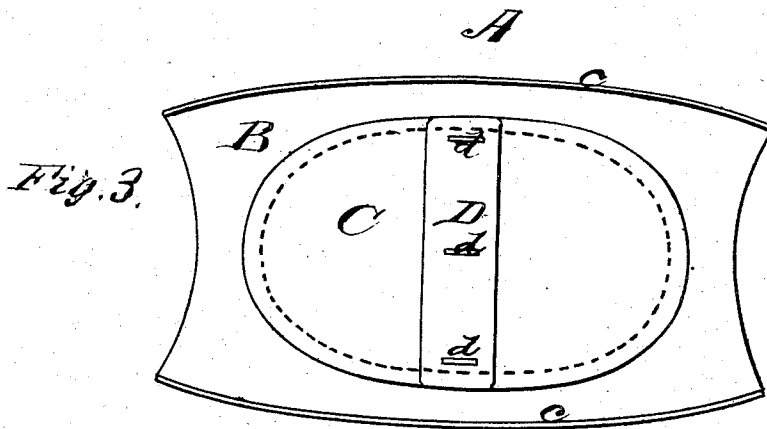
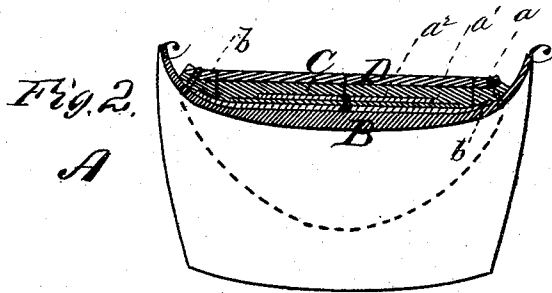
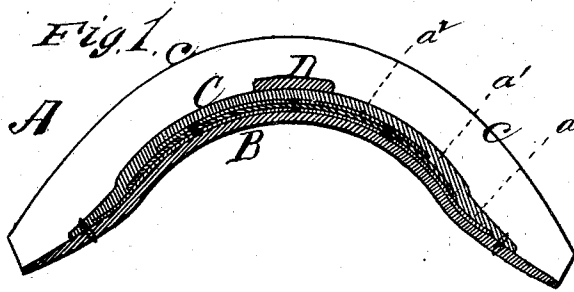


M. KLEIN.
HARNESS-COLLAR PAD.

No. 171,144.

Patented Dec. 14, 1875



WITNESSES
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UNITED STATES PATENT OFFICE.

MARTIN KLEIN, OF ST. PETER, MINNESOTA.

IMPROVEMENT IN HARNESS-COLLAR PADS.

Specification forming part of Letters Patent No. 171,144, dated December 14, 1875; application filed August 14, 1875.

To all whom it may concern:

Be it known that I, MARTIN KLEIN, of St. Peter, in the county of Nicollet and State of Minnesota, have invented a new and valuable Improvement in Collar-Pads; 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 longitudinal vertical section of my collar-pad. Fig. 2 is a transverse vertical sectional view of the same, and Fig. 3 is a plan view.

This invention has relation to improvements in collar-pads for draft-animals, the object of which is to prevent the hair of the lower part of the neck from being rubbed off by the attrition of the hame-strings and collar-straps.

The nature of the invention consists in a collar-pad tree, formed of two or more plates of sheet-iron, of elliptical form, which are bent in an arc of a circle, riveted together, and then interposed between two leather covers, which latter are stitched, riveted, or otherwise rigidly secured together, whereby a springy pad is formed, possessing a degree of strength adequate to resisting strain, and incapable of becoming flabby when wet, as will be hereinafter more fully explained and claimed.

In the annexed drawings, A designates my improved collar-pad, the tree of which is composed of three leaves of sheet metal, a a^1 a^2 , superposed the one upon the other, and each upper one smaller than the one next below. These plates are elliptical in form, and are riveted together after having been bent in the arc of a circle, so that all displacement relative to each other is effectually prevented. They are thus endowed with considerable elasticity, and are yet sufficiently rigid and strong to resist strain under circumstances hereinafter explained. The lowermost plate a of the pad is considerably larger than the one next above, and its excess is turned up throughout its whole extent, forming a flange, b , of round-

ing form, and effectually destroying the rough edge which would have existed had not this part been upturned. The tree above described is inclosed between two leather covers, B C, the former of which, being the upper one, is but slightly larger than plate a of the pad, while the lower one is of sufficient size to allow a flange, c , to be formed by turning up its lateral edges, as shown in Fig. 1. These covers are put around the tree and stitched together when wet, so that in drying the leather of which they may be made will shrink and conform to the curvature of the "tree," thus preventing the latter from working loose in the said covers.

The pad is designed to be put on the neck of the horse in front of its withers, so that the ends of the collar may be received in it; consequently, when the ends of the said collar are strapped, or otherwise forcibly united, the strap or straps used will be prevented from galling the neck or rubbing off the hair and mane by means of the interposed pad, which, being of curved form and sufficiently rigid, will at no time be clamped, as it were, to the animal's neck by the drawing together of the ends of the collar.

In practice, I sometimes use a transverse binder-strap, D, which is secured to the cover by means of spaced staples d , which may be replaced by suitable rivets, to which strap the straps used to unite the ends of the collar and hames may be secured, thus preventing the pad from getting from under the collar should flanges c on the edges of the lower cover, prove inadequate.

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

A horse-collar pad composed of a series of metal leaves, a a^1 a^2 , riveted together and interposed between leather covers, substantially as shown and described.

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

MARTIN KLEIN.

Witnesses:

H. S. TOMLINSON,
E. R. MOORE.