



## 16.4 Lewis Latimer

*Latimer, often called a “Renaissance Man,” was an accomplished African-American inventor receiving seven U.S. patents. His professional and personal achievements define him as a humanitarian, artist, and scientist.*

### Son of former slaves



Photo courtesy of Queens Library

Lewis Howard Latimer was born on September 4, 1848 in Chelsea, Massachusetts. Latimer's parents had escaped from slavery in Virginia and moved north. In Boston, Latimer's father, George, was arrested and jailed because he was considered a fugitive. The

Massachusetts Supreme Court ruled that he belonged to his owner in Virginia.

The people of Boston protested and local supporters paid for his release. George was free. George and his wife settled in Chelsea where they started their family. In 1858, George, fearing he would be forced to return to slavery, went into hiding, leaving his family behind.

Young Lewis Latimer attended grammar school in Chelsea and was a high-achieving student. As a teenager, Lewis lied about his age to join the Union Navy during the Civil War. After four years of military service, the war ended and Latimer was honorably discharged.

### Drafting a career

Latimer looked for work in Boston and finally found a job as an office boy with a patent law firm, Crosby and Gould. He earned \$3.00 per week. At the firm, Lewis studied the detailed patent drawings prepared by the draftsmen. Over time, he taught himself the drafting trade using the tools and books available there.

Latimer showed his drawings to his boss and secured a job as a draftsman earning \$20.00 per week. He eventually became chief draftsman and worked at the firm for eleven years.

During this time, Latimer created patent drawings for Alexander Graham Bell. He completed the drawings and submitted them only hours before a competing inventor. Bell was awarded the telephone patent in 1876 due to Latimer's hard work and drafting skills.

### An enlightened inventor

Latimer was not only a talented draftsman, but also a successful inventor. While at Crosby and Gould, he developed his first invention—mechanical improvements for railroad train water closets (also known as toilets!).

After Crosby and Gould, Latimer worked as a draftsman at the Follandsbee Machine Shop. Here he met Hiram Maxim and was hired to work at Maxim's company, U.S. Electric Lighting. Maxim was an inventor searching for ways to improve Thomas Edison's light bulb. Edison held the patent for the light bulb, but the life span of the bulb was very short. Maxim wanted to extend the life of the light bulb and turned to Latimer for help.

Latimer taught himself the details of electricity. In 1881, he invented carbon filaments to replace paper filaments in light bulbs. He then went on to improve the manufacturing process for carbon filaments. Now light bulbs lasted longer, were more affordable, and had more uses. Latimer oversaw the installation of electric street lights in North America and London. He became chief electrical engineer for U.S. Electric Lighting and supervised The Maxim-Westin Electric Lighting Company in London.

### Edison and beyond

In 1885, Thomas Edison hired Latimer to work in the legal department of Edison Electric Light Company. Latimer was the chief draftsman and patent authority working to protect Edison's patents. He wrote the widely acclaimed electrical engineering book called *Incandescent Electric Lighting: A Practical Description of the Edison System*. Latimer became one of only 28 members of the “Edison Pioneers” and the only African-American member. The Edison Pioneers were the most highly regarded men in the electrical field. Edison's company eventually became the General Electric Company.

Latimer's additional inventions included an early version of the air conditioner; a locking rack for hats, coats, and umbrellas; and a book support. He was also a poet, musician, playwright, painter, civil rights activist, husband, and father. Latimer died in 1928 at age 80.



## Reading reflection

1. How did Lewis Latimer become a draftsman and electrical engineer?
2. List Latimer's major inventions. What was his most important invention and why?
3. **Research:** What is a “Renaissance man”? Why is Latimer referred to as a Renaissance man?
4. **Research:** Latimer was an accomplished poet. Locate and identify the names of two of his poems.
5. **Research:** When did the Edison Pioneers first meet? Locate an excerpt from the obituary published by the Edison Pioneers honoring Lewis Latimer.