(No Model.) 2 Sheets—Sheet 1

W. J. LLOYD & W. PRIEST.

VELOCIPEDE.

No. 421,946. Patented Feb. 25, 1890.

Fig. 1.

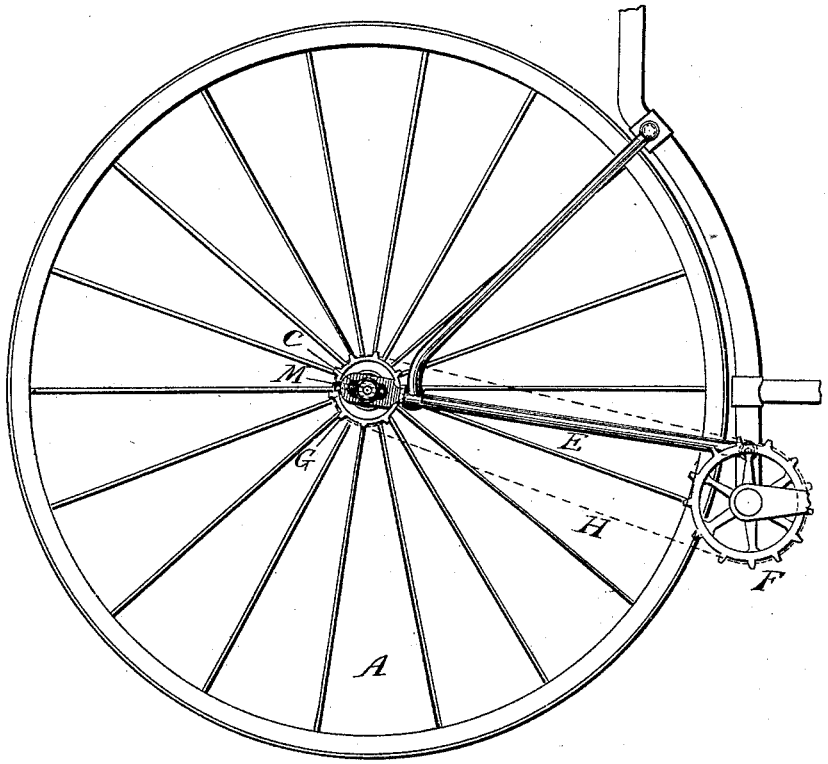
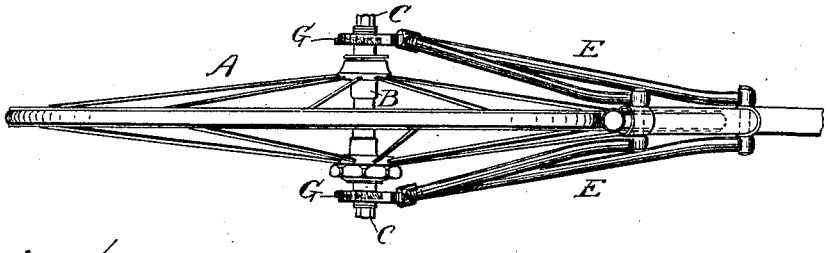


Fig. 2.



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(No Model.) 2 Sheets—Sheet 2.

W. J. LLOYD & W. PRIEST.

VELOCIPEDE.

No. 421,946. Patented Feb. 25, 1890.

Fig. 1.

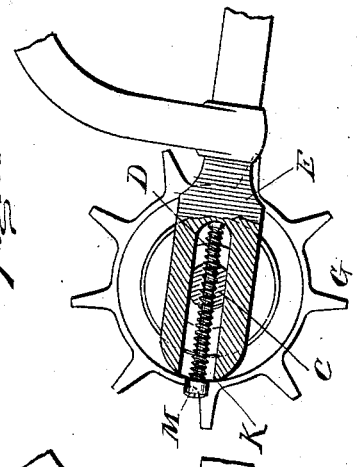


Fig. 4.

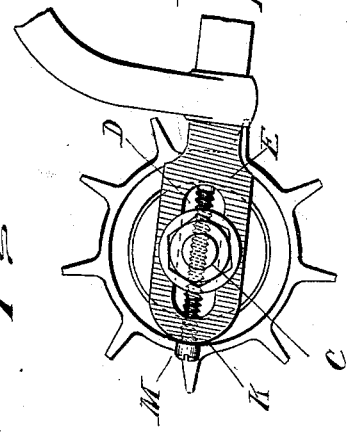
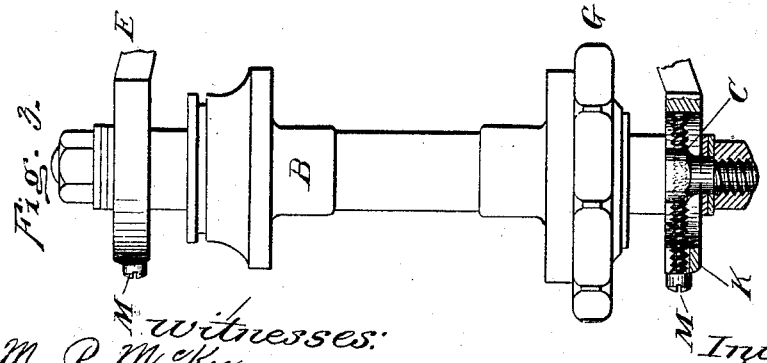


Fig. 3.



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UNITED STATES PATENT OFFICE.

WALTER JOHN LLOYD AND WILLIAM PRIEST, OF BIRMINGHAM, COUNTY OF WARWICK, ENGLAND.

VELOCIPEDE.

SPECIFICATION forming part of Letters Patent No. 421,946, dated February 25, 1890.

Application filed December 26, 1889. Serial No. 334,938. (No model.) Patented in England July 6, 1888, No. 9,838.

To all whom it may concern:

Be it known, that we, WALTER JOHN LLOYD and WILLIAM PRIEST, residing at Sheepcote Street, Birmingham, in the county of Warwick, Great Britain, have invented certain new and useful Improvements in Bicycles and Tricycles, (which was patented in England July 6, 1888, No. 9,838,) of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to bicycles and tricycles, and especially to adjusting mechanism by which the driving belt or chain of a bicycle or tricycle may be adjusted.

The object of the invention is to secure a ready and parallel adjustment by which the driving-chains can be brought to proper tension.

Figure 1 is a side elevation of the rear or driving wheel of a bicycle, the supporting-frame being shown in part. Fig. 2 is a top plan of same. Fig. 3 is a detail of the spindle or axle of the driving-wheel. Fig. 4 is a side elevation of the slotted frame and spindle, and Fig. 5 a vertical longitudinal section of same.

The drawings illustrate the improvement as applied to the driving-wheel of a "Safety bicycle;" but it may be applied to tricycles and other machines.

The letter A indicates the driving-wheel. This wheel has a hub B of an improved construction, which hub runs on a spindle C. The spindle C has its bearings in a slot D in the backbone or frame E of the machine. The bar E is an extension of the backbone or frame. A chain-wheel F is supported in suitable position near the front of the driving-wheel, or in other suitable and convenient positions, there being one driving-wheel in the class of machines illustrated. A chain, indicated by dotted line H, leads from the chain-wheel F to the driving-socket G. The spindle C is perforated transversely within the slot D at each side of the frame, the perforations extending in the direction of the length of the slot. The rear end of the slot in frame E is closed by a rib K, extending across the slot at the outer side. The spindle C is flattened at its bearing-points in the slot D, (see Fig. 5,) and the perforation referred to extends through the spindle parallel with and between the flat faces thereon. Set-screws M pass through the holes in the spindle and engage screw-threads therein. These screw-threads bear at their front ends against the front or closed ends of the slots D and find side bearings near their heads against the bars K, which close the rear of said slots. The setting up of said screws M serves to tighten the driving-chain by removing the spindle C and the sprocket-wheel carried thereby farther from the front end of the slots D, and by adjusting one or the other of the set-screws M the spindle of the rear wheel A can be brought into perfect parallelism with the axis of the other wheel.

The frame E is a modification of the usual backbone and can be made in other shapes than those illustrated.

It is obvious that deviations from the structure shown may be made without departing from the spirit of this invention.

What is claimed is—

1. In a bicycle, the combination, with the frame having longitudinal slots therein, of a wheel-spindle having flattened bearings within and bearing against the sides of said slots and set-screws extending through said spindle in the direction of the length of the frame-slots and having end bearings on the frame.

2. The combination, with the frame having longitudinal slots closed at one end by cross-bars, of a spindle having flattened bearings in the slots and set-screws passing through the spindle, having end bearings in the slots in the frame and side bearings on the cross-bars of said slots, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

WALTER JOHN LLOYD.
WILLIAM PRIEST.

Witnesses:
CHARLES EDWARD HILL,
FREDERICK HENRY CORNISH.