

(No Model.)

S. J. LISK.
PAIL BOTTOM.

No. 571,380.

Patented Nov. 17, 1896.

Fig. 1.

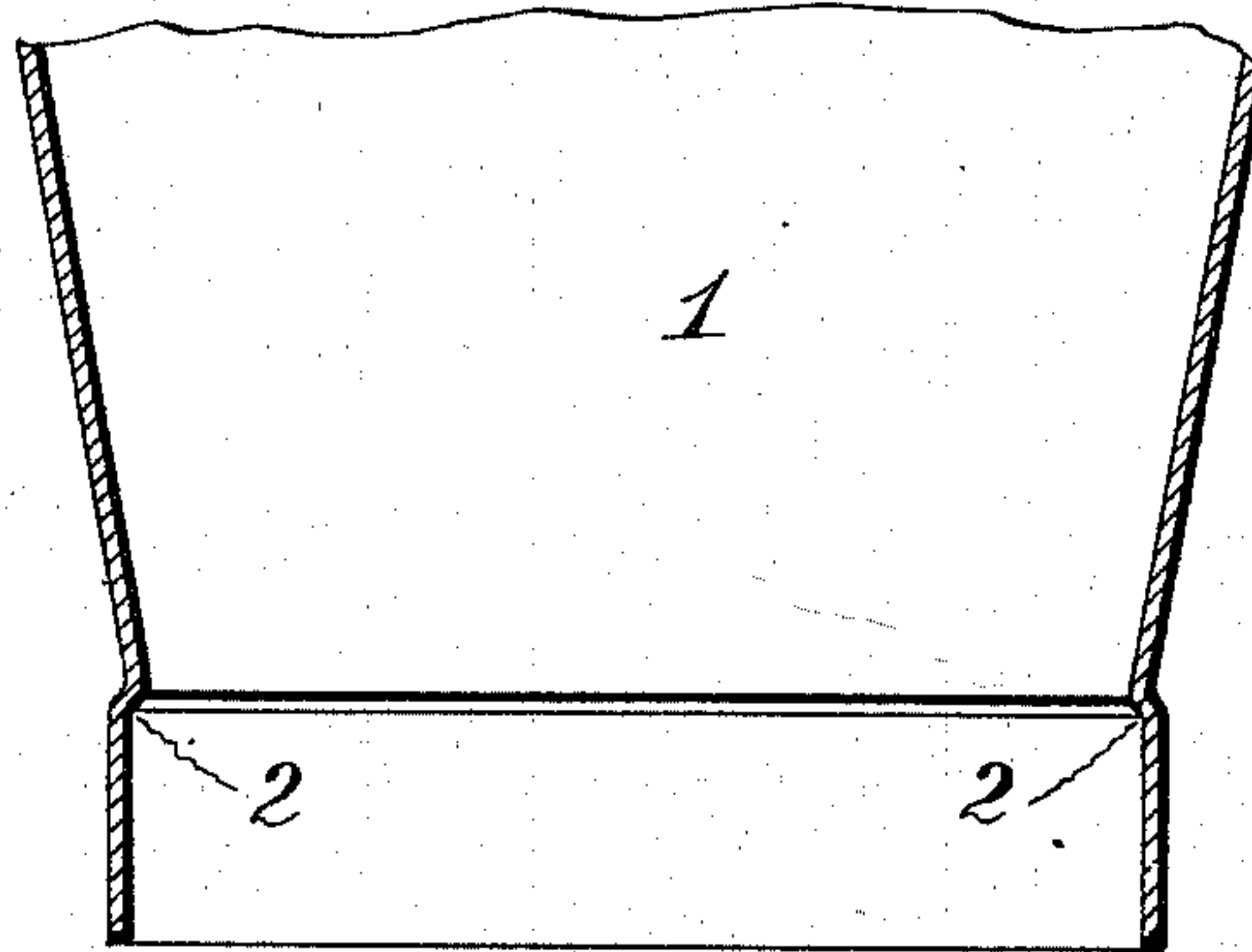


Fig. 2.

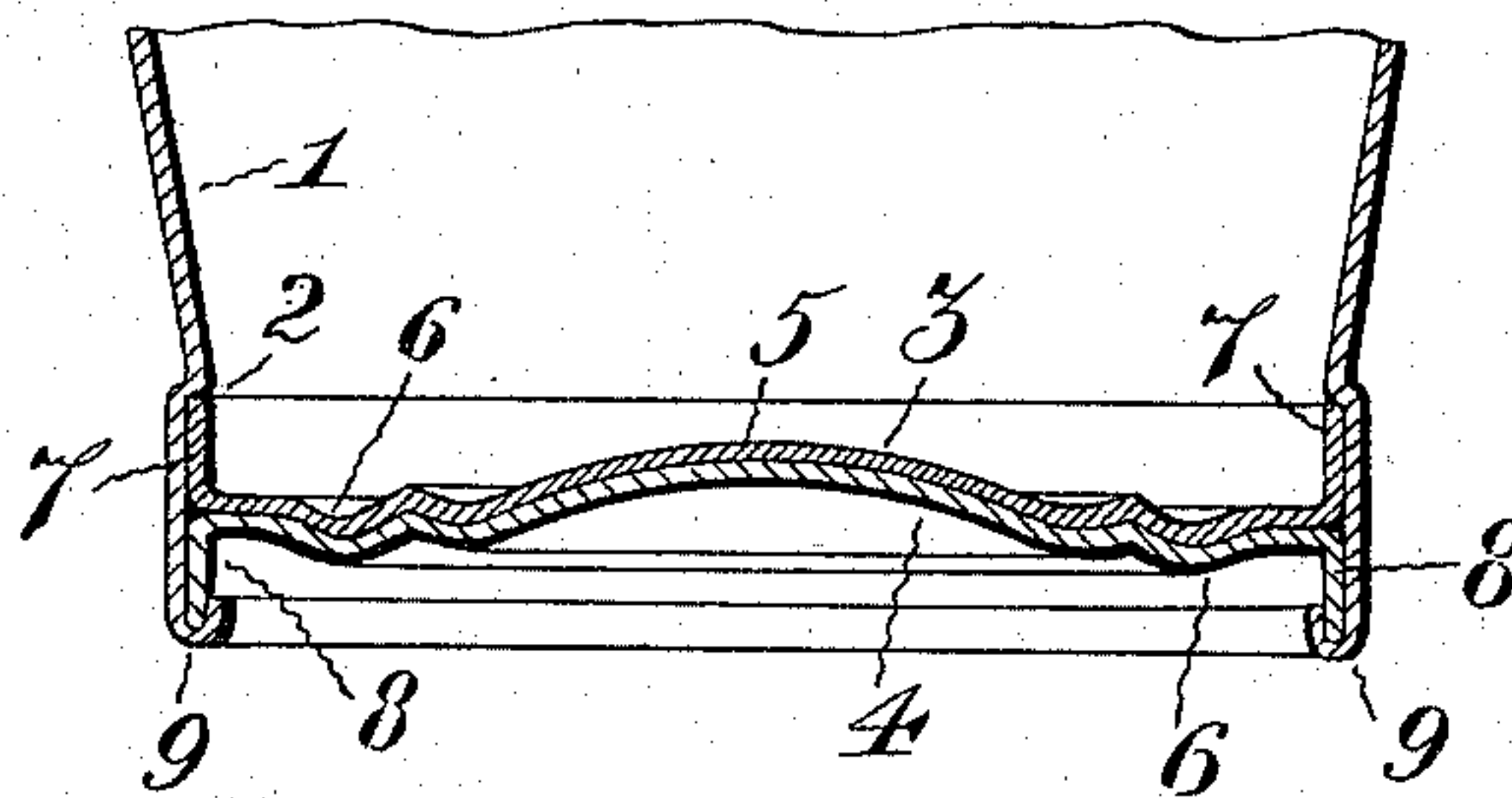
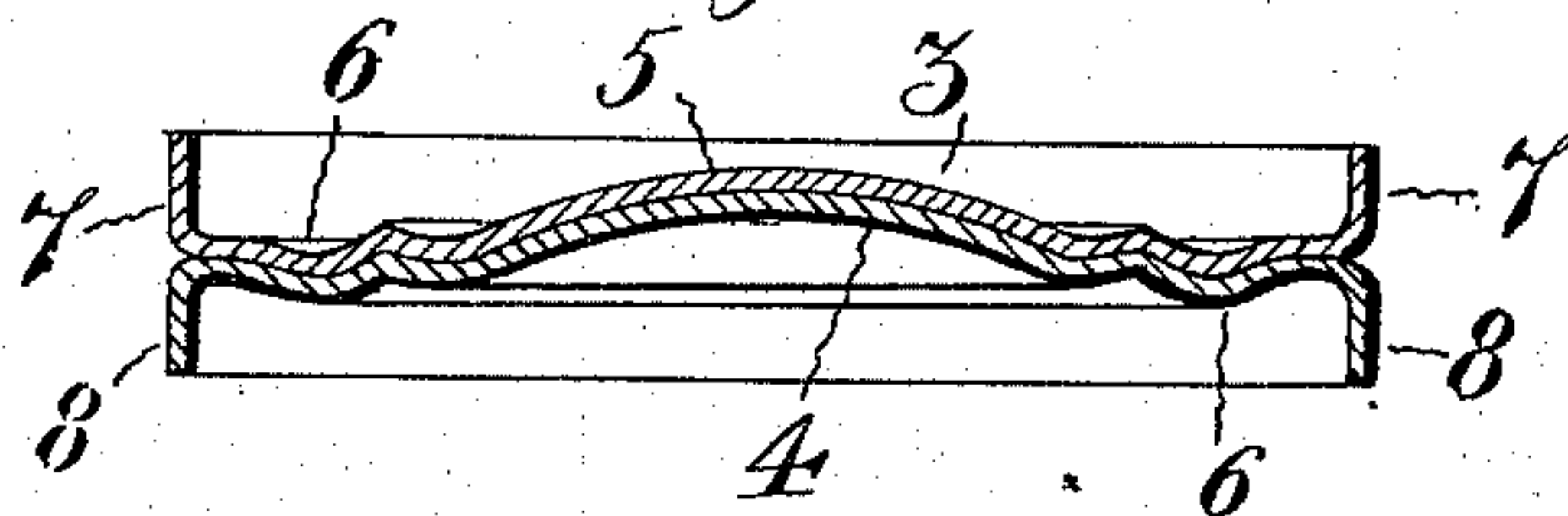


Fig. 3.



Witnesses

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PAIL-BOTTOM.

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Application filed April 14, 1896. Serial No. 587,501. (No model.)

To all whom it may concern:

Be it known that I, SIDNEY J. LISK, a citizen of the United States, residing at Clifton Springs, in the county of Ontario and State of New York, have invented certain new and useful Improvements in Double-Convex Pail-Bottoms; and I do hereby 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, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to a bottom for metallic vessels, particularly pails; and one object of my invention is to provide a pail or other metallic vessel with a double bottom composed of different kinds of metal, the inner or upper bottom being of a non-corrosive metal and the two bottoms being so shaped that they will have increased strength and will not buckle when subject to expansion.

Another object of my invention is to improve the joint between the bottom and the body of the vessel.

With these objects in view my invention consists of the several details of construction and combination of parts hereinafter fully described, and more particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a sectional view of the body of the vessel before the bottom is attached to it. Fig. 2 is a similar view of the vessel with the bottom secured to it, and Fig. 3 is a sectional view with the bottom detached.

Similar reference-numerals indicate corresponding parts in the several figures of the drawings.

1 represents the body of the vessel, the lower end of which is expanded or spun to form a vertical shouldered recess 2 of a depth substantially equal to the thickness of the metal of which the bottoms are made.

The upper bottom is indicated by 3 and the lower one by 4. Each of these bottoms is convex in its central portion, as indicated at 5, and between the convex central portion and the edge each bottom is provided with a concaved border portion, as indicated at 6. The edge of the upper bottom is turned upwardly, as indicated at 7, and that of the

lower one downwardly, as indicated at 8. The bottoms are nested together and are in loose contact with each other.

When the bottom is fitted to the body of the vessel, the upturned edge 7 of the upper bottom 3 will fit against the shoulder of the recess 2 and the inner face of the vessel will be flush with the inner face of the turned-up edge of the upper bottom, as clearly shown in Fig. 2. The lower edge of the vessel is bent up and around the turned-down edge 8 of the lower bottom 4, as indicated at 9 in Fig. 2, and the bottom will thus be securely held in position. The joint between the shoulder and the turned-up edge of the upper bottom is soldered in the ordinary manner.

The upper bottom is of zinc or other non-corrosive metal and the lower one of ordinary sheet-tin, and as it is well known that zinc expands more than tin it has been found in practice that if the bottoms are concave when expansion occurs the less expansive tin bottom will prevent the free expansion of the zinc bottom and thereby cause it to buckle; but if the central portions of the bottom are made convex with a concave border portion the zinc is free to expand upwardly and will not buckle.

Another advantage of my construction is that the concave or corrugated portion between the central convex portion and the inner surface of the vessel gives strength to the bottom without interfering with the free natural expansion of the zinc bottom; also by turning the edge of the zinc bottom upwardly and abutting it against the shoulder of the recess whatever force is exerted by expansion on the edge of the zinc bottom will be upwardly and outwardly, and therefore there will be no tendency to break the joint.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. As a new article of manufacture a pail consisting of a body having its lower portion expanded to form a shouldered vertical recess and a bottom consisting of two superimposed disks of metal having different expansive properties, the central portions of said disks being convex and an adjacent border portion being concaved, the edge of the upper disk being bent upwardly and that of the lower

one downwardly, said bent portions being fitted in the recess in the body and the lower edge of the body being bent up around the edge of the lower disk, the said recess being
5 of a depth substantially equal to the thickness of the metal of the other disk, whereby the inner surface of the body will be flush with the innerface of the bent-up edge of the upper disk, as and for the purpose set forth.
10 2. The combination with the body of a metallic vessel having its lower portion expanded to form a shouldered vertical recess, of a bottom consisting of two superimposed disks, the edge of the upper disk being bent upwardly
15 and that of the lower one downwardly, said

bent portions being fitted in said recess and the lower edge of the body bent up around the edge of the lower disk, the said recess being of a depth substantially equal to the thickness of the metal of the upper disk, whereby 20 the inner surface of the vessel will be flush with the inner face of the bent-up edge of the upper disk, substantially as and for the purpose set forth.

In testimony whereof I affix my signature 25 in presence of two witnesses.

SIDNEY J. LISK.

Witnesses:

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G. A. LINDNER.