No. 733,979. PATENTED JULY 21, 1903.

D. A. LISK.

METALLIC VESSEL BOTTOM.

APPLICATION FILED DEC. 11, 1902.

NO MODEL.

Fig. 1.

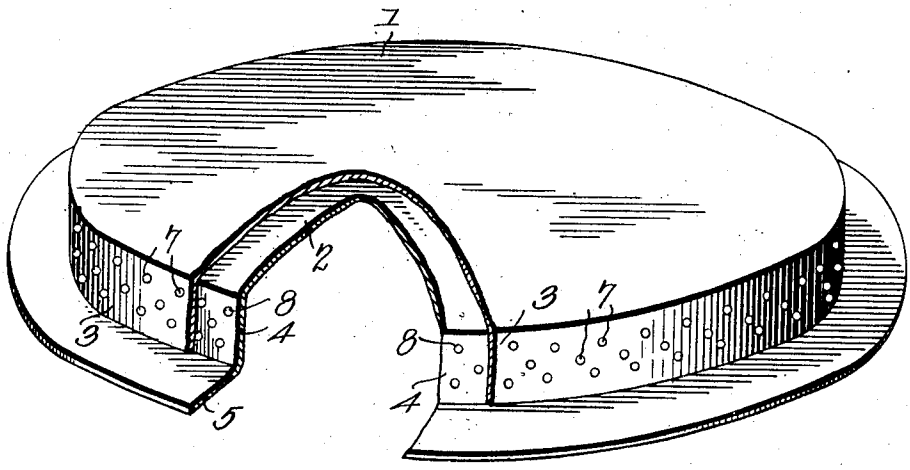
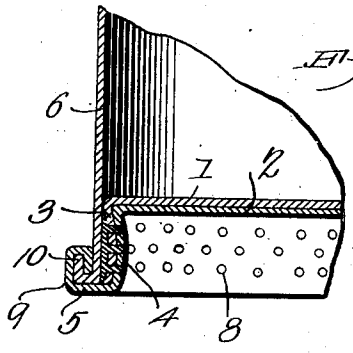


Fig. 2.



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No. 733,979. Patented July 21, 1903.

UNITED STATES PATENT OFFICE.

DAVID A. LISK, OF CLIFTON SPRINGS, NEW YORK.

METALLIC-VESSEL BOTTOM.

SPECIFICATION forming part of Letters Patent No. 733,979, dated July 21, 1903.

Application filed December 11, 1902. Serial No. 134,839. (No model.)

To all whom it may concern:

Be it known that I, DAVID A. LISK, a citizen of the United States, residing at Clifton Springs, in the county of Ontario and State of New York, have invented a new and useful Metallic-Vessel Bottom, of which the following is a specification.

This invention relates to antirusting tinware, and particularly to a novel form of bottom therefor.

The object of the invention is in a ready, simple, thoroughly-feasible, and practical manner to assemble a multi-ply bottom with the body of a vessel without employing solder on the inner side of the body, thereby to simplify and reduce the cost of production of the article and eliminate the danger of melting the upper bottom, which is usually of softer metal than the under one; furthermore, to render it possible to associate the two bottoms with the body of the vessel by dipping in suitable solder.

With these and other objects in view as will appear as the nature of the invention is better understood, the same consists in the novel construction and combination of parts of a metallic-pail bottom, as will be hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which like characters of reference indicate corresponding parts, there is illustrated one form of embodiment of the invention capable of carrying the same into practical operation, it being understood that the elements therein exhibited may be varied or changed as to shape, proportion, and exact manner of assemblage without departing from the spirit thereof.

In the drawings, Figure 1 is a view in perspective of a pail-bottom constructed in accordance with the present invention partly broken away and viewed from the upper side. Fig. 2 is a vertical sectional view through a portion of the body and the bottom.

The pail-bottom of this invention belongs to that class wherein one bottom—the upper one—is made of a metal that is electropositive to the stock of the body of the vessel, usually zinc, the upper bottom and body thus forming a voltaic couple of which the said bottom is a positive element and the body the negative.

In carrying the invention into effect two bottoms 1 and 2 are employed, the upper one, 1, being of zinc and the under one, 2, of tin. The upper bottom is provided with a depending marginal flange 3, and the under bottom is also provided with a depending marginal flange 4, disposed at right angles to its surface, and with an outstanding marginal flange 5, normally extending at right angles to the flange 4 and being adapted to be beaded around the lower end of the body 6, as shown in Fig. 2 and as will be presently described. The flange 3 is in height equal, or approximately so, to the flange 4, so that when the two bottoms are nested the first-named flange will bear upon or be disposed contiguous to the upper surface of the flange 5. Both the flanges 3 and 4 are provided with a plurality of orifices 7 and 8, respectively, which when the bottoms are nested register and constitute passages to convey the solder from the flange 4 inward between this flange and the flange 3 and against that portion of the body included in the bead 9 and operates to hold the bottoms assembled with the body. Further, the flanges 3 and 4 of the inner and outer bottom members are after the members are assembled bent in any suitable manner to impart to them a concavo-convex form in cross-section, and when inserted in the body of the vessel the concave face of the flanges is disposed toward the adjacent face of the body, thus forming a concavity or recess for the reception of the solder filling, as clearly shown in Fig. 2.

In securing the bottom to the body the two bottoms are nested with the orifices 7 and 8 in register, and the bottom is then inserted within the body with the lower edge of the latter resting upon the flange 5 and against the flange 3. The flange 5 is then beaded or turned over by any suitable machine to present the bead 9, which also includes the lower end 10 of the bottom, which latter is upturned and included between two thicknesses of the flange 5, as clearly shown in Fig. 2. The bead herein shown is approximately flat; but it is to be understood that it may be round or semicircular and still be within the scope of the invention. Prior to assembling the body with the bottoms its lower end is cleansed in any suitable manner or has a suitable flux applied to it, thus to enable the solder now to

be applied readily to flow over the entire portion of the body bearing against the flange 3. Solder is now flowed over the orifices 8, as by means of a soldering-iron, and passes therethrough and in between the flange 4 and the flange 3, thereby firmly uniting the parts, and thence through the orifices 7 into the concavity between the flange 3 and the lower end of the body, thereby presenting two hermetically-sealed joints, which will not only positively preclude entrance of moisture between the bottom and the flange 3, but also between the flanges 3 and 4. It will be seen by this procedure that the application of solder to the inside of the body at its point of juncture with the upper bottom is rendered unnecessary. It will be obvious that instead of applying the solder by an iron the lower end of the vessel may be dipped into molten solder and by this manner effect assemblage of the parts. When thus secured, the two bottoms are practically integral at their margin and are attached to the body in a firm and positive manner, and should any liquid contained in the body work in between the flange 3 and the body and if the stock of the body be exposed electrolytic action will immediately ensue, thereby in a well-known manner preventing the formation of rust.

The manner herein described of assembling the two-part bottom with the body of the vessel is thoroughly effective in operation and results in the presentation of a utensil having not only a rust-proof bottom, but having also one that is united and reinforced in such manner as to successfully withstand separation in usage.

Having thus described the invention, what I claim is—

1. The combination with a metallic-vessel body, of a bottom therefor comprising a pair of nested metallic members having marginal flanges provided with registering orifices and spaced from the wall of the body, and a filling of solder introduced through the orifices into the space between the flanges and the adjacent wall of the vessel-body.

2. The combination with a metallic-vessel body, of a bottom therefor comprising a pair of nested metallic members having downturned marginal flanges provided with registering orifices and spaced from the wall of the body, the inner member having also an outturned flange beaded around the vessel-body, and a filling of solder introduced through the orifices into the space between the flanges and the adjacent wall of the vessel-body.

3. The combination with a metallic-vessel body, of a bottom therefor comprising a pair of nested metallic members having marginal flanges of concavo-convex form in cross-section provided with registering orifices, said flanges having their concave faces disposed toward the body of the vessel when assembled to form a concavity, and a filling of solder introduced through the orifices and filling the concavity between the flanges and the adjacent wall of the body.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

DAVID A. LISK.

Witnesses:
HARRY F. FLINT,
BYRON H. HARMON.