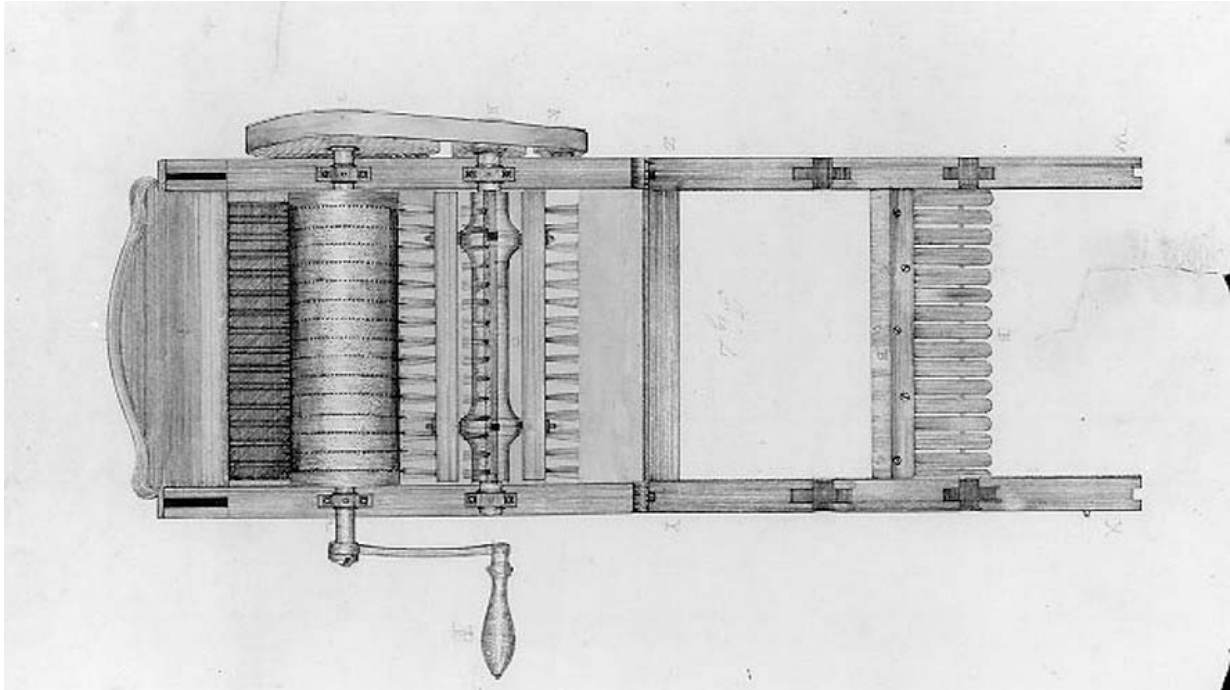


Time Machine (1870): The cotton gin and its inventors

By Scientific American, adapted by Newsela staff on 03.30.16

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A drawing of Eli Whitney's cotton gin, circa 1795. Courtesy of Textile Industry History. Original drawing by the United States Patent Office.

Newsela Editor's Note: This article originally appeared in the February 1870 issue of Scientific American.

An article recently published in one of our leading newspapers contained a casual mention of Eli Whitney. It called him the inventor of the modern saw gin, a machine that removes seeds from cotton. This was by no means a mistake. Very few people are aware of the fact that our modern saw gin is not Mr. Whitney's invention. It is, rather, an improvement upon it. The earliest cotton gin was merely a wooden barrel with wire teeth or claws running round it in circles. I have seen more than one of them.

The idea of the saw gin was borrowed from Ohio. Mr. Whitney sued the earlier inventors and manufacturers. He said they violated his patent, or license, to the machine. The earlier inventors claimed they did nothing wrong. One of Mr. Whitney's original cotton gins was in the possession of my father until some 15 or 20 years ago. It was ultimately lost at an agricultural fair in Georgia.

I have heard my father report many interesting facts as to the early history of the cotton gin. He learned these facts, in part, from people who knew Mr. Whitney. There are probably not a dozen other men living to whom these facts are known. It may be well to record them here before they are lost to history.

A Watch Delightfully Repaired

Eli Whitney, it is well known, worked for the family of General Greene at the time he invented the cotton gin. Whitney was also very good at fixing things. On some occasion, the watch of Mrs. Miller, who lived in the house, broke. She gave it to Mr. Whitney to repair. He performed the work successfully to the great delight of Mrs. Miller and the admiration of the whole family.

Soon thereafter, a gentleman came to the general's house to show some samples of cotton wool. He remarked that there was a fortune in store for somebody who should invent a machine for separating the lint from the cottonseed. Mrs. Miller turned to Whitney. "You're the very man Mr. Whitney," she said. "Since you succeeded so well with my watch, I am sure you have ingenuity enough to make such a machine."

After this conversation, Mr. Whitney confined himself to his room for several weeks. At the end, he invited the family to inspect his model of a cotton gin. It was constructed with wire teeth on a revolving barrel. But there was no way of throwing off the lint after it was separated from the seed, which jammed the machine.

Mrs. Miller, seeing the difficulty, seized a common hair clothes brush, applied it to the teeth, and caught the lint. Whitney exclaimed delightedly, "Madame, you have solved the problem. With this suggestion my machine is complete."

He Resorted To Secrecy

Unfortunately for Mr. Whitney, he never made a fortune. He lived and died poor. Whitney was constantly in court, fighting those who tried to copy his machine. But patent laws were not strongly enforced. So Whitney resorted to secrecy to protect his invention.

Around 1794 or 1795, Whitney built a cotton gin in Washington, Georgia. The gin house had narrow grated windows, so that visitors might stand outside and watch the cotton flying from the gin. They couldn't, however, see the machine working. It was concealed behind a low screen.

Men were not allowed to see the machine at work. Women were permitted by Whitney to do so if they liked. He did not believe women were able to explain how it worked to a builder.

A Man In Woman's Clothing Stole The Secret

Edward Lyon took advantage of Whitney's "women only" rule. He was "a smooth-faced young man" from far away who gained entry to Whitney's gin by dressing as a woman. He communicated the secret to his brother John, who immediately set to work and produced his improvement upon Whitney's invention. It was the first saw-gin ever made.

The honor of having invented the first cotton gin is sometimes credited to Mr. Bull from Baltimore. Bull settled in Columbia County, Georgia and introduced the saw gin there in the year 1795. His invention was separate from Whitney's, as it came after it. The circular saw was no doubt borrowed from Whitney or other inventors. Thus then, though Eli Whitney never got rich from his great invention, it seems clear that he must be honored for it in at least some small way.

Scientific American Editor's Note:

Whitney was involved in many patent fights. It was ultimately determined that the use of saws instead of the wire teeth did not amount to a new invention. Therefore, those who used them without license from Mr. Whitney did violate his rights.

The claim by our writer that Mr. Whitney was not the inventor of the saw gin is therefore unjust to the gifted inventor. The man who, following Whitney's invention, first employed saws, did not invent a saw gin. He only invented a "dodge" whereby he hoped to be able to benefit from Whitney's design.

Quiz

- 1 Select the paragraph from the introduction [paragraphs 1-3] that describes a conflict that Eli Whitney had with other people who made cotton gins.

- 2 Which of these sentences BEST supports the conclusion that Eli Whitney was protective of his invention?
 - (A) At the end, he invited the family to inspect his model of a cotton gin.
 - (B) Unfortunately for Mr. Whitney, he never made a fortune.
 - (C) But patent laws were not strongly enforced.
 - (D) Men were not allowed to see the machine at work.

- 3 Which detail BEST reflects the main idea that other people wanted to take Eli Whitney's ideas?
 - (A) Whitney fixed a broken watch for the family he worked for.
 - (B) Whitney worked on his invention privately before showing anyone.
 - (C) Mrs. Miller gave Whitney the idea to use a brush in his invention.
 - (D) A man dressed up as a woman to sneak into Whitney's factory.

- 4 Which idea should be included in a summary of the article?
 - (A) Not many people know how the cotton gin was invented.
 - (B) Whitney figured out how to stop the machine from jamming.
 - (C) Whitney worked for the family of General Greene.
 - (D) The author's father had an original cotton gin from Whitney.