

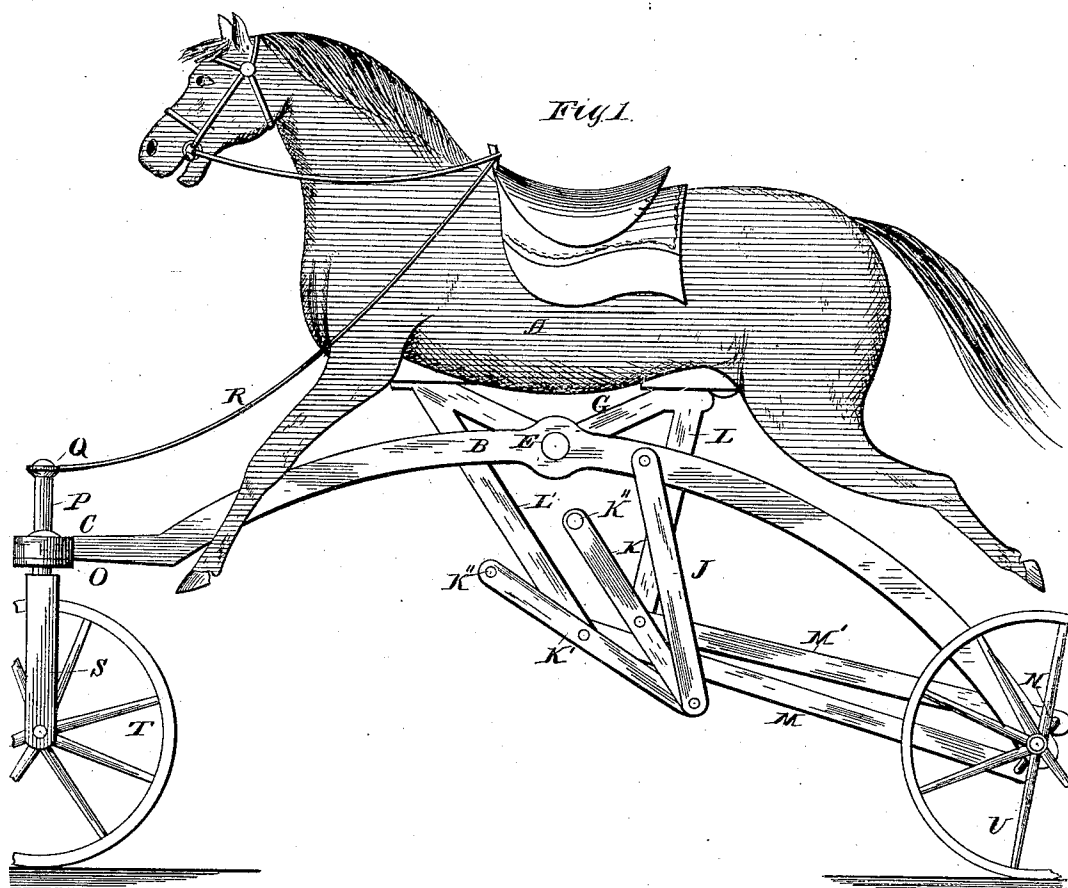
(No Model.)

J. W. KRUEGER.

VELOCIPEDE.

No. 245,840.

Patented Aug. 16, 1881.



Inventor:
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Atty

UNITED STATES PATENT OFFICE.

JOHN W. KRUEGER, OF CINCINNATI, OHIO.

VELOCIPEDE.

SPECIFICATION forming part of Letters Patent No. 245,840, dated August 16, 1881.

Application filed January 24, 1881. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. KRUEGER, of Cincinnati, in the county of Hamilton and State of Ohio, have invented a new and useful Improvement in Combined Hobby-Horse and Velocipede, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a side view, and Fig. 2 a perspective elevation, of the frame and propelling mechanism.

The object of my invention is to provide a hobby-horse with wheels and intermediate gearing connected with treadles for the feet of the operator, so that a rocking motion will be imparted to the horse, which, being connected with the gearing and cranks of the axle, will propel the velocipede forward, as will be hereinafter more fully set forth.

In the accompanying drawings, A represents an ordinary toy horse, and B B two arched pieces, somewhat longer than the horse, provided at the forward end with eyes C, for purposes hereinafter specified, and at the rear end with boxings D, through which the rear axle passes. These arched pieces are placed parallel with each other under the horse, close enough to each other to permit the legs of the horse to pass down on the outside of the arches. At or near the highest point of the front arch is a boxing, E, which receives the horizontal cross-shaft F, which shaft also passes through the bell-crank levers G, whose opposite limbs project upward and are secured, by means of screws through the perforations H, to the under side of the horse, as shown, and rigid arms L L' project downward from the ends of the levers G.

On the outer side of the arch, a short distance to the rear of the boxing E, the upper end of the lever J is secured, and the lower end of this lever is hinged to the upwardly-projecting foot-lever K, the upper end of which is provided with a stirrup for the foot. Midway between the ends of the foot-lever K the lower end of the rigid arm L is hinged thereto.

At the point where the arm L is hinged to the lever K the forward end of a connecting-rod, M, is hinged, the rear end of which is attached to one of the oppositely-disposed

cranks, N, on the rear axle, N'. The arch on the rear side is also similarly provided with the arms, levers, and connecting-rod, except that the upper end of the arm L' is secured to the forward end of one of the bell-crank levers, and the rear end of the connecting-rod M' is secured to the crank of the axle opposite to the one to which the connecting-rod M is secured.

The forward end of the arch is held together by a cross-piece, O, and a vertical standard, P, is journaled centrally in this cross-piece, and provided at the upper end with arms Q, to the opposite ends of which the straps R are attached for guiding the velocipede. The lower end of the standard P is forked, as shown at S, to receive the wheel T. This mechanism pertaining to the forward end of the arch is no part of my invention, and is not therefore shown in detail.

The rear wheels, U, are secured rigidly to the axle N, so as to revolve therewith.

The operation of the velocipede is as follows: The operator sits in the saddle, grasps the strap R and places his feet on the stirrups K' K''. As shown in Fig. 2, the rear lever, K', is depressed and the front lever, K, elevated. In this position the body of the horse is also thrown forward. Now, by depressing the front lever, K, the connecting-rod M draws forward the upper crank, N, and at the same time depresses the rear end of the bell-crank levers G. The action of the foot is then again exerted on the stirrup K', and so on.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a combined hobby-horse and velocipede, the horse attached to an arch by means of two bell-crank levers, to give a rocking motion, in combination with arms projecting downward from the bell-crank levers, and connected with foot-levers for rocking the horse, as herein set forth.

2. The arch B, having at its highest point a cross-shaft, F, carrying bell-crank levers G, provided at the ends with downwardly-projecting rigid arms L L', hinged at their lower ends to foot-levers K K', and also to the forward ends of connecting-rods M M', for operating the cranks N of the rear axle, and hav-

ing the lower end of the crank-levers K K' hinged to the lower ends of swinging levers J on the arch, as and for the purpose herein set forth.

- 5 3. The rocking-horse A, in combination with the arch B, having the foot-levers K K', bell-crank levers G, arms L L', swinging levers J,

connecting-rods M M', oppositely-disposed cranks, N, and the guiding mechanism, as herein specified.

JOHN W. KRUEGER.

Witnesses:

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