

T. J. HUBBELL.  
TRACE-BUCKLE.

No. 188,910.

Patented March 27, 1877.

Fig. 1

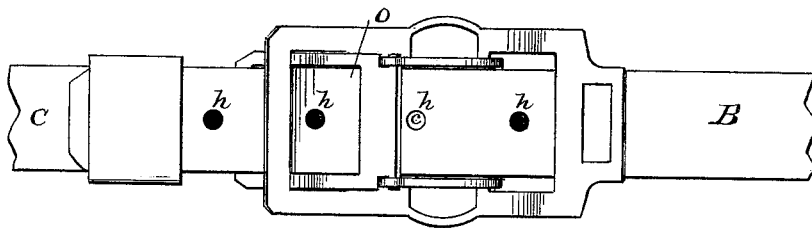


Fig. 2.

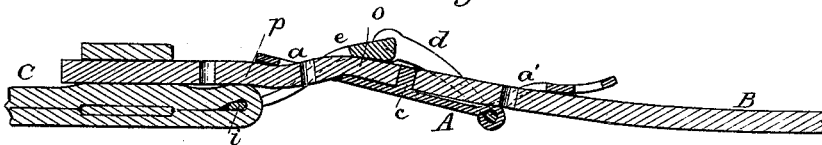
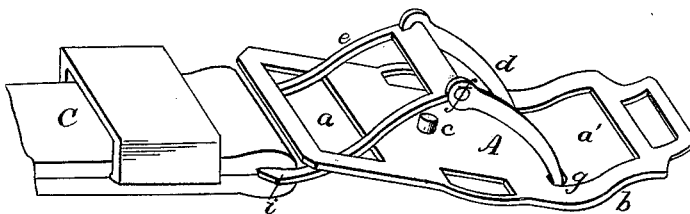


Fig. 3.



Witnesses:

Clarence Poole  
R. K. Evans

Inventor:

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# UNITED STATES PATENT OFFICE.

THOMAS J. HUBBELL, OF YOUNTVILLE, CALIFORNIA.

## IMPROVEMENT IN TRACE-BUCKLES.

Specification forming part of Letters Patent No. 188,910, dated March 27, 1877; application filed March 9, 1877.

*To all whom it may concern:*

Be it known that I, THOMAS J. HUBBELL, of Yountville, Napa county, California, have invented a new and Improved Trace-Buckle for Harness; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a plan view, with the trace-tug buckled to the hame-tug. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a perspective view of the buckle.

The object of my invention is to produce an economical, convenient, and tightly-gripping buckle for harness-tugs; and it consists in a plate provided with certain loops, through which the straps pass, a pin to catch into the holes in the tug, and two pivoted frames or loops, as hereinafter more fully described and claimed.

In order that those skilled in the art may make and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawings, C is the hame-tug, and B the trace-tug. A plate, A, is provided near its center with a projecting pin, *c*, of a proper size to fit the holes *h h* in the trace-tug, and openings or loops *a a'*, near the ends for the passage of the tugs, the plate being bent along loop *a'* as seen at *b*.

In the plate A, on the edge of loop *a'*, are pivoted two arms, *d d*, which have their opposite ends pivoted to a rectangular frame, *e e*, at *f f*. The end of the rectangular frame passes through the loop *a*, and has the hame-

tug lapped on its side *i*. This frame is of the curvilinear outline shown, and it is evident that when strain is brought on the hame-tug the pivoted arms *d d* and frame *e* straighten and press down on plate A.

When the trace tug is to be buckled the end is passed through loop *a'* from beneath, over plate A, and pin *c* is introduced into one of the holes *h*. The end is then passed down through loop *a*, up through frame *e*, and into the leather loop *x* on the hame-tug. Tension being brought on the tugs the frame *e* and arms *d* straighten and press down on strap B, holding it securely on pin *c*, and at the same time clamping it at *o* so tightly, and crimping at *p*, that the pin is relieved of a very large proportion of the strain, and three distinct holds are had upon the strap by the buckle.

In using my buckle I find it is impossible to rip or split the tug, for the reason that when the tug is under strain the clamping-pressure at *o* holds the tug against any tendency to tear from hole to hole by strain on pin *c*.

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

In a buckle the plate A, provided with the bent loop *a'*, the pin *c*, and the loop *a*, in combination with the pivoted arms *d d* and pivoted frame *e*, one end extending through loop *a*, all constructed and operated as and for the purpose set forth.

T. J. HUBBELL.

Witnesses:

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