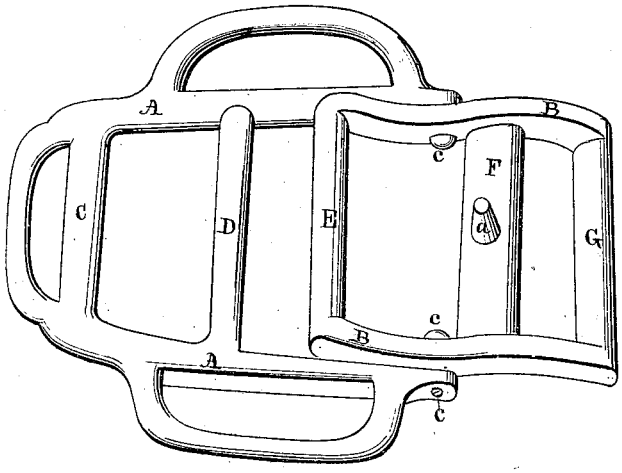
H. S. WOODRUFF.

BUCKLE.

No. 186,968

Patented Feb. 6, 1877.



Witnesses:

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HENRY S. WOODRUFF, OF JANESVILLE, WISCONSIN.

IMPROVEMENT IN BUCKLES.

Specification forming part of Letters Patent No. **186,968**, dated February 6, 1877; application filed March 23, 1874.

To all whom it may concern:

Be it known that I, HENRY S. WOODRUFF, of the city of Janesville, in the county of Rock, in the State of Wisconsin, have invented certain Improvements in Buckles, of which the following is a description:

My invention relates to that class of buckles known as "trace-buckles;" and the object of it is to relieve the trace from strain at the buckle-holes, and also to allow it to be easily adjusted.

In the accompanying drawing, Figure 1 is a perspective view of the buckle, showing its entire construction.

The buckle is cast in two parts—the frame A, with ordinary pad and breeching-loops, and the frame B, with a cross-bar and tongue or stud near the center. The frame A has the usual side bars and loops, and the cross-bars C D. It is constructed without a cross bar at one end, and the free ends of the side bars are enlarged and perforated to receive the pintles or studs on the side bars of the frame B. The frame B has also the common side and end bars, and in addition a central cross-bar, F, on which the stud *a* is located. Pintles or studs are cast on or applied to the side bars of frame B, so that it may be pivoted to frame A, by inserting the studs on frame B in the perforations in the side bars of frame A. The two frames are pivoted together at the points *c c*. The hame-tug is to be attached to the forward end bar G of frame B. The trace is passed under bar C, over bar D, then under bar E, and over bar F and tongue *a*, and the end thereof is secured in a loop on the hame-tug. The two frames act as levers when the strain is applied to the hame-tug in one direction, and the trace in the other.

It will be seen that the trace is brought in contact with four bars of the buckle—two above and two on the under side—forming four distinct curves or bends in the trace. The trace rests upon the rigid tongue *a*, and, by means of the leverage produced by frames A and B, the rear end bar E of frame B is pressed down firmly upon the top of the trace between bars D and F, and the greater the draft the more the trace is deflected between these bars, and in a corresponding degree, the strain on tongue *a* and the trace at that point are relieved.

The rear end bar E of frame B is not only forced down upon the trace by the action of the hame-tug, but the trace, being fast to the tongue, serves also to draw the forward end of the frame B outward or upward, and assists in forcing the rear end of frame B down upon the trace.

This construction of frames A and B, and the mode of uniting them so that the rigid stud or tongue on frame B is located forward of the point at which the frames are pivoted to each other, enables the trace to be easily and readily engaged and disengaged, and yet, when the draft is on both the tug and trace, holds them firmly and securely.

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

A buckle, consisting of the open-ended frame A, having the cross-bar D, in combination with the frame B, having the cross-bar F, with the tongue or stud *a* thereon, said frames being pivoted to each other, as described, and operating in the manner specified.

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