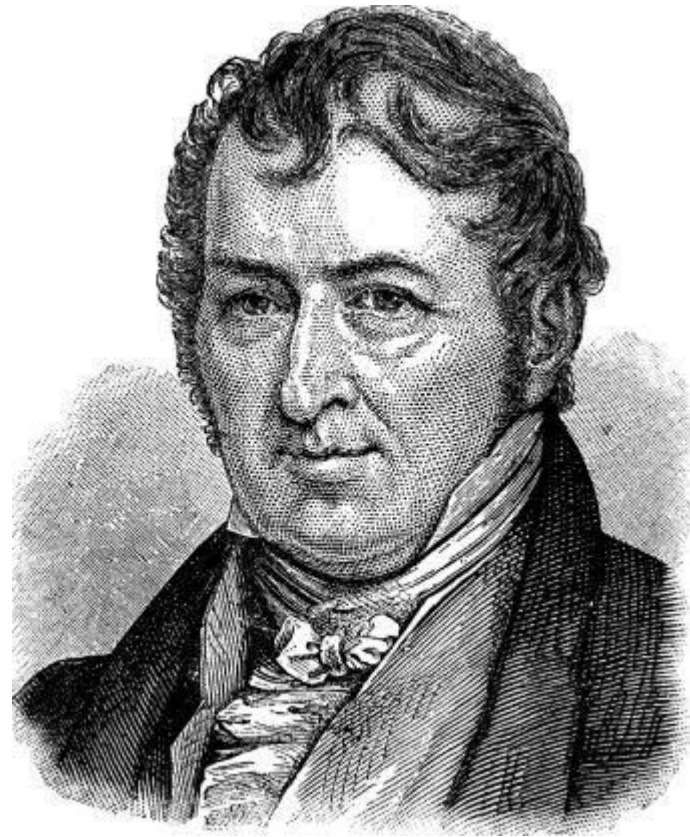


The Cotton Gin

Background

- Credit for the invention is given to Eli Whitney
- Although he built the machine, the idea of the cotton gin was devised by Catherine Greene
- Catherine Greene was the widow of a US General and the owner of a plantation in Savannah Georgia



The Problem

- Cotton contains seeds which are very difficult to separate by hand
- The process was took a long time and was very burdensome to the slaves tasked with separating the seeds
- Greene wanted to create something to speed up the process and ease the burden on slaves

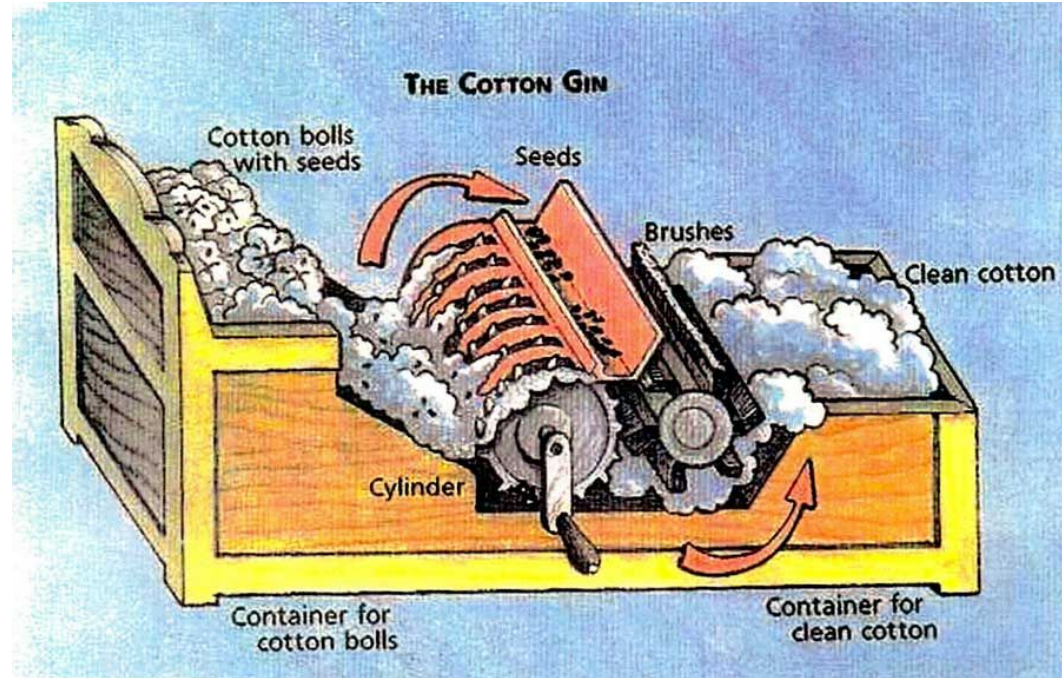


Process and Challenges

- Had to figure out how to mechanically remove the seeds from cotton
- A rotating wooden cylinder with rows of spikes combs out the seeds

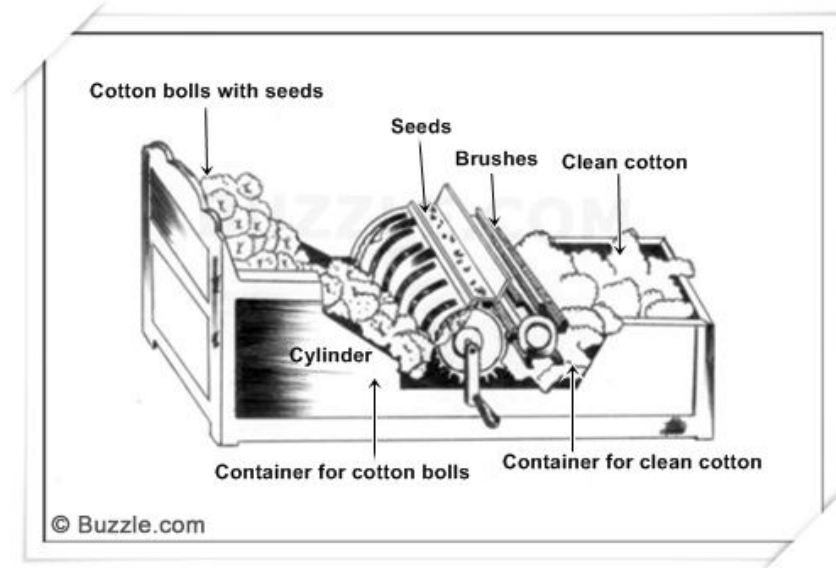
How Does It Work

- Cotton balls are put in
- Crank is turned
- Cotton is pulled through wire teeth and the seeds are combed out
- Clean cotton exits



Jamming Problem

- Small pieces of cotton would get stuck in the spikes
- To fix this, a rotating brush was added



Outcomes

- Revived a dying the cotton industry
- While it made the job of cleaning cotton easier for some slaves, I greatly increased the workload of other slaves working in the fields
- Made cotton more profitable than before

Improvement to Solution

Modern cotton gins separates seeds in a similar way to Eli Whitney's, but on a much larger scale

