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Stalking the Wild X Patent

Barbara J. Hampton
redline3@earthlink.net

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Abstract

For most of the history of the patent office, recorded patents were used primarily to enforce the patent holder's rights during the life of the patent and to evaluate prior art, in determining patentability. The limits of manual indexes and hand counts of entries made more sophisticated analyses impractical. Recently, a number of researchers have begun to apply scientometric methods to assess trends and causation in patterns of innovation in the United States by organizing data elements from patent documents. Although most patents are now searchable, fully digital records, the records of the earliest patents (1790–1836) were incinerated in a fire at the Patent Office in Washington, D.C. Of approximately 10,000 patents destroyed, original duplicate copies have been located and re-recorded for about one-quarter of the total. These patents are now available in the USPTO PatFT database. Occasionally, additional duplicate originals are still being found. A more complete record of these Early American patents would allow better and more complete analysis. This article suggests methods that librarians and archivists can use to contribute to additional recoveries of the missing patents.

What Was Lost

*The Disastrous Conflagration of 1836*

The fire in the building housing the Patent Office and the Post Office broke out about 3 a.m. on Thursday, Dec. 15, 1836. Three patent office employees who were sleeping in rooms at the Patent Office raised the alarm. An "engine" (water pump) adjacent to the building was brought to the fire but found to be useless. While a bucket brigade attempted to suppress the fire, an engine was brought from another location, pumping the limited supply of water for some time, but the fire had already spread throughout the building (Dobyns, 2016). The practice of storing ashes (likely sometimes including live embers) was generally thought to have been the source of the fire, adjacent to the firewood stored for the winter heating season (B.M. Federico, 1937). The confused and conflicting testimony given to a Congressional investigating committee revealed how ill-prepared the occupants of both the Patent Office and the Post Office were, lacking equipment and what today would be called emergency preparedness planning (B.M. Federico, 1937).

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1 "Patent bibliometrics," a focused type of scientometrics using data from patent records, was noted by Narin (1994) as demonstrating "striking similarities between literature and patent distributions of national productivity, inventor productivity, referencing cycles, citation impact and within country citation preferences."

**Figure 1**

*News Report of Patent Office Fire*


Similar reports were quickly relayed via newspapers of the day, including the Connecticut Courant [Hartford, CT], p. 2, “Disastrous Conflagration: The General Post-Office and Patent Office in Ashes,” Dec. 24, 1836, from Commissioner Ellsworth’s hometown.
Patent applications, grants (known as the “Lost Patents,”) record books, models, and even a bound volume of full-color patent drawings by Robert Fulton: all were destroyed. Not even an official list of the patents applied for or issued remained. A Senate Committee chaired by Sen. John Ruggles concluded that over 10,000 patents, 9,000 drawings, and 7,000 patent models were lost in the fire (B.M. Federico, 1937; Senate Report No. 58, 24th Congress, Second Sess., as cited in P.J. Federico, 1937). President John Quincy Adams described the devastation in his Diary (Vol. IX, pp. 326-327).

- 15th. I rose this morning at five, and there was so much of my fire of the last night still burning that I was enabled to sit down at my table to write; but very soon after I was roused by the bell of St. John’s Church, to witness the fire which consumed the General Post Office and Patent Office of the United States. Before sunrise the fire had performed its work — the whole building was a heap of ruins. In mercy the dwelling-houses and other buildings round it were spared.

The remainder of that day’s entry in the Diary consisted of accounts of resolutions proposed for investigation of the fire, allegations of abuses, and mismanagement, without any action taken. (Adams, Vol. IX, pp. 327-328).

**Patent Office Professionalism**

Whatever mistakes led to this disastrous loss of the official records of the first forty-six years of American intellectual property development, one very fortunate decision created the framework of our modern intellectual property rights: the appointment of Henry Leavitt Ellsworth as Superintendent of Patents in early 1835. He was a Connecticut lawyer, the son of Supreme Court Justice Oliver Ellsworth, and a Renaissance man. Under Ellsworth’s leadership, the Patent Office moved from a clerical posture to one of professional standards for patent examination and records (Wyman, 1919).

As Superintendent, Ellsworth brought order to chaos at the Patent Office, collecting and organizing correspondence, creating file envelopes for patent applications, and securing the patent models. He conquered a significant backlog of patent applications and created a list of all applicants for patents. (Henry Ellsworth, 1835–1845, 1936). He appealed to Secretary of State John Forsyth (a member of the “Patent Board” appointed by President Andrew Jackson) for a new and more secure space for the patent office, especially patent models. (Letter of Henry Leavitt Ellsworth to John Forsyth, Aug. 10, 1835, as cited by Dobyns, 2016).

Ellsworth advocated for science experts, supported by a good library, to aid in reviewing patent applications. He recommended that foreigners be allowed to obtain U.S. patents with the payment of a comparable fee to that charged Americans in the applicant’s home nation. (Dobyns, 2016).

Section 3 of the 1790 Patent Act provided that, “upon application by any person,” the Secretary of State “give” a copy of the specifications of any patent submitted by the inventor and permit “any person” to make “similar model or models” at the expense of the applicant. It is not known how many such copies were made. Ellsworth recommended that the Patent Office publish “all specifications of patents, or at least the claims under the patents.” Ellsworth believed that by distributing this information across the nation, the number of fraudulent patents would be reduced. (Dobyns, 2016). These initiatives were truly the salvation of our patent history, as will be seen.

On July 4, 1836, Congress had passed a Statute which expanded the role of the Patent Office (“An act to promote the progress of useful arts, and to repeal all acts and parts of acts heretofore made for that purpose.”). Ellsworth advanced to the newly created post of Commissioner of Patents. Within days, he designed a new seal specific to the Patent Office. He secured new plates for the engraved elements of the granted patents. At the beginning of Ellsworth’s term as Commissioner, the others staffing the Patent Office included one patent examiner and six clerks. (P.J. Federico, 1937). Seeing the Herculean efforts of his one patent examiner, Ellsworth requested appointment of a second patent examiner. (Dobyns, 2016). While Ellsworth did not know it at the time, his better documentation and distribution of patent information built a strong foundation for the recovery from the “Disastrous Conflagration.”

**Restoration**

After the shock of the fire had worn off, Ellsworth and Sen. John Ruggles, a patentee himself and a legislative advocate for strengthening the
American patent system, worked to restore the Patent Office to operational status and to rebuild the information that had been lost with the destruction of the recorded patents and patent models. To that end, Congress approved a “restoration” process, authorizing those in possession of original or certified copies of the specifications for patents granted before the fire to submit them to be recorded anew. This was made a prerequisite for enforcement of rights under a “Lost Patent.” Unfortunately, the only duplicates of the incinerated Patent Office copies were the ones given to the patentees and often without the patent drawings attached (P.J. Federico, 1937). Patent drawings could be resubmitted or recreated by the Patent Office staff using the descriptions contained in the restored patent. (Lutz, 1937).

To gather up whatever patent documents might be in the hands of the public, the provisions of post-fire legislation (“An Act in Addition to the Act for the Promotion of Science and Useful Arts”, Sec. 1, 1837), directed Commissioner Ellsworth “to take such measures as may be advised and determined . . . to obtain the patents, specifications, and copies aforesaid for the purposes of being so transcribed and recorded.” In the early nineteenth century, communication in America meant newspaper reporting and brief notices. Some examples follow of calls for patentees to submit their copies of patents and/or patent models in order to restore their rights and the Patent Office’s records.

**Figure 2**

*Recording Destroyed Patents Anew, 1837*

![Image](https://chroniclingamerica.loc.gov/)

Note: [Brief Notice]. Staunton Spectator and General Advertiser [Staunton, VA] (1837). For unknown reasons, this notice was considerably abbreviated as compared to that published in the Vermont Telegraph (Figure 3) and Columbia Democrat (Figure 4). Reprinted from Chronicling America: Historic American Newspapers, Library of Congress. https://chroniclingamerica.loc.gov/ in the public domain.

**Figure 3**

*Recording All Patents Anew, 1837*

**Figure 4**

*Reorganization of the Patent Office*

*Reorganization of the Patent Office.—The Commissioner of Patents has published the following notice, which is deserving the attention of holders of patents issued before the destruction of the Patent Office.*


*In consequence of the destruction of the records of the Patent Office by fire in December last, Congress provided by law for recording all patents anew; and no paper can be given in evidence, until the same has been recorded again in this office. The law provides for the record of all patents which have been issued, whether the same have or have not expired. Such record, it is believed, will be honorable to inventors, and highly useful in the future management of the Patent Office. Arrangements are accordingly made for recording all patents anew in this office; expecting that persons holding patents will promptly comply with the law in this respect. It is hoped none will delay transmitting patents, because the invention may be deemed unimportant. A copy of *every* patent issued is desirable, as the best means of preventing imposition. Many persons have already complied with the law, and their patents have been recorded and paid to them; and all who have omitted to forward their papers, are requested to send them to this office by mail, without delay. In this mode, patents will be secured from infringement, and useful inventions perpetuated. Papers forwarded will be safely kept and speedily returned. Transfers or assignments of patents are in like manner required to be recorded anew.*

_Henry L. Ellsworth, Commissioner of Patents._

*Note. Year shown in article is typographical error in the original source.*


Regrettably, restored copies of the patents destroyed in the 1836 conflagration represent only a fraction of the estimated number of Lost Patents of the U.S. Patent Office. One year after the fire, Commissioner Ellsworth reported that 2,000 patents had been restored. (From Washington. (1838, Feb. 7). *Morning Herald* [New York, NY], p. 4, Chronicling America: Historic American Newspapers, Library of Congress. https://chroniclingamerica.loc.gov/). One hundred years later, the total had risen by only a few hundred. (B.M. Federico, 1937). Even 146 years after the “Disastrous Conflagration,” only about 2,800 of the Lost Patents had been restored, according to USPTO PatFT results. (Interestingly, Google Patents returns 3,278 grants for the period from 1790 through 1836, another area for analysis.) Why so few? Some possible causes include:

- There was no list of patent applications until Henry L. Ellsworth was appointed Superintendent of the Patent Office in 1835, and the list he created was destroyed in the fire. Records of patents granted were listed only by the name of the inventor and the date of the grant (thus often referred to as “Name and Date Patents”). There was no systematic way to reach out to individual patentees to obtain their copies of the documents with which to recreate the Office’s records.
- The term of patents at that time was 14 years, meaning that patents granted from 1790 to 1822 would have expired and thus lacked commercial value justifying the trouble and expense of submitting documents for restoration.
- Many of the patentees of the Lost Patents may have died during the 46 years before the fire, and survivors may have had little knowledge or interest in old business records.
- Technology and social customs may have advanced over the years, reducing the commercial value of the patents.
- Keeping up with the exponential increase in the volume of new patents from the late
1800’s into the late 1900’s left little time for investigating long-forgotten patents.

- Searching for individual documents scattered across the states and territories of the nation was beyond any realistic endeavor of governments or individuals. Only the development of computerized databases in the last decades of the twentieth century and beyond gave access to records of these patents that has allowed collaboration in this effort among librarians, archivists, patent searchers, and historians.

The reconstructed patent documents and drawings in the possession of the United States government are stored in the National Archives (Records of the Patent Office (Reconstructed Records) Relating to “Name and Date” Patents, 1837-87):


Engineering Plans (3,000 items): Drawings, made 1837-47, of patents granted between 1791 and 1836, with accompanying name and date list.

For those unfamiliar with the patent laws, patent office procedures, key officials, events, and the evolution of record-keeping and research tools, it is important to understand the terminology used in describing patent documents from the period 1790 to 1836. Different shorthand names are used to describe the features, recovery, and status of patents from that time. They are not interchangeable. The entire corpus of official patent record having been destroyed in the Patent Office Fire of 1836, special features of some are noted because of their historical and documentary significance. The earliest patents were executed by the President of the United States and are thus referred to as “Presidential Patents.” Even after the President was relieved of this duty, patents were executed by the Secretary of State, Secretary of War, and the Attorney General. Written on parchment, with pages tied together with ribbon, with ends fixed under wax, impressed with a governmental seal, and are thus all referred to as “Ribbon Patents.”

Within the corpus of patents issued prior to the Fire of 1836, special features of some are noted because of their historical and documentary significance. The earliest patents were executed by the President of the United States and are thus referred to as “Presidential Patents.” Even after the President was relieved of this duty, patents were executed by the Secretary of State, Secretary of War, and the Attorney General. Written on parchment, with pages tied together with ribbon, with ends fixed under wax, impressed with a governmental seal, and are thus all referred to as “Ribbon Patents.”

Because patents issued from 1790 to 1836 were recorded in the name of the inventor and the date of the grant, without title, classification, or number, various reports, digests, and indexes were searched by inventor and date, and thus have been referred to as “Name and Date” patents. More recently, Current U.S. Classification (CCL) numbers have been added.

3 This group was known informally as the “Patent Board,” “Patent Commission,” and “Board of Arts,” and more formally as “Commissioners for the Promotion of Useful Arts.” Dobyns (2016) provides details of the operation of this system. It proved burdensome for those office holders and resulted in delays in patent decisions. It was replaced by a Commissioner of Patents in 1835. (An act to promote the progress of useful arts, and to repeal all acts and parts of acts heretofore made for that purpose.) (July 4, 1836).
**Exemplars of Lost Patents**

Before beginning a search, it is helpful to become familiar with the nature of original Lost Patents, quite different from the image files found in PatFT. Several can be viewed in an online collection graciously shared by Beem Patent Law, with images of the pages of 14 Original X Patents from the years 1800, 1809, 1811, 1813, 1815, 1819, 1821, 1822, 1825, 1829, 1831 (3 patents), and 1835, including helpful annotations and transcriptions (Beem Patent Law, 2021). The scans of the parchment sheets are high quality, with the ribbons and wax seals visible. Note the variations in the color of the ribbons and the stylized headers, with the 1835 patent also showing the engraving depicting a ship at full sail, sea, crashing waves, whales, and what appears to be a draftsman or scrivener at work. Different engravings can be found on later patents from this era.

Senator John Ruggles had worked closely with Ellsworth to improve the operation of the Patent Office, resulting in the adoption of the Patent Act of 1836 on July 3. (“Ruggles, John; 1789–1874”). In recognition of his efforts on behalf of the Patent Office, he was issued Patent No. 1 under the 1836 law (just four months before the Disastrous Conflagration), when the sequential number of patents became the norm, for his “new and useful improvement for a locomotive steam engine for use on inclined planes,” apparently a cog railway design (Dobyns, p. 136). Images of this X Patent (Figures 5-8) are from Brown University’s Digital Repository. Ruggles had graduated from Brown and practiced law in Maine.

The document offered up on Google Patents and the PatFT USPTO database shows a three-page typeset document, with drawings rearranged on a single page, while the original patent in Brown University’s archive includes a typeset page, a handwritten page, and two pages of drawings. Note the precision of the mechanical drawings, a skill no longer common in higher education. The original manuscript copy is especially valuable, including the additional drawing sheet. This includes a different description of the invention, “Improv’d Locomotion for inclined planes” versus “Traction Wheels.” It is not known if Ruggles’s drawing skills inspired any of the engraved designs used for later patents.
Figure 5

*John Ruggles, Patent No. 1 (1836), page 1 of 4.*

Note: Although issued during the Presidency of Andrew Jackson, the Patent Act of 1836 no longer called for the President’s signature. In the public domain.
Figure 6

*John Ruggles, Pat. No. 1, Drawing 1, page 2 of 4.*
Figure 7

*John Ruggles, Pat. No. 1, Drawing 2, page 3 of 4.*
Figure 8

*John Ruggles, Pat. No. 1, Specifications, page 4 of 4.*

Note: Text on this page ends with an incomplete sentence ("and it is"); no additional text provided. The final paragraph here appears to correspond to the printed text in the USPTO file, page 2, lines 26 to 42, with the remaining approx. 255 lines omitted.
What Is the Value of the Lost Patents?

Understanding the nature of the original patent documentation and patent models in the early years of the Patent Office will help identify a genuine original X Patent. The text of the application also gives some sense of the problem that the invention is intended to overcome. Capturing some of the often-missed information gives a more complete understanding of the people, places, and ideas represented in it and can add to the trove of information that can be analyzed to identify trends and connections in the innovations of these inventors.

Today, powerful data tools facilitate the organization, assessment, and interpretation across patent records. Patent librarians and researchers can identify search strategies and data elements that retrieve selected patents for analysis. Social, cultural, educational, economic, and technological trends can then be measured and assessed using patent bibliometrics, a branch of scientometrics. In 2001, Durack recognized the wide range of applications of patent data as a “sociological barometer,” researching the development of science, government policies, legal and business issues. Three Brazilian engineering scholars used data mining techniques to integrate the DATAMP patent information and various external records to create a statistical analysis of patents by issue date, patentee, subject matter, and licensing assignments to manufacturers (Nascimento, et al, 2018). In his 2012 law review article, Risch examines the evolution of a legal doctrine governing subject matter patentability known as the “Machine or Transformation Test,” incorporating the X Patent records currently available for comparison with later practices. Two other studies measured the influence of patent systems and innovation (Moser, 2005, 2013). A recent National Bureau of Economic Research paper analyzed six large-scale databases of patent information, including the elusive X Patents, and explained the importance of matching particular research objectives with varying content features and limits of various data sets, such as incomplete or conflicting data. Author Andrews (2020) notes

“Historical patent data have become an increasingly valuable tool for scholars of innovation. The use of historical data provides more opportunities to exploit natural experiments as well as to track the long-term effects of innovation policies.”

If more complete data from the Lost Patents could be examined, future scientometric analyses of patents in the early years of the American Republic would be more accurate and complete. Who were the most productive inventors? From what areas? What areas of invention were the most prolific in which periods? How did the content of patents (specifications, drawings, etc.) evolve over time? What policies and practices in education, communications, science and technology, and social history are associated with strong innovation and progress?

Landing My First Wild X Patent

I wasn’t in a museum, a patent library, or logged into the USPTO PatFT database. I was just passing the time in a bookstore waiting to drive my daughter home at the end of the day in Cheshire, CT. Having perused the Adult “New Books” display, I wandered into the children’s department. On a display rack, I saw a nonfiction book about the invention of pineapple cheese. The concept sounded revolting, but, as a patent librarian, I had to pick it up. It told the story of a long-ago farmer in Norton, Connecticut, who got a patent for his invention of pineapple cheese. I don’t recall it saying much else. The town of “Norton” was unfamiliar among the names of Connecticut’s 169 towns. A government reference book had no listing for a current or historical village of “Norton.” Then I remembered a farm a short distance down the road from my daughter’s school: the Norton Brothers Fruit Farm—a great selection of apples, but no cheeses. The Connecticut Patent Project, a project of the Museum of Connecticut History and the Connecticut State Library, had some cheese patents with some Nortons, but no mention of pineapple cheese or appropriate patent numbers. There was, however, tantalizing mention of the town of Litchfield. I crossed my fingers and searched “pineapple cheese” one more time using

4 “Scientometrics” has been described as “the study of science, technology, and innovation from a quantitative perspective by modeling and measuring these developments” as represented in output indicators such as patents (Lydesdorff & Milojević, 2012).

5 The Directory of Antique Tools and Machinery Patents (http://www.datamp.org/), approximately 70,000 patents, primarily U.S. (including X Patents), and some from the Confederate States of America, Canada, and Europe.
Yes! Not one, but two items pertaining to the mystery pineapple (a.k.a. pine apple) cheese, direct hits at the Litchfield Historical Society, just a short ride north from my home, with details in the museum’s online catalogue. I was honored and privileged to be able to examine the parchment patent at the museum and see the invention, full-sized, located at the Goshen, Connecticut Historical Society.
Figure 9

_Pine Apple Cheese Mould (full-size), in Collection of the Goshen, CT Historical Society_

Figure 10

*Broadside Advertisement for Pine-Apple Cheese.*

*Note:* Text suggests serving the cheese at the dinner table by scooping cheese from inside the hardened cheese shell and offers a silver-plated scoop for 50¢ (Mangan, 2020). In the public record.
Other pieces of the Pineapple Cheese story are found in reports of the Connecticut Agricultural Department, town histories, and contemporary advertisements and articles in periodicals. Many references to patented items, including Pine Apple Cheese, can be found in various open digital newspaper, magazine, and book collections, such as HathiTrust Digital Library (https://www.hathitrust.org/) and the Internet Archive (https://archive.org/). The Library of Congress’s “Chronicling America” historic newspaper collection (https://chroniclingamerica.loc.gov/) represents all 50 states, the District of Columbia, and Puerto Rico.

As a festive item for the dinner table, the cheese was a centerpiece, placed on a specially designed stand, opened with decorative cuts, a silver knob to attach to the cut-off top (Pine-Apple Cheese. Victorian Passage into Time, 2014). The Pine-Apple Cheese invention had a long shelf life, producing nearly 70,000 Pine Apple Cheeses in 1889. But as costs rose in Connecticut, the Norton family moved to western New York state, eventually selling the cheese operation to Kraft Foods, which continued to sell the products until 1931 (Mangan, 2020), an example of the commercial and geographical evolution of inventions.

General information about social customs of the time can be revealing as a fuller picture of the cultural relevance of the invention. Images of the unique pattern of the pineapple fruit in Early American life are commonly found in furniture, entry door woodwork, even gravestones. Access to tropical fruits required access to port cities and the wealth to purchase imported goods. Thus, the pineapple pattern was a message of wealth and a message of welcome, putting one's best foot forward for guests. Locally made cheese, shaped like a pineapple, would have been a practical alternative, more widely available, more readily preserved, and less expensive. This is borne out by the many classified advertisements of new shipments of Pine Apple Cheese in that can be found in newspapers of the early 1800’s across the settled parts of the United States.

**Other Recent Recoveries of Lost Patents**

Only by finding original Lost Patents “in the wild” — not yet restored to the USPTO PatFT database—can the rich data potential of these early patents be incorporated in our understanding of innovation in early American life. In 2004, two young lawyers researched Samuel Morey, the first New Hampshire patentee, and found a reference to Dartmouth College concerning his patents. They eventually found fourteen previously unknown X Patents in the “Special Collections” of the Dartmouth College Library. (Riordan, 2004). More recently, in addition to the Pineapple Cheese patent previously discussed, I have found a number of original Lost Patents in the archives of Dartmouth College, Yale University, Princeton University, Cornell University, the Connecticut Historical Society, and the New York City Historical Society. A systematic and persistent effort by patent librarians using today's tools can benefit patent history and analysis significantly.

**What Librarians Can Do**

Patent librarians have the knowledge, tools, and skills to take on the challenge of building a more complete historical record of the people whose innovations moved the United States forward. In addition to familiarity with the various patent-specific databases, they have strong professional connections with archivists and researchers via the Rare Book and Manuscript Section (RBMS), the Science and Technology Section (STS), and the University Libraries Section (ULS) of the Association of College and Research Libraries (ACRL), a division of the American Library Association. Academic library publisher Elsevier has developed a free “Research Data Management Librarian Academy” online program (https://rdmla.github.io/). These skills can enhance the value of patent librarianship in general and X Patent research especially. Partners in the RDMLA program include several highly regarded research universities, as well as Simmons University, with a leading Library Science program.

The inclusion of the earliest patent data in the official records of the USPTO has been difficult. However, it is important in understanding the role of innovation in the history and development of the country, as ownership of intellectual property became established as a right of the individual, not generosity of a monarch. Whether a library serves the academic community, historical museums and archives, or simply curious independent researchers, its patent librarian’s outreach and instructional programs should...
draw attention to the unique information contained in X Patents and the tools with which to connect this with broader topics of interest. This can help researchers find, interpret, and report the records accurately. A brief guide to X Patents could help users polish these details, such as confusion among the elements of the application, the specifications, the drawings, the models, the grant, the restored copies.

The greatest challenge, and a very satisfying contribution for patent librarians, may be to make documentation of the X Patents more complete by discovering remaining Lost Patent elements “in the wild” — in a collection, archive, museum, library, or forgotten corner — and securing the records for researchers of the future. Despite the almost 200 years that have passed since the fire, Lost Patents continue to be found in the wild and made a part of the USPTO records.

Finding the Lost Patents for the First Time

Locating an original Lost Patent (records of one of those incinerated in the 1836 Patent Office Fire) is a milestone in a patent librarian’s career. While mastering the basics of field searching in the patent database of the U.S. Patent and Trademark Office, a patent librarian hears whispers of the mysterious X Patents, their unusual numbering system, and the files containing old-school images of strange handwritten documents. Now with the assistance of a range of finding tools online, it is feasible and valuable for patent librarians to bring this information into the purview of scholarly research and build a more complete understanding of our history of innovation.

Having scrolled online through the standard-formatted pages of modern digital text patent files, the researcher will be awed by the artistry and history of original early American patent documents. Patents from the years 1790 to 1836 are known as “Presidential Patents,” bearing the signature of Washington, J. Adams, Jefferson, Madison, Monroe, J.Q. Adams, or Jackson. For the first three years of the Patent Office, inventors petitioned the Secretary of State, the Secretary of War, and the Attorney General (the “Commissioners for the Promotion of Useful Arts,” also known as “the Patent Board”) for review. The President could then grant the patent. (“An Act to promote the progress of useful arts.” Sec. 1, April 10, 1790.) This procedure was revised in 1793, removing the Secretary of War from the patent process. (“An Act to promote the progress of useful arts; and to repeal the act heretofore made for that purpose.” Sec. 1, Feb. 21, 1793.) Sometimes, one or more of the lesser office holders signing a patent progressed to higher office.

These statutes also directed that the seal of the United States be affixed to the granted patent. Early patents were partly or entirely manuscript, written on parchment sheets that were tied together with colored ribbons, with ends affixed under the wax of the seal, a standard method of ensuring that pages were not removed, added, or substituted, the “Ribbon Patents.” Two copies were made, including the inventor’s signed petition for a patent, a detailed description of the invention known as the “specifications,” and drawings of the invention. One copy was retained by the Patent Office (and thus destroyed in the 1836 Patent Office fire); the other was given to the inventor (sometimes without the specifications). See Lutz, K.B. (1937), for details of the terminology used and contents required for the parts of the patent.

Unfortunately, each of these “art” components on these original patents makes them of great interest to thieves. By including these headings or descriptions in online records, archives and libraries inadvertently facilitate the theft or vandalizing of these irreplaceable official documents.

Animadverto

To find the forgotten “Lost Patents,” a researcher must adopt the mindset of animadverto to recognize the clues leading to a missing original Lost Patent. This is when keeping a weather eye wins the day, allowing the searcher to spot something

6 Thieves can search databases, too. They bring razor blades to cut out easily concealed pieces of the patent with the greatest value, the original signatures of presidents, inventors, and other historical figures.

7 from Latin animus (the soul) + adverto (to steer toward), meaning to turn the mind towards, to pay attention, to take notice, etc.

8 a nautical term meaning “to be on alert,” “to be on your guard,” and to have the ability to recognize quickly signs of change, as in the weather. It is encountered in nautical literature such as Melville’s Moby Dick, as well as modern day situations on land or sea, indicating a need for situational awareness and attention to unexpected changes such as weather. See entries in Oxford English Dictionary.
unexpected that might lead to patent history. Quite often the items have been forgotten in general collections, and the researcher will need to triangulate on a possible location using a variety of tools and clues. This means being open to incomplete or misleading clues (alternative spellings, wrong dates, archaic place names, antiquated legal terminology, etc.) as to an Early American inventor and/or patent, organizing whatever information is available in a retrievable manner, and mapping the information to identify places to dig deeper. Thereafter, shuffle the clues in the mind to identify patterns, connections, or re-interpretations.

Like the heroes of the great detective and spy stories, one may not know what one is looking for initially, but it is critical to be aware when something seems out of place:

- something of a different design or material than expected;
- something whose purpose cannot be deciphered, is incongruent with its location, or seems to have been repurposed, e.g., a heavy object used as a paperweight or doorstop, a large piece of harness or cart used as an art frame;
- something designed to function with an older power source or technology;
- something that does not mesh with modern social customs or lifestyles.

The first clue that an Early American invention may have been patented might be seen in an unexpected, perhaps unfamiliar place:

- old newspaper stories or advertisements, perhaps in family scrapbooks, perhaps reproduced long after the invention;
- vintage displays in homes, stores, town halls, churches;
- mentions in long-forgotten letters, diaries, or business records stored in attics, stores, factories, barns, as well as museums and published collections;
- items (even parchment Lost Patents) offered for sale on websites such as E-Bay or at collectors’ meetings;
- vintage tools or manufactured products imprinted with numbers, dates, or code words: “patent,” “patented,” “pat app,” “Pat. Pending,” etc.

Newspapers and popular magazines, yesterday and today, are filled with valuable information, but should not be considered the final word on inventions. The better publications make some effort at fact checking, but its extent can be quite variable. Sometimes, the wording hints at the lack of first-hand knowledge, such as “M.M. was seen operating his hoverboard downtown last week, easily flying over potholes and across park ponds.” Dated 1985, this hypothetical report leaves out the crucial fact that this was seen by movie goers viewing the film Back to the Future. Maybe in fifty or one hundred years, hoverboards will be commonplace. Sadly, although “hoverboards” are sold online through Amazon today, those do not match the feats referenced in the film, and no patent for Dr. Emmett Brown’s invention can be found.

This is the challenge for inventions referenced in newspapers of long ago. In addition to stories and advertising that were simply untrue, there are also vague but not inconceivable stories that cannot be supported by any independent evidence, including patents. A good example of this problem is Dr. Apollos Kinsley, a physician, who actually was awarded several patents during the time of the Lost Patents:

- Bricks, manufacturing of (Feb. 1, 1793)
- Bricks, tempering mortar for and making of (Dec. 20, 1795)
- Printing press, improvement in a (Nov. 16, 1796)
- Pump, universal (Oct. 28, 1799)
- Tobacco, improvement in cutting (Aug. 12, 1797)

An article in American Review and Literary Journal (1801), “New patents, inventions, and discoveries”, reported 12 inventions by Kinsley and ends with the following caution:

As no patents have been obtained by Mr. K. for several of the above-mentioned inventions, we forebear giving a more particular description.
of them at present. We are indebted to the inventor, a man of truly original genius, for the foregoing account.

Kinsley’s printing press invention used steam power, and steam power was certainly being applied to many endeavors at the time. There were also newspaper reports that Kinsley had used a “steam engine of his own design to power a makeshift steam-wagon along Main Street in Hartford in 1797.” (DeLuca, 2016). The steam-wagon story makes a great connection with other steam power inventors of the time: Fitch, Stevens, Fulton, and it has been repeated for over 200 years, especially in Connecticut sources. However, no substantiating evidence or steam-wagon patent has been produced. The complete and foggy record of that “invention” would require an entire research project of its own, but seems unlikely to lead to a Lost Patent.

**Mentioned in Passing**

A reader for pleasure or professional interest may come across a description of an inventor or invention from the X Patent era. Is there mention of a geographical area? A patent? Taking note of the information and checking with sources in the location may reveal additional details. If the inventor’s name or location is still missing, a search of the guides may identify a likely patent by using a description of the invention.

Besides the regular training and professional reading that patent librarians do, get to know in depth a part of the patent terrain of personal interest: a historical period, a geographical area, a field of invention, etc. This narrows the focus and highlights possible areas (locales and topics) to search. Keep a paper or digital notebook to record leads for further inquiry and research.

**References in Histories, Textbooks, Journals, Letters, or Newspapers from Long Ago**

These were not written to document a patent, but may point in a new direction for research. For example, a social or business letter in a family archive may mention that a patent has been applied for or granted. A newspaper may describe a demonstration or contest involving some new technology. A textbook may discuss the newest engineering or scientific tools. An advertisement in broadsides or newspapers may describe the patented item and provide the inventor's name and location.

To support patent history research, a library also should subscribe to databases with extensive digital collections of historical newspapers such as ProQuest Historical Newspapers, America’s Historical Newspapers (Readex), Gale Newsvault, Newspapers.com. Advertisements for patented products, news stories about inventors and inventions can be a starting point for a Lost Patent search.

“FultonHistory” ([https://www.fultonhistory.com/](https://www.fultonhistory.com/)) is a free, hand-curated collection of archival material from towns both big and small primarily across New York State and parts of Canada ([https://fultonsearch.org/](https://fultonsearch.org/)). In addition to newspapers, the site curates some business records, old photographs, court records, etc., potentially relevant to historical patent research, especially with connections to those entities. The results list is glitchy due to optical character recognition (OCR) errors, but scanned articles are acceptable. Focusing on books rather than articles, Project Gutenberg ([https://www.gutenberg.org/](https://www.gutenberg.org/)), has some interesting titles pertaining to specific inventors and inventions, such as steamboats, firearms, patent medicines, tools, mechanical devices, decorative arts, gravestones, furniture, and household implements. Local historical societies may be able suggest other local digital archives.

**Patent Trail Markers**

Exploring a park or a city may reveal “trail markers” left by those who’ve gone before and guiding to points of interest. In the case of patents, look for mentions in a book, periodical, website, or (sometimes) an actual trail marker commemorating an invention or inventor from the X Patent era. The *Patentee’s Manual* and the *Digest of Patents* provide some basic information about early patents (inventor, date, city, state, and type of invention). A very valuable alternative is the *Journal of the Franklin Institute and American Mechanics’ Magazine* (originally separate journals) which reported on new patents in greater detail, both American and British. The earliest copies I’ve found (HathiTrust and Internet Archive) are from 1825.

These trail markers point to likely locales where a Lost Patent might be found, typically
organized archives in universities, state libraries, historical museums, and records held by the inventor’s family or business. Inquiries there may direct a searcher to another location. Before a trip to the archives, review the recommended approach in the section “Going to the Archives,” p. 27, below.

**Mapping the Lost Patents**

The search process is slow (although text searching is available), reading each monthly report up until the Great Conflagration, taking notes, and cross-referencing with other sources. However, both these publications have stood the test of time, whereas mentions in advertisements and self-promoting news items can waste a lot of time. Finding supporting information from multiple sources would be ideal. While *Scientific American* was and is an excellent periodical, its Vol. 1, Issue 1, did not publish until 1845, well after the Great Conflagration. Keep it in mind when researching patents granted after 1844.

Is there explicit mention of a patent? Take note of the information and check with a local museum, historical society, or library and the guides mentioned for the locale of the inventor. Then search the USPTO PatFT database to look for a matching entry. Date or Date Range searches are an efficient way to start, with less likelihood of mis-transcribed optical character reader content or missing data. If it’s there, then it’s already been restored. Share that information with the people knowledgeable about the inventor or invention. If not, it’s a “wild” X Patent. In either case, put it on your list to look for the original in an archive. Even when there is a USPTO copy, searching out the original can still be valuable because many of the early copies are incomplete or difficult to read.

**Casting the Google Net**

Despite the enormous power and reach of Google Patents, this can only be an adjunct for X Patents at present. Because these files are manuscript, very old style, good potential hits can be missed (as when a search involving the town of Woodbury mistook the first part of quill pen script “W” as back slash – forward slash – Woodbury and thus omitted it from the results list). OCR error and similar mis-transcription of manuscript letters, sometimes even old-style typefaces, can cause even an exact word search to miss a good result. These limitations should be taken into consideration, especially in historical research. That said, the big net may pull in something that would have escaped otherwise, or light a patenting niche that was unfamiliar.

**When Words Fail**

**Patent Models**

For many years, both before and after the Disastrous Conflagration, patent applications were accompanied by working models, helpful in understanding an inventor’s design, and also allowing identification of improvements made by in a subsequent application. Although all the USPTO patent models prior to 1837 were lost in the fire, researchers can obtain a similar benefit by locating a duplicate model or production version of the invention available. Some collections are dedicated to patent models, such as The Blair Patent Model Directory at Franklin Pierce School of Law, the Hagley Museum and Library, and the Smithsonian (“Inventing in America,” “Inventive Minds,” and “Places of Invention” exhibitions). Some patent models can be viewed on the websites of these collections. Occasionally, patent models are displayed at the National Inventors Hall of Fame in the USPTO.

In addition, the Rothschilds’ private patent model collection is now at the Hagley Museum and detailed in their book. (2016). A model submitted of James Riley’s patent “Improvement in the Manufacture of Suction Hose for Fire Engines, &c” (issued Feb. 6, 1833) can be viewed at the Hagley Museum Patent Models Exhibit online [photographs](https://museumcollection.hagley.org/objects/48140), or in person when open. Museum notes show dimensions of 17 ½” x 2”; media bronze and leather; location given is Boston, MA. Compare this object to the drawing in the USPTO PatFT database. Annotations provided by the Museum make the connection to the X Patent files easy, providing the number, the patentee (James Riley), other patents noted, a location (Boston, MA), and the date — about 2 ½ years before the Disastrous Conflagration of 1836.

These are all clues to the possible location of an original Lost Patent (and additional information about the inventor and invention). This one is already restored and available in the USPTO’s PatFT database. PTRC librarians should be able to track this using the information above, taken from the museum display.
Remember to change the years for the search to go back to 1790-present (entire database). Since these are only indexed by name and date, search one of those fields using the Quick Search tool and field formats required. If you’d like to check your results, the X Patent number is shown in this footnote. Consider where you might seek out additional information about this inventor, related inventions, etc., such as:

- Fire-fighting equipment: What could be learned at a museum or library specializing in fire-fighting equipment? Are there any helpful firefighting history reference materials or websites?
- What collections in the Boston area might have more information on this?
- Does the name lead to any biographical information?
- What was the market and competition for this invention?

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9 Riley, James. (Feb. 6, 1833). “Improvement in the Manufacture of Suction Hose for Fire Engines, &c”. (U.S. Patent No. 7,413X), Figure 12
Figure 11

Journal of the Franklin Institute, 1826

Note: Downloaded from HathiTrust. In the public domain.
Note: This type of flexible coupling with which to draw water using the pump on a fire engine is of the type described in the records of the Great Conflagration. USPTO PatFT image, in the public domain. Additional information from the Riley X Patent documents includes the names of two witnesses (Isaiah? W. Davis, Patrick Riley – a relative?), and a third name, possibly the scrivener or lawyer ([illegible] Woods).
Of course, all of the patent models submitted with the X Patents were turned to ash in the Great Conflagration, but views of those from the years following give some understanding of the nature of the models, accompanied by an official USPTO tag, seen on many of the images of patent model collections noted previously. Subsequent fires at the USPTO further diminished the number of models. After the practice of including models with patent applications was eliminated, the storage of models became burdensome, and many were sold to private collectors, with others being disposed.

Other exemplars of patented inventions are, of course, the invention itself, which may be incorporated in various museum exhibits. Smaller, local museums may not have staff familiar with the X Patent history and can benefit from the expertise of patent librarians in connecting an item in their collection with this part of American history.

**Training the Mind’s Eye**

Studying carefully curated invention collections helps to train the eye to see the details of invention. Some highly regarded, well-researched collections include the Hagley Museum (Wilmington, DE), the Smithsonian Museum of American History (Washington, DC), D’Elia Antique Tool Museum (Scotland, CT), New Britain Industrial Museum (New Britain, CT), American Precision Museum (Windsor, VT), John Deere Historic Site (Grand Detour, IL), John Deere Tractor & Engine Museum (Waterloo, IA), and The Henry Ford Museum of American Innovation (Dearborn, MI).

**Matching Invention Exemplars to Patents**

Try searching websites or magazines featuring “collectible” antique items, such as typewriters, vintage toys, musical instruments, etc. Flexing one’s patent searching skills can identify a corresponding patent. Once fluent, patent librarians should offer to assist staff in locating a pertinent patent in local and more generalized museums and historical societies, and perhaps get the chance to explore their archives. For example, the Arnold Zlotoff Tool Museum (South Hero, VT) is a large New England barn converted to house an immense collection of antique tools, vaguely sorted by type. They are quite appreciative of any help in identifying and enhancing the items with background information on inventions.

**Where to Begin A Search**

When scouting in the wild, become familiar with the habitat where that object is found and the paths that lead there. Where are the natural habitats and keepers of yet-to-be recovered legal documents? Historical societies and museums, local, state or national; universities; government archives; collectors; research institutions — but which ones? Patent documents may be found close to an inventor’s home territory: residence, school, but also near the business, factory, raw materials supply, installation site, descendants’ homes. Beyond the inventor’s personal connections, there seems to be a fan base for nearly every sort of antique, whether simple or complex, and the related documents are of great interest to the researcher, the hobbyist, the scholar, and the investor. The *Chronicle of the Early American Industries Association, Inc.* [EAIA] is a periodical dedicated to a wide range of early technology, including patent information. In addition to scholarly articles, there are meetings, conventions, and auctions listed. Of special interest to researchers, there are notices of grants for research endeavors (updated information on grants available on EAIA website).

**Clues on the Ground**

Before the Great Conflagration, twelve additional states (Vermont, Kentucky, Tennesse, Ohio, Louisiana, Indiana, Mississippi, Illinois, Alabama, Maine, Missouri, and Arkansas) had joined the Union, an indication of the westward expansion of the American nation. Scanning for potential X Patents should definitely include all the areas that had achieved statehood before the Great Conflagration. Get acquainted with the historic sites and museums near home, work, or travel. There are quite likely one or more museums dedicated to the items being studied: musical instruments, farm tools, household items, machinery, weapons.

Published lists of patents from the first years of the Patent Office give the name of the patent, the name of the patentee, the patentee’s residence, and the date. In the Digest published after the fire, patents are grouped into 22 broad classifications, then listed alphabetically by title. This can be a way to frame research, by finding a type of invention on which to focus, perhaps one relevant to a subject of interest for subject specialists.
Figure 13

Patents for washing machines by classification.

Note: This page from a publication listing patents from 1790 to 1839 illustrates the large number of inventions described as "washing machine." A Digest of Patents, Issued by the United States, from 1790 to January 1, 1839, p. 407. In the public domain.
A discussion this author had with a curator of Hyde Log Cabin and Schoolhouse Museum in Grand Isle, Vermont, is illustrative. She asked about the function of a medium beer-keg sized barrel on a spindle with a crank handle. I said, “washing machine;” she said “churn.” Little did we know it could be both!

Use the ArchiveGrid Force

Diving into the search for the missing X Patents should include OCLC’s ArchiveGrid to seek out possible caches of Lost Patents. From its beginnings in the 1990’s the ArchiveGrid project of OCLC has grown in size and sophistication, with goals for archive searching similar to the WorldCat service for library holdings. Currently, about 1,000 institutions worldwide (libraries, museums, historical societies, etc.) are represented, representing over 5 million collections in the United States. Recorded webinars are available online to get familiar with the special organization of archive records and research ([https://www.oclc.org/research/areas/research-collections/archivegrid.html](https://www.oclc.org/research/areas/research-collections/archivegrid.html)).

Start by scanning the search tool’s features ([https://researchworks.oclc.org/archivegrid/](https://researchworks.oclc.org/archivegrid/)). Then take a practice dive with an inventor or invention or patent of interest and explore the kinds of results returned. Speak to an archivist for guidance on specific archives and recommendations of others.

Going to the Archives

As useful as are the digital tools in getting to the next step in this search, it is still necessary to travel to the relevant archives and examine the documents first-hand. Archive catalogues are seldom sufficiently detailed to be certain of the precise item referenced. Each page of a potential patent, as well as related documents filed with it, should be examined. Generally, documents are kept in protective containers, ranging from folders to boxes, to groups of boxes, organized in groups by theme (person, dates, publication, events, locations, etc.). Large documents, such as drawings or patents, may be in special folders or in flat storage boxes. Sometimes the description is quite general, such as “Hampton Family papers, George Hampton and descendants, including letters and business records, 1873–2001.” Sometimes additional details will hint at the possibility of patents, such as “records of development of widget for marble quarrying, including drawings” or “legal papers concerning widget.” Occasionally, the word patent will be used in the description of the contents. The only way to discover if documents of an invention and perhaps a patent exist is to review each document, carefully. (See details of access to archival materials, “Searching the Archives”, following.) Keep in mind that other items in the collection may give additional clues as to a possible location of the actual patent, such as a diary entry, a bookkeeping entry, or family genealogy.

The footprints of X Patents might be found in advertising and references in archival collections of contemporaneous newspaper accounts, letters, diaries, artwork, government reports, court records of probate or civil suits, commercial transactions, perhaps subsequent patents claiming to remedy a shortcoming in an earlier invention. These documents can be numerous, small, fragile, difficult to catalogue.

One cataloguing issue is the multiple meanings of the word “patent” as used in historical documents. We are, of course, interested in patents of inventions, sometimes referred to as “Patents (inventive).” However, a conveyance of government-owned land (which includes land claimed by monarchs and land claimed by national, state, or colonial governments) is also called a patent (sometimes listed as “Patent (land)”). And when an individual is promoted to a high military rank or specifically commissioned to undertake a military expedition by the head of the government (corresponding to state or federal military units), that is also known as a patent (sometimes a “Patent (military)” or “Patent (commission)”). Some archive catalogues use the single term “patent” for all of these documents. This is complicated further by the effect this has on keyword searching in archive catalogues, valuable in picking up the occurrence of the word “patent” in the detailed information in a broad catalogue entry, but cluttering results with hits pertaining to the other two meanings. There is no substitute for a close reading of the records. Their value may not be recognized; or, when recognized, may be a reason for keeping them hidden, especially in understaffed, underfunded institutions or private collections. Thieves hoping to cash in on the signatures on the early patents appreciate time-saving subject headings such as “Autograph Collection” and “Presidential Patents”.10 Recommended archival security procedures provide guidance on this issue. See “Preservation Education and Advocacy,” pp. 28-29.

10 Lost Patents, under the earliest patent laws, included signatures of the President, the Secretary of War, the Secretary of State, and the Attorney General. In some cases, lower-level office-holders later advanced to higher offices, such as Thomas Jefferson (first Secretary of State, later President. Early patents include the signature of the inventor, sometimes famous in his or her own right, e.g. Eli Terry, Jr. and Seth Thomas.
The good news is that trained, experienced patent researchers and historians have the background knowledge and search experience to pick up the trail of a Lost Patent. Even though nearly two hundred years have passed since the destruction of these earliest American patents, additional Lost Patents not previously incorporated in the USPTO database are still being found “in the wild” and made available to the USPTO.

**Searching the Archives**

Before beginning the hunt for a Lost Patent in archives, in the wild, not yet incorporated in the USPTO database, become familiar with the expectations of each museum and archive to be visited, and meet or exceed these standards. First, these are parchment documents, much sturdier than paper, but also very difficult to repair if dirtied, cracked, or otherwise damaged. Before traveling to a place to see, perhaps photograph, and transcribe information for future reference, call in advance to speak with the person in charge. They may be able to send guidelines for the use of the archive before making the trip. The archive’s hours may be more limited than the library, museum, or other institution where it is located. Ask for specific directions for parking and the location of the archives, which may have a separate entrance or building from general collections.

Some archive locations are quite small, with space for only one researcher at a time; others are large open rooms with multiple tables occupied by several researchers. It is prudent to reserve a time at the archive, and many archives have extensive security policies, limiting what outerwear and personal items may be taken into the archives area, requiring identification, registration, and a badge to be worn. Upon arrival, be sure to leave unnecessary accoutrements in the car or in storage spaces available at the archives (sometimes lockers). Present a professional card, along with any other identification required to the staff person on duty and let them know with whom the research plans were discussed. A well-run archive collection will have strict rules intended to reduce the likelihood of damage, destruction, loss, or theft of an item in the collection. It is common to limit the number of items be examined at one time, in part to avoid damage from crowded workspace and in part to reduce the risk of misfiling items. These procedures are quite different from a lending library. Come prepared to learn, follow the archives requirements, and cooperate with the local procedures. The research appointment will be more welcome, efficient, and productive.

Traditionally, archival materials were handled only while wearing cotton gloves, due to the damage that can be caused by dirt, natural skin oils, and hand lotions of the user. I suggest that you purchase a package of a half dozen or more pairs of archival gloves (Gaylord Archival offers white cotton and nitrile models, among others) and bring at least two pairs with you on each archive visit. Being prepared evidences an appreciation of the special handling requirements for archival materials. Many institutions will provide their preferred gloves, if any are to be used. Upon arrival, ask the person in charge where to wash hands (there will often be particular procedures and products required) and whether the archive prefers that archivists’ gloves be worn. Although some institutions may use this technique, the Northeast Document Conservancy Center (NEDCC) recommends against gloves due to the possible loss of tactile dexterity that might lead to a finger catching on the edge of a page and tearing it or the gloves’ transferring dirt from other items. Instead NEDCC (2021) recommends that users wash and dry their hands thoroughly immediately before handling an item and thereafter as dirt is picked up, and before handling a subsequent item.

**The USPTO X Patent Collection**

Some of the X Patents mentioned earlier have already been incorporated in the USPTO PatFT database and are accessible online. These can still be interesting to examine, but the best contribution will be to find more of the missing. Start with patents from the period 1790 through 1836 in the USPTO PatFT database. It would also be interesting to explore U.S. patents from the same time frame returned in a Google Patents search.
First page of X Patent search by dates

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<tr>
<th>PAT. NO.</th>
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It can be quite a slog looking for a person or place of interest in the X Patent files, with many patents of interest missing. The task is made somewhat easier using the digitized historical books with lists of all then-known patents of that era, with names, cities, states, title, and sometimes elementary classifications such as The Patentee's Manual (written before the fire by William Elliott, a former Patent Office employee) and the USPTO’s A digest of patents, issued by the United States, from 1790 to January 1, 1839. These patent digests also included alternative classification systems, which have been used by some researchers creating specialized patent databases that incorporate some X Patents, such as the Connecticut Patent Project. If possible, examine a copy of Derwent’s Early Unnumbered U.S. Patents, 1790-1836: Index and Guide to the Microfilm Edition, explore that as an alternative X Patent navigation tool. Keep in mind that no official list of patent applicants or patents granted prior to the 1836 fire exists, however, so gaps and errors are likely.

Additional Lost Patents have been submitted by researchers but have yet to appear in the PatFT database. I was advised by a USPTO staff person that high-quality TIFF files are required for entries on the PatFT database. Most archives have an in-house camera and procedure for producing these images, generally with fees attached. I have not found a specific portal or procedure for such submissions to the USPTO website. With the appointment of a staff historian for the USPTO, Adam Bisno, a more regularized procedure for the submission and publication of newly identified Lost Patents should be developed. With the advent of digitization of texts, the corresponding text searching and statistical analysis, and access to related contemporary records, now is the time for the recovery of these missing parts of our patent history to receive a higher priority.

Documenting the Wild X Patent for Your Research (and the USPTO)

If possible, take photographs from a number of angles of the item in question, including display labels, if any. Be mindful of the varying policies on photography of collection items and ask permission first. It may be helpful to come prepared with a summary sheet on which to record the information obtained and the sources of that information, as well as a record of permissions granted for any photographs, including possible publication rights, if the image may be for publication. Be aware that larger, more formal libraries and collections may have detailed policies and procedures for obtaining photographs of an item. Some offer camera supports to facilitate users’ photographs. Most are able to produce high-quality scans and TIFF files, for a fee. Ask for contact information that could be relayed to the USPTO.

Preservation Education and Advocacy

The actual X Patent documents are unlikely to be on display. Written on parchment, stiff with age, with ribbons and seals, these are not the two-dimensional papers of more recent patents. Parchment, a prepared animal skin, has been used for written documents that have survived since as long ago as 5th century B.C.E. (Kwakkel, n.d.). However, as an organic material, parchment can absorb moisture, buckle, and host colonies of mold and fungus. Light
exposure can fade the text and drawings (Book and Paper Group, American Institute for Conservation). Insect damage can also occur. (Norman, 2020). The ribbons can fray or crack; the wax seal can break or peel from the page. Thus institutions possessing an X Patent should adopt protocols to preserve the document, usually kept out of sight of the general public, in an archive.

Unfortunately, the goal of some “researchers” is “collecting” the “autographs” or perhaps the impressed seal of the United States found on the original Lost Patents, using a razor blade. In one busy archive that I visited, I found several Lost Patent documents mutilated in this way in the archival box that had been delivered to me. When I brought this to the attention of the staff person assisting me, she just shrugged her shoulders. Even if staff believe that nothing can be done to remedy the damage, experts recommend action as soon as damage or theft occurs to track the nature of the damage, the names of persons who had had access to the materials, and the date first noted. It is possible that the information could lead to the culprit. The sponsoring organization and the professional community should be made aware of the incident(s). There may be an insurance policy covering the damage, and the insurance company’s security team may be able to recover stolen items. The sponsoring organization may decide to invest in better training, equipment, and policies to prevent future such incidents.

Most adults have observed, in ourselves and in others, the challenge of weighing a potential hazard against the difficulty of implementing a strategy to address the hazard. An important role for patent librarians is as leaders in preserving and protecting the resources in our care. One way to support this part of our mission is to share resources on preservation strategies, especially for smaller institutions that don’t have in-house experts. Some matters are unique to archival materials, but others cross the boundaries of various cultural institutions. A collaborative event could spread the cost of presenters and production and distribution of print or electronic resources. Some basic resources include:

- International Foundation for Cultural Property Protection [offers excellent online training programs as well as speakers for events].

Also, plan some “Preservation Week” (in 2021, April 25–May 1) events that would support museum and archive institutions. Share program ideas and free resources, including those online with ALA CORE, now incorporating ALCTS. (http://www.ala.org/alcts/preservationweek).

**Conclusion**

In the twenty-first century, powerful resources and tools that make the recovery of more of the Lost Patents feasible and the scientometric analysis of the information contained therein manageable. The social, technological, and economic intellectual property experience in the early years of the United States is being used today to assess the effect of governmental policies on innovation and productivity. By applying the knowledge and skills of patent librarians and archivists and supporting this as a USPTO priority, more such patents can be recovered, made available for study, and records of an important period in American history be preserved. And it’s always possible that an X Patent could be “prior art.”


[Brief note], (1837, August 3). Staunton Spectator and General Advertiser [Staunton, VA], p. 3, col. 3. https://chroniclingamerica.loc.gov/


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