

Garrett Morgan is one of those rare people who are able to come up with an extraordinary inventions which have a tremendous impact on society – and then follows that up with even more!

Garrett Morgan was born on March 4, 1877 in Paris, Kentucky the seventh of 11 children born to Sydney and Elizabeth Morgan. Garrett, at the early age of 14 decided that he should travel north to Ohio in order to receive a better education. Morgan is an inspiration to many education seekers today, whether pursuing business with an AACSB accredited online MBA or masters in education. He moved to Cincinnati and then to Cleveland, working as a handyman in order to make ends meet. In Cleveland, he learned the inner workings of the sewing machine and in 1907 opened his own sewing machine store, selling new machines and repairing old ones. In 1908 Morgan married Mary Anne Hassek with whom he would have three sons.

In 1909, Morgan opened a tailoring shop, selling coats, suits and dresses. While working in this shop he came upon a discover which brought about his first invention. He noticed that the needle of a sewing machine moved so fast that its friction often scorched the thread of the woolen materials. He thus set out to develop a liquid that would provide a useful polish to the needle, reducing friction. When his wife called him to dinner, he wiped the liquid from his hands onto a piece of pony-fur cloth. When he returned to his workshop, he saw that the fibers on the cloth were now standing straight up. He theorized that the fluid had actually straightened the fibers. In order to confirm his theory, he decided to apply some of the fluid to the hair of a neighbor's dog, an Airedale. The fluid straightened the dog's hair so much, the neighbor, not recognizing his own pet, chased the animal away. Morgan then decided try the fluid on himself, to small portions of his hair at first, and then to his entire head. He was successful and had invented the first human-hair straightener. He marketed the product under the name the G. A. Morgan Hair Refining Cream and sold by his G. A. Morgan Refining Company, which became a very successful business.

In 1912, Morgan developed another invention, much different from his hair straightener. Morgan called it a Safety Hood and patented it as a Breathing Device, but the world came to know it as a Gas Mask. The Safety Hood consisted of a hood worn over the head of a person from which emanated a tube which reached near the ground and allowed in clean air. The bottom of the tube was lined with a sponge type material that would help to filter the incoming air. Another tube existed which allowed the user to exhale air out of the device. Morgan intended the device to be used “to provide a portable attachment which will enable a fireman to enter a house filled with thick suffocating gases and smoke and to breathe freely for some time therein, and thereby enable him to perform his duties of saving life and valuables without danger to himself from suffocation. The device is also efficient and useful for protection to engineers, chemists and working men who are obliged to breathe noxious fumes or dust derived from the materials in which they are obliged to work.”

The National Safety Device Company, with Morgan as its General Manager was set up to manufacture and sell the device and it was demonstrated at various exhibitions across the country. At the Second International Exposition of Safety and Sanitation, the device won first prize and Morgan was award a gold medal. While demonstrations were good for sales, the true test of the product would come only under real life circumstances.

That opportunity arose on July 24, 1916 when an explosion occurred in a tunnel being dug under Lake Erie by the Cleveland Water Works. The tunnel quickly filled with smoke, dust and poisonous gases and trapped 32 workers underground. They were feared lost because no means of

safely entering and rescuing them was known. Fortunately someone at the scene remembered about Morgan's invention and ran to call him at his home where he was relaxing. Garrett and his brother Frank quickly arrived at the scene, donned the Safety Hood and entered the tunnel. After a heart wrenching delay, Garrett appeared from the tunnel carrying a survivor on his back as did his brother seconds later. The crowd erupted in a staggering applause and Garrett and Frank reentered the tunnel, this time joined by two other men. While they were unable to save all of the workers, they were able to rescue many who would otherwise have certainly died. Reaction to Morgan's device and his heroism quickly spread across the city and the country as newspapers picked up on the story. Morgan received a gold medal from a Cleveland citizens group as well as a medal from the International Association of Fire Engineers, which also made him an honorary member.

Soon, orders came in from fire and police departments across the country. Unfortunately, many of these orders were canceled when it was discovered that Morgan was Black. Apparently, many people would rather face danger and possibly death than rely on a lifesaving device created by a Black man. Nonetheless, with the outbreak of World War I and the use of poisonous gases therein, Morgan's Safety Hood, now known as the Gas Mask was utilized by the United States Army and saved the lives of thousands of soldiers.

Although he could have relied on the income his Gas Masks generated, Morgan felt compelled to try to solve safety problems of the day. One day he witnessed a traffic accident when an automobile collided with a horse and carriage. The driver of the automobile was knocked unconscious and the horse had to be destroyed. He set out to develop a means of automatically directing traffic without the need of a policeman or worker present. He patented an automatic traffic signal which he said could be "operated for directing the flow of traffic" and providing a clear and unambiguous "visible indicator."

Satisfied with his efforts, Morgan sold the rights to his device to the General Electric Company for the astounding sum of \$40,000.00 and it became the standard across the country. Today's modern traffic lights are based upon Morgan's original design.

At that point, Morgan was honored by many influential people around him, including such tycoons as John D. Rockefeller and J.P. Morgan (after whom he named one of his sons.) Although his successes had brought him status and acclaim, Morgan never forgot that his fellow Blacks still suffered injustices and difficulties. His next endeavor sought to address these as he started a newspaper called the Cleveland Call (later renamed as the Call & Post.) He also served as the treasurer of the Cleveland Association of Colored Men which eventually merged with the National Association for the Advancement of Colored People (NAACP) and ran as a candidate for Cleveland's City Council

In his later years, Morgan would develop glaucoma and would thereby lose 90% of his vision. He died on July 27, 1963 and because of his contribution, the world is certainly a much safer place.

Source: <http://blackinventor.com/garrett-morgan/>