



## **Early Development and the First Modern Bicycle**

In 1816, Karl von Drais, a Prussian baron and inventor, created a device consisting of two wooden wheels mounted one in front of the other on a wooden frame with a seat placed between them. He called the device a draisine, and the rider propelled it forward by pushing it with their feet and steered it by using a handle to turn the front wheel. Drais's invention is generally considered to be the first precursor to the modern bicycle. The next major step in the bicycle's evolution occurred in France around 1863, when pedals were attached to the front wheel, creating a machine called a velocipede. Because of its unforgiving ride, the vehicle became known as the "boneshaker." The term bicycle also came into use at this time, although it did not

become the most frequently used word for the vehicle until the late 1870s.

Bicycles first arrived in the United States in 1866, when carriage maker Pierre Lallement brought a French-built velocipede to Connecticut and filed for a US patent on the design, which was granted in 1867. Around this time, bicycle designers on both sides of the Atlantic greatly increased the size of the front wheels of the machines they built in an effort to make them faster. This resulted in the style of bicycle known as the ordinary or the penny-farthing. The more colorful name, penny-farthing, came from the two unequal-sized wheels' resemblance to the two most common English coins in circulation (the penny was much

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larger than the farthing). Unfortunately, the unequal wheels made for an unbalanced bicycle, and the very high seat made falls more dangerous. In the 1870s, bicycle designers pioneered several improvements, including the use of solid rubber tires to create a smoother ride, spoked wheels to make the machines lighter, and ball bearings to allow the wheels to turn more easily.

Bicycle manufacturing in the United States took a large step forward in the 1870s thanks to American Civil War veteran Albert A. Pope, who was inspired to go into the bicycle business after seeing English penny-farthing bicycles at the Philadelphia Centennial Exposition in 1876. To begin with, he imported and sold several machines from England. In 1877, he founded the Pope Manufacturing Company, and in 1878, he ordered a batch of fifty bicycles to be constructed under the Co-

lumbia brand at a sewing machine factory in Hartford, Connecticut. He also secured the rights to all existing patents for bicycles in the United States and licensed them to several other manufacturers.

Shortly after Pope began manufacturing bicycles, sev-

eral important innovations helped create a bicycle that had true mass appeal. In 1879, a rear-wheel, chain-driven bicycle was patented in England by Henry J. Lawson. Other English manufacturers realized that this mechanism, which multiplied the effect of the rider's feet on the pedals, allowed for the wheels to be returned to equal size. The result was that the bicycle's stability was greatly increased while no speed was lost. The Rover Safety Bicycle, which was introduced in England in 1885, featured two nearly equal-sized wheels and a chain drive and is generally credited as the first bicycle to feature the same basic configuration of wheels, seat, handlebars, and pedals as a modern bicycle. Two years later, pneumatic tires were invented, and at about the same time,

vented, and at about the same tim step-through frames were created that allowed women wearing skirts to ride bicycles. The basic form of the bicycle has not changed since that time. Though pioneered in England, these improvements in design quickly crossed the Atlantic and were adopted by American manufacturers.

Charles Pratt, who was the attorney who helped Albert Pope secure the rights



Albert Augustus Pope was an American Civil War colonel who manufactured bicycles in the United States under the Columbia label starting in 1878.

to existing US bicycle patents, was an influential figure in his own right. He realized that for bicycles to ever truly have mass appeal, the country would need better roads than the often muddy, rutted, and sometimes nearly impassible ones that existed in the early 1880s. This was something that could only be accomplished with the help of the government. He also realized that the bicycle industry would need to engage the public. This led him in 1880 to found and become the first president of the League of American Wheelmen, a national organization for bicycle riders. The league, in turn, founded the Good Roads Movement, which was a political movement to encourage cities and states to improve roads. The Good Roads Movement came to be an important political player in many regions by providing consistent support to politicians who devoted resources to improving roads.

While bicycles built by the Pope Manufacturing Company and other companies grew in popularity, they continued to be quite expensive. In 1889, a Columbia safety bicycle cost \$135, which is the equivalent of about \$3,900 in today's dollars.

## The Golden Age Begins

By 1890, the bicycle manufacturing business in the United States was a small but healthy one, in which twenty-seven factories produced a total of forty thousand machines. But the bicycle's best days were just ahead.

