



Pages for All Ages:



Three Abraham Darbys



Some words and phrases to know before you read

- discoveries
- inventor, invent
- machine
- grind grain
- business
- brass, iron
- coal
- brook
- factories
- goods, items
- giant structure
- hard times
- cottages
- chimneys
- canals
- “furnaces, foundaries and manufactories”
- locomotion
- London
- polluted



Three early Quakers, all named Abraham Darby, made some discoveries that changed the world. All three men had the same name because they were father, son, and grandson. All of them were inventors, and all of them discovered new ways to make things from iron. Before the Darbys, almost everyone in the world did all their work by hand. Sometimes they got help from farm animals. After the Darbys, people all over the world used machines to help them do their work.

The first Abraham Darby lived from 1676 to 1717 in England. By the time this Darby was a young man, George Fox and the Quakers were famous all over England, and Darby decided to follow the Quaker way. He also got his first job – working for a man who made machines to grind grain. Darby was a person who always wanted to do something new. After he learned how to make the grinding machines, he started his own business making them. Then he switched to making things from brass. Then he switched to making things from iron. That’s what made the Darbys famous. All three Darbys discovered new ways to make things from iron.



The first Darby’s first discovery was a new way to make things by pouring hot, melted iron into molds made of sand. The iron pots and pans that Darby made this way were much cheaper than

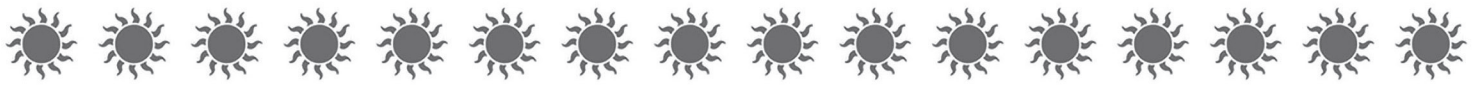
the pots and pans that other people were making. This got Darby and his business off to a good start.

Darby moved his business to a place called Coalbrookdale, and the name of the place tells why: Coal-brook-dale. The place had *coal*, which the workers could burn for melting iron. The place had a *brook*, which was big enough to let boats take pots and pans and other goods to customers all over England. And the place was a *dale*, which means “valley.” The mountains on the sides of this valley weren’t only full of coal; they were also full of iron.



The first Darby’s second important discovery was a new way to use coal instead of charcoal for melting iron. Metal workers want to keep smoke away from melted metal because smoke can ruin the metal. Before Darby made his discovery in 1709, most metal workers used charcoal for melting metal. Charcoal comes from





pieces of wood that people bake until they are black. Charcoal makes very little smoke when it burns. The problem with charcoal is that people would need to cut down billions of trees to make enough charcoal to melt all the metal they want to melt. Darby’s discovery of a new way to burn lots of coal meant that metal workers could use coal instead of trees for making things from iron. He made it easy and cheap to make things from iron. Soon, the world started filling up with factories for making goods from iron and other metals – pots, pans, tools, machines, ships, railroads, and countless other items.

The other two Abraham Darbys – Abraham Darby II and Abraham Darby III – also discovered new ways to work with iron. Abraham Darby II lived from 1711 to 1763. He discovered a new way to shape iron by pressing it while it was hot, instead of melting it into liquid and pouring it. Abraham Darby III lived from 1750 to 1789. He was the first person to ever build a giant structure from iron. This was the Iron Bridge, which still stands near Coalbrookdale today.

The Darbys’ Quaker meeting helped the Darbys and their business. The first Abraham Darby died when his son was only six. The second Abraham Darby died when his son was only thirteen. Adults in the Quaker meeting helped keep the business running until the boys grew old enough to take over. The boys’ Quaker mothers also helped to run the business. In those days, women were almost never allowed to run anything, but Quakers were different.

Because the Darbys were Quakers, they treated their workers differently, too. The Darbys paid their workers more than most other businesses did. They gave their workers food during hard times. They built cottages for the workers to live in and a school for them in Coalbrookdale.

But no matter how good the Darbys were while they were still alive, none of them could see into the future. Not long after Abraham Darby III died, an American traveling near Coalbrookdale wrote about what he saw there, “black forests of chimneys smoking over large towns and villages.” And he wrote, “The furnaces,

foundries and manufactories seem almost countless . . . Narrow canals, filled with water as black as [iron], cross each other here and there . . . Railways, crossing the canals and their creeping locomotion, dash off with vast loads to London . . .”



The Darbys helped start a big change in the world called “The Industrial Revolution.” Before the Darbys, most people in England worked as farmers. Today, less than 2% of the people in England are farmers. That means, out of every one hundred people, only two of them are farmers. For many people all over the world today, machines do most of the work.

The Industrial Revolution has made life easier for many people. It has also left many people without jobs. Factories and machines are also polluting the air, water, and soil of our planet. If the three Abraham Darbys were alive today, they would probably try to help discover solutions to these problems.

- Think of all the things that machines do for you. How many machines do you use in a normal day?
- Think of a machine that you might stop using for a week. What would you do instead?
- What are some of the ways that machines can be harmful? What are some things that people could do to make them less harmful?

The picture of the iron pot on page 20 is from the Missouri History Museum. The picture of iron workers on page 20 is by Underwood Stereographers. The picture of the Iron Bridge above is by Ian Knox. All images are in the public domain.

