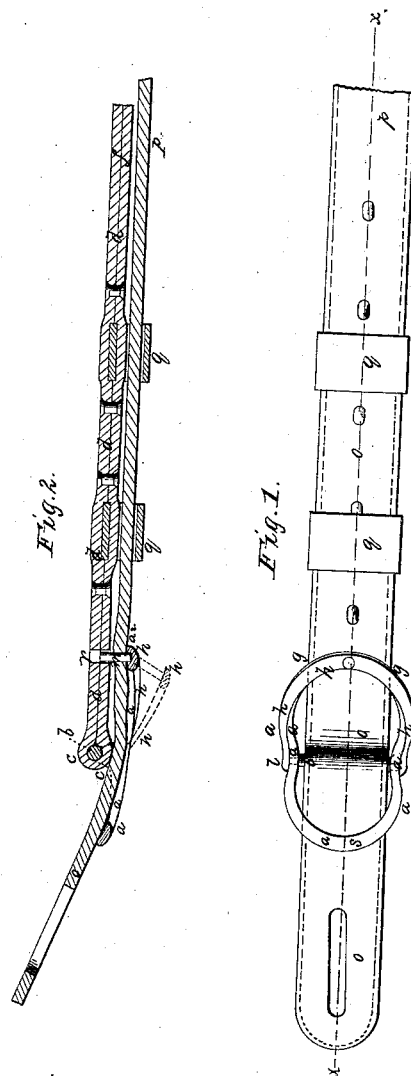


*H. S. Woodruff*  
*Trace Buckle.*

*N<sup>o</sup> 50979.*

*Patented Nov. 14, 1865.*



*Witnesses*  
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# UNITED STATES PATENT OFFICE.

H. S. WOODRUFF, OF JANESVILLE, WISCONSIN.

## IMPROVED TRACE-BUCKLE.

Specification forming part of Letters Patent No. 50,979, dated November 14, 1865.

*To all whom it may concern:*

Be it known that I, H. S. WOODRUFF, of Janesville, in the county of Rock and State of Wisconsin, have invented new and useful Improvements in Trace-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 make and use the same, reference being had to the accompanying drawings, forming part of this specification.

The present invention consists in the use of a buckle-frame hung by a center cross-bar within a loop of the inner end of the hame-tug, the outer end of which frame has a swinging bar, bent into a circular shape, or nearly so, and provided with a center tongue or pin, which tongue, when the outer end of the trace-tug has been drawn sufficiently through and under both ends of the frame, securely holds the same in position by inserting it within the proper aperture thereof and of the hame-tug, as will be presently described.

In addition, also, to the above-described buckle, I employ, in lieu of leather loops for holding the trace-strap evenly upon the hame-tug, metallic ones, the advantages of which are that they never shrink from exposure to moisture, are always stiff and firm, and facilitate the passing of the strap through them.

Having thus generally stated my improvements, I will now proceed to describe the same in detail, reference being had to the accompanying plate of drawings, of which—

Figure 1 represents a flat view of the buckle, with trace and hame-tugs and loops; and Fig. 2, a section in plane of line *x x*, Fig. 1.

*a a* in the drawings represent the buckle-frame, with a center cross-bar, *b*, passing through a loop, *c*, of the inner end of the hame-tug *d*, secured by its end *f* to the hame by any of the ordinary means employed. The buckle-frame *a*, on its outer end, *g*, has a swinging bar, *h*, corresponding in form to the same upon its upper surface, and hung by pivots on each side of the frame at *l*, to the center of which bar, and projecting therefrom at right angles, is a short tongue or pin, *m*, passing

through an aperture, *n*, in proper position therefor in the buckle-frame *a*.

*o o* represent a portion of a trace-tug passed by its outer end, *p*, first through and under each end portion of the buckle, then over and upon the hame-tug, through the metallic loops *q q* attached thereto, when it is secured by inserting the tongue of the buckle-frame, arranged as described, within the proper aperture of the trace and the aperture *r* of the hame-tug, as seen in Fig. 2, according as it is desired to shorten or lengthen the trace-strap.

To loosen or unbuckle the trace-strap, press with the thumb upon the portion *s* of the buckle-frame, at the same time holding the outer portion of the trace-strap in your right hand and the trace-strap and hame-tug in your left, thus turning the buckle-frame on its cross-bar in the hame-tug and lifting and disengaging the tongue from its aperture and that of the trace-strap. Then pull the trace-strap within the buckle a sufficient distance to bring its aperture away from the tongue, after which turn up the frame by its end *s*, bringing its other end, *g*, down upon the strap, traveling over the tongue of the swinging bar, which stands away from the strap, resting upon it by its tongue, as seen by dotted red lines in Fig. 2. The trace-strap can then be freely moved within the buckle in either direction, as may be desired, and again fastened by simply pressing the swinging bar down upon the buckle-frame, its tongue entering the proper aperture of the trace.

From the above description it is evident that by forming the buckle-frame with a center bar and a swinging bar provided with a tongue or pin, arranged together as described, not only can the trace-strap be firmly fastened upon the hame-tug when desired, but also its buckle can be readily unfastened to relieve the same and enable it to be moved within the buckle, and again fastened at any desired position, the advantages of which, especially in heavy trace-straps, are evident and important.

By using the metallic loops *q q* upon the hame-tug through which the trace-strap is passed as described, it is apparent that a more

free and easy play of the strap within them is secured than possible with the use of leather ones, as heretofore, which not only shrunk from exposure to moisture, but soon lost their stiffness. The metallic loops also somewhat strengthen the hame-tug.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—  
The trace-buckle herein described, the same

consisting of the circular hinged plate or bar, having a tongue or pin, and arranged with regard to the buckle-frame attached to the hame-strap substantially as and for the purposes specified.

H. S. WOODRUFF.

Witnesses:

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