

(No Model)

J. R. McLAUGHLIN.
BOTTOM FOR ANTIRUST TINWARE.

No. 582,758.

Patented May 18, 1897.

Fig. 1.

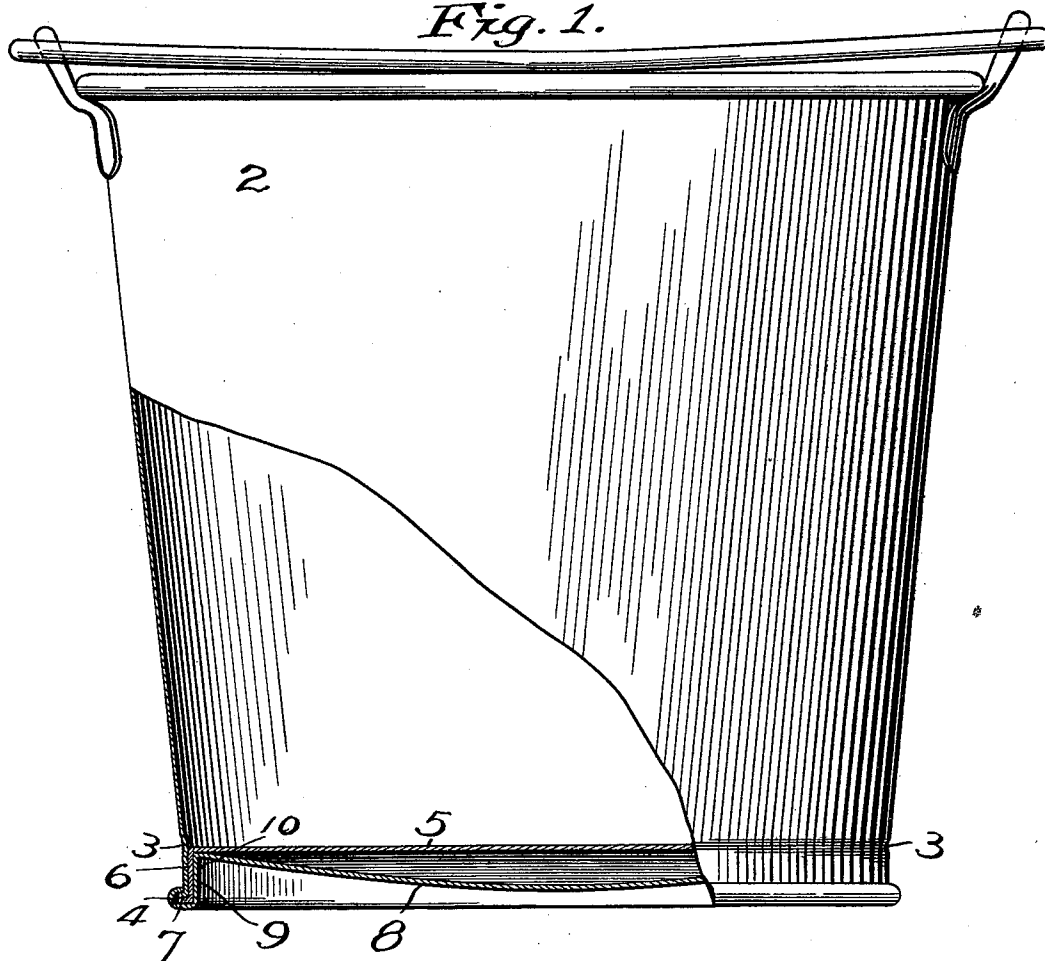
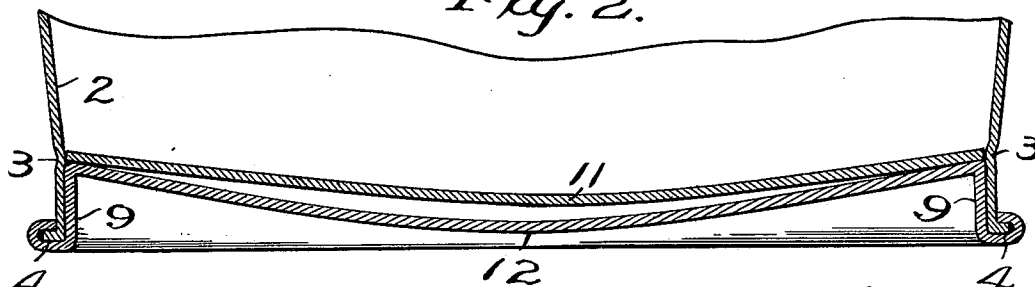


Fig. 2.



Witnesses;
C. E. Van Dorn,
Richard Paul.

Inventor;
James R. McLaughlin.
By Paul & Hawley
his Att'ys.

UNITED STATES PATENT OFFICE.

JAMES R. McLAUGHLIN, OF CLIFTON SPRINGS, NEW YORK, ASSIGNOR TO
THE LISK MANUFACTURING COMPANY, LIMITED, OF CANANDAIGUA,
NEW YORK.

BOTTOM FOR ANTIRUST TINWARE.

SPECIFICATION forming part of Letters Patent No. 582,758, dated May 18, 1897.

Application filed September 13, 1895. Serial No. 562,381. (No model.)

To all whom it may concern:

Be it known that I, JAMES R. McLAUGHLIN, of Clifton Springs, Ontario county, New York, have invented certain new and useful Improvements in Bottoms for Antirust Tinware, of which the following is a specification.

My invention relates to bottoms for articles of tinware generally known as "antirust;" and the object I have in view is to provide a bottom of such construction that the upper or non-corrosive plate or bottom will have room to expand or contract without being retarded in its movement by the bottom proper of the vessel, whereby all danger of the edges of the lower bottom being pulled away from the sides of the vessel by the sudden expansion of the upper plate, as when the pail or other vessel is filled with hot water, will be avoided, and whereby in case of an accidental puncture of one of the bottoms the other bottom may not be affected and the vessel will still remain tight.

My invention consists, generally, in providing a space between the upper and lower bottoms or plates, said space gradually increasing in size toward the middle of the pail, all as hereinafter described, and particularly pointed out in the claim.

In the accompanying drawings, forming part of this specification, Figure 1 is a side elevation of a pail embodying my invention, the wall being broken away to show the double bottom and the space between the upper and lower plates. Fig. 2 is a sectional view of the lower part of a pail, showing a modification of the manner of securing the upper plate in the pail or vessel.

In the drawings, 2 represents a pail provided with the usual bail, and having a crimp or bend 3 in its side walls near the lower end of the pail and an outwardly-turned flange 4 at the extreme lower end of the sides of the vessel. A plate 5, of zinc or other non-corrosive material, is provided to fit into the lower end of the pail, and is provided with downwardly-turned edges, forming a shoulder 6 near the crimped portion 3, and with a foot or flange 7, which extends out flush with the outer edge of the flange 4, as shown in Fig. 1.

I do not confine myself to the use of the zinc upper plate or bottom, as any other non-cor-

rosive material will answer the purpose fully as well, my object being to provide a plate which will set up a galvanic action with the sides of the pail when the vessel is filled with liquid and prevent the sides of the pail from rusting.

Beneath the non-corrosive plate I arrange the bottom proper of the pail, which I designate by the reference-figure 8, and which may be of any suitable material, preferably tin, and concave, while the upper plate 5 is flat and extends straight across the bottom of the vessel. The plate or bottom 8 is provided with a downwardly-turned portion 9, forming a shoulder 10, which fits into the angle formed by the downwardly-turned portion of the upper or zinc plate. The lower edge of the portion 9 is turned outwardly, forming a rest for the pail, and its edge is then turned up over the flanges or parts 4 and 7, and the edge of the part 9 is then securely soldered to the sides of the pail. The shoulder 6 is also soldered to the inside of the pail, so as to prevent the liquid from getting down in between the sides of the pail and the downwardly-turned portion of the upper plate and thereby reaching the tin bottom proper of the pail.

When the pail is filled with hot water, the weight of the water will depress the upper plate slightly, particularly near the center of the pail, and the space beneath the plate will permit it to expand to its limit without coming in contact with the tin bottom, so as to break its connection with the sides of the pail. In this way the injurious effect of the unequal expansion of the two plates is neutralized and the pail may be filled with a liquid of very high temperature without any danger of damaging the vessel. It will also be seen that if one of the bottoms should become punctured the other would not be affected, and hence the pail or vessel would still remain tight.

In Fig. 2 I have shown the upper plate forced down from the top of the pail to a point opposite the crimped portion in the sides and secured in that position to the sides of the pail, so that it may be removed at any time without disturbing the lower bottom 12. Both plates are made slightly concave, but the upper does not touch the lower except at its

edges, as shown, so that a space is provided between the two bottoms to take up the expansion of the plate 11, as described above, and also to prevent both bottoms being punctured at the same time, as above stated. The lower plate 12 has its edges secured to the sides of the pail in the same manner as the bottom, (shown in Fig. 1,) as this is a cheap and convenient way of making the connection; but any other method which will hold the lower plate in position may be employed with equally good results.

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

In an open-topped metallic vessel, the combination with the sides provided with an outwardly-turned flange or foot at the lower end, of a concave plate having a downwardly-turned portion, the edges of said portion being turned out and up over the edge of the

flange or foot provided on said sides, a zinc plate arranged above said concave plate, and having a downwardly-turned portion adapted to nest with the downwardly-turned portion of said concave plate, a water-tight joint being provided between the shoulder formed by the downwardly-turned portion of said zinc plate and the sides of the vessel, whereby contact of the liquid therein with the concave plate is prevented, and a space being formed between the two plates to provide for the unequal expansion of the same and whereby a puncture of one bottom may not affect the other bottom, substantially as described.

In testimony whereof I have hereunto set my hand this 5th day of August, A. D. 1895.

JAMES R. McLAUGHLIN.

In presence of—

C. G. HAWLEY,
RICHARD PAUL.