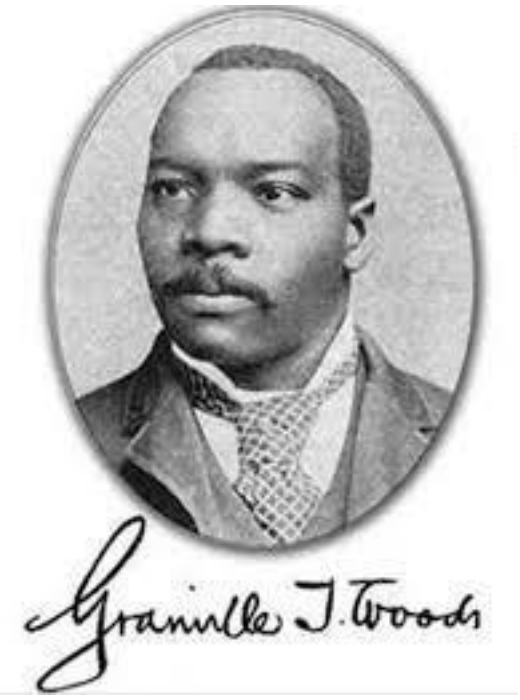
Granville T. Woods (April 23, 1856 – January 30, 1910)



Born in Columbus, Ohio, on April 23, 1856, Granville T. Woods dedicated his life to developing a variety of inventions relating to the railroad industry. To some, he was known as the "Black Edison, both great inventors of their time. Granville T. Woods invented more than a dozen devices to improve electric railway cars and much more for controlling the flow of electricity. His most noted invention was a system for letting the engineer of a train know how close his train was to others. This device helped cut down accidents and collisions between trains.

Granville T. Woods literally learned his skills on the job. Attending school in Columbus until age 10, he served an apprenticeship in a machine shop and learned the trades of machinist and blacksmith. During his youth, he also went to night school and took private lessons. Although he had to leave formal school at age ten, Granville T. Woods realized that learning and education were essential to developing critical skills that would allow him to express his creativity with machinery.

In 1872, Granville T. Woods obtained a job as a fireman on the Danville and Southern railroad in Missouri, eventually becoming an engineer. He invested his spare time in studying electronics. In 1874, Granville Woods moved to Springfield, Illinois, and worked in a rolling mill. In 1878, he took a job aboard the Ironsides, a British steamer, and, within two years, became Chief Engineer of the steamer. Finally, his travels and experiences led him to settle in Cincinnati, Ohio, where he became the person most responsible for modernizing the railroad.

In 1888, Granville T. Woods developed a system for overhead electric conducting lines for railroads, which aided in the development of the overhead railroad system found in cities such as Chicago, St. Louis, and New York City. In his early thirties, he became interested in thermal power and steam-driven engines. And, in 1889, he filed his first patent for an improved steam-boiler furnace. In 1892, a complete Electric Railway System was operated at Coney Island, NY. In 1887, he patented the Synchronous Multiplex Railway Telegraph, which allowed communications between train stations from moving trains. Granville T. Woods' invention made it possible for trains to communicate with the station and with other trains so they knew exactly where they were at all times.

Alexander Graham Bell's company purchased the rights to Granville T. Woods' "telegraphony," enabling him to become a full-time inventor. Among his other top inventions were a steam boiler furnace and an automatic air brake used to slow or stop trains. Wood's electric car was powered by overhead wires. It was the third rail system to keep cars running on the right track.

Success led to lawsuits filed by Thomas Edison who sued Granville Woods claiming that he was the first inventor of the multiplex telegraph. Granville Woods eventually won, but Edison didn't give up easily when he wanted something. Trying to win Granville Woods over, and his inventions, Edison offered Granville Woods a prominent position in the engineering department of Edison Electric Light Company in New York. Granville T. Woods, preferring his independence, declined.

Biography of Granville T. Woods at the MIT Inventor of the Week website

Gary L. Frost, "Granville T. Woods", in Henry Louis Gates and Evelyn Brooks Higginbotham, eds., *African American Lives.* New York: Oxford University Press, 2004; pg. 910.

David L. Head, *Granville T. Woods: African-American Communications and Transportation Pioneer.* Pittsburgh, PA: RoseDog Books, 2013.

Source: https://www.transportation.gov/connections/granville-t-woods-inventor-and-innovator