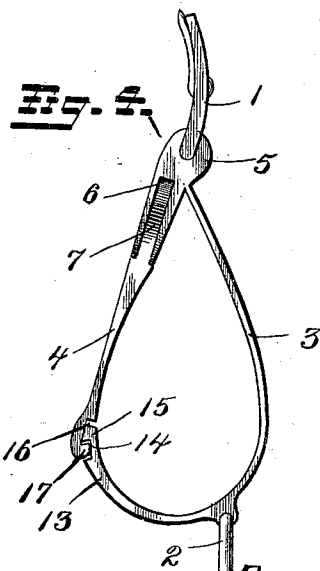
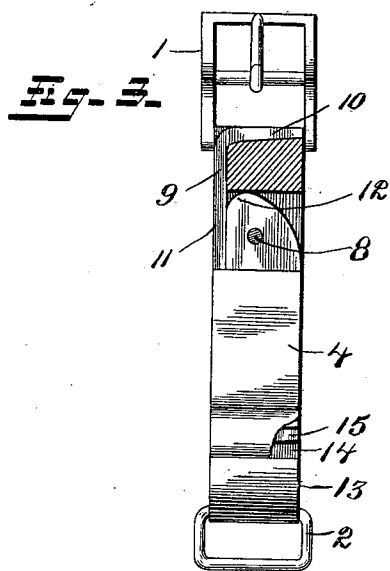
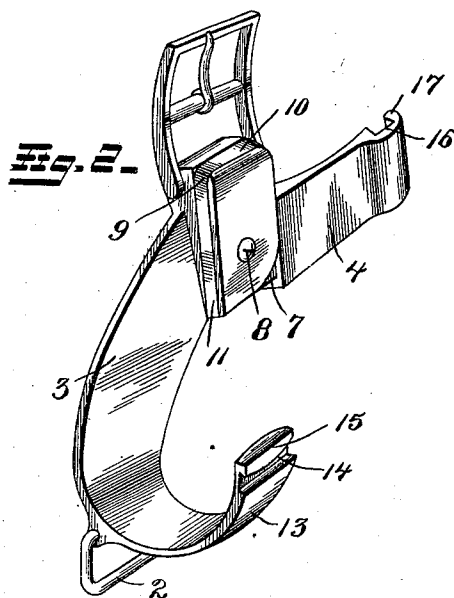
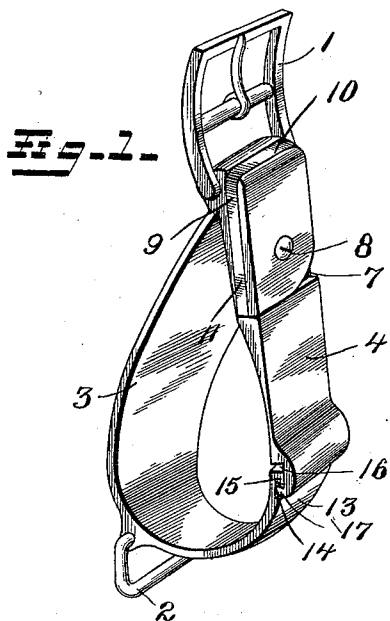


(No Model.)

A. W. COOK.
THILL TUG.

No. 562,066.

Patented June 16, 1896.



Witnesses
W. J. North.
V. B. Hillyard.

By *his* Attorneys.

Inventor
Austin W. Cook

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UNITED STATES PATENT OFFICE.

AUSTIN W. COOK, OF STOCKTON, CALIFORNIA, ASSIGNOR OF ONE-HALF TO
A. A. DAY, OF SANTA CRUZ COUNTY, CALIFORNIA.

THILL-TUG.

SPECIFICATION forming part of Letters Patent No. 562,066, dated June 16, 1896.

Application filed June 21, 1895. Serial No. 553,606. (No model.)

To all whom it may concern:

Be it known that I, AUSTIN W. COOK, a citizen of the United States, residing at Stockton, in the county of San Joaquin and State of California, have invented a new and useful Thill-Tug, of which the following is a specification.

The present invention relates to thill-tugs or shaft-carriers of the type which have a pivoted section or catch to facilitate the insertion and the removal of the thill or shaft therefrom, and aims to provide a tug capable of easy manipulation and which will maintain a strong and firm joint between the body and the pivoted section or catch without requiring extra or additional fastenings.

Other objects and advantages will become apparent as the nature of the invention is unfolded in the following description and the accompanying drawings, in which—

Figure 1 is a perspective view of a thill-tug embodying the essence of the invention. Fig. 2 is a view similar to Fig. 1, showing the pivoted section or catch open. Fig. 3 is a front elevation of the tug, parts being broken away. Fig. 4 is a side elevation thereof.

The tug or carrier in general appearance is of the ordinary form, and is provided at its upper end with a buckle 1 for attachment therewith of the back-strap pendent from the harness-saddle, and at its lower end with a loop 2, to which is connected the girth-strap when the device is in operative relation. The outer side of the tug 3 is intercepted for a short distance midway of its ends and is provided with a pivoted section or catch 4, which has positive connection with one of the intercepted ends and which is adapted to interlock at its opposite end with the other intercepted end. The upper end 5 is cleft or formed with a slot 6, in which is fitted the reduced end portion 7 of the pivoted section or catch 4, and which end 7 is held within the slot 6 by means of a pivot 8, passing through registering openings in the cleft end 5 and the reduced end 7, as will be readily understood. A substantially L-shaped spring 9 has one member 10 extending across the top end of the tug 3 and fitted in a groove formed therein and its side member 11 extending along one edge of the cleft end 5 and coming flush with the outer edge thereof, and this side member 11 bears laterally against the edge of the por-

tion 7 and holds the catch 4 closed, and also against the end of the said part 7, so as to hold the catch open, as will be readily understood from Figs. 1 and 2 of the drawings. One corner of the cleft end 5 is rounded off, as shown at 12, to facilitate the opening and closing of the catch 4, and the cleft portions engaging with the shoulders formed at the base of the reduced part 7 limit the closing of the catch 4 and form a snug joint between the parts.

The lower end 13 is formed in its outer face with a transverse groove 14, which is undercut on its upper wall, and which transverse groove forms a rib 15, adapted to enter a corresponding transverse groove 16 in the inner face of the catch 4 and in proximate relation to its free end. The transverse groove 16 has its lower wall correspondingly undercut, so as to match with the undercut wall of the transverse groove 14, and the rib 17, formed by the transverse groove 16, is adapted to enter the groove 14 and interlock therewith when the catch is closed. Thus it will be seen that a mutually-interlocking joint is formed between the free end of the catch 4 and the end 13, thereby providing a strong and substantial tug, which can be made of metal, and which will be capable of sustaining ordinary strain, and which can be made comparatively light, so as to present a neat and graceful appearance. The catch 4 is adapted to swing laterally in the plane of and parallel with the shaft in contradistinction to swinging outwardly, as is the case with tugs of ordinary construction. By this arrangement the catch when open is not in the way and liable to interfere with the free harnessing of the horse.

The invention is susceptible of a variety of applications. Hence in the embodiment of the same it is to be understood that changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed as new is—

1. A thill-tug having an opening in one side, and having an end adjacent to the opening cleft, a section for closing the said opening fitted to and having pivotal connection at

one terminal with the said cleft end, and having its other terminal forming an interlocking joint with the other end adjacent to the said opening, and a spring secured to the cleft end and constructed to hold the pivoted section in a positive manner either open or closed, substantially as described.

2. A thill-tug having an opening in a side, and having one end adjacent to the said opening cleft and grooved in an edge and top, a section for closing the opening having a terminal portion reduced, forming a shoulder and pivoted within the cleft end, and having its other terminal portion forming an interlocking joint with the opposite end adjacent to the aforesaid opening, and a spring secured in the top groove of the cleft end and having a portion operating in the edge groove thereof and adapted to bear against the edge and the end of the pivoted section to positively hold the latter either open or closed, substantially as described.

3. An improved article of manufacture, a thill-tug having a buckle at its upper end and a loop at its lower end, and formed with an

opening in one side, the upper end adjacent to the opening being cleft and having a groove in its top and one edge, a section having a terminal portion reduced, forming shoulders to engage with the said cleft end and come flush with the sides thereof, and having the reduced terminal portion pivoted within the cleft end, and having an interlocking joint formed between the free end of the pivoted section and the opposite end adjacent to the aforesaid opening, and a substantially L-shaped spring having one portion secured in the top groove of the cleft end, and having the other portion adapted to engage with an edge and end of the pivoted section to hold the latter positively in either an open or a closed position, substantially as set forth.

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

AUSTIN W. COOK.

Witnesses:

M. J. ASHMORE,
C. H. SIMONDS.