(No Model.)

J. W. LATTY.

VELOCIPEDE HOBBY HORSE.

No. 543,874. Patented Aug. 6, 1895.

Fig. 1

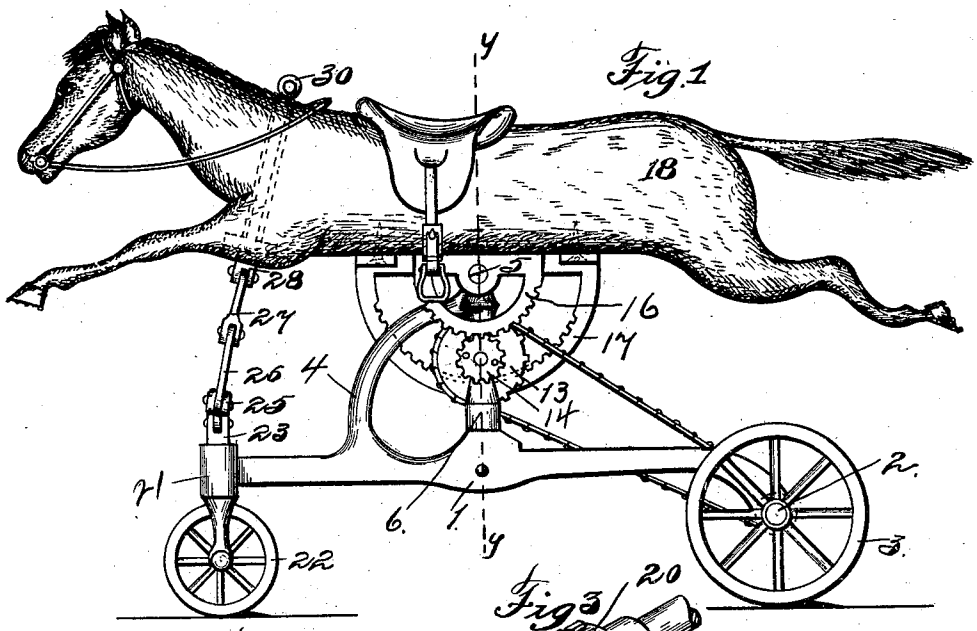


Fig. 2

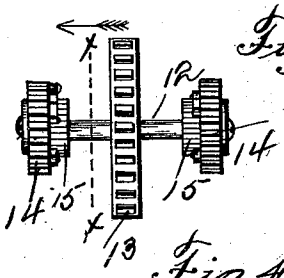


Fig. 3

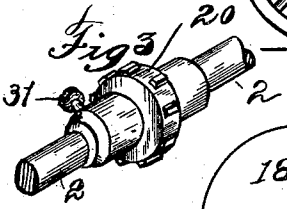


Fig. 4.

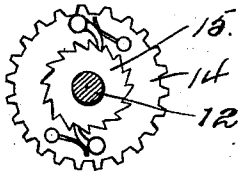


Fig. 5.

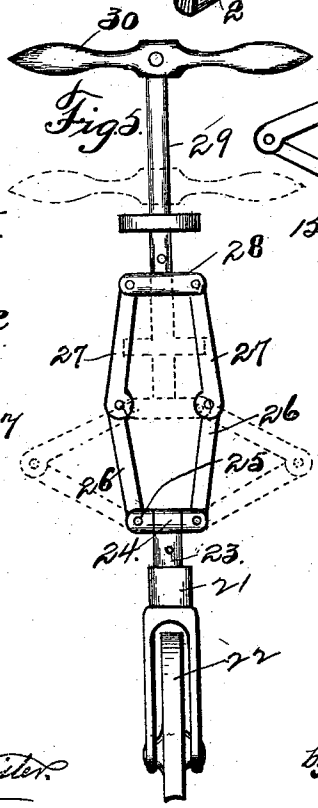


Fig. 6.

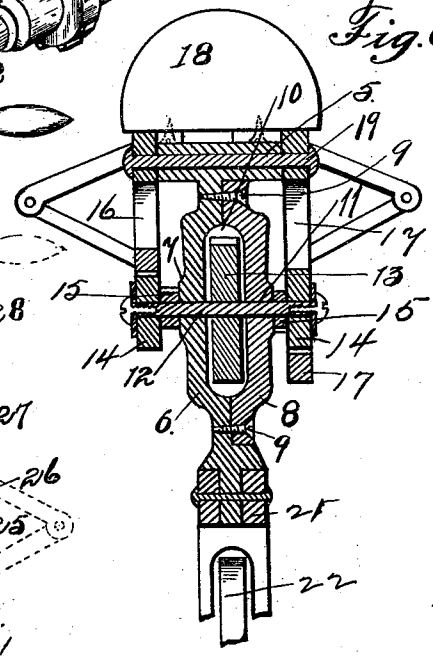
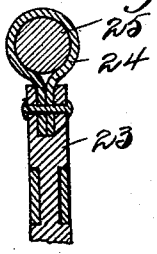


Fig. 7



Witnesses;
A. D. Blackmeister.
M. C. Smith

Inventor
John W. Latty.
by Higdon and Higdin and Longan
Attys.

UNITED STATES PATENT OFFICE.

JOHN W. LATTY, OF ST. LOUIS, MISSOURI.

VELOCIPEDE HOBBY-HORSE.

SPECIFICATION forming part of Letters Patent No. 543,874, dated August 6, 1895.

Application filed October 22, 1894. Serial No. 526,598. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. LATTY, of the city of St. Louis, State of Missouri, have invented certain new and useful Improvements in Velocipede Hobby-Horses, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to a hobby-horse velocipede; and it consists in the novel arrangement and combination of parts, that will be more fully hereinafter described and designated.

In the drawings, Figure 1 is a side elevation of my invention. Fig. 2 is a detail view of the mechanism which carries the propelling-chain. Fig. 3 is a detail perspective view of a portion of the rear shaft of the velocipede, showing mounted thereon an adjustable sprocket-wheel. Fig. 4 is a section taken on the line X X of Fig. 2. Fig. 5 is a detail view of the steering mechanism. Fig. 6 is a sectional view taken on the line Y Y of Fig. 1. Fig. 7 is a sectional view taken through a portion of the steering mechanism just above the front steering-wheel.

Referring to the drawings, 1 indicates the vehicle-coupling, in the rear end of which is mounted an axle 2, and mounted on the end of said axle 2 are wheels 3, which are fixed to said axle. The said axle 2 rotates in the bearings formed in the rear end of the coupling 1. The coupling 1 is provided with a curved arm or standard 4, and formed in the upper extremity of said standard 4 is a bearing 5, said bearing 5 being superposed above a vertical standard 6, which standard 6 is secured in any suitable mechanical manner or cast integral with the coupling 1 near the intermediate portion thereof.

Formed in the vertical standard 6 is an opening 7 for a purpose more fully hereinafter described.

8 indicates a detachable cleat which is secured to the vertical standard 6 by means of screws 9.

10 indicates an opening between the vertical standard 6 and the detachable cleat 8, the object of which will be more fully hereinafter described.

11 indicates a bore formed in the detachable cleat 8. Located in said bore 11 and the bore 7 formed in the vertical standard is a spindle 12, and mounted on said spindle 12 and located in the opening 10 is a sprocket-wheel 13. It may be noted in this connection that said sprocket-wheel does not rotate on said spindle. Mounted on the ends of said spindle are cog-wheels 14, said cog-wheels rotatably mounted on said spindle and located adjacent to a ratchet-wheel 15 which is non-rotatably mounted on said spindle.

A detail view of the sprocket-wheel, the cog-wheels, and ratchet-wheel, as above referred to, is illustrated in Fig. 2, wherein is illustrated a cog-wheel on each end of the spindle 12, and also a ratchet located on each end of said spindle. Said cog-wheels 14 mesh with semicircular tooth-racks 16 and 17 in a manner as I will now proceed to describe.

By referring to Fig. 1 it can be seen that the semicircular tooth-rack 16 is of a different diameter or dimension than the one 17, the one 16 being located above one of the cog-wheels 14, as illustrated in said figure, and the other one located beneath the cog-wheel 14 on the opposite end of the spindle 12, as illustrated in said figure. These two cog-wheels 14 are rotated by means of these semicircular tooth-racks, and said racks are operated by the rocking of the hobby-horse 18, it being noted in this connection that said racks are rigidly secured to said hobby-horse and are rotatably mounted on a shaft 19, which shaft is mounted in the bearing formed in the upper portion of the vertical standard 6. The cog-wheel located below the rack 16 is free to move or rotate only to the right; but when the same is rotated to the left it operates or turns the ratchet located adjacent to the same, and consequently operates the spindle 12. The cog-wheel located above the rack 17 operates in a reverse manner. By this construction when the hobby-horse is rocked forward the sprocket-wheel 13 is rotated, and also when the horse is rocked rearward said wheel is rotated.

The sprocket-wheel 13 is connected to another sprocket-wheel 20, which sprocket-wheel 20 is mounted on the axle 2. Consequently when the sprocket-wheel 13 is rotated it imparts motion to the rear wheel of the velocipede.

Having briefly described the manner of pro-

pelling the velocipede, I will now proceed to describe the steering mechanism.

Mounted in the front end of the coupling 1 is a bifurcated standard 21, and mounted in said standard is a steering-wheel 22. Mounted on the upper end of said standard is a lug 23, and mounted in said lug 23 is a band 24, which encircles a cross-piece 25, said cross-piece 25 having mounted in its opposite ends pivoted levers 26, which levers are pivotally connected to a pair of levers 27, which levers are also pivotally mounted in a cross-piece 28. By this pivoted connection the machine may be steered in any direction, and simultaneously therewith the forward portion of the hobby-horse may be moved up and down, as illustrated by dotted lines in Fig. 5.

Mounted upon the cross-piece 28 is a rod 29, which passes through the hobby-horse and has mounted on its top end a handle 30, and by the turning of this handle the wheel 22 may be steered.

As before stated, the sprocket-wheel 20 is adjustable. In other words, it may be tightened on the axle 2 by means of the set-screw 31, or it may be loosened by means of said screw, and thereby permitted to rotate on said axle.

Having fully described my invention, what I claim is—

The improved hobby horse, comprising the frame, the driving wheels, a body mounted to rock upon said frame, driving gear connecting said body to said driving wheels, whereby when said body is rocked the machine will be propelled, a bifurcated standard 21 pivotally connected to said frame, a steering wheel in said standard, a lug 23 on the upper end of said standard, a bearing 24 connected to said lug, a horizontal cross-piece 25 mounted in said bearing, levers 26 pivotally connected to the opposite ends of said cross-piece, additional levers 27 pivotally connected at one end to the upper ends of said levers 26, a horizontal cross-piece 28 at the upper ends of said levers 27 and pivotally connected thereto, a rod 29 passing vertically through said rocking body and mounted in a suitable bearing formed in said body, said cross-piece 28 being rigidly connected to the lower end of said rod 29 at a point beneath said body, and a handle 30 fixed upon the upper projecting end of said rod 29 above said body, substantially as herein specified.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN W. LATTY.

Witnesses:
C. K. JONES,
JNO. C. HIGDON.