

# Inventors

## Thomas Alva Edison and Alexander Graham Bell



**WHY THEY MADE HISTORY** Thomas Alva Edison and Alexander Graham Bell are two of the most important inventors in history. Their work influenced much of the technology of today's world.



*As you read the biography below, think about how each inventor contributed to the industrialization of the United States.*



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### **THOMAS ALVA EDISON (1847–1931)**

Thomas Edison experienced physical hardship as a child when he lost most of his hearing. Because of this, he had little formal schooling. He persevered, though, and entertained himself by building a lab for electrical experiments.

Edison's interest in electricity led him to **telegraphy**, which was one of the few practical uses of electricity at that time. He got a job as a telegraph operator, and soon began tinkering with the equipment. One of Edison's first inventions was an automatic telegraph that could send four messages at the same time.

Beginning in 1869, Edison turned his skills toward inventing full time. He created the first light bulb in 1879, and then developed a system for generating and distributing electric light and power.

Soon Edison opened an "invention factory" in Menlo Park, New Jersey, where he and his team of scientists produced many new innovations, including the phonograph and motion pictures. By the end of his life, Edison held 1,093 U.S. patents—the most patents that the U.S. Patent Office has ever granted to one person.

### **VOCABULARY**

**telegraphy** the use of an apparatus that uses coded signals to communicate over a long distance

**ALEXANDER GRAHAM BELL (1847–1922)**

An interesting link between inventors Edison and Alexander Graham Bell is hearing loss. While Edison lost most of his hearing as a child, Bell worked most of his life to improve the lives of people with hearing impairments.

In 1865 Bell began thinking of ways to transmit speech by electric waves. By then, he had moved from England to the United States and had started a school for the deaf in Boston. In 1876 Bell was granted a patent for his device. Three days later, Bell's famous sentence to his assistant, "Mr. Watson, come here; I want you," was transmitted by his invention—the telephone. Bell became a very rich man. He continued inventing such machines as a Graphophone, the first successful sound recorder. Bell also remained devoted to helping the deaf, resulting in detailed studies of deafness and inventions designed specifically for those whose hearing was impaired.

**WHAT DID YOU LEARN?**

- 1. Interpret** Why might these inventions have been especially important during this time in American history?

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- 2. Expressing and Supporting a Point of View** What do you think was the greatest accomplishment of Thomas Alva Edison or Alexander Graham Bell? Provide reasons or examples to support your point of view.

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**ACTIVITY**

- 3.** Think of an invention. Draw a diagram of your invention and write a description of how it works and how it would improve lives today.

# Mother Jones

1830–1930



**WHY SHE MADE HISTORY** Mary Harris Jones, known as Mother Jones, was responsible for organizing workers in protest for better working conditions. Throughout her long life, she made bold statements in support of workers' rights.



*As you read the biography below, think about how Mother Jones's individuality brought attention to her cause.*

Described as militant and witty, Mary Harris Jones first began organizing laborers in the 1890s. She was known for staging unusual and attention-getting events. One of the best examples of her style was during a 1900 coal miner strike in Pennsylvania. She organized the coal miners' wives to march at night, banging on tin pans to block any workers who tried to come to work during the strike.

Mother Jones was especially talented at using the media to her advantage. One of her most important causes was the fight against child labor. Factories and mills often used children to make their products. These children usually worked long hours in harsh conditions for very little pay. Mother Jones fought tirelessly to bring an end to such practices.

In 1903 Mother Jones organized a weeklong march of child mill workers from Pennsylvania to the home of President Theodore Roosevelt in New York. The march was highly publicized, and many people saw for the first time the effect hard labor had on these children. Many of the children were very obviously suffering physically from the abusive conditions in which they were forced to work.



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## VOCABULARY

**incarceration** imprisonment

Mother Jones was nicknamed “the miner’s angel” for all of her efforts to win better conditions for coal miners. Her skill in speaking moved large groups of workers to join labor unions. The mine operators often had Mother Jones arrested, but her **incarcerations** attracted so much attention that the needs of her cause were still met.

Battles between mine owners and workers often turned violent, sometimes resulting in deaths on both sides. Mother Jones advocated non-violence, but was not afraid to face the rifles of mine guards.

Mother Jones lost her husband and children in a yellow fever epidemic in 1867. She compared what she did for the coal miners and child laborers to what any mother might do in defense of her own children.

### WHAT DID YOU LEARN?

- 1. Draw a Conclusion** Why do you think Mary Harris Jones earned the nickname of “Mother Jones?”

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- 2. Making Inferences** Based upon what you know about Mother Jones, what causes might she support if she were alive today?

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### ACTIVITY

- 3.** Mother Jones used creative and non-violent ways to draw attention to her cause. Think about a cause that you support. Think of creative ways you can make people aware of your cause. Share your ideas with the class.