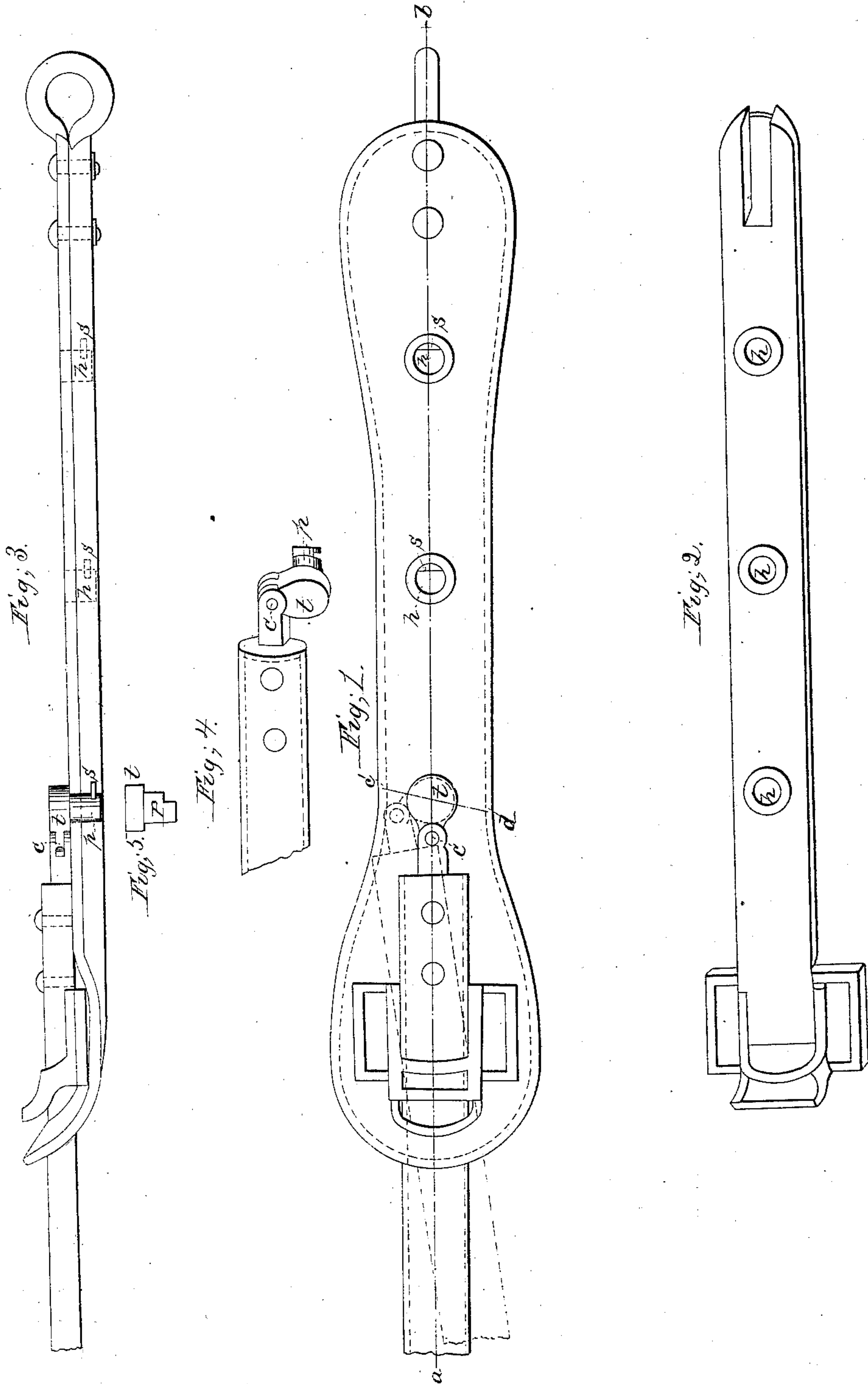


E. D. Lockwood,

Home-Tug Clasp,

Patented May 18, 1858.

No. 20,278,



UNITED STATES PATENT OFFICE.

E. D. LOCKWOOD, OF CHURCHVILLE, NEW YORK.

HAME-TUG FASTENER.

Specification of Letters Patent No. 20,278, dated May 18, 1858.

To all whom it may concern:

Be it known that I, E. D. LOCKWOOD, of Churchville, in the county of Monroe and State of New York, have invented certain
5 new and useful Improvements in Hame-Tug Fasteners, of which the following is a full and accurate description, reference being had to the accompanying drawings, making
10 part of this specification, and to the letters of reference marked thereon, same letters referring to like parts in all the figures.

Of said drawings Figure 1 is a plan of my improved hame-tug fastener, with all its parts together and complete. Fig. 2 is a
15 perspective view of the brass casting used in its construction. Fig. 3 is a longitudinal section on line *a b* Fig. 1. Fig. 4 is a perspective view of the hook or tongue attached to the trace. Fig. 5 is a section of the head
20 of said hook or tongue taken on line *c' d* Fig. 1.

The nature of this invention consists in a certain hook or tongue (Fig. 4) attached to the trace which easily fits into a band or
25 strap attached to the hame tug in such a manner that when in its normal position it is impossible to abstract it, and whereby the length of said trace may be varied simply and expeditiously and without leaving any
30 overlapping strap as in the case where a buckle is used.

The construction of the several parts and their mode of operation will be easily understood from an inspection of the drawing
35 and from the following description.

The strap attached to the hame tug consists of a plate of brass (seen in Fig. 2) covered with leather. This casting has a light frame or buckle through which the
40 trace is passed and also a loop at the other end which attaches it to the hame tug. At suitable distances are bored the holes (*h h h*) and near the base or bottom of these holes are inserted the steel slips (*s s s*) seen in
45 section in Fig. 3. The use of these steel slips will be presently described. Attached to the trace is the hook or tongue (*t*) which consists of the block or head (*t*) turning on the joint (*c*) and having a pin or stud (*P*)
50 projecting from its side, which pin or stud fits accurately into the holes (*h h h*) in the casting Fig. 2. In order to allow this stud to pass the steel slip (*s*) and reach the bottom of the hole, one side is partly filed away
55 as shown in section in Fig. 5 and a groove

or notch is cut through a portion of the remainder of the circumference as shown in Fig. 3. Thus it will be seen that if the stud be so placed that the flattened portion thereof will allow it to pass the steel slip
60 (*s*) to the bottom of the hole and if after insertion it be turned partly around the lower part of the unremoved portion of the periphery will pass under the steel slip (*s*), which will thus pass into the groove as seen in
65 Fig. 3 and effectually prevent the withdrawal of the stud. The several positions necessary to insert and to secure the stud are shown in Fig. 1—the former being drawn in red and the latter in black ink. 70

It will of course be obvious that the block or tongue (*t*) may be turned to either side according to the position of the groove. Advantage is taken of this to secure the fastener against all liability of detachment
75 by falling by its own gravity when in use into the position shown in red lines. For by cutting the groove only on one side of the flattened portion the tongue can be turned only
80 in that direction, and by adapting this to the right and left hand sides of the vehicle the utmost security is attained, while no jerking motion can elevate the joint into the position shown in red lines as it is formed
85 so that the center (*c*) will naturally fall a little below the center of the pin or stud.

It will also be observed that the joint (*c*) of the tongue (*t*) is upon the periphery of said tongue while the stud *P* projects from the center of the tongue. The tug is thus
90 connected to the tongue (*t*) by a crank-like connection, of which the stud *P* is the axis. When therefore the tug is tightened by the forward movement of the animal, the tongue (*t*) is partially turned and with it the stud
95 *P*, the latter being thereby fastened. This contrivance is therefore self-fastening, and all strain or draft upon the tongue tends to keep the parts locked. And if the bottom of the groove in the stud *P* were made
100 slightly inclined, as I intend, then the tightness of the locking would be increased in proportion as the strain upon the tug was augmented. But in those contrivances that
105 are fastened by thumb or hand buttons, without jointed or crank connection with the tug, the tendency of all strain or draft is to loosen the fastening and cause the parts to separate. And this will always be the case,
110 no matter what the shape of the groove in

the fastening pins. In these devices, the fastening pin or stud, if it becomes accidentally loose as it is liable to do by the continual shaking to which it is subjected, or
5 if the person harnessing the horse neglects to turn the fastening button firmly home, the fastening pin is liable to drop out of place or become unfastened, and thus expose life and property to danger.
10 My improvement gives security to the fastening at all times, but especially in moments of danger, for, as before stated, the greater the pull upon the tug, the more impossible is it for the fastening to slip out.
15 I do not claim, broadly, the fastening of

hame-tugs by means of revolving studs or buttons, but

What I claim as my invention, and desire to secure by Letters Patent, is:

Connecting the hame tug to the tongue (*t*) 20 by means of a joint (*c*) so that any strain upon the tug will tend to turn and lock the stud or pin *P*, thus rendering the contrivance self-fastening, substantially as and for the purposes set forth.

E. D. LOCKWOOD.

Witnesses:

JOHN PHIN,
J. I. HOWARD.