



# *Thomas Alva Edison*

*The phonograph was one of Edison's many inventions.*

*This phonograph is currently on display at the Marietta Museum of History. Edison made the first of his phonographs in the 1870s. At the time he completed the phonograph, there was no way to record the human voice. The first demonstrations of the new invention amazed and scared people. They couldn't understand how a human voice could come from a machine and they thought it must be magic.*

*This phonograph is a Model A and was made in 1905.*

*The phonograph plays recordings made on a wax cylinder the size of a soda can. The cylinder has ridges like a record, and a needle projects the recorded sound when the cylinder spins beneath it. The phonograph does not run on electricity. Instead, it has a handle on the side that is used to crank it and wind a spring. Then, as the spring unwinds, it spins the record cylinder to project the sound.*



Thomas Alva Edison (1847-1931) was one of the greatest inventors and industrial leaders in history. His most famous contributions include practical electric lighting, the phonograph, and improvements to the telegraph, telephone, and motion pictures. Edison also created one of the first modern research laboratories. Some scientists and historians regard his development of the research lab as his greatest achievement.

Edison looked for many different solutions when attempting to solve problems. When he created new or improved devices, he

made a variety of designs. Sometimes he borrowed features from one technology and adapted them to another. Edison obtained 1,093 United States patents, the most the U.S. patent office has ever issued to one person. Altogether, he received thousands of patents from some two dozen nations.

Edison's promotion of the research laboratory grew out of his methods of work. He usually worked alongside his assistants. He wanted to see how others had solved mechanical, electrical, and chemical problems and then tried to improve upon their ideas. Early in his career,

Edison hired machine shop assistants to help him. Within a few years, he established a laboratory for inventing. By the early 1900's, U.S. corporations had seen the success of research labs, such as Edison's and those in Germany, and began establishing their own.

Edison was also a good businessman. He not only loved to design new devices but also wanted them to be used by many people. He found financial partners worldwide and created new companies to manufacture and sell his products. Income from selling his products

helped support his research laboratory and the development of more devices. As a result, Edison and other manufacturing pioneers in the late 1800's helped make the United States an industrial world power.

Armed with self-confidence and determination, Edison overcame a number of technical and commercial failures. He became world famous by his mid-30's and a millionaire by his mid-40's. Today, Edison's name and electric light bulb are worldwide symbols of bright ideas and technical creativity.

*From World Book Encyclopedia Online*

## Let's Review

1. Name four items that Thomas Edison invented or improved? \_\_\_\_\_

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2. How many patents did Edison obtain from the United States patent office? \_\_\_\_\_

3. What idea did U.S. businesses take from Edison? \_\_\_\_\_

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4. When was Edison born? \_\_\_\_\_

5. When did Edison die? \_\_\_\_\_