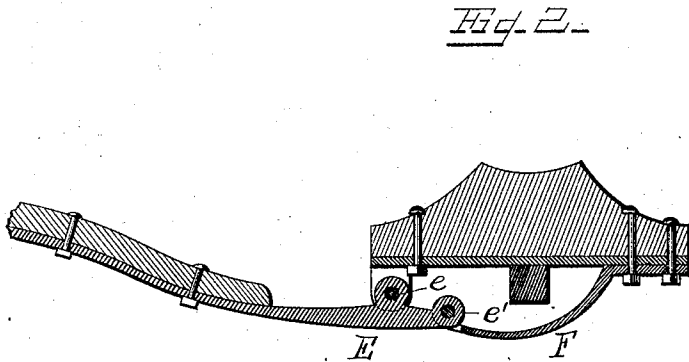
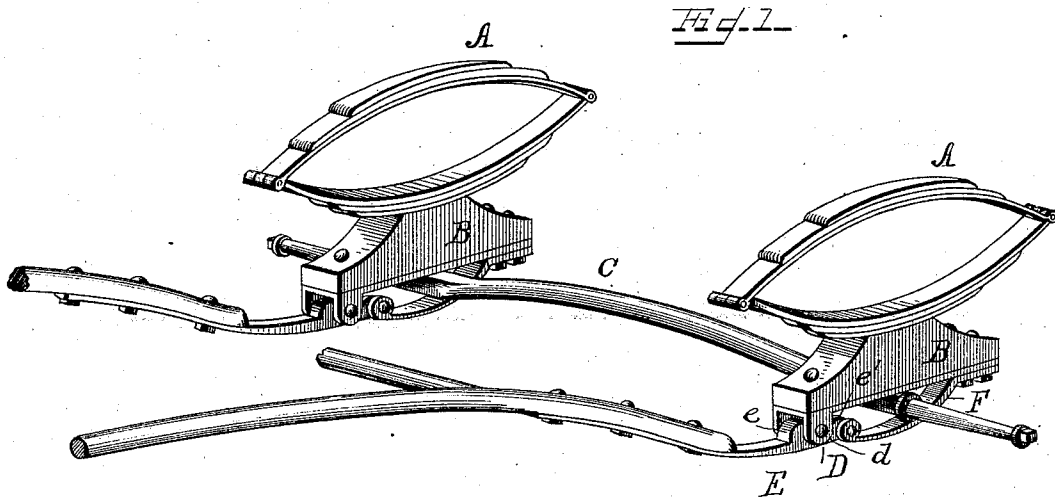


(No Model.)

E. E. KRENGEL.  
ROAD CART.

No. 316,902.

Patented Apr. 28, 1885.



WITNESSES  
F. L. Curand.  
E. W. Johnson

Ernest E. Krengel.  
INVENTOR

by

Attorney

# UNITED STATES PATENT OFFICE.

ERNEST E. KRENGEL, OF BUENA VISTA, OREGON.

## ROAD-CART.

SPECIFICATION forming part of Letters Patent No. 316,902, dated April 28, 1885.

Application filed August 22, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, ERNEST E. KRENGEL, a citizen of the United States of America, residing at Buena Vista, in the county of Polk and State of Oregon, have invented certain new and useful Improvements in Road-Carts; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to an improved manner of attaching shafts to two-wheeled vehicles so as to prevent the jogging motion of the horse being imparted to the body of the vehicle; and to this end my invention consists in providing the axle-blocks of a two-wheeled vehicle at their front ends with clips and at their rear ends with downwardly and forwardly projecting springs, to the front ends of which are bolted the ends of the shaft-iron, said shaft-iron being intermediately bolted to the clips hereinbefore mentioned.

My invention further consists in the construction and combination of the parts, as will be more fully set forth, and pointed out in the claims.

Figure 1 is a perspective view. Fig. 2 is a sectional view.

A represents the ordinary body-springs of a two-wheeled vehicle, to which are secured blocks B B, to the central portion of which, as shown, is attached the axle C. To the front portion of the blocks B B are attached clips D D, through which pass bolts for connecting the shaft-iron E thereto. The shaft-irons are

provided on their upper side near their terminal portions with eyes *e*, through which pass the bolts *d* for connecting the same to the clips. A similar constructed eye, *e'*, is formed on the ends of the shaft-irons E for the reception of the bifurcated ends of springs F, the ends of which are bolted to the rear of the block B. By the construction and arrangement hereinbefore described it will be readily seen that the body of the vehicle will be held in a substantially-horizontal position, and the vertical movement of the end of the shaft iron will be taken up by the springs F.

I claim—

1. In combination with a two-wheeled vehicle, the shaft-irons E E, provided with eyes *e e'*, clips *d*, and springs F, attached to the blocks B, substantially as shown, and for the purpose set forth.

2. In a two-wheeled vehicle, the thill-irons pivoted to a body block and provided with rearwardly-extending portions, in combination with a forwardly-projecting spring attached to the end of the thill-iron and body-block, substantially as shown.

3. In a two-wheeled vehicle, the blocks B B, having the body-supporting spring and axle attached thereto, and a forwardly projecting spring attached to the end of the thill-iron, said thill-iron being pivoted to a clip located at the front end of the blocks, as and for the purpose set forth.

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

ERNEST E. KRENGEL.

Witnesses:

B. S. CLARK,  
A. WING.