W. H. NOGGLE.

THILL TUG OR CARRIER.

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941,943.

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Fig. 1.

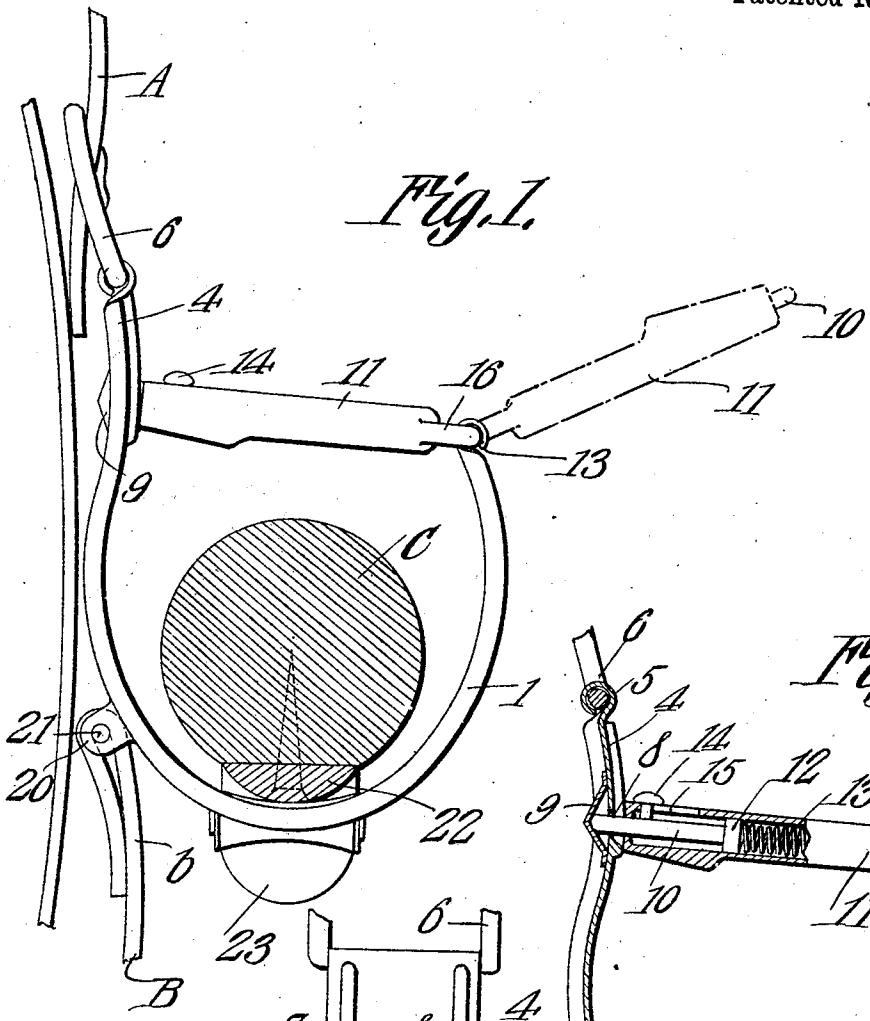


Fig. 2.

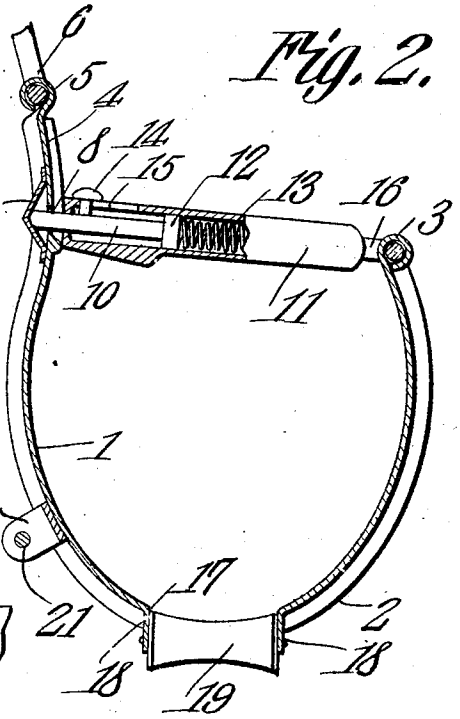
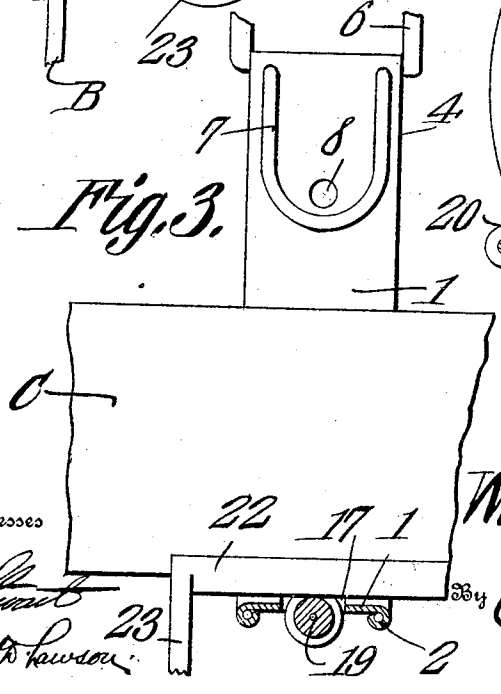


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM H. NOGGLE, OF LANCASTER, OHIO.

THILL TUG OR CARRIER.

941,943. Specification of Letters Patent. **Patented Nov. 30, 1909.**

Application filed March 1, 1909. Serial No. 480,639.

To all whom it may concern:

Be it known that I, WILLIAM H. NOGGLE, a citizen of the United States, residing at Lancaster, in the county of Fairfield and State of Ohio, have invented a new and useful Thill Tug or Carrier, of which the following is a specification.

This invention relates to thill tugs or carriers designed to be used in lieu of the loops ordinarily employed.

The object of the invention is to provide a device of this character into which the thill can be readily placed, means being provided whereby the back and forth movement of the thill within the carrier is permitted without producing undesirable wear upon the parts.

A further object is to provide a device of this class which can be readily attached to the back strap and belly-band of harness and which has simple and efficient means for securing the thill in place.

A further object is to provide means for preventing the thill from moving too far forward into the carrier or tug should the quarter strap of the harness become broken.

With these and other objects in view the invention consists in certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claim.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings:—Figure 1 is a front elevation of a thill tug or carrier embodying the present improvements, the thill being shown in section and the locking bolt being shown by dotted line in open position. Fig. 2 is a longitudinal section through the carrier. Fig. 3 is a vertical transverse section through the carrier, the bolt being removed.

Referring to the figures by characters of reference 1 designates a substantially U-shaped metallic body portion preferably reinforced by beads 2 extending along the edges thereof, one end of said body portion being provided with an eye 3 while the other end thereof has an upward extension 4 terminating in an eye 5 in which a buckle 6 is pivotally mounted. This buckle is designed to be engaged by the back strap A of a harness, said buckle being so formed as to permit the end of the strap to extend along the outer side of the extension 4 as clearly indicated in Fig. 1. This extension has a U-shaped rib 7 formed upon the inner face thereof and partly surrounding an opening 8 formed in the extension and extending into a cap 9 suitably secured upon the outer face of the extension as clearly indicated in Fig. 2. This opening 8 is designed to receive a bolt 10 which is slidably mounted within a retaining bar 11, there being a head 12 upon one end of the bolt and against which bears a spring 13 designed to hold the other end of the bolt normally projected beyond the housing. A knob 14 is secured to the bolt and works within a slot 15 in the housing. One end of the housing is provided with an eye 16, which works within the eye 3 heretofore referred to.

A slot 17 is formed in the bottom portion of the body 1 and ears 18 extend outwardly from the ends of the slot and constitute bearings for a concave roller 19 projecting into the slot 17. Ears 20 also extend outwardly from that portion of the body 1 from which the extension 4 projects and these ears are connected by a pin 21 designed to be engaged by the looped end *b* of belly-band B.

The thill C used in connection with the tug or carrier herein described has a wear-plate 22 secured longitudinally upon the lower portion thereof, the lower face of this wear-plate being convexed so as to bear snugly upon the concave roller 19. The rear end of the wear-plate has an ear 23 extending downwardly therefrom and designed to move against the adjoining edge of the body 1 should the quarter strap of the harness break. The vehicle to which the horse is harnessed will thus be prevented from riding forward against the horse.

It is of course to be understood that one of the thill tugs or holders is to be attached to each end of the back strap A, and when it is desired to place the thills therein the bolts 10 are withdrawn from the openings 8, after which the retaining members 11 can be swung outwardly as indicated by dotted lines in Fig. 1. The thills can then be lowered into the bodies 1, after which the retaining members can be swung back to their initial positions, the bolts 10 striking the extensions 4 at points between the U-shaped ribs 7, these ribs serving to guide the outer ends of the bolts 10 into the openings 8. Springs 13 of course automatically project the bolts into these openings, thus holding the thills within the body and preventing accidental displacement thereof. When the

thills are thus located the ears 23 upon the wear strip 22 project across the back edges of the bodies 1, so that should the quarter straps of the harness become broken these ears will move against the bodies and limit the forward movement of the thills.

Inasmuch as the thills are mounted upon concave anti-friction rollers 19, it will be apparent that all necessary movement of the thills within the tug or holder can be produced without unnecessary friction.

What is claimed is:—

A thill tug consisting of a sheet metal U-shaped body portion having reinforcing marginal ribs, one end of said body portion being extended above the other end thereof and both of said ends having integral terminal eyes, there being parallel ears struck from the bottom portion of the body and an aperture within one side of the body, a metallic cap secured upon the body and extending over the aperture, there being a U-shaped rib upon the body and extending partly around the aperture, a tubular retaining bar having an eye at one end pivotally mounted within one of the eyes on the body, a spring-pressed locking bolt movably mounted within the bar, said rib constituting means for guiding the projecting end of the bolt into the aperture, and strap engaging means pivotally mounted in the other eye on the body, a thill-supporting roller journaled within the ears, and strap-engaging means extending from the body between the ears and the cap.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

WILLIAM H. NOGGLE.

Witnesses:

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