E. B. SIMPSON.

TWO-WHEELED VEHICLES.

No. 195,663. Patented Sept. 25, 1877

Fig. 1.

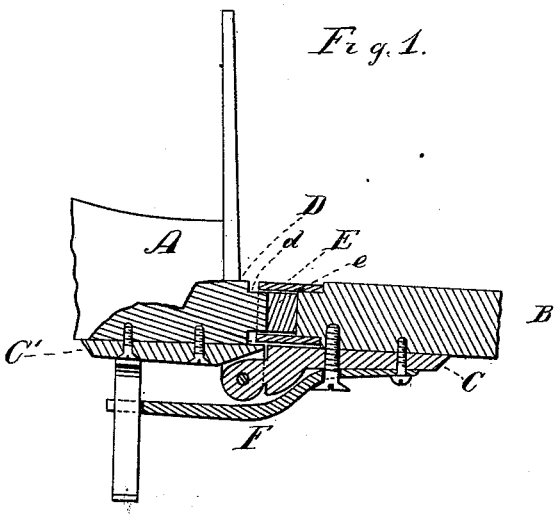
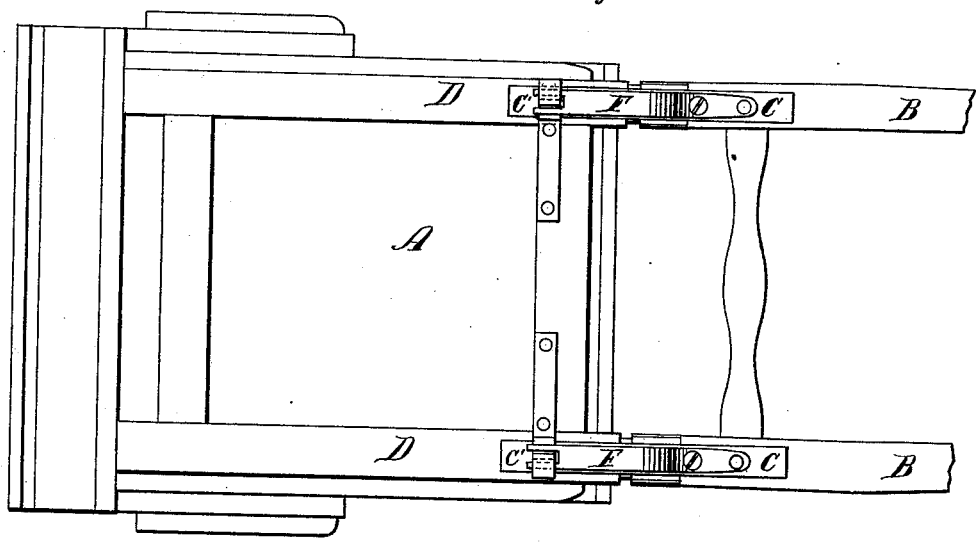


Fig 2.



WITNESSES

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EBON B. SIMPSON, OF BRIDGEWATER, ASSIGNOR OF ONE-HALF HIS RIGHT TO I. MARSHALL McCUE, OF MOUNT SOLON, VIRGINIA.

IMPROVEMENT IN TWO-WHEELED VEHICLES.

Specification forming part of Letters Patent No. **195,663**, dated September 25, 1877; application filed September 1, 1877.

To all whom it may concern:

Be it known that I, EBON B. SIMPSON, of Bridgewater, in the county of Rockingham and State of Virginia, have invented a new and valuable Improvement in Sulkies and other Two-Wheeled Vehicles; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a vertical section, showing the manner of hinging the shafts to a two-wheeled vehicle. Fig. 2 is a bottom view of a sulky to which my improvement is applied.

The object of this invention is to relieve sulkies, carts, and other two-wheeled vehicles of their characteristic unpleasant vibratory motion in traveling; and it consists mainly in the substitution, for the rigidly-attached thills heretofore used, of thills which are hinged, so that the up-and-down motion of the horse is not communicated to the vehicle-body.

The several details of construction and subsidiary features of my invention will be hereinafter fully described, and their operation explained.

In the drawings, A designates the body of a sulky, and B the shafts or thills thereof. To the under sides of the inner ends of these shafts are secured the wings C of hinges, the other wings, C′, of which are attached to the under sides of the bottom side timbers of the body A. To the forward wings C of said hinges are secured bent arms F, which extend rearward under the wings C′. The function of these arms F is to prevent the body A from turning backward on the axle, owing to the flexibility of the hinges, as it will be seen that, if the body turns upward unduly, the said arms will strike against the hinge-wings C′.

At the rear end of each shaft a socket, E, is formed, within which is arranged a rubber block or spring, *e*, and on the forward ends of the bottom side bars or timbers D of the body A are formed tenons *d*, which fit into the sockets E and against springs *e*. By this arrangement the body is relieved from jolting at the termination of the downward motions of the thills, which result from the natural movements of the horse.

The essential principle of my invention may be applied to a two-wheeled vehicle, provided with a tongue and employing two horses. This may be accomplished by hinging to the front of such vehicle a bow, the ends of which take the places of the ends of the shafts in the drawings, and attaching the tongues to the middle of said bow.

Having now fully described the construction, and explained the operation of my invention, I claim—

1. A two-wheeled vehicle, having shafts or a tongue hinged to its body, and provided with springs at the hinges, and arms F, to prevent overtilting backward.

2. The combination of hinged shafts B, body A, springs *e*, and arms F, substantially as described.

3. The combination of hinged shafts B, arms F, and body A, substantially as set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

EBON BUSHROD SIMPSON.

Witnesses:

P. H. SNYDER,

FRED. K. SPECK.