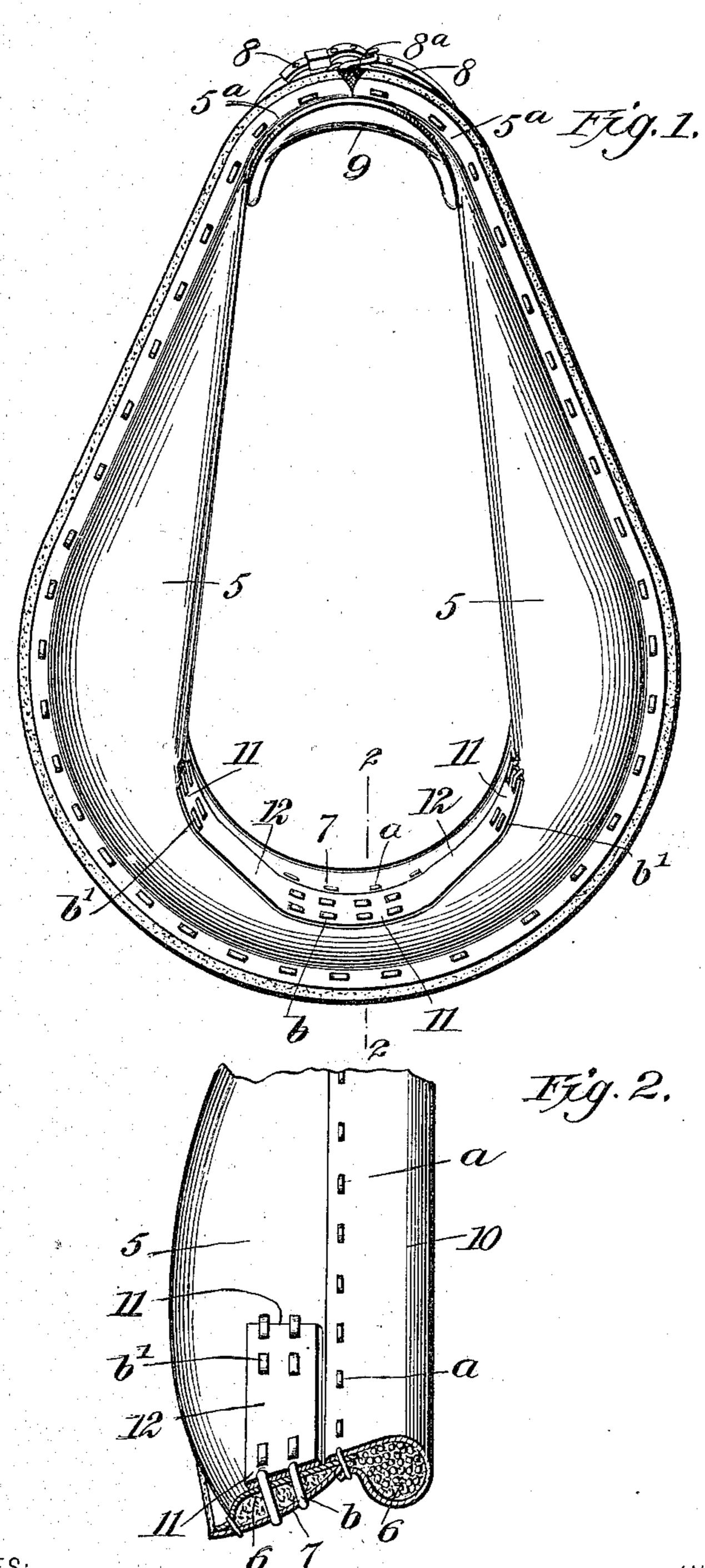
## J. H. MILLER. THROAT BRACE FOR HORSE COLLARS. APPLICATION FILED APR. 20, 1903.

NO MODEL



WITNESSES:

Jane Stunte

Mul Patton

INVENTOR

Joseph H. Miller

BY

Muun

ATTORNEYS.

## United States Patent Office.

JOSEPH HENRY MILLER, OF DULUTH, MINNESOTA.

## THROAT-BRACE FOR HORSE-COLLARS.

SPECIFICATION forming part of Letters Patent No. 736,128, dated August 11, 1903.

Application filed April 20, 1903. Serial No. 153,448. (No model.)

To all whom it may concern.

Be it known that I, Joseph Henry Miller, a citizen of the United States, and a resident of Duluth, in the county of St. Louis and State 5 of Minnesota, have invented a new and Improved Throat-Brace for Horse-Collars, of which the following is a full, clear, and exact description.

This invention has for its object to provide 10 a novel brace attachment for horse-collars which will strengthen the throat-section of the collar, preventing rupture of the same when the collar is opened at the top for application upon the neck of a horse and also 15 preventing draft strain imposed on the lower portion of the collar from drawing it against the windpipe of the horse, so as to obstruct breathing.

The invention consists in the novel con-20 struction and combination of parts, as is hereinafter described, and defined in the appended claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, 25 in which similar characters of reference indicate corresponding parts in both the figures.

Figure 1 is a rear view of a horse-collar, showing the improved throat-brace thereon; and Fig. 2 is a transverse sectional view of a 30 portion of the collar and the throat-brace substantially on the line 2 2 in Fig. 1.

The collar is of usual form and construction, embodying the similar shoulder-pads 55, filled with any suitable fiber to give them 35 cushion form, the padding 6 being introduced between two leather walls that are given conventional shape, these walls extending in looped form to produce the throat-section 7 of the collar that is integral with the shoul-40 der-pads. The throat-section 7 is also filled with fibrous material, but is much thinner than the pads 5, being in the form of an inverted arch that serves to space apart the shoulder-pads, affording a sufficient opening 45 for the reception of the neck of an animal whereon the collar may be placed. From the shoulder-pads 5 the collar-body is upwardly tapered toward its end portions 5a, and the latter are curved toward each other to form 50 the top of the collar. Two straps 8 are secured by an end of each one upon a respective upper end portion 5° of the collar, these

straps being connected with a buckle 8a, that enables the shortening of the straps, so as to

draw the parts 5° together.

To cover the open joint between the ends 5° of the collar, a shield 9, of leather or other material, is employed and is held in place by any suitable means and affords a smooth surface for engagement of the upper end of the 60 collar with the neck of the horse. An annular rim or bead 10 is provided for the front edge of the collar and comprises a tubulated open ring formed of leather or other suitable material that is stuffed with a fibrous filling, the 65 rim being secured upon the collar-body by thong-stitching a, (shown in Fig. 2,) providing a suitable recess for the reception of a pair of hames. (Not shown.) It has been found that a horse-collar constructed in the usual 70 manner, as is hereinbefore described, and which avoids objectionable thickness in the throat-section is liable to break at the center of the arch of said throat-section on account of frequently bending this portion of the col- 75 lar to permit it to be spread at the upper ends when the collar is opened so that it may be placed on the neck of the horse.

The improved means for reinforcing the arched throat-section of the collar is very 80 simple and comprises an elongated piece of pliable non-elastic material, leather of suitable thickness being preferred. The material 11 of proper width and length for effective service is located upon the inner surface 85 of the throat-section 7 and extends an equal distance from the crown of this arched portion of the collar. At the center of the material 11 and a suitable distance each side of the center the reinforcing-piece is securely 90 attached to the throat-section 7 by sewing it thereon, preferably with a leather thong, as is shown at b, such stitching passing through the reinforce-piece and the collar, as clearly indicated in Fig. 2. At and near each end 95 of the reinforce-piece 11 these portions of the same are secured upon the inner surface of the collar, preferably by thong-stitching b', that passes through the collar at points where the throat-section 7 merges into the lower 100 portions of the shoulder-pads 5. As shown, there are two equal portions of the reinforce material 11 left unsecured, and when the collar is in closed condition said portions 12

loosely contact with the inner surface of the throat-section 7.

It will be seen that tension sustained by the throat-section 7 of the collar when heavy 5 draft strain is applied upon the sides of the collar and which has a tendency to flatten the arch of the throat-section 7 will be resisted by the reinforce material 11, the loose portions 12 thereof acting as truss-braces, so that ro the collar is prevented from flattening where it is arched, and thus is prevented from injuriously pressing upon the animal's throat. The reinforcing-piece 11 also serves to strengthen the throat-section 7 when the up-15 per ends 5° of the collar are disconnected and spread apart to permit the collar to be placed upon the neck of an animal. In this case the portions 12 of the reinforcing-brace 11 are drawn taut and resist rupturing strain, so 20 that the arched throat-section 7 is held in normal condition.

While it is preferred to employ thongs for attaching the brace-piece 11 upon the throat-

section 7, metal staples may also be used. I therefore do not limit the means of securing  $\mathfrak{S}$ 5 the brace-piece 11 upon the collar to sewed connections, such as b b'.

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

The combination with a horse-collar, of a reinforcing-brace therefor, comprising an elongated piece of leather, secured at its center and at each end upon the inner surface of the arched throat portion of the collar, 35 by stitches passing through the brace and through the collar at three points, leaving truss-brace portions intervening the center and ends of the reinforcing-brace.

In testimony whereof I have signed my 40 name to this specification in the presence of two subscribing witnesses.

JOSEPH HENRY MILLER.

Witnesses:

A. J. Johnson, D. M. Robertson.