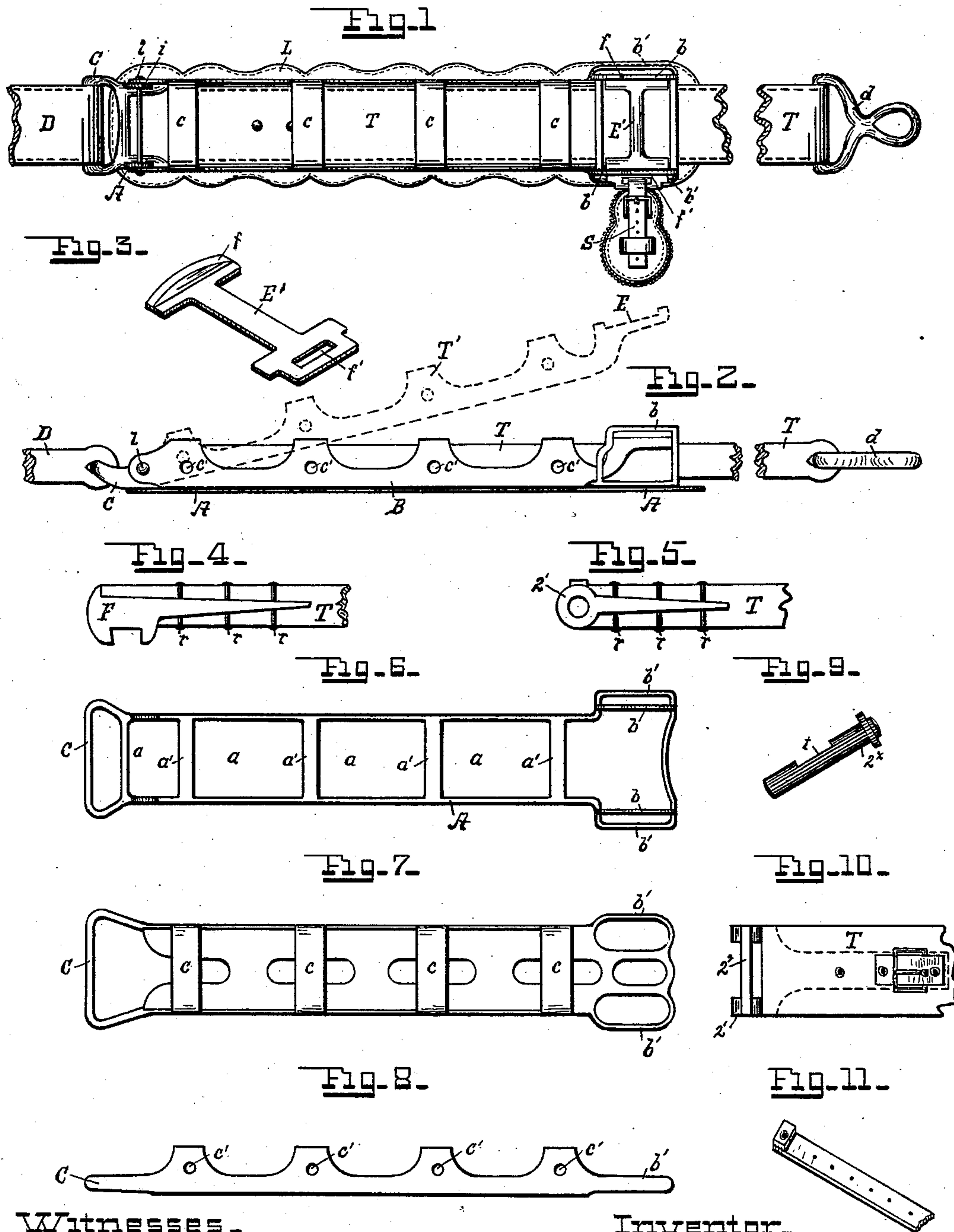


(No Model.)

F. F. HODGES.
HARNESS.

No. 540,737.

Patented June 11, 1895.



Witnesses.

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SPECIFICATION forming part of Letters Patent No. 540,737, dated June 11, 1895.

Application filed May 8, 1894. Serial No. 510,528. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK F. HODGES, a citizen of the United States, residing at Battle Creek, in the county of Calhoun and State of Michigan, have invented certain new and useful Improvements in Harness-Gear; 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to certain improvements in hame tugs and has for its object to provide a device of this character of a simple and inexpensive construction which shall possess certain advantages for use over other similar devices heretofore employed, all as will be hereinafter fully set forth.

The novel features of my invention will be carefully defined in the claims.

In order that my improvement may be the better understood I have illustrated the invention in the accompanying drawings, wherein—

Figure 1 is a plan view of the device as applied for use in harness; and Fig. 2 is a side view of the same, showing the locking-bar uplifted in dotted lines. Fig. 3 is a perspective detail view of the locking-latch detached and drawn to an enlarged scale, and Figs. 4 and 5 are detail views of equivalent forms of the locking devices on the trace end. Figs. 6, 7, and 8 are plan and side views of various forms of the frame, and Figs. 9, 10, and 11 are views illustrating modified forms of other parts of the device.

In the views A represents the tug frame consisting of outer longitudinal bars provided at the forward end with a loop C to receive the drawstrap connected with the hame, and at its opposite end with compound loops *b*, *b*, and *b'*, *b'*, for convenient connection with the harness and adjusting device arranged at this point and to be hereinafter more particularly referred to. The bar A is provided along its length with a series of ties or cross bars *a'* leaving a corresponding series of apertures *a*. The loops *b*, *b* and *b'* *b'* at the rear end of the bar or frame A are in pairs on each side thereof; the loops *b* project-

ing outwardly from the edge of the bar while the loops *b'* rise slightly within the loops *b* and at right angles thereto from the bar or frame A. A locking frame or bar B is hinged at a fixed point *l* in supporting lugs *i* formed on bar A at or near the forward end thereof and coinciding with apertures in the side bars of frame B which closely embraces bar A. The extremity of the bar or frame B opposite the hinge thus formed is provided with a transverse recess E across its outer side which recess registers with the uppermost portion of the loops *b*, *b* of bar A when said bars or frames A and B are closed or locked together as seen in Fig. 1. When in this position the latch E' is passed through loops *b*, *b* and closely embracing the tug strap T, securely locks or binds the whole together being reinforced by a series of transverse ties or cross pieces *c* extending between the side pieces of frame B similarly to the ties *a* of bar A.

To the forward end of the adjustable tug strap or trace T is secured by means of rivets *r*, the notched lug F, which engages with one or the other of the series of ties *a* of bar A whereby the length of said trace T may be readily and nicely adjusted.

As will be seen from the drawings, the locking latch E' (Figs. 1 and 3) drops down into its recess E in bar B until the lip or projection *f* at one side of said latch comes to bear against one of the loops *b* of bar A, when the opposite end of the latch E' will project beyond the opposite loop *b* of frame or bar A. Said end of latch E' is provided as seen with an aperture or slot *f'* through which is passed the fastening strap *s* whereby the latch is firmly held in place.

When preferred the device will be faced on its inner side with leather or similar material, and in some cases it may be advisable to employ the equivalent devices illustrated in Figs. 5 to 11.

In Figs. 5 and 10 the trace T is shown provided with an opening 2 at its end adapted to receive a locking pin 2^x (Fig. 9) which may be passed through apertures *c'*, *c'* provided in the side bars of frame A and frame B.

Having thus described my invention, I claim—

1. The frame A, provided at one end with means for attachment to the hame, and at

the other with a loop on each edge, combined with the bar B, hinged at one end to the frame, and a latch E' which is passed through the loops over the free end of the bar, substantially as shown.

2. The combination with the frame A provided at one end with means for attachment to the hame, of the frame B hinged to said frame A and adapted to be folded down there-
10 against, loops formed at opposite sides of frame A at the end thereof opposite to the hinge of frame B, a latch E' adapted to be passed through said loops over the free end of frame B and provided at one end with a
15 projecting lip and at its opposite end with a slot, and the trace adjustably secured between said frames, substantially as set forth.

3. The combination with the frame A provided at one end with means for attachment

to the hame, of the frame B hinged to said 20 frame A and adapted to be folded down there- against, the side bars of said frame being provided with series of corresponding aper-
tures, means for locking said frames together
when in their folded position, the trace ar- 25 ranged between said frames and provided at its end with an apertured loop or lug, and a pin adapted to be passed through the aper-
tures of the frames A and B and also through the apertured loop of the trace, substantially 30 as set forth.

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

FRED. F. HODGES.

Witnesses:

M. B. SAMPSON,
NATHAN H. BRIGGS.