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L. BURBANK

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REPLACEABLE RECEPTACLE CLOSURE

Filed Sept. 24, 1927

FIG. 1.

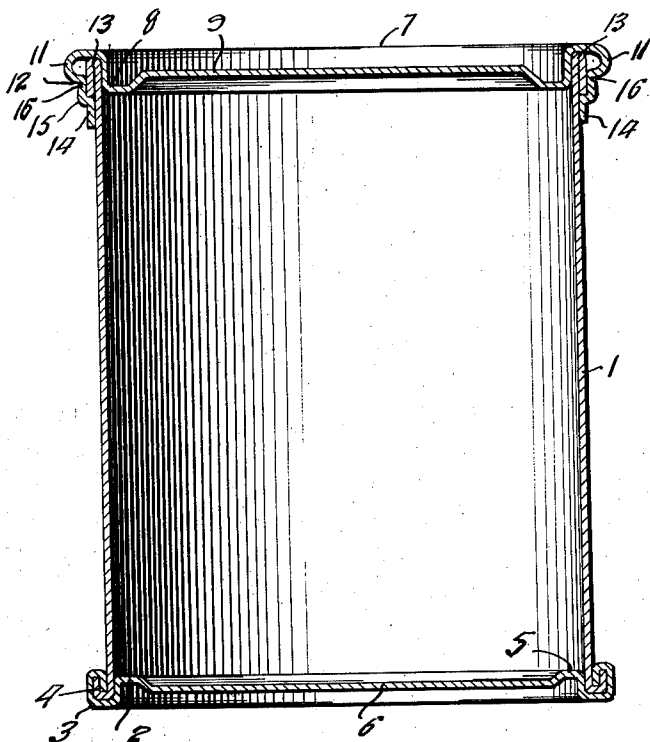


FIG. 2.

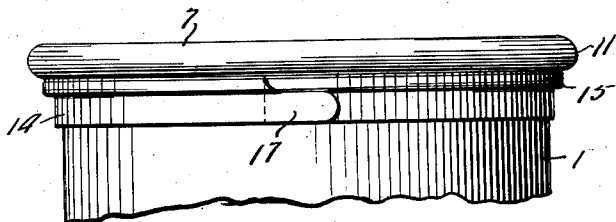


FIG. 3.

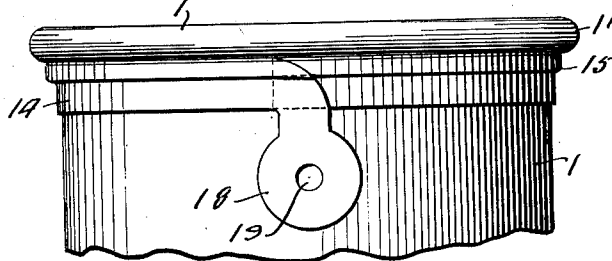
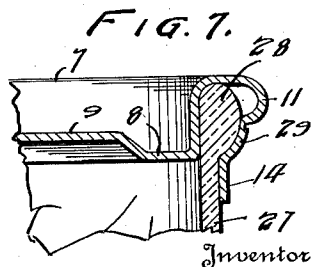
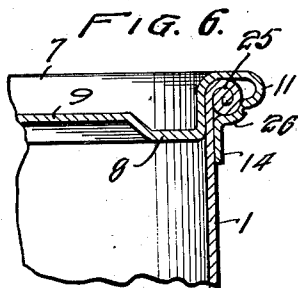
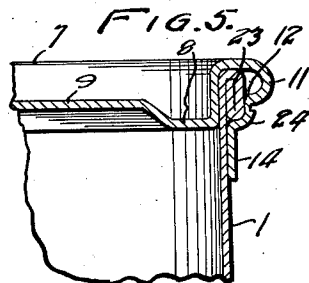
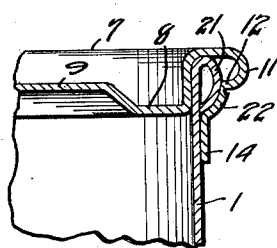


FIG. 4.



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REPLACEABLE RECEPTACLE CLOSURE

Application filed September 24, 1927. Serial No. 221,709.

The invention relates to new and useful improvements in receptacles and more particularly to an easy opening hermetically sealed receptacle.

5 An object of the invention is to provide a receptacle of the above character wherein the closure is held on the body portion of the receptacle by the bending of a flange on the closure underneath a projecting ledge on the 10 receptacle body, and wherein said closure is provided with a portion projecting beyond the ledge having a groove or score line at the underside thereof forming a tear strip in the flange by which the closure may be released from the receptacle body.

15 A further object of the invention is to provide a receptacle of the above character wherein the projecting portion on the closure is of less height than the projecting ledge and the score line is so disposed that when the 20 rip strip is removed the closure may be readily removed and again applied to the receptacle body for reclosing the same.

25 A still further object of the invention is to provide a receptacle of the above character wherein the closure has a central depressed portion frictionally engaging the inner wall of the receptacle body.

30 These and other objects will in part be obvious and will in part be hereinafter more fully disclosed.

In the drawings forming a part of this specification:

35 Figure 1 is a vertical sectional view of the receptacle and closure forming the subject matter of this invention;

Figure 2 is a side view of the closure with the receptacle broken away showing the tear strip having an integral tab formed for 40 engagement with a key;

Fig. 3 is a side view of the closure with the receptacle broken away showing the tear strip having an integral tab formed for engagement with a tine of a fork;

45 Fig. 4 is a detailed sectional view showing a modification of the rim shown on the receptacle in Fig. 1;

50 Fig. 5 is a detailed sectional view showing another modification of the rim on the receptacle shown in Fig. 1;

Fig. 6 is a detailed sectional view showing still another modification of the rim on the receptacle shown in Fig. 1;

Fig. 7 is a detailed sectional view showing the closure adapted to a non-metallic receptacle. 55

The invention is directed broadly to a receptacle having a cylindrical body portion to one end of which is secured a closure by double seaming. The other end of the receptacle has a closure attached thereto which may be readily removed. This is accomplished by forming the body portion of the receptacle with an outwardly projecting ledge at the end thereof. The closure is provided with a central depressed portion adapted to extend within the body portion of the receptacle and with a laterally projecting portion which extends beyond the projecting ledge. This laterally projecting portion is formed into a hollow bead and carries a depending flange which is adapted to be bent underneath the projecting ledge on the receptacle body for securing the closure to the body of the receptacle. The height of the laterally projecting portion is less than the projecting ledge so that the lower side of the projecting portion is preferably midway of the height of the ledge. The closure is scored or grooved along a line between the depending flange and the projecting hollow beaded portion, and thus it is that a tear strip is provided in the flange which may be easily removed and thus the closure released from the receptacle body.

Referring more in detail to the drawings, 85 the receptacle body is indicated at 1 and is preferably cylindrical. The closure containing the improvements is indicated at 7. This is first attached to the receptacle by the manufacturer. After the receptacle has been 90 packed the end 2 is secured thereto and this is accomplished by the ordinary closing machine at the packer's. The end 2 is formed with a depression 5 which forms a wall snugly fitting the inner face of the receptacle body. 95 The end is also provided with a portion 6 which is offset from the indented portion 5 and which strengthens this end. The body portion is provided with a flange 4 and the 104

end 2 with a flange 3. These flanges 3 and 4 are rolled into the usual double seam.

The body portion 1 at the other end thereof is provided with a projecting ledge. In Fig. 1 of the drawings this is produced by folding the metal onto the outer wall of the receptacle body as indicated at 13. This folding back of the metal may be referred to as a hemmed edge. This ledge provides a retaining shoulder at its lower edge underneath which the flange of the closure is bent for securing the closure to the receptacle body. The closure 7 has a central depressed portion 8 forming a friction wall which engages the inner face of the receptacle body. It also has a central portion 9 offset from the depressed portion 8. The closure projects laterally beyond the ledge as indicated at 11 in the drawings. This forms a hollow bead which overhangs the supporting ledge and side wall of the receptacle. The bead preferably terminates midway the height of the ledge and is provided with an integral flange 14. The metal between the bead and the flange 14 is grooved or scored as indicated at 16 and the flange is provided with a tongue or grip 17 by which the portion of the closure beneath the score line may be torn away. The depending flange forms a tear strip which makes the receptacle easily openable.

After the closure is placed on the container body the flange is bent underneath the ledge. This forms a shoulder 15 at the extreme lower edge of the ledge and the portion of the flange beneath the ledge makes close contact with the outer face of the wall of the receptacle. When the tear strip is removed the raw edge of metal at 12 is well underneath the projecting portion 11 and the hand when gripping the closure to remove or replace the same is kept from contact with this raw edge of metal. The raw edge of metal is midway the height of the ledge and the maximum diameter of the ledge so that the closure may be readily removed when the tear strip is torn away.

There is shown in Figure 4 a modification of the hemmed edge 13 on the body portion of the receptacle shown in Figure 1. In place of the hemmed edge the can is provided with a bead 21 adapted to be engaged at its greatest diameter by the inturned edge 12 of the bead 11 formed on the closure. In this manner there is attained a double spring fit as both the bead 21 on the rim of the receptacle and the bead 11 on the closure possess a certain degree of natural resiliency. The shoulder 15 on the tear strip 14 is modified as at 22 to follow the contour of the bead 21 so that a tight fit is insured.

There is shown in Figure 5 another modification of the hemmed edge on the rim of the body portion of the receptacle in Figure 1, in which the rim of the body portion of the receptacle is provided with a double folded hemmed edge 23 adapted

to lend greater rigidity to the structure of the rim of the can. The shoulder 15 on the tear strip 14, is also modified as at 24 to follow the contour of the lower edge of the double folded hem.

In Figure 6, there is shown still another modification of the hemmed edge on the rim of the body portion of the receptacle shown in Figure 1, in which the rim of the can is provided with a wire lip 25 adapted to lend still greater rigidity to the rim of the can than the modification shown in Fig. 5. The shoulder 15 on the tear strip 14 is likewise modified as at 26 to conform with the contour of the wire lip 25.

There is shown in Figure 7 a closure forming the subject matter of this invention adapted to a receptacle composed of material other than sheet metal, such as glass or crockery, although it is manifest that the closure could as well be attached to a cast metallic container formed with a suitable rim. In this construction a receptacle 27 of this character is provided with a rim 28 formed similar to the bead 21, shown in Figure 4. It is obvious that the rim on the vessel may be formed similar to any one of the various rim constructions shown, or that any additional modifications might easily be made in any of the various rims, previously described. The closure forming the subject matter of this invention can be adapted to the receptacle by slightly modifying the shoulder 15 on the tear strip 14 to conform with the contour of the particular rim, as at 29.

In applying the closure 7 to a receptacle having a proper rim for receiving the edge 12 of the bead 11, the tear strip may be placed in position in the usual manner, after the can has been filled with the particular commodity for which it is intended. When the tear strip is removed as it is joined to the edge of the bead 11, at a point below the horizontal line passing through the center of generation of the bead surface, the closure may be easily handled without danger of abrading the hands as the raw edge of the bead from which the tear strip has been removed is out of contact with the hands of the user. Moreover, since the raw edge of the bead contacts normally with the point of greatest diameter of the can, it is not distorted during removal and replacement of the top. The cover may be readily replaced or removed without the aid of tools as the portion afforded by the bead to the hand allows an easy removal of the cover.

There is accomplished by this invention a receptacle having a hermetically sealed closure that may be replaced after the seal has been broken to form an effective top; without danger to the hands of a user.

While I have shown and described the preferred embodiment of my invention, I wish it to be understood that I do not con-

fine myself to the precise details of construction herein set forth, by way of illustration, as it is apparent that many changes and variations may be made therein, by those skilled in the art, without departing from the spirit of the invention, or exceeding the scope of the appended claims.

I claim:

1. A receptacle comprising a body portion having an outwardly projecting ledge at its end forming at the under side thereof a retaining shoulder, a closure for said body portion, said closure having a portion projecting beyond the ledge on the body of the receptacle and turned inwardly to overhang the body, thereby providing an underface and a flange depending from the projecting portion of the closure and adapted to be bent underneath said retaining shoulder making contact at the lower part of the ledge, said flange having a score line therein adjacent the underface of said projecting portion forming a tear strip which may be removed for releasing the closure.

2. A receptacle comprising a body portion having an outwardly projecting ledge at its end forming at the underside thereof a retaining shoulder, a closure for said body portion, said closure having a portion projecting beyond the ledge on the body of the receptacle and turned inwardly to overhang the body, thereby providing an underface, said projecting portion being shaped to form a hollow bead the lower side of which is disposed midway the height of the ledge, and a flange depending from the projecting portion of the closure and adapted to be bent underneath said retaining shoulder, said flange having a score line therein adjacent the underface of said projecting portion forming a tear strip which may be removed for releasing the closure.

In testimony whereof I affix my signature.
LEONARD BURBANK.