G. H. DRURY.

Trace-Buckle.

No. 212,203. Patented Feb. 11, 1879.

Fig. 1

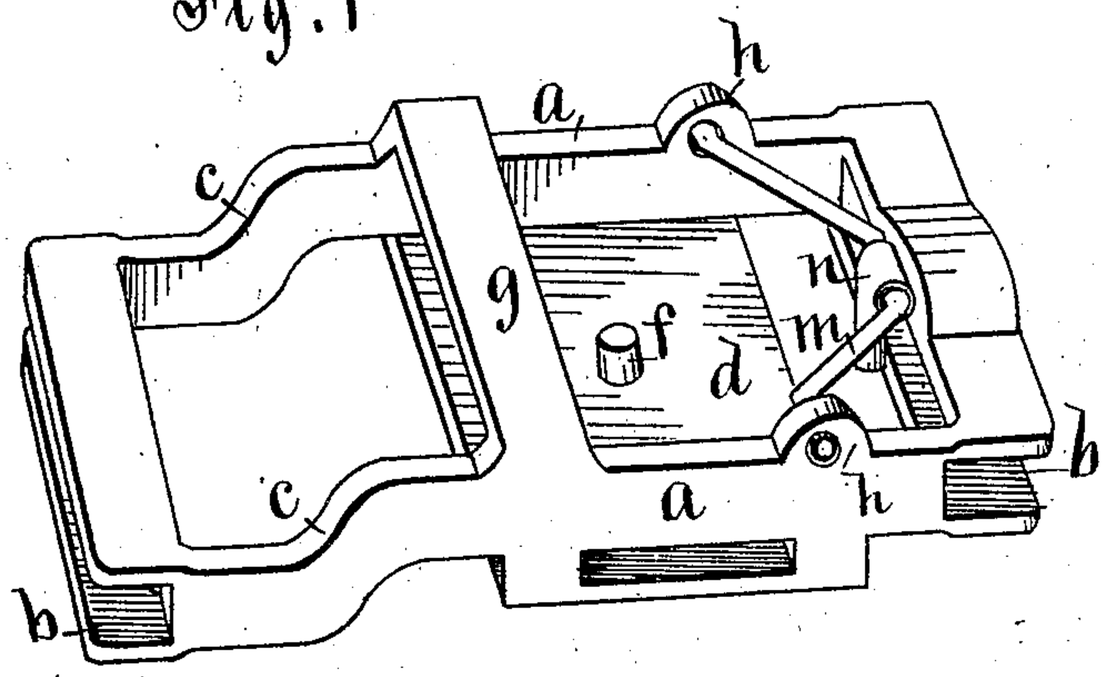
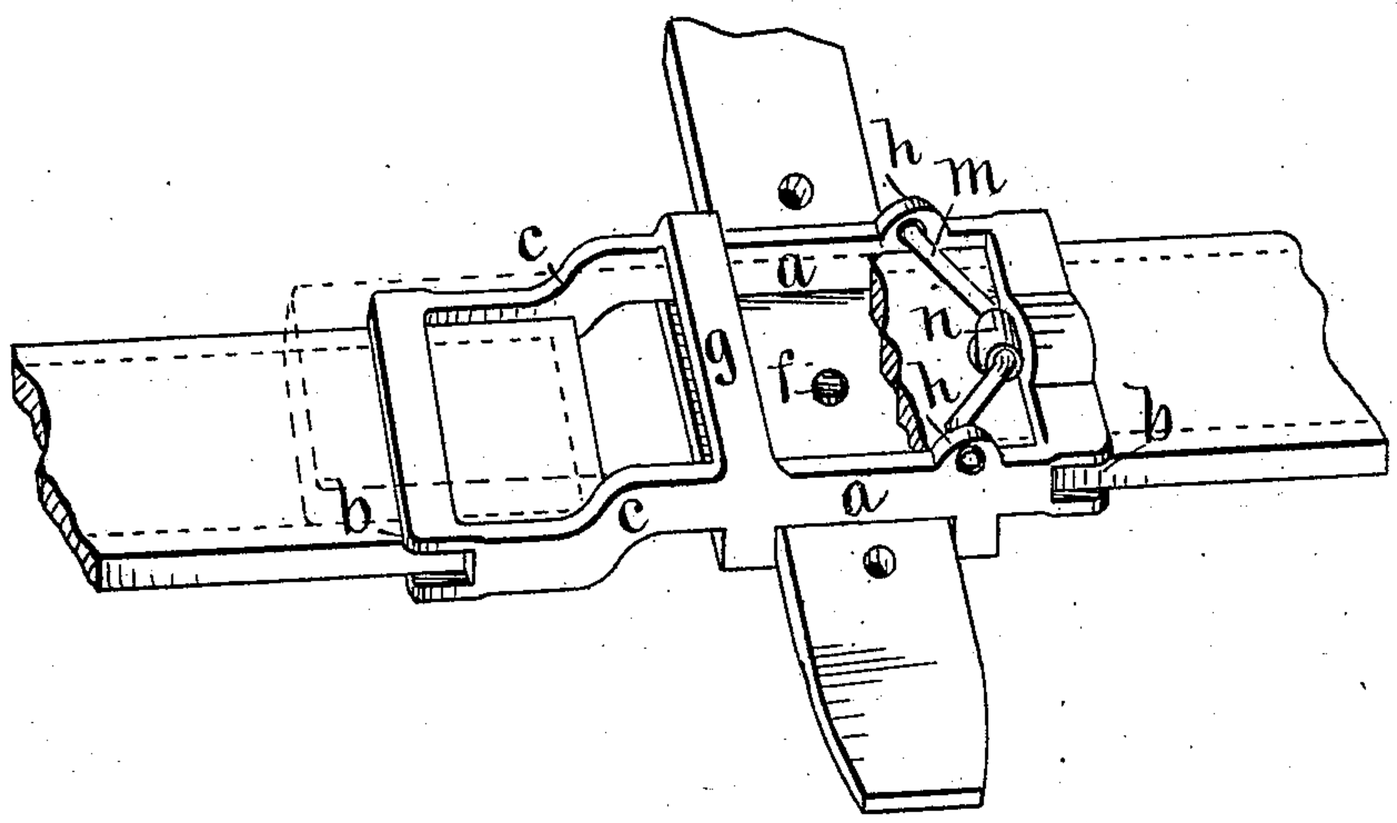


Fig. 2



Witnesses:

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UNITED STATES PATENT OFFICE.

GEORGE H. DRURY, OF LINCOLN, ASSIGNOR OF ONE-HALF HIS RIGHT TO S. H. DAVISON, OF ANKENY, IOWA.

IMPROVEMENT IN TRACE-BUCKLES.

Specification forming part of Letters Patent No. **212,203**, dated February 11, 1879; application filed May 14, 1878.

To all whom it may concern:

Be it known that I, GEORGE H. DRURY, of Lincoln, in the county of Polk and State of Iowa, have invented an Improved Trace-Buckle, of which the following is a specification:

The object of my invention is to provide a trace-buckle that is adapted to receive and adjustably connect a hame-tug, a back-strap, and a trace without sewing, and without bending or doubling either one of the flexible parts of a harness that are designed to be attached directly to the trace-buckle.

It consists in a rigid frame having an opening at each end, and a bend in its parallel side bars, that brings the openings into two different planes; in a combined loop and plate, having a rigid tongue projecting vertically from a central position to hold the adjustable back-strap; and in a hinged tongue, being flexibly connected to the frame by means of a swinging carrier, all as hereinafter fully set forth.

Figure 1 of my drawings is a perspective view of my buckle. Fig. 2 is a perspective view of the same, showing a section of a hame-tug, of a trace, and a back-strap attached.

Together these figures illustrate the construction and operation of my complete invention.

a a are the two parallel side bars of my buckle. *b b* are the ends connecting the bars *a*. Each end piece, *b*, is slotted, so as to present an open mouth, through which to pass the end of a hame-tug and the end of a trace. A bend, *c*, in each of the side bars, *a*, causes the slots in the ends *b* to be in different planes, as required, to allow the rear end of a hame-tug and the front end of a trace to pass each other, and overlap each other within the buckle. *d* is a plate, rigidly connected at its four corners with the under edges of the side bars, *a*, in such a manner that a strap can be passed through the buckle transversely, and between the plate *d* and its supporting-bars *a*, in the same manner as a strap is passed through a harness-loop. *f* is a tongue rigidly fixed to the center of the plate *d*. It projects from the plate at right angles, and is designed to enter the holes in the center of the adjustable back-strap passed transversely through the buckle. *g* is a bar rigidly fixed to the top edge of the side bars, *a*, immediately over the front portion of the plate *d*. In combination with the plate *d*, it forms a loop, through which the front end of the trace is passed after the back-strap has been secured upon the tongue *f*. It holds the trace down upon the back-strap, and thus prevents the back-strap from rising and escaping from the tongue *f*, upon which it is hooked. *h h* are perforated lugs or ears upon the top edges of the side bars, *a*, that form bearings for a swinging tongue-carrier, *m*, to which a tongue, *n*, is hinged. The carrier *m* is made of flexible and malleable metal, so that it can be readily sprung into its bearings *h* and secured. It is bowed or bent into V form, so that when it is folded or turned forward and down it will rest flat upon the trace, and its tongue *n* will pass through a perforation in the center of the trace, and rest in a horizontal position against the inside edges of the open end, *b*. The side bars *a*, slotted ends *b*, plate *d*, having tongue *f*, loop *g*, and bearings *h*, may all be formed integral with each other in one complete casting, and the carrier *m*, having the hinged tongue *n*, attached in any suitable way.

In the practical operation of my buckle, the back-strap is first fixed upon the rigid tongue *f*. The hame-tug is next passed through the opening in the front end, and secured by means of set-screws carried in the end *b*, or in any suitable way. The hame-tug may have a series of perforations in its center, by means of which it can be fixed upon the rigid tongue *f*, and adjusted at pleasure to lengthen and shorten the tug, whenever desired. After the back-strap and hame-tug are in place, the front end of the trace is passed forward through the opening in the rear end, *b*, and under the loop *g*, to rest straight and flat upon the top of the rear end of the hame-tug as far it overlaps the hame-tug. By turning the swinging tongue-carrier *m*, and inserting the tongue *n* in one of the perforations of the trace, the trace is readily fastened in the buckle in such a manner that it can be adjusted or removed whenever desired.

I claim as my invention—

1. In a trace-buckle, the swinging carrier *m*, carrying the hinged tongue *n*, substantially as and for the purpose set forth.

2. The combination, in a trace-buckle, of the frame having slotted end openings, *b b*, and the swinging carrier *m*, having the hinged tongue *n*, all substantially as and for the purposes set forth.

3. The plate *d*, having the rigid tongue *f*, in combination with the frame having slotted end openings, and provided with the loop *g* upon its top, all substantially as shown and described.

4. The buckle-frame provided with side bars, bent at *c*, having side openings or slots for the back-straps, and end openings for the hame-tug and trace, in combination with the plate *d* and swinging carrier *m*, provided with the hinged tongue *n*, all substantially as shown and described.

GEORGE H. DRURY.

Witnesses:
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