

J. L. WHITE.
HARNESS.

No. 178,217.

Patented May 30, 1876.

Fig. 1.

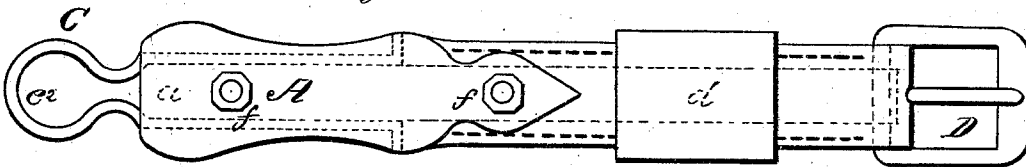


Fig. 2.



Fig. 3.

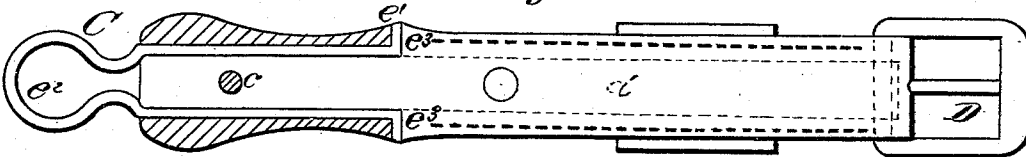


Fig. 4.

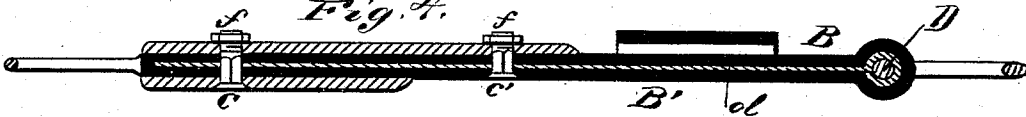


Fig. 5.

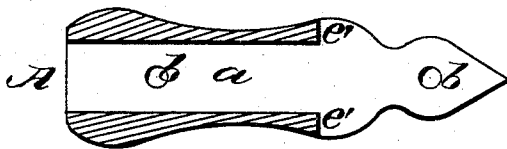


Fig. 6.

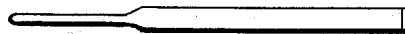


Fig. 7.

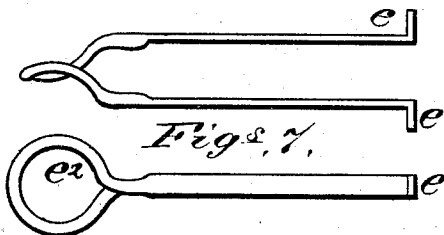
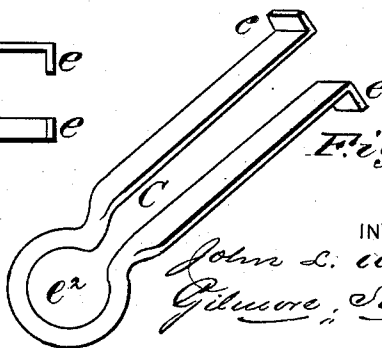


Fig. 8.



WITNESSES

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JOHN L. WHITE, OF WAKEFIELD, VIRGINIA.

IMPROVEMENT IN HARNESS.

Specification forming part of Letters Patent No. **178,217**, dated May 30, 1876; application filed April 8, 1876.

To all whom it may concern:

Be it known that I, JOHN L. WHITE, of Wakefield, in the county of Sussex and State of Virginia, have invented a new and valuable Improvement in Harness; 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 drawings is a representation of a top view of my harness, and Fig. 2 is an edge view of the same. Fig. 3 is a bottom view thereof, and Fig. 4 is a longitudinal vertical section of the same. Figs. 5, 6, 7, and 8 are detail views of my improved harness.

This invention relates to that class of devices known as trace-tugs; and it consists in the novel construction and arrangement of the parts, as will be hereinafter more fully set forth.

In the annexed drawings, A represents a piece of metal, preferably cast with a recess, *a*, in its center, and with holes *b* for the reception of the bolts *c* and *c'*, for the purpose of firmly securing the front end of the trace in the recess or slot *a*. Between the upper and lower strips of leather B and B' is placed a metallic strip, *d*, which is fastened in the recess *a* by means of the bolt *c*, and at the rear end by bolt *c'*, both bolts passing through the entire thickness of the leather B and B', the metal strip *d*, and recessed cast plate A. C designates a U-shaped elastic metal tug, having on its outer ends L-shaped lugs *e*, which correspond with shoulders *e'*, formed on the rear part of plate A. At the front end of the tug C is formed an eye or loop, *e''*, to receive the hook on the hames.

Fig. 7 shows a slight modification of the tug C, having the eye or loop *e''* twisted to suit any style of hames that may be attached.

The manner of attaching the trace to the plate A is as follows: Press the two ends *e e'* of the U-shaped elastic tug C together sufficiently to admit of their ends being passed

into the recess *a* of plate A, and through the same until their ends or lugs *e* spring into and behind the shoulders *e'* on the plate A. Then insert the front end of the trace into the rear portion of plate A in recess *a*, until the shoulders *e''* of the trace and those of the plate A meet.

It will be seen by the insertion of the trace that the space between the U-shaped tug is completely filled up, (see Fig. 3 of the drawings,) thereby expanding and pressing the sides of the tug C firmly against the plate A.

To complete the operation, pass the bolts *c* and *c'* through the corresponding holes in the plate A and leather B and B', and fasten with nuts *f f*.

In practice the leather will be somewhat broader and longer than the metal strip *d*, to allow of it being stitched on each side of the strip, and at the end thereof, to prevent said strip *d* from being exposed.

The buckle end of the strip *d* is bent around the cross-bar D, to conform with that portion of the leather B and B', thereby receiving all strain that may fall to that end of strip *d*, and the bolts *c c'* are designed to resist strain at the tug end of the strip *d*.

By this device I am able to construct a cheap, durable, and at the same time a simple, way of attaching and detaching a tug.

If a tug should wear out, or become worthless, by taking out the bolts *c* and *c'* another can be inserted in a very short time.

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

The combination of the trace-tug C, having loop *e''* and outwardly-projecting lug *e*, the plate A, provided with shoulders *e'*, and the perforated metal strip *d*, with loop on one end to fit the buckle, when secured together by the bolt and nuts, substantially as described.

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

JOHN L. WHITE.

Witnesses:

JOHN F. ACKER, Jr.,
GEORGE E. UPHAM.