

The Industrial Revolution

Agricultural Revolution

Importance of the Agricultural Revolution

Before the Industrial Revolution, most people were farmers. Wealthy landowners owned most of the land, and families owned or rented small strips of land. Farmers worked together and land was not fenced off. People relied on nature to grow their crops and people made their own homes, clothes, and tools.

The Industrial Revolution could not have occurred without more food being grown and fewer people working in the fields. Since more food was being grown, not everyone had to farm. More people could start to do other jobs.

Enclosure Movement

English farmers started to experiment with new farming techniques, and they wanted to keep these new techniques a secret. New laws were created that allowed landowners to enclose private and public lands. It was also believed that larger farms with enclosed fields would be more efficient than small open farms.

Domestic System

The domestic system is a system of labor where merchants hire workers to produce a product in their own homes. This was more common before the Industrial Revolution and after the Enclosure Movement.

After the Enclosure Movement, some people could no longer farm. These people needed work, so merchants would hire them to create products. One example of this is the wool industry.

Merchant buys wool fibers and divides them among families → Women clean, sort, and spin → Men weave → Merchant collects → Fullers shape and clean → Dyers color

Industrial Revolution

Beginning of the Industrial Revolution

The Industrial Revolution started in Great Britain in 1760. Textiles were the first products produced during this time.

Success of the Industrial Revolution in Britain

Water and coal were two of the most necessary resources. Iron ore was also quite important to Great Britain. The Industrial Revolution was successful in Great Britain because Britain had political stability, protective patent laws that encouraged inventing, and an effective central bank that meant people had capital to invest. Capital is the money that is invested in labor, machines, and raw materials. Capital is essential for the growth of industry and helped the Industrial Revolution grow and expand. The slave-trade and farming made Britons rich, and they could use this money to invest into different industries.

Spread of the Industrial Revolution

The Industrial Revolution spread to countries such as America, France, and Germany. Ideas spread because some craftsmen snuck ideas of the revolution out of the country (see *Samuel Slater*). Also, countries like Germany and France got supplies from Britain and eventually started copying them. Germany and America were quite successful in adopting the ideas of Britain and spreading the Industrial Revolution.

The Working Class

The working class had a rough, hard life. Work conditions started off terrible, but as industrial competition increased, work became harder and dangerous. Workers were assigned more machines to operate and were forced to speed up and perform tasks quicker. Whole families worked in factories to raise money. Children worked in factories instead of going to school, and many became sick and crippled. Women, however, became more independent. Their lives were still difficult and uncomfortable though.

Middle Class Families in the 1800's

Middle Class society changes once middle-class men rose in society and began centering their energy on the workplace. Women would hire domestic help if they could afford it, and these servants did some of the more unfavorable jobs. It was also believed that an education led to success. In the mid-1800's, children (usually boys) began going to school.

Factory System

Since the new machinery was too large and costly for most workers to use in their homes, industrialists moved cloth production into large buildings. The factory system was an organized method of production that brought workers and machines together under the control of managers.

Mass Production

Fast-working, precise machines allowed industrialists to produce larger quantities of identical goods. This meant that goods in demand were produced quickly and could be shipped.

Industrial Competition

Work was harder and more dangerous, with people at risk for disease and injury. Despite the dangers, people were paid very little for their work.

Conditions in Early Factories

People worked long days in unventilated rooms and diseases spread rapidly. These diseases killed many workers, and many people were left crippled from the harsh conditions they worked under. Conditions began to change when labor unions started to form and protest against their treatment.

Division of Labor

Each worker performed a certain specialized task as a product moved down the assembly line. An assembly line is a method where a product is put together while moving along a conveyor belt. Assembly lines sped up production times and more products could be made. Work, however, became more unfulfilling and boring. Workers could no longer take pride in their finished product.

Interchangeable Parts

Machine-made parts were created, and these parts were easily assembled and exactly alike, unlike before when parts were hand-made and not uniform. These machine-made parts allowed for machines to be fixed quicker, and thus could lead to more profits. Industrialists continually expanded factories or invested in new businesses. They used their profit to hire more workers and this could further increase their earnings, and this was called industrial capitalism.

Business Cycles

There are alternating period of business expansion and decline, known as the boom and the bust.

The boom is when buying and selling rates increase and a business does well. The bust is a period where business activity decreases and businesses do not do as well.

The depression is the lowest point in the business cycle. It can also be referred to as a “panic” because stockholders panic and begin to sell their shares, ultimately harming the corporation or businesses. The depression is a time where there are bank failures and many people may be unemployed.

Corporations and Partnerships

A corporation is a business organization owned by stockholders, and these stockholders vote on major decisions that concern the corporation. Shares in a corporation will increase or decrease in value depending on the profits of the company.

A partnership is a business organization that involves two or more entrepreneurs who can raise more capital and take on more business than if they worked alone. Partners in the partnership share management responsibilities and debt liability.

Skilled Trade Union and Blacklists

Workers began to join together in order to protest against the harsh conditions they faced. They went on strikes, yet they still faced great opposition. The names of suspected union members were put on blacklists, which prevented workers to get a job in the industry. Unions were eventually banned by the British Parliament under the Combination Acts.

Workers didn't give up, and they did finally get the rights to discuss their hours and wages. Trade unions formed, and trade union leaders were allowed to meet with employers to discuss issues. Because these trade unions were valuable, they were able to meet and reach agreements.

Industrial Revolution: People to Know

Alexander Graham Bell

Alexander Graham Bell invented the first telephone with the help of Thomas Watson. The telephone allowed for ideas to spread quickly. People could now communicate with one another much faster.

Charles Townsend

Charles Townsend helped bring the Agricultural Revolution to England. He visited the Netherlands and saw new farming techniques and ideas there. He brought the ideas back to England and these methods and ideas, along with new tools, eventually led to the Agricultural Revolution. (*see Agricultural Revolution*)

Edmund Cartwright

Edmund Cartwright invented a power loom that was fully automatic. This made textile production much faster.

Eli Whitney

Eli Whitney invented the cotton gin, which helped clean and prepare cotton faster. This meant that more cotton was cleaned faster and therefore more textiles could be created in a shorter amount of time in order to keep up with the demand.

Gottlieb Daimler

Gottlieb Daimler invented the high-speed petrol engine and the first four-wheel automobile. Automobiles made transporting people and goods much faster.

Henry Bessemer

Henry Bessemer and William Kelly came up with a cheaper way to produce steel from iron. More steel could be produced, and this contributed greatly to the growth of industry.

Henry Ford

Henry Ford sponsored the development of the assembly line. Assembly lines made producing products a much faster process, and the cost of manufacturing also decreased.

James Hargreaves

James Hargreaves invented the spinning jenny, which enabled spinners to produce more yarn. Being able to produce more yarn meant that the textile industry could keep up with the demand for textiles and cloth.

James Watt

James Watt was a Scottish inventor known for inventing the first modern steam engine. His steam engine made it possible to construct factories away from rivers. Now, factories could be built in many different locations. This invention is sometimes credited for starting the Industrial Revolution.

Richard Arkwright

Richard Arkwright developed the water frame, which could also spin cotton into yarn using water for power. This invention helped keep up with the demand for textiles.

Robert Fulton

Robert Fulton was the inventor of the steamboat. Steamboats made international trade and the movement of goods easier and faster than ever before. This helped lay the foundations for a world economy.

Rudolph Diesel

Rudolph Diesel invented the diesel engine, which eventually replaced the steam-piston engine.

Samuel Crompton

Samuel Crompton invented the cotton mule, which was used to spin cotton into yarn even faster than before. This meant that textiles could be made much faster and the industry could keep up with the demand for textiles.

Samuel Morse

Samuel Morse invented a single-wire telegraph system and helped invent Morse code. Both helped people communicate and ideas could be transferred faster.

Samuel Slater

Samuel Slater is responsible for bringing the Industrial Revolution to America. He came from Britain with helpful knowledge, despite the British trying to keep their secret. He set up mills in Rhode Island and shared the ideas of the revolution.

Thomas Edison

Thomas Edison invented the phonograph.

Wright Brothers

The Wright Brothers invented the first airplane. Airplanes allowed for goods, people, and ideas to travel faster.