Nov. 30, 1937. D. M. ZIVANOW 2,100,558

AIRTIGHT COVER RELEASER FOR CONTAINERS

Filed Feb. 2, 1937

Fig. 1.

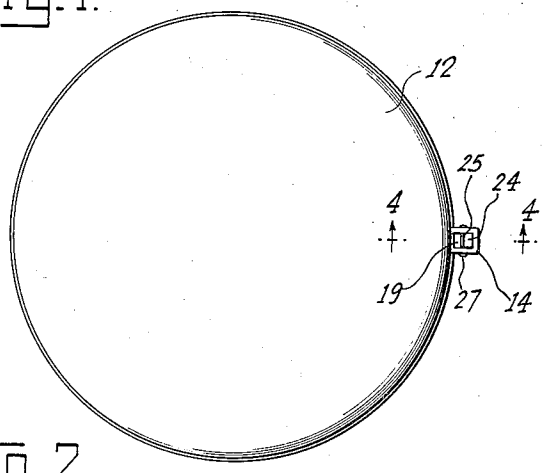


Fig. 4.

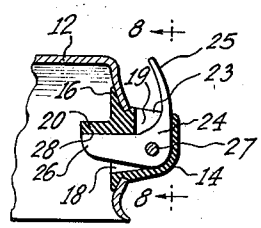


Fig. 2.

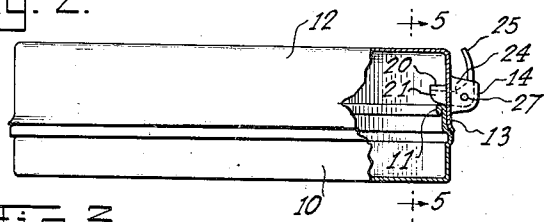


Fig. 5.

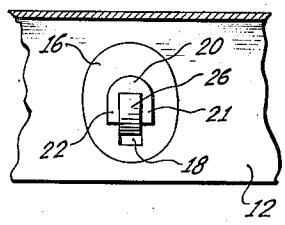


Fig. 3.

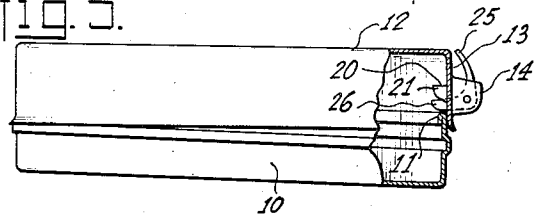


Fig. 6.

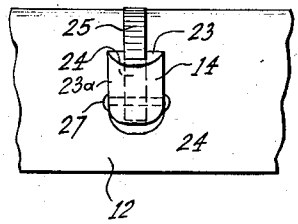
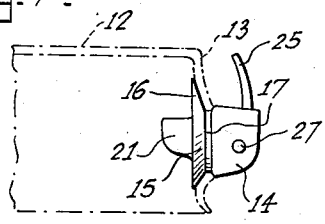


Fig. 7.



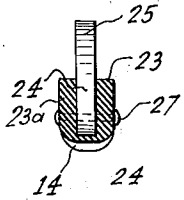


Fig. 8.

INVENTOR.
D. M. ZIVANOW.

BY J. Ledermann

ATTORNEY.

Patented Nov. 30, 1937

2,100,558

UNITED STATES PATENT OFFICE

2,100,558

AIRTIGHT COVER RELEASER FOR CONTAINERS

Dimitrije M. Zivanow, New York, N. Y.

Application February 2, 1937, Serial No. 123,593

3 Claims. (Cl. 220—43)

The main object of this invention is the provision of a novel airtight cover lifter or releaser for containers such as cans which contain shoe polish, whereby the cover may be quickly released so that it may be readily removed.

Another object of the invention is to provide a releasing attachment on the rim of the cover and to so construct and attach the same that the cover at that point is perfectly airtight.

The above and other objects will become apparent in the description below, in which characters of reference refer to like-named parts in the accompanying drawing.

Referring briefly to the drawing, Figure 1 is a plan view of a shoe polish can provided with the releasing attachment.

Figure 2 is a side elevational view of the same, partly in section, showing the releasing lug in inactive position.

Figure 3 is a view similar to Figure 2, showing the releasing lug in active position.

Figure 4 is a cross-sectional view of the cover taken on the line 4—4 of Figure 1.

Figure 5 is a cross-sectional view of the cover taken on the line 5—5 of Figure 2.

Figure 6 is a fragmentary front elevational view of the cover, looking toward the attachment.

Figure 7 is a fragmentary side elevational view of the cover, showing the attachment in full lines.

Figure 8 is a cross-sectional view of the attachment per se, taken on the line 8—8 of Figure 4.

Referring in detail to the drawing, the numeral 10 represents the body portion of the can having the peripheral lip 11. The cover 12 of the can has a peripheral wall 13 which telescopes over the lip 11 to close the container.

At one portion of the wall 13, an opening is provided in which a hollow rubber or composition member or sleeve 14 is inserted. That portion of the sleeve indicated at 15, which lies within the inside of the cover 12, is formed with a greater diameter to provide a flange 16 which serves to prevent withdrawal of the sleeve 14 from the cover. A groove 17 of reduced diameter has the periphery of the said opening in the cover registering therein and locking the sleeve 14 on the cover. It is obvious that this mode of attachment of the rubber sleeve 14 seals the said opening, and thereby prevents air from passing between the opening and the sleeve. This sleeve 14 with its groove 17 and the flange 16 are all of one piece of molded rubber or other suitable material.

The sleeve 14 is provided with an L-shaped opening which communicates from outside the cover to the inside of the cover, the horizontal portion of this opening being shown at 18, and the vertical portion at 19. A shoulder 20 extends from the upper edge of the opening 18 and is provided with depending walls 21 and 22. The opening 19 is similarly provided with a pair of walls 23 and 24. Thus, the opposite side walls of the continuous opening 18—19 are mutually parallel throughout. A substantially L-shaped bell crank 24 having a handle portion 25 at one end and a lug 26 at the other, is pivotally mounted within the opening 18—19 on a pin 27 supported in the opposite walls 23 and 24 of the sleeve 14. It is to be noted that the handle 25 is bent slightly toward the cover 12. When the can is closed, the member 24 is in the position shown in Figure 4, with the upper edge 28 of the lug 26 lying flush against the underside of the extension 20 above the opening 18, thereby sealing the opening at that point. The sides of the lug 26 are further sealed by the close contact of the walls 21 and 22 against the lug 26. The bottom of the opening 18 is also sealed by contact of the rounded midportion of the member 24 with the lower surface of the opening 18. Additional complete sealing of the opening 18—19 is illustrated in Figure 4 and need not be further elucidated. It is thus obvious that the cover 12 is airtight at and around, as well as through, the sleeve 14, which assures preservation of the contents of the can against drying out when the container is closed.

The operation of releasing the cover 12 from the body 10 is simple and consists in rotating the handle 25 toward the cover. It is to be noted that when the can is closed, the lower edge of the lug 26 rests against the lip 11 of the body 10. Consequently, the above-mentioned rotation of the handle 25 forces the lip 11 downward from the cover 12, thus raising that portion of the cover 12 so as to permit easy removal of the cover from the body. When the cover is restored to the body, contact of the lip 11 against the lug 26 automatically restores the handle 25 to its closed or inactive position shown in Figure 4.

Obviously, modifications in form and structure may be made without departing from the spirit and scope of the invention.

I claim:

1. An airtight cover releasing attachment for a container having a removable cover provided with a side wall having an opening therethrough, comprising a sleeve mounted on said side wall and projecting therethrough, an L-shaped opening

extending through said sleeve, a bell crank pivotally mounted in said sleeve and extending through said sleeve opening, said bell crank having a handle on one end outside said cover and a lug on the other end inside said cover, said lug resting on the lip of the body of the container when the can is closed by said cover, rotation of said handle toward said cover causing said lug to force said lip away from said cover to release the latter, the walls of said L-shaped opening lying flush against and frictionally engaging said bell crank, said sleeve having a peripheral groove intermediate its length, the periphery of said cover opening registering in said groove to lock said sleeve on said cover.

2. An airtight cover releasing attachment for a container having a removable cover provided with a side wall having an opening therethrough, comprising a sleeve mounted on said side wall and projecting therethrough, an L-shaped opening extending through said sleeve, a bell crank pivotally mounted in said sleeve and extending through said sleeve opening, said bell crank having a handle on one end outside said cover and a lug on the other end inside said cover, said lug resting on the lip of the body of the container when the can is closed by said cover, rotation of said handle toward said cover causing said lug to force said lip away from said cover to release the latter, the wall of said L-shaped opening lying flush against and frictionally engaging said bell crank, said sleeve having a peripheral groove intermediate its length, the periphery of said cover opening registering in said groove to lock said sleeve on said cover, said sleeve having a widened flange on the inside of said cover.

3. An airtight cover releasing attachment for a container having a removable cover provided with a side wall having an opening therethrough, comprising a sleeve mounted on said side wall and projecting therethrough, an L-shaped opening extending through said sleeve, a bell crank pivotally mounted in said sleeve and extending through said sleeve opening, said bell crank having a handle on one end outside said cover and a lug on the other end inside said cover, said lug resting on the lip of the body of the container when the can is closed by said cover, rotation of said handle toward said cover causing said lug to force said lip away from said cover to release the latter, the wall of said L-shaped opening lying flush against and frictionally engaging said bell crank, said sleeve having a peripheral groove intermediate its length, the periphery of said cover opening registering in said groove to lock said sleeve on said cover, said sleeve having a widened flange on the inside of said cover, said sleeve having a projection at the top of said opening inside said cover to serve as an upper limit stop and seal for said lug.

DIMITRIJE M. ZIVANOW.