

B. F. WINEY.
Trace-Buckle.

No. 164,501.

Patented June 15, 1875.

Fig. 1.

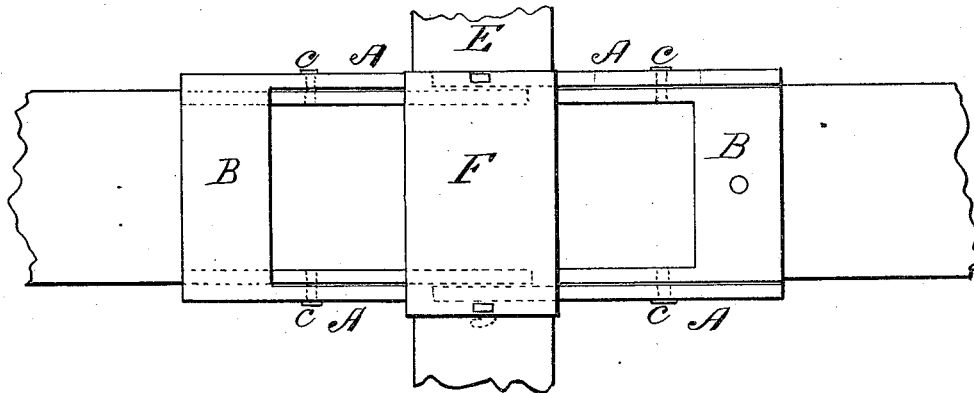


Fig. 2.

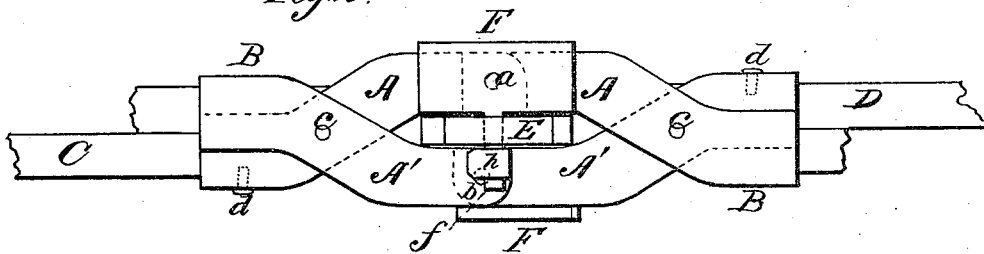
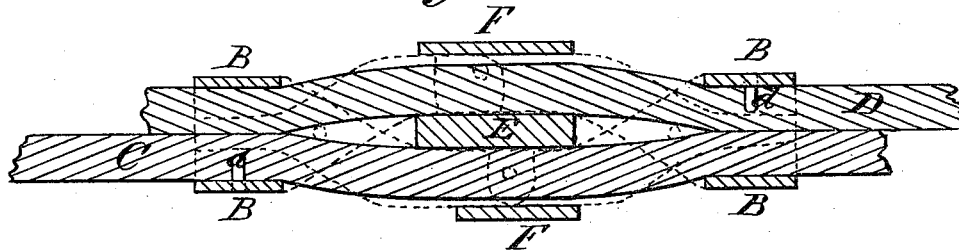


Fig. 3.



WITNESSES
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IMPROVEMENT IN TRACE-BUCKLES.

Specification forming part of Letters Patent No. **164,501**, dated June 15, 1875; application filed March 27, 1875.

To all whom it may concern:

Be it known that I, BENJAMIN F. WINEY, of Donahue, in the county of Scott and State of Iowa, have invented a new and valuable Improvement in Trace-Buckles; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a plan view of my trace-buckle, and Fig. 2 is a side view of the same. Fig. 3 is a longitudinal sectional view.

This invention has relation to improvements in buckles which are especially designed for adjustably uniting the longer part of a leather trace to the shorter part, which is secured to the hame or its substitute; and the nature of the invention consists in a buckle formed of jointed metallic side plates or bars, which cross each other and are pivoted together, so as to form a device in the nature of a lazy-tongs, which plates are arranged on edge at a suitable distance apart, and are rigidly connected by transverse end plates, having tongues projecting inward, whereby, when the parts of the trace are passed from opposite directions through the buckle thus formed, and the tongues on the end plates are passed into perforations in the trace-straps, a union of the same will be secured, the strength of which increases or lessens in proportion as the strain is greater or less, as will be hereinafter more fully explained.

In the annexed drawings, A A' designate the side plates of my improved buckles, the former of which are hinged together at *a* and the latter at *c*. These plates are slightly serpentine in form, and when the various parts of the buckle are in position their free ends will cross each other, and will be pivoted together at *c*, as shown in Fig. 2, thus forming a device in the nature of a lazy-tongs. Plates A A', jointed and pivoted together as above described, constitute the sides of my improved buckle, and they are connected by transverse end plates B, one of which, alternately above and below, is provided with tongue *d*, project-

ing inwardly, as shown in Fig. 3. The longer part C of the trace, which is hooked or otherwise suitably attached to the whiffletree, is passed through the buckle from the rear, between plates B, and the shorter end D thereof, which is secured to the hame, is passed through it from the front. A pin or tongue, *d*, is then inserted into a perforation in straps C D, respectively, and the union of the said strap is complete.

When the trace thus formed is subjected to strain, its respective straps, drawing in opposite directions on pin *d*, will elongate the buckle, causing plates B thereof to be forcibly pressed against the said straps, rigidly locking them together, and confining the function of the pins to holding these straps together in the buckle only when the vehicle is at a standstill, and when a forward motion has commenced. Plates B, during the continuance of the strain, perform in pairs the function of clamping-jaws, and the greater the strain the greater will be the force of their gripe. Hence, under no circumstances could the ends of the straps C D escape from the buckle. These straps are provided with a number of spaced perforations, differing in no degree from those in common use, and the trace is, hence, capable of being lengthened or shortened, as may be required, to fit a long or a short bodied horse.

The buckle thus described is adapted to hold the back-strap E in the following manner, this adaptation being for the purpose of dispensing with a buckle now in common use for holding the strap passing around and supporting the trace; Plates F, intermediate to end plates B, are rigidly secured in any suitable manner across plates A A' at one side of, but in such a manner as to overlap, their joint, one of these plates being on each side of said buckle. The outer plate F is provided with a tongue, *f*, projecting inwardly therefrom, which tongue is adapted to be inserted into a perforation in back-strap E, which is passed transversely through the buckle between straps C D, as shown in Fig. 2, the said pin being received into a hook or catch, *h*.

During the continuance of the draft the clamping of the buckle will hold the traces suspended from the back-strap, the same func-

tion being performed by the tongue when at a stand-still.

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

1. The combination of the pivoted and jointed plates A A', end plates B, and intermediate pressure-plates F, having tongue *f* and hook *h*, substantially as specified.
2. The jointed and pivoted side plates A A', in combination with transverse connecting-

plates B, to form gripping-jaws at the ends of a buckle, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

BENJAMIN F. WINEY.

Witnesses:

J. D. PETERSON,
ABNER DAVISON.