

No. 755,234.

PATENTED MAR. 22, 1904.

J. W. NICHOLS.
PAIL.

APPLICATION FILED APR. 20, 1903.

NO MODEL.

Fig. 1.

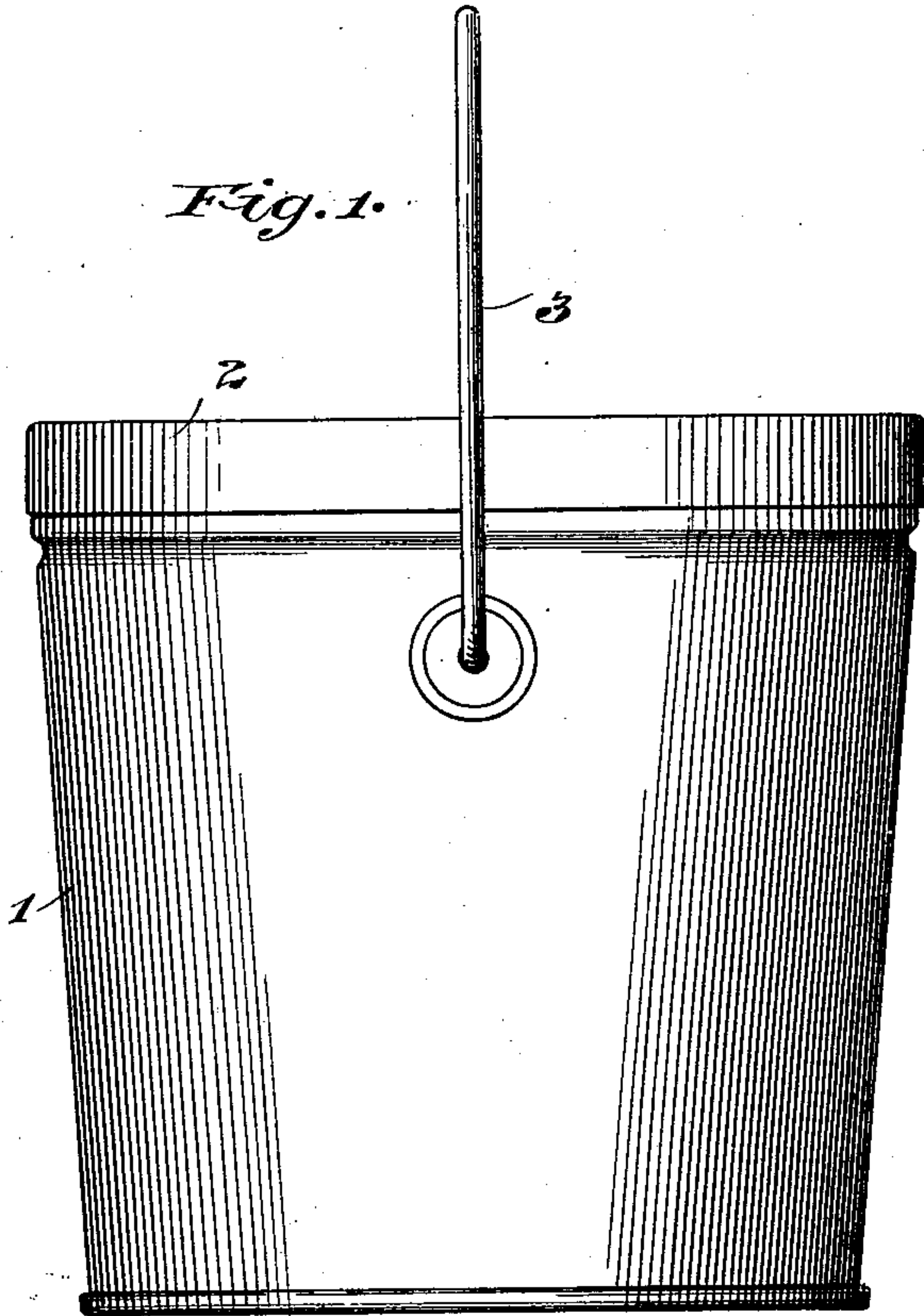


Fig. 2.

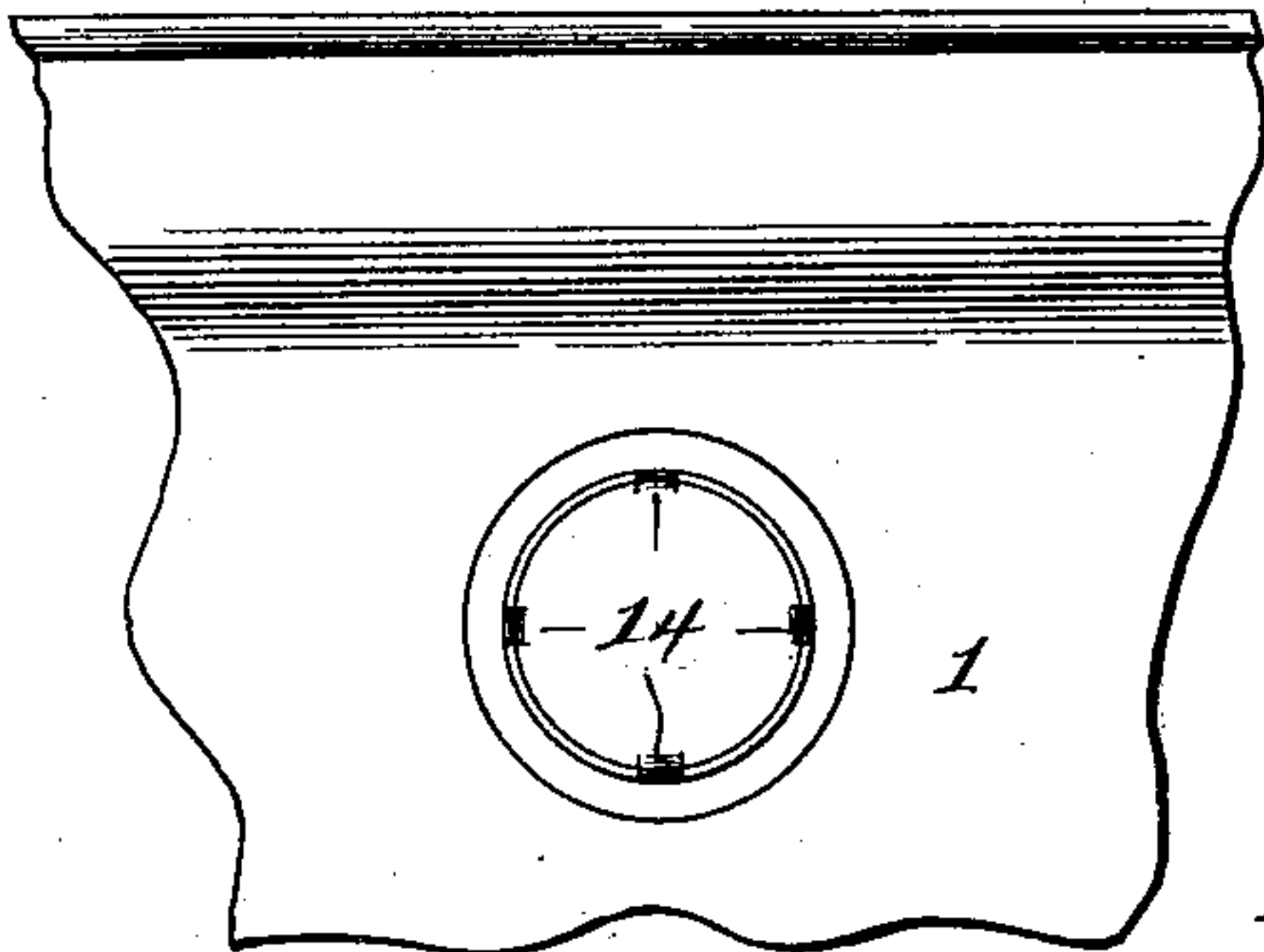


Fig. 4.

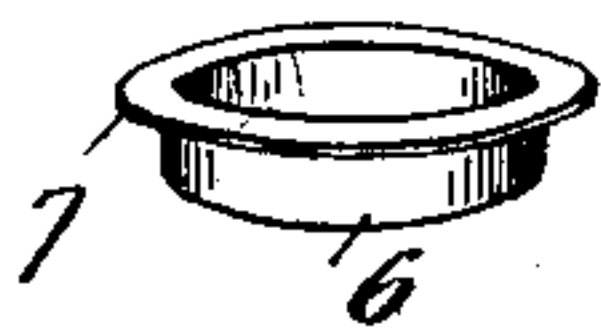


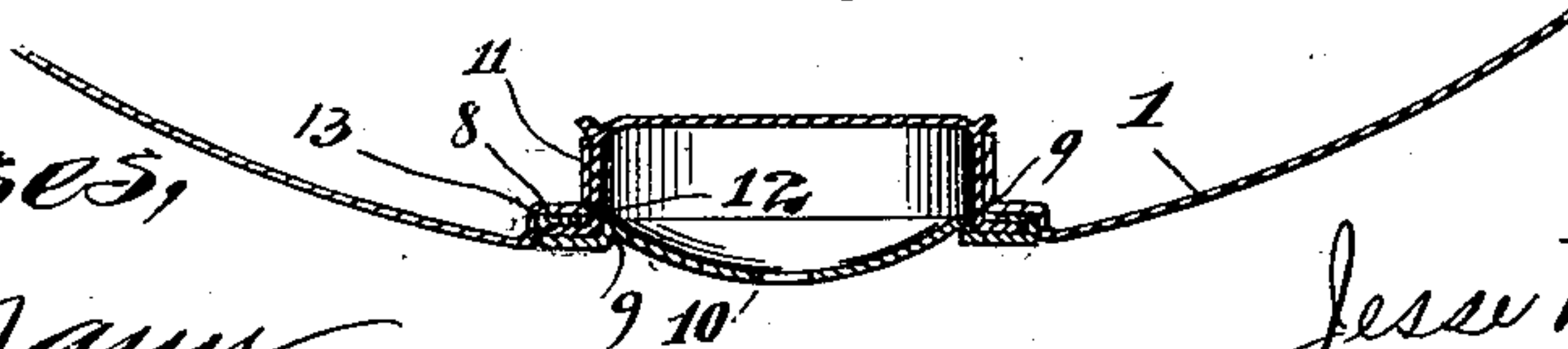
Fig. 5.



Fig. 6.



Fig. 3.



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UNITED STATES PATENT OFFICE.

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PAIL.

SPECIFICATION forming part of Letters Patent No. 755,234, dated March 22, 1904.

Application filed April 20, 1903. Serial No. 153,513. (No model.)

To all whom it may concern:

Be it known that I, JESSE W. NICHOLS, a resident of Chicago, in the county of Cook and State of Illinois, have invented certain
5 new and useful Improvements in Pails, of which the following is a specification.

This invention relates to improvements in sheet-metal pails, and refers more particularly to tin pails of that character commonly used
10 in packing lard and analogous products, although the invention is not limited to such application.

The salient object of the invention is to provide a simple cheaply-manufactured construction wherein the pail-ear is reliably united to
15 the pail-body so as to form a close joint and without the use of solder.

The secondary objects are to provide a construction which may be readily united with
20 the pail-body by the use of die mechanism; to provide a construction in which the bail may be readily engaged with the ear and more reliably held in position; to provide a construction in which the ear is formed to lie
25 substantially flush with the outer surface of the pail-body; to provide a construction in which the ear may be made up as a separate and complete assembled device ready for application to the pail, and, in general, to provide a simple and improved construction of
30 the character referred to.

To the above ends the invention consists in the matters hereinafter described, and more particularly pointed out in the appended
35 claims, and the invention will be readily understood from the following description by reference to the accompanying drawings, forming a part thereof, and in which—

Figure 1 is a side elevation of a pail embodying my invention. Fig. 2 is a fragmentary view of a portion of the inner surface of the body within which the ear is seated. Fig.
40 3 is a transverse section taken axially through the ear on line 3 3 of Fig. 2. Figs. 4 and 5 are detail perspective views of the two elements of the two-part pail-ear. Fig. 6 is a view showing the two parts united to form a complete pail-ear ready for attachment.

Referring to the drawings, 1 designates as

a whole the body of the pail, which is a usual
50 form, and 2 the usual slip-cover.

3 designates an ordinary spring-wire bail, the lower ends of which are inwardly turned or hooked to engage suitable apertures in the
55 ears, the bail being shaped, as usual, so as to tend to spring inwardly at its engaging ends.

4 designates as a whole one of the ears, constructed in accordance with the invention, said ear comprising an outer disk member 5 and a cup-shaped cooperating member 6, which
60 parts are permanently united to form a close hollow ear. In order to unite the parts, the cup member is provided with a marginal radial flange 7, and the disk member is made of somewhat larger diameter and has its mar-
65 ginal portions crimped around the flange 7 of the cup member, as indicated clearly at 8. The disk member is preferably made somewhat convex in cross-sectional form, and in order to facilitate the placing of the disk and cup
70 members in proper register with each other preparatory to crimping them together the disk is provided with an annular shoulder 9, which fits the interior of the cup, as seen
75 clearly in Fig. 3. The disk is also centrally apertured, as indicated at 10, to receive the bail. The hollow ear thus formed is seated in a suitable aperture formed in the side body of the pail, the aperture in the pail being so
80 formed as to provide a surrounding intumed cylindric flange 11, which fits against the cylindric side walls of the ear and is of a depth slightly less than the depth of the corresponding part of the ear. At the juncture of the
85 flange 11 with the side body of the pail is formed a right-angled shoulder 12, which fits within and rests against the angle of the ear formed at the juncture of the side body with the cup portion thereof. Preferably the side
90 body of the pail is recessed or provided with a rabbet 13, surrounding the flanged aperture therein, said rabbet being made of a depth approximately equal to the thickness of the crimped rim of the ear, so that when the parts are assembled the ear will lie substantially
95 flush with the outer surface of the pail-body, as shown clearly in Fig. 3. Such recessed construction is not, however, essential.

The parts having been constructed and assembled as described, the ear is permanently united in place by prick-punching the inner margin of the ear-body, as indicated at 14, in such manner as to expand said margin and cause the punched portions to overlie the edge of the inturned flange 11 of the pail-body. This operation of prick-punching is most effectively performed by means of suitable dies, the outer surface of the ear and surrounding portion of the pail-body being arranged to rest upon a suitable anvil while the dies perform the punching operation, thereby uniting said parts in such manner as to form a perfectly tight and reliable joint. The importance of the shouldered engagement between the ear and pail-body, as indicated at 12, thus becomes apparent, since it will be obvious that the punching operation serves to force said angular shoulder into firm seating engagement with the ear at this point.

It will be seen from the foregoing that in the construction and securing of the ear in position the use of solder is entirely dispensed with, that the ears may be made as separate complete articles preparatory to fastening them within the pail, and that all of the operations of forming the ear and uniting it with the pail-body may be readily and inexpensively performed by means of power mechanism.

While I have herein shown what I deem to be a preferred embodiment of the invention, yet the details thereof may be modified without departing from the invention, and I do not, therefore, limit myself to such details, except as they are made the subject of specific claims.

I claim as my invention—

1. In combination with a sheet-metal pail, provided with an aperture or recess adapted to receive an ear and surrounded by an inturned flange portion, a hollow pail-ear con-

sisting of a cup-shaped member seated within the aperture or recess of the pail and fitting within the surrounding flange thereof, a marginal flange upon the outer end of said cup-shaped member, a disk-shaped member closing the outer side of the cup-shaped member and permanently crimped thereto, and means permanently securing said ear within its seat in the pail-body.

2. In combination, a pail-body provided with an ear-aperture and an inturned cylindric flange surrounding said aperture, a hollow pail-ear comprising a cup-shaped member of a diameter to fit the flanged aperture of the pail-body and provided with a marginal outturned flange, a disk member having its margins crimped over the margins of the cup-shaped member and resting against the outer surface of the pail-body, the margin of the cup-shaped member at the inner end thereof being expanded to overlie the contiguous inner margin of the flange of the pail-aperture, substantially as described.

3. In combination, a pail-body provided with an ear-aperture and an inturned cylindric flange surrounding said aperture, a rabbet surrounding the flanged aperture, a hollow pail-ear comprising a cup-shaped member of a diameter to fit the flanged aperture of the pail-body and provided with a marginal outturned flange, a disk member having its margins crimped over the margins of the cup-shaped member and resting within said rabbet, the margin of the cup-shaped member at the inner end thereof being expanded to overlie the contiguous inner margin of the flange of the pail-aperture, substantially as described.

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