Feb. 13, 1934. T. W. RIEKE 1,947,425

BUNG FIXTURE FOR SHEET METAL CONTAINERS

Original Filed Oct. 1, 1928

Fig. 1.

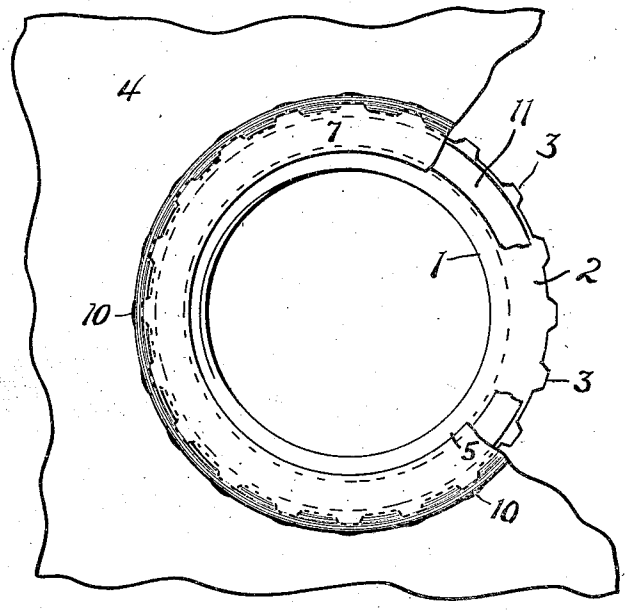


Fig. 2.

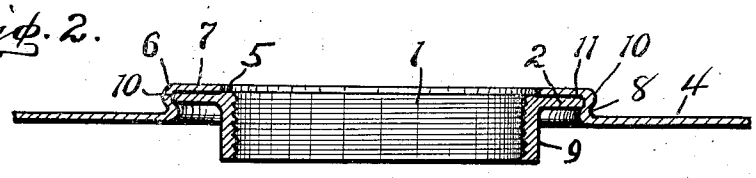
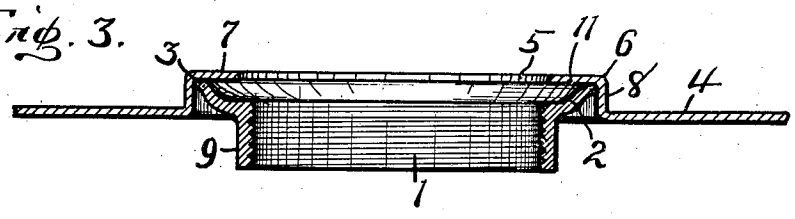


Fig. 3.



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BUNG FIXTURE FOR SHEET METAL CONTAINERS

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Original application October 1, 1928, Serial No. 309,651, now Patent 1,783,927, December 2, 1930. Divided and this application October 17, 1930. Serial No. 489,425

3 Claims. (Cl. 285—49)

This invention relates to improvements in bung fixtures for sheet metal containers wherein an internally threaded bung ring is clinched into connection with the wall of the container, as originally set forth in my previous application, Sr. No. 309,651, filed October 1, 1928, now Patent No. 1,783,927 of December 2, 1930, of which the present application is a division.

The object of the invention is to provide a formation in the wall of the container so as to have secured therein a threaded bung ring in such manner that the ring is held permanently in place in connection with the wall of the container and prevented from having relative turning movement therewith. Another object is to form the wall of the container so that the ring may be secured in connection therewith permanently without resorting to welding or similar operations. And a further object is to so construct the bung fixture that economy in the manufacture thereof and its application to the container is effected.

An illustrative embodiment of the invention is shown in the accompanying drawing, in which:—

Fig. 1 is a fragmentary plan view of a container to which the invention is applied, a portion being broken away;

Fig. 2 is a central section projected from Fig. 1; and

Fig. 3 is a similar section showing the bung ring and the sheet of the container as they are formed and positioned in a preliminary stage in applying the ring to the sheet of the container.

The fixture shown in the illustrative embodiment is comprised of an internally threaded bung ring 1 having a radially disposed flange 2 at one of its ends, the outer marginal edge of which flange has a series of outwardly projecting teeth 3 equally spaced apart and extending entirely around the flange. The head or wall 4 of the container, which is formed of sheet metal has made therein an opening 5 and an embossment 6 concentric therewith, and in which embossment the teeth 3 of the flange of the bung ring are securely held. The top 7 of the embossment overhangs the flange 3 of the ring and forms a gasket seat for a bung, which bung being of ordinary structure of any well known type, is not here illustrated.

The embossment 6 is formed initially with an axially extending annular wall 8, as shown in Fig. 3, and the flange 2 of the ring 1 is formed initially so as to extend conically from one end of the threaded portion or sleeve 9 of the ring as indicated in Fig. 3. The flange of the ring in its initial form is placed within the embossment as initally formed so that the teeth 3 bear within the embossment at the juncture of the axial wall 8 and the top 7 of the embossment. Pressure is then applied uniformly to the rear face of the flange 2 in the direction of the axis of the ring toward the top of the embossment and counter pressure upon the top of the embossment is also applied toward the ring whereby the conical flange 2 of the ring is flattened and distended radially outward so as to lie flat in a plane parallel with the top portion of the embossment and outwardly distend the axial wall 8, particularly those portions thereof against which the teeth 3 are thrust. Thus, the teeth become pocketed in corresponding outwardly distended portions of the axial wall 8 and the ring is thereby permanently locked in place against withdrawal as well as turning movement of the ring relative to the embossment. The pockets 10 in the wall 8 formed by the teeth when the flange 2 is flattened, overhang to some extent the wall 4 of the container, said pockets constituting distentions that project radially outward with respect to the embossment.

The operations in forming the embossment initially and in flattening the flange 2 of the ring, as well as compressing the embossment about the teeth of the flange are performed by means of suitable dies such as may be readily prepared by the exercise of ordinary skill in the art, and are not herein illustrated.

Because of the sustained outward pressure of the teeth of the flange against the axial wall 8 of the embossment established by the distention of the flange during the flattening operation applied thereto, the pockets are formed and the ring is held firmly connected in the embossment made in the wall of the container so that axial as well as turning movement of the ring relative to the wall is prevented.

As a means for preventing leakage between the flange 2 of the ring and the adjacent top 7 of the embossment a gasket 11 is inserted between the flange and the top 7 of the embossment so when the flange and the embossment are clinched together, the gasket is tightly compressed therebetween.

I claim:—

1. In a bung fixture for the bung opening of a sheet metal container, an embossment made in the sheet forming the container concentric with the bung opening therein to provide a gasket seat and contiguous axial wall having an annular series of radially disposed pockets, a threaded

bung ring having an external flange the outer perimeter of which has a series of teeth that project respectively into said pockets and bear with sustained outward pressure against said wall when the ring is in place, and a gasket disposed between said flange and adjacent top portion of the embossment to form a tight joint therebetween.

2. In a bung fixture for a sheet metal container, an embossment formed in the metal sheet of the container surrounding the bung opening therein to provide a gasket seat and contiguous axial wall, pockets formed in said wall, a bung ring having external teeth disposed respectively in said pockets that bear with sustained outward pressure against said wall when said ring is in place, and a gasket disposed between the top portion of the embossment and adjacent end of said ring.

3. In a bung fixture for a sheet metal container, an embossment formed in the metal sheet of the container surrounding the bung opening therein to provide a gasket seat and contiguous axial wall, said wall being distended so as to overhang the adjacent portion of said sheet, a bung ring having an external toothed flange disposed in the distension in said wall so as to bear against said wall with sustained outward pressure when said ring is in place to prevent relative movement of said ring and sheet, and a gasket disposed between said flange and top portion of said embossment.

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