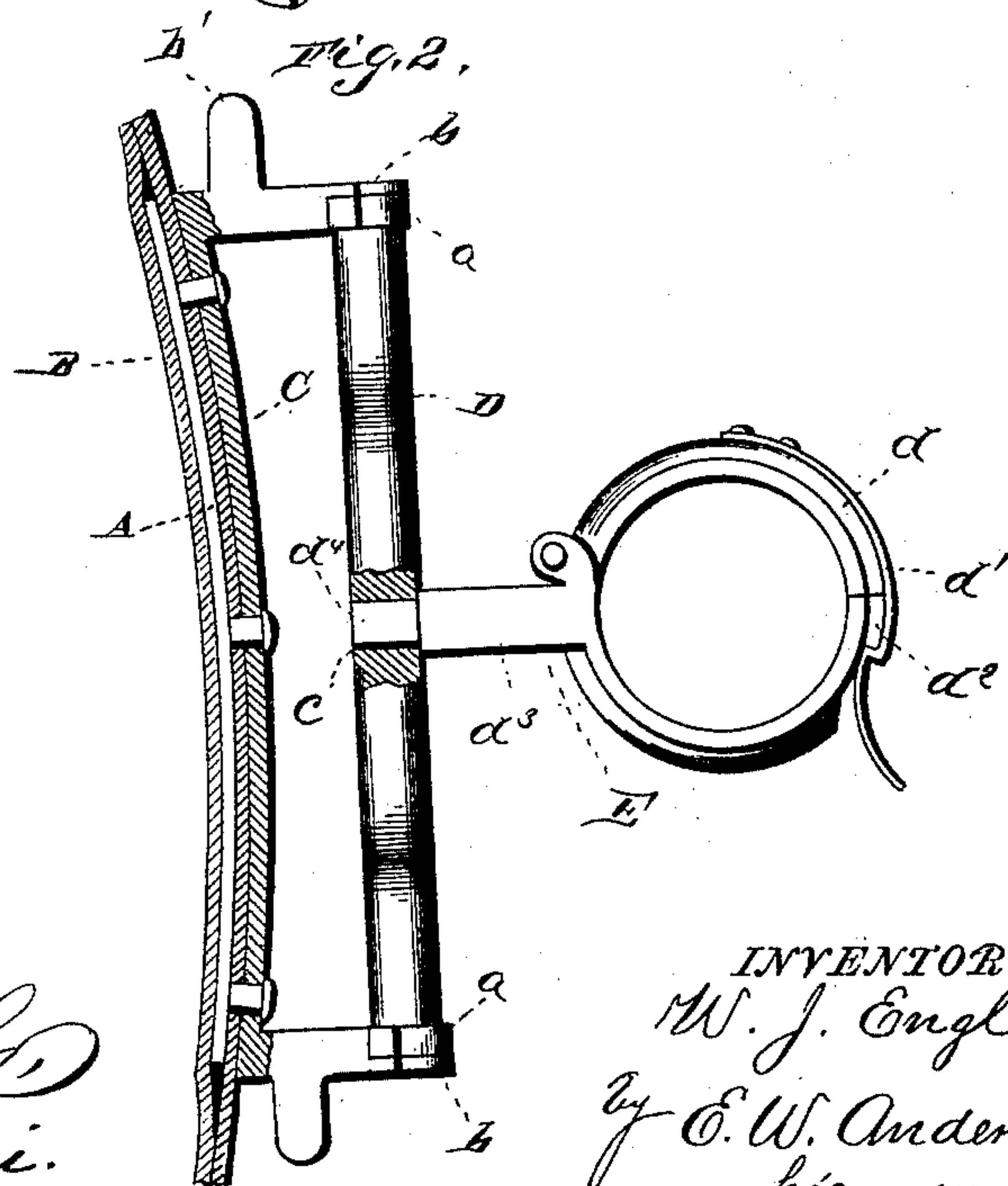
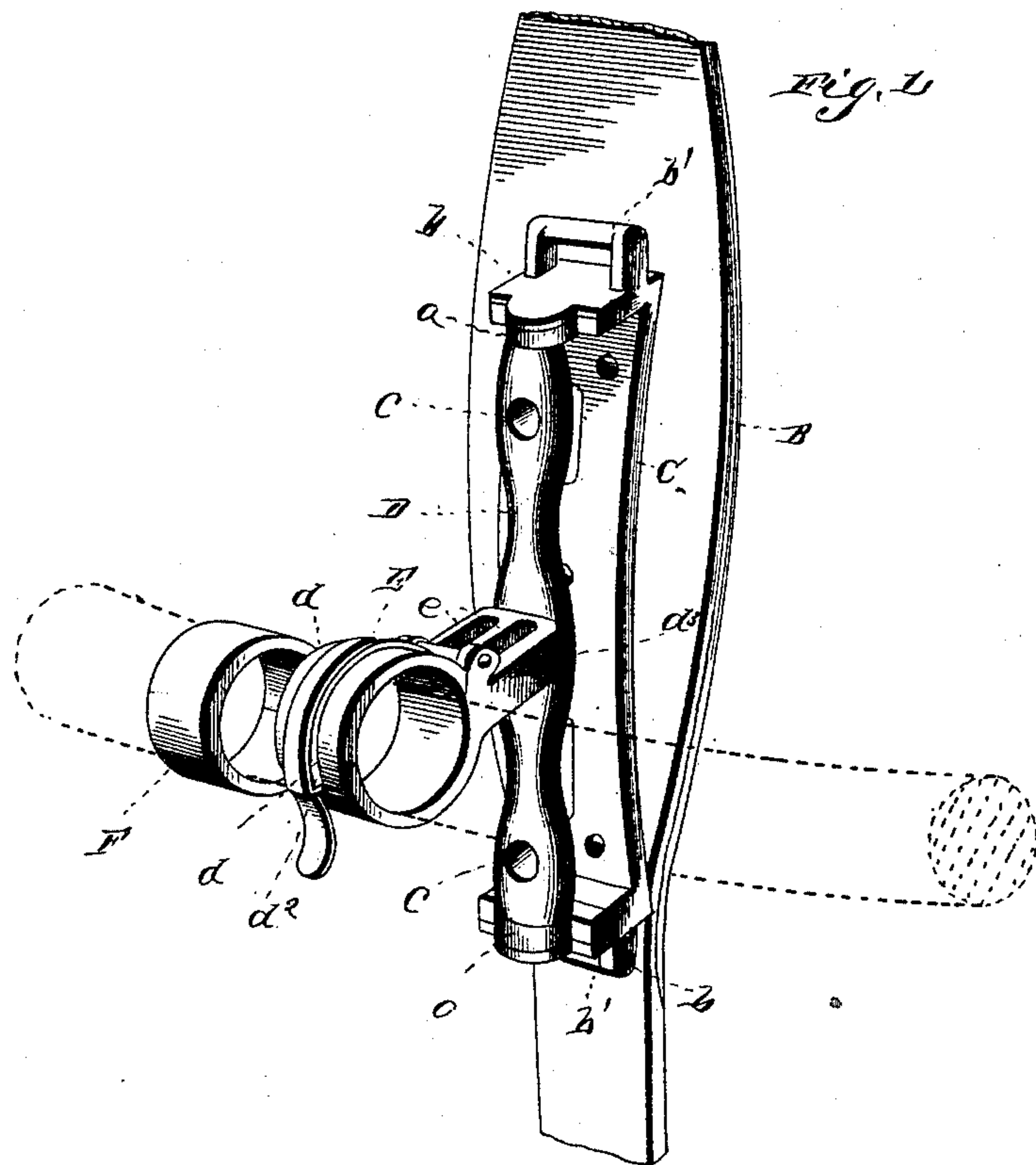


(No Model.)

W. J. ENGLE.
THILL TUG.

No. 435,740.

Patented Sept. 2, 1890.



WITNESSES
Chas L Taylor,
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UNITED STATES PATENT OFFICE.

WASHINGTON J. ENGLE, OF MARSHALL, INDIANA.

THILL-TUG.

SPECIFICATION forming part of Letters Patent No. 435,740, dated September 2, 1890.

Application filed March 26, 1890. Serial No. 345,428. (No model.)

To all whom it may concern:

Be it known that I, WASHINGTON J. ENGLE, a citizen of the United States, and a resident of Marshall, in the county of Parke and State of Indiana, have invented certain new and useful Improvements in Shaft-Tugs and Holdbacks; and I do 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 of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a representation of the invention and is a perspective view. Fig. 2 is a side view, partly in section.

This invention relates to improvements in shaft-tugs and holdbacks for vehicles; and it consists of the novel construction and combination of parts, as will hereinafter appear from the following description and accompanying illustration.

In this embodiment of my invention I provide a stiff piece of elastic material or spring-steel plate A, which is bolted to the ends of the saddle and inclosed between the two thicknesses of leather of the girth or belly-band B at the sides of the animal, the pieces or thicknesses of leather being stitched or sewed together.

C is a metal plate secured to the piece of steel or metal A, preferably by rivets passing through the outer thickness of leather of the girth and openings in said plate, the rivets projecting from said piece of steel or metal A.

D is an axially-supported bar having its ends pivoted in boxes or bearings *a a*, secured upon the inner ends of studs or projections *b b*, cast with the plate C, permitting the axial movement of said bar to enable it to accommodate the tendency of the shafts to more or less change their position, especially in turning or changing the direction of travel. The bar D has a series of apertures or openings *c* in it to receive and permit of the adjustment of the shaft-clamp E higher or lower, as may be required.

The shaft-clamp E consists of a sectional ring, one section *d* being hinged to the other and provided with a spring-snap fastening *d'*, engaging and held to a catch *d²* of the other or fixed section of said ring.

The clamp or ring E is provided with a screw shank or post *d³*, which has a reduced cylindric pin portion *d⁴*, adapted to engage the apertures or openings *c* in the bar D and which has a series of rectangular slots or openings *e e* for the passage therethrough of the breeching-straps.

Applied to the shafts or thills, immediately in rear of the clamps or rings E, are additional clamps or rings F, thus re-enforcing the holding action of the clamps E.

At the ends of the plate C are the girth-strap holders *b'*.

This invention, it will thus be seen, is characteristic for its simplicity, cheapness, and adaptation to the requirements of its intended purpose, besides avoiding interference with the ease of the movement of the horse, while it is adjustable, accommodating the height of the animal in hitching up the same.

Having described this invention, what I claim, and desire to secure by Letters Patent, is—

1. The holdback and shaft-tug comprising the attaching-plate having the boxes or bearings at its ends, the axially-supported bar pivoted in said bearings or boxes, and the shaft-clamp having its shank connected to said bar and provided with breeching-strap passages or slots, substantially as set forth.

2. The holdback and shaft-tug comprising the axially-supported bar having a series of adjusting-holes, the shaft ring or clamp having its shank engaging said holes, and means for the attachment of the support of said bar to the girth-strap or belly-band, substantially as set forth.

3. The holdback and shaft-tug comprising the supporting or bracket plate, the bar axially supported thereon and having adjusting apertures for the shaft clamp or ring, the shank of said clamp having strap passages or slots through it, and the spring-steel plate inclosed in the girth-strap or belly-band and to which is secured said supporting or bracket plate, substantially as specified.

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

WASHINGTON J. ENGLE.

Witnesses:

HOWARD MAXWELL,
H. B. HENSLEY.