



INVENTIONS THAT CHANGED THE WORLD

THE

AUTOMOBILE

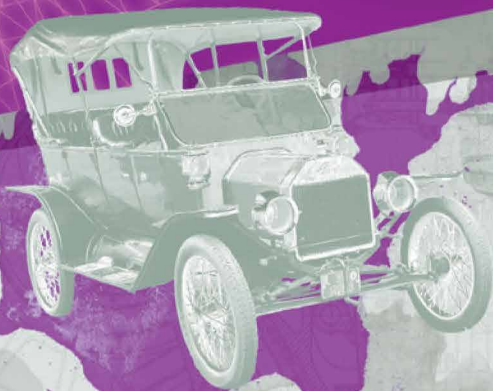




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A CROSS-COUNTRY JOURNEY

Standing in their driveway, a family loads suitcases into the trunk of their car. Then, they climb into the vehicle. Behind them, the garage door closes slowly.





The car pulls out of the driveway as they all wave goodbye to their house. They will see it again in a few weeks. It is time to get on the road!

Many miles pass beneath the tires.
Few other automobiles share the
highway with the family's car. The
family is soon far outside of the city.

Eventually, the sun begins to set.
The family stops at a roadside motel.
The day might be over, but their trip
continues tomorrow. The family's
automobile has paved the way
to adventure!



DID YOU KNOW?

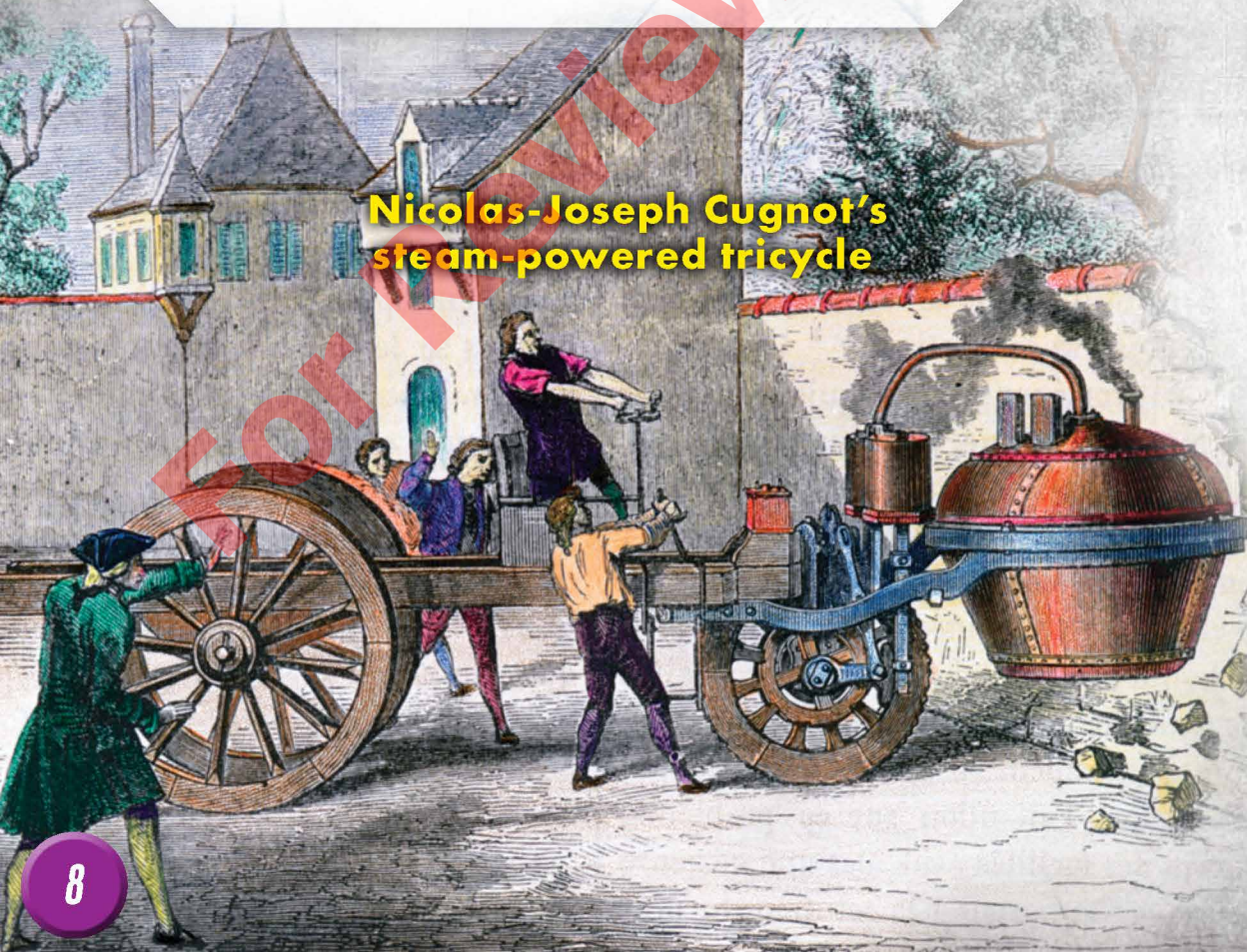
In August 1888, Bertha Benz set out on the world's first road trip. Over about 12 hours, she drove a Patent-Motorwagen 65 miles (105 kilometers) to visit her mother. Word spread quickly about Bertha's journey. Orders for the new vehicle came pouring in!



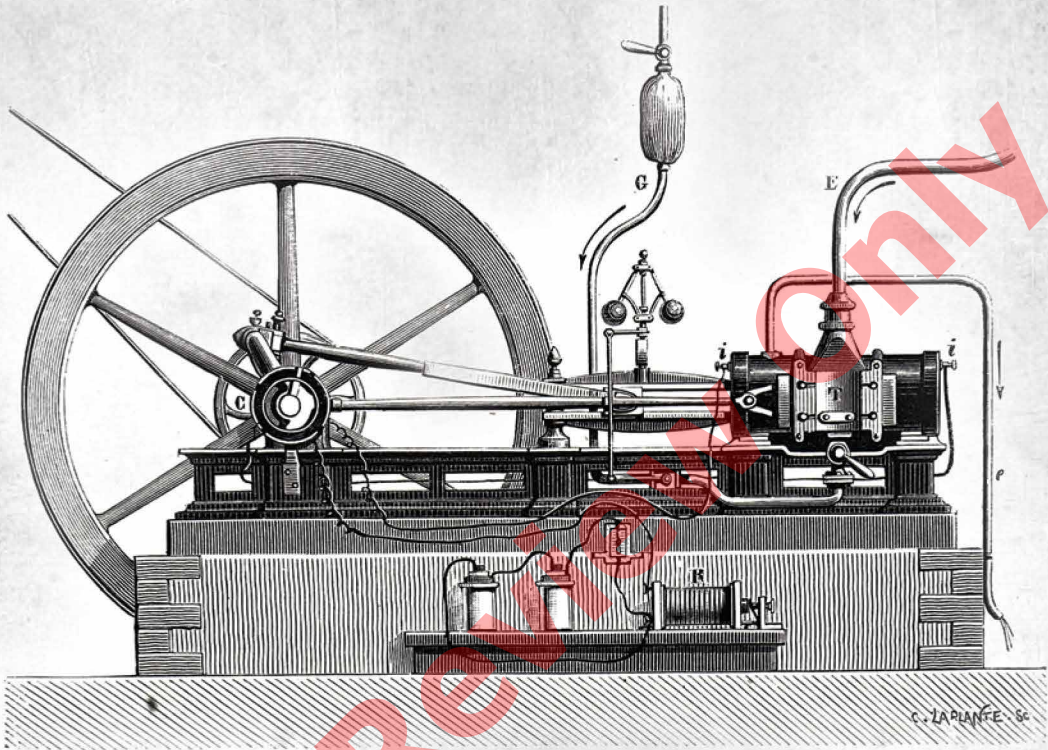
FROM CARRIAGES TO CARS

Designs for self-moving vehicles date as far back as the 1400s. In 1769, an inventor named Nicolas-Joseph Cugnot built a steam-powered tricycle. Many consider it to be the first automobile. By 1830, steam buses transported people through major cities.

**Nicolas-Joseph Cugnot's
steam-powered tricycle**



Étienne Lenoir's internal combustion engine



In 1859, Étienne Lenoir introduced the first successful **internal combustion engine**. Though smaller than a steam engine, it could produce the same amount of power. Many inventors improved its design in the following decades. The internal combustion engine became even more **efficient**!

AUTOMOBILE TIMELINE

1769

Nicolas-Joseph Cugnot invents a steam-powered automobile



1893

The Duryea brothers create the earliest successful American gas-powered car



1886

Karl Benz patents the first true gas-powered automobile

1908

The Model T is released



1959

The first vehicle uses modern seatbelts



2008

Tesla releases its first all-electric car, the Roadster



2019-

Future developments



2009

Google begins testing self-driving cars

1913

The Ford Motor Company begins using the assembly line

