

No. 702,975.

Patented June 24, 1902.

K. E. LISK.
METALLIC PAIL BOTTOM.
(Application filed Aug. 21, 1901.)

(No Model.)

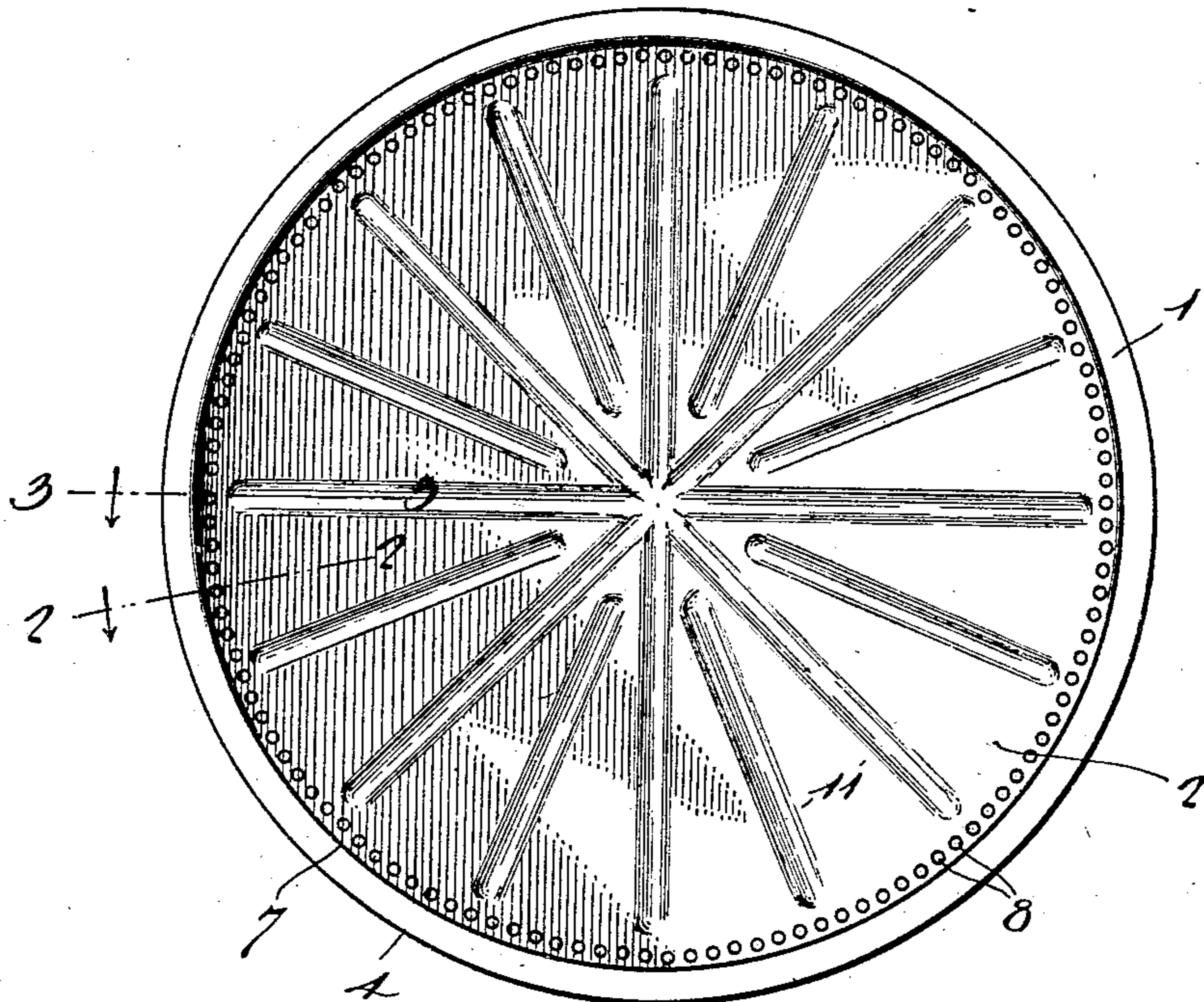


Fig. 1.

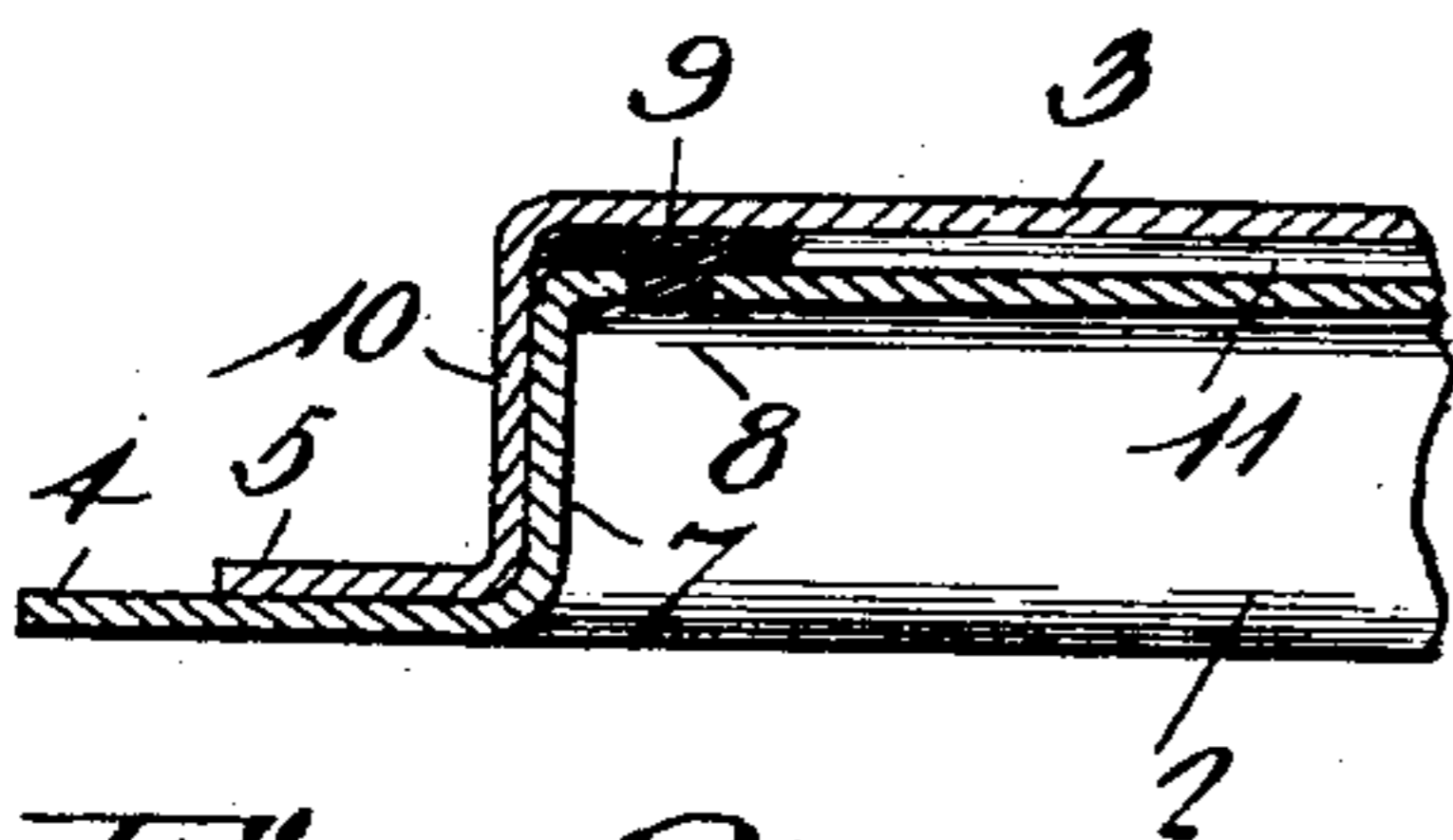


Fig. 2.

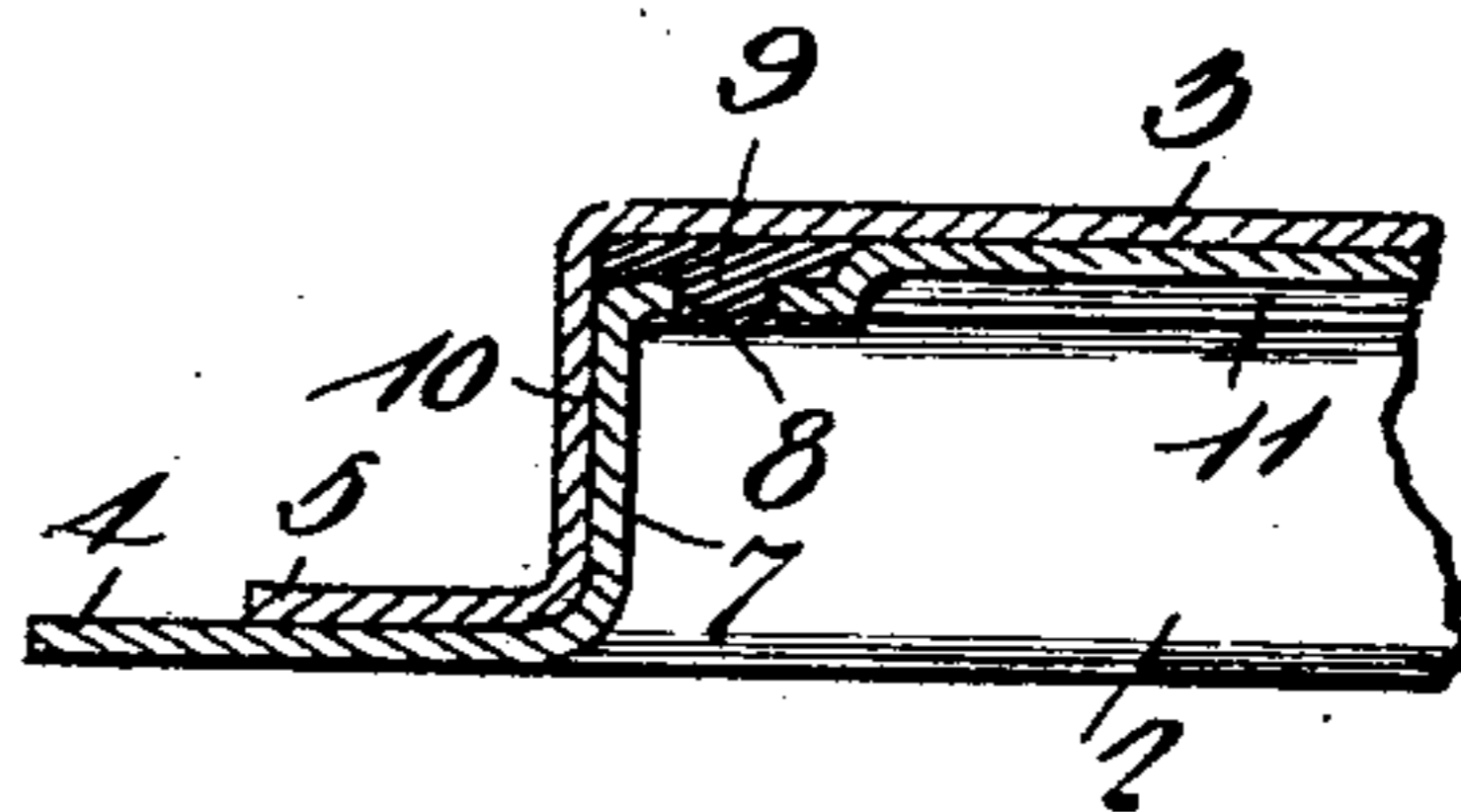


Fig. 3.

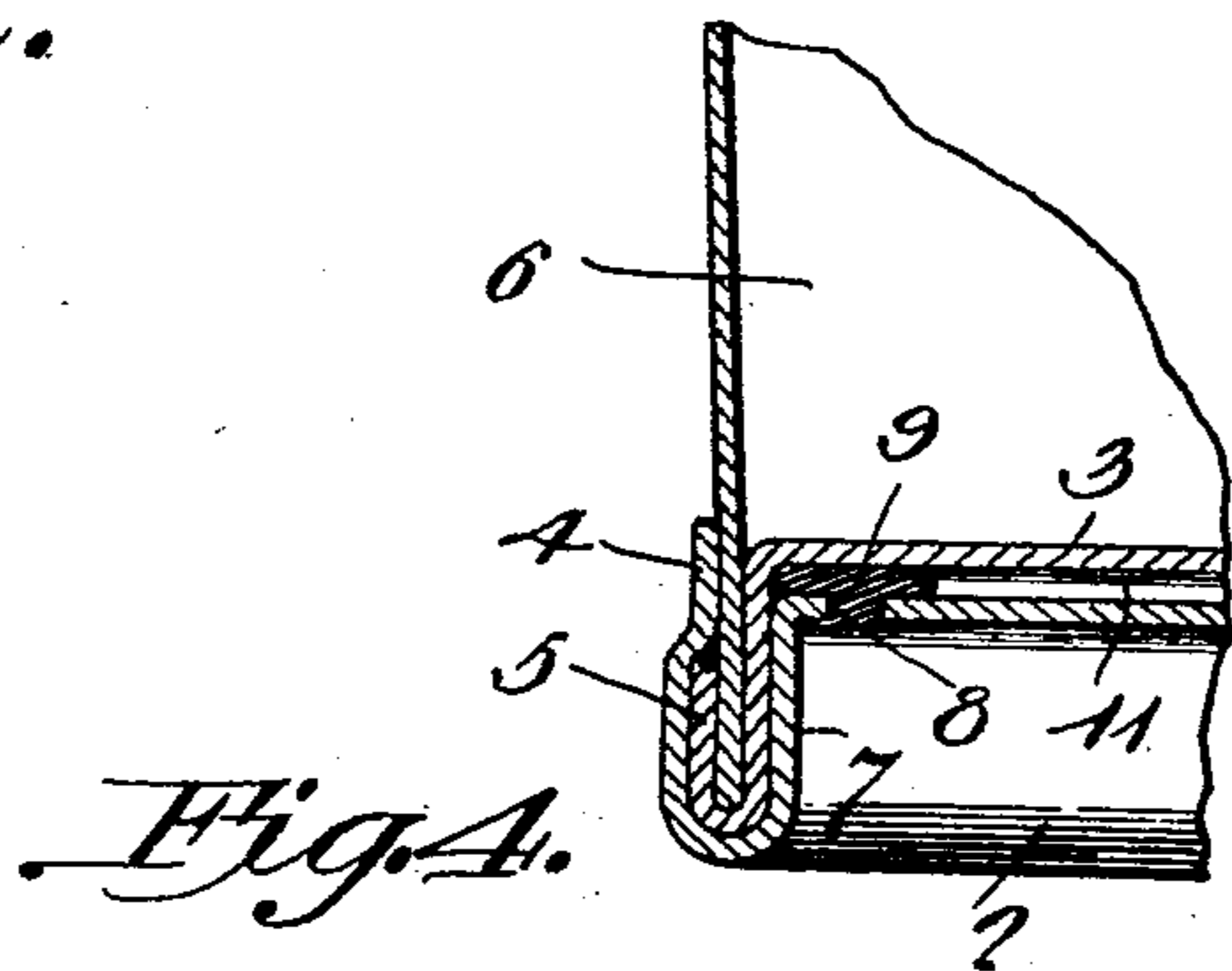


Fig. 4.

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UNITED STATES PATENT OFFICE.

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METALLIC PAIL-BOTTOM.

SPECIFICATION forming part of Letters Patent No. 702,975, dated June 24, 1902.

Application filed August 21, 1901. Serial No. 72,848. (No model.)

To all whom it may concern:

Be it known that I, KATE E. 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 Pail-Bottom, of which the following is a specification.

This invention relates to improvements in metallic pail-bottoms of that class wherein two metals of different characters are assembled, the inner one of which is of non-oxidizable character, and has for its object so to construct the bottom as effectively to prevent the contents of the vessel from entering between the two plates.

A further object is to provide means whereby the soldering together of the two plates to form the bottom shall be facilitated and a proper union thereof positively assured.

A further object is to reinforce the under plate in such manner as to prevent sagging or buckling of the upper plate, which being of zinc and therefore of brittle character is easily cracked or ruptured.

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 numerals 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 herein exhibited may be varied or changed as to shape, proportion, and exact manner of assemblage without departing from the scope of the invention, and in these drawings—

Figure 1 is a view in plan exhibiting the under side of the pail-bottom and showing more particularly the openings through which the solder passes to effect assemblage of the two plates adjacent to their peripheries. Fig. 2 is a sectional view taken on the line 2 2, Fig. 1. Fig. 3 is similar view taken on the line 3 3, Fig. 1. Fig. 4 is a sectional detail view showing the manner of assembling the pail-bottom with the pail-body.

Before describing the present invention it

is to be noted that the inventor is cognizant of the fact that it is old to construct metallic pail-bottoms of two sheets or plates of metal, preferably of tin and of zinc, and to assemble these by the employment of solder, one manner of carrying this idea into effect being disclosed in a patent granted to D. A. Lisk and T. D. Brown, dated June 7, 1892, No. 476,280, wherein two sheets of metal, the upper one of zinc and the under one of tin, are described as being held assembled by soldering for the same purpose as that designed by the present inventor; but the salient and clearly-differentiating feature defining these two inventions is that in the pail-bottom of the said patent the sheets are held assembled at the center portion thereof, so that the rims or margins thereof are disconnected, leaving a space into which in case of rupture of the upper sheet the contents of the vessel could leak in between the two sheets of metal, and thereby destroy the same at their point of juncture with the pail-body, whereas with the manner of associating the two plates of the pail-bottom under the procedure of this invention this serious defect is obviated in a feasible and thoroughly-practical manner, thereby adding practically indefinite life to the pail-bottom and presenting thereby a thoroughly-efficient structure. Generally stated, therefore, the present invention resides in assembling the marginal or rim portions of the two plates of the bottom to the exclusion of the center portion thereof.

Referring to the drawings, 1 designates generally a pail-bottom consisting of an under sheet or plate 2 of tin and an upper sheet or plate 3 of zinc, these being stamped up on appropriate dies to the proper shape snugly to nest one within the other, as shown in Figs. 2, 3, and 4. The marginal flange 4 of the plate 2 extends beyond the similar flange 5 of the plate 3 in order that when these flanges are turned up against the side of the pail-body 6, Fig. 3, the presentation of a thick or bulging seam at the base of the pail will be obviated. Adjacent to the vertical member 7 of the flange 4 in the under plate there is provided a plurality of openings 8, which may be circular, as shown, or of any other preferred contour and are by preference closely assembled, as shown in Fig. 1, thereby to

cause the solder when it is applied freely to flow and positively to connect without interstices or spaces the two plates at their rims or peripheries. The seam or body of solder connecting the plates is designated by 9 in Figs. 2, 3, and 4 and is very largely exaggerated for sake of clearness of illustration, it being understood in practice that the thickness of the seam of solder would be so slight as not to be possible of illustration in a clear and readily-observable manner. While the seam of solder is herein shown as terminating with the vertical member 10 of the flange 5, it is to be understood in practice that the solder might pass in between these two flanges, although the same is not essential to the effective prosecution of the present procedure, so that it is to be understood that the invention contemplates the provision of a seam of solder between these members.

To give added rigidity to the bottom and also to prevent any buckling of the upper zinc plate, the lower plate is provided with a plurality of radially-disposed upward-extending depressions or ribs 11, upon which the upper plate will rest. These ribs are formed by striking up the under plate in the usual and well-understood manner and for the purposes designed may be disposed as shown or otherwise arranged.

In assembling the two plates the lower or tin plate is nested within the upper or zinc plate and caused closely to impinge thereon. A suitable flux is then applied through the openings 8, and solder is then run through the openings by employment of the soldering-iron or otherwise, thereby presenting a marginal seal at the peripheries of the two plates, as clearly shown in Figs. 2, 3, and 4. When the two plates are thus connected, it will be apparent that the entrance of the contents of the vessel between the plates will be effectively obviated, and by reason of the fact that the center portions of the two plates are undetached any difference in the rates of ex-

pansion and contraction therebetween will not tend to cause cracking or rupture of the zinc plate, which, as before pointed out, is more liable to become damaged in use than the tin plate. Further, by applying the solder to the under plate the bottom proper of the pail will present a smooth and finished surface, adding to the appearance of the vessel and obviating any rough surface in which objectionable matter might find lodgment.

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

1. A metallic pail having a two-part bottom, one of which parts is provided with a plurality of marginally-disposed orifices through which solder is passed to effect marginal sealing together of the two plates contiguous to the inner side of the body of the pail.

2. As a new article of manufacture, a metallic pail-bottom consisting of two nested plates of metal, the upper one, in use, being non-oxidizable in character, and the under one being provided adjacent to and concentrically of its periphery with orifices through which solder is passed to secure the two plates together at their peripheries.

3. As a new article of manufacture, a metallic pail-bottom, consisting of two nested plates of metal, the upper one, in use, being non-oxidizable in character and the under one being provided adjacent to and concentrically of its periphery with a plurality of orifices through which solder is passed to secure the two plates together at their peripheries, the said under plate being further provided with reinforcing depressions or ribs.

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

KATE E. LISK.

Witnesses:

C. COURTNEY,
C. A. LISK.