

TEACHING AMERICAN HISTORY PROJECT – 2009-2012

The Cotton Gin and its connection to the Civil War From Melissa Szych

Grade: 8

Length of class period: *Two 45 minute class periods (or a 90 minute block)*

Inquiry:

How and why did the invention of the Cotton Gin come about? What were the pros and cons to this invention? What was its involvement in promoting the Civil War?

Objectives:

While integrating Social Studies and Science, students will learn about the invention of the Cotton Gin; how it was invented, who invented it, its significance in American industry and its involvement in the Civil War.

Using letters, photos and background information, students will investigate the important information about the Cotton Gin and develop their own conclusion as to whether or not the Cotton Gin was a positive invention for the future of America or a negative one.

Students will gain a better understanding of how to use primary source documents and experience how they bring history to life; as well as understand the difference between a primary and a secondary source.

Materials:

Background information on the invention of the Cotton Gin; cotton growth of the south along with its affects on slavery; and on Eli Whitney

Eli Whitney's letter to his father describing his invention of the Cotton Gin

Information on the development of the Cotton Gin, as well as a primary source diagram of the Cotton Gin

Activities:

- *Students will be divided into groups of 3 or 4 and each group will be given all of the materials listed above (all materials are attached)*
- *Working silently, for about 15-20 minutes, students will read the materials, highlight and take notes on important facts they find or on questions they may encounter while reading.*
- *Then, students will share thoughts within their groups on what they read and observed in the materials.*

- *Once the groups have shared their thoughts, they will generate responses to the Essential Questions: How and why did the invention of the Cotton Gin come about? What were the pros and cons to this invention? What was its involvement in promoting the Civil War?*
- *Then, one member of each group will share the responses with the whole group.*
- *Finally, before leaving class (or for homework if time is short), each student will write a response to one of these two questions and turn it in before dismissal: 1) Do you think that the Cotton Gin was a good invention and why? 2) Do you think that if the cotton gin was never invented that slavery would have gone away slowly on its own?*

How will you assess what students learned during this lesson?

- *Observe small group discussions and whole group discussions*
- *Presentations students give about what they learned*
- *Collecting group notes*
- *Collecting each student's response to the "Dismissal Question"*

Connecticut Grade Level Expectations:

- *Analyze the impact of technology and scientific discovery on American society.*
- *Compare information about the same event using a variety of primary sources.*
- *Orally present information on social studies events or issues and support with primary and secondary evidence.*

Document A: (Information found at www.archives.com. Copied here for ease or in case the

website has issues. Some of this may not be necessary or can be read together as a class if needed.)

Eli Whitney and the Need for an Invention

As Eli Whitney left New England and headed South in 1792, he had no idea that within the next seven months he would invent a machine that would profoundly alter the course of American history. A recent graduate of Yale, Whitney had given some thought to becoming a lawyer. But, like many college graduates of today, he had debts to repay first and needed a job. Reluctantly, he left his native Massachusetts to assume the position of private tutor on a plantation in Georgia.

There Whitney quickly learned that Southern planters were in desperate need of a way to make the growing of cotton profitable. Long-staple cotton, which was easy to separate from its seeds, could be grown only along the coast. The one variety that grew inland had sticky green seeds that were time-consuming to pick out of the fluffy white cotton bolls. Whitney was encouraged to find a solution to this problem by his employer, Catherine Greene, whose support, both moral and financial were critical to this effort. At stake was the success of cotton planting throughout the South, especially important at a time when tobacco was declining in profit due to over-supply and soil exhaustion.

Whitney knew that if he could invent such a machine, he could apply to the federal government for a patent. If granted, he would have exclusive rights to his invention for 14 years (today it is 20 years), and he could hope to reap a handsome profit from it.

The Constitution and Patent Law

In Article I, Section 8, Clause 8 , the Constitution empowers Congress "To promote the progress of science and useful arts by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries." Patent law must carefully balance the rights of the inventor to profit from his or her invention (through the grant of a temporary monopoly) against the needs of society at large to benefit from new ideas.

The patent bill of 1790 enabled the government to patent "any useful art, manufacture, engine, machine, or device, or any instrument thereon not before known or used." The patent act of 1793 gave the secretary of state the power to issue a patent to anyone who presented working drawings, a written description, a model, and paid an application fee. Over time the requirements and procedures have changed. Today the U.S. Patent and Trademark Office is under the auspices of the Commerce Department.

Eli Whitney Patents His Cotton Gin

In hopes of making a patentable machine, Whitney put aside his plans to study law and instead tinkered throughout the winter and spring in a secret workshop provided by Catherine Greene. Within months he created the cotton gin. A small gin could be hand-cranked; larger versions could be harnessed to a horse or driven by water power. "One man and a horse will do more than fifty men with the old machines," wrote Whitney to his father. . . . "Tis generally said by those who know anything about it, that I shall make a Fortune by it."

But patenting an invention and making a profit from it are two different things. After considering possible options, Whitney and his business partner, Phineas Miller, opted to produce as many gins as possible, install them throughout Georgia and the South, and charge farmers a fee for doing the ginning for them. Their charge was two-fifths of the profit -- paid to them in cotton itself.

And here, all their troubles began. Farmers throughout Georgia resented having to go to Whitney's gins where they had to pay what they regarded as an exorbitant tax. Instead planters began making their own versions of Whitney's gin and claiming they were "new" inventions. Miller brought costly suits against the owners of these pirated versions but because of a loophole in the wording of the 1793 patent act, they were unable to win any suits until 1800, when the law was changed.

Struggling to make a profit and mired in legal battles, the partners finally agreed to license gins at a reasonable price. In 1802 South Carolina agreed to purchase Whitney's patent right for \$50,000 but delayed in paying it. The partners also arranged to sell the patent rights to North Carolina and Tennessee. By the time even the Georgia courts recognized the wrongs done to Whitney, only one year of his patent remained. In 1808 and again in 1812 he humbly petitioned Congress for a renewal of his patent.

The Effects of the Cotton Gin

After the invention of the cotton gin, the yield of raw cotton doubled each decade after 1800. Demand was fueled by other inventions of the Industrial Revolution, such as the machines to spin and weave it and the steamboat to transport it. By midcentury America was growing three-quarters of the world's supply of cotton, most of it shipped to England or New England where it was manufactured into cloth. During this time tobacco fell in value, rice exports at best stayed steady, and sugar began to thrive, but only in Louisiana. At midcentury the South provided three-fifths of America's exports -- most of it in cotton.

However, like many inventors, Whitney (who died in 1825) could not have foreseen the ways in which his invention would change society for the worse. The most significant of these was the growth of slavery. While it was true that the cotton gin reduced the labor of removing seeds, it did not reduce the need for slaves to grow and pick the cotton. In fact, the opposite occurred. Cotton growing became so profitable for the planters that it greatly increased their demand for both land and slave labor. In 1790 there were six slave states; in 1860 there were 15. From

1790 until Congress banned the importation of slaves from Africa in 1808, Southerners imported 80,000 Africans. By 1860 approximately one in three Southerners was a slave.

Because of the cotton gin, slaves now labored on ever-larger plantations where work was more regimented and relentless. As large plantations spread into the Southwest, the price of slaves and land inhibited the growth of cities and industries. In the 1850s seven-eighths of all immigrants settled in the North, where they found 72% of the nation's manufacturing capacity. The growth of the "peculiar institution" was affecting many aspects of Southern life.

Epilogue

While Eli Whitney is best remembered as the inventor of the cotton gin, it is often forgotten that he was also the father of the mass production method. In 1798 he figured out how to manufacture muskets by machine so that the parts were interchangeable. It was as a manufacturer of muskets that Whitney finally became rich. If his genius led King Cotton to triumph in the South, it also created the technology with which the North won the Civil War.

Document B: A letter from Eli Whitney to his father discussing his invention of the Cotton Gin.

(The actual letter can be found and printed out at <http://www.teachingushistory.org/ttrove/Whitney11Sept1793.htm>)

Eli Whitney to Eli Whitney, Senr

New Haven, Sept. 11th, 1793.

Dear Parent,

I received your letter of the 16th of August with peculiar satisfaction and delight. It gave me no small pleasure to hear of your health and was very happy to be informed that your health and that of the family has been so good since I saw you. I have fortunately just heard from you by Mr. Robbinson who says you were well when he left Westboro sooner than I now fear will be in my power. I presume, sir, you are desirous to hear how I have spent my time since I left College. This I conceive you have a right to know and that it is my duty to inform you and should have done it before this time; but I thought I could do it better by verbal communication than by writing, and expecting to see you soon, I omitted it. As I now have a safe and direct opportunity to send by Mr. Robbinson, I will give you a summary account of my southern expedition.

I went from N. York with the family of the late Major General Greene to Georgia. I went immediately with the family to their Plantation about twelve miles from Savannah with an expectation of spending four or five days and then proceed into Carolina to take the school as I have mentioned in former letters. During this time I heard much said of the extreme difficulty in ginning Cotton, that is, separating it from its seeds. There were a number of very respectable Gentlemen at Mrs. Greene's who all agreed that if a machine could be invented which would clean the cotton with expedition, it would be a great thing both to the Country and to the inventor. I involuntarily happened to be thinking on the subject and struck out a plan of a Machine in my mind, which I communicated to Miller, (who is agent to the Executors of Genl. Greene and resides in the family, a man of respectability and property) he was pleased with the Plan and said if I would pursue it and try an experiment to see if it would answer, he would be at the whole expense, I should loose nothing but my time, and if I succeeded we would share the profits. Previous to this I found I was like[ly] to be disappointed in my school, that is, instead of a hundred, I found I could get only fifty Guineas a year. I however

held the refusal of the school until I tried some experiments. In about ten Days I made a little model, for which I was offered, if I would give up all right and title to it, a Hundred Guineas. I concluded to relinquish my school and turn my attention to perfecting the Machine. I made one before I came away which required the labor of one man to turn it and with which one man will clean ten times as much cotton as he can in any other way before known and also cleanse it much better than in the usual mode. This machine may be turned by water or with a horse, with the greatest ease, and one man and a horse will do more than fifty men with the old machine. It makes the labor fifty times less, without throwing any class of People out of business.

I returned to the Northward for the purpose of having a machine made on a large scale and obtaining a patent for the invention. I went to Philadelphia soon after I arrived, made myself acquainted with the steps necessary to obtain a Patent, took several of the steps with Secretary of State Mr. Jefferson agreed to send the Patent to me as soon as it could be made out—so that I apprehended no difficulty in obtaining the Patent—Since I have been here I have employed several workmen in making machines and as soon as my business is such that I can leave it a few days, I shall come to Westboro'. I think it is probable I shall go to Philadelphia again before I come to Westboro', and when I do come I shall be able to stay but few days. I am certain I can obtain a patent in England. As soon as I have got a Patent in America, I shall go with the machine which I am not making, to Georgia, where I shall stay a few weeks to see it at work. From thence I expect to go to England, where I shall probably continue two or three years. How advantageous this business will eventually prove to me, I cannot say. It is generally said by those who know anything about it, that I shall make a Fortune by it. I have not expectation that I shall make an independent fortune by it, but think I had better pursue it than any other business into which I can enter. Something which cannot be foreseen may frustrate my expectations and defeat my Plan; but I am now so sure of success that ten thousand dollars, if I saw the money counted out to me, would not tempt me to give up my right and relinquish the object. I wish you, sir, not to show this letter nor communicate anything of its contents to any body except My Brothers and Sister, *enjoining* it on them to keep the whole a *profound secret*.

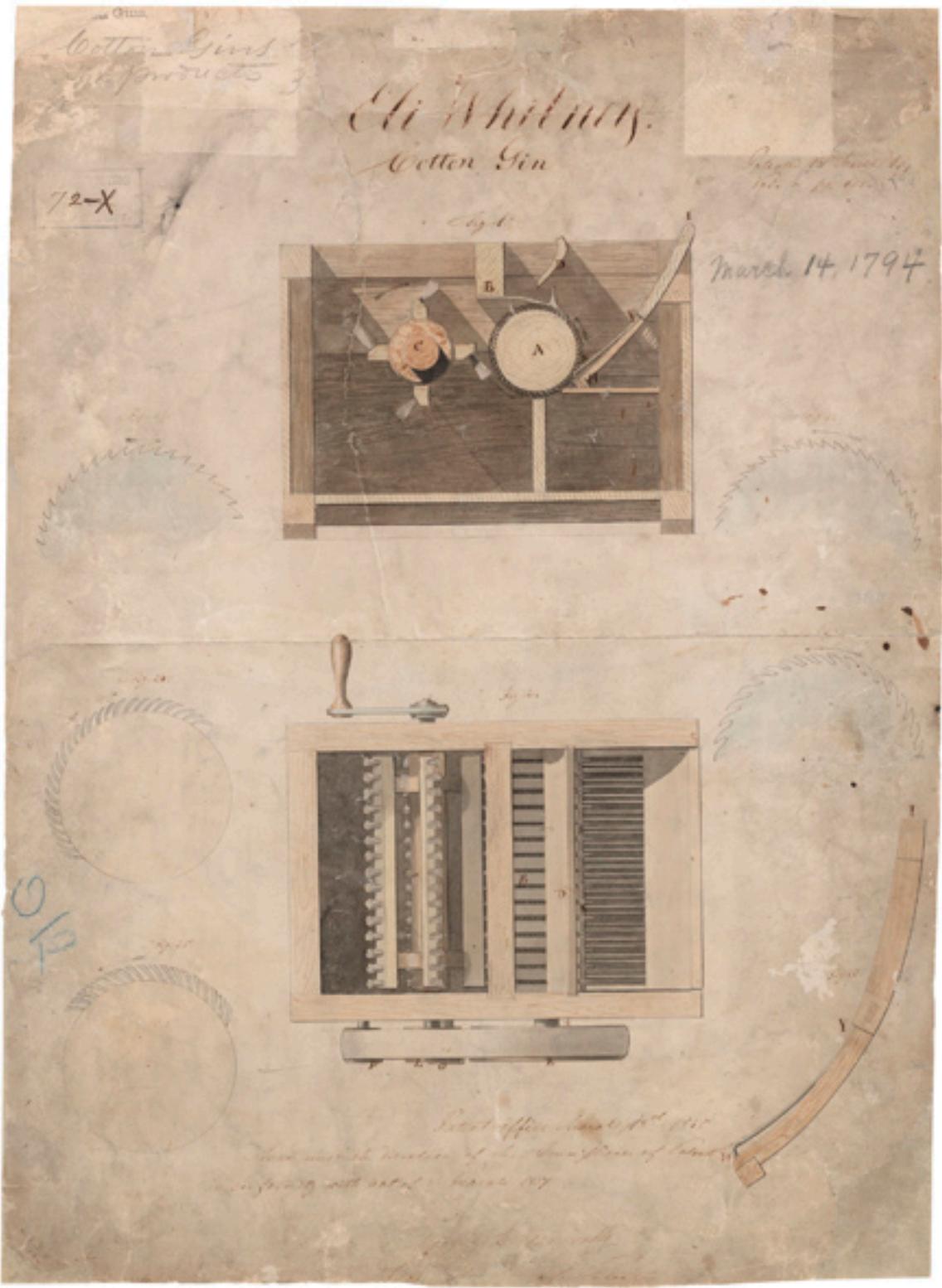
Mr. Robinson came into town yesterday and goes out tomorrow, this has been such a bustling time that I have not had opportunity to say six words to him. I have told him nothing of my business—perhaps he will hear something about it from some body else in town. But only two or three of my friends know what I am about tho' there are many surmises in town—if Mr. Robinson says anything about it, you can tell him I wrote you concerning it, but wished not to have it mentioned. I have been considerably out of health since I wrote you last; but now feel tolerably well. I should write to my Brothers and Sister but fear I shall not have time—hope they will accept my good wishes for their happiness and excuse me.

With respects to Mama I am,

kind Parent, your most obt. Son

Eli Whitney, Junr.

Document 6: The Cotton Gin



Document D: A slave's account of life on a cotton plantation during the invention of the cotton gin:

Solomon Northup was a New Yorker and a freeman when he was kidnapped and sold as a slave in 1841. His description of the time he spent on a cotton plantation in Louisiana will help students realize the impact made by the cotton gin on the daily lives of slaves:

"The hands are required to be in the cotton field as soon as it is light in the morning, and, with the exception of ten or fifteen minutes, which is given them at noon to swallow their allowance of cold bacon, they are not permitted to be a moment idle until it is too dark to see, and when the moon is full, they often times labor till the middle of the night. They do not dare to stop even at dinner time, nor return to the quarters, however late it be until the order to halt is given by the driver. The day's work over in the field, the baskets are "toted," or in other words, carried to the gin-house, where the cotton is weighed. No matter how fatigued and weary he may be -- no matter how much he longs for sleep and rest -- a slave never approaches the gin-house with his basket of cotton but with fear. If it falls short in weight -- if he has not performed the full task appointed of him, he knows that he must suffer. And if he has exceeded it by ten or twenty pounds, in all probability his master will measure the next day's task accordingly. So, whether he has too little or too much, his approach to the gin-house is always with fear and trembling."

Possible Extension Activity: Comparing inventions of today to that of the Cotton Gin.

Eli Whitney invented the cotton gin in 1793. Kids always say that there is nothing left to invent because everything has been thought of. Ask students to consider what types of inventions will most affect their lives today. The New York Times has a column every Monday in its "Business Day" section describing recently granted patents. Find this column online or clip this column and discuss with students how some of the new patents may affect their inventors, the companies that will try to market them, and their own lives. Ask students which new inventions may have the potential to harm as well as help us. (Consider inventions related to genetic engineering, nuclear devices, and computer technology, for example.) The patents listed in this column from the New York Times are identified by patent number and copies are available from the Patent and Trademark Office, Washington, DC, 20231.