Andrew Cernota '02 and Scott Asmus '97

PATENTS

The earliest U.S. patents went up in smoke. But a few are still being recovered, even 168 years after the fire.

By Sabra Chartrand
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The X-patents are out there—it just takes a little faith and a lot of persistence to find them.

The Patent and Trademark Office has issued nearly seven million patents; the first 10,000 are known as the X-patents. They were issued from July 1790, when the United States patent system was created under an order signed by George Washington, to July 1836, when every one of them burned in a fire. Virtually every patent is available to the public on paper, microfiche, CD-ROM and the Internet—except the X-patents.

In the 168 years since the fire, only about 2,800 have been recovered. Over time, the appearance of missing X-patents grew fewer and farther between, so that now no one at the patent agency, which does not have an official historian, can remember the last time it happened.

Until this spring, that is, when two lawyers with a passion for patent history uncovered a clue to several important patents from the 1790's —including one from 1826 for the first internal combustion engine. Following the trail to Dartmouth College, they discovered inventor copies of 14 patents that had been written off as lost forever.

"We found them by accident," said Scott J. Asmus, a partner in the law firm of Maine & Asmus in Nashua, N.H., who found the documents with an associate, Andrew P. Cernota.

When they told the Patent and Trademark Office what they had found, the agency was immediately interested in adding the documents to its archives.

"This isn't something that happens all the time," Brigid Quinn, chief spokeswoman for the agency, said. "Our information service people, who keep track of this, were pretty excited."

In its first 46 years of existence, the Patent Office, as it was known then, issued the first patent received by a woman, and the first by an African-American. But all its records were lost when a fire gutted the building where the patents were being stored temporarily while a more modern, fireproof headquarters was under construction. There was a fire station right next door, but it was December, and in the frigid early morning hours the volunteer firefighters discovered their leather hoses were cracked and a pump did not work.

No copies of the patent descriptions and drawings were kept anywhere else, and only a copy of the official patent certificate was sent to the inventor. Patents were not numbered then; they were referred to only by name and issue date.

When the fire destroyed the originals, most of the patents seemed lost forever. Congress immediately passed a law allowing the patents to be reissued, and an effort was made to piece together the lost files. When the Patent Office began issuing patents again, it numbered them. Thus, Patent 1 was issued in 1837. As the patents lost in the fire were restored, they also were assigned sequential numbers starting with 1, and an "X" was added to distinguish them from the post-1836 patents. Some were recovered out of order, and when that happened, the recovered patent was given a fraction number, like Patent 127.5, to keep the patents in the proper sequence.

Reconstituting the patents is difficult because, in many cases, the patent office cannot even name the inventors.

"They lost everything in the fire and didn't know quite where to start," Ms. Quinn said. "There weren't any other copies. Even finding out who the inventors were was difficult when all the records here were destroyed."

Mr. Asmus and Mr. Cernota were researching Samuel Morey, who holds the first patents issued to a New Hampshire resident. Ms. Quinn describes him as the inventor "who arguably discovered the first internal combustion engine." Their search took them to Dartmouth's library.

"Somewhere along the way, we saw a reference to Dartmouth College library," Mr. Asmus said. "We were looking for Morey's patent on the patent Web site and couldn't find it. Then we saw something written about the patent in a handbook from the 1960's, and went to the library."

He and Mr. Cernota found references to Mr. Morey's papers in Dartmouth's online directory. They asked to see the documents, and knew they were real when they saw them, Mr. Asmus said. The two men found 14 lost patents at the library, 10 of which belonged to Morey. Apparently, his descendants donated the patents—among them, one for an automatic spit roaster—to the university sometime in the 1960's.

"We confirmed they were originals. They had big gold stickers and red stickers with wax on them," he said. Some of Mr. Morey's earliest patents were signed by George Washington and Thomas Jefferson, Mr. Asmus said. "Those people signed all the patents then. They didn't have the volume they have today."

The Patent and Trademark Office knows of some missing patents that belong to historical archives and academic institutions. Mr. Asmus said the same trail that led to Mr. Morey's patents has led him to about a half-dozen other lost patents in university and private collections.

"As we found the first set of patents in an old college, we figured that there might be similar patents in the other old colleges," Mr. Asmus said. "Sure enough, you can do an online search of the college library holdings and we identified at least a few others that describe 'letter patent' original prints" and were located in special collections sections.

Mr. Asmus is keen to recover the patents because he sees early American inventors as more than pioneers in their fields.

"As patent attorneys, technology is our bread and butter," he said. "These older patents represent a renaissance in engineering from the mid-1800's onward. An enormous amount of intellectual property and wealth was developed in that period. By 1850, the internal combustion engine existed that is still in use today.

"If you look back, technology today is standing on the shoulders of giants," he said. "We should recognize the contributions of those people. They did fascinating things with primitive instruments. Nowadays we just take existing technology and revamp it."

But Mr. Asmus's enthusiasm notwithstanding, Jim Davie, a patent examiner for 32 years and an agency history buff, said that the agency lost interest in filling the gap in its early records over the years.

"I thought it would be of at least historical interest to restore some of the lost patents to the P.T.O. records," said Mr. Davie, who is now retired, in an e-mail discussion of the X-patents. "Let's just say that I found such a lack of enthusiasm for restoration of lost patents that I did not deem it worthwhile to pursue. I have information, files, contacts, etc., that would probably lead us to be able to recover perhaps a couple dozen lost patents."

Ms. Quinn said the patent agency was "proud of its collection of nearly seven million patents, representing not only advancements in science and technology since 1790, but also the history of the American economy from its agrarian roots through today's information age.

"We are extremely interested in fully documenting this history," she added. "If Mr. Davie has any information that would help fill the gaps, we welcome it."