

United States Patent

Rohrlick

[15] 3,670,920

[45] June 20, 1972

[54] **SEALING DEVICE FOR EASY OPENING CANS**

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[21] Appl. No.: **100,694**

[52] U.S. Cl. **220/57**

[51] Int. Cl. **A47J 27/08**

[58] Field of Search **220/57, 24**

[56] **References Cited**

UNITED STATES PATENTS

1,011,198 12/1911 Holmes **220/57 X**

2,157,218 5/1939 Ross **220/57**

FOREIGN PATENTS OR APPLICATIONS

538 7/1899 Austria **220/57**

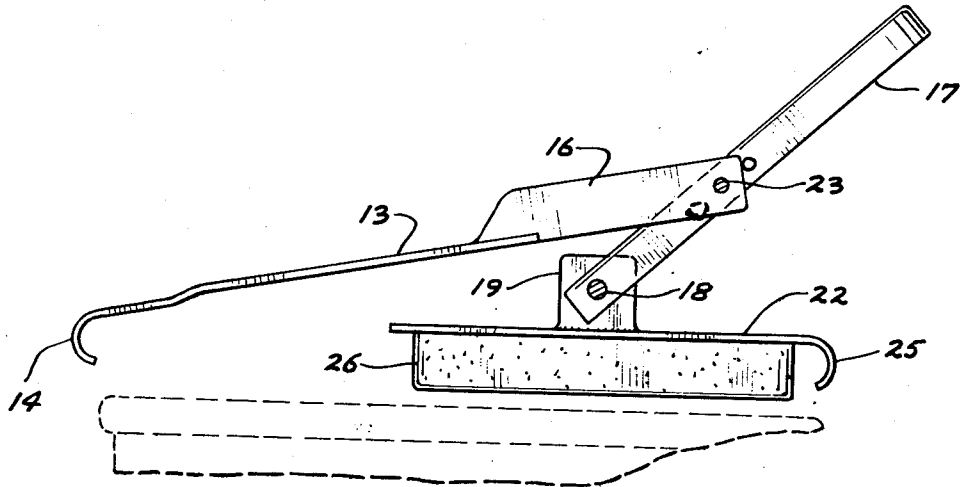
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Attorney—Dugger, Peterson, Johnson & Westman

[57] **ABSTRACT**

An external sealing device that can be easily manufactured, and provides positive sealing for the openings of previously opened quick opening cans. The device is made to form a lever action so that positive sealing can be achieved.

6 Claims, 3 Drawing Figures



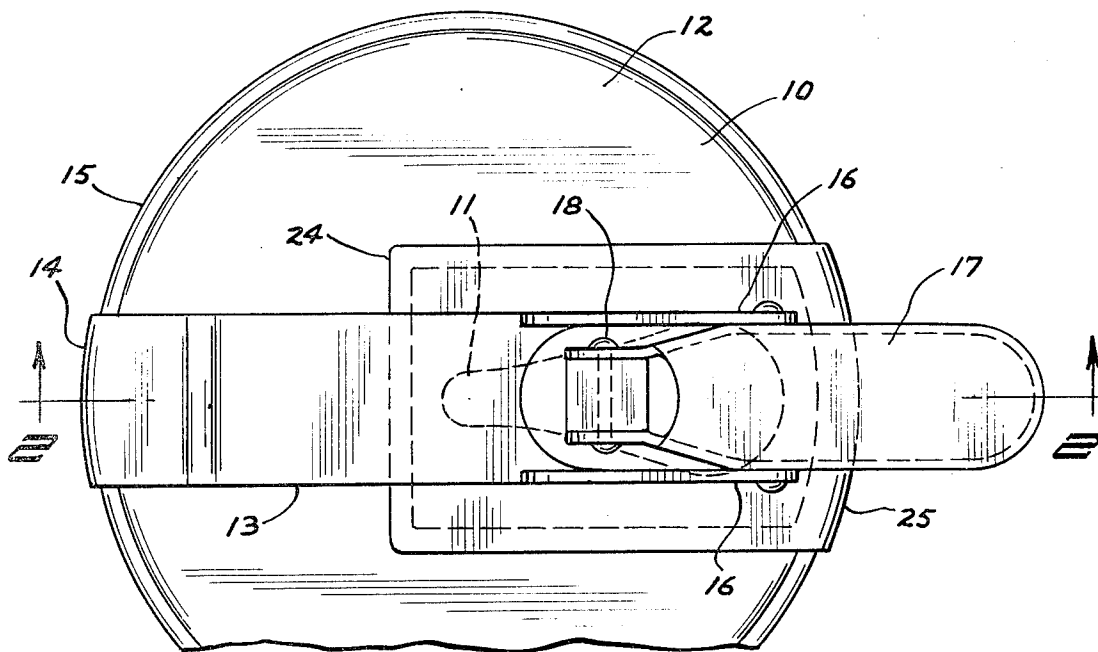


FIG. 1

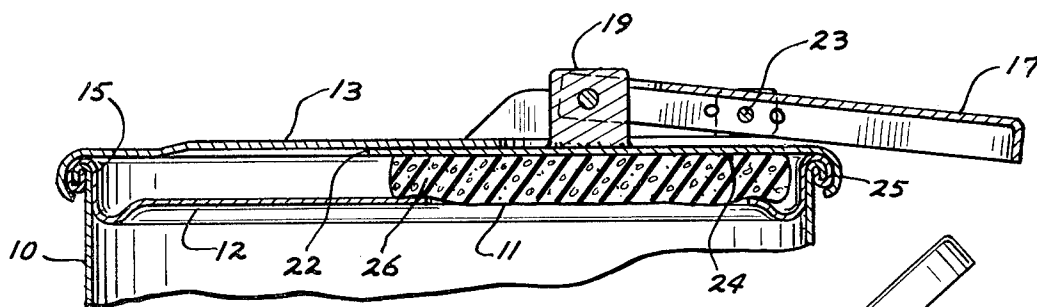


FIG. 2

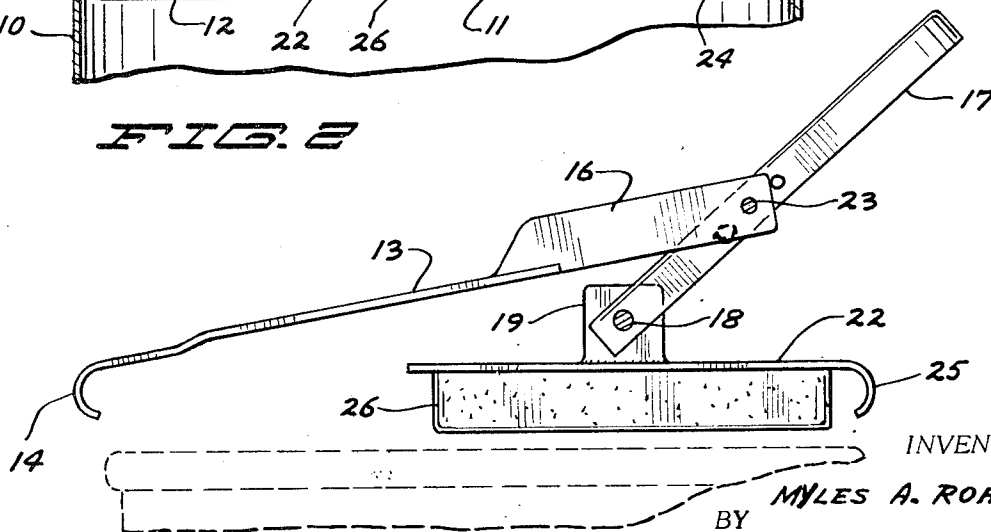


FIG. 3

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SEALING DEVICE FOR EASY OPENING CANS

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to resealing covers for easy opening cans.

2. Prior Art

Many different reseal devices for easy opening cans have been advanced. However, usually due to manufacturing costs, the inability to fit the different size or shapes opening, and other problems, the reseal devices have not achieved wide acceptance. For example, U.S. Pat. No. 3,158,279 shows a reseal plug that clamps along the edge of the opening only. U.S. Pat. No. 3,019,950 shows a similar device. In this patent there is a gripping member that does engage the rim of the can, but the main resealing force comes from the clamping action against the edges of the surface defining the opening in the can. This makes the reseal device difficult to use with cans having different sizes and shapes of openings, and also the devices are quite awkward and slot to use.

SUMMARY OF THE INVENTION

The present invention relates to a lever action reseal device for the opening of an easy opening can after it has been opened once. The unit includes a soft plug member that is clamped against the edges of the opening to give positive sealing action. The device includes a pair of can hook or grip members that go on opposite sides of the rim of the can, and an over center lever that is flipped down to push the sealing plug against the edges of the can opening to give the positive seal required to prevent the contents of the can from losing its flavor after the easy opening tab has once been pulled off.

The unit can be made out of molded plastic or of metal parts, is easily assembled, can be washed and cleaned after use and is easily installed and removed. The unit will fit on a wide range of different opening shapes and sizes, and usually the cans are of a standard diameter so that this problem is not as great as the variations in opening sizes and shapes. Adjustment for different size cans also can be made.

Therefore it is the object of the present invention to present the low cost, effective, and easily used reseal device for easy opening cans.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a top plan view of a resealing device for easy opening cans shown installed on an easy opening can and made according to the present invention;

FIG. 2 is a sectional view taken as on line 2—2 in FIG. 1; and

FIG. 3 is a view showing the closure device in an open position about to be placed onto an easy opening can.

DESCRIPTION OF THE PREFERRED EMBODIMENT

In FIG. 1 a can 10 is shown and is of the type that has a removable tab which when removed leaves an opening outlined at 11 in the top wall 12 thereof. The opening can have any desired shape such as that shown, which is more or less a "keyhole," or it can be tapered, triangular or the like.

One of the problems is that once the can is opened, if the contents are only partially used, the cans cannot be adequately resealed and flavor, and "zip" is lost from the soft drink, beer or whatever might be in the can. The contents just plainly go flat.

In order to provide for resealing of easy opening cans, many devices have been advanced as previously described, but they do not adequately do the job.

The present device is a unit that clamps tightly down onto the can opening to positively seal along the edges of the opening.

As shown, the unit includes a main latching member 13 having a hook end 14 that fits over the rim 15 of the can. The latching member 13 in turn is bifurcated and has legs 16, 16

on opposite sides thereof which are used to pivotally mount a tab or lever 17 with pivot pins 23. The lever 17 is in turn bifurcated at its inner end and this end is pivotally mounted with a pin 18 to an ear 19 that protrudes upwardly from a cover member 22. The ear, as shown, will pass into the opening between the bifurcated legs 16, 16 and the lever 17 moves about its pivot pins 23 between the legs 16.

The cover 22 includes a planar member 24 having a hook portion 25 that is shaped also to fit over the rim 15 of a can diametrically opposite from the location where the hook 14 fits over the can.

The cover member 22 further includes a pad 26 of resilient foam plastic or foam material that is semirigid. The pad 26 is larger in size than the opening with which it is used, so the opening will be completely covered. This semirigid resilient material is such that it will compress downwardly when it engages the top of the can and will actually bulge downwardly slightly into the opening 11.

When the device is to be used, the hook 14 is placed over one side of the rim and the hook 25 is placed over an opposite side of the rim 15. The lever 17, as shown, can be raised to its position in FIG. 3, and then the lever is pivoted downwardly to where the pivot axes of pins 23 and 18 go over center with respect to the hook 14 on the rim. The latching member 13 bears against cover member 22, and the resilient member is of sufficient height to be forced down against the top of the can 12 around the opening 11. As shown, the cover member 22 and pad 26 are large sized so that they will cover a large variety or different sizes of openings, and precise fit is not necessary. The resilient pad 26 will bulge down into the opening 11 as it is pressed against the top of the can under the lever action to effect a very tight seal. The edges of the pad 26 are supported around the edges of the opening. The mechanical over center locking makes the seal positive, and yet easily released, when desired, for use of the can.

The entire unit can be made out of molded plastic parts, and the resilient pad 26 can be of foam plastic. The pivot pins can even be plastic if desired. Precise manufacture is not required and some give in the hooks 14 and 25 will accommodate slightly bent cans or cans that are slightly different size. The pad 26 is of sufficient height so that when the unit is in its position as in FIG. 2 it is under some compression. If the top of the can is higher in relation to the top edge of the rim from that shown, the unit will still work because the latch 13, being made of a somewhat flexible material, can give slightly to accommodate these changes. This is one of the advantages of having a molded plastic latch member. The unit can be made of metal or other materials, if desired. Further, by providing a series of holes for the pins 23, the sealing device can be adjusted to fit different sized cans, if desired.

What is claimed is:

1. A sealing device for a can having a top panel, and an opening through said top panel, said sealing device comprising a cover member, means to retain said cover member on the rim of the can from movement in direction with respect to said rim, a lever pivotally mounted to said cover member, and a latch means pivotally mounted to said lever at a point spaced from the pivotal mounting between said cover and said lever, said latch means having means thereon to engage the rim of said can at a position spaced from said means to retain said cover member on said rim, the pivot point of said lever to said cover member, and the pivot of said lever to said latch means going over center with respect to the effective engagement of said latch means to the rim of the can whereby said latch means and cover member create a force against the rim of said can and said cover member is locked to said can, said cover member including means to engage the surfaces of said can top panel adjacent the edges of the opening in said top panel to resiliently seal around said opening when said lever goes over center.

2. The combination as specified in claim 1 wherein said latch means comprises a member having a hook at one end thereof adapted to go over the outside of the rim of said can,

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and bifurcated legs pivotally mounted to said lever at the opposite end.

3. The combination as specified in claim 1 wherein said means to engage the surfaces of said can top adjacent the edges of the opening in said can comprises a pad of resilient plastic foam material.

4. The combination as specified in claim 2 wherein said means to retain said cover member on said rim comprises a hook portion adapted to fit over said rim substantially diametrically opposed from said hook portion of said latch means.

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5. The combination as specified in claim 3 wherein said latch means is under tensile stress when the lever is in over center position, and bears down on said cover member to urge said resilient material against the top panel of said can when said lever means goes over center.

6. The combination as specified in claim 5 wherein said lever is of length to extend outwardly beyond the periphery of said can when it is in its over center position.

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UNITED STATES PATENT OFFICE
CERTIFICATE OF CORRECTION

Patent No. 3,670,920 Dated June 20, 1972

Inventor(s) Myles A. Rohrllick

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Column 4, line 5, (Claim 5, line 5), delete "means".

Signed and sealed this 24th day of October 1972.

(SEAL)
Attest:

EDWARD M. FLETCHER, JR.
Attesting Officer

ROBERT GOTTSCHALK
Commissioner of Patents