(No Model.)

H. J. BICKLE.

HAME TUG AND BUCKLE.

No. 321,944. Patented July 14, 1885.

Fig. 1.

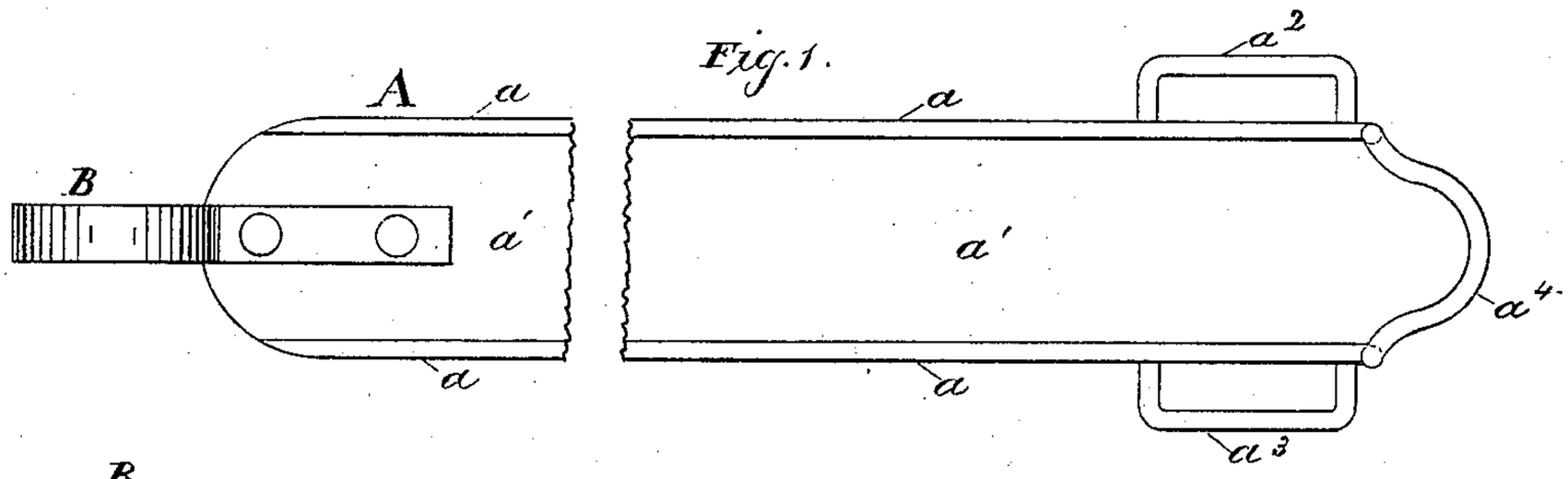


Fig. 2.

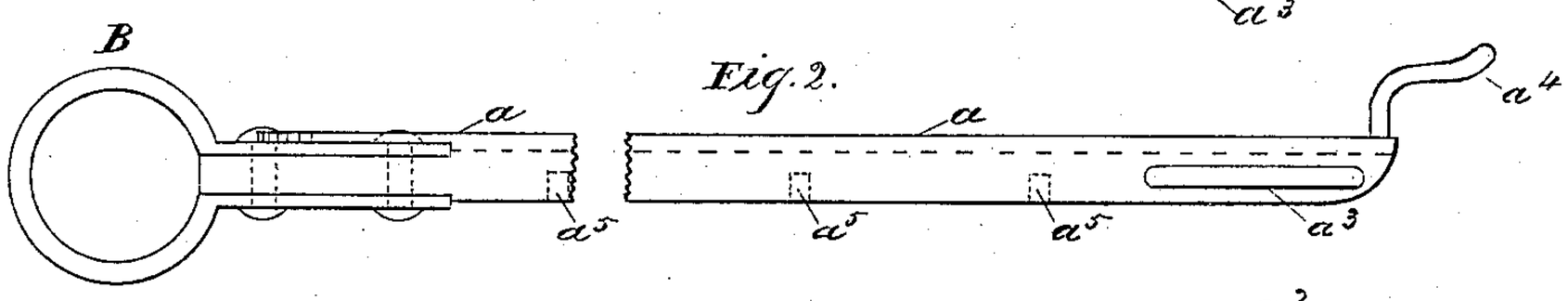


Fig. 3.

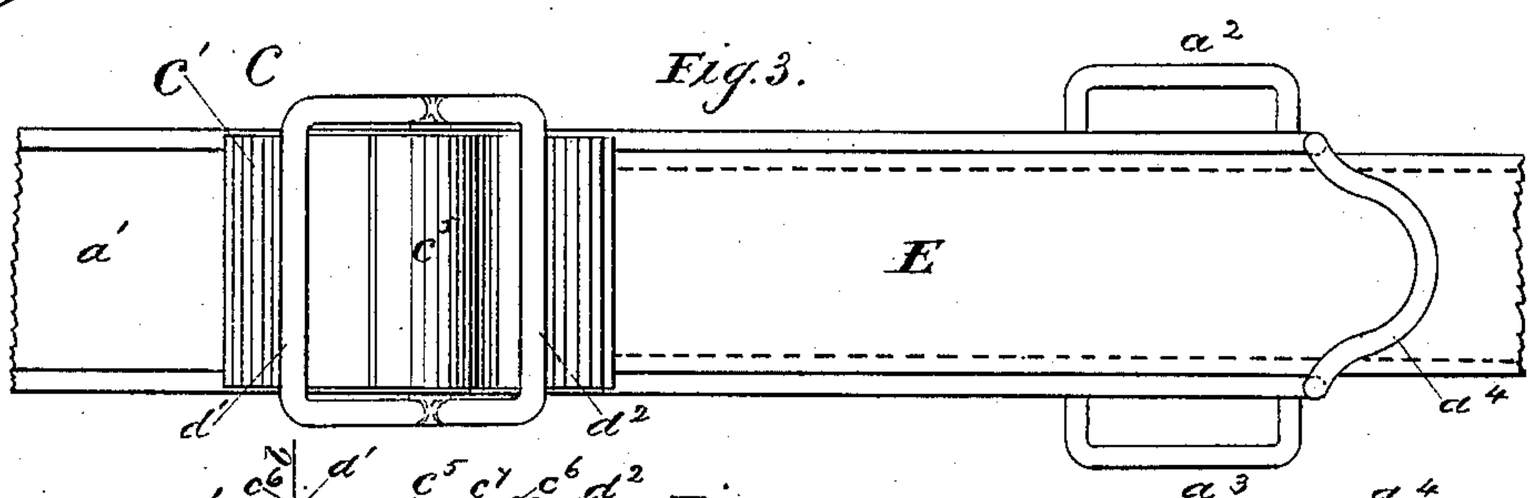


Fig. 4.

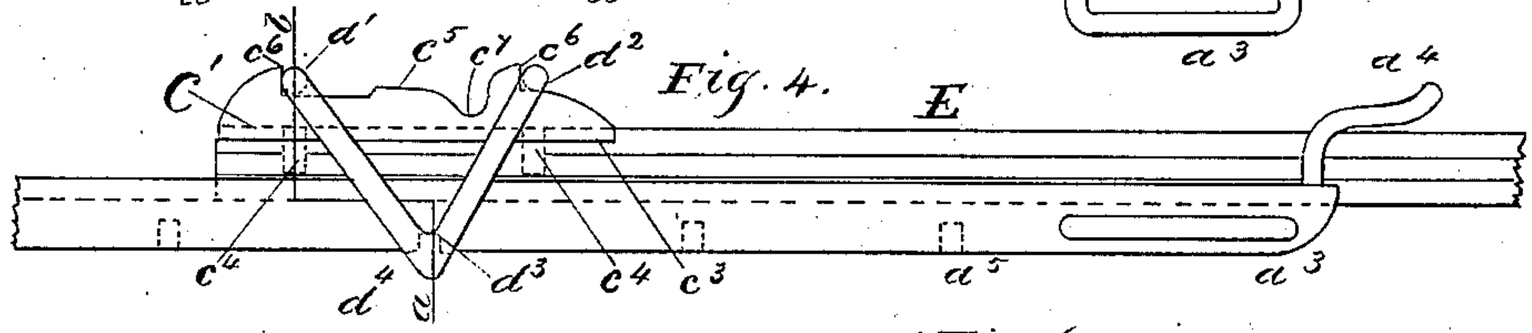


Fig. 5.

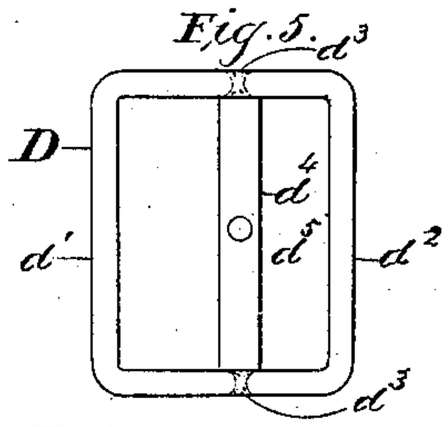


Fig. 6.

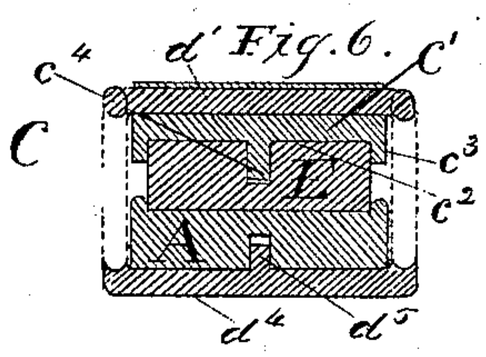
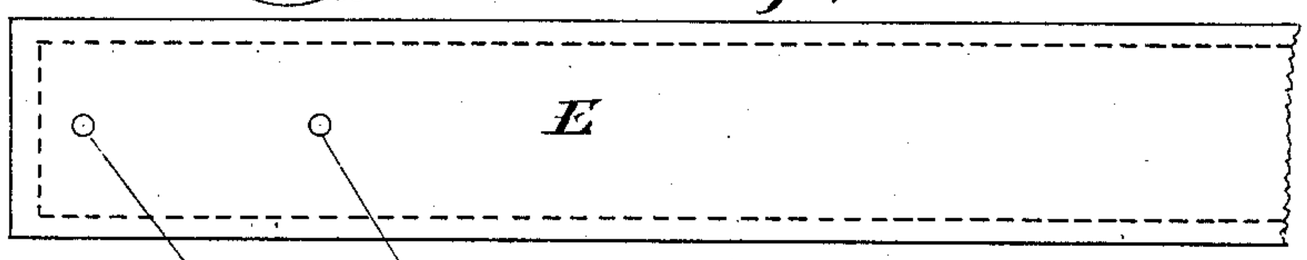


Fig. 7.



Witnesses
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Hu. Woodbridge

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Inventor
By his atty
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UNITED STATES PATENT OFFICE.

HENRY JAMES BICKLE, OF DUNGANNON, ONTARIO, CANADA.

HAME TUG AND BUCKLE.

SPECIFICATION forming part of Letters Patent No. 321,944, dated July 14, 1885.

Application filed April 29, 1885. (No model.)

To all whom it may concern:

Be it known that I, HENRY JAMES BICKLE, of the village of Dungannon, in the county of Huron, in the Province of Ontario, Canada, have invented a new and useful Improved Hame Tug and Buckle; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention has for its object the simplifying of the tug, and that it will have increased durability to that of the tug now in general use. It will not stick and be difficult to loosen in order to make a fresh adjustment of the trace, and it will not be subject to crack and break, which the present tug frequently does.

The invention consists in the substitution of a metallic tug for that of the ordinary tug, which is made of leather and connected to the trace by means of a common buckle, which mode of construction necessitates the piercing of a series of holes in the tug for the lengthening or shortening of the trace by means of the common buckle. The leather gets hard and retains the form it is doubled into from the buckle, and in loosening it from the said buckle it has frequently to be hammered, when it cracks and breaks at the buckle-holes, and causes much trouble and delay in making the adjustment.

My improved tug and buckle does not stick, and gives no trouble, nor causes any delay in the adjustment of the trace.

In the accompanying drawings, Figure 1 is a plan view of my metallic tug, having a portion thereof removed from the middle of the same. Fig. 2 is an edge view of the tug, having also a portion thereof removed. Fig. 3 is a plan view of the tug with the trace and buckle connected therewith. A portion of the tug and also of the trace are removed in this figure. Fig. 4 is an edge view of the tug with the buckle and trace. A portion of the tug and also of the trace are removed in this figure. Fig. 5 is a plan view of the buckle loop or clamp without the plate thereof. Fig. 6 is a transverse section through the buckle, loop, and plate, and showing the ends of the bar d' in dotted lines, and showing, also, the tug and trace. Fig. 7 is a plan of the forward end of the trace prepared to receive the plate of the buckle, which plate has two prongs which occupy the apertures shown in the trace hereinafter more fully described.

Similar letters of reference indicate the same parts in all the views as in this specification.

A represents the metallic tug, having a flange, a, running along each edge of its upper face, a'. A clip, B, is secured to the forward end thereof, and at the rear end there is a back-band holder, a^2, on the upper edge of the tug, and a belly-band holder, a^3, on the lower edge thereof, and a curved bar, a^4, for keeping the trace flat upon the tug and turned up to receive the breeching-strap. C is the buckle proper; C′, the plate thereof; c^2, its lower face, having a flange, c^3, on each outer edge thereof, and two prongs, c^4, protruding from the face, which occupy two corresponding apertures in the trace when in position; c^5, the upper face of the buckle-plate, having two hooks, c^6, and a depression, c^7, therein; D, a compound angular loop, which forms the lock of the buckle, having two transverse bars, d' d^2, which are bent downwardly over the edges of the tug and inwardly toward each other, and joined at a point, d^3, and having a transverse bar, d^4, connecting the points d^3, which bar has a prong, d^5, projecting therefrom, which occupies alternately, as required, the apertures a^5 in the under face of the tug.

E represents the trace, having two apertures, e e, in its upper face, which receive the prongs c^4 of the buckle-plate, and retain the said plate and trace unchangeable in this position, as shown in Fig. 4.

The holders a^2 and a^3 are reversible—that is, the holder a^2 one side of the horse becomes the holder a^3 on the opposite side; or, in other words, their positions are reversed, the flanged side of the tug being always next to the horse.

Referring to Fig. 2, it will be seen that there are a number of apertures, a^5, in the under face of the tug, in which apertures the prong d^5 is received in making an adjustment in the length of the trace.

Referring, also, to Figs. 5 and 6, it will be seen that the compound angular loop or clamp D is fully and clearly shown in connection with the tug and trace, and that the prong d^5 is shown in one of the said apertures in Fig. 4.

Referring to Fig. 6, it will be seen that though the angular ends of the transverse bar d' are

not elements in this section, the position of said ends is shown in dotted lines, and is to a certain extent explanatory of the other elements of the figure.

In making a fresh adjustment of the trace, take the tug A in the left hand, and with the right hand press the trace E inwardly in the direction of the tug. This will loosen the loop. Then lift up the bar d' of the loop and slide it back into the depression c^7 in the face of the plate, when the prong d^5 will come out of the aperture a^5 in the tug, and will be clear of the same. The trace is now free to be moved to the length required, and when this is obtained find the nearest aperture a' in the tug, and press up the cross-bar d' until the prong d^5 gets into this aperture, and now, on drawing outwardly the trace E from the tug A, the adjustment is complete. With a little practice this adjustment will be made in much less time than with a leather tug and the common buckle, which have frequently to be beaten with a hammer until the leather is pliable enough to be drawn through the buckle.

My tug and buckle being weather-proof, it will never stick, and therefore will cause no delay in the adjustment, and is consequently superior to the ordinary tug and buckle.

Having thus described my invention, I claim—

1. A metallic hame-tug, A, constructed, as described, with a flange, a, on each upper edge of its face a', and provided with a clip, B, on its forward end, and at the rear end is provided with a back-band holder, a^2, and a belly-band holder, a^3, and a curved bar, a^4, also apertures a^5 in the under face thereof, substantially as shown and described, and for the purposes set forth.

2. In a metallic hame-tug constructed as shown and described, the combination of a buckle, C, with plate c', having a flange, c^3, on each edge of its under face, c'', which face has two prongs, c^4, protruding therefrom to occupy two corresponding apertures, e e, in the trace E, and secure the buckle-plate and trace in position, the outer face of the buckle-plate, c^5, provided with two hooks, c^6, and a depression, c^7, therein, the compound angular loop D, with cross-bars d' d^2, and the under cross-bar, d^4, with prong d^5 projecting upwardly therefrom, the whole constructed, and arranged, and operating substantially as and for the purposes set forth.

Dungannon, April 11, 1885.

HENRY JAMES BICKLE.

In presence of—

D. E. CAMERON,

B. J. CRAWFORD,

Lucknow, Ontario.