(No Model.)

A. D. ULRICH.

HORSE COLLAR.

No. 560,333. Patented May 19, 1896.

Fig I.

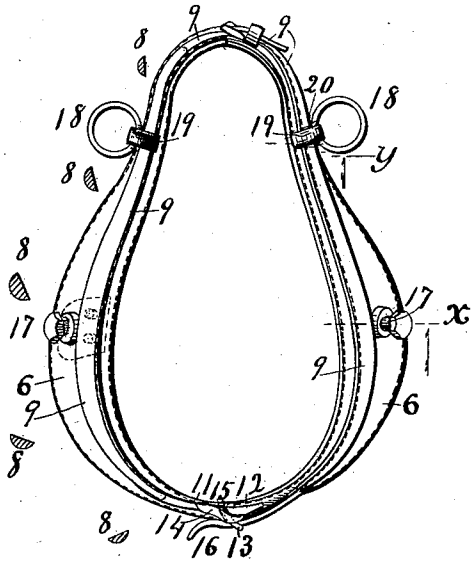


Fig II.

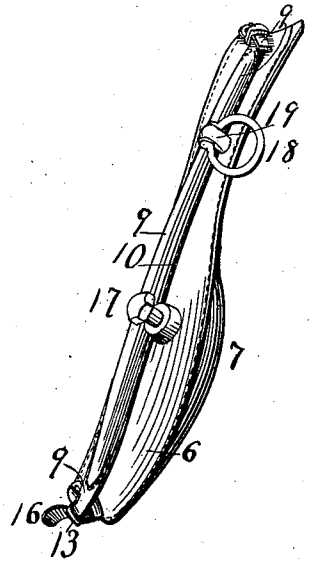


Fig III.

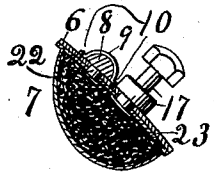


Fig IV.

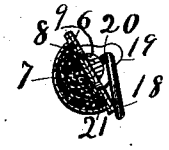
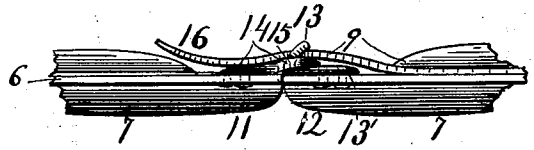


Fig V.



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ALLEN D. ULRICH, OF KOKOMO, INDIANA.

HORSE-COLLAR.

SPECIFICATION forming part of Letters Patent No. 560,333, dated May 19, 1896.

Application filed February 11, 1895. Serial No. 537,944. (No model.)

To all whom it may concern:

Be it known that I, ALLEN D. ULRICH, a citizen of the United States, residing at Kokomo, in the county of Howard and State of Indiana, have invented a new and useful Improvement in Horse-Collars; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings.

This invention relates in general to horse-collars, and particularly to improvements on the invention claimed in my Patent No. 480,000, dated August 2, 1892; and its objects are, first, to provide means whereby the fixed stiffeners described in that patent as taking the place of common hames may be utilized in connection with collars open at the bottom, or open at the top, or made whole, any of these styles being provided with rein-rings and tug-posts; second, to shape the stiffeners so as to avoid wear on the leather beneath, and so as to prevent galling the horse, and yet so as to be extremely stiff and strong.

To this end my invention consists in the construction and combination of parts forming a horse-collar, hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure I is a front view of a horse-collar, showing in a series of adjacent cross-sections the twist of the inner face of a stiffener according to my invention. Fig. II is a side view of the same collar. Fig. III is a transverse section at line x of Fig. I. Fig. IV is a transverse section at y of Fig. I, and Fig. V is an edgewise view of the joint in detail.

6 represents the face-piece of the collar, usually made of leather. This body may be continuous around the horse's neck, or, for greater economy in cutting, it may be of two parts joined permanently together either at the top or bottom, or both, according to the style of collar required.

7 represents the pad at the under side of the collar, serving as a cushion to rest upon the horse's shoulders.

8 represents a pair of stiffeners to perform the usual service of hames; but these stiffeners are permanently secured to the sides of the collar as fixtures thereof, and are provided with leather covers 9, permanently sewed to the body 6 along both edges of each stiffener. If the collar is to be made whole, the cover 9 may be extended across both top and bottom and be secured by stitches, as at 10, thus serving to strengthen the collar at these thin portions.

To adapt a collar which is parted either at the top or bottom to be readily united, I provide a locking device, described as follows:

11 and 12 represent the two portions of the collar which abut together.

13 is a curved or hook staple provided with a base-plate 13′, which is rigidly fixed upon the portion 12, and projects a little, hooking from the face thereof.

14 is a hasp rigidly fixed to the portion 11 and projecting across the joint over the portion 12, with a loop 15 to engage the staple-hook 13.

16 is a continuation of one stiffener-cover 9, extending across the joint of the parts 11 and 12 and serving as a key to be inserted in the staple 13, outside of the hasp 14, to secure the same in service.

17 represents a pair of studs, each passing through the face-piece and through a binding-plate 23, to which it is riveted rigidly, to serve as attachments for the harness-traces. The binding-plate extends under the adjacent stiffener 8, from which one or more studs 22 depend through the face-piece and plate and are riveted thereto, thus preventing the stud 17 from being pulled out of place in service and distributing the strain over the collar by means of the stiffener, which is secured to the collar nearly its whole length.

18 represents a pair of rein-rings secured to the collar by means of broad staples 19, each of which staples has a bearing 20 in its upper end for the ring 18 to swing freely in, and thence the two legs of the staple extend, straddling over and resting upon the case 9 of the stiffener and passing through the face-piece 6 and through a binding-plate 21, on the under side of which plate the ends of the legs are riveted, so as to hug the staple 19 closely down upon the cover 9 around the stiffener 8, whereby the ring is so firmly held that it may be relied upon, and the stiffener is thus further secured to the collar.

Though the staple and hasp connection has only been shown in the drawings at the lower end of the collar it will be understood that

this connection may be used at the upper end if it should be desirable to part the collar at that point. It will thus be seen that the stiffener-covers 9 extend entirely around the collar, whether the collar is made whole or is left open either at the top or bottom; and in case it is used as a key for the hasp and staple the portion 16 is left free—that is, not sewed down to the collar—for a distance sufficient to permit the free end to be drawn back to release it from the curved or hook staple 13 or to insert it therein. The curved or hook staple of the locking device being rigidly fixed to one side of the collar and the hasp rigidly fixed to the other side, and the hasp and curved or hook staple being adapted to register with and engage each other when the two sides abut together, the sides are thereby so firmly locked together that they will resist any strain in service, and they only require the simple strap described to key them together. The key is not required when the collar is in active service. It merely prevents the parts becoming separated when they are slack and loose.

A part of the advantage of my invention may be obtained by using the common buckle 25 and billet 26 at the top of the collar to hold the two sides of the collar together when they are separable at that point, and I do not confine myself to the use of the hasp and curved or hook staple fastening described, it being my object to adapt this collar to be made open either at the top or bottom, or closed at both, in order that it may be adapted to fit the different-shaped necks of horses.

The under face of each stiffener 8, as shown in cross-section in Fig. I, conforms to the surface of the horse's neck and shoulders, so that such collars as have no padding may be held flat upon the horse all around the neck by these stiffeners, and so that padded collars may be held true, to preserve their neat and artistic curved surface after long use.

The cap of each stud 17 is removable to receive the trace upon the stud.

This collar is strong enough for the roughest usage, yet it is neat and stylish in appearance. It distributes the load evenly upon the horse's shoulders, thus avoiding irritation of parts supporting it in service, and its simplicity of construction renders it comparatively inexpensive.

Having thus fully described my invention, what I believe to be new, and desire to secure by Letters Patent, is the following:

1. In horse-collars, a body portion parted at one end, the two portions being fitted to abut together; a hasp rigidly fixed to one portion and extending to lap upon the other; a curved or hook staple in the said other portion fitted to register with and engage the hasp; hame-shaped stiffeners on the sides of the body and leather covers secured over the stiffeners, the end of one of the said stiffeners extending freely in position to engage the said curved or hook staple as a key over the hasp.

2. In horse-collars, a pair of hame-shaped stiffeners having twisted inner faces; a leather face-piece secured upon those inner faces; binding-plates beneath the face-piece and binders passing from each stiffener through the face-piece and one end of the binding-plates, substantially as described whereby the binding-plate and the stiffener coact to bind the face-piece to and parallel with the face of the stiffener.

3. In a horse-collar, a pair of hame-shaped stiffeners having inner twisted faces; a leather face-piece on each of the said twisted faces; a binding-plate beneath each face-piece secured rigidly to the stiffener, and a trace-attaching stud passing through the face-piece and binding-plate and firmly riveted to hold the two together substantially as described whereby the twist caused by draft upon the stud will be resisted by the whole length and breadth of both stiffener and face-piece.

4. In horse-collars, a cushion covered by a leather body; hame-shaped stiffeners rigidly fixed upon the said body; a staple straddling each stiffener and rigidly secured around the same and to the said body; rein-rings fitted in said staples, and studs for traces rigidly fixed to the body.

In testimony whereof I affix my signature in presence of two witnesses.

ALLEN D. ULRICH.

Witnesses:
WM. A. WALKER,
WM. H. MCREYNOLDS.