INVENTIONS THEIR INVENTORS

H – HOME **C** – COMMUNICATION **A** – AGRICULTURE
T – TRANSPORTATION **I** - INDUSTRY

Invention	Year Invented	Inventor
Ice-Making Machine (H)	1850	John Gorrie
Telegraph (C)	1837	Samuel Morse
Typewriter (C)	1867	Christopher Shoels
Steamboat (T)	1807	Robert Fulton
Can Opener (H)	1858	Ezra Warner
Corn Picker (A)	1851	Edmund Quincy
Electric Streetcar (T)	1835	Thomas Davenport
Mechanical Reaper (A)	1834	Cyrus Hall McCormick
Dishwasher (H)	1850	Joel Houghton
Lock (Pin Tumbler) (H) (I)	1848	Linus Yale Jr.
Celluloid (I)	1869	John Hyatt
Cotton Gin (A)	1794	Eli Whitney
Hot Dog (H)	1860s	Unknown
Motorcycle (T)	1867	Sylvester Roper
Canning Foods (H)	1787	
Potato Chip (H)	1853	George Crum
Vulcanized Rubber (tires, rubber boots, etc.) (T)	1844	Charles Goodyear
Sugar Processing (I)	1864	Norbert Rillieux
Sewing Machine (H)	1846	Elias Howe
Toilet Paper (H)	1857	Joseph Gayetty
Safety Pin (H)	1846	Walter Hunt
Lawn Mower (H)	1831	Edward Beard Budding
Elevator Brake (T)	1853	Elisha Otis

Inventors and Inventions from 1801-1870

CAN OPENER



The can opener was invented in 1858 by Ezra Warner of Waterbury, Connecticut, USA. Warner's device used a lever and chisel. Until then, cans were opened using a hammer and chisel; the can opener was invented 50 years after the metal can was invented. The can opener was improved in 1870 by William Lyman of West Meridian, Connecticut, USA. Lyman's device used a rotating wheel and a sharp edge. His can opener only fit one size of can, and first had to pierce the center of the can. The modern-day type of can opener (using a serrated wheel) was invented in 1925.

CELLULOID

Celluloid is a plastic made from cellulose (it is derived from plants). This very flammable material was invented in 1869 by the American inventor John Wesley Hyatt (it was invented to be a substitute for the elephant ivory used for billiard balls). Celluloid was one the first plastics invented; it can be damaged by moisture.

CORN PICKER

Edmund Quincy invented the corn picker in 1851. Commercial corn and wheat belts began to develop, wheat occupied the newer and cheaper land west of the corn areas and was constantly being forced westward by rising land values and the encroachment of the corn areas, alfalfa was being grown on the west coast, successful farming on the prairies began.

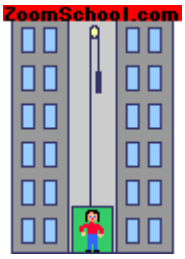
DAVENPORT, THOMAS

Thomas Davenport (July 9, 1802 -July 6, 1851) was an American blacksmith and inventor who established the first commercially successful electric streetcar. Davenport, from Vermont, invented an electric motor in 1834 and began a small electric railway in 1835. He patented a device for "Improvements in propelling machinery by magnetism and electromagnetism" in 1837 (his electric railway). Davenport later started a workshop in New York City, New York, and published a journal on electromagnetism (it was printed on a press that was powered by motors which he devised).

DISHWASHER

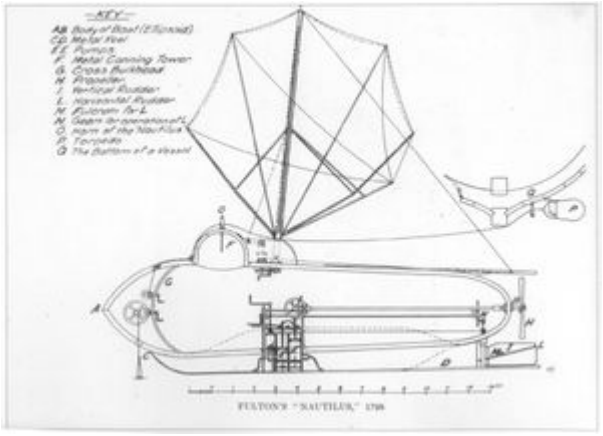
The first dishwasher was patented in 1850 by Joel Houghton; his machine was a hand-turned wheel that splashed water on dishes - unfortunately, it wasn't very effective at washing dishes. The first working automatic dishwasher was invented by Mrs. Josephine Garis (W. A.) Cochran, of Shelbyville, Illinois, in 1889. Her dishwasher was a wooden tub with a wire basket in it - the dishes went in the basket, and rollers rotated the dishes. As a handle on the tub was turned, hot, soapy water was sprayed into the tub, cleaning the dishes. Cochran's machine was first shown at the 1893 World's Fair in Chicago, Illinois. At first, her machine was only bought by some restaurants and hotels. Cochran's small company was eventually associated with the KitchenAid company. The dishwasher didn't become widespread as a labor-saving machine until the 1960s.

ELEVATOR BRAKE

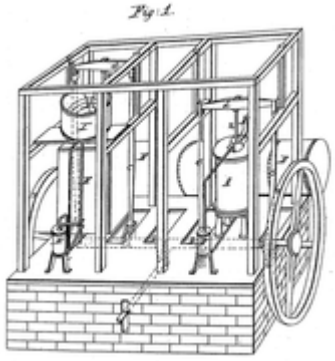


Elisha Graves Otis (1811-1861) invented the elevator brake, which greatly improved the safety of elevators. He used a ratchet on a spring to catch the elevator in the event of an accident (like a broken cable).
In 1854, at the Crystal Palace Exposition in New York, Otis demonstrated how safe his elevator was by cutting the elevator's cable with an ax, and the elevator car stayed where it was in the shaft. Otis' invention spurred the development of skyscrapers, changing the look of cities around the world forever.

Fulton Robert



(November 14, 1765 – February 24, 1815) was a U.S. engineer and inventor who is widely credited with developing the first commercially successful steam-powered steamboat. He also designed a new type of a steam warship. In 1800 he was commissioned by Napoleon Bonaparte to design *Nautilus*, which was the first practical submarine in history.In 1807, Fulton and Livingston built the first commercial steamboat, the *North River Steamboat* (later known as the *Clermont*), which carried passengers between New York City and Albany, New York. Fulton is buried at the Trinity Church Cemetery in New York City alongside other famous Americans such as Alexander Hamilton.



Gorrie, John

(October 3, 1802 – June 29, 1855) physician, scientist, inventor, and humanitarian, is considered the father of refrigeration and air conditioning. After 1845, he gave up his medical practice to pursue refrigeration projects. On May 6, 1851, Gorrie was granted Patent No. 8080 for a machine to make ice. The original model of this machine and the scientific articles he wrote are at the Smithsonian Institution. Impoverished, Gorrie sought to raise money to manufacture his machine, but the venture failed when his partner died. Humiliated by criticism, financially ruined, and his health broken, Gorrie died in seclusion on June 29, 1855. He is buried in Gorrie Square in Apalachicola.

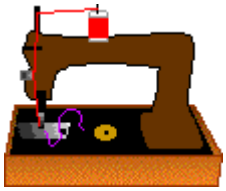
HOT DOGS



Hot dogs began as sausages sold in buns. They were first sold from carts by German immigrants on the streets of New York City in the 1860s. The bun replaced a plate and made the hot dog easier to carry and eat. Sauerkraut was provided as a relish on the hot dog



HOWE, ELIAS



Elias Howe (1819-1867) was American inventor who patented an improved sewing machine in 1846. His revolutionary machine used two separate threads, one threaded through the needle, and one in a shuttle; it was powered by a hand crank. A sideways-moving needle with its eye at one end would pierce the fabric, creating a loop of thread on the other side.; a shuttle would then push thread through the loop, creating a tight lock stitch. Earlier sewing machines used only one thread and a chain stitch that could unravel. Howe's business did not thrive. Others, like Isaac Singer made slight modifications in the machine and built successful businesses. Howe sued those who had infringed on his patent and won royalties on all machines sold (he was paid $5.00 for each sewing machine sold). Howe died the year his patent expired.

LAWN MOWER

The first lawn mower was invented in 1830 by Edwin Beard Budding. Budding (1795-1846) was an engineer from Stroud, Gloucestershire, England. His reel mower was a set of blades set in a cylinder on two wheels. When you push the lawn mower, the cylinder rotates, and the blades cut the grass. Budding patented his lawn mower on August 31, 1830. Before his invention, a scythe was used (or sheep or other grazing animals were allowed to graze on the grass). The first reel lawn mower patent in the US (January 12, 1868) was granted to Amariah M. Hills, who formed the Archimedean Lawn Mower Co.

McCOY, ELIJAH



Elijah McCoy (1843 or 1844-1929) was a mechanical engineer and inventor. McCoy's high-quality industrial inventions (especially his steam engine lubricator) were the basis for the expression "the real McCoy," meaning the real, authentic, or high-quality thing.

McCORMICK, CYRUS HALL



Cyrus Hall McCormick (February 15, 1809 - May 13, 1884) was an American inventor (of Irish descent) who developed the mechanical reaper. His new machine combined many of the steps involved in harvesting crops, greatly increased crop yields, decreased the number of field hands needed for the harvest, lowered costs, and revolutionized farming.

MECHANICAL REAPER



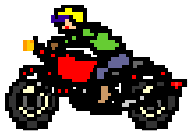
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MORSE CODE/TELEGRAPH



Samuel Finley Breese Morse (1791-1872) was an American inventor and painter. After a successful career painting in oils (first painting historical scenes and then portraits), Morse built the first American telegraph around 1835 (the telegraph was also being developed independently in Europe). A telegraph sends electrical signals over a long distance, through wires. In 1830, Joseph Henry (1797-1878) made the first long-distance telegraphic device - he sent an electric current for over a mile on wire that activated an electromagnet, causing a bell to ring. Morse patented a working telegraph machine in 1837, with help from his business partners Leonard Gale and Alfred Vail. Morse used a dots-and-spaces code for the letters of the alphabet and the numbers (Morse Code was later improved to use dots, dashes and spaces: for example E is dot, T is dash, A is dot-dash, N is dash-dot, O is dash-dash-dash, I is dot-dot, S is dot-dot-dot, etc.). By 1838, Morse could send 10 words per minute. Congress provided funds for building a telegraph line between Washington D.C. and Baltimore, Maryland, in 1843. Morse sent the first telegraphic message (from Washington D.C. to Baltimore) on May 24, 1844; the message was: "What hath God wrought?" The telegraph revolutionized long-distance communications.

MOTORCYCLE



The earliest motorcycle was a coal-powered, two-cylinder, steam-driven motorcycle that was developed in 1867 by the American inventor Sylvester Howard Roper. His mostly wooden motorcycle had iron-banded wheels with wooden spokes. This bone-crunching vehicle was powered by a single-cylinder engine.

OTIS, ELISHA GRAVES

Elisha Graves Otis (1811-1861) was an American mechanic and inventor. Otis invented the elevator brake, which greatly improved the safety of elevators. He used a ratchet on a spring to catch the elevator in the event of an accident (like a broken cable). In 1854, at the Crystal Palace Exposition in New York, Otis demonstrated how safe his elevator was by cutting the elevator's cable with an ax, and the elevator car stayed where it was in the shaft. Otis' invention spurred the development of skyscrapers, changing the look of cities around the world forever. Otis also invented a railway safety brake and improvements to turbine engines and brass bed frames.

POTATO CHIPS

The potato chip was invented in 1853 by George Crum. Crum was a Native American/African American chef at the Moon Lake Lodge resort in Saratoga Springs, New York, USA. French fries were popular at the restaurant and one day a diner complained that the fries were too thick. Although Crum made a thinner batch, the customer was still unsatisfied. Crum finally made fries that were too thin to eat with a fork, hoping to annoy the extremely fussy customer. The customer, surprisingly enough, was happy - and potato chips were invented!

RILLIEUX, NORBERT



Norbert Rillieux (March 17, 1806-October 8, 1894) was an African-American inventor and engineer who invented a device that revolutionized sugar processing. Rillieux's multiple effect vacuum sugar evaporator (patented in 1864) made the processing of sugar more efficient, faster, and much safer. The resulting sugar was also superior. His apparatus was eventually adopted by sugar processing plants all around the world.

ROPER, SYLVESTER HOWARD

Sylvester Howard Roper (1823-1896) was an American inventor from New Hampshire and Massachusetts. Roper developed a coal-powered, two-cylinder, steam-driven wooden motorcycle in 1867. Roper also developed a steam-driven car. Roper died at the age of 73 while testing a new motorcycle.

SAFETY PIN



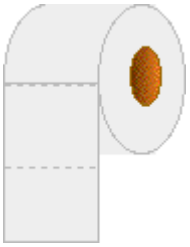
The safety pin was invented by Walter Hunt in 1849. Hunt 1795-1859) patented the safety pin on April 10, 1849 (patent No. 6,281). Hunt's pin was made by twisting a length of wire. Hunt invented the safety pin in order to pay a debt of $15; he eventually sold the rights to his patent for $400.

SEWING MACHINE



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TOILET PAPER



Joseph Gayetty invented toilet paper in 1857. His new toilet paper was composed of flat sheets. Before Gayetty's invention, people tore pages out of mail order catalogs - before catalogs were common, leaves were used. Unfortunately, Gayetty's invention failed. Walter Alcock (of Great Britain) later developed toilet paper on a roll (instead of in flat sheets). Again, the invention failed.
In 1867, Thomas, Edward and Clarence Scott (brothers from Philadelphia, Pennsylvania, USA) were successful at marketing toilet paper that consisted of a small roll of perforated paper . They sold their new toilet paper from a push cart - this was the beginning of the Scott Paper Company.

TYPEWRITER



The first typewriter was invented in 1867 by the American printer and editor Christopher Latham Sholes (Feb. 14, 1819 - Feb. 17, 1890). Sholes' prototype had the user hit a key (for each letter and number), which struck upward onto a flat plate, producing a carbon impression of the letter or number on the paper. He made the prototype using the key of an old telegraph transmitter. There was no way of spacing the letters, no carriage return, and no shift keys; these features would be added to later models. Carlos Glidden and Samuel W. Soulé also worked in the Kleinstuber Machine Shop with Sholes, and they helped with his inventions. Their first patent was obtained on June 23, 1868. Sholes and Glidden sold the rights to their invention to the investor James Densmore, who eventually had the machine commercially manufactured. Their first commercial model was called the "Sholes & Glidden Type Writer," and was later called the Remington typewriter. It was produced by the gunmakers E. Remington & Sons in Ilion, NY, from 1874-1878. The first author to submit a typed book manuscript was Mark Twain. Sholes' typewriter was the beginning of a revolution in communication.

VULCANIZED RUBBER

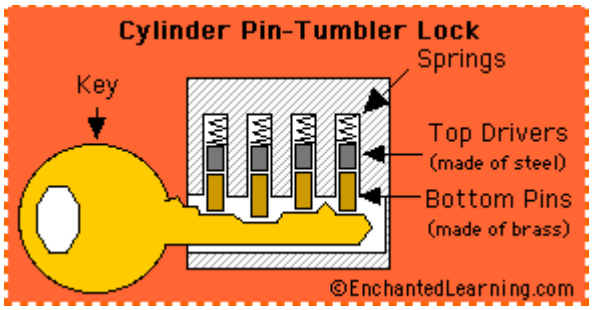


Charles Goodyear (December 29, 1800 - July 1, 1860) was the first American to vulcanize rubber, a process which he discovered in 1839 and patented on June 15, 1844. Although Goodyear is often credited with its invention, modern evidence has proven that the Mesoamericans used stabilized rubber for balls and other objects as early as 1600 BC.

WHITNEY, ELI

Eli Whitney (1765-1825) was an American inventor and engineer. Whitney invented the cotton gin and the idea of interchangeable parts. He patented the cotton gin, which revolutionized the cotton industry on March 14, 1794. The cotton gin is a machine that cleans cotton, removing its many seeds. Previously, this tedious job had been done by hand, using two combs. The cotton gin made much of the southern United States very rich, but cotton plantation owners rarely paid Whitney for the use of his invention, and Whitney went out of business. He never patented his later inventions (like his milling machine). Whitney also helped modernize the musket industry (and mass production in general) by introducing the idea of interchangeable parts in a manufacturing system.

YALE JR., LINUS



Linus Yale Jr. (1821-1868) was an American mechanical engineer and manufacturer who developed the cylinder pin-tumbler lock (and other key and combination locks). Yale's father, Linus Yale, had invented an earlier pin-tumbler lock in 1848; the son's lock used a smaller, flat key with serrated edges (like the ones we still use today). There is no connection between Linus Yale and Yale University.