



Bulletin #21

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critique and guidance by
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☛ Riding ☛ Collecting ☛ Restoring ☛ Research ☛ History ☛

The Evolution of the Bicycle - Significant Events

| Date | Person | Country | Event |
|---------|---------------------|----------|---|
| 1817 | von Drais | Germany | Introduced device having two wheels connected by beam. Rider straddled beam and propelled with feet on ground. Front wheel steerable. Machine called 'Draisine' and later 'Hobbyhorse'. |
| 1819 | | England | Cartoonist drew figure of Prince Regent lying on Hobbyhorse, using hands to turn cranks attached to front wheel. Early conception of cranks. |
| 1839-40 | Macmillan | Scotland | Built machine with cranks on rear wheel, propelled by pedals attached to cranks by long arms. |
| 1845 | Thomson | England | Patent for a type of pneumatic tire which received some use on carriages. |
| 1861 | Heilmann | Germany | First use of steel spokes. |
| 1866 | Lallement & Carroll | America | First patent for a rotary action crankdriven velocipede. Invention of velocipede or 'boneshaker'. Two-wheeled device with steerable front wheel and cranks with pedals attached to front wheel. |
| 1868 | Henlon Bros. | America | Slotted cranks for adjustable crank length. |
| 1868 | Edwards, Bradford | America | Introduction of solid rubber tires in America. |
| 1868 | Meunier | France | Freewheel and two speeds. |
| 1868 | Pickering | America | Brought machine from Paris which provided model for machines he and Davis manufactured in U.S. |
| 1868 | Wood Bros. | America | Manufactured expensive machines noted for their quality and beauty. |
| 1868 | Buell | America | First use of springs in frame to reduce vibration. |
| 1869 | Magee | France | First tubular frame. |

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| 1869 | Stassen | England | Bicycle patent with first use of term 'bicycle'. |
| 1869 | | France | Publication of <i>Le Velocipede Illustré</i> . First journal devoted to velocipeding. |
| 1869 | Reynolds & Mays | England | Produced Phantom, first radical departure from velocipede—wire spokes and suspension. |
| 1869 | Suriray | France | Patent for ball bearings. |
| 1869 | Goddard | America | First U.S. book on cycling. |
| 1870 | | England | Metal wheel rims with cushion rubber tires. |
| 1870 | Witty | America | Bought Lallement & Carroll patent, and licensed many manufacturers. |
| 1871 | Smith, Starley & Co. | England | Developed and produced Ariel—first practical 'Ordinary' bike. |
| 1874 | Starley | England | First tangent spokes. |
| 1876 | | England | First manufacture of adult tricycles. |
| 1876 | | America | 'Ordinary' bicycle first shown in U.S. Philadelphia Exposition. |
| 1876 | Lawson | England | Patent for 'safety' bicycle—lever driven machine with first emphasis on safety concept. |
| 1877 | Hughes | England | Adjustable ball bearings. Later became Bown's Aeolus ball bearings. |
| 1878 | Pope | America | Bought Lallement and Witty patent rights, began producing Columbia bikes. |
| 1878 | Beale | England | Invented Facile, and with Straw began its production. Safety concept. |
| 1878 | Singer | England | Invented and produced the Xtraordinary Challenge. Further trend towards safety. |
| 1879 | Lawson | England | Production of Bicyclette, first commercial chain-driven machine. |
| 1881 | Smith | America | Began commercial production of American Star, originally invented by Pressey. Bike with safety features by having small wheel in front, ratchet and strap drive. |
| 1883 | Hillman | England | Patented the Kangaroo, and with Herbert & Cooper began its production. Wheel size reduced by lowered cranks and use of chains and sprockets. |
| 1884 | Stevens | America | Began trip around world on Ordinary. |

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| 1884 | | England | First appearance of more conventional safeties having rear drive, chain and sprockets. |
| 1885 | Starley (J.K.) | England | Production of Rover—bicycle form substantially as it remains today. |
| 1885 | | America | Production of Springfield Roadster—safety features. |
| 1886 | | America | Production of Eagle—small wheel in front and regular pedal action. |
| 1886 | Albone | England | Developed first ladies drop-frame safety. |
| 1887 | Bowden | England | Took over the firm of Woodhead, Angnois & Co., and renamed it the Raleigh Cycle Co. |
| 1887 | Morris | England | Production of first diamond frame bicycle. |
| 1888 | Dunlop | Ireland | First practical pneumatic tire. |
| 1899 | | America | 312 factories produced over one million bicycles. |