W. BRAY, Jr.
Buckle.

No. 200,501. Patented Feb. 19, 1878.

Fig. 1.

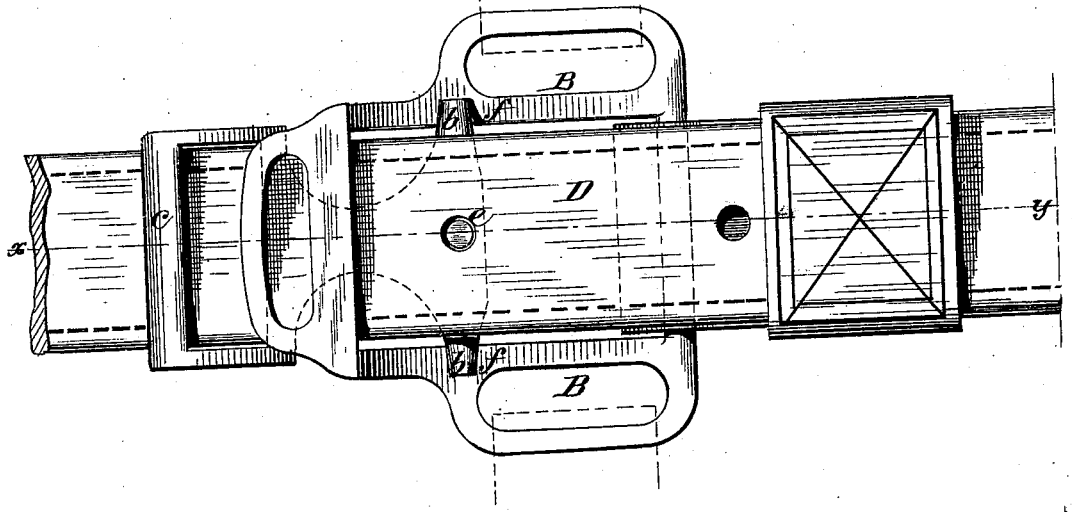


Fig. 2.

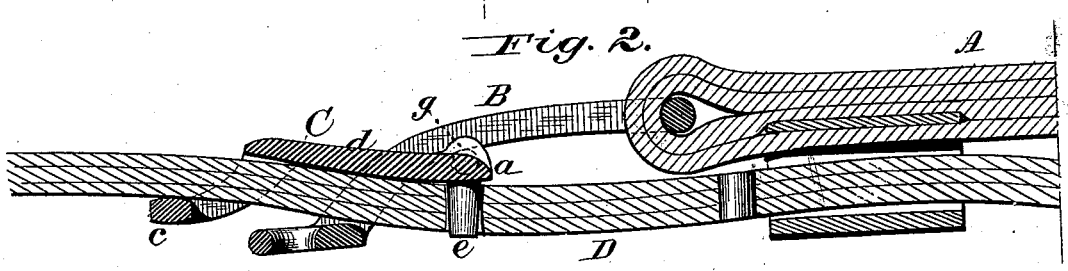
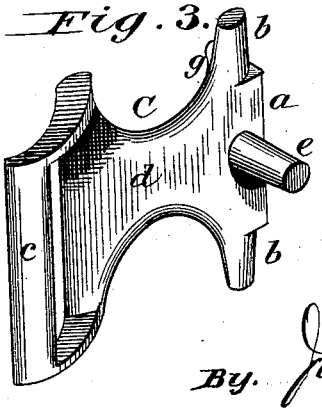


Fig. 3.



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UNITED STATES PATENT OFFICE.

WALTER BRAY, JR., OF AUBURN, NEW YORK, ASSIGNOR OF ONE-HALF HIS RIGHT TO PHINEAS S. HADGER, OF SAME PLACE.

IMPROVEMENT IN BUCKLES.

Specification forming part of Letters Patent No. **200,501**, dated February 19, 1878; application filed October 12, 1877.

To all whom it may concern:

Be it known that I, WALTER BRAY, Jr., of Auburn, in the county of Cayuga and State of New York, have invented certain new and useful Improvements in Buckles; and I do hereby declare that the following is a full, clear, and exact description thereof, 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.

The tug is provided with the ordinary three-looped or no-looped frame, and the trace is united to and adjusted therewith by a loop-piece, having a tongue, which enters holes in the trace at any point desired, a central longitudinal bar running on the under side of the trace, and connecting with a curved loop, which embraces the trace in the rear of the frame.

The loop-piece has end bearing-arms and shoulders, adapted to rest upon the sides of the buckle-frame, and allowing said loop-piece to have a sliding capacity for its proper adjustment.

The buckle may be applied to unite adjustable strap-connections; but it will be specifically described with reference to tug and trace connections.

The object of the invention is to obtain by the simplest construction and combination the advantages of a double lever, and to relieve the tongue of undue strain by transferring the strain to the loop-piece, which has a pressure clear across the trace, and without any direct interlocking action of the tongue with the buckle-frame.

Referring to the drawings, Figure 1 represents a view of the buckle applied to a trace and tug; Fig. 2, a longitudinal section taken on the line *x y* of Fig. 1; and Fig. 3, a perspective of the loop-piece.

The tug A is provided with the ordinary buckle-frame B—three-looped for double harness, and no-looped for single or short hame-tug harness—and it is secured to the tug in the usual manner; but the buckle-frame is tongueless, and is only rendered useful by its combination with a loop-piece, C, consisting of the part *a*, having end bearing-arms *b b*, shoulders *g g*, a curved loop, *c*, and a central longitudinal bar, *d*, which connects the part *a* with the loop *c*, as seen in Fig. 3.

The trace D is passed through the buckle-frame, as seen in Fig. 1, and the curved loop *c* embraces the trace in the rear of the buckle-frame, the longitudinal bar running under the trace to the part *a*, the tongue *e* of which enters the trace-hole. The end bearing-arms *b b* of the bar *a* rest upon the sides *f* of the buckle-frame, and slide against the same in the operation of adjusting the trace as to its length and in the attachment of the same to the tug.

It will be observed, by reference to Fig. 2, that the strain in pulling is at the tug-connection with the buckle-frame, at the loop bearing upon the trace, and at the bearing upon the trace of the loop *c* in rear of the buckle; and that the tongue has only a connecting capacity, being relieved of all strain by the double lever formed by the loop-piece C, in combination with the buckle-frame.

The loop-piece C and its various parts described and shown are integral, and the functions of these parts are as follows: The curved loop *c* holds the part *d* in place, while the part *d* draws the part *a*.

The object of the tongue *e* is to draw the two parts of the buckle together; that of the bearing-arms *b b* is to slide on the frame for adjustment.

The raised shoulders *g g* of these arms are to prevent the part *a* from slipping sidewise by bearing against the buckle-frame.

I claim—

1. The loop-piece C, having the tongue *e* and the central longitudinal bar *d*, which connects the curved bearing-loop *c*, in combination with the buckle-frame B *f*, all constructed and operating to relieve the tongue of undue strain, as specified.

2. The loop-piece C, consisting substantially of the part *a*, the tongue *e*, end bearing-arms *b b*, shoulders *g g*, the central longitudinal bar *d*, and the curved loop *c*, adapted to be used in combination with the buckle-frame, as described.

In testimony that I claim the foregoing I have affixed my signature in the presence of two witnesses.

WALTER BRAY, JR.

Witnesses:
CHAS. D. ROBINSON,
NICANOR BROWNELL.