People to Know / Vocabulary

Lessons 19 & 20

As You Read

Who:
- *What did this person do for a living?*
- *Where are they from?*

Importance:
- *What did this person accomplish that made a difference then and/or now?*
- *How did they affect others then and/or now?*

John Deere

John Deere (1804-1886) was born in Vermont. His father probably died at sea leaving the family in poverty. At age seventeen, Deere learned the trade of blacksmithing (working with metal).

At 36, Deere moved to Illinois for better opportunity. He noticed that the soil of the Midwest was tough and the plows used by farmers failed to turn the soil. Deere redesigned the plow with a polished steel blade. It worked far better than anything else on the market. It turned the soil efficiently and horses instead of oxen could pull it.

Demand for Deere's steel plow intensified. By the end of the 1850s, Deere was producing thousands of plows a year. He also began selling other agricultural equipment as well. In 1868, his business became a corporation. Deere's steel plow helped create the agricultural revolution that led to farming becoming more efficient and big business.

Robert Fulton

Robert Fulton (1765-1815) grew up in Pennsylvania and showed great artistic ability. He began a somewhat successful painting career and eventually made his way to Europe. There he became interested in inventions involving water travel.

Beginning in 1801, Fulton began designing a steamboat. In 1807, he tested his boat—soon to be called the *Clermont*—on the Hudson River with much success. Fulton improved the design, built more steamboats, and expanded service to other waterways.

The steamboat allowed for faster water travel than the traditional sailing vessels of the time. As a result, Fulton put many competitors out of business.

Robert Fulton did not invent the steamboat, but he made the first workable and practical steamboat. Many of his designs came from other inventors before him. This caused Fulton to spend much of his wealth defending himself from lawsuits.

Francis Cabot Lowell

Francis Cabot Lowell (1775-1817) was born to wealthy parents in Massachusetts. He graduated from Harvard college and got involved in the family shipping business.

In England, Lowell became fascinated with the power loom, a machine that weaves thread into cloth. To keep its economic lead, English law prevented anyone from exporting machines or designs outside the country. Lowell memorized the designs and returned to America where he had copies of the machine built.

By 1814, Lowell had built a factory in Waltham, Massachusetts, to produce cotton cloth. For the first time, everything involving cotton production was done under one roof: spinning cotton into thread, weaving thread into cloth. Lowell also hired women—a rare event in that time—to work in his factories.

In 1816, Congress passed one of the first protective tariffs aimed at helping American cotton producers against foreign competition. Lowell's company flourished for decades before going bankrupt in 1930 at the start of the Great Depression.

Cyrus McCormick

Cyrus McCormick (1809-1884) grew up on a Virginia farm and received at best an elementary education. His father constantly worked on inventions to improve farming and that desire transferred to Cyrus.

In 1831, McCormick invented a mechanical reaper. The device was driven by horses and cut down wheat doing the work of twelve people. Over the next twenty years he improved the design, opened a factory, and sold thousands of reapers to farmers across the country.

McCormick is considered the "Father of Modern Agriculture" as his invention allowed for the expansion of agriculture for the small and large farmer.

Eli Whitney

Eli Whitney (1765-1825) was born on a farm in Massachusetts and went on to graduate from Yale in 1793. Whitney moved to the South to take a job tutoring but the job offer fell apart.

Instead, Whitney ended up on a South Carolina plantation. At this time, cotton mills demanded large quantities of cotton but suppliers could not process cotton fast enough. It took dozens of people hours to remove seeds trapped in cotton fibers. Whitney saw the problem and within two weeks created a machine, the cotton gin, that used a spinning brush to separate the seeds from the fibers. One person could now do the work of more than a dozen people.

Whitney got a patent—a legal right to be the only seller of a new product for a limited time—on his cotton gin in 1794 but failed to sell many machines. Farmers simply made their own based on Whitney's design.

As cotton production increased, so too did the value of cotton and the value of enslaved people working in the fields. As a result, emancipation in the South came to an end.

In 1798, Whitney got a government contract to make thousands of muskets. At his factory, he introduced the concept of interchangeable parts. Any part of one item could be used to replace the same part on another item. Although other people had come up with this concept as well, Whitney made the idea popular. This helped usher in the process of mass production.