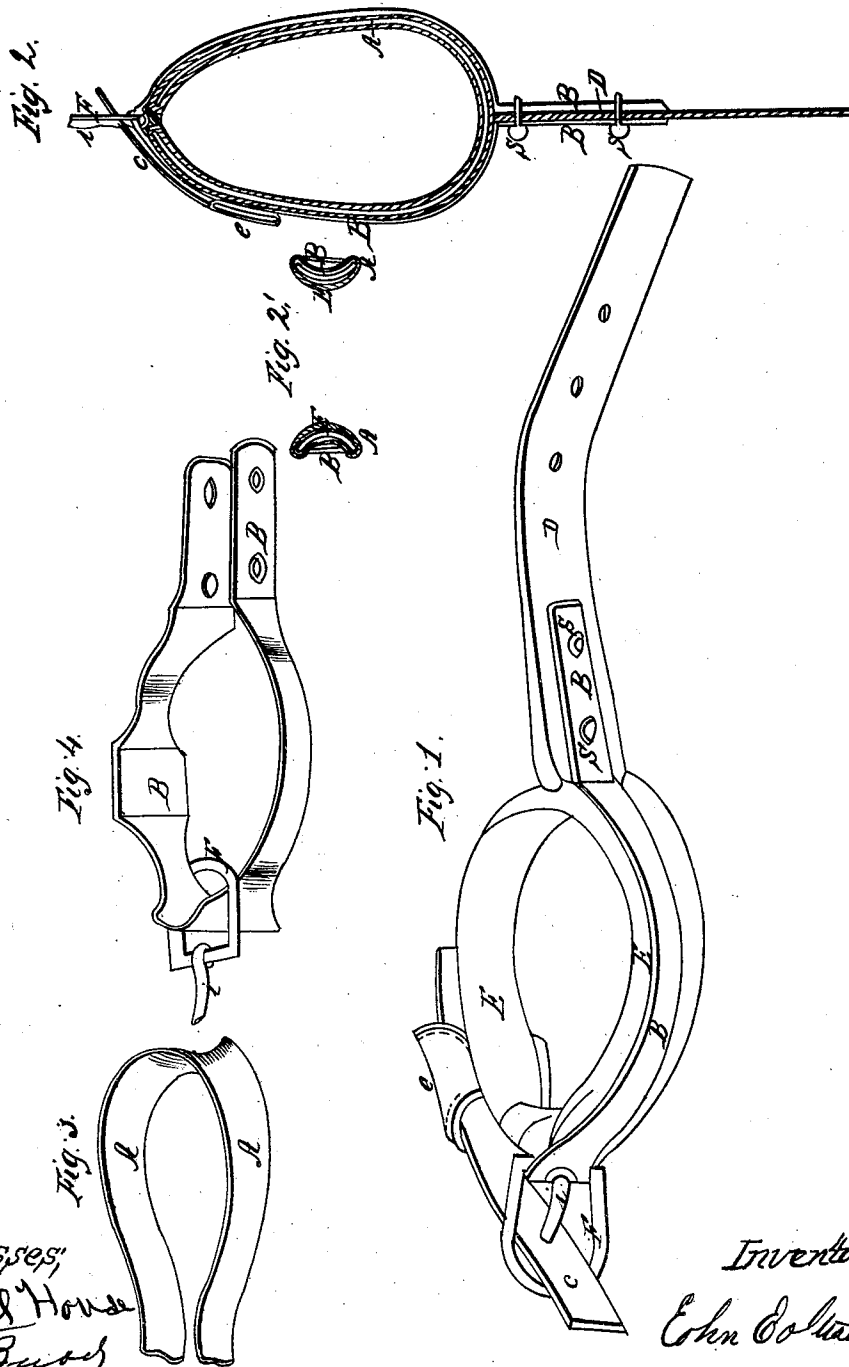


J. E. Stuber.

Shaft Tube.

N^o 85,771.

Patented Jan. 12, 1869.



*Witnesses,
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JOHN E. STUBER, OF TURIN, NEW YORK.

Letters Patent No. 85,771, dated January 12, 1869.

IMPROVED SHAFT-TUG.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JOHN E. STUBER, of the town of Turin, county of Lewis, State of New York, have invented a new and useful form and construction of that portion of harness for animals known as the Shaft or Thill-Tug; and I do hereby declare the following to be a full, clear, and accurate description of the construction and operation of the same, reference being had to the annexed drawings, making part of this specification, in which—

Figure 1 is a perspective view of the improved tug as complete;

Figure 2 are vertical and longitudinal sections;

Figure 3 is a view of the interior iron form; and

Figure 4 is a view of the exterior metallic band encircling No. 3.

Like letters refer to similar parts.

A is an ovate-formed loop of heavy sheet-metal, No. 14 gauge, swaged to such a shape that a cross-section at any point shall form a concavo-convex outline, thus, A. (See fig. 2.)

This loop is encased in a thick piece of leather, E, the edges of which are scarfed thin, and being made wet, are brought around and drawn together with a stout running stitch around the concave exterior of A.

B is a metallic strap of wrought or malleable metal, of a shape shown at fig. 4, of such a size that when placed around the curved loop A, and the ends brought together, it will tightly clasp the same.

At the superior angle of the strap B is an opening to accommodate the tongue *i* of the buckle F, the cross-bar of which is protected from unnecessary wear by the intervention of a suitable piece of leather between it and the strap B.

The ends of the strap B are each perforated with a couple of screw-holes, the holes in one plate being tapped with screw-threads, into which the screws S S are made to fit.

D is a stout leather stale or strap, made secure between the ends of the metal strap B by the screws S S, and which stale is provided with holes for the tongue of the buckle upon the girth or belly-band.

Use.

The improved shaft-tug, as above described, being constructed as herein set forth, and the rest of the harness being in position upon the animal, the end of the outside saddle-strap C is passed through the bow of the buckle F, the tongue of the same thrust through an appropriate hole in C, and the loose end of the strap passed into the loop *e*. The stale D is now passed through the buckle in the end of the belly-band or girth, by which the tug is kept secure by the horse's side. There being a duplicate tug at the opposite side, the shafts are now passed through A, the animal attached properly to the vehicle, the weight of the thill rests upon and within the metallic loop A, which being amply protected by the thick leather shield E, forms a durable and at all times safe support for the shaft or thills, avoiding the wear or strain of stitching or tearing of straps or loops, there being no seams whatever which can come to any wearing-friction upon any part of the tug.

Having thus described the nature and construction of my invention,

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

The construction and use of the curved metal form A, together with the encircling metallic strap B, the same being suspended by the buckle F to the saddle-strap C, and having the stale D attached by the screws S S, as herein shown.

JOHN E. STUBER.

Witnesses:

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F. S. BUDD.