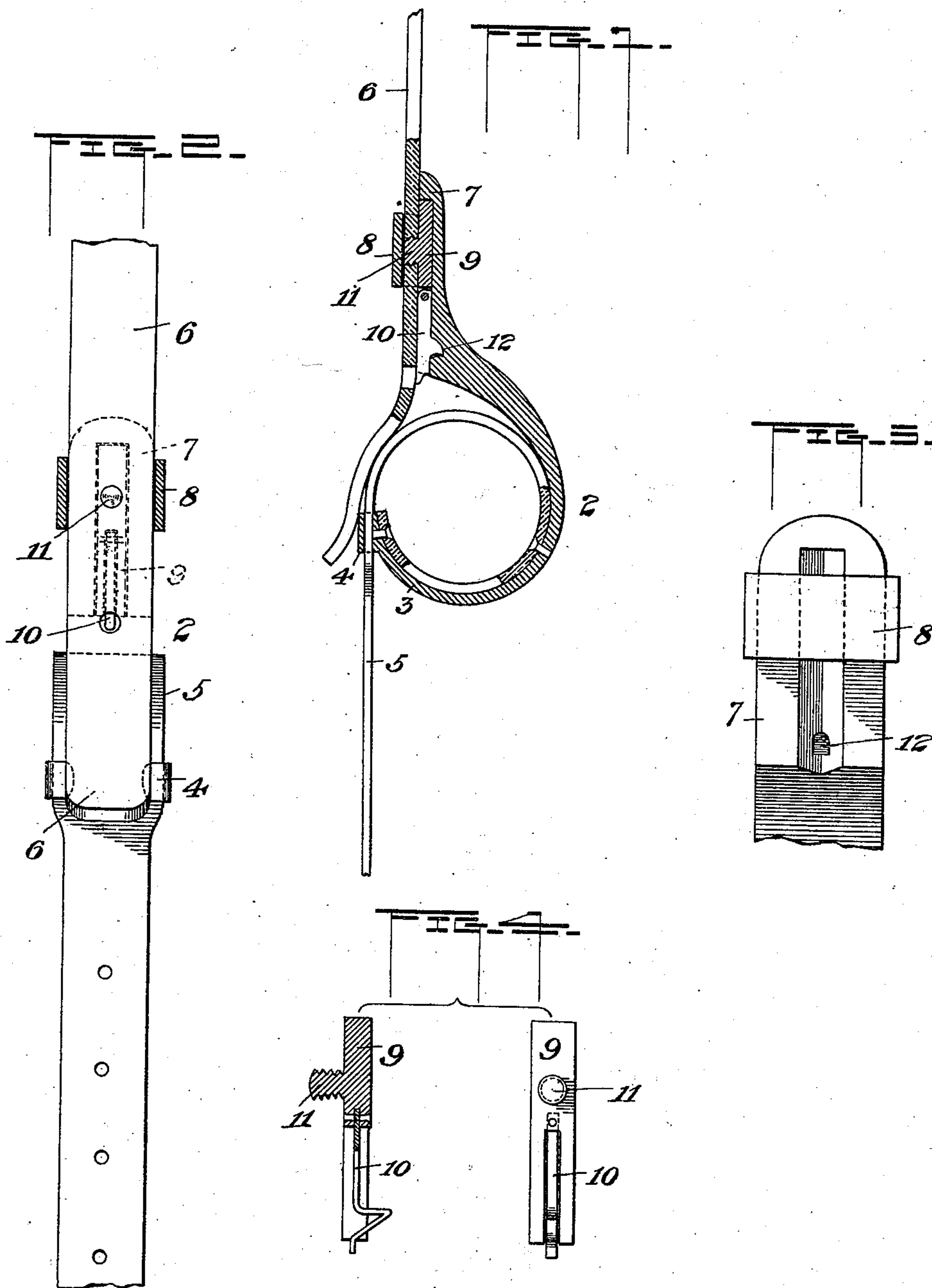


(No Model.)

W. S. CASSADY.
HARNESS TUG.

No. 548,953.

Patented Oct. 29, 1895.



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UNITED STATES PATENT OFFICE.

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HARNESS-TUG.

SPECIFICATION forming part of Letters Patent No. 548,953, dated October 29, 1895.

Application filed April 8, 1895. Serial No. 544,955. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. CASSADY, a citizen of the United States, residing at Millville, in the county of Cumberland and State of New Jersey, have invented certain new and useful Improvements in Harness-Tugs; 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.

My invention relates to an improvement in harness-tugs, and has for its object the ready attachment and detachment of the tug to the shafts without inserting them over the end of the shafts, and more especially to provide a simple and effective means of attachment and adjustment of the tug to the tug-bearer, and is particularly designed as an improvement on my prior Patent No. 415,381, dated November 19, 1889.

My invention further consists in certain features of construction and combination of parts more fully hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of a tug embodying my invention, partly in section. Figs. 2 and 3 are edge views, and Fig. 4 is a detail side and edge view of a modified form of locking-block.

In the drawings, 2 represents the tug as a whole, which consists of the open metallic hook 3, which is provided with the open retaining-loop 4, which embraces the billet-strap 5 at end of the hook. The billet-strap 5 is made in order to facilitate the insertion within the walls of the retaining-loop 4 with a reduced portion which is perforated, as is usual, and to it is buckled or otherwise secured the girth or belly-band. The billet-strap 5 is preferably secured to the inner side of the supporting-hook in such a manner as to form a leather lining for the same and thereby more firmly grasp the shaft.

The attachment of the hook to the tug-bearer 6 is of great importance to the successful use of tugs of this character, and it is in this that my present invention differs from my prior invention referred to *supra*.

The difficulty heretofore experienced in readily attaching and detaching and adjusting the tug, especially the metallic hook in

relation to the tug-bearer 6, is provided for in my present invention by a very simple and effective means.

Upon the straight shank 7 of the metallic hook 3 is loop 8. In the shank upon the same side as the bridge-piece 8 I form a groove of any suitable shape and depth, which, as shown in the drawings, is V-shaped in cross-section. This groove extends a slight distance above the loop 8, and its upper end is closed, while the lower end opens into the open part of the metallic hook, where the straight shank is joined to the curved portion.

A block 9, provided with a detent 10, fits in said groove, and said detent is provided with a projection adapted to fit a depression 12 in the bottom of the groove, and is further provided with a pin or post 11, which is provided with threads or otherwise roughened. This post is adapted to enter the perforations in the tug-bearer 6, and when the block 9 is in place the tug-bearer is held in the proper position, the strap filling the opening between the walls of the bridge-piece, and the post 11 is beneath the wall of the bridge-piece and in close proximity thereto, so that the parts are held securely together.

The weight of the shafts holds the tug-bearer against slide and keeps the detent in the depression 12 against accidental displacement.

The operation is as follows: The horse is backed between the shafts and the billet-strap is passed through the open loop and is then drawn tightly, so that the wide portion of the strap comes within the confines of the loop, after which the girth or belly-band is attached thereto. In case it is desired to shorten or lengthen the distance of the tug from the harness-saddle, the post 11 on locking-block is inserted in one of the perforations of the tug-bearer, the thread or roughened portion preventing said block from dropping out of said perforation. The end of the tug-bearer having been first passed through the loop 8, the block 9 is then drawn up into the groove and the detent engages with and is held in the depression 12. The adjustment is then easily made. Should it be desired to alter the position of the tug with relation to the tug-bearer, it is only necessary to place the finger behind the tug-bearer and beneath the projecting

end of the detent, when a slight outward pressure releases the detent and the parts are free to be moved, as may be desired.

In the modification shown in Fig. 3 I show a spring-detent instead of a gravity-detent, as in Figs. 1 and 2, but the operation is the same in both cases. It is obvious that other slight changes might be made without departing from the spirit and scope of my invention.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a harness tug comprising a metallic supporting hook, having a straight shank, a groove formed therein, a locking block fitting said groove, and means for detachably connecting said block to the shank, and a stud carried by said locking block and a tug-bearer adapted to be secured thereto, thereby supporting the tug, said metallic hook also being provided with a loop upon the outer end of the hook, a billet strap secured to the inner face of the hook, adapted to surround the shaft and to be held in place within the loop, thereby securing the tug to the shaft, substantially as described.

2. In a harness tug, comprising a metallic supporting hook, having a straight shank, a loop formed upon said shank, a groove formed therein, a locking block fitting said groove, and a detent carried by said block detachably connecting said block to the shank, and a stud carried by said locking block and a tug bearer adapted to be secured thereto, thereby supporting the tug, said metallic hook also being provided with a loop upon the outer end of the hook, a billet strap secured to the inner face of the hook, adapted to surround the shaft and to be held in place within the loop, thereby securing the tug to the shaft, substantially as described.

3. In a harness tug comprising a metallic supporting hook, having a straight shank, a loop formed upon said shank, a V-shaped groove formed therein, a locking block fitting

said groove, and a detent pivotally connected to the locking block, said detent being adapted to enter a depression in the bottom of said groove, thereby detachably connecting said block to the shank, a stud carried by said locking block and a tug bearer adapted to be secured thereto and forming a support for the tug, said metallic hook also being provided with a loop upon the outer end of the hook, a billet strap secured to the inner face of the hook, and adapted to surround the shaft and be held in place within the loop upon the outer end of the hook thereby securing the tug to the shaft, substantially as described.

4. In a harness tug comprising a metallic supporting hook, having a straight shank, a loop formed upon said shank, a V-shaped groove formed therein having an open lower end and a closed upper end, a locking block fitting said groove, the closed end of said groove forming a shoulder against which the locking block abuts, a stud carried by said locking block, and a detent pivotally connected to said locking block, said detent being adapted to enter a depression in the bottom of said groove, and when in this position to cause the stud to be beneath the loop upon the straight shank of the hook, a tug bearer adapted to pass through said loop and to receive the stud upon the locking block thereby supporting the tug, said metallic hook also being provided with a loop upon the outer end of the hook, a billet strap secured to the inner face of the hook, and adapted to surround the shaft and be held in place within the loop upon the outer end of the hook thereby securing the tug to the shaft, substantially as described.

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

WILLIAM S. CASSADY.

Witnesses:

HANNAH R. SHELDON,
SAMUEL M. SHELDON.