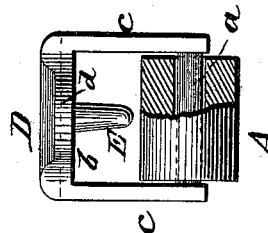
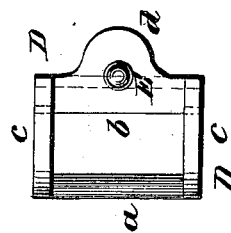
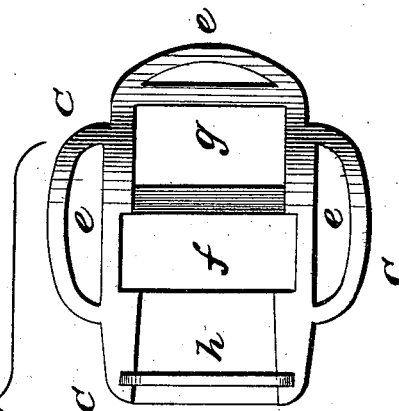
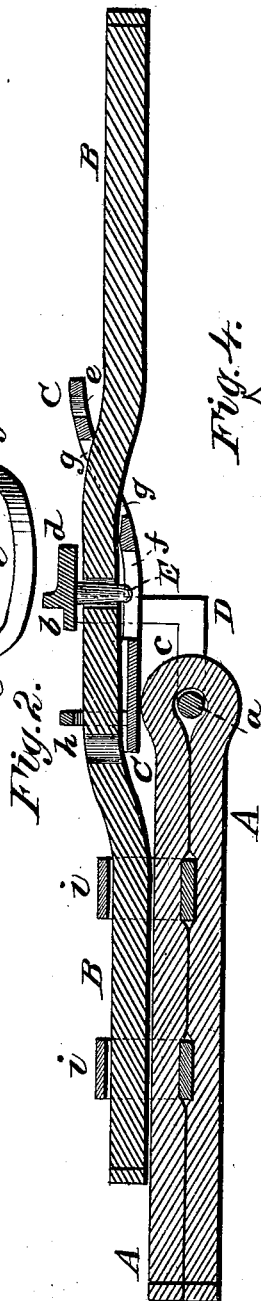
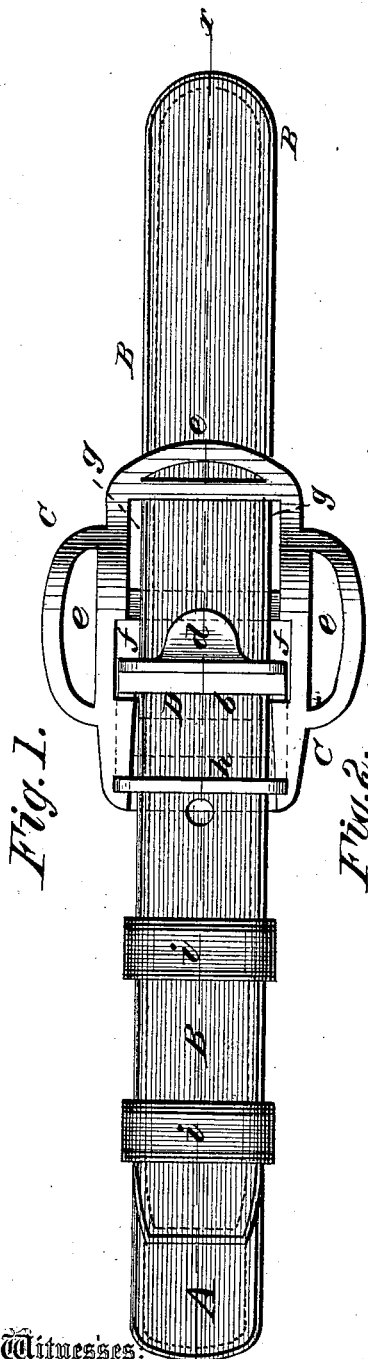


A. McMULLEN.
Trace-Buckle.

No. 215,829.

Patented May 27, 1879.



Witnesses:

P. C. Dietrich.
Hans Druffy

Inventor
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UNITED STATES PATENT OFFICE.

ADAM McMULLEN, OF STERLING, ILLINOIS.

IMPROVEMENT IN TRACE-BUCKLES.

Specification forming part of Letters Patent No. **215,829**, dated May 27, 1879; application filed March 3, 1879.

To all whom it may concern:

Be it known that I, ADAM McMULLEN, of the city of Sterling, in the county of Whiteside and State of Illinois, have invented certain new and useful Improvements in Trace-Buckles; and I do hereby declare that the following is a full, clear, and exact description of the invention, which 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 letters of reference marked thereon, which form a part of this specification.

My invention relates to an improvement in trace-buckles; and the object of my invention is to provide a buckle in which the tongue of the buckle shall be removed from the billet or trace, as distinguished from the removal of the trace from the buckle.

Figure 1 is a top or plan view of my invention in use. Fig. 2 is a central vertical section on line *x x*, Fig. 1. Fig. 3 is a view of the rear end of the hame-tug, with that part of the buckle which is attached thereto. Fig. 4 is a detached view of the plate C and tongue-frame D.

A is the rear end of the hame-tug. D is the tongue-frame, consisting of the two closed ends *a b* and two closed sides, *c c*. The sides *c c* are bent outwardly at right angles at about two-fifths of their length from their inner end. The inner end, *a*, is sewed into the hame-tug, or it may be fastened detachably with a screw. The outer end, *b*, of the tongue-frame D is formed with a flat inner surface and a rearward-extending tip, *d*. On the inner surface of the end *b*, at about the junction of the tip *d* therewith, is formed the tongue E. By placing the tongue E outside of the line of the frame D, and by reason of the sides of the frame D being perpendicular to the trace, by pushing the latter toward the hame, the tongue E automatically withdraws itself from the trace; also, by reason of the outer portion of the sides *c c* of the frame D being formed perpendicularly to the trace B, the draft is largely held on such sides *c c* and tip *d* without materially compressing the trace. The tongue E stands perpendicular with the surface from which it rises, and is about one-half the length of that

part of the sides of the frame D with which it is parallel.

B is the end of the trace. C is a metallic plate, having the ordinary loops *e e e* to respectively receive the back-band, belly-band, and breeching-straps, and having also the square-sided hole *f* for the reception of the frame D, and, like hole *g*, to receive the trace B. A metallic trace-loop, *h*, is formed near the front end of the plate C to assist in holding the end of the trace, and the leather loops *i i* on the hame-tug A perform the like office.

The operation of my invention is as follows: The tongue-frame D, being attached to the hame-tug A, is passed outwardly through the hole *f* in the plate C, the tip *d* extending rearward. The end of the trace B is then passed from the rear through the hole *g* in the plate C, under the tongue E, through the metallic loop *h* and leather loops *i i*. The attachment of the frame D to the hame-tug A is pivotal, and the frame D is therefore readily turned forward and back. As the trace B is passed under the tongue E the latter can be turned into such hole of the trace as may be desired.

It will be found, in practice, that much of the draft on the frame D comes against the sides of the hole *f*, thus relieving, in a great measure, the tongue E and the holes in the trace. The main advantage, however, in my invention is, that it permits of the withdrawal of the tongue E, and thereby the shifting of the trace without taking the trace from the loop.

In changing from a wagon to a sled, or to a plow or harrow, or in using the same harness on different-sized horses, it is often necessary to change the length of the traces. The latter usually became stiff with use, and in former buckles such removal is accomplished only by removing the trace from the loops, so as to lift such trace from the buckle-tongue. As such loops contract from repeated moisture and age, the removal of the trace therefrom is generally the most difficult part of the process of unbuckling the trace, as the trace had to be drawn obliquely to the line of the loops. In my invention, to unbuckle the trace, the operator merely seizes the tip *d* and turns the tongue E out of the hole in the trace, the frame D permitting this by pivoting in the hame-tug A, when

the trace can be slipped in the direct line of the loops, which can be easily done.

This process of unbuckling, it will be seen, instead of bulging the trace outward from the loops in order to get it in position for removal from the buckle, (as was the old plan,) leaves the trace undisturbed until unbuckled, and the process of unbuckling with my invention is distinguished from that of all former ones in that I remove the buckle from the trace, instead of the trace from the buckle.

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

In a trace-buckle, the tongue-frame D, having the bent sides *c c*, end bar, *a*, and tongue-bar *b*, provided with the tip *d*, and the tongue arranged outside of the line of the frame, in combination with the plate C, all arranged substantially as shown and described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

ADAM McMULLEN.

Witnesses:

C. G. McMULLEN,
THOS. T. DAVIS.