



Sarah Boone (1832-1904) was an [African American](#) inventor who on April 26, 1892, obtained [United States patent](#) rights for her improvements to the [ironing board](#). Boone's ironing board was designed to improve the quality of ironing sleeves and the bodies of women's garments. The board was very narrow, curved, and made of wood. The shape and structure allowed it to fit a sleeve and it was reversible, so one could iron both sides of the sleeve.^[1]

Boone was born **Sarah Marshall** in [Craven County, North Carolina](#) near the town of [New Bern](#) in February 1832. On November 25, 1847, in New Bern, she married a freedman named James Boone (or Boon);^[2] they would have eight children.^[3]

The Boone family left North Carolina for [New Haven, Connecticut](#) before the outbreak of the [American Civil War](#); they settled into a house at 30 Winter Street.^[4] James Boone worked as a brick mason^[5] until his death in 1874 ^[6] while his wife was listed in New Haven directories as a dressmaker.^[7]

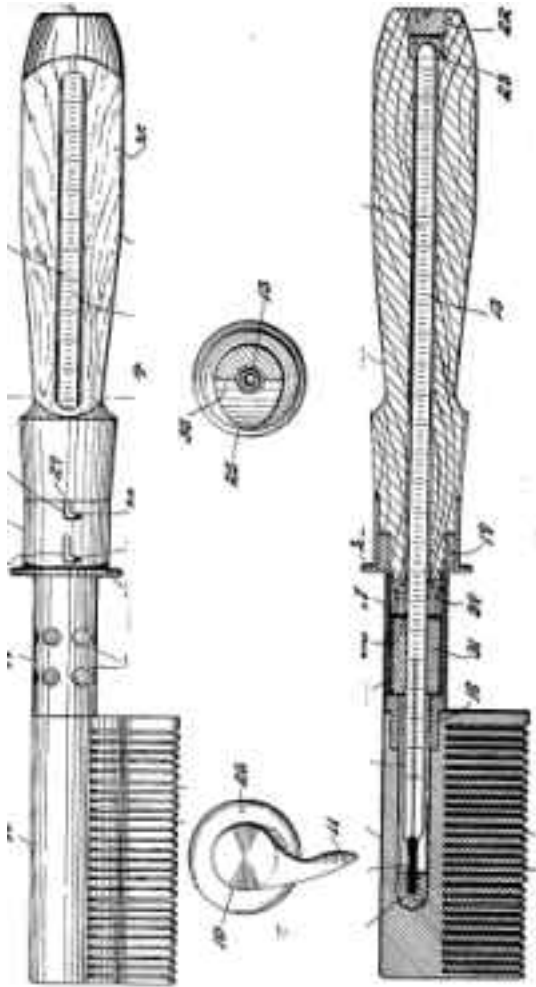
Sarah Marshall Boone died in 1904 and is buried in a family plot in Evergreen Cemetery in New Haven.^[8]



Jan Ernst Matzeliger (September 15, 1852 – August 24, 1889) was a revolutionary in the shoe industry with the invention of the lasting machine. Matzeliger was born in [Paramaribo](#) (then Dutch Guyana, now [Suriname](#)). His father was a Dutch engineer of German descent living in Dutch Guyana. He was very wealthy and very well educated. His mother was a black Surinamese slave of African descent. At the age of ten, he was apprenticed in the machine shops run by his father, where Matzeliger developed an interest in machinery and mechanics. He had some interest in mechanics in his native country, but his efforts at inventing a shoe-lasting machine began in the [United States](#) after a life of working in a machinery shop. He settled in [Philadelphia, Pennsylvania](#) at 19 after working as a sailor. By 1877, he spoke adequate (barely/ just enough to get around since Dutch was his native tongue) English and had moved to Massachusetts. In the early days of shoe making, shoes were made mainly by hand. For proper fit, the customer's feet had to be duplicated in size and form by creating a stone or wooden mold called a "last" from which the shoes were sized and shaped. Since the greatest difficulty in shoe making was the actual assembly of the soles to the upper shoe, it required great skill to tack and sew the two components together. It was thought that such intricate work could only be done by skilled human hands. As a result, shoe lasters held great power over the shoe industry. They would hold work stoppages without regard for their fellow workers' desires, resulting in long periods of unemployment for them.^[1]

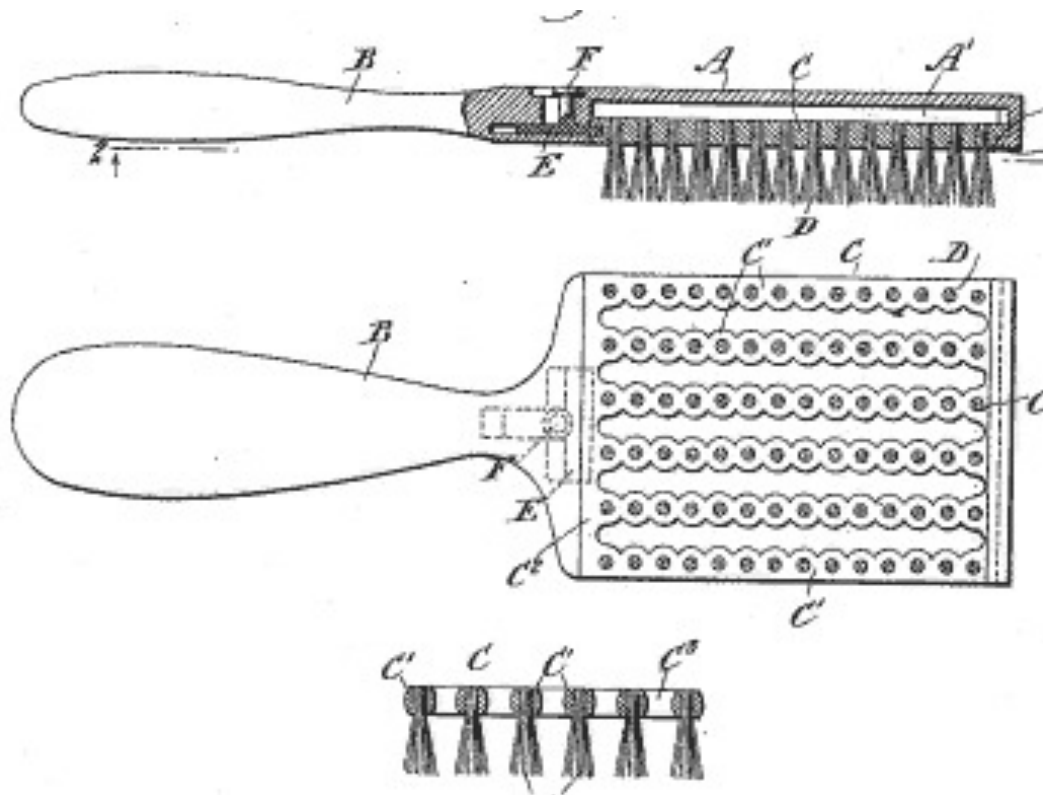
After a while, he went to work in the Harney Brothers Shoes factory. At the time, no machine could attach the upper part of a shoe to the sole. This had to be done manually by a "hand laster"; a skilled one could produce 50 pairs in a ten-hour day. After five years of work, Matzeliger obtained a patent for his invention in 1883.^[2] His machine could produce between 150 to 700 pairs of shoes a day, cutting shoe prices across the nation in half.^[3] He sacrificed his health working exhausting hours on his invention and not eating over long periods of time, he caught a cold which quickly developed into tuberculosis.^[4] His early death in [Lynn, Massachusetts](#) from [tuberculosis](#) meant he never saw the full profit of his invention. He died at age 36 on August 24, 1889. Jan Ernst Matzeliger's invention was perhaps "the most important invention for New England." His invention was "the greatest forward step in the shoe industry," according to the church bulletin of The First Church of Christ (the same church that took him as a member) as part of a commemoration held in 1967 in his honor. Yet, because of the color of his skin, he was not mentioned in the history books until recently.^[5]

In recognition of his accomplishment, he was honored on a postage stamp on September 15, 1991.^[6]



Walter Sammons invented an improved version of the standard comb for enhanced hair straightening, and he received the patent for the heated comb to aid in removing kinks from hair. Sammons, from Philadelphia, received this patent, number 1,362,823, on Dec. 21, 1920. Sammons lived from 1890 until 1973.



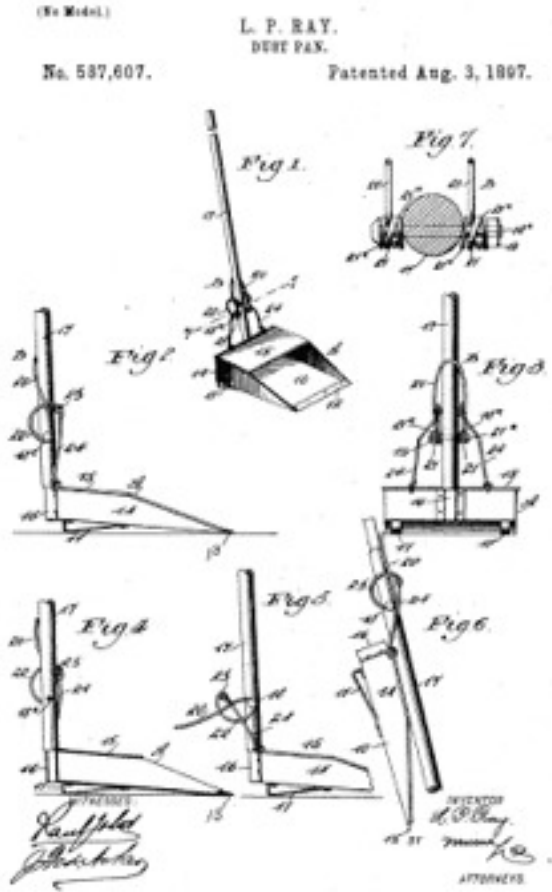


Lyda Newman, born in Ohio circa 1885, was an African-American inventor and women's rights activist. A hairdresser by trade, she received a patent for an improved model of hairbrush in 1898. She also fought for women's right to vote, working with well-known women's suffrage activists. Newman lived much of her adult life in New York City.

Little is known about the life of Lyda D. Newman. According to official census records, she was born in Ohio around 1885. By the late 1890s, she was a New York City resident. In 1898, Newman applied for a United States patent for a new style of hairbrush. She received the patent on November 15, 1898. Her hairbrush design included several features for efficiency and hygiene. It had evenly spaced rows of bristles, with open slots to guide debris away from the hair into a recessed compartment, and a back that could be opened at the touch of a button for cleaning out the compartment. In 1915, Newman was mentioned in local newspapers for her suffrage work. She was one of the organizers of an African-American branch of the Woman Suffrage Party, which was fighting to give women the legal right to vote. Working on behalf of her fellow African-American women in New York, Newman canvassed her neighborhood to raise awareness of the cause and organized suffrage meetings in her voting district. Prominent white suffragists of the Woman Suffrage Party worked with Newman's group, hoping to bring voting rights to all of New York's female residents. The records of government censuses of 1920 and 1925 confirm that Newman, then in her 30s, was living in an apartment building on Manhattan's West Side and was working as the hairdresser to a private family.



Sarah Breedlove (December 23, 1867 – May 25, 1919), known as **Madam C. J. Walker**, was an American [entrepreneur](#), [philanthropist](#), and the first female self-made millionaire in America.^{[1][2]} She made her fortune by developing and marketing a line of beauty and hair products for black women under the company she founded, [Madame C.J. Walker Manufacturing Company](#).



African American inventor, Lloyd Ray, patented a new and useful improvement in dust pans. Lloyd Ray invented a device with a metal collection plate attached to a short wooden handle in which trash could be swept into, without getting one's hands dirty. Below you can view the patent issued to Lloyd Ray.



Thomas Stewart of Kalamazoo, Michigan, patented a new type of mop (U.S. patent #499,402) on June 11, 1893. Thomas Stewart had invented a clamping mop that could wring the water out of itself by the use of a lever. Thomas Stewart's first invention was a station and street indicator patented in 1883. Before this invention, there were only street signs warning of crossing trains and street cars. The indicator could be activated by a lever built into the tracks that indicated a train or street car was approaching.

Stewart's next invention was an improved mop design that is still in use. In 1893, the year Stewart invented the new mop, the only available mops had to be wrung out by hand. Stewart improved upon this design by adding a clamp and springs that allowed the user to push a lever that wrung out excess water. Stewart also made the mop head detachable so users could replace or clean mop heads as needed.

Stewart's last invention was created in 1887 and was a metal bending machine that had the capability of oscillating. This invention made the process of bending steel safer and more efficient.



George T. Sampson came from Dayton, Ohio. His clothes dryer, U.S. patent #476,416, was a frame that suspended clothing above a stove so that it dried more quickly. Prior to Sampson's invention, clothes dryers were being invented in England and France in the form of ventilators, which were essentially barrels with holes in them. The barrels would be turned by hand over a fire. Sampson's invention was also a ventilator, but it eliminated the need for an open flame, and used frames instead of a barrel. George T. Sampson is credited for paving the way to more modern clothes dryers. Electrical clothes dryers did not appear until around 1915, and the Hamilton Manufacturing Company produced the first fully automatic dryer in 1938.

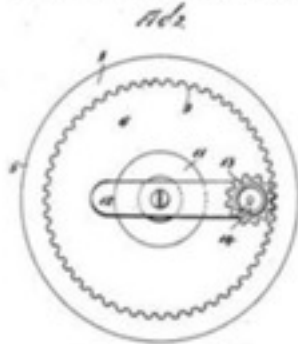
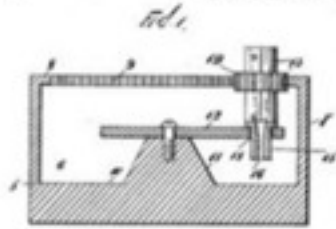
Sampson's other known patent for a sled propeller, #312,388, was filed in 1885 and involved attaching a propelling device to a tricycle. The wheels were replaced with runners so it would function on the snow. People occupying the sled would operate the propeller with their feet using pedals. The diagrams for this and Sampson's other patent are still on file with the U.S. patent office today.

(No Model.)

J. L. LOVE.
PENCIL SHARPENER.

No. 594,114.

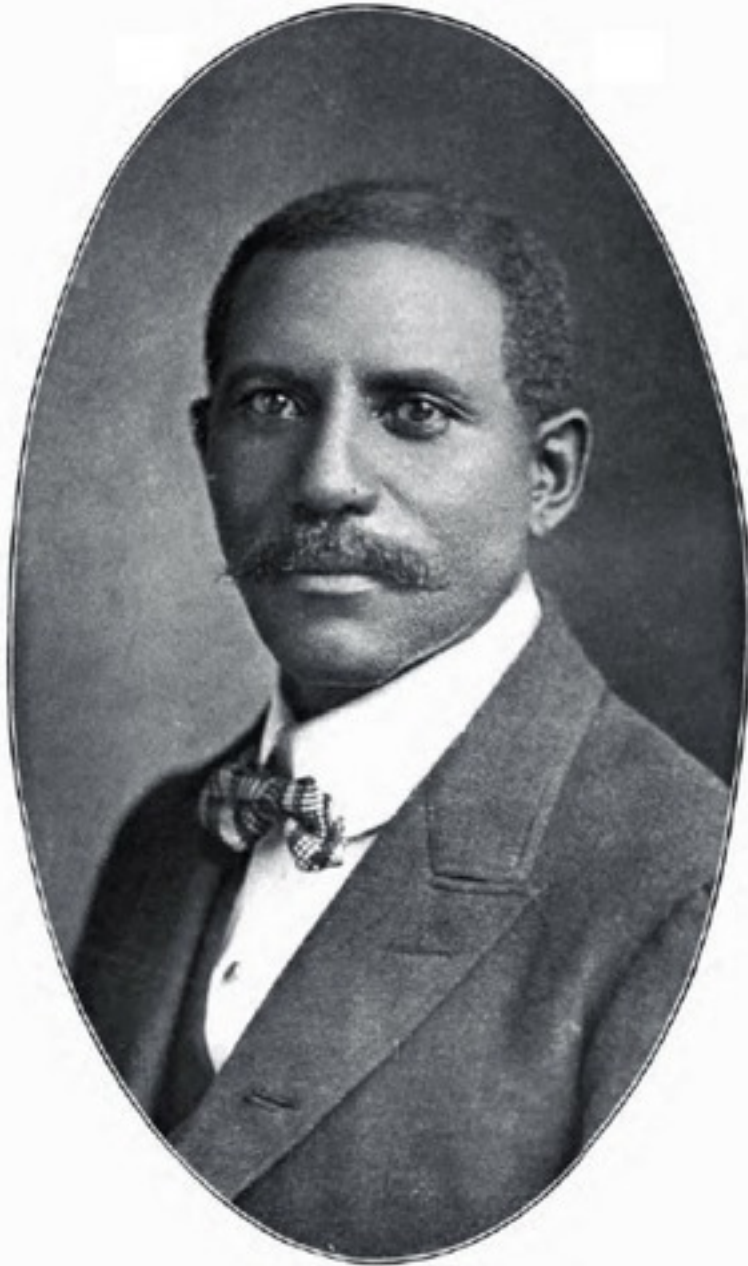
Patented Nov. 23, 1897.



WITNESSES:
John B. Smith
W. C. Smith

INVENTOR
John Lee Love
Edw. J. Smith
ATTORNEY

John Lee Love was a carpenter in Fall River, Massachusetts, who invented several devices. In 1895, Lee patented a lightweight plasterer's hawk. In 1897, he patented a portable pencil sharpener known as the "Love Sharpener." Lee died in a car and train collision in North Carolina on December 26, 1931.



William Purvis of Philadelphia invented and patented improvements to the [fountain pen](#) in 1890. William Purvis made several improvements to the fountain pen in order to make a "more durable, inexpensive, and better pen to carry in the pocket." Purvis used an elastic tube between the pen nib and the ink reservoir that used a suction action to return any excess ink to the ink reservoir, reducing ink spills and increasing the longevity of the ink. Fountain pens were first patented as early as 1809.



Richard Spikes (1884-1962) was an [African-American](#) engineer from [San Francisco, California](#). He is best known for a patent he received pertaining to automobile [directional signals](#), which he installed on a [Pierce-Arrow](#) car in 1913. However, contrary to many sources, Spikes was not the original inventor of this pivotal device, as [Percy Douglas-Hamilton](#) was awarded [U.S. Patent 912,831](#) in 1906 for his creation of the first [directional signals](#), six years before Spikes developed his version of the device. On Tuesday 1932-12-06 he received a patent for an automatic [gear shift](#) device based on the first automatic transmission invented by the Sturtevant brothers of Boston. Little is known of Spikes' personal life.



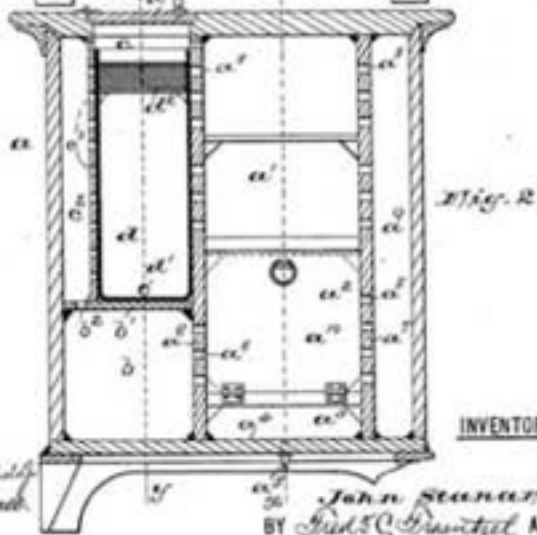
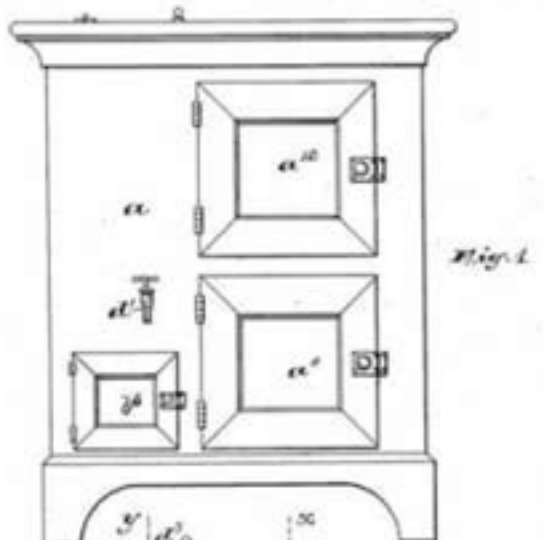
Garrett

Augustus Morgan, Sr. (March 4, 1877 – July 27, 1963) was an American inventor and community leader.^[1] He worked on the development of a chemical for [hair-straightening](#). He was the subject of a newspaper expose in [Cleveland, Ohio](#), for a heroic rescue in 1916 of workers trapped within a water intake tunnel, 50 ft (15 m) beneath [Lake Erie](#).^[2] He performed his rescue using a hood fashioned to protect his eyes from smoke and featuring a series of air tubes that hung near the ground to draw clean air beneath the rising smoke. By using this simple principle of heat, it allowed Morgan to lengthen his ability to endure the inhospitable conditions of a smoke-filled room. Morgan is also credited as the first African American in Cleveland to own an automobile.†

J. STANARD.
REFRIGERATOR.

No. 455,891.

Patented July 14, 1891.



WITNESSES:

*John H. ...
James O. ...*

INVENTOR:

*John Standard.
BY ... ATTY*

John Standard - Refrigerator: An improved refrigerator design was patented by African American inventor John Standard of Newark, New Jersey on June 14 1891 (U.S. patent #455,891). John Standard was also received U.S. patent #413,689 on October 29 1889 for an improved oil stove.

In his patent for the refrigerator John Standard declared, "this invention relates to improvements in refrigerators; and it consists of certain novel arrangements and combinations of parts." John Standard was saying that he had found a way to improve the design of refrigerators. A non-electrical and unpowered design,

Standard's refrigerator made in 1891 used a manually-filled ice chamber for chilling.



On Dec. 23, 1919, inventor [Alice H. Parker](#) of Morristown, New Jersey, patented her design for the gas heating furnace. Parker's design would help provide central heating in millions of homes and buildings around the world today.

Parker's gas heating furnace revolutionized how people heat their homes. With her invention, people no longer needed to stock and burn wood in a traditional furnace, which presented a high fire risk when left unattended.

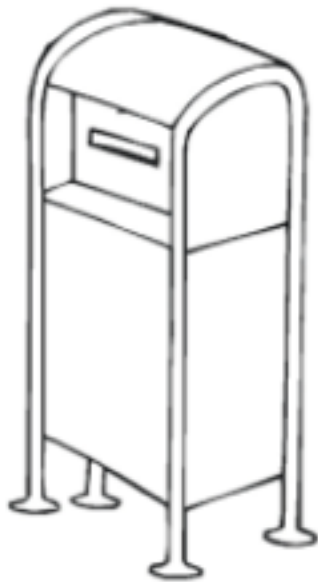


Frederick McKinley Jones (May 17, 1893 – February 21, 1961) was an African-American inventor, entrepreneur, winner of the [National Medal of Technology](#), and [inductee](#) of the [National Inventors Hall of Fame](#).^[1] His innovations in refrigeration brought great improvement to the long-haul transportation of perishable goods.^[2] He cofounded [Thermo King](#).^[1]



In 1893, **Elbert R Robinson**, an African American inventor, received a patent for an electric railway trolley. However this was not the first trolley car.





Improved Mail Box

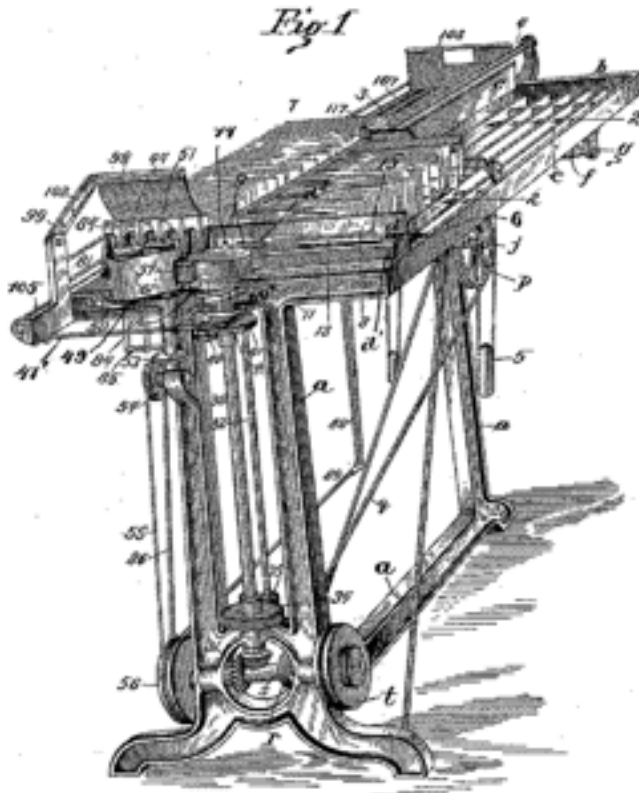
On October 27, 1898, inventor Philip B. Downing was awarded a patent for an improved letter drop box. The improvements made the mail box weatherproof and tamperproof by improving the covering and the opening. The design is basically what is in use today.



W. BARRY.
MAIL CANCELING MACHINE.

No. 585,074.

Patented June 22, 1897.



Witnesses
 Charles R. Burdine
 Hubert C. Bol

Inventor
 William Barry
 by O. E. Duff

Alexander Miles

(Late 1830s–1918)

Miles's automatic elevator doors dramatically improved passenger safety.

Background: Miles's exact birthplace and birthdate are unknown. He was living in Duluth, Minn., when he came up with his famous invention.

Invention: Early elevators were different from the mostly automated devices we're familiar with today. Passengers had to manually open and close the elevator doors, as well as the door leading to the elevator shaft. If anyone forgot to close the shaft door, other passengers could fall down the shaft when expecting to step into the elevator. Miles invented a mechanism that triggered the shaft doors to open and close along with the elevator doors, making the ride safer.

Did You Know? The elevators we ride today still feature automatic shaft doors similar to the invention Miles patented in 1887.

In 1891, anyone interested in mailing a letter would have to make the long trip to the post office. Philip B. Downing designed a metal box with four legs which he patented on October 27, 1891. He called his device a street letter box and it is the predecessor of today's mailbox.



Lewis Howard Latimer's talents were well-matched to the post-Civil War period, which saw a large number of scientific and engineering breakthroughs. Latimer was directly involved with one of these inventions: the telephone. Working with Alexander Graham Bell, Latimer helped draft the patent for Bell's design of the telephone. He was also involved in the field of incandescent lighting, a particularly competitive field, working for Hiram Maxim and Thomas Edison.

Latimer's deep knowledge of both patents and electrical engineering made Latimer an indispensable partner to

Edison as he promoted and defended his light bulb design. In 1890, Latimer published a book entitled *Incandescent Electric Lighting: A Practical Description of the Edison System*. He continued to work as a patent consultant until 1922.



Charles Richard Drew was born on June 3, 1904, in Washington, D.C. He was an African-American physician who developed ways to process and store blood plasma in "blood banks." He directed the blood plasma programs of the United States and Great Britain in World War II, but resigned after a ruling that the blood of African-Americans would be segregated. He died on April 1, 1950.