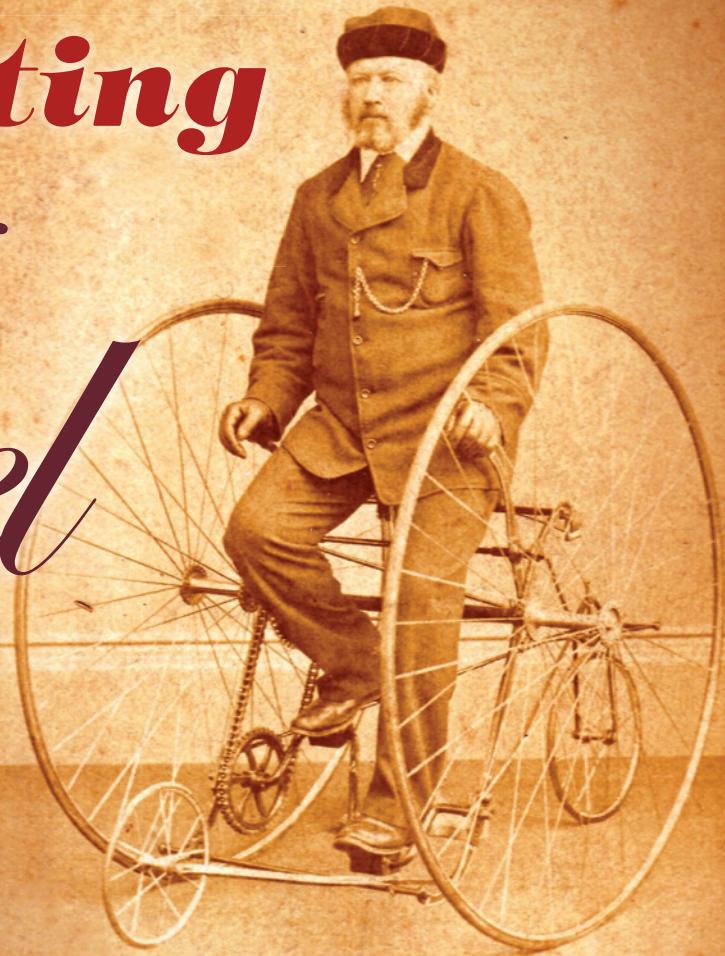


Re-inventing the Wheel

Known as the father of cycling, James Starley played a vital role in the bicycles we ride today with his innate ability for invention. And he was born just down the road in Albourne...



Picture: Starley on his 'Salvo Quadricycle', 1881. Image kindly supplied by Coventry History Centre

In this day and age with the advent of the modern A23, one could be forgiven for zipping past the tranquil village of Albourne and its 600 residents. Yet back when roads were dusty tracks this village saw some important history take place; in 1831 it was the birthplace of James Starley, a Sussex man who helped to revolutionise cycling.

As a child James went to school in Albourne and then Hurstpierpoint, before he left education aged ten, to work on the family farm. His talent to innovate and create became apparent but by the age of fifteen he had decided that agriculture was not for him. So he left home, and walking via Little Horsted, Tunbridge Wells and Sevenoaks he eventually pitched up in Lewisham.

James took a job in gardening but during his spare time his talent for invention became obvious; he fixed a broken sewing machine for his employer and improved the mechanism in the process. James was introduced to the owners of the sewing machine company and in 1859 Newton, Wilson and



Company took him on at their Holborn factory.

But James didn't stay long and just a couple of years later in 1861 he moved to Coventry and co-founded the Coventry Sewing Machine Company.

But it was in 1867 that his life changed when a French "Boneshaker" arrived at the factory. The Boneshaker was a predecessor to the bicycle, or velocipede as they were known back then. It was a particularly uncomfortable machine to ride – hence the name – but it was cutting edge for its time, for it had pedals but no chain. The pedals were attached to the front wheel, making it the original fixed gear bicycle.

James Starley's company began to manufacture bicycles and Coventry became the hub of Britain's bicycling wheel. His first success was the Coventry Bicycle, or the Ariel as it was also known. These machines evolved into the Ordinary or 'Penny Farthing', which featured a gear that rotated the front wheel twice each time the cyclist revolved the pedals once, increasing

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speed and reducing
workload in the process.

The great innovation with this machine was to replace wooden wheels with metal wheels and metal spokes. In 1874 James went on to patent the “tangent spoke wheel” which would be his greatest cycling achievement. The spokes were set at a tangent to the wheel hub and adjacent spokes were set in opposite directions to each other, creating a very light but much stronger wheel. It is the type of wheel seen on most bicycles today.

Still, James had more to offer. As he got older he found it became more difficult to ride a sociable tricycle with his son. This type of bike was a side-by-side tricycle where both riders each powered one rear wheel independently of the other, but these bikes were difficult to steer, because of the differential power input of the two riders. Starley solved that problem as well, however, with the invention of the differential gear. This creation allowed the wheel on the outside of a corner to rotate faster and the wheel on the

James Starley’s first success was the Penny Farthing, which increased speed and reduced workload

today and The Coventry Transport Museum sits on the site of Starley’s former factory.

James Starley had married Jane Todd while in Lewisham and they had a family of four sons and two daughters, although it was James’s nephew John Kemp Starley who was to find further fame with the family name – John Kemp Starley invented the Rover safety bicycle, although over time the Rover company he founded would make its fortune by making cars.

So, next time you’re putting your peddle power to the test climbing up to the summits of Ditchling Beacon or Kidd’s Hill, spare a thought and a few thanks for Albourne’s little known father of cycling – James Starley. ■

It was in 1867 that James Starley’s life changed when a French “Boneshaker” arrived

inside of a corner to rotate more slowly. The prototype was built and the invention was patented in days. This “Starley Axle” or greatly developed variations of it, is still incorporated into most road cars today.

James worked right up to his death at the age of 50 in June 1881. A monument was erected in 1884 on Greyfriar’s Green in Coventry and it’s still there

