(No Model.)

J. J. LUDWICK.

TWO WHEELED VEHICLE.

No. 429,197. Patented June 3, 1890.

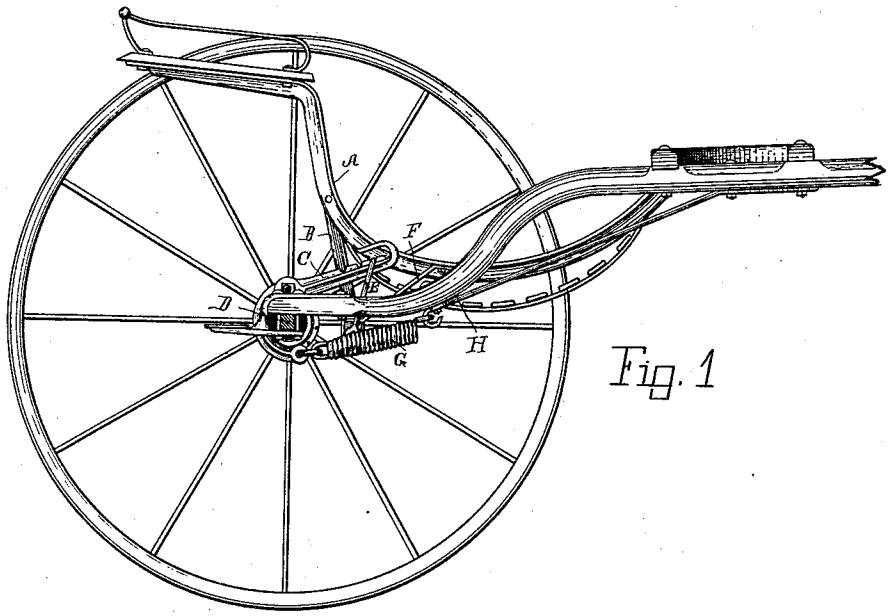


Fig. 1

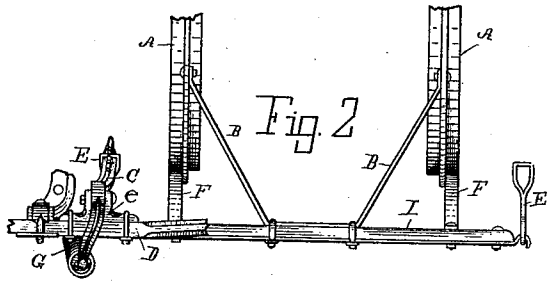


Fig. 2

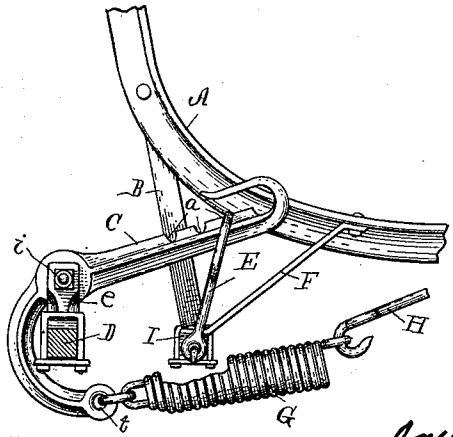


Fig. 3

Witnesses:
Walter S. Woods
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Inventor.
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Att'y.

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UNITED STATES PATENT OFFICE.

JAY J. LUDWICK, OF CHARLOTTE, ASSIGNOR OF ONE-HALF TO ALBERT F. PEAKE, OF JACKSON, MICHIGAN.

TWO-WHEELED VEHICLE.

SPECIFICATION forming part of Letters Patent No. 429,197, dated June 3, 1890.

Application filed April 4, 1890. Serial No. 346,572. (No model.)

To all whom it may concern:

Be it known that I, JAY J. LUDWICK, a citizen of the United States, residing at Charlotte, County of Eaton, State of Michigan, have invented a new and useful Two-Wheeled Vehicle, of which the following is a specification.

This invention relates to that well-known class of two-wheeled vehicles which are fulcrumed at their forward end and are elastically supported over the axle.

The invention has for its main object a peculiar construction, in which the body is supported by levers fulcrumed to the axle, and which levers act against a spring resistance when the body is borne down, whereby the body receives comparatively little effect of the horse motion.

In the drawings forming a part of this specification, Figure 1 is a side elevation with one wheel removed. Fig. 2 is a rear elevation of lettered details, looking from a point at the left of Fig. 1; and Fig. 3 shows lettered details enlarged from Fig. 1.

Referring to the lettered parts of the drawings, A is an ordinary-style body of a two-wheeled vehicle. Beneath the under rear portion of the body is a transverse bar I, which bar is attached to the body by means of the braces B F, as in Figs. 2 and 3. This bar forms a support, to the ends of which the hangers E are attached.

At C C are levers, which are pivoted at *i* to the axle D by means of the brackets *e*, which extend upward from said axle. These levers C project forward from their fulcrum and rearwardly and downwardly from said fulcrum to a point beneath the axle. A spring G is attached at *t* to the lower end of each lever C, as shown in Figs. 1 and 3. The forward end of these springs G are attached to the thills of the vehicle, preferably by means of a hook formed in the end of the thill-braces H. The hangers E are adjustably attached at the upper end to the levers C, and said levers have a series of notches *a*, into any desired one of which the upper end of the hangers E is caught to change the leverage in accordance with the weight of the rider. By thus combining the springs and fulcrum-lever with the body, thills, and axle the effect of the horse motion imparted to the thills and the jolting motion of the axle in passing over obstructions is largely expended in the springs, thus saving much annoyance to the occupant.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The combination of the thills, the body, the axle, the levers fulcrumed to the axle, the springs attached at one end to the thills and at the other end to the rear end of the levers, and hangers suspending the body from the front end of the levers, substantially as set forth.

2. The combination of the body, the transverse bar, the braces attaching said bar to the body, the axle, the levers fulcrumed to the axle, the hangers attached to the end of the transverse bar and to the front end of the levers, and the springs attached to the thills and to the rear end of the levers, substantially as set forth.

In testimony of the foregoing I have hereunto subscribed my name in presence of two witnesses.

JAY J. LUDWICK.

Witnesses:
CHARLES E. LAWRENCE,
GEO. D. HARDWAY.