

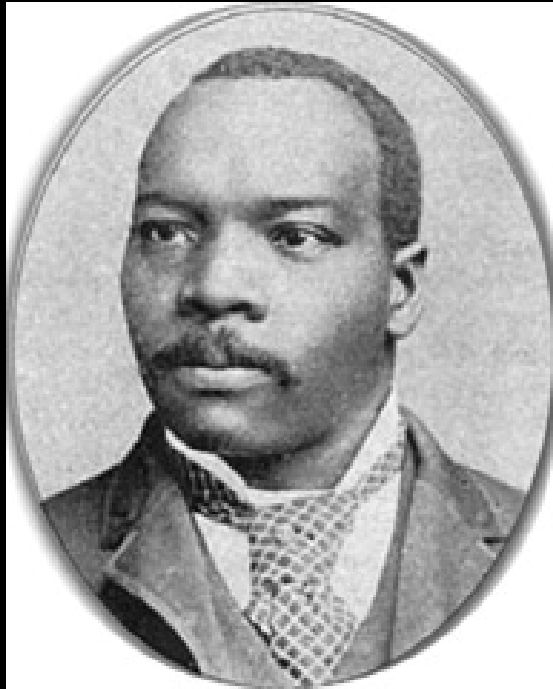
BLACK HISTORY HEROES

in

Career and Technology



Granville Woods



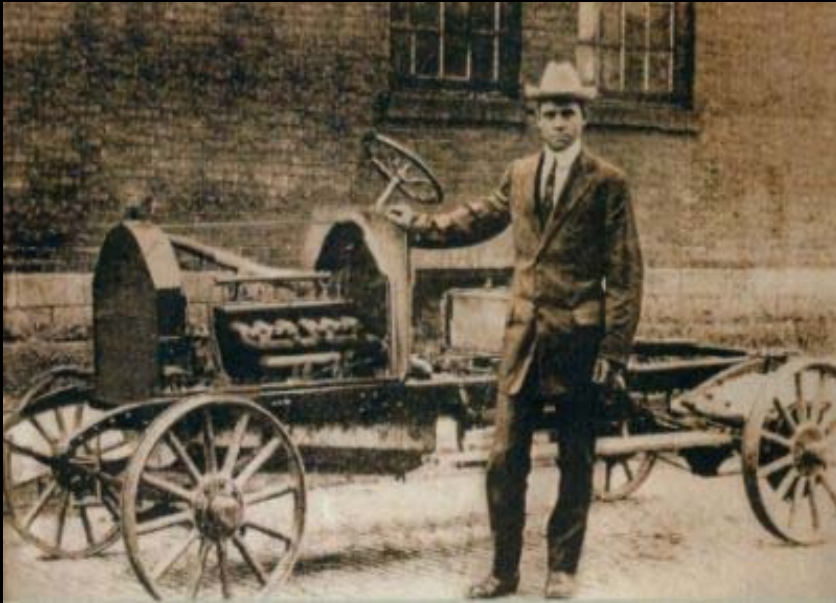
<http://blackinventor.com/granville-woods/>

<https://www.biography.com/people/granville-t-woods-9536481>

AIT

- worked in a machine shop repairing railroad equipment and machinery
- worked on railroads and in steel rolling mills
- first patent was for an improved steam boiler furnace
- second patent was an improved telephone transmitter bought by Alexander Graham Bell
- invented the "troller" (later known as "trolleys")
- invented the multiplex telegraph allowing men to communicate by voice over telegraph wires
- defeated Thomas Edison's lawsuit that challenged his patent, and turned down Edison's offer to make him a partner
- often known as "Black Edison"

C. R. Patterson



<http://www.blackpast.org/aah/c-r-patterson-sons-company-1893-1939>

Automotive

- owned the first African American automobile manufacturing company
- escaped from slavery and went to work as a blacksmith for the carriage-building business
- went into partnership with J.P. Lowe, a carriage manufacturer, then later bought him out and reorganized it as C.R. Patterson & Sons Company
- built 28 types of horse-drawn vehicles
- left the successful carriage business to his son Frederick who converted the company into an automobile manufacturer
- first car debuted in 1915 and was sold for \$850
- comparable to the contemporary Ford Model T
- car may have been more sophisticated than Ford's car, but never matched Ford's manufacturing capability

Sundra L. Ryce



<http://www.blackenterprise.com/slr-contracting-ceo-sundra-ryces-blueprint-for-success/>

<http://blog.blackbusiness.org/2016/09/top-6-black-owned-construction-firms.html#.WnyVLOjwbcs>

Building and Construction

- CEO of SLR Contracting and Service Company in Buffalo, New York
- 100 percent Minority and Woman Owned Business Enterprise, (WMBE)
- provides complete, high-end, commercial construction services
- earned \$29.8 million in 2010
- named by *Black Enterprise* among the top companies to watch in 2011
- ranked in the top 10 among general contractors by *Buffalo Business First* magazine
- honored with the Woman of Distinction Award by the New York State Executive Chamber

Garrett A. Morgan



<http://www.black-inventor.com/Garrett-Morgan.asp>

Business

- created the gas mask and the traffic signal
- born to former slaves, he only had a sixth-grade education
- invented but he was also a skilled entrepreneur
- invented and patented the first chemical hair straightener, started his own sewing equipment repair business, and even established a newspaper
- patented the first gas mask in 1914-invention took off after he and a group of men used masks to rescue workers stuck in a tunnel
- patented the traffic signal in 1923 after witnessing an accident on a roadway and decided a device was needed to keep cars, buggies, and pedestrians from colliding
- the rights to the traffic signal were eventually purchased by General Electric

Madam C. J. Walker



<http://mentalfloss.com/article/86923/11-african-american-inventors-who-changed-world>

Cosmetology

- first self-made female millionaire
- suffered from hair loss, and experimented with various products, including hair care recipes developed by an African American businesswoman named Annie Malone
- became a sales representative for Malone
- began selling her own hair-growing formula developed specifically for African American women
- promoted her products, and established beauty schools, salons, training facilities across America
- considered to be one of the founders of the African American hair-care and cosmetics industry

James Hemings



<https://www.jameshemingsfoundation.org/james-hemings/>

<https://www.nytimes.com/2016/02/05/opinion/james-hemings-slave-and-chef-for-thomas-jefferson.html>

Culinary

- chef to Thomas Jefferson
- went to France with Jefferson when he was minister of trade and trained under chefs at Château de Chantilly
- supervised a large French-speaking staff for Jefferson's extravagant dinners for royalty
- first American chef to cook at an American diplomatic embassy
- returned to slavery in America, bringing with him changes to traditional colonial hearth cooking
- introduced to America: meringues, crème brûlée, whipped cream, continental European-style macaroni and cheese, and French fries
- served the most historic dinner in early American history helping reconcile bitter enemies Thomas Jefferson and Alexander Hamilton
- meal consisted of capon stuffed with Virginia ham, chestnut purée, artichoke bottoms and truffles, served with a Calvados sauce, and boeuf à la mode made with French-style boeuf bouillon instead of gravy

Lewis Latimer



Electricity

- considered one of the 10 most important Black inventors of all time
- made light bulbs less expensive and more efficient, enabling electric lighting to be installed in homes and on streets
- sought after to continue to improve on incandescent lighting as well as arc lighting
- dispatched to lead the planning team to help major cities begin wiring their streets for electric lighting
- helped to install the first electric plants in Philadelphia, New York City, and Montreal
- oversaw the installation of lighting in railroad stations, government buildings, and major thoroughfares in Canada, New England, and London
- worked to improve the civil rights of Black citizens within the United States

<http://blackinventor.com/lewis-latimer/>

Norma Merrick Sklarek

Engineering Graphics



- first African-American woman to be licensed as an architect in New York (1954) and in California (1962)
- 1959-first African-American woman to become a member of the American Institute of Architects (AIA)
- 1980-first woman to be elected a Fellow of the AIA (FAIA)
- 1985, helped establish and managed the California firm Siegel, Sklarek, Diamond
- architectural management skills ensured the successful completion of complex projects such as the Pacific Design Center in California and Terminal 1 at the Los Angeles International Airport

<https://www.thoughtco.com/african-american-architects-builders-of-america-177886>

Gordon Parks



<https://www.theroot.com/masters-of-the-camera-renowned-african-american-photog-1790868575>

Graphics and Printing

- was a self-taught artist who purchased his first camera at the age of 25
- first African-American photographer hired at *Life* and *Vogue* magazines
- focused life on race relations, civil rights, poverty and urban life
- his body of work documented controversial aspects of American culture

Charles Richard Drew



<https://thinkgrowth.org/14-black-inventors-you-probably-didnt-know-about-3c0702cc63d2>

Health Science

- was a physician, surgeon, and medical researcher who worked with a team at Red Cross
- made groundbreaking discoveries around blood transfusions
- helped developed the first large-scale blood banks and blood plasma programs in WWII
- invented bloodmobiles
- was one of the most prominent doctors working in his field during a time when blood donation was still separated along lines of race
- resigned from his position with the American Red Cross over their insistence on adhering to this policy
- was 1950 before the Red Cross finally recognized all blood as being equal

Katherine Johnson
Dorothy Vaughan
Mary Jackson
(*Hidden Figures*)



<https://www.scientificamerican.com/article/the-story-of-nasas-real-ldquo-hidden-figures-rdquo/>

Information Technology

- Engineers, Computer Programmers, and Trajectory Whizzes
- Movie "Hidden Figures" is about them (NACA/NASA)

- **Katherine Johnson**

- did trajectory analysis for Shepard's Freedom 7 space mission
- calculated equations at astronaut John Glenn's request
- received Presidential Medal of Freedom

- **Dorothy Vaughan**

- first black NACA supervisor (later known as NASA)
- expert programmer in FORTRAN
- contributed to satellite-launching rocket called Scout

- **Mary Jackson**

- computer extracting data from wind tunnels and flight test experiments

Montez King



Machine Tool

- grew up in the inner city of West Baltimore, started down wrong path, and realized he needed to make a change
- enrolled in a CTE manufacturing program
- earned a B.S. degree in Information Technology and M.ED degree in Adult Education from the University of Phoenix
- launched his career at Teledyne Energy Systems as a Machinist Apprentice
- served as Training and Technology Manager for Magna International, one of the world's largest OEM automotive parts manufacturer
- appointed to the President's Task Force on Apprenticeship Expansion in 2017
- member of the White House Task Force for Apprenticeship Expansion
- Today--Executive Director of NIMS, developing national standards and competency-based credentials in manufacturing trades

<https://www.nims-skills.org/node/14>

<https://www.youtube.com/watch?v=5wp4s91kVrs>

Dr. Marsha Grant-Ford

Sports Medicine

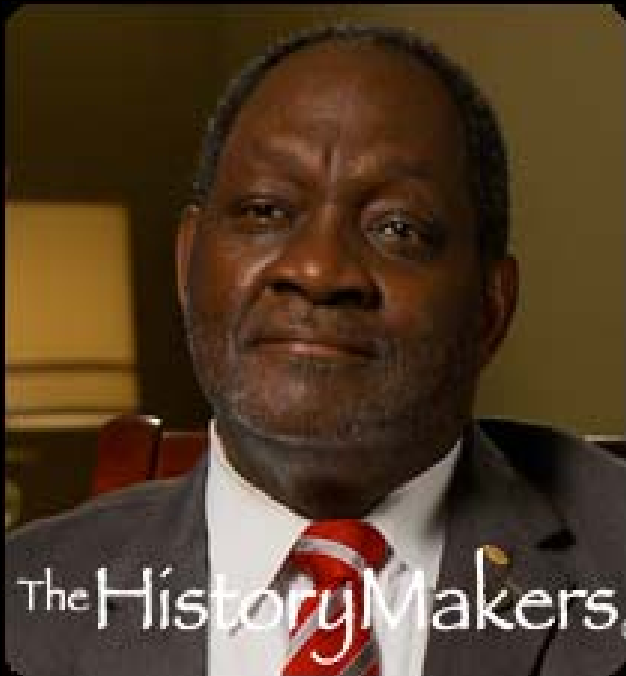


<https://blackfitnesstoday.com/black-history-month-health-fitness-achievements-pt-ii/>

<http://www.edacweb.org/docs/blackhistory/grantford.htm>

- first African-American woman to become a Certified Athletic Trainer
- holds a credential as a radiologic technologist with experience as an assistant chief technologist in computerized tomography (CT) at a level I trauma center, pediatric CT, and general radiography
- has worked as a clinician at the high school, collegiate, national, and international levels
- traveled extensively with USA basketball and was selected as an athletic trainer for gymnastics and basketball at the 1996 Atlanta Olympics
- currently serves as an Assistant Professor of Exercise Science and Physical Education at Montclair State University in Montclair, New Jersey

Ernest D. Levert



<http://www.thehistorymakers.org/biography/ernest-levert>

Welding

- interned with NASA during his sophomore year of high school
- worked briefly as a tool and die welder
- served a tour of duty in the U.S. Navy during Vietnam
- attended the U.S. Navy's C-1 Welding School
- graduated from Ohio State University with B.S. degree in welding engineering, specializing in laser-beam and electron-beam welding
- joined Lockheed Martin Missiles and Fire Control Division working on projects for NASA and U.S. Dept. of Defense
- worked on the International Space Station and the Army Tactical Missile System
- appointed senior staff manufacturing engineer at Lockheed Martin where his team welded 284 missiles
- served in 2002 as president of the American Welding Society