

History of the Bicycle

A Scotch blacksmith, Kirkpatrick Macmillan, of Dumfriesshire, was the inventor of the first real bicycle in 1839. Pierre Lallement, a French coachbuilder, of Paris, France, perfected it. Lallement secured the first patent ever issued for a bicycle in 1866.

In the early days of 1800 and for some thirty years afterwards, all kinds of contraptions were put out when the first bicycle (though the name “bicycle” had not been coined) was introduced about the year 1790. It had two wheels, a saddle, and handlebars, but no inventive genius had thought of any way to propel it, so the rider just straddled it and by pressing his feet alternately against the ground, pushed the machine along at a speed somewhat faster than walking.

These ancient vehicles deserve an important place in the history of the bicycle as it marks the very beginning of the idea of humanly propelled machines and finally led to the application of cranks and other driving gears, and to the development of the velocipede or “boneshaker” of the 60s--then to the high wheeler. The appearance in the early 80s of the “safety” with its two wheels alike in size, soon pushed the “high wheeler” or “ordinary” out of public favour. It was from these crude beginnings that the modern perfected bicycle was developed. Today, bicycles are used in every civilized country of the world, and it is fitting that we should list in chronological order, from what records there are available, the work of those bicycles makers of the early days.

BICYCLE HISTORY IN CHRONOLOGICAL ORDER

Year 1790

Chevalier de Sivrac, a Frenchman, conceived the idea of a crude make of bicycle, consisting of a wooden beam, below each end of which was a wheel about 70 cm. diameter. The rider sat on a cushion and propelled the machine by alternately paddling his feet on the ground to left and right.. In front of the machine were the head and horns of a ferocious-looking beast.

1799-1810

Nine years after Sivrac’s model was introduced and then again in 1810 two types were brought out of similar construction, also propelled by the feet. The 1799 model was known as “The Accelerator” and the 1810 model was called “The Celeripede”.

1813

Baron Charles de Drais, of Saurbrun, Germany, introduced a bicycle more or less of the type of Sivrac’s model; he added a swivel head to aid steering. Baron Drias in later years made further improvements — we will refer to these later.

1816

A contraption very much like “The Celeripede” in appearance, appeared in the year 1816 in Paris France. This was the invention of a French photographer, M. Niepice. This model was made of two wheels and a cross bar fitted with saddle, the front wheel was fixed fast, and had not any means of steering it. Believe that Niepice called his bicycle the “Improved Celeripede”.

1817-1818

“The Pedestrian Curricule” was another type of machine similar to “The Celeripede” with some minor improvements, the work of a London, England coachbuilder, named Johnson. It is recorded that this is the model that was later called “The Hobby Horse”. In fact, in 1818-1919, “Celeripede”, “Draisenes”, and “Pedestrian Curricles” all became known as “Hobby Horses’ and as they were used by “Dandies” in Hyde Park, London, were nicknamed “Dandy Horses”.

1818-1819

In England at the latter end of 1818 or early in 1819, Baron Driass of Germany introduced an improvement on this 1813 model. This improved model was called “The Driasene”. These “Draisenes” were very expensive and only the very rich could buy them. During these years bicycle riding was in full swing in New York. There was riding rink on “Bowling Green” where machines could be rented and riding taught. The side walks of City Hall Park and the Bowery provided favourite courses for the riders. The “Dandy Horse’ fad also spread to Boston, Philadelphia, and other cities on the North American continent.

1829

About this time history tells us that the French Government mounted many rural Postmen on Celeripede, but after trying them out for a year or so in 1830, they were discarded as impractical.

1830

James Starley, of bicycle invention fame, was born in England in 1830. Many years later he invented various types of

bicycles. One of these as known as Starley’s “Spider Wheel” which appeared on or about the year 1870.

1839

Macmillan’s pedal bicycle was constructed of wood, the driving mechanism of which consisted of short cranks fixed to the rear hub connected by rods to long levers hinged to the frame close to the head, the connecting rods being joined to the levers at about one third of their length from the pedals, the foot action thus obtained being a downward and forward thrust.

Macmillan’s Bicycle was the first bicycle that could be propelled without the feet touching the ground. Incidentally, on the wall of Courthill Smithy, Dumfriesshire, Scotland, a tablet records the fact that “Here the first bicycle was made about 1840”. Macmillan’s tombstone in Keir Old Churchyard also bears a suitable inscription.

1845-46

After MacMillan had ridden his machine for a few years, Thomas McCall built a number of copies and sold them for approximately \$35.00 each. However, its use never spread beyond the borders of Scotland and no further progress in bicycle development was made until the early sixties.

1846

An Englishman, R.. W. Thompson, took out a patent for a type of pneumatic bicycle tire but he did not proceed any further with his invention. This same year John Lacou, A Bordeaux mechanic, constructed a bicycle with large sized pedals, two wooden wheels with wide rims. A few

years later Lacou constructed a tricycle or “three wheeler”.

1861

First known record of the use of steel spokes in the year 1861., Joshu Helimann built a bicycle with two parallel wheels of 2m.-40dm. diameter, of which the rims were bound to the hub by spokes of steel.

1862

“The Boneshaker”

We now come to one of the most interesting and most important figures in bicycle history, Pierre Lallement, a French carriage maker of Paris, France. He introduced what could be termed the first bicycle, at least as we know it. This machine had the cranks and pedals attached to the front wheel. The front wheel was larger than the rear one and had thick iron tires and a saddle resting on a heavy iron backbone. It shook terribly on the rough roads and cobbled streets of Paris and caused people to term it “the boneshaker”. Lallement’s employer, a Frenchman called M. Michaux, bought Lallement’s patent and opened a bicycle shop.

First Bicycle Factory, Paris, France

The address of Michaux was 29 Avenue Montaigne. History informs us that this was the first bicycle factory where bicycle were made and sold commercially. In the meantime, Lallement, not having enough money to compete with Michaux, took what money he had from selling his bicycle patent (as mentioned above) and emigrated to the United States. We will refer to Lallement later on in this article.

1862-1863

Michaux Velocipedes

Michaux continued to make all kinds of bicycles. These became known in Europe as Michaux’s Veloipedes. He also invented saddles with metal springs and solid rubber tires, a bicycle with out levers. He attached pedals to the front wheel of a lighter and more practical machine than had been hitherto made. He later constructed wooded bicycles with handle bars, and saddles on metal springs. Because of his ingenious ideas, Michaux is considered the Father of Cycling in France.

1868

About the year 1868 Michaux adapted on his bicycles a special rim to hold a tire of solid rubber.

1865

In the year 1865 or 1866 Lallement, whom we referred to previously, went to the United States, with the idea of finding larger opportunities, taking with him a number of partly finished parts of a much improved bicycle over his “boneshaker” model of 1862. He found employment in Ansonia, Conn., and in the spring of 1866 he went to New Haven and there rode his bicycle on the green, or public square. Whilst there he found a man willing to advance the money necessary to obtain a patent for his new improved bicycle, one J. Carroll, and on 4th May, 1866, his specifications and drawings were filed in the patent office. This was the first bicycle patent ever issued. Neither Lallement or Carroll at that time could interest capital in taking up the manufacturer of the machine. Lallement left his machine in New Haven and returned to Paris, France. We will refer to Lallement’s activities in France later in the article.

1867-68

“The Penny-Farthing”

R. Turner, an Englishman, introduced Michaux’s machine to England and later the creation of a 60-inch front wheel and a 20-inch rear wheel, which led to the term “penny-farthing”, although this model was termed by the trade as an “ordinary”.

Introduction of Strut-Forks

About the same period a body-worker from Seine-de-Marne constructed a bicycle with strut forks.

1868

was a very interesting year in bicycle history.. Andrew Guilmet, a clock maker, invented a machine very like the modern machine which was specially built by Meyer, a Paris mechanic. Spokes of 5 mm. Diameter, **screwed to the hub** and fixed by tension. Wheels were fairly equal, real wheel carrying the chain transmission.

Free Wheel and Two-Speed Gear Introduced

Joseph Meunier, another French watchmaker, invented in 1868 the “Free Wheel” and aided by a man called Barrerou, built a bicycle with free wheel and two speeds, of which one was back-pedal.

1869

Patent for Ball- Bearing

J. I. Stassen of England, took out a patent for a “bicycle”. This is the first known appearance of the name “bicycle”. In the same year “Swierey” took out a patent for ball-bearings. Also in the same period hollow

iron was substituted for general bicycle construction.

1870

Wooden, iron-rimmed wheels in this year gave way to wheels made of light metal and spoked with strong wires. Tires were made of rubber in a special way. The underside of a soft or spongy rubber, the outer rim or tread of a hard rubber.

1870

Let us go back again to Lallement who had returned to France from America towards the end of 1866 or early 1867. The bicycle boom had spread to England and America in 1867-1868. Manufacturer was taken up on a large scale. Lallement’s patent became valuable, and was bought by Calvin Witty, a New York maker, and all other American makers were forced to pay Witty a royalty of \$20.00 per machine. It is recorded that Lallement received \$10,000 for half of his American patent which enabled him to enlarge his Paris business.

With the breaking out of Franco-Prussian War in 1870 and the subsiding of the velocipede boom, Lallement and the other French manufacturers were put out of business. Once again, Lallement went to America, working as a mechanic. He finally dropped out of sight, the fate of many other men who have made important inventions contributing to the world’s progress.

1875

Introduction of Hollow Rim

Jules Truffalut, of Tours, France, invented the hollow rim, or a type of hollow rim and later he introduced the first bicycle gear without a chain.

1878

Col. Albert A. Pope, of Hartford, Conn., an American manufacturer, who had purchased Witty's and Lallement's bicycle patent, began in 1878 the manufacture of his Columbia Bicycles, and this, together with a number of other bicycle patents which he procured, enabled him to exact a royalty from the makers and importers for a number of years.

1870-1890

During these twenty years quite a lot of changes took place in bicycle history. We will refer to several of these in logical order later. During the twenty years the high wheeler or "ordinary" as it was termed, became popular and was made in all kinds of designs. The general idea was that the front wheel was very large, sometimes as much as five feet in diameter, with the rear wheel midget in size. Many riders had to use a ladder to get seated. The high "ordinary" gave an advantage to tall, long-legged riders. Short riders had to have bicycles built for them with the pedals fitted farther up the fork. A chain carried the power to the wheel's main axle. Real skill was required to ride these high wheelers.

1880

First Safety Bicycle

About the year 1880 the Safety Bicycle made its appearance. Although four or five years prior to 1880 what was known as an "Early Safety" was introduced, however. In the early 1880s the "high-wheeler" began to be pushed out of public favour. From what records we have it is recorded that the "First Safety Bicycle" was patented by H.J. Lawson of England, in the year 1876 but not marketed to any extent until ten years later. This model had two

wheels of equal size. The seat was attached to the bicycle frame. A chain drive transmitted power to rear wheel. The sprocket on pedals was considerably larger than sprocket on rear wheel. In the year 1880 Starley, another Englishman, introduced a model called "Starley's Safety".

1888

Invention Dunlop Pneumatic Tire

This was a very important year in the history of the bicycle. Dr. John Boyd Dunlop, a veterinary surgeon, of Belfast, Northern Ireland, finished the first pair of pneumatic tires (air tube and cover) which he made for his son's bicycle. It is said that Dr. Dunlop got the idea from fitting pieces of garden hose on various occasions on his son's bicycle wheels.

1894

Just six years after the invention of the pneumatic tire, the first Canadian Dunlop Road Race in Toronto was held. Quite a number of Dunlop Road Trophies of the early days are to be seen today in the Royal Arena, Broadview Avenue, Toronto.

1896

7,000 Bicycle Patents

Patents for bicycle improvements applied for in England in the year 1896 totalled nearly 7,000.

It was from these beginnings that our modern perfected bicycle was developed — the advance from the "hobby horse" to MacMillan's wooden bicycle — to Lallement's "Boneshaker" — to the "Penny-Farthing" or "Ordinary" — to the strong, light, smooth-running present-day machine has been a remarkable and interesting history of practically 160 years. Cyclist of today owe

much to those who have placed their energy and skill to the evolution of the "wheel".

1899

Canada Cycle & Motor Company, Limited, founded.

1902

C.C.M. acquires the National Cycle and Automobile Company. This was, in effect, the Canadian end of a big American amalgamation referred to as the A.B.C. and which controlled 42 of the leading bicycles of the U.S.A.

Year 1899 was a very important one in Canadian bicycle history. This was the year C.C.M. was founded.

THE BICYCLE IS PROBABLY THE OLDEST FABRICATED ARTICLE STILL BEING MANUFACTURED IN WHICH THE BASIC PRINCIPLES HAVE BEEN LEAST CHANGED

Courtesy of Canada Cycle & Motor Company, Ltd.

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