

No. 847,248.

PATENTED MAR. 12, 1907.

H. A. FONTEINE.
HORSE COLLAR.

APPLICATION FILED JAN. 22, 1906.

3 SHEETS—SHEET 1.

Fig. 1.

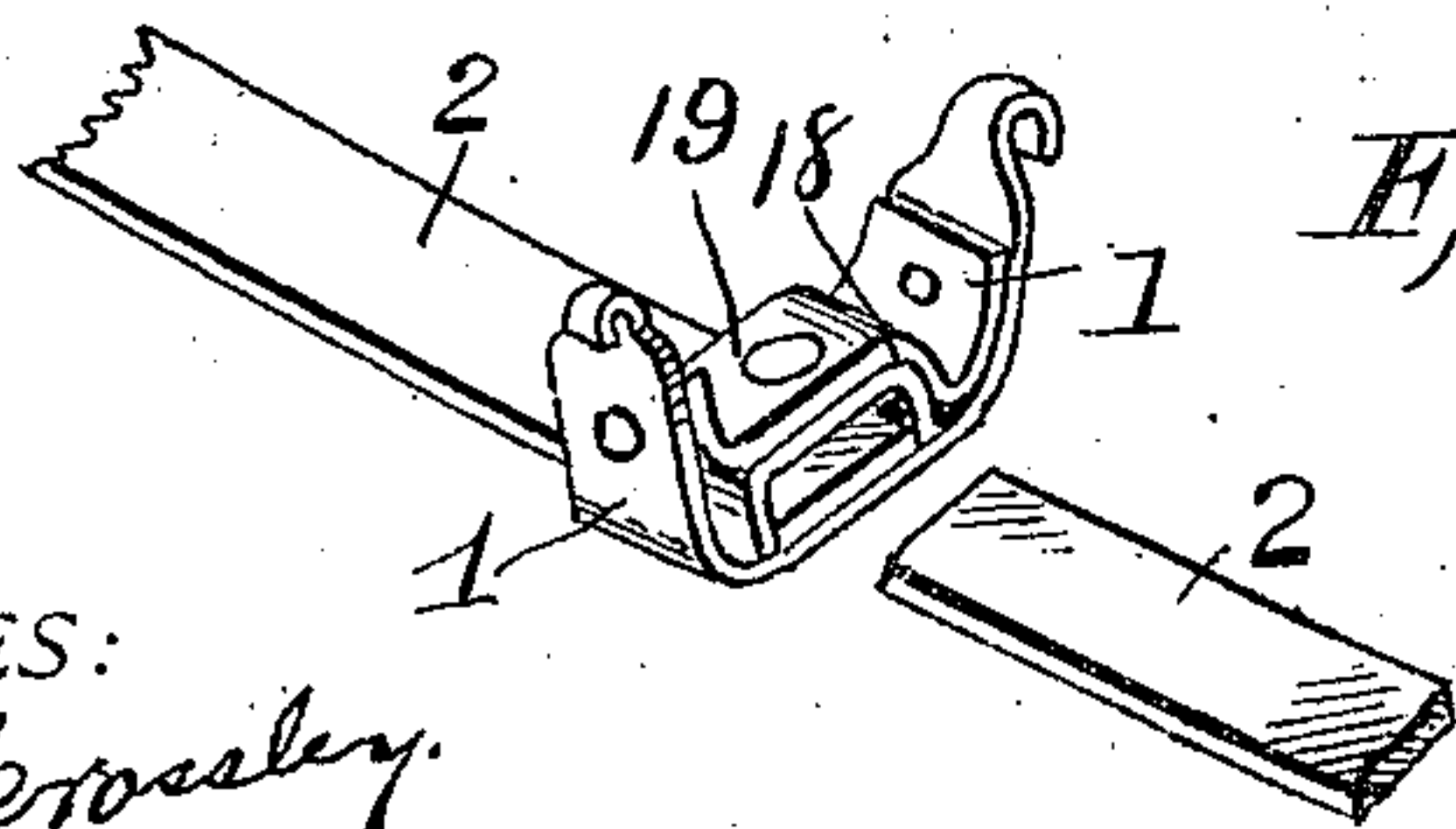
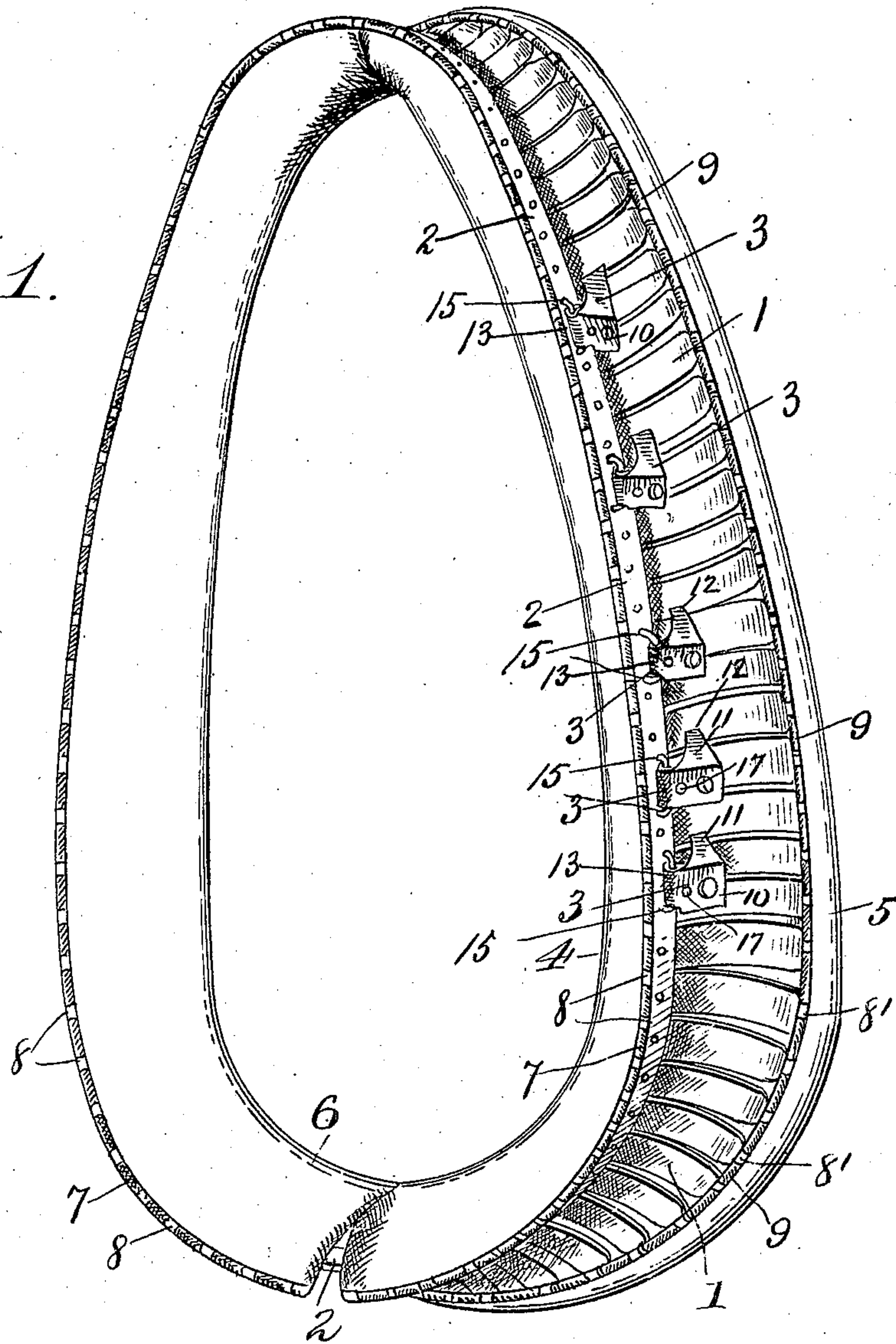


Fig. 10.

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3 SHEETS—SHEET 2.

Fig. 2.

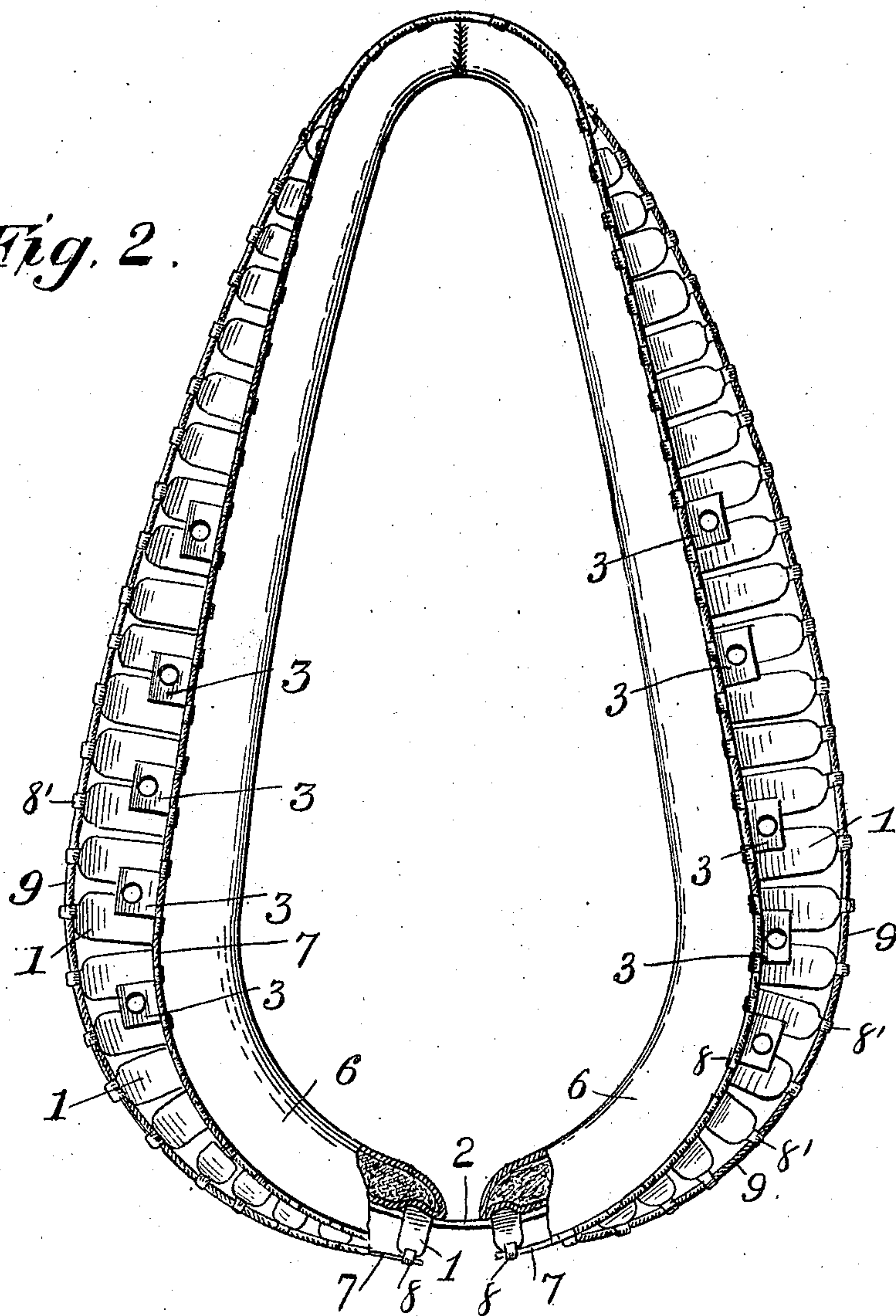


Fig. 7.

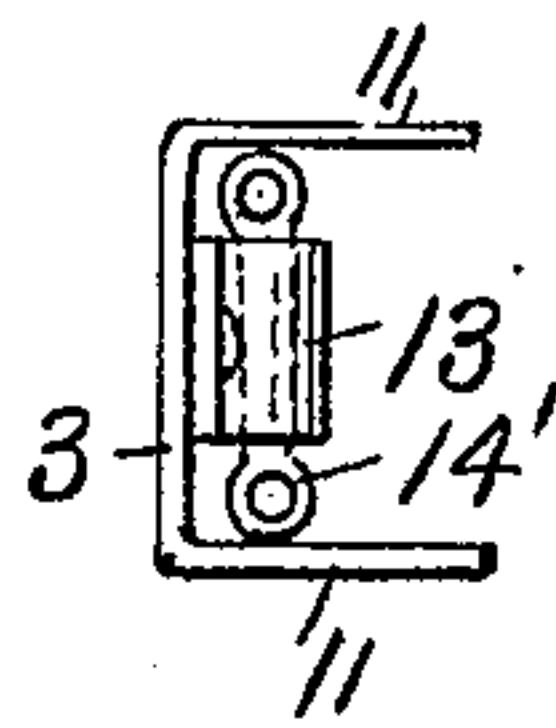


Fig. 8

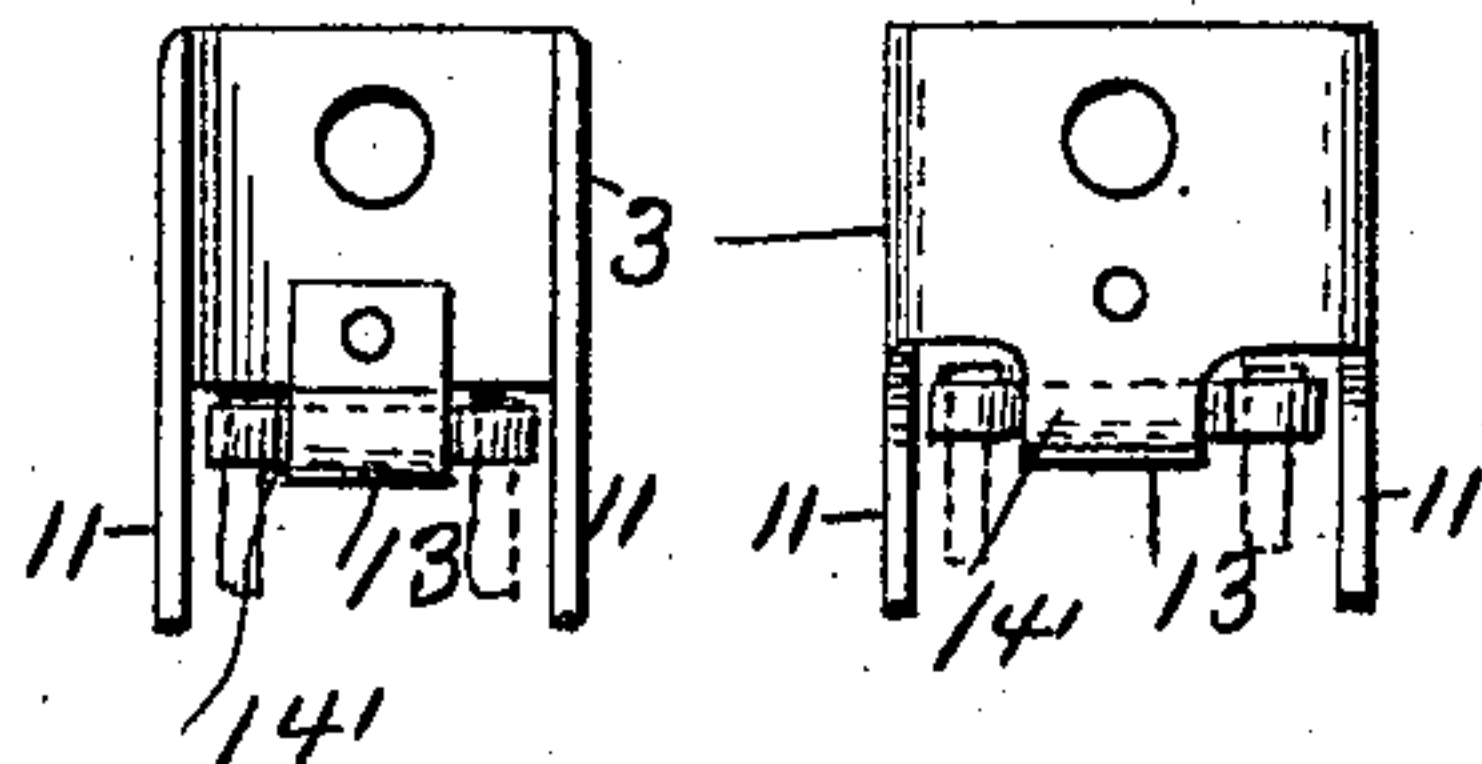
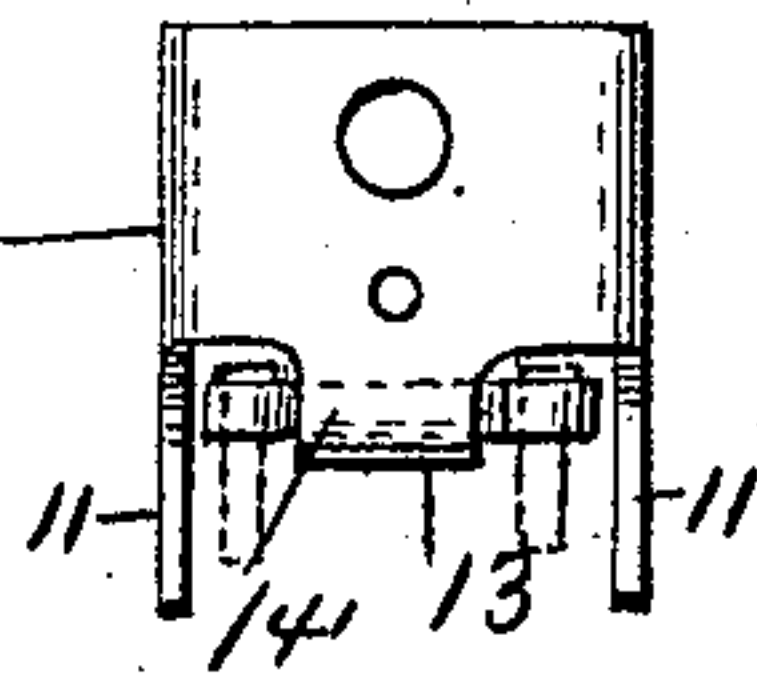


Fig. 9.



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3 SHEETS—SHEET 3.

Fig. 3

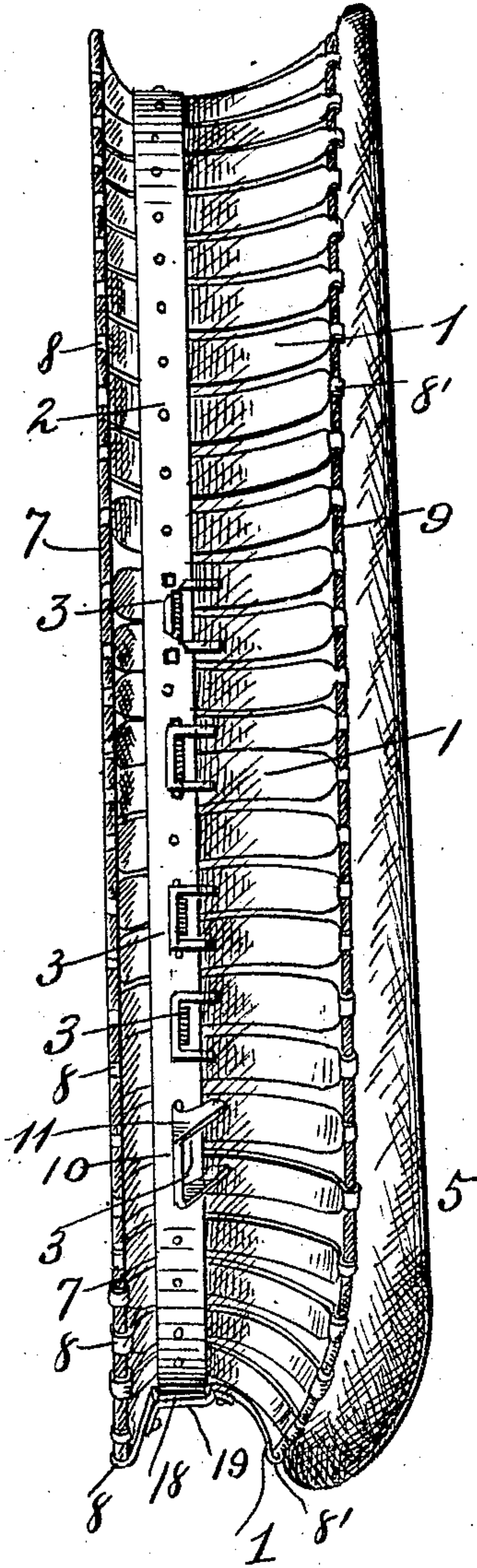


Fig. 4.

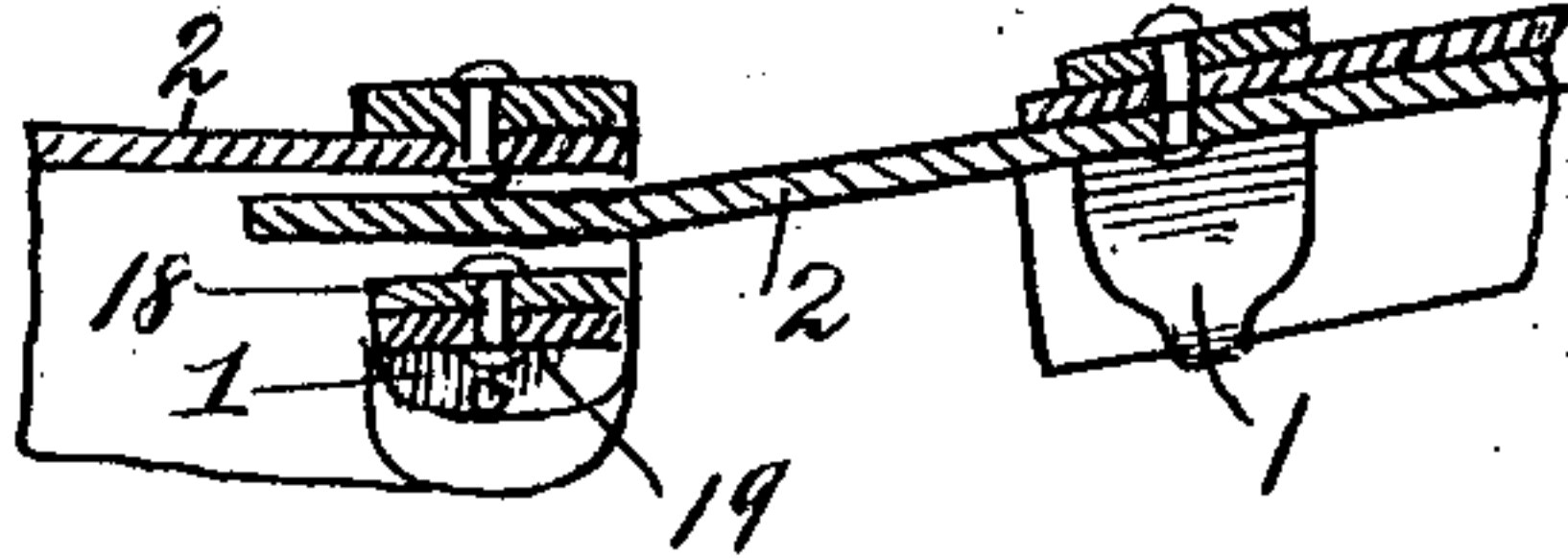


Fig. 5.

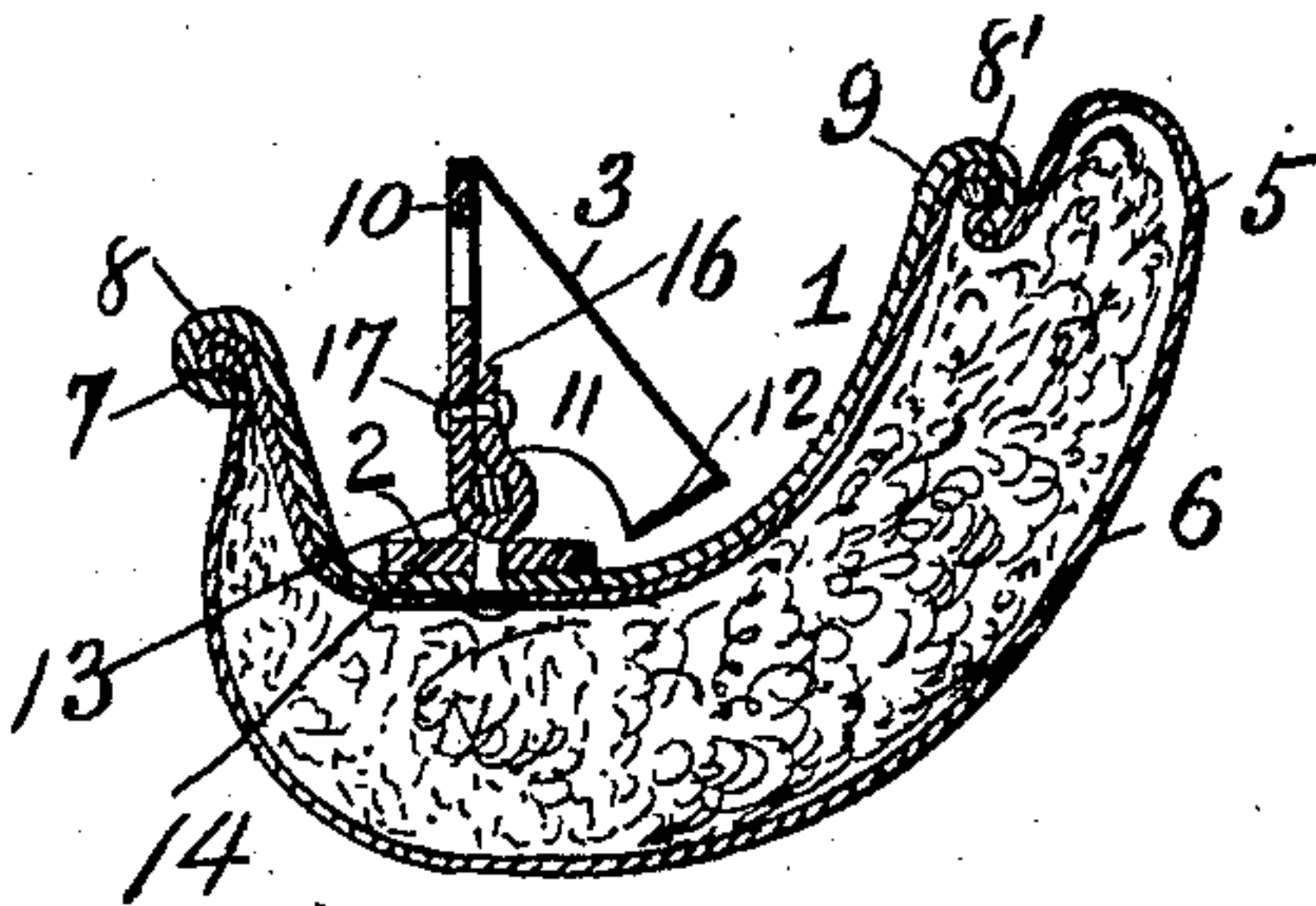
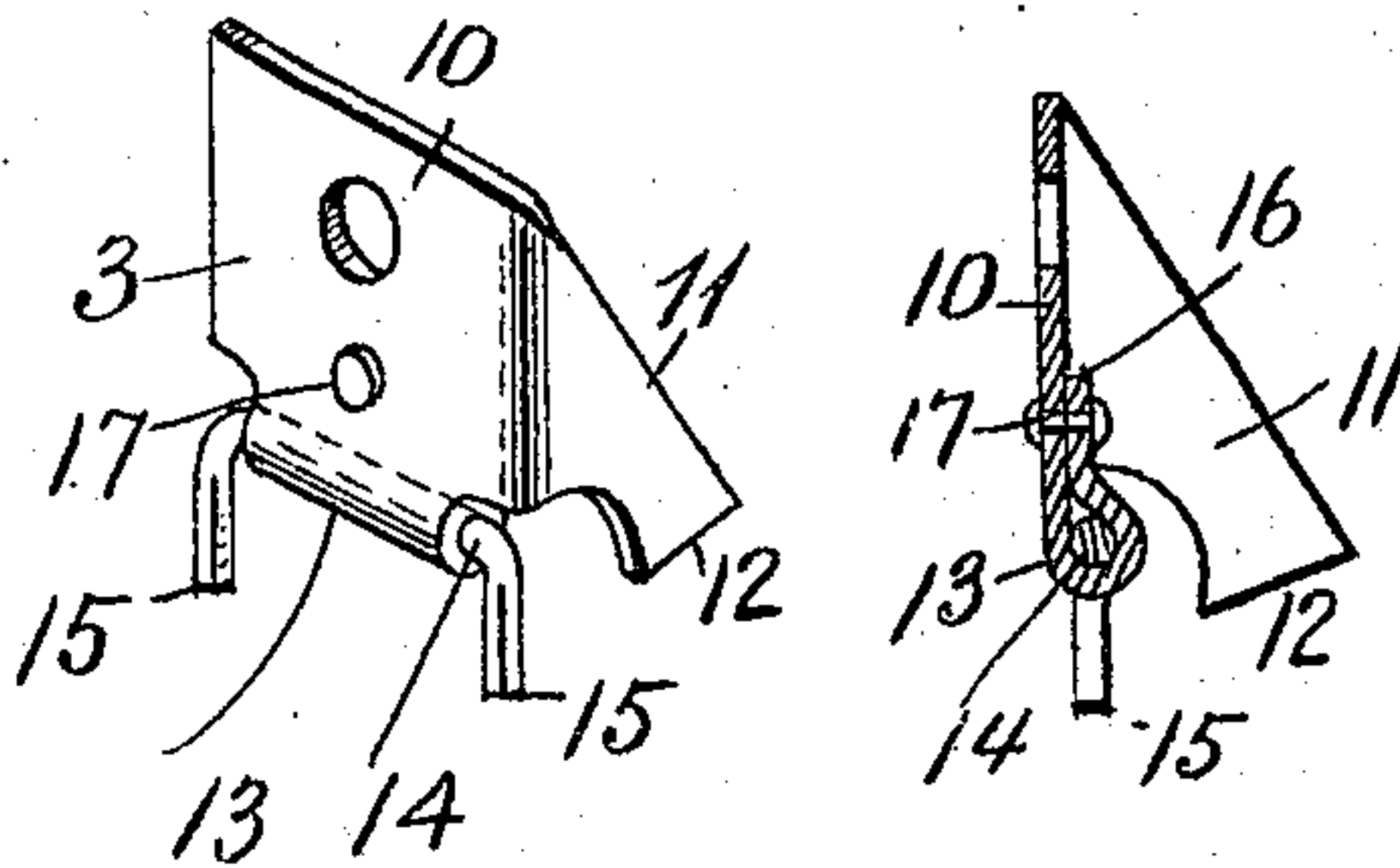


Fig. 6.



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UNITED STATES PATENT OFFICE.

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TO DAN. W. KELLOGG, OF AUBURN, NEW YORK.

HORSE-COLLAR.

No. 847,248.

Specification of Letters Patent.

Patented March 12, 1907.

Application filed January 22, 1906. Serial No. 297,292.

To all whom it may concern:

Be it known that I, HERMAN A. FONTEINE, a citizen of the United States, residing at Auburn, in the county of Cayuga and State of New York, have invented certain new and useful Improvements in Horse-Collars, of which the following is a specification.

This invention has relation to horse-collars generally, and particularly to that class of horse-collars in which metallic springs are employed as the principal cushioning means of the shoulder-pads.

It is the object of the invention to provide an improved cloth cushion back of the springs in order to make the bearing of the collar on the horse's shoulders softer than a sheet of leather would be and also to provide improved means for connecting the pad to the springs and the parts immediately associated therewith, and, moreover, to provide improvements in the hames-rests and incidentally to improve other parts and features of the type of horse-collars hereinbefore referred to.

The nature of the invention has been so far indicated in setting forth its objects as not to require a restatement thereof here; but it will be fully and clearly described hereinafter with reference to the annexed drawings, forming a part of this specification, in which—

Figure 1 is a perspective view of my improved horse-collar. Fig. 2 is a front view showing a portion of a seam of the lining as ripped and the fabric turned back to disclose a front view of the springs at the point or line where the metallic band encircles them on the outside. Fig. 3 is a side view showing the nature of the hames-rests connected to the springs and a portion of the cords nipped by the ends of the springs as laid bare. Fig. 4 is a cross-section through one side of the collar. Fig. 5 is a perspective view of a hames-rest detached. Fig. 6 is a central sectional view of the same. Figs. 7, 8, and 9 are detailed views of a modified form of hames-rest. Fig. 10 is a detail perspective view of the overlapping parts of the band. Fig. 11 is a detail longitudinal section of the same.

Like figures designate like parts and features, as the case may be, wherever they occur.

In the drawings, 1 designates the shoulder-pad springs.

2 is the encircling band to which the springs and hames-rests 3 are connected.

4 is the cloth-covered cushion inside of the springs 2 and extending rearwardly beyond their outer ends, as shown at 5. The cloth-covered pad is merely of sufficient thickness to relieve the resilient springs of the uncomfortable harshness that they would have if they rested directly on the shoulders of the horse.

The fabric 6, covering the "stuffed" part of the cloth-covered pad, is extended at the front outwardly, as shown in Figs. 2 and 4, and hemmed in the outer doubled part of the said fabric at its edge is a hempen cord or wire 7, which is "nipped" by each spring 1 at its forward end by reducing the width of the spring at said end and bending the reduced portion 8 around the cloth-inclosed wire. The springs 1 are also reduced at their rearward ends, as shown, and the said reduced part 8' along the line which they form "nip" a cord or wire 9, hemmed in the fabric 6, substantially the same as the cord or wire 7 is secured.

The stuffed part of the cloth-covered cushion 4 extends on the inside of the springs from a line back of the forward edge of the encircling band 2 to some distance back of the rear edge of the collar and of the rear ends of the springs 1 where they nip the cord or wire 9. This construction affords a soft easy bearing for the springs on the shoulders of the horse, is most efficient for the purposes for which it is designed, and is at the same time durable to a maximum degree, there being no undue strain upon the cloth anywhere that would tend to tear it, and when it becomes worn out from use it can readily be repaired or the old pad replaced by a new one.

The hames-rests 3 consist of a piece of metal of sufficient strength, having a substantially rectangular top 10 and braces 11 bent at a right angle to the top, with their inner ends 12 formed to rest against the outer face of the springs 1 and maintain the top at a right angle to the outer face of the encircling band 2. The metal to the rear of the top 10 is given a recurvate bend 13 around the part 14 of the metal which connects the legs 15 of a staple. The underbent end 16 is secured to the top 10 by a rivet 17; by

which means the staple is firmly secured in place on the hames-rest, and the legs 15 joined to the hames-rest proper are passed through holes formed in the encircling band; and the forward portions of the springs, whereby it is firmly fastened to the collar. These hames-rests are disposed at needed intervals around the collar in line with the encircling band and operate to support the hames which in use will be placed thereon. In riveting the legs 15 of the staple to the encircling band and springs care will be taken not to bind the bar 14 in the bend 13, so that it will not have sufficient play to turn in said bend, a special object of the construction specified being to have the hames-rest proper turn to a limited extent on the bar 14 as a pivot. In other words, the construction is such that the hames-rest will be pivoted on the bar 14. It is also proposed in some cases to make the legs 15 of the staple square in cross-section and to make the holes in the encircling band and springs through which the riveting-legs 15 pass of corresponding square form, so that there will be no tendency of said legs to turn in the holes or sockets into which they extend.

Another form of means for pivoting the hames-rest to the encircling band and springs is shown in Figs. 7 and 8, wherein the recurvate bend 13, of metal, encompasses the middle portion of a bar 14', the enlarged ends of which have holes formed through them for the passage of the shanks of rivets, round or square in cross-section, which extend through the encircling band and springs and are riveted thereto. In this case also the hames-rest will turn to a limited extent on the bar 14' as a pivot. The ends of the encircling band may overlap where they meet, and a clip 18 may be formed to encompass the overlapping ends. In this case a plate 19 may cover said clip and be secured at its ends and center by rivets passing through the spring 1 behind it.

Limit, it is understood, is afforded for mechanical changes in form and arrangement of parts without departing from the nature or spirit of the invention.

I claim—

1. A horse-collar, having shoulder-pads; springs forming the base of said pads; the said pads being cloth covered; wires encompassed by the cloth, surrounding the edges of the collar, and the springs being reduced in width at their ends, which reduced portions are bent around the cloth-encompassed wires, nipping the same.

2. The combination, in a horse-collar, of cloth-covered shoulder-pads; springs, and an encircling band, forming the base of the pad; and wires encompassed by the cloth, and surrounding the collar at its edges; the springs being bent at their ends to nip the said cloth-encompassed wires.

3. The combination, in a horse-collar, of cloth-covered shoulder-pads; the springs and encircling band, forming the base of the pad; wires encompassed by the cloth, and surrounding the collar at its edges; the springs being bent at their ends to nip the said cloth-encompassed wires; and stuffing for the pad extending from the upper edge of the encircling band to a short distance back of the rear edge of the collar and ends of the springs.

4. The combination, with springs, and encircling band, the ends of the latter being adapted to overlap where they meet; a clip encircling said overlapped parts of the band; a plate covering the clip, and extending at its ends on the spring behind it; and rivets passed through the spring, band, clip, and plate and riveted down to secure the parts in position.

5. The combination, in a horse-collar, of springs, and an encircling band; with a hames-rest having a supporting part extending at a right angle to the band; bracing portions extending at a right angle to the face, and at their inner ends resting against the springs; and a staple having the part between the legs connected with the rear end of the hames-supporting part; said legs being riveted to the band and springs.

6. The combination, with a horse-collar, of shoulder-pad springs and encircling band with a hames-rest having a pivotal connection with the springs and band.

7. The combination, with a horse-collar, of a hames-rest, a staple with which the hames-rest has a pivotal connection, the legs of the staple being square in cross-section and holes in parts of the collar through which said staple-legs pass, the holes corresponding in form to the cross-sectional form of the legs.

8. The combination, with a horse-collar of hames-rests having a pivotal connection with the collar, as hereinbefore set forth.

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

HERMAN A. FONTEINE.

Witnesses:

MARION C. ALDRICH,
FREDERICK A. MOHR.