

# THE MAN WHO HAS SAVED MILLIONS

Garrett Morgan's incredible inventions have saved countless lives—maybe even your own. So how come you've never heard of him?

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**G**arrett Morgan probably looked **absurd**. He stood on a platform in the middle of Lake Erie, wearing pajama bottoms, with a strange hood over his head. Tubes poked out of the hood like elephant trunks.

But Morgan wasn't concerned about his appearance. It was July 25, 1916. An explosion had ripped through a tunnel deep under the lake, and two dozen men lay dying in a cloud of poison gas. It was up to Morgan to rescue them. He needed his hood to help him survive.

The hood was Morgan's invention: a gas mask



that filtered out heat and smoke. He had been waiting to show the world that it worked, and now he had his opportunity. He was going to prove it—or die trying.



**PAUSE AND THINK:** What was Morgan's mask designed to do?

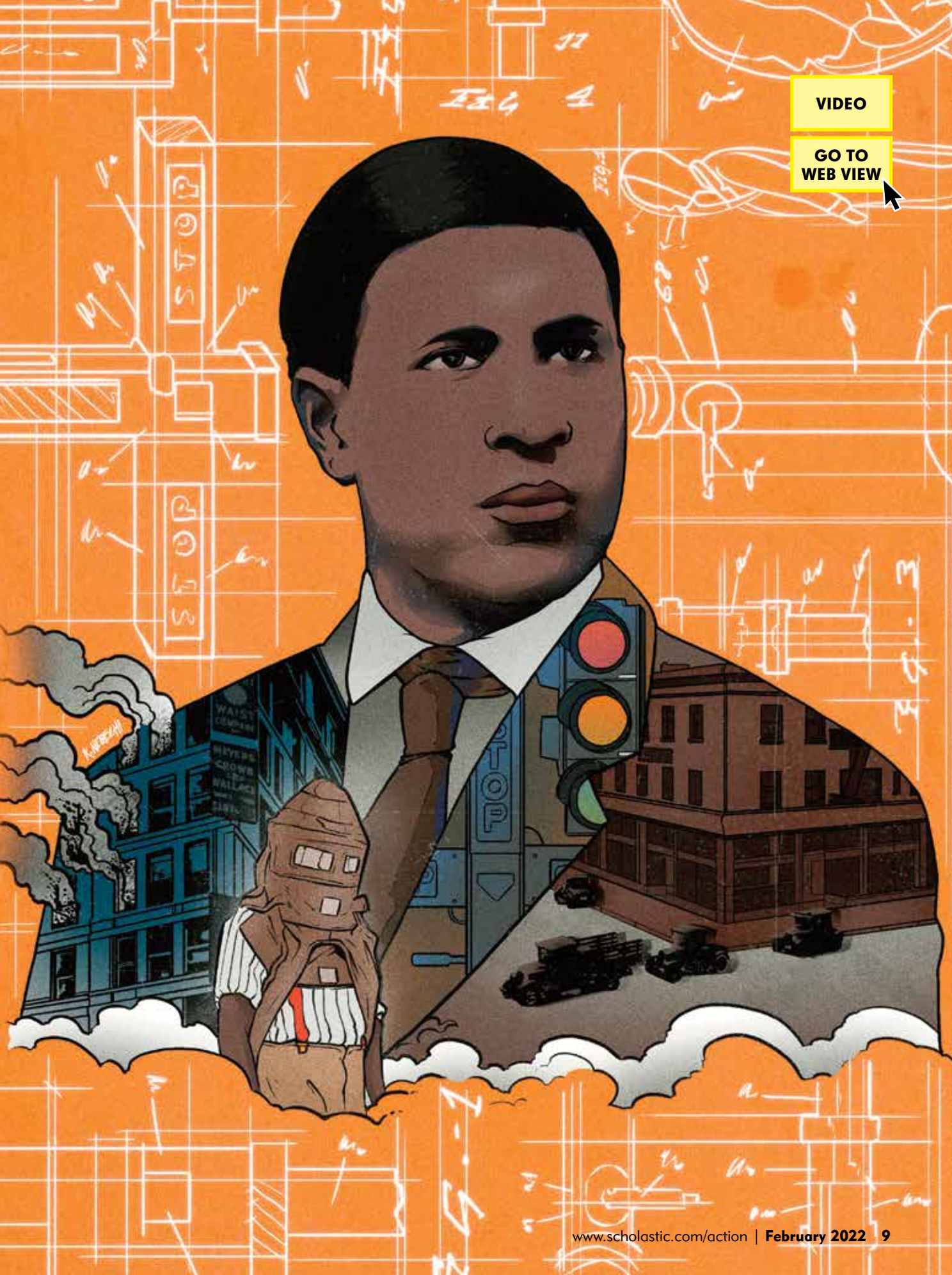
## A Curious Mind

Garrett Morgan was born in Kentucky in 1877. Although slavery had been illegal for 12 years, racism remained a **brutal** fact of life in America.

Across the South, laws forced Black people into

VIDEO

GO TO  
WEB VIEW





The 1911 Triangle Shirtwaist Factory Fire in New York City

## THE PROBLEM

In cities in the early 1900s, fires were a deadly problem. One tiny spark could cause wood buildings to go up in flames, and firefighters didn't have the gear they needed to safely rescue people.

## VOCABULARY

**absurd:** very silly or foolish; completely ridiculous

**brutal:** extremely cruel or harsh

**segregated:** separated by race

**determined:** not willing to allow anyone or anything to stop you

**demonstrations:** events where someone shows how something is used or done

**segregated** schools, churches, and trains. Like many Black families, Morgan's parents were poor. Morgan quit school after sixth grade to help them earn money.

Even without teachers or books, Morgan continued to learn. He took things apart and put them back together—just to figure out how they worked.

Morgan was **determined** to put his curious mind to work. He moved north to Cleveland,



These are the breathing tubes.

## THE SOLUTION

Morgan created a "safety hood," or gas mask. During a fire, smoke and heat rise. Morgan's hood had breathing tubes that stretched to the floor, allowing firefighters to breathe in the cleanest air.

Ohio, and took a job sweeping floors at a clothing factory.

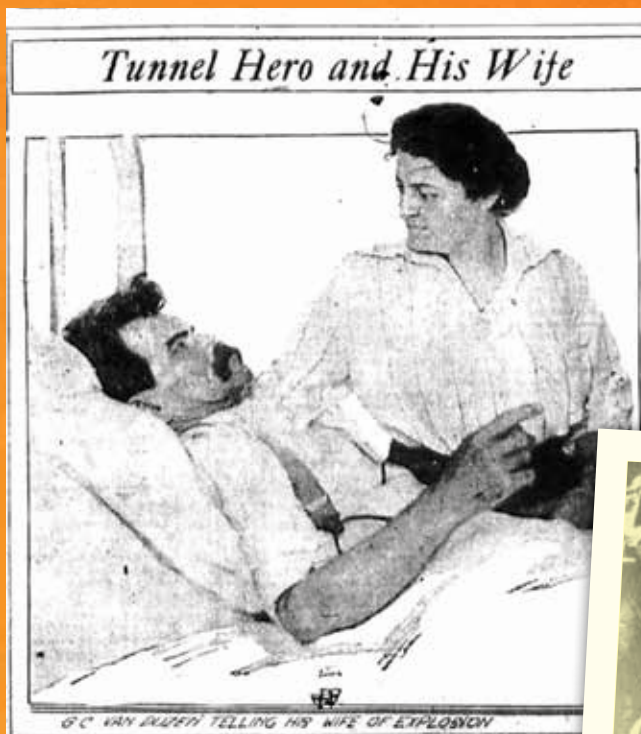
After work, he taught himself how to repair the factory's sewing machines. Before long, he invented a way to prevent them from breaking. His boss rewarded him with a better job and a \$150 bonus (worth about \$4,000 today).



**PAUSE AND THINK:** What did Morgan teach himself to do?

# THE BIG TEST

On the night of the tunnel explosion, Morgan used his safety hood to rescue two men. But instead of giving him credit for his bravery, most newspaper articles praised the White men who had helped him.



## 140 QUIT WORK IN TERROR OF SECOND BLAST IN TUNNEL

Pocket Threatens to Wreck Whole New System, Say Experts; 278-Foot Mud Mound Blocks Way to Buried Men.



Morgan makes a rescue

## Up in Flames

By 1910, Morgan had become a successful businessman with his own clothing shop. He also started work on an invention the world desperately needed: a gas mask.

In cities at the time, fires were a deadly problem. Many buildings were made of wood, and one tiny spark could start a devastating fire. Firefighters often choked on smoke before they could rescue people.

In 1912, Morgan came up with his “safety hood.” It fit over a firefighter’s head and shoulders, and it had two breathing tubes that extended to the floor.

Smoke and heat rise during a fire, so the tubes allowed firefighters to breathe the cleanest air available. Water-soaked sponges filtered out any smoke that came through.



**PAUSE AND THINK:** Why were fires so dangerous in the early 1900s?

## Masked Man

Morgan knew his invention could save lives—but how would he persuade people to buy it? Many White people were unwilling to do business with a Black man.

Morgan wasn’t about to let that stop him. In 1914, he hired a White salesman to sell his mask. Often, he pretended to be the salesman’s Native American assistant.

Morgan and his salesman would set up a tent full of poison gas, and Morgan would put on his safety hood and step inside. Minutes later, he would emerge alive and well.

These **demonstrations** showed that Morgan’s mask was effective—but could it get someone through a real emergency?

Two years later, Morgan finally got the chance to find out.



**PAUSE AND THINK:** What did Morgan have to do to sell his mask? Why?





## THE PROBLEM

In the 1920s, America's city streets were a mess of horses, buggies, trolleys, people, and cars. This crazy traffic caused many accidents and deaths.

## THE SOLUTION

Morgan was inspired to invent a safer traffic signal. It had a warning position between Stop and Go. Today, you see his lifesaving idea everywhere. It's the yellow between the green and red on every traffic light.



## Trapped!

On July 24, 1916, 11 men were working on a tunnel under Lake Erie. Around 10 p.m., an explosion sent a cloud of poisonous smoke racing through the tunnel.

Morgan's telephone rang at 3 a.m. The fire department needed him—immediately. His safety hood was the only hope for the trapped workers.

Soon, Morgan was on the platform in the middle of the lake. He was surrounded by firemen, policemen, and workmen. Only three of the men would put on the masks with him. They stepped into the elevator and traveled down into the gas-filled tunnel.



**PAUSE AND THINK:** Why did the fire department call Morgan?

## Race Against Time

The minutes ticked by. Five. Ten. Fifteen. Had Morgan's invention failed, leaving everyone in the tunnel dead?

Suddenly, the elevator came to life. Morgan and the three helpers returned and dragged two limp bodies onto the platform. One of the men was still alive.

After Morgan made another trip down and

returned safely, volunteers from the crowd finally put on the hoods and started helping. In the end, they brought up the rest of the bodies and saved two men. Those two men owed their lives to Morgan's clever invention.



**PAUSE AND THINK:** Did Morgan's mask work? How do you know?

## Life of Learning

Morgan's safety hood helped improve the way we fight fires, but it wasn't the inventor's only lifesaving creation. Morgan went on to invent a new kind of traffic signal—one with a warning position between Stop and Go. Today, drivers everywhere slow down for yellow lights. Few of them know the idea came from a Kentucky kid with a sixth-grade education.

Morgan lived into his 80s. His granddaughter, Sandra Morgan, says he never stopped learning. He hired tutors to teach him the things he never got to study in school. "He knew you have to take the gifts you're given and use them to be your best," she says. •



**PAUSE AND THINK:** How does one of Morgan's inventions affect you today?