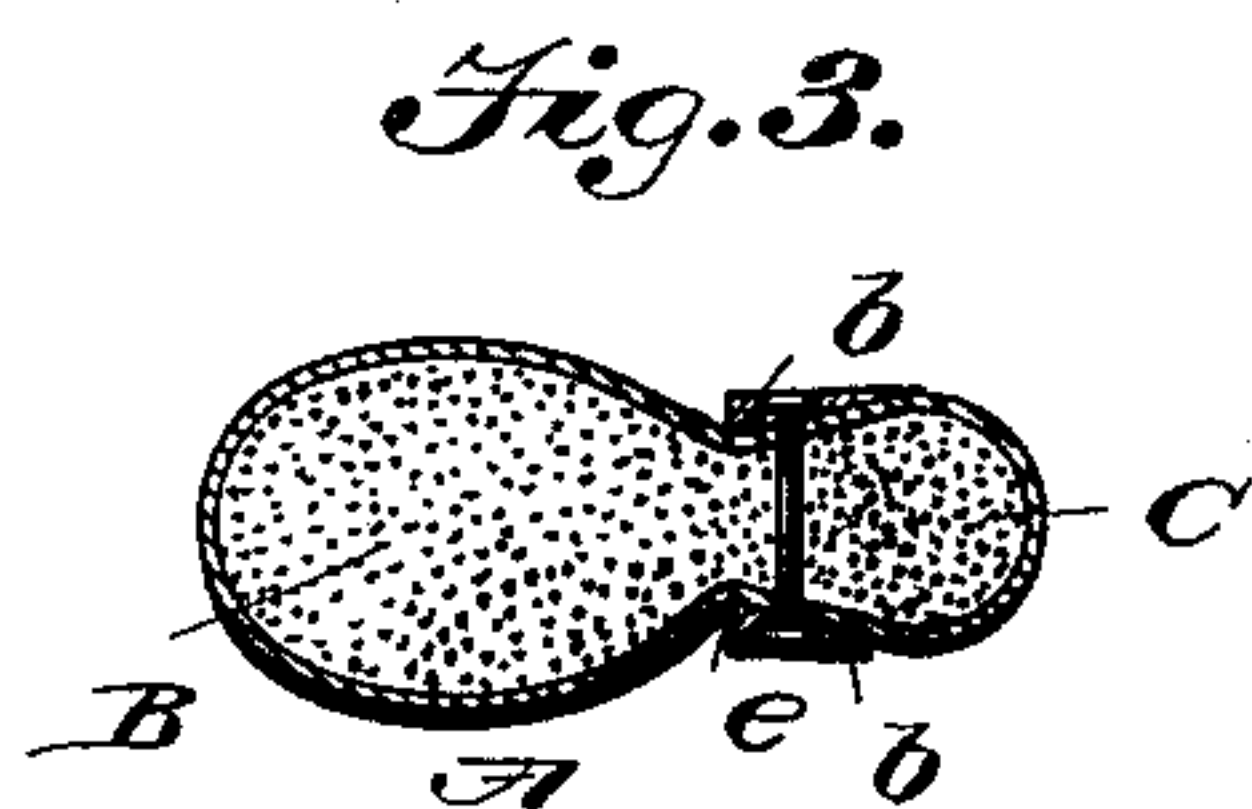
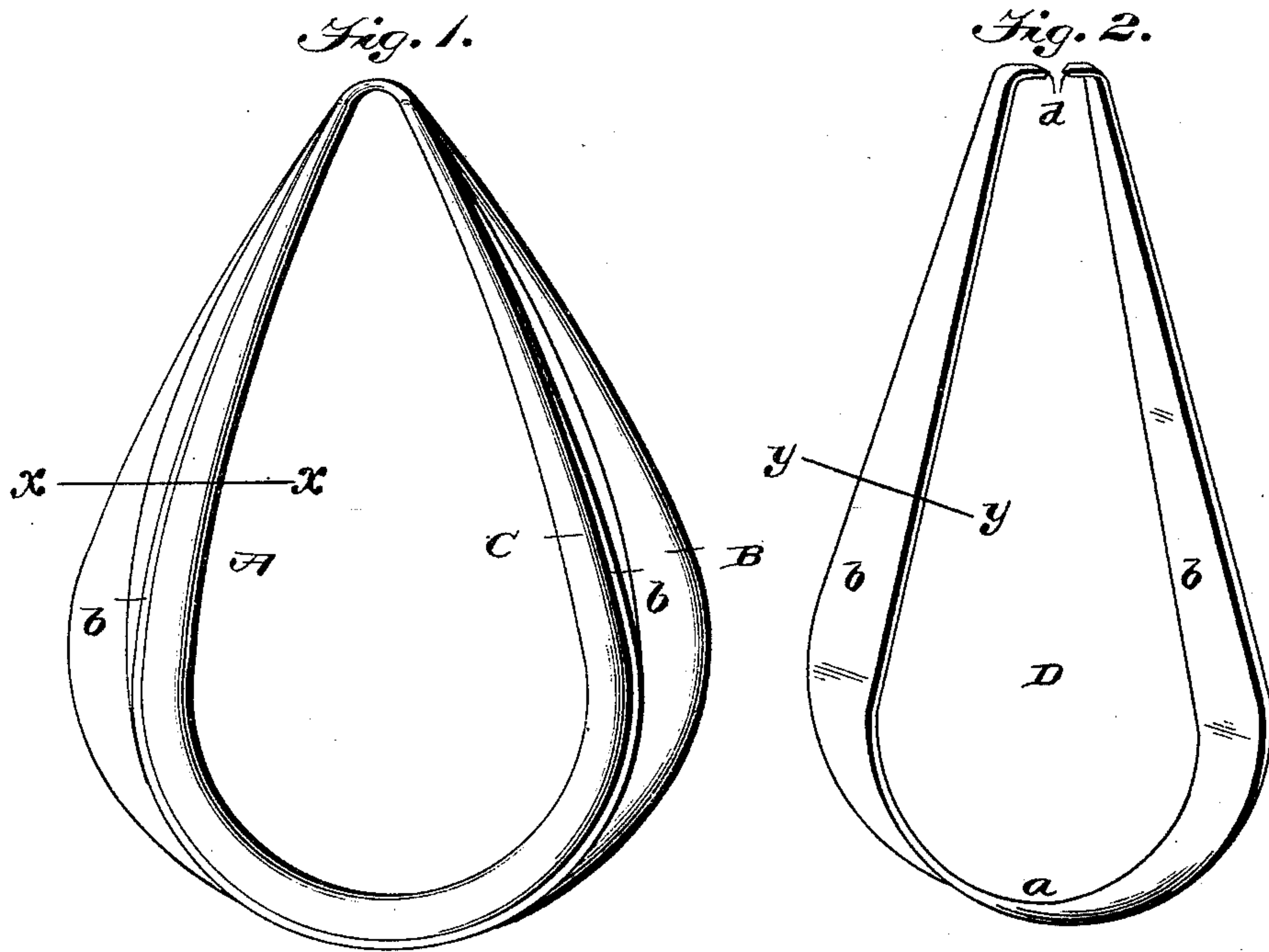


(No Model.)

F. B. HIBBARD.  
HORSE COLLAR.

No. 414,313.

Patented Nov. 5, 1889.



Witnesses

*J. F. Ashlee*  
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# UNITED STATES PATENT OFFICE.

FRANK B. HIBBARD, OF IRVINGTON, NEBRASKA.

## HORSE-COLLAR.

SPECIFICATION forming part of Letters Patent No. 414,313, dated November 5, 1889.

Application filed May 13, 1889. Serial No. 310,502. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK B. HIBBARD, a citizen of the United States, residing at Irvington, in the county of Douglas and State of Nebraska, have invented certain new and useful Improvements in Horse-Collars; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention has relation to an improvement in attachments for horse-collars, and has for its object to strengthen a collar and to preserve its shape, preventing the same from breaking by careless handling. These objects I accomplish by the means shown and illustrated in the annexed drawings, in which—

Figure 1 is a front view of a collar with my improvements applied. Fig. 2 is a perspective view of my improved device removed from the collar. Fig. 3 is a sectional view taken at the point *x x* on Fig. 1. Fig. 4 is a sectional view taken at the point *y y* on Fig. 2.

Referring by letter to the said drawings, A indicates a horse-collar, which may be of any ordinary or approved construction, having the usual belly portion B and rim C.

D indicates my improved device for strengthening the collar and sustaining the same in proper position. This device D is made of a shape approximating that of a collar, as shown in Fig. 2 of the drawings, and is formed from spring-steel or other suitable material.

In forming this strengthening device D, I take a strip of spring-steel or other suitable material and bend the same in the shape of a collar, as shown. The bent portion of this device is reduced or beat down so as to increase its strength at that point, being somewhat rounded and thickened, as shown at *a*. From this rounded and thickened portion the branches *b* are carried upwardly and inwardly, and terminate in inwardly-directed points or barbs *d*. These branches taper longitudinally toward their upper ends, and they also taper transversely, as better shown in Fig. 4 of the drawings, the transverse taper

being designed to present a flare, so as to conform to the rim of the collar and adapt the device to snugly seat itself thereon and offer no obstruction to the proper position of the hames. This strengthening device D is designed to be placed on the outer side of the collar, with its inner edge resting in the groove and its flat sides bearing against the rim.

In the most of cases I find that one of these devices is sufficient to preserve the shape of the collar and protect it from breakage or injury, and in such cases the device, as before described, is placed upon the outside of the collar, with its barbs or points embedded in the upper portion thereof, and such points are sufficient to sustain it in proper position, although a loop or band may in some cases be employed as an additional means of security. When it is desirable to attain additional strength and rigidity of the collar, one of these spring devices may be placed on the inner and outer side of the collar-ring, respectively, and united by a bolt *e* or other suitable fastening device.

From the construction illustrated it will be seen that these strengthening devices are so arranged upon the collar from their peculiar construction or configuration as to afford no obstruction or inconvenience to the proper seating of the hames.

Having described my invention, what I claim is—

The combination, with a horse-collar, of a yielding strengthening device composed of a thin flat piece of spring metal having its bent portion thickened and partly rounded and its upper branches tapering longitudinally and terminating in inwardly-directed points, the said branches being also tapered transversely, so as to snugly seat themselves on the rim of a collar and offer no obstruction to the placing of the hames, substantially as specified.

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

FRANK B. HIBBARD.

Witnesses:

A. L. REED,  
H. G. JORDAN.