Eli Whitney and His Cotton Gin





After Eli Whitney invented the cotton gin, in 1793, Southern plantation owners could plant more cotton (because, with the new invention, workers could quickly separate the cotton seeds from the cotton bolls).

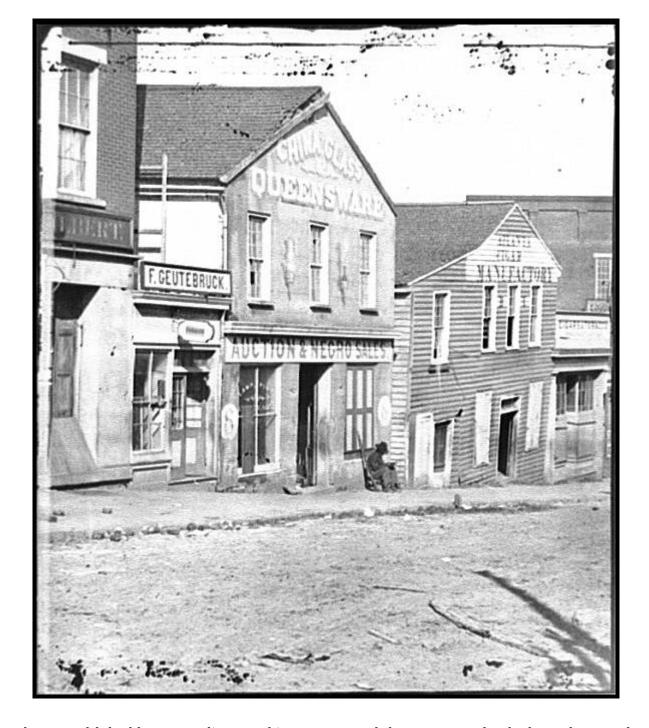
When cotton growers planted more cotton, they needed more slaves to work in the Southern cotton fields. More slaves, in the South, led to increasing tensions between Americans who lived in the North and Americans who lived in the South.

What difference did the cotton gin make to the total production of cotton during the years before America's Civil War? In short ... it made a *huge* difference. The <u>Civil War Trust</u> provides the details:

Before Whitney's gin entered into widespread use, the United States produced roughly 750,000 bales of cotton, in 1830. By 1850 that amount had exploded to 2.85 million bales.

This production was concentrated almost exclusively in the South, because of the weather conditions needed for the plant to grow. Faster processing of cotton with the gin meant it was profitable for landowners to establish previously-unthinkably large cotton plantations across the south.

But harvesting cotton remained a very labor-intensive undertaking. Thus, bigger cotton farms meant the need for more slaves. The slave population in the United States increased nearly fivefold in the first half of the 19th Century, and by 1860, the South provided about two-thirds of the world's cotton supply.



Southern wealth had become reliant on this one crop and thus was completely dependent on slavelabor.

The image, at the top of this page, depicts a cotton gin on display at the <u>Eli Whitney Museum</u> in Hamden, Connecticut. It is a simple machine that changed the world.

How was it that Eli Whitney—a Northerner born in Westboro, Massachusetts—figured-out how to process cotton more quickly? As a young man, Whitney traveled to the South where he tutored the children of a plantation-owning family.

Although Eli was not teaching slaves <u>at Mulberry Grove</u>—then-owned by Catherine Greene (widow of <u>Nathanael Greene</u>, the American-Revolutionary war hero)—he watched slaves at work. He saw how hard it was for slaves to pick the seeds from the cotton bolls.

When he wasn't teaching, Eli was thinking about how he could help the cotton workers. Growing up in Massachusetts, he liked to take things apart (then put them back together). He'd spent time in his father's workshop where he could work on items like clocks. Now, in the South, Whitney worked on an idea for a machine he called the cotton gin.

The concept for Eli's new machine was straightforward and simple. After picking the cotton, workers would place the cotton bolls into the top of the machine. Then they turned the handle, moving the cotton bolls toward a set of wire teeth.

The wired-teeth formed a comb and, just as running a comb through our hair removes unwanted pieces of whatever, the cotton gin ran through the bolls and removed the cotton seeds. Workers then removed the cotton from the wired teeth, put it into bales and sent <u>the bales</u> to textile mills for further processing.

This simple machine—shown here in Whitney's patent (where it is <u>animated for better understanding</u>)—had a profound impact, not just on the South but also on the North.

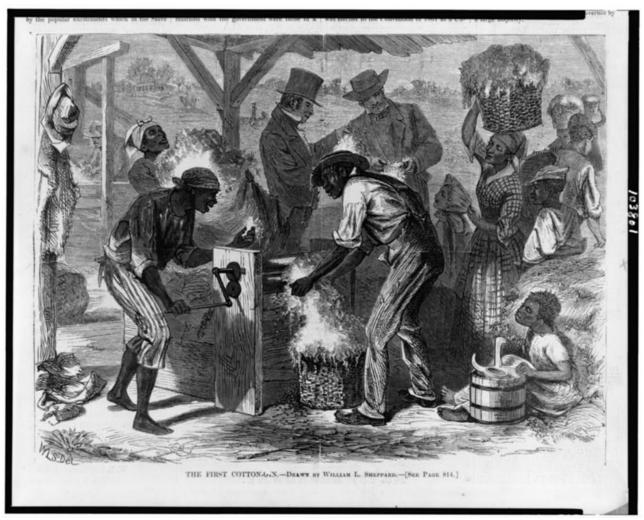
Cotton is an easy crop to grow. It doesn't need many nutrients, from the soil, but it has to grow in warm weather (like the weather in the American South).

Before Eli's invention, people did not view cotton as a cash crop because it was so hard to process. Instead, plantation owners grew tobacco (which is difficult to grow, because it drains the soil of nutrients) and indigo. After the cotton gin, all a farmer needed was land, workers and worker-tools.

Southern plantation owners focused their efforts on growing and harvesting the cotton. Business owners in the North concentrated their efforts on processing the cotton in mills and textile factories.

Soon the American South was providing more cotton than the American North was able to process in its mills and factories. Southern planters then began shipping large amounts of <u>cotton to England</u> where British workers processed it.

Cotton was "King" and had become the South's main source of income. But for cotton to *be* "King," the South needed slaves. And for cotton to *remain* "King," the South perceived it could not abandon its use of slave labor.



This growing dependance on <u>Southern slave labor</u> led to increasing tensions between North and South. Southern cotton-growing states wanted the right to determine how they ran their economies, without interference from the North (or from the federal government).

These irreconcilable differences, between North and South, would soon impact the country just as irreconcilable differences can impact a marriage:

- In a marriage, people sometimes resolve their irreconcilable differences by getting divorced.
- In America, the Southern states attempted to resolve their differences (with the North) by seceding from the Union.

South Carolina was the first to go.

Before we leave this topic, there's something else to know about Eli Whitney. His inventions impacted both the North and the South in different ways. We learn how that could be from the Eli Whitney Museum:

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.

As a result of his inventions, Whitney is often called "The Father of American Technology." These interesting twists are what makes investigating history so much fun!

Credits:

Tom Murphy VII took this picture of a cotton gin on display at the Eli Whitney Museum (in Hamden, Connecticut). Tom has released his photo into the public domain but would appreciate attribution for its use. Online via Wikimedia Commons.

In-text image of slave auction house, located on Whitehall Street in Atlanta, as it appeared during 1864. Photo by George N. Barnard. The picture is maintained at the Library of Congress where curators provide this <u>additional information</u>:

...George N. Barnard, official photographer of the Chief Engineer's Office, made the best documentary record of the war in the West; but much of what he photographed was destroyed in the fire that spread from the military facilities blown up at Sherman's departure on November 15.

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Media Stream



Working with the First Cotton Gin

 ${\bf Image, \, described \, above, \, \underline{online \, courtesy \, Library \, of \, Congress}.}$

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Preparing the Cotton for the Gin Image online, courtesy Library of Congress.

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