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1,489,950

A. L. KRONQUEST

RECEPTACLE

Filed Aug. 9, 1921

FIG. 1.

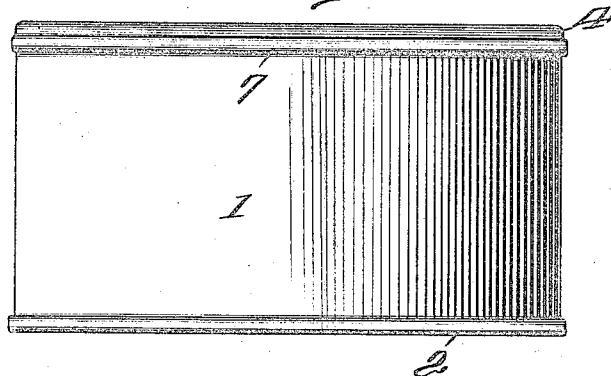


FIG. 2.

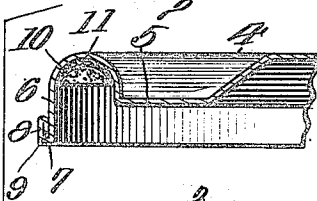


FIG. 3.

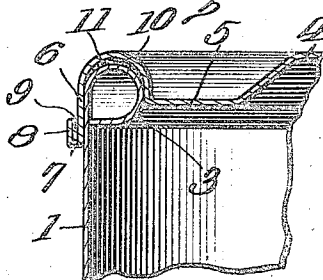


FIG. 5.

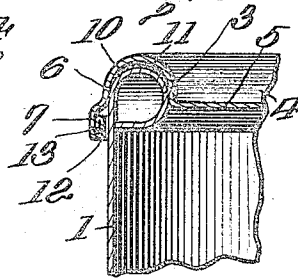


FIG. 4.

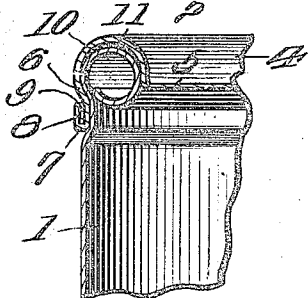
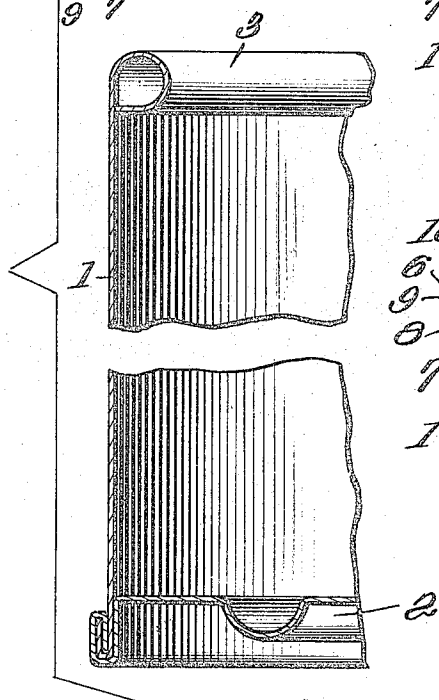
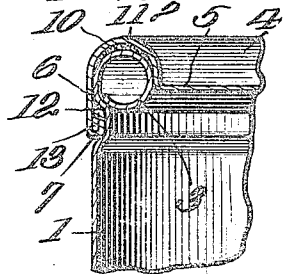


FIG. 6.



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ALFRED L. KRONQUEST, OF CHICAGO, ILLINOIS, ASSIGNOR TO CONTINENTAL CAN COMPANY, INC., OF SYRACUSE, NEW YORK, A CORPORATION OF NEW YORK.

RECEPTACLE.

Application filed August 9, 1921. Serial No. 490,893.

To all whom it may concern:

Be it known that I, ALFRED L. KRONQUEST, a citizen of the United States, residing at Chicago, in the county of Cook, State of Illinois, have invented certain new and useful Improvements in Receptacles, of which the following is a description, reference being had to the accompanying drawing and to the figures of reference marked thereon.

The invention relates to new and useful improvements in receptacles, and more particularly to a metal receptacle having an open top which is closed by a cover after the contents have been placed in the receptacle.

An object of the invention is to provide a receptacle with a closure that is attached thereto so as to form a hermetically closed receptacle by deflecting or contracting the flange of the cover.

A further object of the invention is to provide a receptacle of the above type wherein the lower edge of the flange is thickened and strengthened for the purpose of bringing about the closure in such a way as to conceal the raw edge of the metal forming the cover.

In the drawings, which show by way of illustration one embodiment of the invention:—

Figure 1 is a side view of a cylindrical receptacle embodying my improvements;

Fig. 2 is an enlarged sectional view of a portion of the side wall and a portion of the cover, the cover being shown as detached from the container body;

Fig. 3 is a similar view, but showing the cover as placed on the container body preliminary to the closing or attaching of the cover to said can body;

Fig. 4 is a view similar to Fig. 3, but showing the cover secured to the can body by the deflecting of the flange of the cover inwardly;

Fig. 5 is a view similar to Fig. 3, but showing a slightly modified form of the invention;

Fig. 6 is a view similar to Fig. 4, but showing the flange of the cover as deflected so as to connect the cover to the can body.

The invention is directed broadly to a container or receptacle having a body portion which is preferably cylindrical in transverse cross section. Said body portion has its upper edge strengthened by the rolling of the metal forming the body portion of the

container into an inturned bead or rib. The cover is formed with a central depressed portion and a depending flange, between which is a pocket U-shaped in cross section adapted to fit over said inturned bead or strengthening rib on the body portion of the container. A suitable sealing material or packing is placed in the upper portion of the pocket for causing a tight seal of the container.

The depending flange of the cover at its lower edge is turned upwardly, and thence inwardly, thus forming a flat bead wherein the raw edge of the material is concealed. In one form of the invention, the metal is turned or rolled inwardly and in another form of the invention the metal is turned or rolled outwardly. In both forms the edge is strengthened and thickened by folding or rolling the metal as described. In either case, the bead normally lies so that its inner wall is in line with the inner face of the depending flange and the cover may, therefore, be readily slipped onto the container body and will be frictionally held thereon until secured to the container body. The lower portion of the flange in the region of the bead is deflected inwardly so as to indent or contract the container body, and thus cause the cover to be rigidly secured to the body portion of the receptacle.

Referring more in detail to the drawings, I have shown my invention as applied to a container consisting of a cylindrical body portion 1, to which is attached the bottom 2 by double seaming. Said body portion is preferably cylindrical in cross section, and at the extreme upper edge thereof the side wall is rolled into an inturned bead 3. This bead may be tightly rolled or comparatively loosely rolled so as to give a greater sealing surface. The container is preferably made of sheet metal, although it is obvious that from certain aspects of the invention the container may be made of fibre or other suitable material. The container body has an open top which is of substantially the same diameter as the body portion of the container. This open top of the container is closed by a cover 4.

Said cover 4 has a central depressed portion 5 and a depending flange 6. The lower edge portion 7 of the depending flange is rolled or bent upwardly as at 8, thence inwardly and downwardly, as at 9, so as to

form a bead in which the raw edge of the metal is concealed. This bead is preferably flattened, as shown in the drawings. Between the substantially vertical wall formed by the depression 5 in the cover and the flange 6, the cover is U-shaped, thus forming a pocket 10. In this pocket 10 is placed sealing material 11 which may be of any desired form and, if desired, may be a gasket formed of rubber, paper or the like.

When the cover is placed on the can body, the rolled strengthened edge 3 of the can body frictionally engages the two vertical walls at each side of the U-shaped pocket and confines the sealing material in the pocket, and it is the sealing material that limits the downward movement of the cover onto the receptacle body. The cover, as above noted, may be placed on the body portion of the receptacle directly after it is filled and will be held on the receptacle body by the frictional engagement of the vertical walls on the cover with the rounded bead or strengthened upper edge of the can body and the outer wall of the can body. The container may be quickly moved and tilted to one side or the other after being thus closed without any liability of spilling the contents thereof.

In order to close the receptacle, the lower portion of the flange throughout the entire extent is simultaneously contracted or crowded inwardly, and this will indent the outer vertical wall of the can body, contracting the can body, and thus tightly secure the cover to the can body. This is preferably accomplished by means of a ring having an inclined cam face and a central yielding chuck. The chuck comes down onto the cover and holds it firmly seated in the can body and prevents the central depressed portion from being destroyed during the closing operation. The ring comes down from above, alongside of the depending flange, and when it engages the thickened lower edge of the flange, it will crowd or deflect the same inwardly. It will also push down on this thickened portion of the flange, which will bend to draw the cover very tightly down onto the receptacle, and while so held drawn down onto the receptacle, this thickened bead at the lower edge of the flange will form its own seating groove in the vertical wall of the can body, and thus seat the cover in its tightly depressed condition on the can body. The process of closing the can referred to broadly above forms no part of the present invention, but is shown, described and claimed in my copending application Serial No. 490,892 filed of even date herewith.

In Figs. 5 and 6 I have shown a slightly modified form of the invention in that the lower edge of the flange 7 is folded or rolled inwardly at 12, and thence again folded inwardly and downwardly at 13 to conceal the raw edge of the metal. This makes a thickened edge which is three times the thickness of the metal of the flange. The flange is deflected outwardly normally so that the inner face of the portion 12 is substantially in line with the inner face of the main portion of the flange thereabove. The closing of the receptacle is accomplished in precisely the same manner as above described. When the ring descends around the cover flange, it engages this thickened, strengthened, beaded portion at the lower edge of the flange and crowds or deflects the same inwardly, thus indenting the vertical wall of the can body and seating itself therein so that the cover is firmly secured to the body portion of the receptacle.

It is obvious that minor changes in the manner of forming the strengthened, thickened portion at the lower edge of the flange may be made without departing from the spirit of the invention as set forth in the appended claims. One of the essential features is the forming of the thickened portion of the flange from the metal of the flange itself and so forming the thickened beaded portion as to conceal the raw edge of the metal.

Having thus described the invention, what is claimed as new is:—

A metal receptacle including in combination, a cylindrical body portion having normally a substantially straight vertical side wall rolled at its upper edge to form a strengthening bead, and a cover for said receptacle, said covering having a central depressed portion and a depending flange forming spaced walls adapted to engage the inner wall of said bead and the outer vertical wall of the body portion, said cover between the depending flange and the vertical wall formed by the central depression being curved to conform with the curvature of said bead and having a sealing gasket between said bead and the cover, said depending flange being bent upwardly and thence downwardly to form an outwardly turned bead with the raw edge of the metal concealed, said flange being adapted to be deflected inwardly to cause the thickened bead to indent the vertical side wall of the can body for securing the cover to the can body.

In testimony whereof, I affix my signature.

ALFRED L. KRONQUEST.