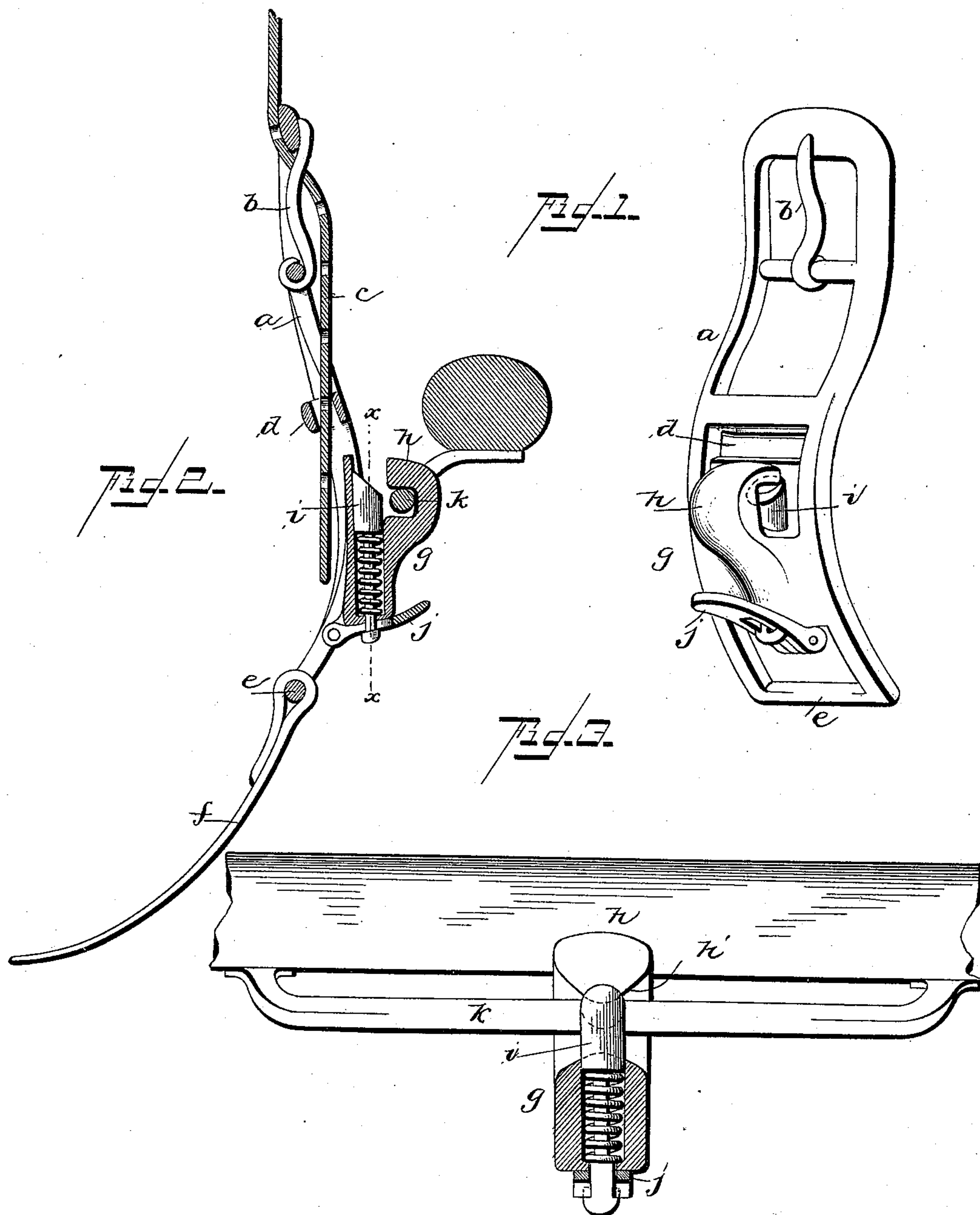


(No Model.)

J. W. SPANGLER.  
THILL HOLDER OR TUG.

No. 430,093.

Patented June 10, 1890.



WITNESSES  
F. L. Oirand  
W. A. Smith.

INVENTOR  
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# UNITED STATES PATENT OFFICE.

JACOB W. SPANGLER, OF YORK, PENNSYLVANIA, ASSIGNOR OF TWO-THIRDS  
TO JONATHAN JESSOP AND JOHN A. JONES, OF SAME PLACE.

## THILL HOLDER OR TUG.

SPECIFICATION forming part of Letters Patent No. 430,093, dated June 10, 1890.

Application filed September 28, 1889. Serial No. 325,400. (No model.)

*To all whom it may concern:*

Be it known that I, JACOB W. SPANGLER, a citizen of the United States, residing at York, in the county of York and State of Pennsylvania, have invented a certain new and useful Improvement in Thill Holders or Tugs, of which the following is a full, clear, and exact description.

The object of this invention is to provide a substitute for the leather eyes or loops, commonly called "tugs," and which are suspended from harness-saddles to receive and support the shafts of a wheeled vehicle; and, further, to construct such substitute in a manner that will admit of the more ready connection of the shafts with such loops, and also their equally ready disconnection therefrom than is possible with the commonly-used form of solid or continuous loops.

To these ends the invention consists in a thill holder or tug constructed as a metallic buckle having a snap-hook and adapted to engage an eye on the thill or shaft.

In the accompanying drawings, in the several figures of which like parts are similarly designated, Figure 1 is a perspective view of the holder or tug. Fig. 2 is a vertical section showing the straps and the shaft or thill with its eye; and Fig. 3 is a vertical section taken in the plane of line  $xx$ , Fig. 2, and looking toward the right-hand side of said Fig. 2.

I wish to observe preliminarily that my invention is interchangeable with the ordinary thill holder or tug, and hence is as applicable to old harness as to new; and so, also, the eyes may be applied to the shafts or thills without any special preparation of them.

The buckle-frame  $a$  has a tongue  $b$ , by which the holder or tug is applied to the strap  $c$  of the saddle, one on each side, and the said strap is carried behind the buckle and through a loop  $d$  to conceal it. The other end of the frame is made with a cross-bar  $e$  to receive the tug-strap or belly-band  $f$ . Between these ends of the frame is arranged what is before referred to as the "snap-hook," here designated  $g$ . This snap-hook consists of a hook-shaped projection  $h$ , whose opening is toward the saddle, and which opening is normally closed by a spring-bolt  $i$ . This bolt is extended

downwardly and engaged by a thumb-lever or other retractor  $j$  to withdraw it from the hook's opening. This snap-hook is adapted to engage an eye  $k$ , affixed to the shaft in order to support it. The preferred form of eye is, as shown, rather long and fastened to the under side of the shaft and projecting therefrom downwardly and inwardly. The hook  $h$  has its inner edge  $h'$  beveled or rounded (see Fig. 3) so as not to chafe the eye, and so as to permit freedom of motion of the shafts and harness. The shafts are engaged with the holders or tugs on opposite sides of the saddle by forcing their eyes into the snap-hooks, and they are disengaged by withdrawing the bolts by operation of the retractors  $j$  and lifting out the eyes from them. Not only do these holders support the shafts and constitute a ready means for connecting and disconnecting them, but they also subserve an additional and very important function as holdbacks and checks, for it will be observed that should the traces break or become disconnected the eyes and snap-hooks would still be engaged, the snap-hooks taking bearings at the forward ends of the eyes, and should the holdback or breeching straps break the said snap-hooks would take bearings in the rearward ends of the eyes, in either case preventing the animal escaping from the shafts.

What I claim is—

1. A thill holder or tug comprising an eye to be secured to the thill, and a frame having a buckle for connection with a harness-saddle strap, a hook projecting laterally from the frame and opening next to it, and having its opening and a recess of a size and shape to receive the eye, a retractile bolt to close said opening, and a cross-bar to receive the belly-band or tug-strap, substantially as described.

2. A thill holder or tug composed of a frame constructed with a buckle for connection with the strap from a harness-saddle, a hook projecting laterally from the frame and opening toward the frame, and having its opening and a recess constructed and arranged, substantially as shown, to receive an eye on the thill, and having its inner edge  $h'$  beveled or

rounded, a spring-bolt normally closing the opening or mouth of said hook and provided with a retractor, and a cross-bar to receive the belly-band or tug-strap, substantially as  
5 described.

3. A thill holder or tug comprising a frame having a buckle for connection with a harness-saddle strap, a hook projecting laterally from the frame and opening next to it, and  
10 having its opening and a recess of a size and shape to receive the eye, a retractile bolt to close said opening, and a cross-bar to receive

the belly-band or tug-strap, combined with an eye to be secured to the thill, the ends of which eye form stops to limit the movement  
15 of the tug forward and backward, substantially as described.

In testimony whereof I have hereunto set my hand this 27th day of September, A. D. 1889.

JACOB W. SPANGLER.

Witnesses:

W. C. SMITH,  
JOHN L. SMITH.