

E. G. LATTA.
TRACE-BUCKLE.

No. 183,689.

Patented Oct. 24, 1876.

Fig. 1.

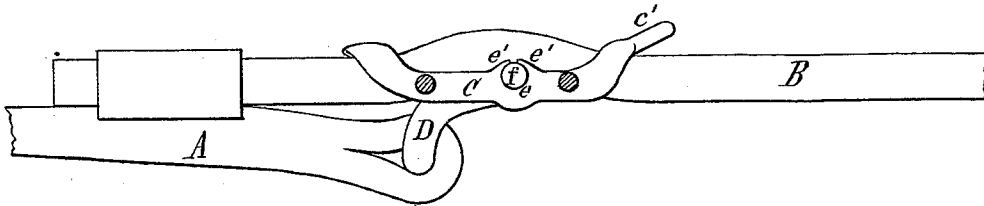


Fig. 2.

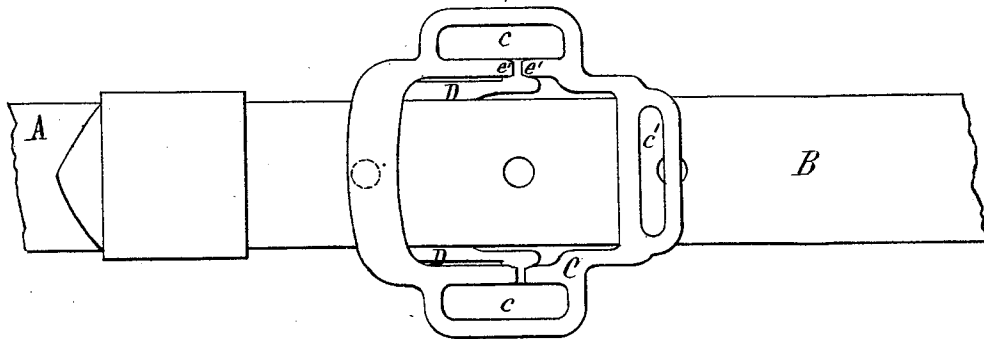


Fig. 3.

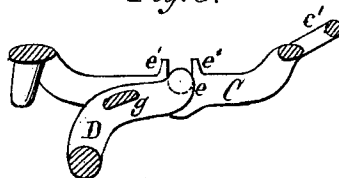
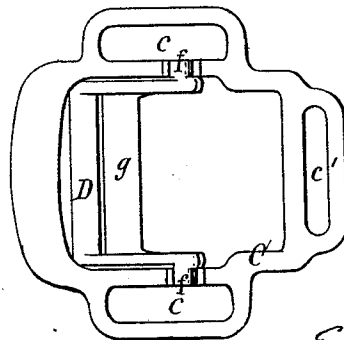


Fig. 4.



Charles Buchheit.
George H. Lykes. } Witnesses

Emmett G. Latta. Inventor
by Edward Wilhelm. Attorney

UNITED STATES PATENT OFFICE.

EMMIT G. LATTA, OF FRIENDSHIP, ASSIGNOR OF ONE-FOURTH OF HIS
RIGHT TO BYRON C. SMITH, OF AUBURN, NEW YORK.

IMPROVEMENT IN TRACE-BUCKLES.

Specification forming part of Letters Patent No. 183,689, dated October 24, 1876; application filed
August 24, 1876.

To all whom it may concern:

Be it known that I, EMMIT G. LATTA, of Friendship, in the county of Allegany and State of New York, have invented certain new and useful Improvements in Trace-Buckles, which improvements are fully set forth in the following specification, reference being had to the accompanying drawing.

This invention relates more particularly to that class of buckles which are employed in heavy draft-harness, and its object is to provide a simple and efficient buckle which is cheaply manufactured, and the parts whereof are attached together without screws or rivets, while it permits the ready adjustment of the trace, and relieves the tongue from strain and the trace from undue compression.

My invention consists of the particular construction of the parts, as hereinafter set forth, and its nature will be fully understood from the following description.

In the accompanying drawing, Figure 1 is an elevation, and Fig. 2 a plan view, of my improved buckle when connecting the trace to the hame-tug. Fig. 3 is a sectional elevation of my improved buckle before the parts thereof are secured together. Fig. 4 is a plan view of the buckle in that condition.

Like letters of reference refer to like parts in each of the figures.

A represents the hame-tug, and B the trace. C represents the buckle-frame, provided with the usual side loops *c c* and rear loop *c'*; and D, the tug-bail hung to the frame C. The side bars of the buckle-frame C are each provided with a recess, *e*, and two small projecting lips or ears, *e'*, arranged on opposite sides of each of the recesses *e*. The tug-bail D is provided with two outwardly-projecting lugs or pivots, *f f*, fitting in the recesses *e* of the frame C, so that by engaging the pivots *f f* in the recesses *e e*, and bending the ears *e'* over the same, the pivots are securely held in place. The buckle-frame C is cast of malleable iron or other suitable metal, which permits of the ears *e'* being turned over the pivots *f*. The bail D is constructed at its forward end with a sharp curve, turning away from the buckle-frame, or so that the bail D presents its convex side to the buckle-frame. The bail D is provided, at the

highest part of its curve, with a cross-bar, *g*, which rests against the under side of the trace at a certain distance from the tongue, formed with the buckle-frame C, as shown in the drawing. The hame-tug is secured to the forward end of the bail D, and is held away from the trace by the cross-bar *g* and the curved form of the tug-bail D. When a strain is applied to the trace the bail D is swung forward, and the cross-bar *g* thereof, bearing against the under side of the trace, raises the latter between the end cross-bars of the buckle-frame C, causing the trace to assume a curved or serpentine form, whereby the tongue-holes of the trace are to a great extent relieved from the strain. The front end of the tug-bail D being kept away from the trace, as hereinbefore described, the latter is in no place compressed between two metallic surfaces, whereby the undue compression of the trace from opposite sides, which causes the trace to become hard and liable to be broken, is entirely avoided.

The trace is very readily adjusted in my improved buckle, and enabled to pass straight through the same in being adjusted.

The tug-bail D being permanently attached to the buckle-frame C, the two parts composing the buckle are not liable to become detached and lost accidentally, or to be improperly arranged by inexperienced persons.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A trace-buckle composed of the main frame C, cast of malleable metal, and provided with recesses *e* and ears *e' e'*, and the tug-bail D, provided with pivots *f*, the parts being secured together, as herein shown and described.

2. The combination, with the buckle frame C, of the curved tug-bail D, pivoted thereto in the manner herein shown and described, and provided at the highest part of its curve with a cross-bar, *g*, bearing against the trace, as and for the purpose hereinbefore set forth.

EMMIT G. LATTA.

Witnesses:

S. P. MORSE,
THERON CROSS.