with wonderful quickness, - at the rate of quite forty a minute. It will be observed that the capability of the rib for resistance is tested at precisely the points at which a gale of wind would strain it.

A hand then collects the ribs from a bin, and with a piece of wire called the runner-wire, fastens the loose ends of the stretchers - which are already secured to the ribs – and when he has eight on his wire, twists it, and casts the eight ribs so attached aside as a complete frame ready for the stick, - which stick we will now proceed to look after.

It has been found by others than umbrella makers that boys have a peculiar vocation for cutting sticks, and here they pursue the calling methodically. A boy first

takes the stick and applies it to a saw which marks the places where the upper and lower springs are to be put. Another receives it from him and places it in a guage which holds it firm, while an ingeniously geared saw cuts the inclined grooves in which the springs are to play. A third lad receives these sticks, and having cleared the grooves of the saw dust, colors the edges which have been whitened by the action of the saw. A boy then inserts or “drives” the upper spring and passes the stick to another, who does the same with the lower spring. The ends of the springs are still loose, and a boy now drives a wire peg which catches the spring and keeps it in place. He also places the runner on the stick, above the upper spring, so that it serves as a guage for the insertion of the stop. When this stop is secured, the stick is ready to be attached to the frame.

The runner-wire which by a twist has fastened the frames together in setts, is loosened, and a boy with astonishing rapidity places the ends of the stretchers in their respective notches in the runner when he again twists the runner-wire and throws the frame and stick aside – the upper ends of the ribs flying loose. The notches are then slipped on the upper part of the stick, and the top-tips on the ribs secured to them by wire. A man sets the runner so that its slit will accurately fit the lower spring, after which he drills the hole for the rivet, which is to keep the frame in its place on the stick, and passes it to another who inserts the rivet: the frame is then examined, and all protruding ends of wire are driven down. The skeleton is now complete, and is subjected to a minute inspection for defects, and if any are found it is thrown back upon the hands of the one whose carelessness caused the flaw. The frames that pass the inspection are taken to the frame room where they are carefully stored in compartments, according to size, quality, &c. This room is in the charge of a man who

is required to possess the most accurate knowledge of the stock he has on hand, so that he can instantly answer any inquiry as to the capacity of the establishment to produce any given number of umbrellas of a certain grade in so many hours, or perhaps minutes.

Leaving these skeletons at rest until they shall be called into life and action, we will not follow up the dry goods part of the business. The materials for covers are in charge of a woman who has a series of thin pattern boards of the exact dimensions of every gore which may be required. The material is laid down in four thicknesses, and then doubled; the pattern board is put on and the cloth cut, giving at once the full number of gores necessary for an umbrella. A girl rolls up half a dozen of these sets of gores, with all the necessary trimmings, and marks the size and quality. These parcels are placed in racks, ready to be given out to sewers. Each sewer on obtaining a parcel, receives with it a ticket, which she presents to the man in charge of the frame room, who supplies her with the frames suitable for the covers. A memorandum is kept of the order in which the girl receives several parcels which she may have at the same time, and she is required to return first that which she received first. Some work is preferred to other, and the design is to prevent the easiest work from being finished out of its order, to the disadvantage of the equally necessary, but less agreeable work. Many of the girls sew the gores together and prepare them for the frames at their homes, and in that state bring them to the general work-room, and attach them to the frames. When this is done the umbrella is again carefully inspected, and if approved placed in a rack.

Men take them from these racks and again sort them, and they then pass to the finisher. The ends of the stick are cut off by a circular saw, and the upper end is thrust

into a machine, which almost instantly tapers it to receive the ferule. The handle end is run into a tenon tool, which prepares it to receive the head. Another man drills the hole for the tassel, and passes it to one who puts on the nameplate and inserts the eye. The proper heads are then put on with glue, and are afterwards secured by a rivet. The umbrella is then, whether of silk or cotton, ironed, and after the tassel is inserted, it “stands confessed” an UMBRELLA – complete in all its parts.

-Courier

Appendix C

ANTEBELLUM UMBRELLAMAKERS OF NEW YORK CITY

Persons in the Umbrella and Parasol Trade, 1826

	Last Name	First Name	Address 1	Address 2	Trade
1	Anderson	George	57 Cherry		umbrellamaker
2	Bearnes	Jonathan	3 Orange		umbrellamaker
3	Booth	Thomas	1 Division		umbrella.
4	Garner	Thomas	94 Catherine		umbrella manufacturer
5	Garner Jr.	Thomas	273 William		umbrella manufacturer
6	Gordon	John	6 Vestry		umbrellamaker
7	Karns	John	Grand N. Essex		umbrellamaker
8	Kerns	John	64 Warren		umbrellamaker
9	Moffat	James G.	53 Varick		umbrella furnisher
10	Muzzy	Charles C.	56 Maiden-lane		umbrella mer.
11	Pellington	James	3 Dominick	n. Clarke	umbrella st.
12	Rabbeson	G.M.	Delancey	n. Goerck	umbrella mak.
13	Redmond	Samuel	209 Pearl		umbrella manuf.
14	Roe	Gilbert	60 Maiden-lane		umbrella-maker
15	Smith	Edwards	260 Pearl		umbrellamaker
16	Spencer widow	Mary	41 Broad		Parasol store
17	Welling	William	155 Division		umbrellamaker

Information from: *Longworth's American Almanac, New-York Register, and city directory, for the Fifty-First Year of American Independence...* New York: Thomas Longworth, 1826. Internet Archive.

<https://archive.org/details/longworthsameric1826newy>.

Persons in the Umbrella and Parasol Trade, 1839

Note: These entries are used to create the maps in Figures 29 and 33.

	Last Name	First Name	Address 1	Address 2	Trade
1	Bell	Benjamin	98 Canal		umbrellas
2	Caulkins	John S.	54 Nassau		umbrellas
3	Clyde	George	295 Grand		umbrellas
4	Crossman	Henry	92 1/2 Chatham		umbrella manufactory
5	Cutter	Charles N.	152 Pearl	h. 12 Burton	umbrellas
6	Delhomme	Francis	484 Pearl		umbrellas
7	Edgar	Alexander A.	39 Cedar		umbrellas
8	Etzler	Anton	498 Greenwich		umbrellas
9	Ford	Patrick	116 Fulton		umbrellas
10	Gale	Henry D.	44 Fulton		umbrellas
11	Garner Jr.	Thomas	122 Pearl	676 Washington umbrella factory & dwelling	umbrella-store
12	Gilmour	James	119 Chatham	206 Greenwich	umbrellas
13	Gilmour	John A.	206 Greenwich		umbrellas
14	Gilmour	J.A. & J.	206 Greenwich		umbrellas
15	Gordon	John	609 Greenwich rear		umbrellas
16	Hapgood	Alexander H.	38 Anthony		umbrellas
17	Harriot & Co.	David	70 Maiden- l.	h. 7 Second	umbrellas
18	Hemming	John	162 Perry		umbrellas
19	Hollister	Reuben R.	119 Norf'lk		umbrellas

	Last Name	First Name	Address 1	Address 2	Trade
20	MacDonald	Alexander	278 Pearl	h. 176 Forsyth	umbrellas
21	Mathews	George	249 Division	h. 26 Oliver	
22	May	John A.	h. 488 Broadway		umbrella manuf.
23	McDonald	Alexander	278 Pearl	h. 176 Forsyth	umbrellas
24	Miner	Martin	39 Cedar		umbrellas
25	Moore	Nicholas	168 William		umbrellas
26	Morrison	Thomas	13 Chestnut		umbrellas
27	Prescott	Levi T.	83 Gold	h. 53 Rose	umbrella furn.
28	Pringle	William	213 Hudson	h. 24 Sullivan	umbrellas
29	Ransford	Josiah W.	70 Division	4 Hanover	umbrellas
30	Redmond	Samuel	205 Pearl	h. 42 Beech	umbrellas
31	Reeves	James	176 Avenue 8th		umbrellas
32	Shaw	Abraham	181 Varick		umbrella maker
33	Shipley & Co.	Robert	62 William	h. 50 Canal	umbrellas
34	Smith	Charles E.	316 Pearl		umbrellas
35	Smith	Edward	292 & 204 Pearl	h. 277 East Broadw.	umbrellas
36	Smith	Isaac	256 Pearl	h. 171 Henry	umbrellas
37	Smith	John	2 Madison		umbrellas
38	Smith	John I.	93 Chatham		umbrellas
39	Smith Son & Co.	Edward	292 & 204 Pearl		umbrellas
40	Spader	John W.	Northmoore c. Chapel		umbrellas
41	Tappin	Samuel	182 Cherry		umbrellas
42	Tuttle	James	85 Varick		umbrella furn, maker
43	Vasant	Thomas J.	260 Pearl	h. 219 Henry	umbrellas
44	Woodruff	Oliver	62 William	h. 11 Chambers	umbrellas
45	Woods	James	292 Pearl		umbrellas

Information from: Longworth, Thomas, Joline J. Butler, and George P. Scott and Co. Longworth's American Almanac, New-York Register, and city directory, for the Sixty-Fourth Year of American Independence... New York: Thomas Longworth, 1839. <https://archive.org/details/longworthsameric1839newy>

Persons in the Umbrella and Parasol Trade, 1845

	Last Name	First Name	Address 1	Address 2	Trade
1	Acker	Samuel S.	392 Stanton		umbrellamaker
2	ASCH & PINKUS		53 Beaver		umbrellas
3	Beadle	Thomas D.	204 & 256 Pearl	h. 12 Vandewater	umbrellas
4	BELL	BENJAMIN	98 Canal		umbrellas
5	Bell	John	556 Broadway	h. 556 B'dway	umbrellas
6	Black	Aaron S.	303 Broadway & 295 Grand	h. 295 Grand	umbrellas
7	Black	Stewart	303 Broadway & 295 Grand	h. 295 Grand	umbrellas
8	Burgess	Peter G.	119 Morton		umbrellas
9	Calkins	Daniel O.	28 Maiden La.	h. Brooklyn	umbrellas
10	CALKINS & DARROW		28 Maiden La.		umbrellas
11	Cheesman	Maurice	196 Pearl	h. 254 Henry	umbrellas
12	Clyde	George	303 Broadway & 295 Grand	h. 295 Grand	umbrellas
13	Cook	Norman	56 1/2 Bowery	h. 56 1/2 Bowery	umbrellas
14	Cox & c.	Abraham	26 Cortlandt		cane & umbrella manufacturer & dealer in factory articles
15	Darrow	Edwin J.	28 Maiden La.	h. Brooklyn	umbrellas
16	Davis	Charles	194 Pearl	6ds 268 Elizabeth	umbrellas

	Last Name	First Name	Address 1	Address 2	Trade
17	Davy	Charles	152 Hammond		umbrella finisher
18	Dickson	John	71 Beekman & 118 Av. 6	h. 118 Av. 6	umbrella
19	Edgar	Alex A.	19 Liberty	h. 367 B'dway	umbrellas
20	Ellis	Benjamin	25 Cedar	h. 191 Fourth	umbrellas
21	ELLIS & KING		25 Cedar		umbrellas
22	Fancourt	Charles	12 Prince	h. 12 Prince	umbrellas
23	Finn	John	99 Bowery		umbrellas
24	Forbes	Joseph	234 Bowery	h. 234 Bowery	umbrellas
25	Ford	Patrick	112 Fulton	h. Williamsbur g	umbrellas
26	Gilmour	James	119 Chatham & 206 Greenwich	h. 206 Greenwich	umbrellas
27	Gilmour	John A.	119 Chatham		umbrellas
28	Gilmour	J.A. & J.	206 Greenwich & 119 Chatham		umbrellas
29	Griffith	Joseph R.	117 John	h. 136 Allen	umbrellas
30	Hannavan	Philip	188 W. Sixteenth		umbrellas
31	HARRIOT	DAVID	93 William		umbrellas
32	Hillier	Henry	169 Charles		umbrellas
33	Holland	James	433 Hudson		umbrellas
34	Houghton	Ed. C.	4 Cedar	h. 130 Thompson	umbrellas
35	Johnston	William	166 Bowery		umbrellas
36	Joyce	James	34 Spring		umbrellas
37	Kebby	William P.	4 Little green		umbrella maker
38	Keep	Henry	122 Pearl	h. New Jersey	umbrellas
39	King	Charles M.	25 Cedar		umbrellas
40	Lang	Elizabeth	84 Charlton		umbrellas

	Last Name	First Name	Address 1	Address 2	Trade
41	Lasher	Wm. M.	455 Hudson	h. 455 Huds'n	umbrellas
42	Lovett	Milton	222 William		umbrella manufacturer
43	Lucas	James	193 Av. 6	h. 193 Av. 6	umbrellas
44	Macdonald	Alex Jr.	3 Cedar	h. 136 Second	umbrellas
45	Mahar	Patrick	105 1/2 Mulberry		umbrellas
46	Mathews	George	249 Division	h. 249 Division	umbrellas
47	M'Dowall	James	144 Orange		umbrellas
48	MESSING ER BROTHER S		6 Cedar		umbrellas
49	Millington	Edwin J.	266 1/2 Bow'ry	h. 266 1/2 B'ry	umbrellas
50	Millington	Samuel	266 1/2 Bowery	h. 266 1/2 Bowery	umbrellas
51	Millington	E & S	266 1/2 Bowery		umbrellas
52	M'Namee	Richard	18 William		umbrellas
53	Moore	Francis W.	68 Allen	h. 99 Orchard	umbrellas
54	Morris	Hermon	205 Pearl	h. 327 Ninth	umbrellas
55	O'Connor	John	169 Christopher		umbrella maker
56	Platt	Samuel H.	251 Mulberry		umbrellas
57	Quackenbu sh	John E.	72 Av. 8		umbrellas
58	Ramsden	Rowland	58 1/2 Fult.	h. 58 1/2 Fulton	umbrellas
59	Ransford	Josiah W.	20 Division	h. 20 Div'n	umbrellas
60	Sandford	Chas.	48 Cedar	h. 212 E. B'dway	umbrellas
61	Shaw	Abraham	38 Vandam		umbrellas
62	Smith	Thomas D.	117 Houston		umbrella maker
63	Smith	Edward	292 Pearl	h. 219 East Broadway	umbrellas

	Last Name	First Name	Address 1	Address 2	Trade
64	Smith	John I.	232 Pearl	h. 77 Orchard	umbrellas
65	Smith	John R.	137 Cherry		umbrellas
66	Smith	Joseph	362 Pearl		umbrellas
67	Smith	Silas	55 Chatham		umbrellas
68	Smith & Co.	Isaac	204 and 256 Pearl	h. 49 Cliff	umbrellas
69	Spader	John W.	127 Suffolk		umbrella manuf.
70	Staffnell	Henry	247 Broome	h. 247 Broome	umbrellas
71	Tuttle	James	85 Varick		umbrellas
72	Vanwart	Thomas	166 Eldridge		umbrellas
73	Vreeland	Daniel M.	34 Essex		umbrella maker
74	Wickstead	John J.	72 Canal	h. 72 Canal	umbrellas
75	Wickstead	Mary, widow of Richard	63 1/2		umbrellas
76	Williamson	Thomas	18 Goerck		umbrella manuf.
77	Wolf	John	230 Pearl	h. 296 Pearl	umbrella sticks
78	Wood	William	34 Essex		umbrellas
79	Woods	James	292 Pearl	h. 292 Pearl	umbrellas
80	Woods	Robert C.	93 Chatham		umbrellas
81	Wyatt	Richard	123 Fulton	h. 152 Suffolk	umbrellas

Information from: Doggett, John Jr. Doggett's New-York City Directory, for 1845 & 1846, Fourth Publication. New York: John Doggett, Jr., 1845.
<https://archive.org/details/doggettsnewyorkc1845dogg>,

Appendix D

TARIFF RATES

As reported in the Report of the Committee of Umbrella and Parasol Manufacturers to Congress, pages 6 - 7:

Tariff upon	Silks of all grades	60 per cent
Tariff upon	Alpaca	50 per cent
Tariff upon	Fine Scotch gingham	50 per cent
Tariff upon	Elastics, rubber cord	35 per cent
Tariff upon	Beads	50 per cent
Tariff upon	Steel rods, as imported	30 per cent
Tariff upon	Iron handle for steel frames	35 per cent
Tariff upon	Ivory	10 per cent
Tariff upon	Tin plates	25 per cent
Tariff upon	Shellac	10 per cent
Tariff upon	Rattan, if from place of growth, free; but most that arrives in this country pays	10 per cent
Tariff upon	Iron rods used for wire, specific	1 ½ cents per lb.
Internal Revenue Tax upon	Steel wire	6 per cent
Internal Revenue Tax upon	Iron wire	6 per cent
Internal Revenue Tax upon	Iron handles	6 per cent
Internal Revenue Tax upon	Brass in rough, two taxes	(6 and 3), 9 per cent
Internal Revenue Tax upon	Japan Varnish, three taxes	(6, 6, and 6), 18 per cent
Internal Revenue Tax upon	Alcohol, specific	\$4.50 per gallon
Internal Revenue Tax upon	Cotton before coloring	10 per cent
Internal Revenue Tax upon	Additional cost of coloring cloth	6 per cent
Internal Revenue Tax upon	Rattan ready for use	6 per cent
Internal Revenue Tax upon	Ivory handles	6 per cent
Internal Revenue Tax upon	Bone handles and trimming	6 per cent
Internal Revenue Tax upon	Wood handles and sticks	6 per cent
Internal Revenue Tax upon	Brass trimmings, such as ferrules, notches, etc.	6 per cent
Internal Revenue Tax upon	Steel frames and rods	6 per cent
Internal Revenue Tax upon	Silk Tassels	6 per cent
Internal Revenue Tax upon	Rubber elastic ties	6 per cent

Internal Revenue Tax upon Buttons, all kinds 6 per cent

Appendix E

EXPORTED AMERICAN UMBRELLAS AND PARASOLS

The “Report of the Secretary of the Treasury, On Commerce and Navigation” published by the United States Treasury Each year includes charts of the summary statement value of exports from the United States to other countries during a given year. Some of these reports recognize umbrellas, parasols, and sunshades as a category of exported good, and provide information about the monetary value of exported umbrellas, parasols, and sunshades to each country. Listings from selected reports are transcribed below:

Country exported to	1839	1845	1846	1851
Fayal & Other Azores	\$6,663			
China	\$212	\$100		
Hayti	\$485			\$1,035
Rep. of Texas	\$372			
Mexico	\$1,294	\$173	\$263	\$856
Central Rep. of America	\$192	\$87	\$609	\$490
New Grenada	\$2,136	\$75	\$316	\$2,218
Venezuela	\$426		\$57	
Africa, Generally	\$168	\$586		\$368
South Seas	\$166			
British West Indies		\$16	\$202	
Cuba		\$840	\$436	\$433
Other Spanish West Indies		\$226	\$88	\$117

Country exported to	1839	1845	1846	1851
Argentine Republic		\$53		
Danish West Indies			\$132	
Honduras			\$156	\$192
Chili			\$113	\$48
South Seas & Pacific Ocean			\$105	\$4,860
Dutch West Indies				\$315
Canada				\$1,819
Cape de Verd Islands				\$11
Total	\$11,618	\$2,583	\$2,477	\$12,260

Information for this table taken from:

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Walker, R.J. "Report of the Secretary of the Treasury, On Commerce and Navigation, for the year ending 30th June, 1845; Also, A Statement of tonnage for the same period." [Washington, D.C.]: Dept. of the Treasury, 1845. Hathitrust. <http://hdl.handle.net/2027/hvd.32044106525363>.

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Appendix F

PERMISSIONS

Shippensburg Fashion Archive and Museum Figure 45, photography by author.

Bohleke, Karin <KJBohleke@ship.edu> Apr 5 (13 days ago)   

to me 

Dear Rosalie,

I remember you very well, and I think of you every time I see a parasol I have sitting in my office. It was a deaccession from another museum, and I want to experiment with stabilizing the big tear in the cover fabric, which is a gorgeous green silk. It's 1840s, and the frame is whalebone.

Yes, you may use the photographs you took during your visit. Please credit all museum objects as follows:
Courtesy of the Fashion Archives & Museum of Shippensburg University
If you recorded the S number of each item (such as S1995-23-045 Smith, to make up an example at random), I would ask that you credit the objects as follows:

S1995-45-045 Smith
Courtesy of the Fashion Archives & Museum of Shippensburg University

I supplied you with an image from our personal collection, as I recall. It's the daguerreotype of the mother and son, and she has a parasol on her lap. If you are using that in your thesis, then I would ask that you credit us as follows:

Courtesy of Drs. K. and B. Bohleke

I think that covers it. I hope your research has been productive and enjoyable!

Karin

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 **Christine Lutz** 2:52 PM (58 minutes ago)  

 to me 

I hope the statement below is sufficient but let me know if you need anything else.

I ran it past Al just to be sure but there are no issue with including the transcription in your thesis.

--Christie

Winterthur Library: The Printed Book & Periodical Collection
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April 15, 2016

Rosalie Hooper
 Lois F. McNeil Fellow
 Winterthur Program in American Material Culture
 Academic Programs Department
 Winterthur Museum, Library, & Garden
 Winterthur, DE 19735

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Teapot 1977.0088 Digital image
Courtesy, Winterthur Museum, Teapot, 1760-1778, Worcestershire, Worcester, England, Gift of Mr. and Mrs. John Mayer, 1977.88a,b

A handwritten signature in black ink, appearing to read "Susan J. Newt". The signature is written in a cursive, flowing style.

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 **Christine Lutz** 2:50 PM (59 minutes ago) ☆ 
🔒 to me ▾

Dear Rosalie,

Per our conversation, you are welcome to use images from the David Harris & Co. Records, 1831-1845, in your master's thesis as this material is in the public domain.

Sincerely,
Christie Lutz

Christine A. Lutz
New Jersey Regional Studies Librarian
Head of Public Services
Special Collections and University Archives
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https://instagram.com/rutgers_scua
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The Archives Center, National Museum of American History, Smithsonian Institution
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Figures: 30, 31, 32, 35, 36, 37

 **Peterson, Kay** Apr 5 ☆ 
🔒 to me ▾

Dear Rosalie,

Congratulations on your thesis. The answers are Yes & Yes. 😊

You may use the photos you took while researching the collection. You qualify to have the usage fees waived.

Please complete the attached request form and e-mail it back to me.

Thanks,

Kay Peterson
Archives Center

[202-633-3727](tel:202-633-3727) office
[202-312-1990](tel:202-312-1990) fax
peteronk@si.edu

Chester County Historical Society

Multiple Images, photography by author

Figures: 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 38, 39, 46

Heather Hansen <hhansen@chestercohists>

Apr 5 (13 days ago)



to me

Hi Rosalie,

I'm glad that you're nearing the end. Not too much further to go! Attached is our publication request form. Please fill it out and return to me. As long as we have a record of which objects you are publishing, it doesn't matter whether you use the images you took for us or the ones from your personal camera. We will not be charging publication fees due to your help in documenting these objects. Please let me know if there is anything else you need from me.

Best wishes,
Heather

Heather Hansen

Collections Manager

Chester County Historical Society

225 North High Street

West Chester, PA 19380

[610.692.4066 ext. 258](tel:610.692.4066)

hhansen@chestercohistorical.org

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Figure: 42

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Figures: 2, 28, 29, 33

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