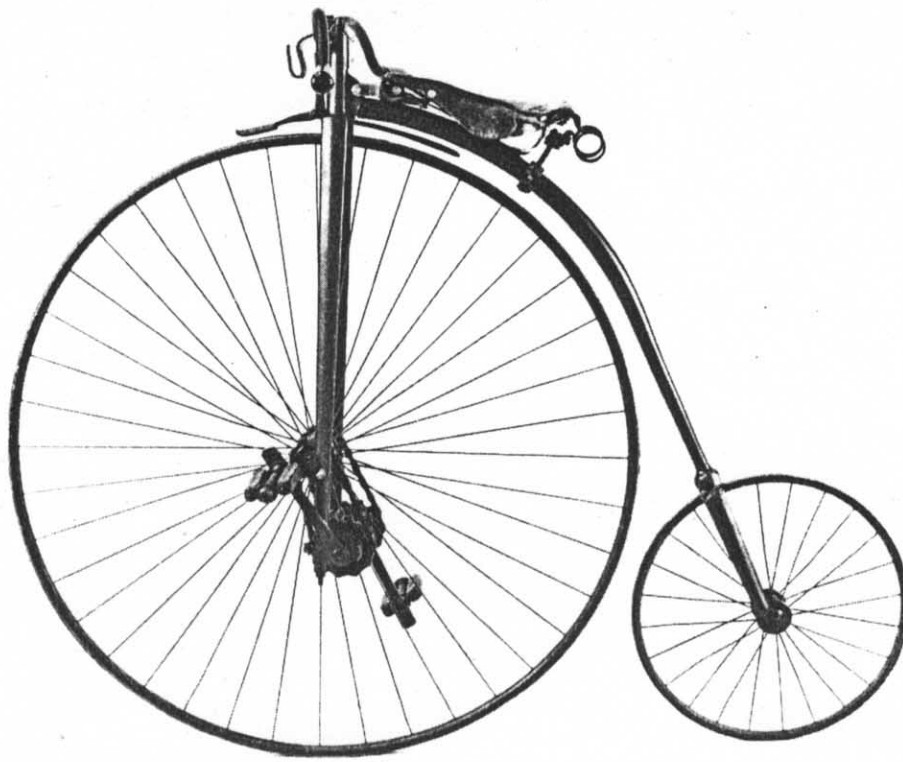


1884 HILLMAN,  
Herbert & Cooper  

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"KANGAROO"

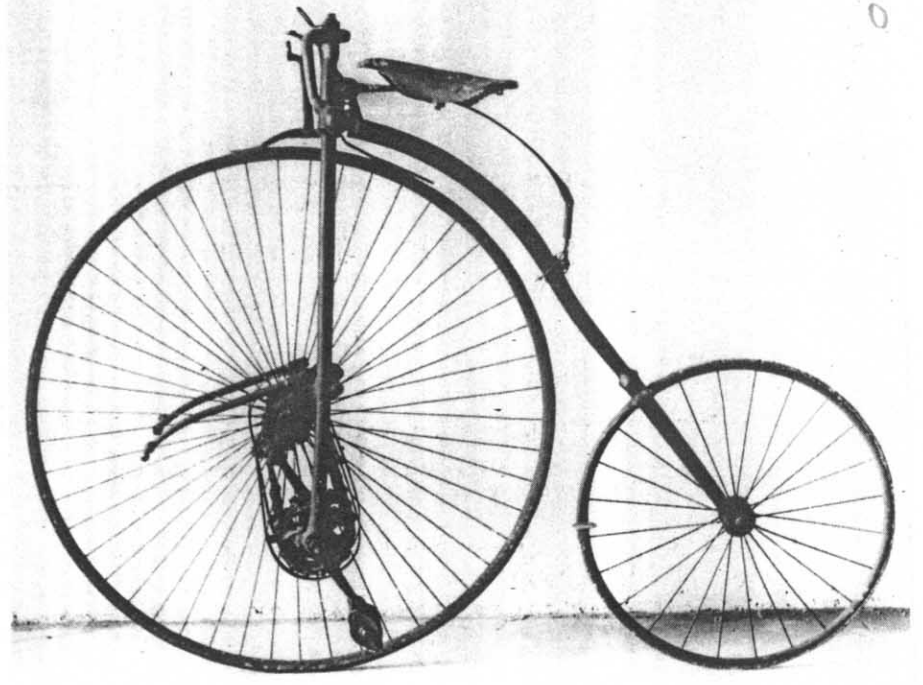


Kangaroo by Hillman; Herbert and Cooper, Coventry, 1884. Each front fork is extended below the axle to support a pedal and a crank. The wheel is geared up and driven by chainsets fitted on both sides.

▲ First produced by Hillman, Herbert and Cooper as the Kangaroo, the design with sprockets fixed on extensions to the forks and a chain drive to the hub was widely copied by almost all the leading manufacturers for the following season.

Chain technology had been developed on the early tricycles and the facility to gear it up by fitting different sized sprockets made the Kangaroo a winner both on the path and on the road. For two seasons it looked as though the dwarf front-driver might take over the position held for so long by the Ordinary but its success, although impressive, was fleeting and the rear-driven safety had removed it from the catalogues by 1888. Although the Kangaroo was often talked about as a safety machine the description is inaccurate as 'the upright forks and small back wheel rendered a cropper quite as easy of occurrence as on an Ordinary'. 2

The dwarf front driver appeared in 1884 and many companies rushed out their own versions to take a share of the new market. The most famous was the Kangaroo made by Hillman, Herbert and Cooper and the name has become generic for this short-lived class of machine.



KANGAROO 1884 3

The Kangaroo is one example of the efforts made to eliminate the disadvantages of the excessive height and the fixed gear ratio of the 'Ordinary' or 'Penny Farthing' bicycles; it represents a distinct move in the direction of the 'Safety' bicycle. The design permitted the use of a smaller front wheel thereby reducing the height and a geared up transmission using a chain drive which made the wheels revolve faster than a pedals.

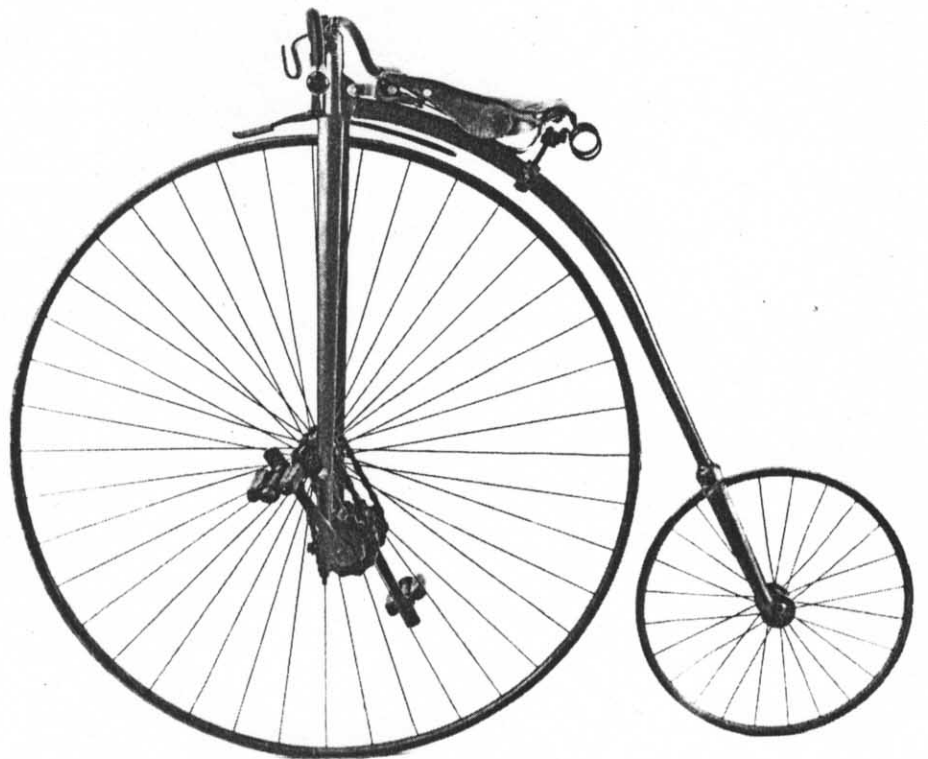
A hundred mile race in 1885 was won on a machine of this type at an average speed of fifteen miles per hour, a record for the course. The machine is understood to have been sold for seventeen guineas.



1884 Kangaroo  
built by William Hillman



Kangaroo-  
Sicherheitsrad 1884  
Übersetzung 1:2, eine  
Kurbeldrehung = dop-  
pelter Felgenumlauf.  
Durch die wesentlich  
niedrigere Bauart wurde  
die Gefahr der Kopf-  
stürze vermindert.



Kangaroo by Hillman, Herbert and Cooper, Coventry, 1884. Each front fork is extended below the axle to support a pedal and a crank. The wheel is geared up and driven by chainsets fitted on both sides.

1885 KANGAROO  
by Hillman

The Kangaroo, patented by William Hillman in 1884, was an immediate success. A 100-mile race was organized to publicize the Kangaroo.



A cartoon of 1885 by George Moore, entitled Battle of the Safeties, shows the Rover Safety Cycle in competition with the front driven Kangaroo Safety Cycle.

Rover Safety Cycle  
Kangaroo front driven Safety Cycle



**Plate 39 - 'Kangaroo' dwarf ordinary bicycle. 1885.**

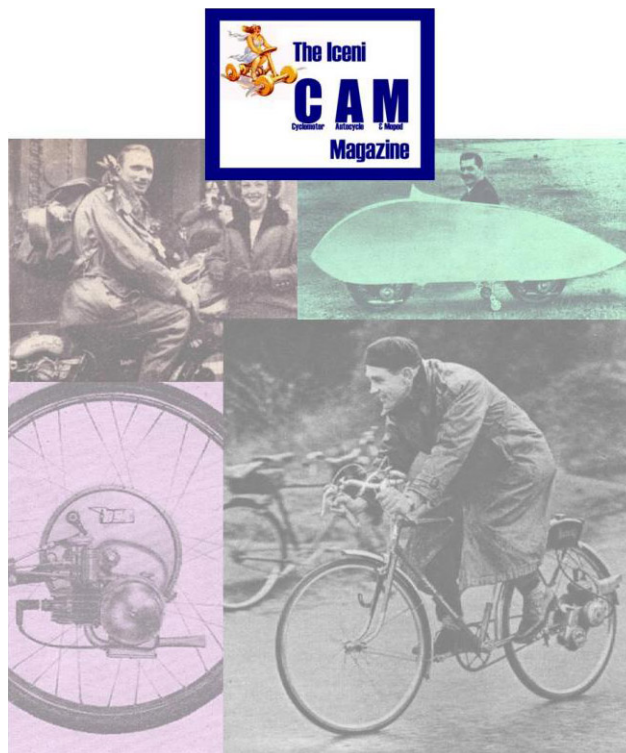
This was one of the many attempts and transitional machines between the ordinary and the safety machine. Like the Singer Xtraordinary, it is lower than the ordinary in the interests of safety. The machine while outwardly resembling an ordinary had the saddle set back but most important of all it incorporated chain drive, although the length of chain used was very little. As the rider's legs were nearer the ground than the hub of the front wheel where the drive was, the hub was

connected by two chains, one each side of the wheel to a lower set of cogged wheels fitted to the frame to which the pedals were attached. One main and decided advantage was that the front wheel was geared up to compensate for the smaller diameter of the wheel.

'Kangaroo' dwarf ordinary bicycle. 1885.



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