



TRACK MY T

FOR TEACHERS

A lesson about Cotton Ginning

For use with students age 6 – 10

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II. Cotton Gin

Lesson Plan: How does a gin clean and separate cotton?

Topic: The Cotton Gin

Objective:

- to learn what a cotton gin is
- to learn how a cotton gin works
- to understand why a cotton gin is necessary

Materials:

- smart board (projected computer screen)
- computer link to "The Story of Eli Whitney" from the Eli Whitney Museum website (www.eliwhitney.org)
- Eli Whitney Fact Sheet (PDF attached)
- cotton gin kits
(NOTE: at least one for every four students, ideally - available from The Eli Whitney Museum – www.eliwhitney.org)
- plain paper
- pencils
- black permanent markers

Procedure:

1. Introduce the cotton gin and explain what it does. Show the online clip of the gin in action and share the story of Eli Whitney with your class.
2. Ask why the cotton gin is needed – why is it so important?
3. If you are able to acquire multiple kits then divide the class accordingly and give them a chance to build the cotton gin independently. If you cannot acquire multiple kits you have two further options for the lesson. #1 – Get one kit for yourself. Build the gin in advance and demonstrate how it works to the students. Or build it in front of the class. If you have strong independent students, they may be able to help you, too. #2 – Show the students the images of the gin from the Eli Whitney museum website or on the PDFs attached and work with the gin from still photographs.
4. Discuss the gin and how it works with the class as each kit is completed. Invite students to share their thoughts on the process of making the gin. This time can also be used as an opportunity to reflect on the team building process if necessary.

Conclusion:

If you have students in third grade or older, they can write about the process of the gin and read further information about its' historical relevance independently or for homework. For students in K-2 they can use the pencils and paper to draw a representation of the cotton gin they created with their team. Further outlining the sketch in black permanent marker gives the drawing a "finished" appearance.

The Story of Eli Whitney and the Cotton Gin – includes animated sequence of the gin
<http://www.eliwhitney.org/new/museum/eli-whitney/cotton-gin>

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Eli Whitney – Life at a Glance – Source: Wikipedia

Eli Whitney (December 8, 1765 – January 8, 1825) was an American inventor best known as the inventor of the cotton gin. This was one of the key inventions of the industrial revolution and shaped the economy of the antebellum South. Whitney's invention made short staple cotton into a profitable crop, which strengthened the economic foundation of slavery. Despite the social and economic impact of his invention, Whitney lost his profits in legal battles over patent infringement, closed his business, and nearly filed bankruptcy.

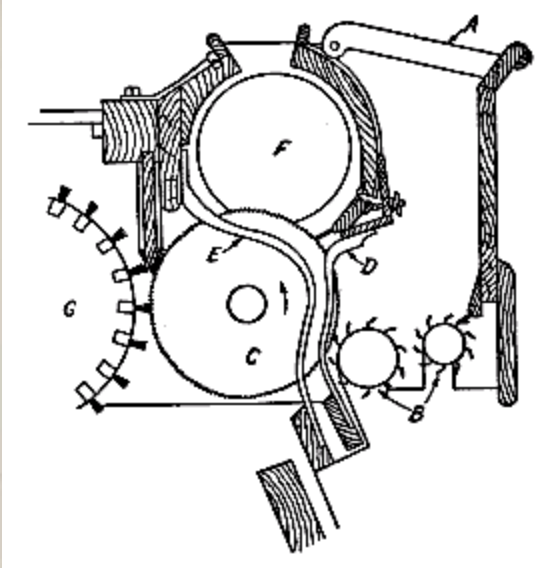
Whitney was born in Westborough, Massachusetts, on December 8, 1765, the eldest child of Eli Whitney Sr., a prosperous farmer and his mother, Elizabeth Fay of Westborough, died when he was eleven. At age fourteen he operated a profitable nail manufacturing operation in his father's workshop during the Revolutionary War. His stepmother opposed his wish to attend college, so Whitney worked as a farm laborer and schoolteacher to save money. Whitney eventually entered Yale University as a member of the Class of 1789 and intended to study law, but he became short of funds so he accepted a position as a private tutor in South Carolina and left Yale. Instead of reaching his destination, he was convinced to visit Georgia. When he initially sailed for South Carolina, among his shipmates were the widow and family of Revolutionary hero, General Nathanael Greene of Rhode Island. Mrs. Greene invited Whitney to visit her Georgia plantation, Mulberry Grove. Her plantation manager and husband-to-be was Phineas Miller, another Connecticut migrant and Yale graduate (Class of 1785), who would become Whitney's business partner.

The cotton gin is a mechanical device which removes the seeds from cotton, a process which, until the time of its invention, had been extremely labor-intensive. The word 'gin' is actually short for engine. The cotton gin was a wooden drum stuck with hooks, which pulled the cotton fibers through a mesh. The cotton seeds would not fit through the mesh and fell outside. A single cotton gin could generate up to fifty-five pounds of cleaned cotton daily. This contributed to the economic development of the Southern states of the United States, which was a prime cotton growing area. Plantations grew larger and began to employ more slaves, so many historians believe that the cotton gin also contributed to the rise in slavery in the American South at that time.

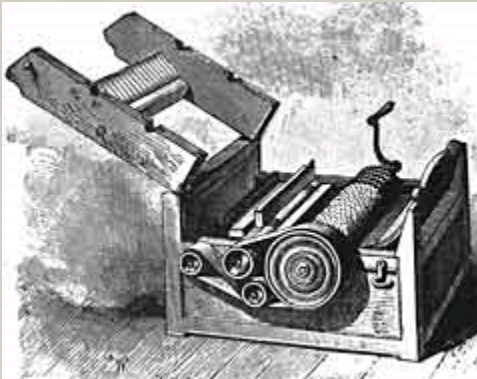
The cotton gin became so popular that Whitney and his partner were not able to operate them all independently, or make enough cotton gins to sell and meet demand. Their patent was not valid, so they spent a lot of money suing people who copied their design. Eventually they ran out of money and their company went out of business in 1797. Whitney did not earn a fortune, but he did become famous for his invention and he earned a place in American history, and in the larger history of global industrialization.

The Eli Whitney Museum opened to the public in 1984. It sits on the site of the Whitney family factory and armory. The site today includes the boarding house and barn that served Eli Whitney's original workers and a stone storage building from the original armory. Museum exhibits and programs are housed in a factory building constructed c. 1910. A water company office building constructed in the 1880s now houses educational programs operated by the South Central Connecticut Regional Water Authority (which succeeded the New Haven Water Company).

The Cotton Gin – images provided by The Eli Whitney Museum



Images Courtesy of Eli Whitney Museum
and Workshop. www.eliwhitney.org



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