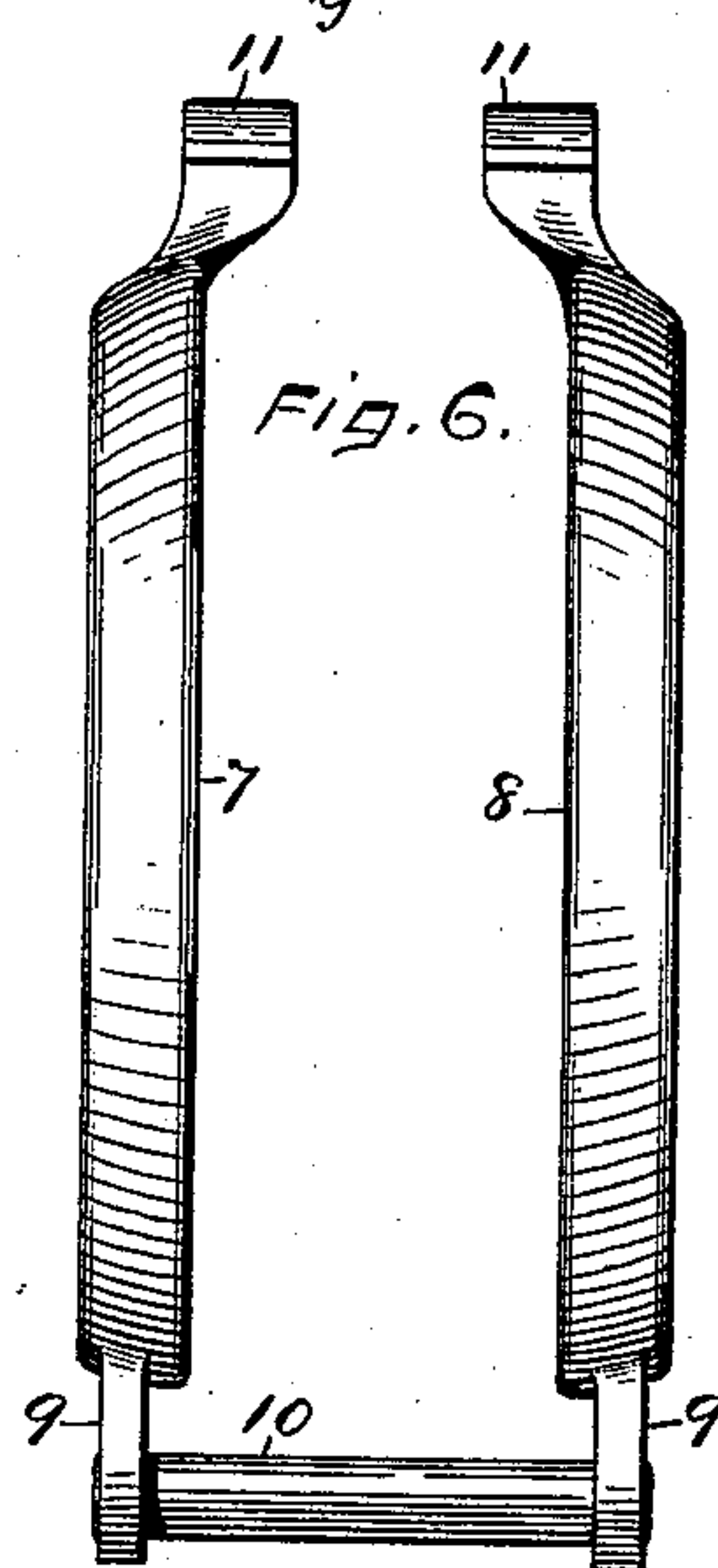
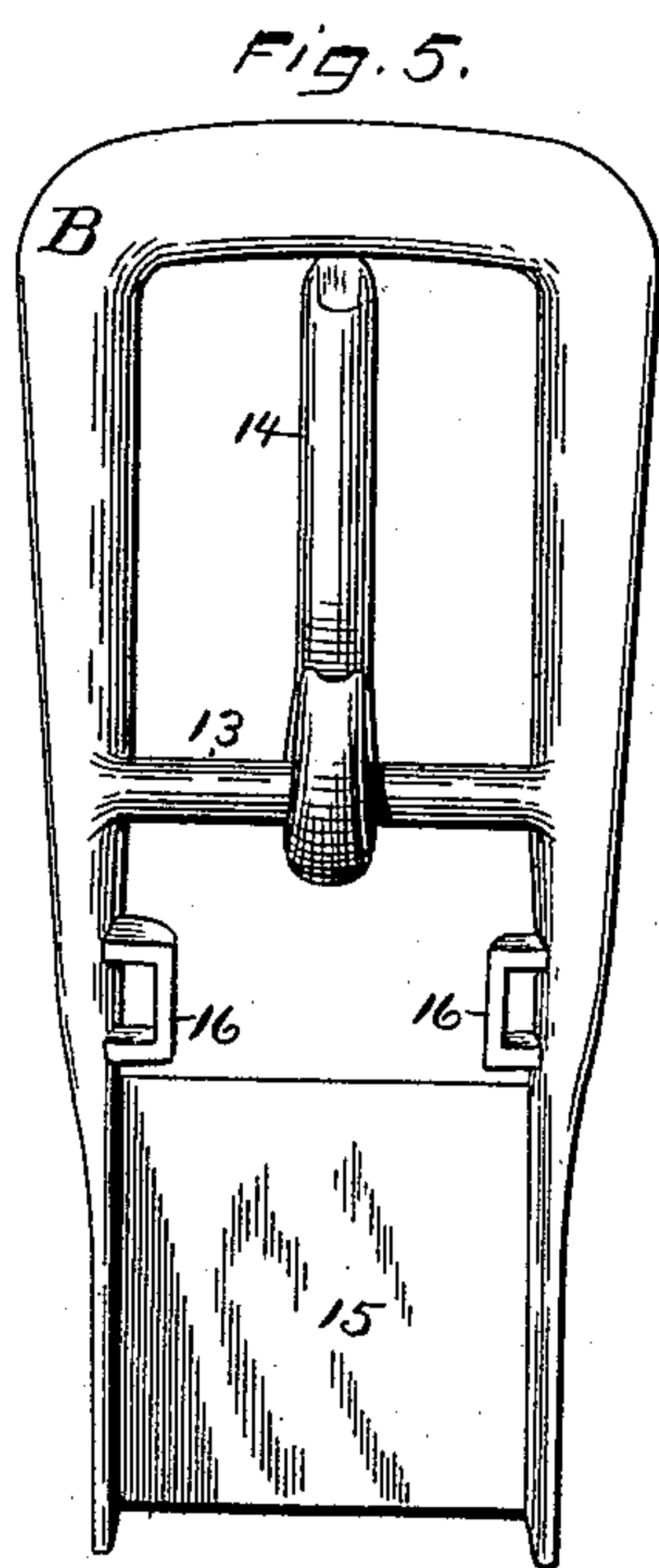
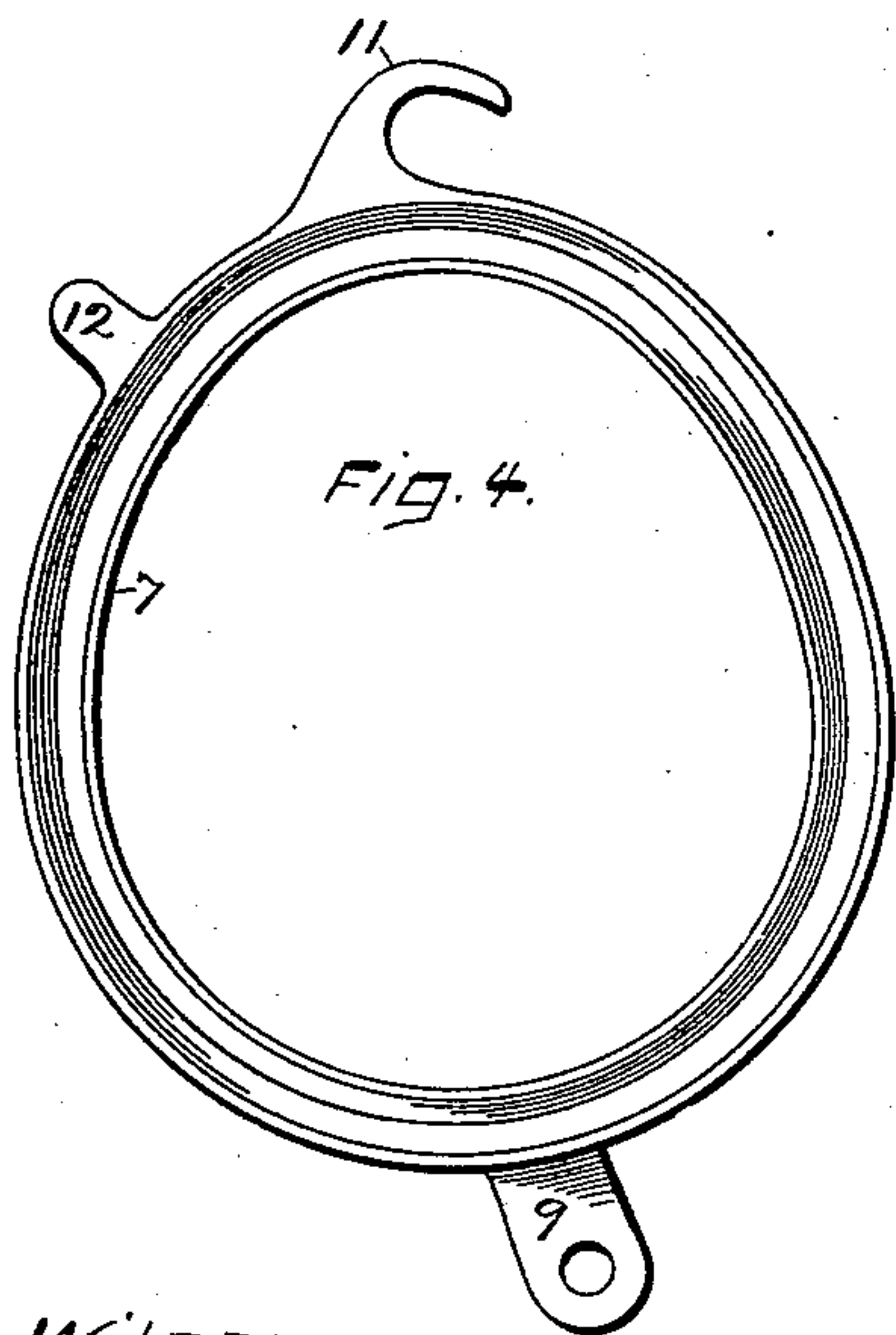
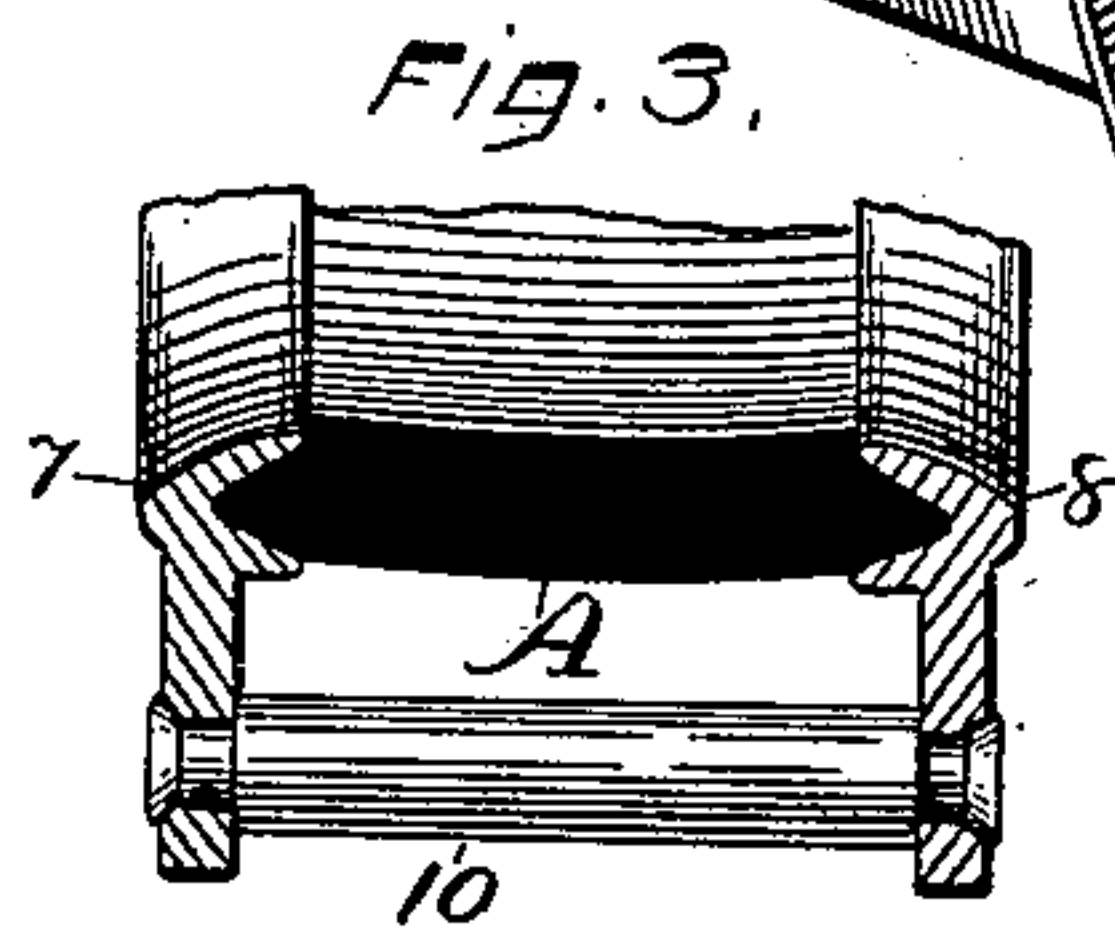
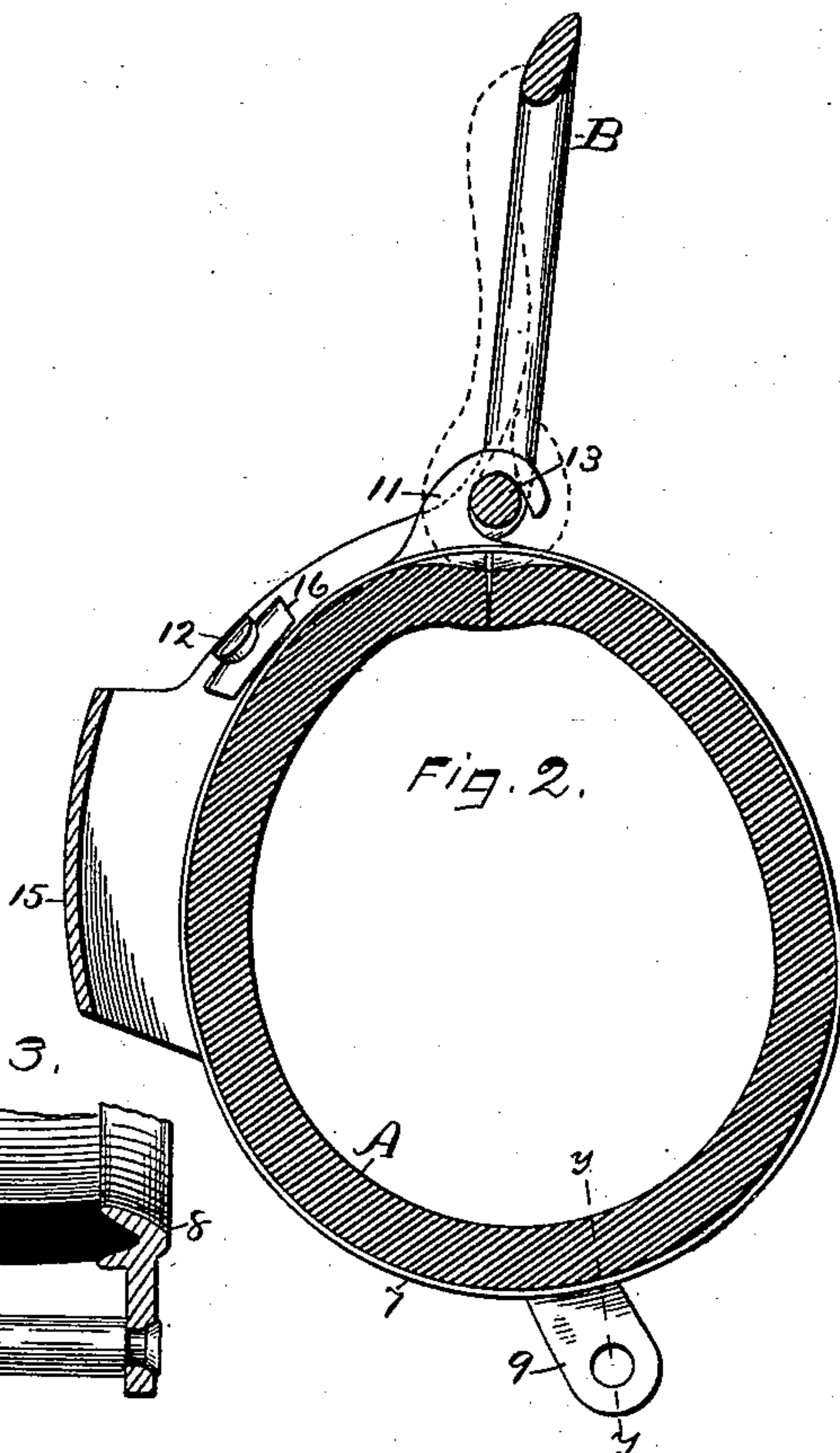
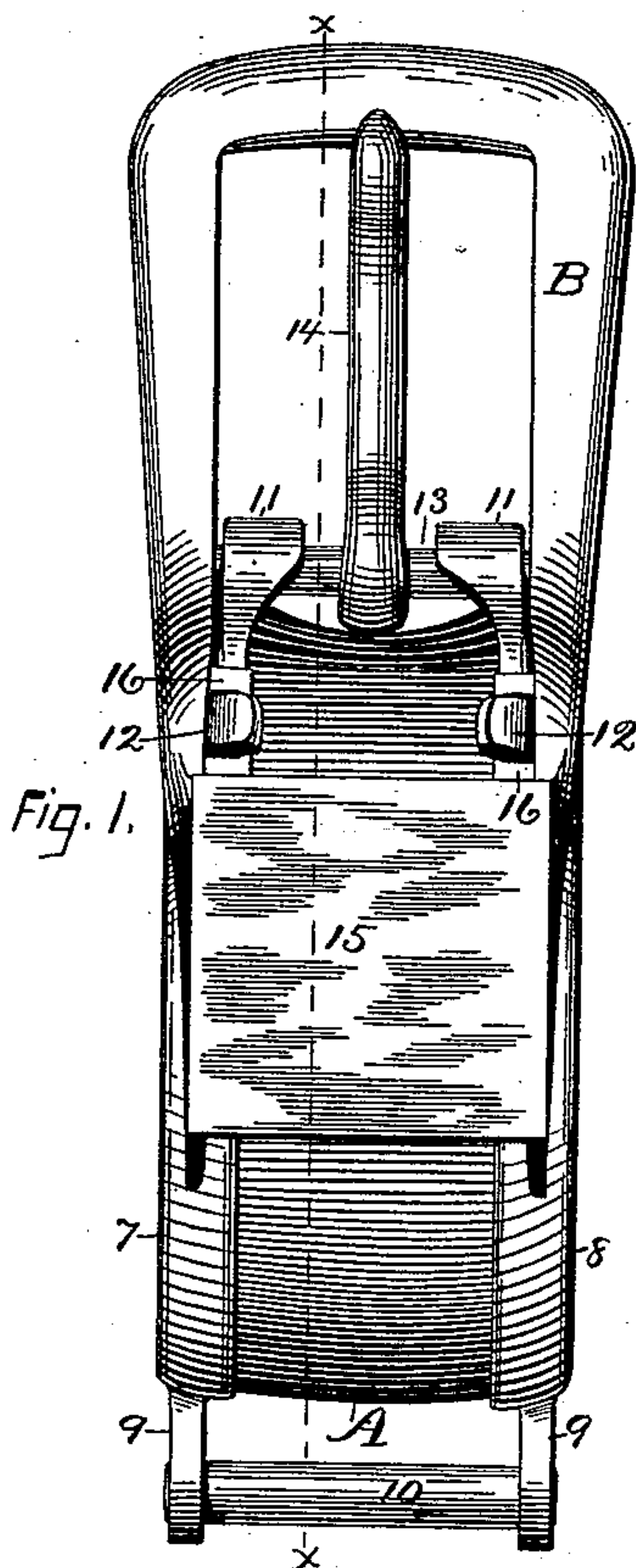


(No Model.)

I. C. MERRILL.
THILL LUG.

No. 465,186.

Patented Dec. 15, 1891.



WITNESSES,
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W. H. Whitney.

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UNITED STATES PATENT OFFICE.

ISAAC C. MERRILL, OF LEWISTON, MAINE, ASSIGNOR OF ONE-HALF TO
HENRY A. WHITE, OF PLAINVILLE, CONNECTICUT.

THILL-LUG.

SPECIFICATION forming part of Letters Patent No. 465,186, dated December 15, 1891.

Application filed May 26, 1891. Serial No. 394,160. (No model.)

To all whom it may concern:

Be it known that I, ISAAC C. MERRILL, a citizen of the United States, residing at Lewiston, in the county of Androscoggin and State of Maine, have invented certain new and useful Improvements in Thill-Lugs, of which the following is a specification.

My invention relates to improvements in thill-lugs of the class that are formed of combined metal and leather, the leather forming the bearing-surface for the thill at the inside of the lug.

The objects of my improvement are simplicity and economy in construction and general efficiency, neatness, and durability of the article.

In the accompanying drawings, Figure 1 is a front elevation of my lug. Fig. 2 is a vertical section thereof on line $x x$ of Fig. 1, the buckle-tongue in front of said line being also indicated by broken lines. Fig. 3 is a detached sectional view of the lower portion of said lug on line $y y$ of Fig. 2, the cross-tie being shown in elevation. Fig. 4 is a side elevation showing the inside of one of the frame-rings for my lug. Fig. 5 is a rear elevation of the buckle, and Fig. 6 is a rear elevation of the frame-rings as connected by the cross-tie.

I employ a strip of leather A, having its opposite edges beveled, as shown in the section Fig. 3, and a pair of frame-rings 7 8, having confronting grooves on their inner faces for receiving the beveled edges of said strip. These rings and strip when connected together constitute a thill-lug. The lower part of each frame-ring is provided with a lug 9, which is perforated to receive the shouldered ends of the cross-tie 10, the ends of which are riveted to secure the lower part of the frame-rings together, as shown in Figs. 1, 3, and 6. This cross-tie also serves as an attachment by which to secure the belly-band. The upper part of the frame-rings are each provided with a hook 11, that opens rearwardly and with an upwardly-inclined flat thin lug 12 at a point forward of the lug 11 and farther down on the frame-ring.

The buckle-frame B is of ordinary form at its upper end and is provided at its middle portion with a cross-bar 13, upon which an

ordinary buckle-tongue 14 is placed. The buckle-frame from the cross-bar 13 upwardly is of an ordinary form. Below this point its side bars are given a curved contour in side view, corresponding to that of the lug, and they are provided with the bridge 15, which, in connection with the side bars of the frame and body of the lug, form a tucking-loop at the front side of the lug, as shown, the buckle being designed for securing the lug to the side straps that extend downwardly from the saddle. At a point between the bridge and the cross-bar the buckle-frame is provided with inwardly-projecting loops or eyes 16.

The buckle-frame B and its tongue may be of any desired material, while the hooks 11 and lugs 12 should be of cast malleable or other flexible material in order to enable them to be bent, as hereinafter described, whereby I prefer to make said frame-rings of cast malleable metal. The frame-rings are made in pairs and are first connected together by the cross-tie 10, as shown in Fig. 6. I next bend around the strip of leather A and insert it within the grooves of said frame-rings, the rings as thus connected springing or yielding slightly, so as to permit the strip of leather to be thus inserted. The hooks 11 are then passed in between the side bars of the buckle-frame and hooked over that side of the cross-bar 13 that faces the loops or eyes 16, and then the lugs 12 are inserted through said loops or eyes 16, bringing the bridged portion of the buckle-frame closely into contact with the side of the lug at the front. The lugs 12 may be then bent or clinched down and the points of the hooks 11 also clinched down, as shown in Figs. 1 and 2, thereby firmly securing all of the parts together in a simple, cheap, and efficient manner and producing a neat finish.

I am aware that a prior patent shows and describes a thill-lug composed of a strip of leather and a pair of frame-rings having grooves on their confronting faces, in which the beveled edges of said strip of leather were received, and lugs at the upper and lower parts of said frame-rings, through which screws were passed to clamp the leather and hold the parts together, the upper lugs and

its screws serving also to form a buckle-frame, while one screw on the lower lugs served as a means by which to secure the belly-band. Such a thill-lug is not claimed herein.

5 I am also aware that prior patents show thill-lugs with a swinging buckle-frame pivoted at the upper part of the lug and having a cross-bar or bridge extending across one side of the body of the lug to serve as a tuck-
10 loop, said buckle-frame being free to turn on its pivot to bring the cross-bar or bridge to or from the body of the thill-lug, the side edges of the buckle-frame not being fitted to said lug.

15 While I have shown and described certain lugs and hooks for use in securing the several parts together and prefer to employ that particular construction, I do not wish to limit myself to all the details thereof, as it is evident that substantially the same parts might
20 be rigidly secured together without employing the precise details of construction thus shown and described.

I claim as my invention—

25 1. The combination of a flexible strip, a pair of frame-rings grooved on their confronting faces to receive the edges of said strip, the buckle-frame B, having the lower ends of its side bars of a curved contour in side view
30 corresponding with that of the frame-rings and with the curved concave edges of said side bars abutting against said frame-rings, and means, substantially as described, for securing said buckle-frame rigidly and immov-

ably upon said frame-rings, substantially as 35 described, and for the purpose specified.

2. The combination of a flexible strip, a pair of frame-rings grooved on their confronting faces to receive the edge of said strip and having lugs 9 12 and hooks 11, the cross-tie 40 10, connecting the lugs 9 at the lower parts of said rings, and a buckle-frame having the cross-bar 13 and loops or eyes 16, said cross-bar being engaged by said hooks, while said lugs are received by and secured within said 45 eyes, substantially as described, and for the purpose specified.

3. The combination of a flexible strip, a pair of frame-rings, each having the general form in side view of the body of the thill-lug 50 and also having confronting grooves on their inner faces that receive the edges of said strip, a cross-tie having shouldered ends rigidly connecting said rings at their lower parts, while a space is left between of the proper 55 width to receive said strip, and a buckle-frame having two side bars, middle and cross bars, and the tucking-loop bridge, said frame and rings being provided with interlocking devices for connecting said frame with said rings 60 and also holding said rings with a like space between them at their upper parts, substantially as described, and for the purpose specified.

ISAAC C. MERRILL.

Witnesses:

LEVERETT HART,
E. SCOTT OWEN.