

(No Model.)

J. PULLEN.
Velocipede.

No. 236,454.

Patented Jan. 11, 1881.

FIG. 1.

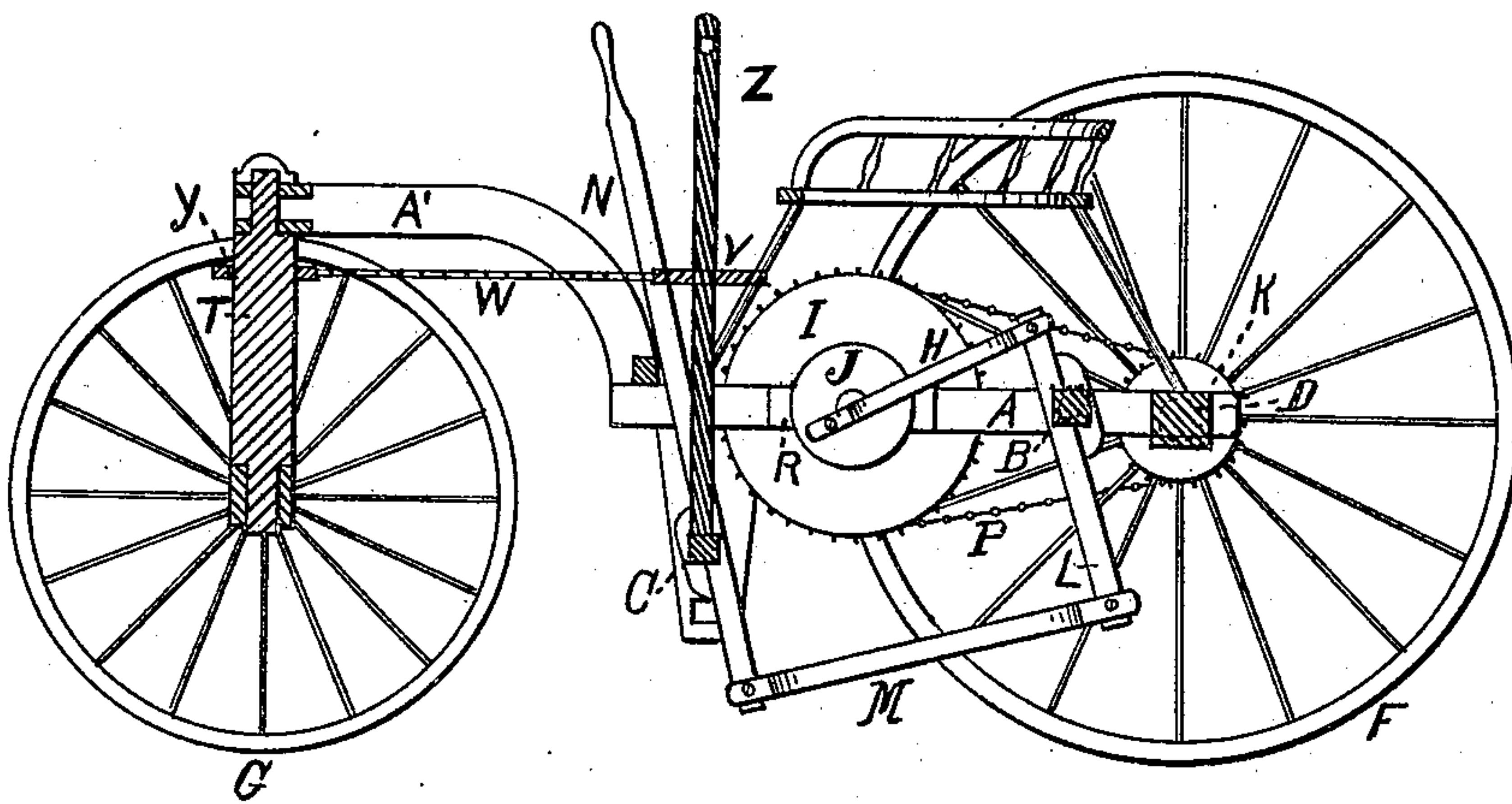
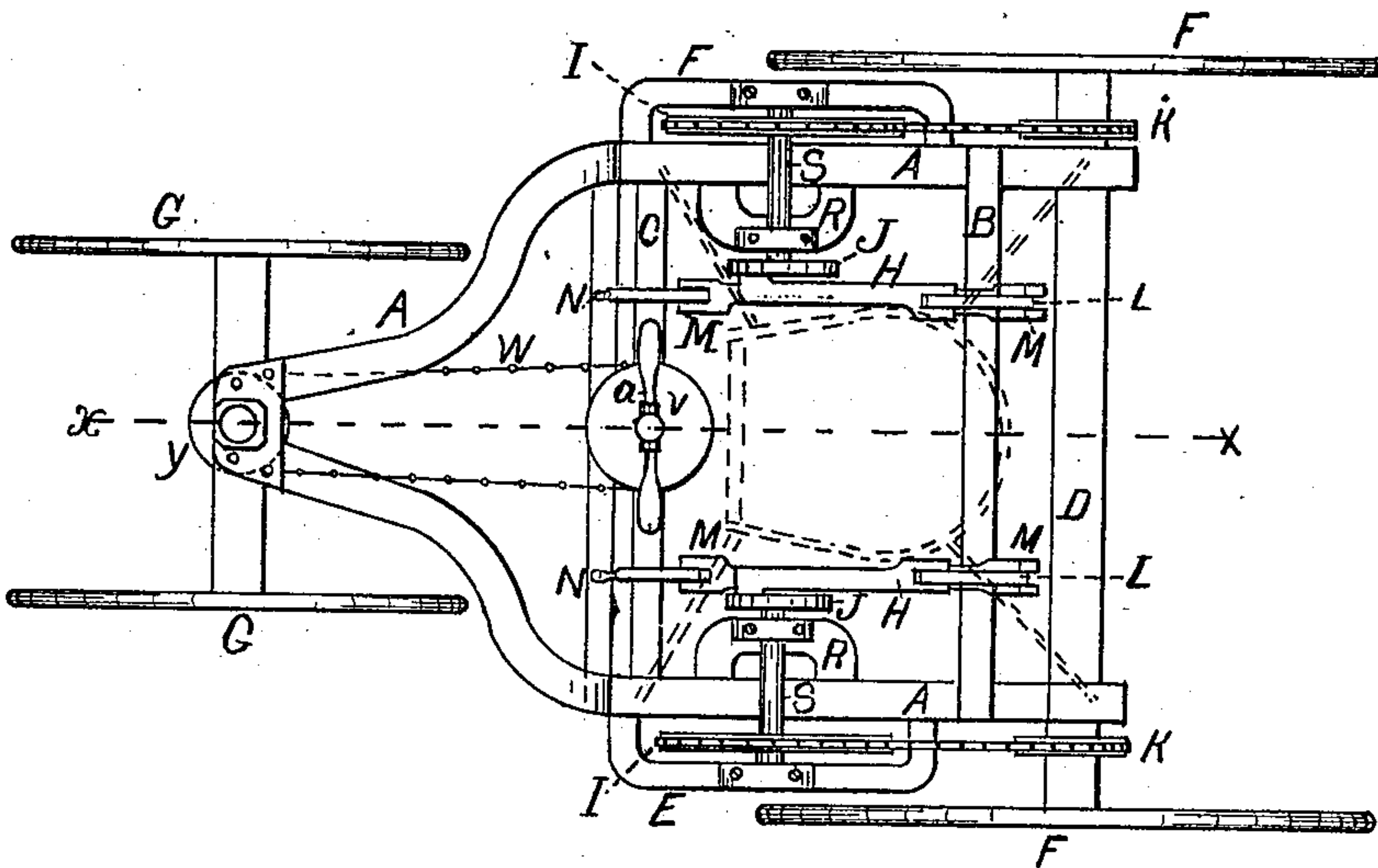


FIG. 2.



WITNESSES.
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JOSEPH PULLEN, OF CHICAGO, ILLINOIS.

VELOCIPED E.

SPECIFICATION forming part of Letters Patent No. 236,454, dated January 11, 1881.

Application filed September 4, 1880. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH PULLEN, of Chicago, county of Cook, and State of Illinois, have invented a new and useful Improvement in Velocipedes, of which the following is a specification, reference being had to the accompanying drawings, illustrating the improvement, in which—

Figure 1 is a central sectional elevation of a velocipede embodying my improvement, taken on line *x*, Fig. 2; Fig. 2, a plan or top view of the improved velocipede.

The nature of the present invention consists in mechanism to rotate the drive-wheels of a four-wheeled velocipede. A rear and forward bar are attached to the frame of the device, and to the rear bar are hung two levers, to the lower ends of which are jointed two connecting-rods. The forward ends of the connecting-rods are pivoted to the levers which are actuated to put the device in motion. The actuating-levers are hung to the forward bar mentioned, and the rear levers connect with crank-wheels, which put in motion two main pulley-wheels, and the pulley-wheels put the drive-wheels of the velocipede in motion, as is hereinafter described and shown.

A A' shows the main frame of the device, which is constructed, for convenience, in the form shown, and E R are the brackets which support the shafts S, to each of which are attached the crank-wheels J J and drive-pulleys I I. A rear bar, B, is attached to the top of the main frame, and to it are hung two levers, L, so that they may have an oscillating movement. Two connecting-rods, M, are respectively jointed to the lower ends of the levers L, and their forward ends are jointed to the

lower ends of the actuating-levers N N, which are hung to the forward bar, U, to oscillate. Connecting-rods H H are respectively pivoted to the upper ends of the levers L, and are jointed to crank-wheels J by means of ordinary wrists. This construction is such that when the levers N N are alternately brought backward and forward the drive-pulleys I I will put in motion, by means of link-belts P P, the pulleys K K, which are attached to the hubs of the wheels F F.

The levers N N may be operated either by hand or foot; but if operated by the foot foot-seats must be attached to them in the ordinary manner.

The forward truck, T G, is pivoted to the forward part, A', of the frame in the ordinary manner, and is guided or steered by a wheel, V, chain W, and wheel Y. The wheel V is attached to a standard, Z, which is fixed to rotate in the bar C, and the wheel Y is fixed to the standard T of the trucks.

The lever *a* is grasped by the hand to turn the wheel V in the ordinary manner of steering like devices.

In practice the truck-wheel G should be of such diameter as to come below the chain W, that the device may make short turns.

I claim and desire to secure by Letters Patent—

The combination of the bars B C, levers L N, connecting-rods M H, crank-wheels J J, pulleys I K, and chains P, for giving motion to the velocipede, as specified.

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Witnesses:

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