

Industrial Revolution In America

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Mass Production

- ❖ Work before the Industrial Revolution was mostly done in the house, but after the idea of **Industrialization** was brought to America from England.
- ❖ All the work was transferred to factories which helped **Mass Production**.
- ❖ **Mass Production** is when you produce certain goods very quickly and efficiently

Steel

- ❖ Steel was the ideal metal for factories, strong, and light and after the research of Henry Bessemer was cheaper to make
- ❖ **Andrew Carnegie** was a man who studied the Bessemer technique and bought a steel mill in 1872,. He began to buy iron mines, and coal fields. This allowed him to have a **monopoly** in the steel business as he was controlling the operation and the industry from when the ore is extracted, to when it was finished and shipped to the buyer. He crushed any competition by buying up rival steel mills and controlled the transportation of his steel by purchasing railroads. He also kept improving the quality of his steel as his business was more successful. All of these strategies worked, and by 1900, he was supplying 25% of the nation's steel He mass produced so much that it lowered the prices to make it affordable to help the factories in America have cheap and durable machines that run better.

Electricity

- ❖ Edison established his “invention factory” in 1876
- ❖ He invented the first electrical light bulb, the first record player, and the first motion picture projector
- ❖ He also established the first power and distribution station. His team invented everything that the station needed, switches, fuse boxes, regulators, and cables
- ❖ This meant that electricity could be sent directly to the factories and homes
- ❖ Now not all factories had to be next to rivers know as electric motors were replacing waterworks
- ❖ Cleaning was made easier by the invention of the vacuum cleaner and the washing machine

Communication and Transportation

- ❖ Alexander Graham Bell invented the telephone in 1876 which he called his “talking machine”
- ❖ By 1915, over 9,000,000 telephones were in circulation.
- ❖ Also, the invention of the electric motor inspired the Wright brothers to invent their own gasoline motor, and their “flying machine”
- ❖ Although their first flight was only 12 seconds, it showed that flying was possible, and inspired many others like them

Increase in Production

- ❖ Factory owners began to take inspiration from Eli Whitney by using **interchangeable parts** to quickly fix and assemble machines.
- ❖ The **assembly line** also allowed the use of **unskilled** labor to make products faster, using one worker who only new and could to operate one machine.
- ❖ Henry Ford used this idea make cars, each worker assembled one part of the machine while standing still, while a conveyor belt brought the cars to them
- ❖ This allowed the prices of products to drop as the products were undergoing **mass production**

Vocab

- ❖ **Industrialization**- the development of industries in a region on a wide scale
- ❖ **Mass Production**- the manufacture of a lot of standardized products\
- ❖ **Andrew Carnegie**- expanded the steel industry and was widely regarded as incredibly wealthy
- ❖ **Monopoly**- when a single business controls the supply and distribution of an industry or product.
- ❖ **Interchangeable Parts**- the idea that when a machine breaks, only the piece that is broken needs to be fixed. The machines can be repaired through unskilled labor
- ❖ **Assembly Line**- this was a technique that had the unfinished product brought to individual workers, that allowed them to only have to do one or two tasks each.
- ❖ **Unskilled Labor**- jobs that don't require workers to have large amounts of training or skill.