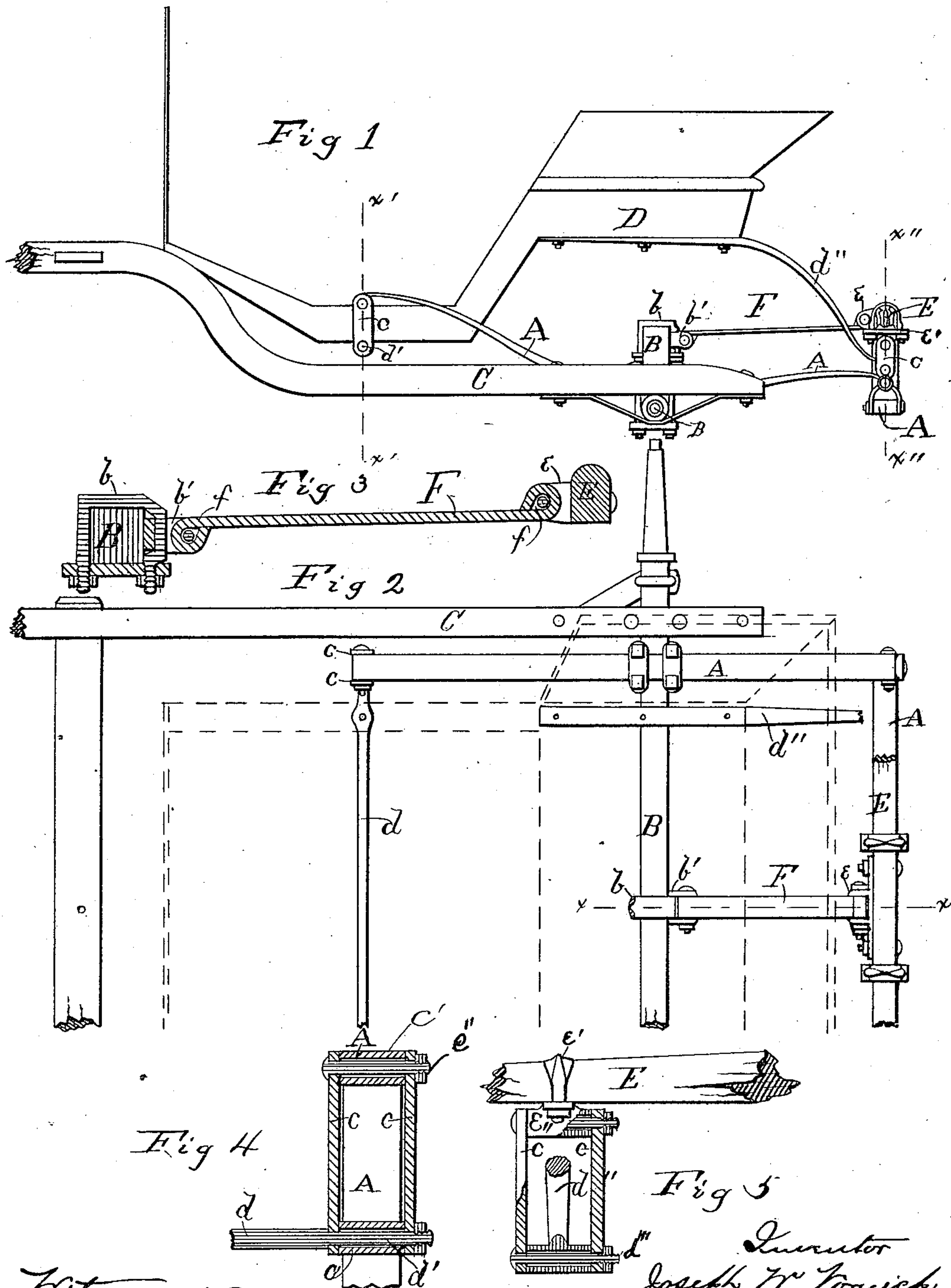


(No Model.)

J. W. VORWICK.  
TWO WHEELED VEHICLE.

No. 343,262.

Patented June 8, 1886.



Witnesses:  
Geo. A. Baybourn.  
L. H. Ainsworth.

Inventor  
Joseph W. Vorwick  
By: W. W. Lord,  
Attorney



# UNITED STATES PATENT OFFICE.

JOSEPH W. VORWICK, OF MONMOUTH, ILLINOIS.

## TWO-WHEELED VEHICLE.

SPECIFICATION forming part of Letters Patent No. 343,262, dated June 8, 1886.

Application filed January 31, 1885. Serial No. 154,518. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH W. VORWICK, a citizen of the United States, residing at Monmouth, in the county of Warren and State of Illinois, have invented certain new and useful Improvements in Two-Wheeled Vehicles; and I do hereby declare the following to be a full, clear, and exact description of the same, and such as will enable others skilled in the art to make and use them.

My invention relates to the class of two-wheeled vehicles commonly known as "road-carts," and to certain improvements therein, the object of which is to overcome the horse-motion transmitted to the seat by means of the shafts by hanging the body to the springs in such a manner that there is no connection whatever between the body and shafts, and by hanging the body to the springs by means of oscillating links, to admit of a free longitudinal movement or swing to the body independent of all other parts. I obtain this object by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side vertical view of the cart; Fig. 2, a plan view of one side of the gear, showing the position of the body in dotted or broken lines; Fig. 3, an enlarged longitudinal section through  $x x$ , showing in detail the device for securing the rear cross-spring and cross-bar in an upright position and permitting the same and all the parts thereto attached to have a perfectly free and unobstructed vertical motion; and Figs. 4 and 5, enlarged cross-sections through  $x' x'$  and  $x'' x''$ , respectively, showing in detail the manner of attaching the body to the springs.

Similar letters of reference indicate corresponding parts throughout the several views.

A represents the two side and rear end parts of the common platform-spring rigidly secured to the axle B by means of clips in the usual manner, the forward ends of the side spring, A, terminating in the eye  $c'$ , to receive the bolt or rivet  $c''$ , which secures thereto the oscillating links  $c c$ , whose lower ends receive the trunnion end  $d'$  of the bar  $d$ , the said bar  $d$  being rigidly secured to and extending across the body D, the whole being to support and carry the forward end of the body D.

Rigidly secured in the usual manner to the

upper surface of the rear end spring A is the cross-bar E, to the ends of which are rigidly secured, by means of the clips  $e'$ , the hangers  $e''$ , to which are also secured in like manner the oscillating links  $c c$ , whose lower ends receive the hollow T-shaped head formed on the outer end of the bar  $d''$ , through which passes the bolt or rivet  $d'''$ , the inner end of said bar  $d''$  being rigidly secured to the frame of the body D, the whole being to support and carry the rear end of the body D.

Hinged to the axle B and cross-bar E is the metal steadying-bar F, both ends of which terminate in the eyes  $f f$ , the forward end of said bar F being hinged to the axle B by means of the clip  $b$  and the loop  $b'$ , said loop  $b'$  being secured to the bar F by means of a bolt or rivet passing through its two sides and the eye  $f$  in said bar F, and the loop  $b'$  being rigidly secured to the axle B by means of the clip  $b$ , the rear end of said bar F being hinged to the cross-bar E in like manner by means of the plate  $e$ , having on its outer surface suitable projections for the reception of the eye  $f$  on the rear end of the bar F, said plate  $e$  being rigidly secured to the cross-bar E by bolts or other suitable means, the whole being for the purpose of insuring an upright position to the rear spring, A, the cross-bar E, and all the parts thereto attached, and to provide means for so doing without interfering with the free vertical movement of the springs.

In the mode of hanging the forward end of the body D to the forward ends of the side springs, A A, by means of the links  $c c$  and the bar  $d$ , I do not confine myself to that shown in the drawings, as it may be found desirable to construct the trunnions  $d' d'$  in some other manner than on the ends of the bar  $d$ —as, for instance, forming them with a T head or plate to bolt to the body D, and it is evident that other slight changes in the construction and relative arrangement of the several parts might be resorted to without departing from the spirit of my invention; hence I would have it understood that I do not limit myself to the exact construction shown and described, but consider myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of my invention.

Having thus fully described my invention,

what I claim as new, and desire to secure by Letters Patent, is—

The combination, in a two-wheeled vehicle,  
with the platform-spring A, the axle B, the  
5 body D, the rear supporting-bars,  $d'' d''$ , the  
cross-bar E, the hanger  $e''$ , the links  $c c c c$ ,  
and the trunnioned bar  $d$ , of the steadying-  
bar F, having its ends terminating in the eyes  
 $f f$ , and hinged to the cross-bar E by means of  
10 the plate  $e$ , and to the axle B by means of the

clip  $b$  and the loop  $b'$ , in the manner shown,  
and for the purposes set forth.

In testimony whereof I have signed this  
specification in the presence of two subscrib-  
ing witnesses.

JOSEPH W. VORWICK.

Witnesses:

JNO. E. ALEXANDER,  
WM. P. SCHALL.