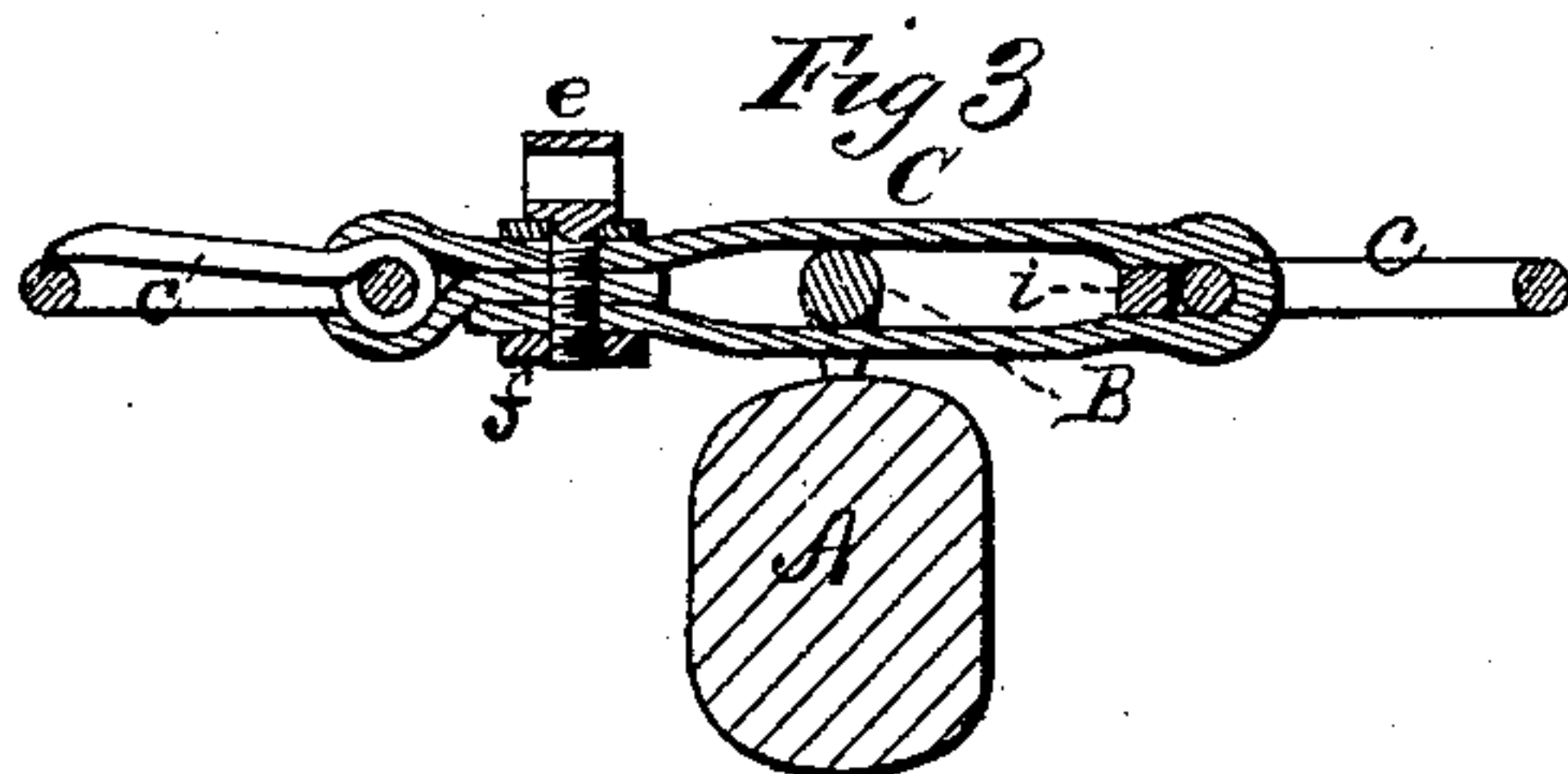
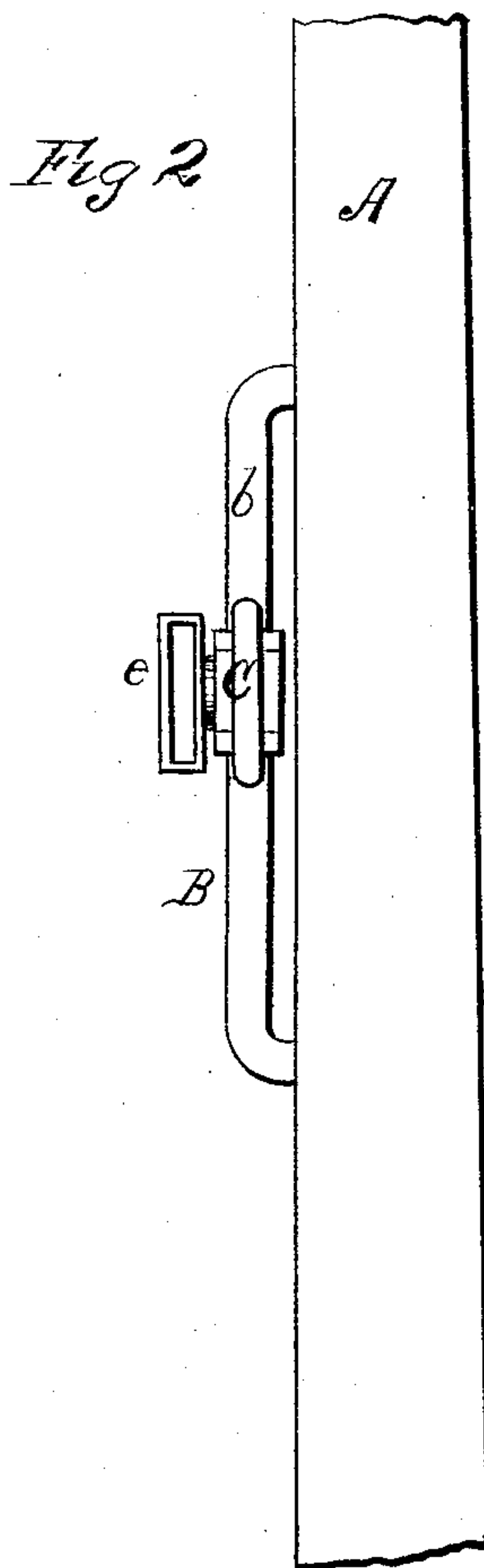
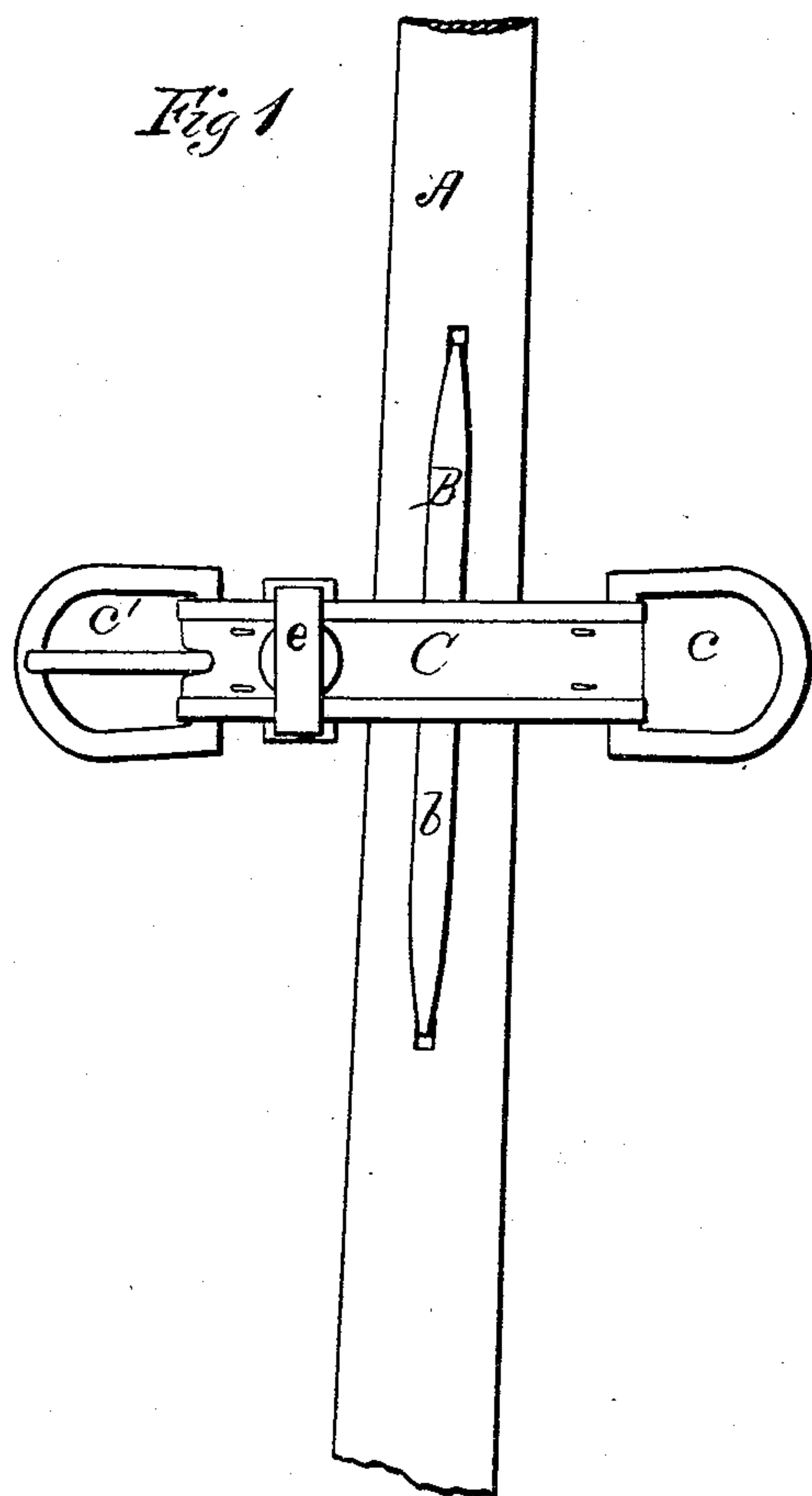


R. AUSTIN.
Shaft-Tug Slides.

No. 157,362.

Patented Dec. 1, 1874.



WITNESSES
Robert Everett
E. H. Bates

INVENTOR
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UNITED STATES PATENT OFFICE.

RICHARD AUSTIN, OF SING SING, NEW YORK.

IMPROVEMENT IN SHAFT-TUG SLIDES.

Specification forming part of Letters Patent No. **157,362**, dated December 1, 1874; application filed September 19, 1874.

To all whom it may concern:

Be it known that I, RICHARD AUSTIN, of Sing Sing, in the county of Westchester and State of New York, have invented a new and valuable Improvement in Shaft-Tug Slides; 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 drawing is a representation of a side view of my shaft-tug slide. Fig. 2 is a plan view, and Fig. 3 is a cross-sectional view, of the same.

This invention has relation to means for sustaining the weight of the shafts of carriages when a horse is harnessed thereto; and the nature of the invention consists in the arrangement and novel construction, in connection with a pair of shafts, and with a staple secured in the direction of the length of the said shafts, of a sliding tug arranged upon the said staple, whereby the function of the said staple is confined to sustaining the weight of the shaft, all forward draft being relieved therefrom by the sliding of the said tug forward, thereby bringing the traces into play, and all rearward draft, or that superinduced by the holding back of a horse, being in like manner confined to the breeching, thereby effectually preventing sore backs in horses, as will be hereinafter more fully explained.

In the annexed drawings, A designates one of a pair of shafts, to which is rigidly secured a long staple, B, having a straight back, *b*, at that point thereof where it is customary to attach the sustaining-straps depending from the saddle. Upon the straight back *b* of this staple a sliding tug, C, is removably applied, having a ring, *c*, through which are passed the saddle-straps, which sustain the shafts, and a buckle, *c'*, to which the belly-band is attached.

This sliding tug may be removed from the shafts of one vehicle and applied to those of another in the following manner, its construction being as follows: Upon one end of a leather strap of suitable length and strength

a buckle is sewed in the usual well-known manner. The other end thereof is then passed through a ring, and caused to overlap that part of the strap into which the buckle *c'* is secured, when a thumb-screw, *e*, is passed through the overlapping parts, and screwed into a nut, *f*, having projections *f'*, which embrace the lateral edges of the straps, and prevent its disengagement from the threaded end of the thumb-screw. The ring *c* is held in place upon its end of the slide by means of a glut, *i*, which is rigidly secured between the straps.

It will be readily understood that by unscrewing the thumb-screw the slide may be detached from the staple and applied to the staples of a pair of shafts on another vehicle.

When a horse hitched to a vehicle the shafts of which are provided with sliding tugs and staples, as above described, is started ahead, the tug will slide forward upon the staple, taking no part in the strain of the draft, which is wholly borne by the traces. In like manner, when going down hill, the tug will slide to the rear, allowing all the strain of holding back to fall upon the breeching. In neither case will the breaking of the traces or of the single-tree permit the horse to leave the shafts; nor will the breaking of the breeching cause the vehicle to run forward upon the horse, frightening him, and causing him to run away, the tugs and staple serving both to prevent the release of the horse from the shafts, and the crowding down upon him of the vehicle.

Owing to the sliding action of the tugs upon the staples, the function of the tugs is limited to holding up the shafts, except under the circumstances above enumerated, when they have the function either of the traces or of the breeching; hence, the saddle being left in a state of rest, and not drawn forward upon the withers of the animal when going down hill, nor backward upon his back by a forward draft, all danger of creating a sore is effectually prevented, and, there being no friction at that point, a sore already existing is given a chance to heal.

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

1. The combination, with the long staple B, of the removable sliding tug C, substantially as specified.

2. The combination, with a tug, C, of the thumb-screw *e* and nut *f*, having projections *f'*, for the purpose of removing it from the staple of one vehicle to that of another, substantially as specified.

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

RICHARD AUSTIN.

Witnesses:

ISAAC B. NIXON,
J. J. GRIFFIN.