T. E. WEBBER.

Shaft-Tug for Harness.

No. 159,781. Patented Feb. 16, 1875.

FIG. 1

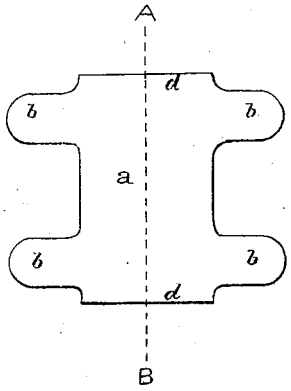


FIG. 2

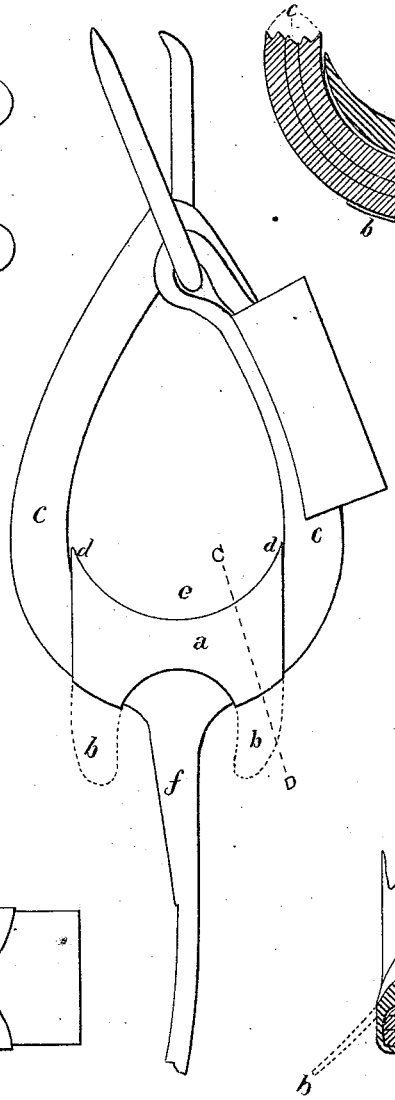


FIG. 3

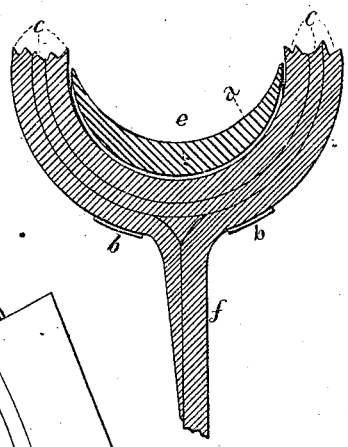


FIG. 4

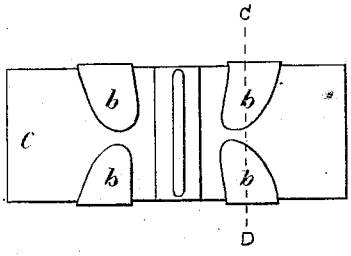
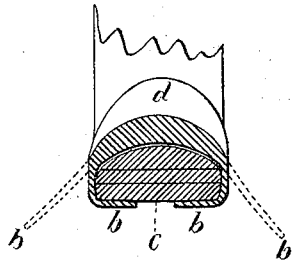


FIG. 5



WITNESSES.

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UNITED STATES PATENT OFFICE.

THOMAS E. WEBBER, OF PITTSTON, MAINE.

IMPROVEMENT IN SHAFT-TUGS FOR HARNESS.

Specification forming part of Letters Patent No. **159,781**, dated February 16, 1875; application filed November 23, 1874.

To all whom it may concern:

Be it known that I, THOMAS E. WEBBER, of Pittston, in the county of Kennebec and State of Maine, have invented a new and useful Lining for Harness-Lugs; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention sufficient to enable those skilled in the art to practise it.

This invention relates to a lining intended to protect the lugs of harnesses from wear by reason of the motion of the shaft of the vehicle, and which shall allow a free movement of the lug upon the leather on the shaft, either when the horse is in motion or when being unharnessed from the vehicle; and the invention consists in a lining of metal or other analogous material, which is formed to fit the bottom portion of the lug, and with clinching points to be bent under the body of the lug to secure the lining in position, which, when thus fastened, conforms to the internal curvature of the lug, and affords a smooth antifriction seat for the shaft.

Figure 1 is a top or plan view of the lining, ready to be applied to the lug. Fig. 2 is a side elevation of the lug, and the lining inserted. Fig. 3 is a vertical section, taken on line A B, Fig. 1, and also showing the corresponding part of the lug in section. Fig. 4 is an under-side view of the lug, showing the clinching-points of the lining thus secured. Fig. 5 is a vertical section, taken on lines C D, Figs. 2 and 4.

Harness-lugs, when constructed of leather only, are subject to three very serious objections—first, the motion of the shaft, with its leather covering, soon wears away the lug, cuts the stitches that unite it, and renders it unfit for use; second, it adheres to the leather on the shaft, and tends constantly to disarrange the harness upon the horse, causing galls and sores, where such undue motion takes place, on the horse's body; third, this constant tendency to stick and adhere to the "shaft leather" renders the process of unharnessing the horse from the vehicle tedious and vexatious, especially if it be done by only one person, rendering it necessary to change from side to side of the horse, in order to slip the lugs off the shafts. To remedy these difficulties, various methods of incorporating metal in the lugs have been adopted. In some instances the entire lug has been made of metal, with suitable loops for the reception of the required straps. In others, a frame has been cast, with recesses for the insertion of the inclosing body of the lugs, but all the various devices have been objectionable in one respect or another, some by undue weight, others by causing an unsightly defect in the appearance of the harness, while others could not be properly united to the corresponding parts of the leather-work of the harness. My invention is intended to obviate these defects. The lug proper is made in the usual manner and form, and the lining is then applied in such manner that it does not disfigure the harness. It is equally applicable to old or new harness; it is not expensive, and may be made of brass, composition, malleable iron or other suitable material, and when made of corrodible metal it may be coated with tin or other incorrodible metal. It may also be cut from sheet metal, and the body struck up in dies to the proper form, ready to be clinched into the lug; or it may be cast in the required form with the clinching-points ready to be bent to the lug. That shown in the drawing is such as would be cast in form for application to the lug.

In the drawings, *a* is the body of the lining, which extends across the width and down the sides of the bottom part of the lug, as shown. *b b b b* are the clinching-points, formed as an integral part of the lining. *c c* are the layers of the leather, constituting the body of the lug. *d d* are the ears or upturned ends of the body of the lining. *e* is the shaft-seat in the lining, at the lowest point of depression. The relative positions of the lug and lining, when united, ready for clinching the points *b b* around the lug, are plainly shown in Figs. 2 and 5, wherein the dotted lines *b b* indicate the position of the points when ready to be clinched. As shown in Figs. 2 and 4, the body *a* is cut away between the two pairs of clinching-points *b*, so as to allow room for the pendent girth-strap F, and the points thus clinched around the body of the lug at this point of greatest wear and strain re-enforce the stitching, as well as protect it from wear.

As above intimated, I do not claim broadly a metal lining or wearing surface for shaft-lugs, as I am aware that various devices for that purpose have been both patented and rejected; but—

What I do claim as my invention is—

A harness-lug lining, formed with the body *a*, shaft-seat *e*, protecting ears *d d*, and clinching-points *b b*, all substantially as described and shown.

THOMAS E. WEBBER.

Witnesses:

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