

(No Model.)

H. B. SORTOR & G. S. BENNETT.

TWO WHEELED VEHICLE.

No. 348,795.

Patented Sept. 7, 1886.

Fig.1

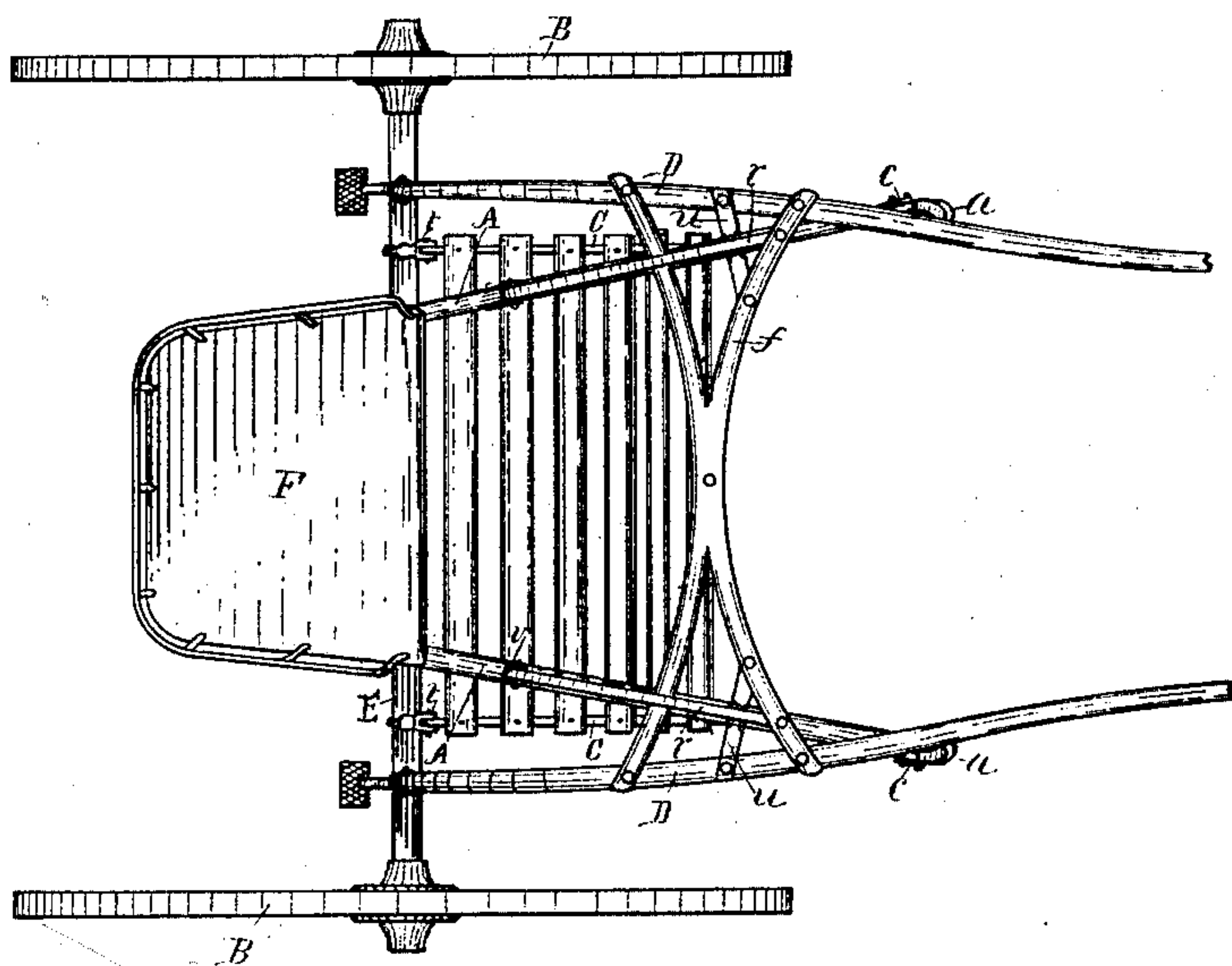
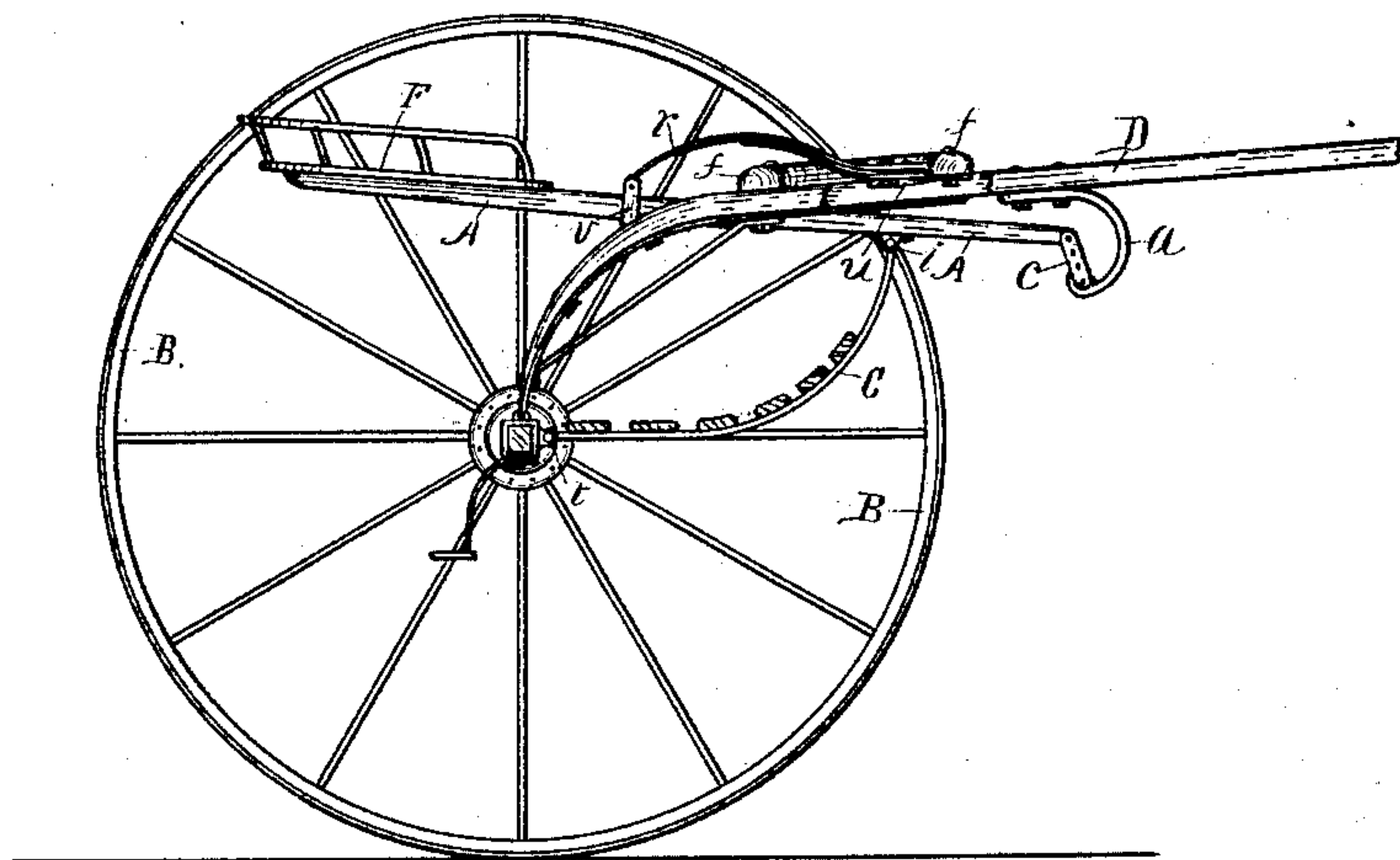


Fig. 2

Witnesses.

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atty-

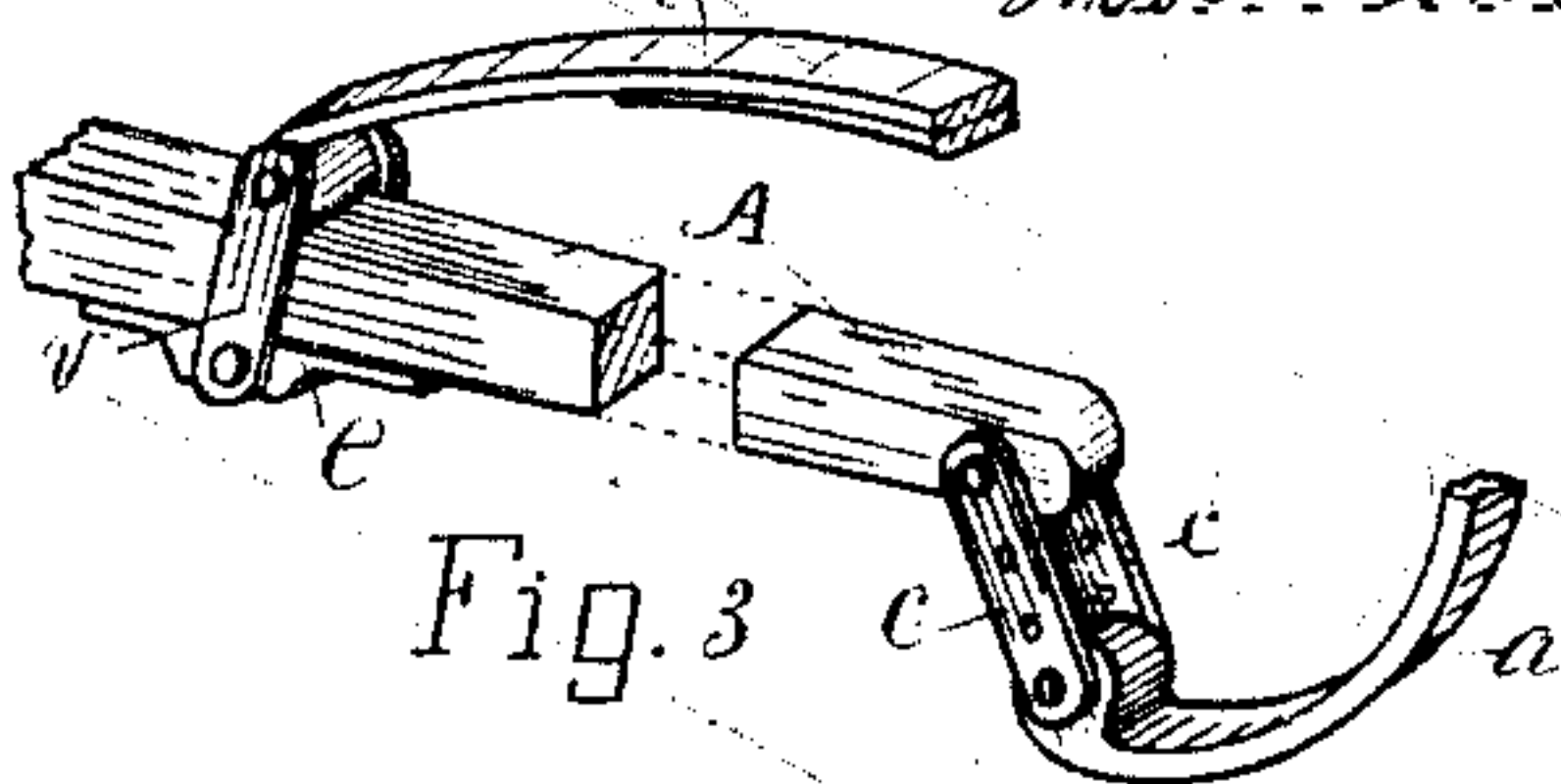


Fig. 3



# UNITED STATES PATENT OFFICE.

HOBART B. SORTOR AND GRANT S. BENNETT, OF KALAMAZOO, MICH.

## TWO-WHEELED VEHICLE.

SPECIFICATION forming part of Letters Patent No. 348,795, dated September 7, 1886.

Application filed January 28, 1886. Serial No. 190,029. (No model.)

*To all whom it may concern:*

Be it known that we, HOBART B. SORTOR and GRANT S. BENNETT, citizens of the United States, residing at Kalamazoo, county of Kalamazoo, 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 commonly termed "breaking" or "training" carts, which have a seat supported on seat-bars above and independent of the axle; and it has for its object certain improvements in hanging the seat-bars and foot-rest and in the spring suspending said bars.

In the drawings forming a part of this specification, Figure 1 is a side elevation; Fig. 2, a top view, and Fig. 3 enlarged details in perspective, below described.

Referring to the drawings and the letters of reference marked thereon, E is the axle, B the wheels, D the thills, *f* the cross-bar of the thills, and A the seat-bars bearing seat F, all similar to these parts in carts of this class heretofore used. The forward end of the seat-bars A are supported by the links *c*, which links pivotally connect with them and with the upwardly-turned end of the brackets *a*. These brackets are secured to the thills and depend therefrom. The springs *r* are secured at one end to the cross-bar of the thills and from thence bow upward, backward, and downward, and connect with the seat-bars below them. They are preferably connected by the pivotally-connecting links *v*, Fig. 3, but may be secured in various ways.

Across the angles of the thills D and cross-bar *f*, as at *u*, are bars secured to said cross-bar and thills to support the springs *r*.

The links *c* have a series of holes, by which means the bolt which connects them with the seat-bars may be inserted in any desired hole to raise or lower the forward end of the seat-bars, and thus change the height of the seat F. This peculiar link-connection of the seat-bars with the brackets *a* allows the seat-bars to play and overcome the shock of suddenly slacking or increasing speed, and also to compensate for the lengthening and shortening of the springs *r*. Such a purchase of the spring downward and at a point well back from the forward end is found to be safe and to give desirable results.

In connection with the action of the seat-

bars and thills in operation, the action of the foot-rest *c'*, as here hung, is found preferable, and at the same time the foot-rest receives a portion of the strain of the draft-power and burden of the seat-bars by being hinged to the seat-bars at *i* and hinged to the axle E at *t*.

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

1. The combination of the thills, the seat-bars, link-supported at their forward end, adapting them to move forward and back, and the bowed rearwardly-extending springs secured at their forward end to the thill cross-bar, and connecting at their rear end with the seat-bars beneath them, substantially as set forth.

2. The combination of the thills, brackets depending therefrom, seat-bars link-connected at their forward end with said brackets, and bowed rearwardly-extending springs forming a link-connection at their rear end with the seat-bars, substantially as set forth.

3. The combination of the thills, brackets depending therefrom, seat-bars link-connected at their forward end with said brackets, the bowed rearwardly-extending springs secured at their forward end to the thill cross-bar and link-connected at their rear end with the seat-bars, and bars across the angle of the thills, and cross-bars supporting said springs, substantially as set forth.

4. The combination of the seat-bars link-connected at their forward end with the thills, bowed rearwardly-extending springs, their rear ends connecting with and supporting the seat-bars above the axle, and a foot-rest hinged to the forward portion of the seat-bars at one end and hinged to the vehicle at the other end, substantially as set forth.

5. In a two-wheeled vehicle, the foot-rest hinged at its forward end to the seat-bars and hinged at the rear end to the vehicle-axle, substantially as set forth.

In testimony of the foregoing we have hereunto subscribed our names in presence of two witnesses.

HOBART B. SORTOR.  
GRANT S. BENNETT.

Witnesses:

L. COONEY, Jr.,  
GEO. B. WHIPPLE.