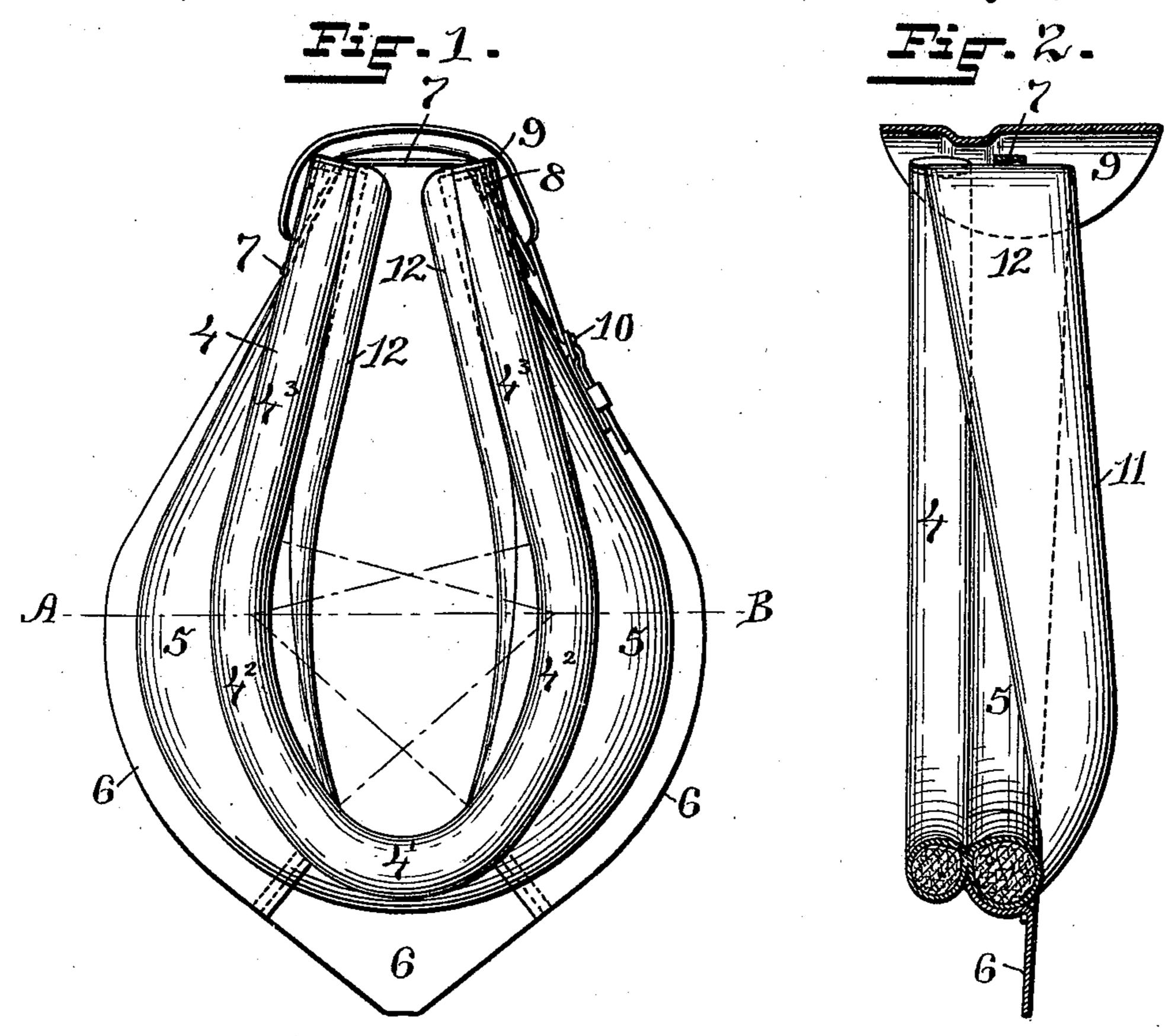
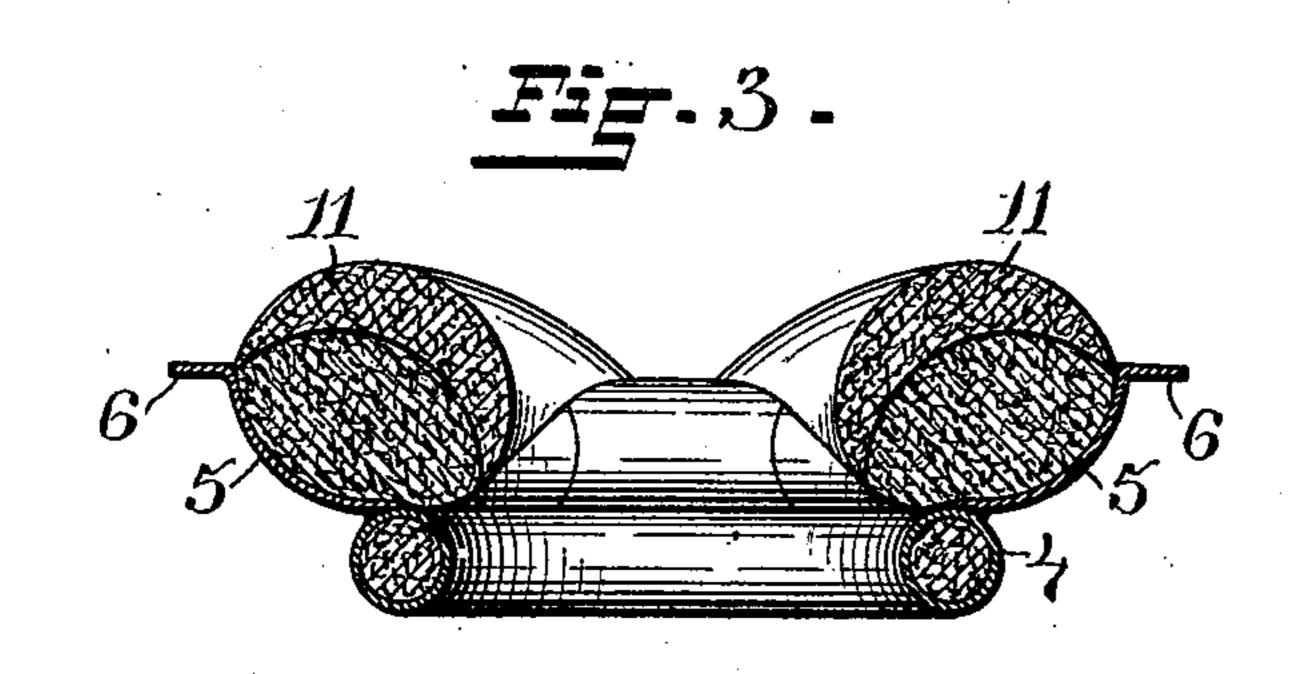
(No Model.)

## J. MULLEN. HORSE COLLAR.

No. 519,585.

Patented May 8, 1894.





WIINESES.

Henry J. Wriller Chas. H. Lulturgs INVENTUE.

James Mullen, Joseph Affiller Heo., Allije.

THE NATIONAL LITHOGRAPHING COMPANY,

## United States Patent Office.

JAMES MULLEN, OF PROVIDENCE, RHODE ISLAND.

## HORSE-COLLAR.

SPECIFICATION forming part of Letters Patent No. 519,585, dated May 8,1894.

Application filed February 23, 1894. Serial No. 501,101. (No model.)

To all whom it may concern:

Be it known that I, James Mullen, of Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Horse-Collars; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

This invention has reference to an improvement in horse-collars and consists in the peculiar and novel construction as will be more fully set forth hereinafter.

The object of this invention is to construct a horse-collar that will bear evenly on the shoulders in the direction of the strain and which may be adjusted to fit the neck and thus avoid strain on the breast of the horse and the friction incident to collars as heretofore constructed.

Figure 1 is a front view of my improved horse-collar. Fig. 2 is a vertical sectional view through the center of the collar. Fig. 25 3 is a horizontal cross-section on the line A—B, Fig. 1

Fig. 1. In the drawings 4 indicates the roll of leather compactly filled with straw or other suitable material,—the lower central portion 30 of the roll 4 at 4' is bent over a short radius, indicated in broken lines, and connects at both sides with the curved parts 42 bent over the larger radius, also indicated in broken lines, thus forming a three-center curve, or 35 arch, the central portion of which is smaller than the others, the widest portion being on the line A—B. The upper portions of the roll extend tangentially in a straight line to the ends. The upper ends of the roll 4 are 40 not curved in toward each other to form the withers but end abruptly leaving the upper end open and, therefore, the collar is not supported on the neck by the withers. The afterwale 5 extends outward beyond the roll 4 hav-45 ing its widest portion on the line A-B, Fig. 1, and ends in the housing 6,—to one of the upper open ends of the after-wale 5 the strap

7°is secured and to the opposite end the buckle 8 by which the upper open ends of the roll and after-wale may be adjusted so as to 50 be closer together or farther apart and secured in the adjusted position. The hood 9 is secured to one side of the collar and the other side is provided with the strap and buckle 10 by which the same is adjusted and secured.

To secure a firm bearing on the shoulder and on the neck the pad 11 is secured on each side of the after-wale 5, as is shown in Figs. 2 and 3, so as to fit the shoulders and extend 60 upward and inward to form the cushioned-bearing 12 on the neck, this bearing 12 is made to fit the neck without bearing on the upper part of the same.

These collars can be kept in stock of vari- 65 ous sizes and have the pad 11 secured to fit any particular horse so that with the adjustment at the upper end a collar can be made to easily fit the shoulders of any horse and so support the strains that the greatest amount 70 of work can be performed without injury to the horse.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

A horse collar having the roll or fore-wale at the lower part of the collar curved on a section of a circle of small radius terminating in curves of larger radius and extending to the ends in straight tangential lines, in 80 which the after-wale is widest on a line with the widest opening between the roll, the open top provided with a strap and buckle and covered by a hood, and a pad secured to the under sides of the after-wale and extending 85 upward to the inner side of the collar, as described.

In witness whereof I have hereunto set my hand.

JAMES MULLEN.

Witnesses:
JOSEPH A. MILLER,
M. L. MAHONEY.