

(No Model.)

G. WIARD.
VELOCIPEDE.

No. 254,082.

Patented Feb. 21, 1882.

Fig. 1.

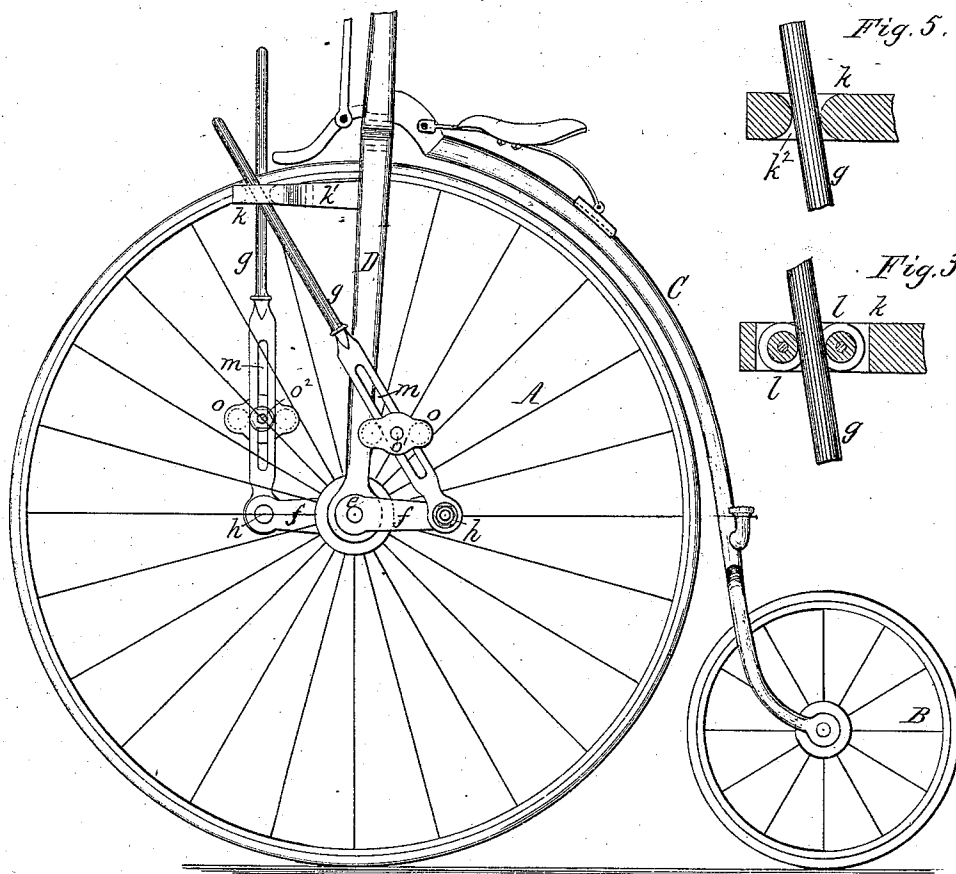


Fig. 5.

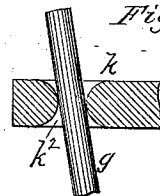


Fig. 3.

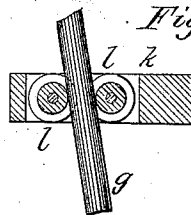


Fig. 2.

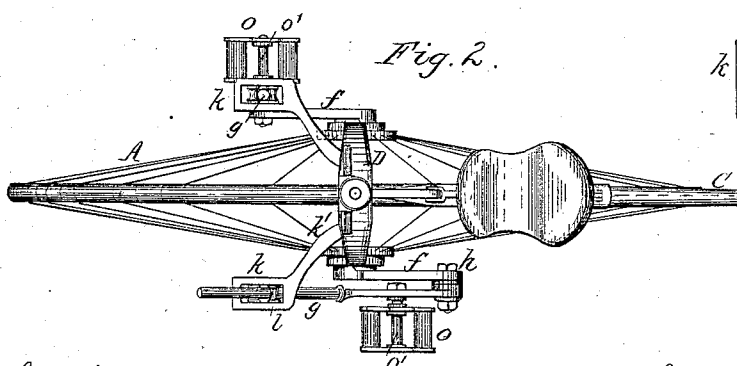


Fig. 4.



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UNITED STATES PATENT OFFICE.

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VELOCIPEDE.

SPECIFICATION forming part of Letters Patent No. 254,082, dated February 21, 1882.

Application filed July 13, 1881. (No model.)

To all whom it may concern :

Be it known that I, GEORGE WIARD, of Batavia, in the county of Genesee and State of New York, have invented new and useful Improvements in Velocipedes, of which the following is a specification.

This invention relates more particularly to a velocipede or bicycle in which the cranks are provided with connecting rods or arms to which treadles are attached, in order to enable the velocipede to be used by riders of varying sizes.

The object of this invention is to so construct the velocipede that the treadles can be quickly adjusted to the size of the rider and be used with ease and convenience.

My invention consists, to that end, in providing the connecting-rods with adjustable treadles, which can be readily raised and lowered on the connecting-rods, as hereinafter fully described.

In the accompanying drawings, Figure 1 is a side elevation of my improved velocipede. Fig. 2 is a fragmentary top plan view thereof. Fig. 3 is a longitudinal section of one of the bearings which support the upper end of the connecting-arms. Fig. 4 is a plan view thereof. Fig. 5 is a similar view to Fig. 3, showing a modified form of the bearing.

Like letters of reference refer to like parts in the several figures.

A represents the front or driving wheel, B the rear wheel, and C the reach, all of any ordinary and well-known construction.

D represents the bifurcated or U-shaped frame which straddles the driving-wheel, and which is provided at its lower ends with bearings or journals, in which the axle *e* of the driving-wheel rotates.

f are two crank-arms secured to the axle *e* on both sides of the wheel A, and *g* are two connecting-rods pivoted at their lower ends to the free ends of the cranks *f* by means of crank-pins *h*. The connecting-rods *g* extend upward from the cranks *f* on either side of the driving-wheel, and each is guided at its upper end in a bearing, *k*, formed at the end of an arm, *k'*, which is secured to the bifurcated frame D of the machine.

The bearings *k* may be of any suitable construction, and are preferably provided with grooved rollers *l*, between which the upper parts of the connecting-rods *g* slide as the cranks *f* are rotated, the frictional contact of the parts being diminished by the rollers *l*.

The bearings *k* may be provided with an opening, *k²*, made large enough to receive the end of the rod *g*, and rounded at its edges, as shown in Fig. 5, to allow the rod to move freely therein in the different positions which it assumes when the machine is in motion.

The upper portion of the rods *g* are preferably made round in cross-section to correspond with the grooved rollers *l* or the opening *k²* of the bearing *k*, and the lower portion of the rods *g* is flattened and provided with a slot, *m*, to receive the foot pedal or treadle *o*. The latter is provided with a center pin, *o'*, which is inserted through the slot *m* of the arm *g*, and is secured thereto by means of a screw-bolt and nut, *o²*. Upon loosening the nuts of the bolts *o²* the treadles *o* can be easily raised or lowered on the rods *g*, and when adjusted to the desired position they are firmly held in place by tightening the nuts of the bolts *o²*.

By means of the connecting-rods *g* the treadles can be adjusted to any desired height to suit the size of the rider, and a driving-wheel of a larger diameter than has been heretofore employed may be used and conveniently operated.

I claim as my invention—

1. The combination, with the cranks *f* of a velocipede, of rods *g*, attached to said cranks and supported at their upper ends in guides *k*, and treadles *o*, made vertically adjustable on the rods *g*, substantially as set forth.

2. The combination, with the cranks *f*, of the connecting-rods *g*, provided with slots *m*, and adjustable treadles *o*, secured to the rods *g* by set-screws *o²*, substantially as set forth.

GEORGE WIARD.

Witnesses:

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