April 10, 1934. W. B. SMITH 1,954,430

BAIL EAR AND METHOD THEREFOR

Filed Jan. 3, 1933

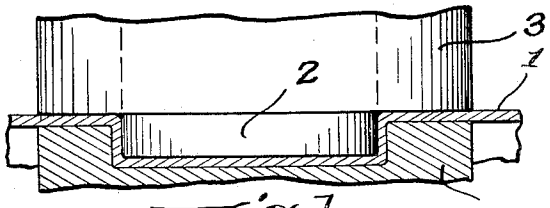


Fig. 1.

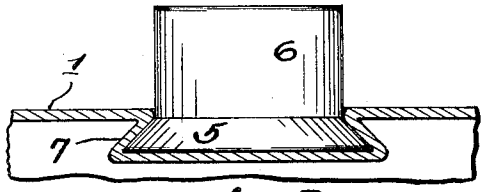


Fig. 2.

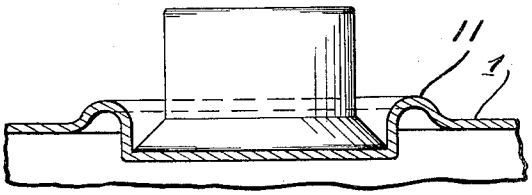


Fig. 3.

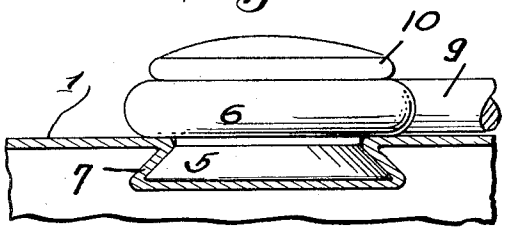


Fig. 4.

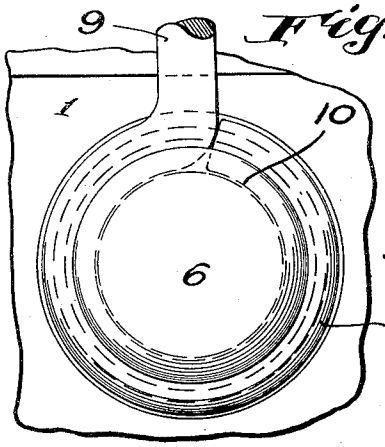


Fig. 5.

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BAIL EAR AND METHOD THEREFOR

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Application January 3, 1933, Serial No. 649,755

5 Claims. (Cl. 113—120)

My invention relates to a bail ear for a sheet metal container and the process of applying the same, and its objects are to make a very inexpensive ear which will hold a heavy load and which will not require the usual perforation of the container wall nor the use of solder or other additional holding materials.

I attain these and other objects and advantages by the use of materials and in the manner illustrated in the accompanying drawing which is enlarged and in which:

Fig. 1 is a cross-sectional view of the first operation of forming a bail support seat in a container wall.

Fig. 2 is a similar view of the bail support seat pressed in upon the bail holding device.

Fig. 3 is a cross-sectional view of yet another modified form of support seat.

Fig. 4 is a fragmentary front elevation of the container body embodying my invention partly in section.

Fig. 5 is a fragmentary side elevation of a container body embodying my invention.

Similar numerals refer to similar parts throughout the several views.

The sheet metal container body 1 is shown in Fig. 1 having the seat wall formed by pressing the container body by die 2, working through the larger member 3, into a recess in lower die member 4, and the bail support is shown, as a stud 6, the tapered head 5 of which is then placed in this seat and the walls 7 of the seat are bent radially in upon the stud head, as shown in Fig. 2, by crimping tools or rolls. A very small grip of this seat wall upon the stud head will hold the stud very securely in place. The eye 8 of a bail 9 is then placed over the stud and the outer end of the stud is burred over, as at 10 to hold the eye loosely on the stud. With this construction a great weight can be lifted on a small stud with a very small turning in of the seat wall around the stud head, the bail eye having practically a straight line pull with the container body.

The solid head of the pivot stud obviates the necessity of a strongly resistant binder opposing support, for in binding the seat wall against the tapered base bail support, the primary pressure required is radial, directed inwardly upon the solid head of the stud, the solidness of the stud head forming a resistant element to the bending tool, without necessitating a strongly rssistant opposing support for this operation. Studs also cost less than the usual stamped tin ear, and there is no wastage, mashing, or tearing in their application or use. Also the solid headed stud is much more rigidly held by the seat wall than any other head would be, and would give less to extreme weight in the container, and a shorter seat-wall hold would be more effective with a solid head. Also, the stud may be placed right at the top of the container body, and so allow for shorter bails, and consequently require less wire. This location of the stud also interferes with the label much less than usual attaching means.

Should it be desired to get more tin pulled out for the final seat-wall closing operation to be sure of avoiding rupture with thin plate, the container body may be pressed as shown in Fig. 3, with an upstanding reserve of stretched tin 11, so that when the final seat-wall closing operation has taken place, this tin 11 is again flush with the container body, as shown in Fig. 4.

It will be apparent to those skilled in the art that many changes may be made in the structure of my new bail ear and the process of applying the same, and therefore I do not intend to be limited to the details shown and described, but only by the appended claims.

What I claim as new and desire to secure by Letters Patent is:

1. A bail attaching means comprising a sheet metal wall having pressed therein an imperforate walled seat, a bail holding member having a tapered sided head and having its head against said seat, the walls of said seat being bent radially inwardly upon and parallel to said tapered sides of said head of said member to securely hold the same and a bail attached to said member.

2. A bail attaching means comprising a sheet metal wall having an inwardly pressed imperforate walled seat, a bail holding member having a tapered head, said tapered head being securely held in said seat by the walls thereof, the outward extent of said tapered head and the walls of said seat being substantially flush with the outer sheet metal wall, and a bail attached to said member.

3. The process of forming a bail attaching means comprising forming in the wall of a container an inwardly directed imperforate walled seat, placing in said seat, the top of a tapered headed bail holding member, and pressing the walls of said seat radially securely against and parallel to the sides of the tapered head of said bail holding member, to hold the same.

4. The process of forming a bail attaching means comprising forming in the wall of a container an inwardly directed imperforate walled seat, placing in said seat the top of a solid headed pivot stud, a portion of the head of said stud

tapering radially toward the shank of the pivot, and pressing the walls of said seat radially securely against and parallel to said tapering portion of said head.

5. The process of forming a bail attaching means comprising pressing inwardly the wall of a container to form a walled seat, placing against said seat the top of a tapered headed bail holding member, and bending the walls of said seat radially upon said tapered head of said member to securely hold the same, the tapered headed portion of said member, in its outward extent, being substantially flush with the outer container wall.

WILLIAM B. SMITH.