

HISTORY OF THE BICYCLE - EXERCISE

V.Ryan © 2000 - 2009

On behalf of The World Association of Technology Teachers

W.A.T.T.



World Association of Technology Teachers

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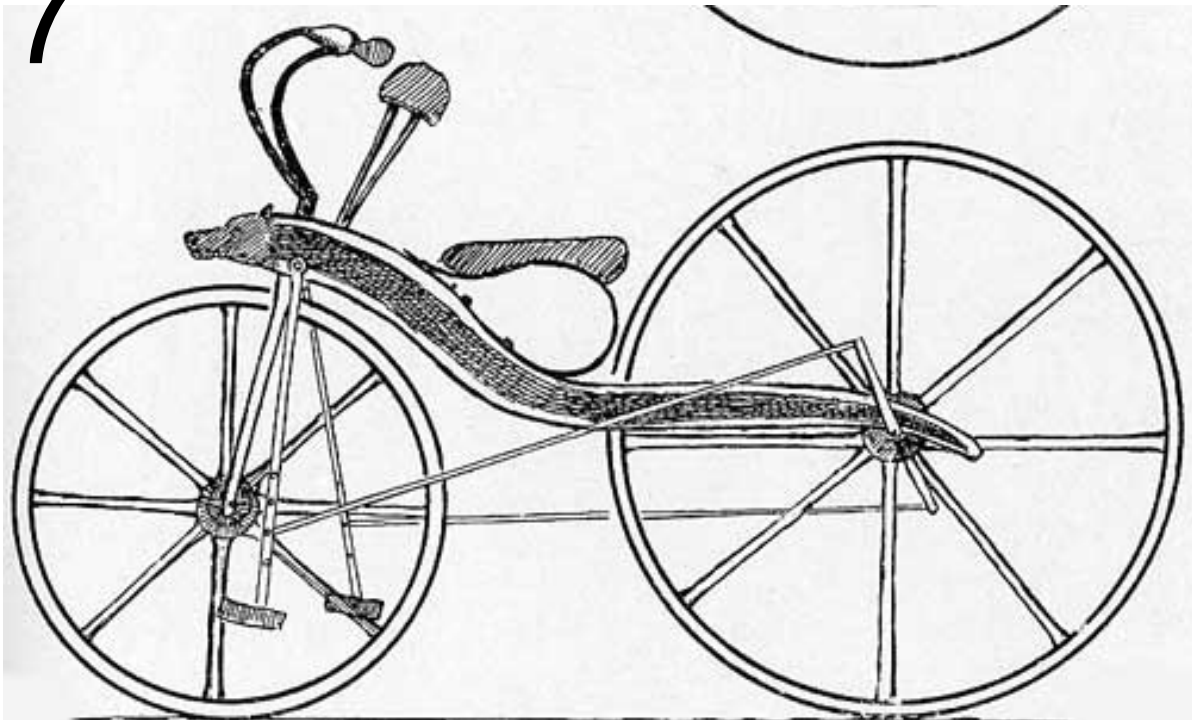
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WALKING MACHINE

In 1817 Baron von Drais invented a walking machine that would help him get around the royal gardens faster: two same-size in-line wheels, the front one steerable, mounted in a frame which you straddled. The device was propelled by pushing your feet against the ground

7



TREAD-TYPE PEDALS

Kirkpatrick Macmillan 1839 is traditionally credited with a machine in which power was supplied to the back wheel via rods connected to treadle-type pedals.

5



ARIEL HIGH WHEELER

James Starley 1870 produces the “Ariel” High Wheeler (“Ordinary” or “Penny Farthing”).
Later versions had front wheel sizes of up to 5 feet.

1



BICYCLETTE

1879 - Henry J. Lawson patents a rear wheel, chain-driven safety bicycle, the
“Bicyclette” (his earlier models were lever driven).

2



1888 Commercial development of the pneumatic bicycle tire by Dr. John Boyd Dunlop.

9



1890s 'Cycles Aluminium' (France) becomes one of the earliest manufacturers of an aluminium bicycle.

4



DERAILLEUR

1910 - The first, easy-to-use derailleur is invented by Paul de Vivie (Velocio) that shifted among four gears at the pedals.

10

Arnold, Schwinn & Co.
Introduces
**Super
Balloon Tire
Bicycles**

LOW PRESSURE
18 to 22 Lbs.
According to weight of rider

The only major development since the coaster brake—on the finest specially constructed bicycles built by the oldest and most outstanding American manufacturer. A 2 1/4" automobile type double-tube, straight-side, cord tire—on a new deep drop center rim—a construction embodying all the latest advancements in the tire art.

ARNOLD, SCHWINN & CO.
1718 NORTH KILDARE AVE.
CHICAGO, ILLINOIS
TELEPHONE BELMONT 6793

MODEL 810E

1938 - 'Rugged Bike' - Introduction by Schwinn of the balloon tire and "streamlined" bikes which leads to rugged bikes that can take the abuse of teenage boys and which set a forty-year trend.

6



SPRUNG SUSPENSION

1962 ENGLAND - Launch of the Moulton small-wheeled bicycle with separately sprung suspension and custom tires. Competed successfully in time trials and track pursuit events.

11



RALEIGH 'CHOPPER'

Raleigh - 1968

13



1970 ENGLAND - The aluminium Bickerton portable small-wheeler is developed. Followed by the successful Brompton in 1976 and Dahon in 1980.

8



KESTREL

1986 - Kestrel (USA) introduces their production non-lugged, carbon fibre frame and Trek market their first lugged carbon frame.

12



LOTUS

1992 - lotus. Advanced composite with minimum-drag aerodynamic cross-sections, formed with unidirectional and stitched high-strength carbon fibre in an epoxy resin matrix. Titanium inserts are incorporated at the load-bearing points.