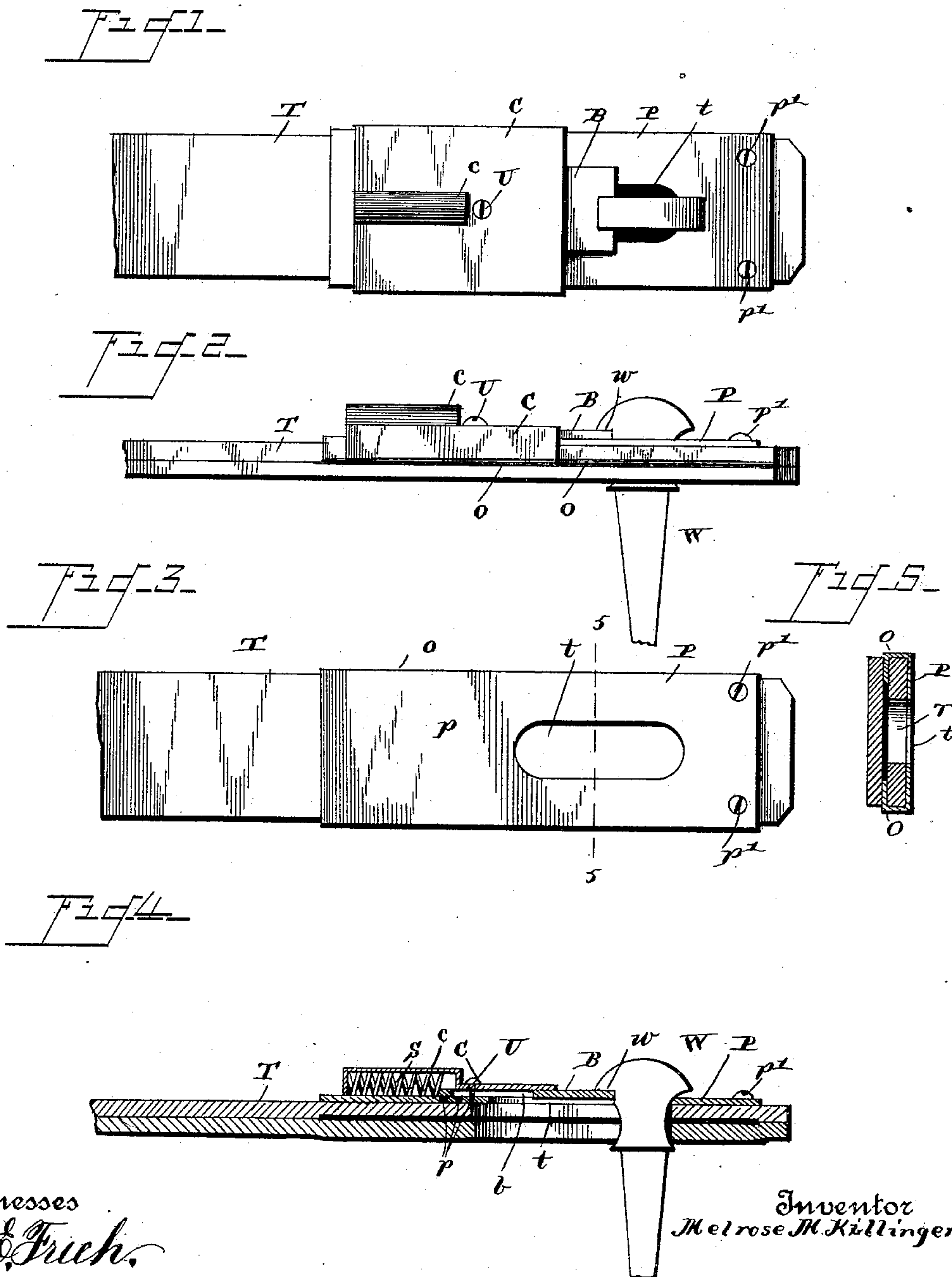


(No Model.)

M. M. KILLINGER.
HAME TUG.

No. 434,511.

Patented Aug. 19, 1890.



Witnesses
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By his Attorneys

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UNITED STATES PATENT OFFICE.

MELROSE M. KILLINGER, OF BATTLE CREEK, NEBRASKA, ASSIGNOR OF
ONE-HALF TO ROBERT D. SCOTT AND ALBERT G. MAYERS, OF SAME
PLACE.

HAME-TUG.

SPECIFICATION forming part of Letters Patent No. 434,511, dated August 19, 1890.

Application filed March 25, 1890. Serial No. 345,232. (No model.)

To all whom it may concern:

Be it known that I, MELROSE M. KILLINGER, a citizen of the United States, residing at Battle Creek, in the county of Madison and State of Nebraska, have invented a new and useful Hame-Tug, of which the following is a specification.

This invention relates to harness, and more especially to hame-tugs for fastening the ends of the traces to the ends of the whiffletrees thereof. The object of the invention is to provide an improved clasp capable of being fastened to any trace now in use, which clasp is adjustable according to the size of the eye in the rear end of the trace, and which will securely yet removably fasten the trace to the end of the whiffletree.

To this end the invention consists of a plate secured to the outer face of the trace and provided with a long slot adapted to receive the end of the whiffletree, and a lock adjustably secured upon said plate to lock said whiffletree in the slot, together with certain details of construction of these parts which effect their successful operation and the ease of their attachment, all as will be more particularly described hereinafter, and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the device complete. Fig. 2 is a plan view thereof. Fig. 3 is a side elevation of the plate with the lock removed. Fig. 4 is a central longitudinal section of the parts assembled. Fig. 5 is a transverse section on the line 5 5 of Fig. 3.

Heretofore it has been common to attach a plate P to the outer face of the trace T, the said plate having a slot *t* registering with and longer than the hole through the trace. A lock-case C was also secured to said plate and a bolt B moved within said case across the slot in the plate, the bolt being thrown into operative position by a spring S, the whole arranged substantially as shown in the said drawings forming a part of this specification.

Coming now to the present invention, the plate P is provided with a series of holes *p* through its body in alignment with and forward of the slot *t* therein, and this plate is fastened to the trace T by screws *p'* about as

shown. The edges of the plate P are turned over, as shown at O, and pass between the two straps or layers of strap of which the trace is formed, whereby the plate is securely and firmly held in proper position.

The lock-case C is of rectangular form, and its edges are also turned over, as shown at O, and passed between the layers of strap of which the trace is formed for the same purpose. The body of the case is provided with a raised tubular receptacle *c* for about half its length from its front end rearward, for a purpose to appear hereinafter. A screw U passes through the body of the case just in rear of this receptacle, through one of the holes *p* in the plate P and into the trace, and by this screw the case, plate, and trace are held in proper relative position; but the case can be adjusted upon the plate and trace to any desired position forward or backward.

The bolt B is a flat piece of metal and slides within the case C, having in its body a slot *b*, that passes over the screw U, whereby it is retained in place and prevented from dislocation. A spring S is seated in the receptacle *c* and bears against the inner end of the bolt, whereby the latter is normally thrown across the slot *t*, for a purpose which will be understood.

The whiffletree-tip W is of the ordinary form and construction, except that it has its front face cut away in a square shoulder *w*, the better to engage over the bolt B when locked in the slot *t*. The operation of this device will be obvious to those skilled in the art without a further detailed explanation.

My improved trace-fastener can be applied to any trace now in use by merely separating the layers of strap of which it is composed and inserting the turned-over edges of the plate and case within the same, then inserting the screws *p'*, as shown, then applying the bolt B as described, and finally adjusting the case and bolt to the proper position and inserting the screw U, after which the use of the device will be the same as that of other devices of a similar nature.

The parts of this device are preferably made of brass or galvanized iron suitably nicked,

japanned, or painted to prevent rusting. The whole avoids the wearing and tearing out of the eye in the end of the trace, so common at this point, and yet does not require any special construction of trace to facilitate its application thereto.

I claim as the salient points of this invention—

1. The combination, with the trace having an eye, and the plate secured thereto and having a slot registering with said eye, of the lock for the end of the whiffletree, said lock being located upon said plate and adjustable forward and back thereon, and a screw securing the lock and plate together, the edges of the plate and of the lock-case being turned over and passed between the layers of the trace at its edges, substantially as described.

2. The combination, with the plate P, having a series of holes *p* and a slot *t* through its body, of the lock-case C, a spring-operated bolt B therein, and a screw U, passing through said case and into one of said holes in the plate, substantially as described.

3. The combination, with the trace T, having an eye, the plate P, having a slot *t* registering with said eye, and the screws *p'*, securing said plate to said trace at their rear ends, of the lock-case C, having a raised receptacle *c* at its front end, the edges of said plate and case being turned over and passed between the layers of said trace at its edges, the spring S within said receptacle, the bolt B, pressed normally over said slot *t* thereby, said plate having a series of holes *p* and said bolt having a slot *b*, and a screw U, passing through the case C in rear of said receptacle, through said slot in the bolt, through one of said holes in the plate, and into the trace, the whole constructed and operating substantially as and for the purpose set forth.

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

MELROSE M. KILLINGER.

Witnesses:

W. A. BARNES,
W. F. REAVIS.