No. 723,246. PATENTED MAR. 24, 1903.

W. A. CRIST.

THILL TUG.

APPLICATION FILED SEPT. 8, 1902.

NO MODEL.

Fig. 1.

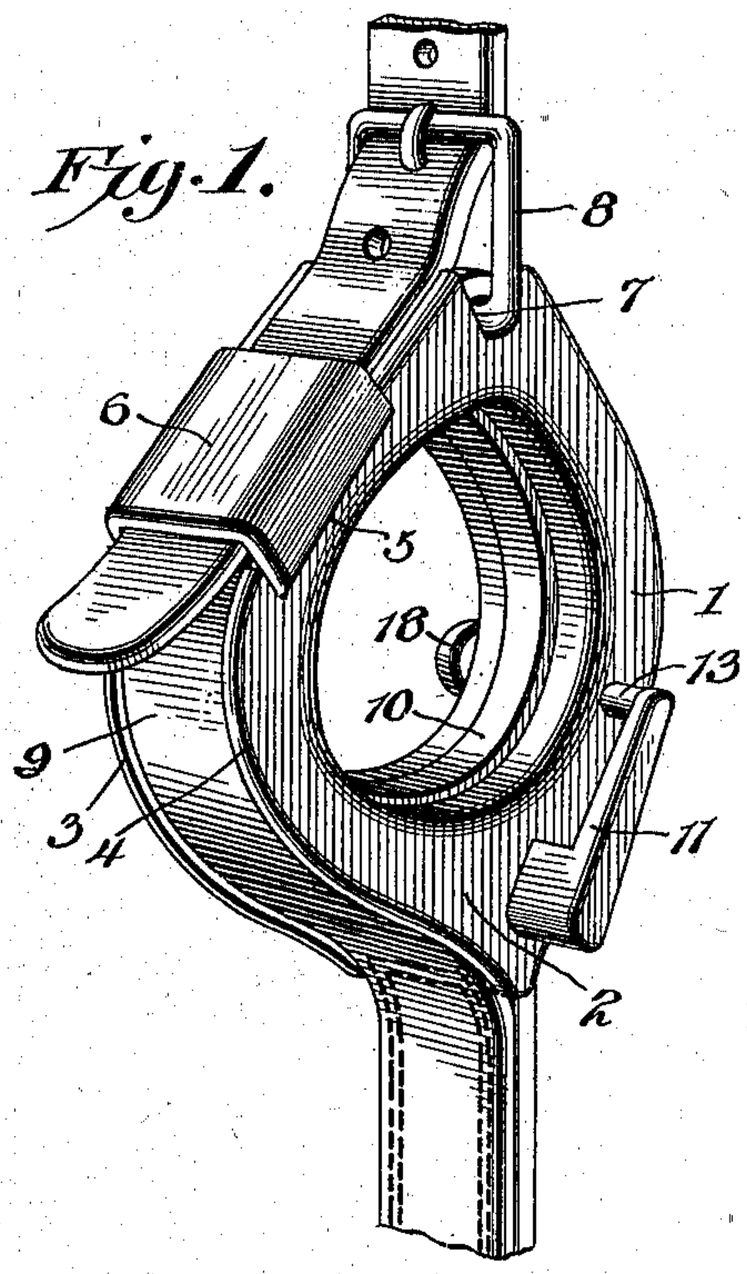


Fig. 2.

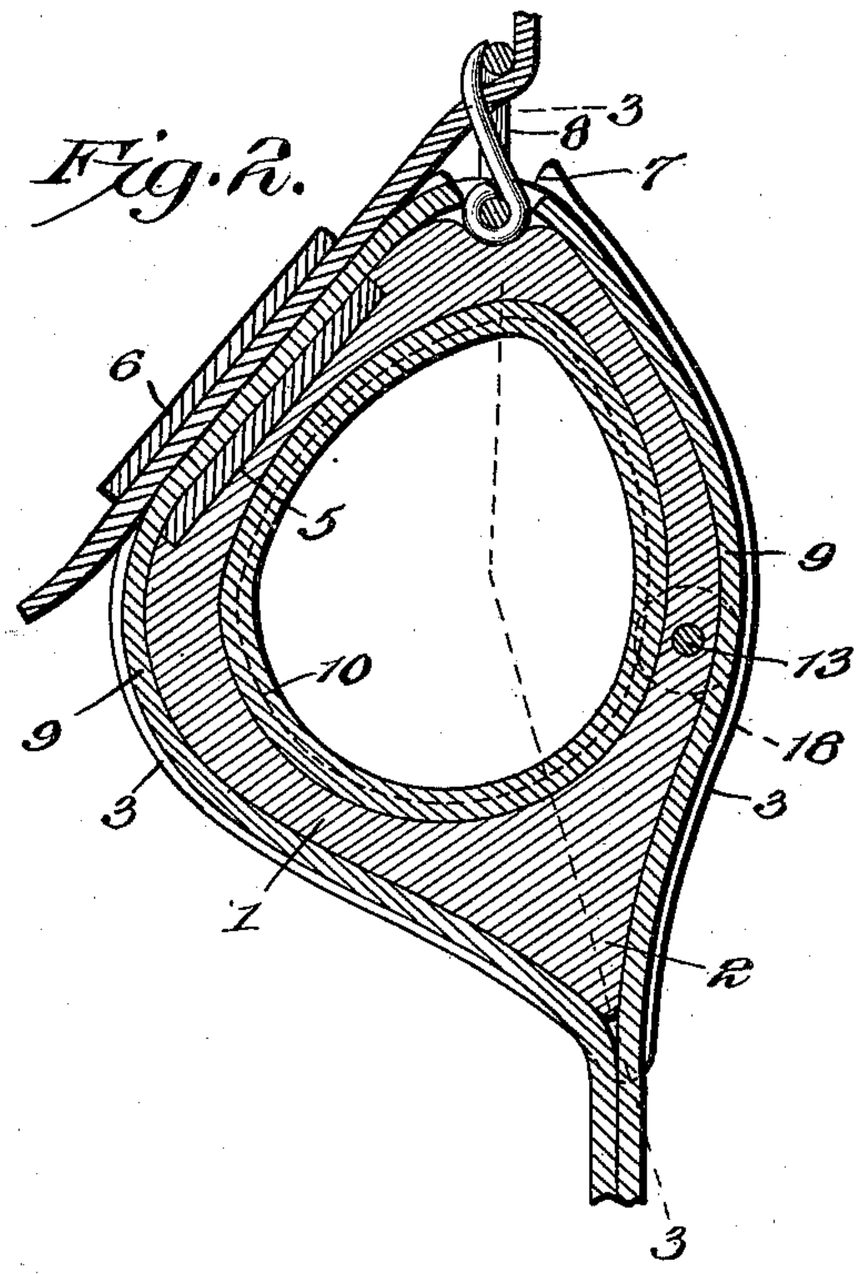


Fig. 3.

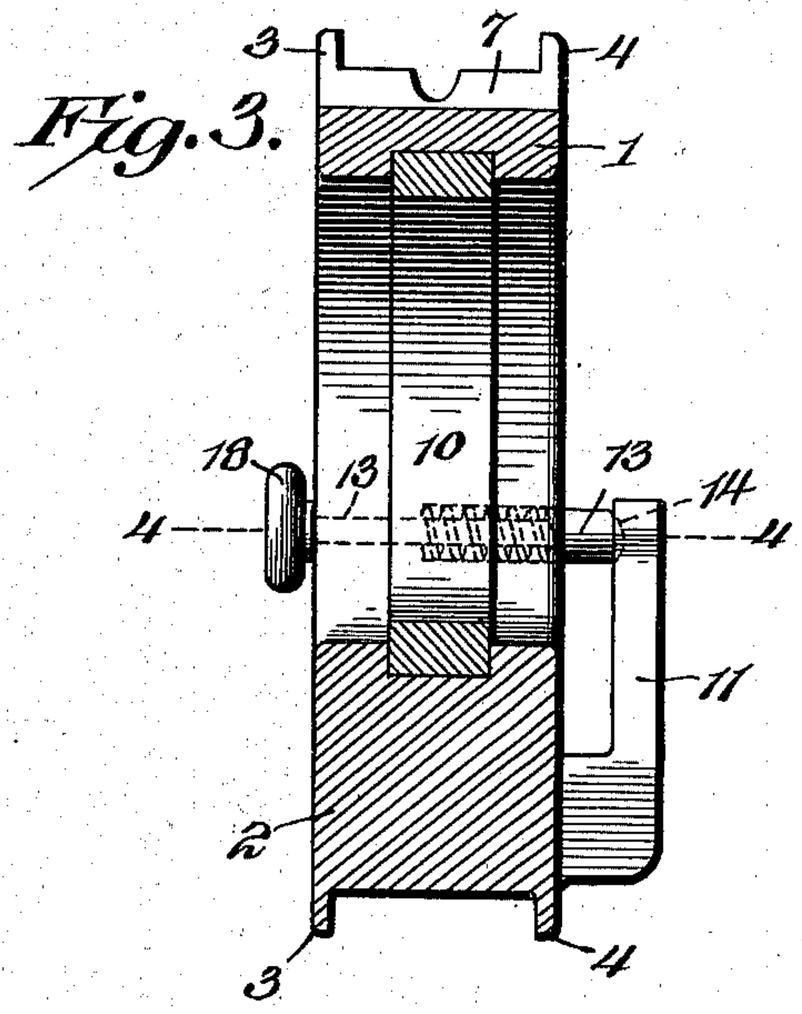
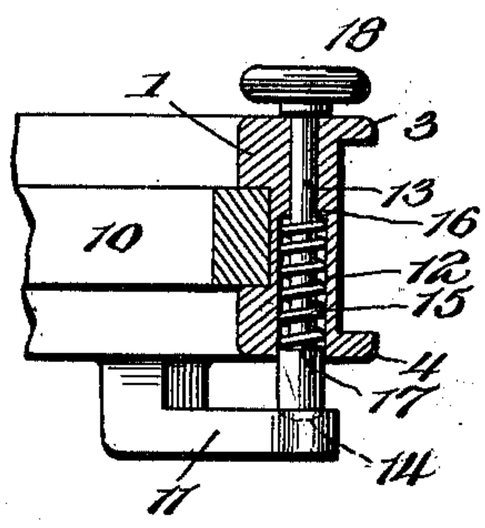


Fig. 4.



Witnesses.
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UNITED STATES PATENT OFFICE.

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THILL-TUG.

SPECIFICATION forming part of Letters Patent No. 723,246, dated March 24, 1903.

Application filed September 8, 1902. Serial No. 122,563. (No model)

To all whom it may concern:

Be it known that I, WILLIAM A. CRIST, a citizen of the United States, residing at Codorus, in the county of York and State of Pennsylvania, have invented a new and useful Thill-Tug, of which the following is a specification.

This invention relates to thill-tugs, and has for its object to provide an improved device of this character which is arranged for convenient engagement with the harness, and is particularly designed to facilitate the connection and disconnection of the holdback-strap without requiring that the latter be passed through a loop and then buckled or unbuckled.

With this object in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claim, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claim without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a perspective view of a thill-tug constructed and arranged in accordance with the present invention. Fig. 2 is a longitudinal sectional view thereof. Fig. 3 is a longitudinal sectional view on the line 3 3 of Fig. 2. Fig. 4 is a detail cross-sectional view on the line 4 4 of Fig. 3.

Like characters of reference designate corresponding parts in all of the figures of the drawings.

The body 1 of the present device is in the form of a substantially elliptical ring of metal or other suitable material, having a lower elongated or pointed end 2 and provided with an external peripheral edge groove, forming front and rear peripheral flanges 3 and 4. At one side of the tug and near its upper end the flanges are cut away to form a notch or seat 5 for the reception of a loop or keeper 6, and the upper extremity of the tug is vertically notched or recessed, as at 7, to receive the lower end bar of an upstanding buckle 8. A strap 9 is fitted in the seat formed between the flanges 3 and 4, passes across the lower end bar of the buckle and through the loop, and snugly embraces the tug, so as to hold the buckle and loop in place. The opposite portions of the strap 9 are sewed, riveted, or otherwise secured at the lower end of the tug, from which a portion depends and is adapted for connection with one end of a belly-band. The body of the tug is furthermore provided with an inner annular groove or seat for the snug reception of a leather packing-ring 10, which is adapted to snugly embrace the thill and prevent wear thereon.

At the rear face of the tug there is an upstanding L-shaped hook 11, the shank of which is secured to the tug near the lower end, with its upstanding portion spaced in rear of the tug and at that side which is opposite the seat 5 for the reception of the loop or keeper. In alinement with the upper free end of the hook an open-ended bore or opening 12 is formed transversely through the tug, and in this bore or opening works an endwise-shiftable bolt 13, which is projected at opposite sides of the tug. The rear end of the bolt is normally received within a seat or recess 14 in the inner side of the free end of the hook and is yieldably held therein by means of a helical spring 15, which embraces the bolt, with its front end bearing against an inner annular shoulder 16 within the bore 12 and its rear end bearing against the annular shoulder formed by the enlarged rear end 17 of the bolt. The front end of the bolt is provided with a suitable handle or finger-piece 18, whereby the bolt can be conveniently drawn forwardly out of engagement with the hook, so as to open the entrance to the same, and thereby permit of the convenient engagement and disengagement of a holdback-strap with respect to the hook.

Heretofore it has been necessary to pass the free end of a holdback through a closed loop upon the thill-tug and then buckle the same, and a reversal of this operation is necessary to detach the holdback from the tug. This difficult and laborious operation is effectually overcome by the present device, as a permanent loop may be formed at the forward end of the holdback and conveniently slipped upon the hook when the spring-actuated bolt has been retracted, and when the

latter is in its normal position the loop will be effectually held against accidental displacement.

What I claim is—

The combination with a shaft-tug, of a substantially L-shaped hook fixed to one face of the tug at the bottom thereof with its free end uppermost, a bolt extending entirely through the tug at one side of the shaft-opening with one end projected to normally engage the free end of the hook to close the entrance to the same, the opposite end of the bolt having an operating-handle exposed for operation at the opposite face of the tug, and a spring housed within the side of the tug and actuating the bolt, substantially as described.

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

WILLIAM A. CRIST.

Witnesses:

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HARRY L. MILLS.