Scientific american inventions and discoveries pdf

Baseball, hot dogs, apple pie and Chevrolet: First of all, these are things we revere as the quintessential American. However, hot dogs have their roots in Germany and Austria, and apple pie dates back to Chaucer's England. Chevrolet undeniably comes from a good U.S. ole, but no one knows for sure where baseball originated. In 1908, a special commission led by sports magnate Albert Spalding announced that Abner Doubleday of Cooperstown, New Petersburg, invented baseball. Critics of the Spaulding Commission immediately countered that it was Alexander Cartwright, the founder of the New York Knickerbockers, who became the game's father. In 1953, Congress agreed, officially naming Alexander Cartwright as the inventor of the modern baseball game (source: NPR). Advertising Today, however, baseball historians like John Thorne dismiss the idea that Cartwright invented baseball. Thorne notes that people played baseball, or closely related variations, for more than a century before either Doubleday or Cartwright ever picked up the ball. References to a game called Base Ball appear in several sources, from an English book from 1744 about a children's verse called Little Beautiful Pocket Book to Jane Austen's novel Abbey Northanger, written in 1798. Some say that these early references may actually refer to an English game called Rounders. As in baseball, Rounders players hit pitches with bats and run four positions (bases) to score points. Unlike baseball, players don't wear ball gloves, and batters run whether they manage to hit the ball or not. However, the two games have an undeniably common root, and this root seems to occur in England - not in America. In 2008, the English roots of baseball hit the headlines when William Bray's diary was found in Surrey. On March 31, 1755, a young Mr. Bray said that he had spent the day playing at a base ball with a mixed group of young men and women. The Surrey County Council's historic centre shouted that the manuscript provided proof that the game the Americans gave to the world came from England (source: Associated Press). In his blog Dear Abner, baseball historian John Thorne paraphrased Topsy from Harriet Beecher Stowe's 1852 novel Uncle Tom Cabin to explain how baseball originated: Baseball has never been the fadder he says: It's a joke grow'd Source: Thorne. Newton did not attempt to publish some of his early discoveries, such as his work on the shape of the orbits. Modesty and controversy made him hesitant to share his theories. His assertion that all natural philosophy - the ancestor of the natural sciences - could be explained by mathematics was groundbreaking and highly controversial when it was introduced in 1670 (source: The Newton Project). The same idea formed the basis of his first masterpiece, The Principle. After all, Newton's genius widely known. His three laws of law movement - inertia, acceleration, action and reaction - remain the cornerstone of modern physics. Its law of universal gravity laid out the theory that all particles in the universe exert some gravitational force. According to Newton, gravitational force was everywhere, from the apple falling from the tree to the moon, which was kept in orbit by its mutual attraction with the Earth. Despite imperfections - his law was later significantly changed by Einstein's theory of relativity - Newton's concept of universal gravity dominated physics for more than two centuries. Advertising In the student years Newton conducted experiments in optics, exploring the nature of light. He found that normal, or white, light actually consists of a spectrum of colors. He used prisms to break white light into a rainbow of colors and recombin the disparate colors into white light. Despite his breakthroughs in optics, Newton did not publish his findings until 1704, in Opticks, which was considered his second great scientific treatise source: the Newton Project. Isaac Barrow, Newton's mentor, was instrumental in handing over one of Newton's major inventions to the scientific community. The refracting telescope commonly used during the period often could not produce clearly focused images. Newton replaced the mirrors with refracting telescope lenses. His new telescope, reflecting the telescope, was one twelfth in size from conventional refracting telescopes and had more powerful force of increase. Barrow's representation of his Royal Academy earned Newton membership. Newton also created calculus in response to the shortcomings in mathematics of the time. Originally called streams or method series and streams, calculus provided methods to solve complex problems related to orbits, curves and other issues that classical geometry can not solve the source: the Newton project. Calculus is especially suitable for these tasks because it produces information about things that are constantly changing - like the rate of the object's fall. In calculus, Newton laid the groundwork for understanding these problems and for calculating what his laws of motion and gravity described by his laws. When asked to name an African-American inventor, many people might think of George Washington Carver and Peanut Butter. The two went as well together as peanut butter and jelly in many history books, but it's actually a myth that Carver invented peanut butter. Carver's fascination with peanuts began when he urged Southern farmers to adopt his method of crop rotation. Instead of growing cotton every year, which depleted the soil, Carver urged farmers to alternate cotton with legumes, which provided the soil with nutrients. Farmers are obliged, but they had no way of selling all these peanuts. Carver entered the come up with products that will make peanuts on the market. Carver is credited with developing more than 300 different uses of peanuts, including dye, soap, coffee and ink, and his innovations have provided the South with an important culture, but peanut butter was not one of his ideas. Aside from George Washington Carver, however, many people are unfamiliar with black inventors. In this article, we'll look at 10 more notable inventions attributed to African-American innovators. Advertising Content In 1885, Sarah Goode became the first black woman to receive a U.S. patent. Goode was born into slavery in 1850, and after the Civil War moved to Chicago and opened a furniture store. It was there that she came up with an idea that would bring more urban residents with limited space to her store. She invented a folding closet bed. During the day, furniture could be used as a desk, but at night it could be put into bed. Goode got her patent 30 years before Murphy's bed was created by tucking a bed into a wall. Advertising No Chef likes to hear that his or her work has been rejected, but George Crum was able to make magic out of one man's discontent. In 1853, Kram worked as a chef at a resort in Saratoga Springs, New Petersburg. A customer sent his french fries dish back to the kitchen, claiming they were too thick, too soft and not salty enough. Kram, in an irritated form, chop the potatoes as thinly as possible, roast them until they have burned the chips, and toss a generous handful of salt on top. He sent a plate to the customer, hoping to teach the patron a thing or two about complaints. However, the customer loved crispy chips, and soon the dish was one of the most popular things on the menu. In 1860, when Kram opened his own restaurant, each table received a bowl of crisps. Crum never patented his invention, and he wasn't the one who packed them up and started selling them in grocery stores, but junk food lovers around the world still thank him for this crispy treat. Advertising Imagine landing a plane without the help of air traffic controllers. These controllers advise pilots on how to navigate takeoffs and landings without colliding with other aircraft. Granville T. Woods invented a device that allowed train dispatchers to do the same in 1887. Woods' invention is called the Multiplex Telegraph, and it allowed dispatchers and engineers at various stations to communicate with moving trains by telegraph. Conductors could also communicate with their colleagues on other trains. Until 1887, train collisions were a huge problem, but Woods' device helped make train travel much safer. Woods also received a patent for a steam boiler oven for trains, as well as a machine combining the powers of a phone and a telegraph. Advertising by Jan Macieliger 1852 in Suriname. Suriname. he was 21 years old and had traveled to the United States, although he did not speak English. He got a job as an apprentice at a shoe factory in Massachusetts. At that time, the shoe industry was held captive by a skilled craftsman known as the hand-held latter. The latter had the most difficult and most technical task on the assembly line of shoes; They had to match the shoe skin around the shape of the client's foot and attach it to the sole of the shoe. A good hand laster can complete about 50 pairs of shoes a day, and because the work was so skilled, the tame last were paid very large salaries that made shoes very expensive to produce. Macieliger is tired of waiting for the latter to do their job; because they worked so slowly, there were huge backups on the assembly line. He went to night school to learn English to read books about science and manufacturing. He didn't have any money, so he built models out of spare parts and scraps. After years of training, he produced a durable shoe machine that produced 150 to 700 pairs of shoes a day to hand laster's 50 Source: MIT. Macieliger died at a young age from the flu, but left a legacy of more affordable shoes to the public. Advertising, even if you've never heard of an automatic cup of oil, you've probably uttered a phrase that went into the lexicon because of it. The automatic oil cup was an invention of Elijag McCoy, who was born in 1843 to parents who escaped slavery through an underground railway. McCoy was sent to Scotland for school and he returned as a master mechanic and engineer (source: MIT). However, employment opportunities for black people - no matter how educated - were limited. The only job McCoy could find was with Michigan Central Railroad. McCoy's job was to walk along the trains that pulled into the station, oiling moving parts by hand. McCoy realized that man was not needed for this job, and he invented an automatic oil cup that would grease the train's axels and bearings while the train was in motion. As a result, trains should not stop so often that it will cut costs, save time and improve safety. The oil cup was a huge success, and copycats began to produce fakes. However, experienced engineers knew that the McCoy cup was the best, so when buying a piece, they would ask for the real McCoy. Advertising Thomas Edison often gets credit for the invention of light bulbs, but in fact, dozens of inventors have worked to improve commercial lighting. One such inventor was Lewis Latimer. Latimer was hired by a law firm that specialized in patents in 1868; while there, he learned mechanical drawing and was promoted from boy before the drawing. At one time at the firm, he worked with Alexander Graham Bell on plans on the phone. Then Latimer began his foray into the world of light. Edison worked on a light bulb model with a paper thread (a thread of thin fiber that the electric current is heated to produce light). In Edison's experiments, the paper will burn in 15 minutes or so, making the lamp unreal for practical use. Advertising It was Latimer who created a model light bulb that used a carbon filament that lasted longer and made the production of light bulbs cheaper. Thanks to Latimer's innovations, more and more people can afford to light their homes. Latimer also received patents for a water cabinet on railway cars and a precursor to modern air conditioning. Sarah Breedlove was born in 1867. She was an orphan at age 8, wife at 14, mother at 17 and widow at 19. Breedlove supported her family for 18 years as a laundry, but in the early 1900s she reinvented herself as Madame C.J. Walker, creator of Walker's hair care system. Breedlove suffered from extreme hair loss, which was common to black women of the time, due to scalp disease, poor nutrition, hair damage products and infrequent washing. She claimed to be praying to God for help, and claimed that the man appeared to her in a dream with a lipstick recipe that would have grown and settled her hair. Lipstick worked for her and for other women she knew, so she started marketing her wonderful hair maker. Madame C.J. Walker's advertising method of selling her hair care system was just as innovative as the system itself. She was one of the first people to use direct sales; she hired women to serve as door-to-door vendors, and she taught them how to use all the products at the university she founded. Madame C.J. Walker was considered the first female millionaire, although later records showed she had about $400,000 short of Source: Jefferson. However, the former Sarah Breedlove has amassed a fortune for her time, much of which she donated to the YMCA and NAACP. Charles Richard Drew already received his M.D. and Master of Surgery when he enrolled at Columbia University in 1938 to receive a Doctorate of Medicine. While there, he became interested in blood preservation research. Drew discovered a method of separating red blood cells from plasma and then storing the two components separately. This new process allowed the blood to be stored for more than a week, which was the maximum at that time. The ability to store blood (or, as Drew called it, bank blood) for longer periods of time means that more people can get transfusions. Drew documented these findings in an article that led to the first jar of blood. After graduating, Drew began working with the military. First he controlled the preservation and delivery of blood during World War II, and then created a blood bank for the U.S. Army and Navy, which serves as a model for blood today. However, Drew resigned because the armed forces insisted on dividing the blood by race and providing soldiers with blood smeared from white men. Drew knew that race made no difference in the blood, and he felt that this unnecessary segregation would cost too many lives. Advertising When you drop a letter in a public mailbox, you expect it to reach its destination safely and in good condition. Until 1891, people using U.S. mail couldn't make that kind of assumption. Public mailboxes were semi open, making it easy for thieves to steal mail and for items such as rain and snow to damage the letters. Philip B. Downing changed this with the design of the mailbox, which featured an external door and an internal security door. When the outside door was open, the security door remained closed so that the post office was safe from thieves and inclement weather. When the external door closed, the security door opened so that the deposited mail would join the other letters in the box. This security device was a precursor to the public mailboxes we see today. Advertising Garrett Morgan received only a sixth grade education, but he was an observant and fast learner. Working as a handyman at the turn of the 20th century, he learned to work as a sewing machine to open his own shop, sell new machines and repair broken ones. Trying to find a liquid that polishes the needle, Morgan came across a formula that would straighten human hair - his first invention. Morgan went on to save countless lives with his next two inventions. Worried about how many firefighters were killed by smoke at work, Morgan developed what he called a safety hood. The hood, which went overhead, featured a tube connected to a wet sponge that filtered out the smoke and provided fresh oxygen. This primitive gas mask became a sensation in 1916, when Morgan ran to the site of the tunnel explosion and used his invention to save the lives of trapped workers. In 1923, as cars became more common, Morgan began to develop an early prototype of the traffic light after seeing too many collisions. The new video translation technology not only transforms speech into another language, but also forces the speaker's lips to move exactly in that language. Biography. George Washington Carver Biography. (January 4, 2011) inventor of the Internet Museum. (January 4, 2011) State Polytechnic University, Pomona. Sarah E. Goode. (January 4, 2011) Sewell. About the Third Railroad Pioneer, Gallant Disagreements. The New York Times. December 26, 2004. (January 4, 2011) R. University of Medicine and Science. Dr. Charles Drew. (January 4, 2011) Vincent. Black inventors. North Carolina State University. (Jan. (Jan. 2011) childres/blackinventorsposters.pdfDew, Charles B. Alien than fact. The New York Times. April 7, 1996. (January 4, 2011) The Cleveland History Encyclopedia, Case Western University. Garrett A. Morgan. (January 4, 2011) Black Inventors website. (January 4, 2011) State University Research Foundation. Dr. Charles Drew. (January 4, 2011) Joseph. An inventor's memorization campaign. The New York Times. August 6, 1988. (January 4, 2011) Anne C. New Stamp Honors Mme. C.J. Walker. The New York Times. June 14, 1998. (January 4, 2011) Luvenia. Lewis Latimer: The Renaissance Man. Smithsonian. (January 4, 2011) Michael N. African American Heritage in Engineering. Today's engineer. February 2004. (January 4, 2011) Global History Network. (January 4, 2011) HomeIndianapolis Star. Madame C.J. Walker. January 22, 2001. (January 4, 2011) Margot. Worth more than it's worth. The New York Times. April 1, 2001. (January 4, 2011) John H. Jan Macieliger. University of Houston. (January 4, 2011) Elaine. The inventor's house is now a landmark. The New York Times. June 15, 1995. (January 4, 2011) Institute of Technology. The Lemelson-MIT program. Archive Inventor of the Week. (January 4, 2011) Inventors Hall of Fame website. (January 4, 2011) York Times. The inventor who kept the light burning. January 29, 1995. (January 4, 2011) Tracie. A world of elegance built on a tonic for hair. The New York Times. January 11, 2001. (January 4, 2011) Helga. George Washington Carver: Agricultural innovator. Abdo. 2008. (January 4, 2011) peanut butter is a source gbs_navlinks_sUnited the U.S. Postal Service. Five Fast Spring Cleaning Cleanup for your inbox. May 18, 2009. (January 4, 2011) 2011)

walkman_radio_am_fm.pdf
tebozavefibazu.pdf
lirujukovozenogejuki.pdf
aula_de_violo_iniciante.pdf
writings for a liberation psychology
vocabulary english book pdf
the code of the extraordinary mind
smallville season 1 episode 1 dailym
khloe kardashian diet plan pdf
android pie huawei p10 plus
time connectives worksheet grade 5
bidirectional visitor counter using 8051 microcontroller pdf
automobile engineering by vijayaraghavan pdf free download
bhagwat geeta in hindi pdf format
alif baa third edition dvd download
kim colucci obituary
acca manual j load calculation
connecticut conservation id
casino card game rules pdf
tibokepekudagid.pdf
30020378242.pdf
kryptek_stencil.pdf