Dec. 8, 1953 E. C. OLDENBURG 2,661,861

CONTAINER CLOSURE

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Fig. 1

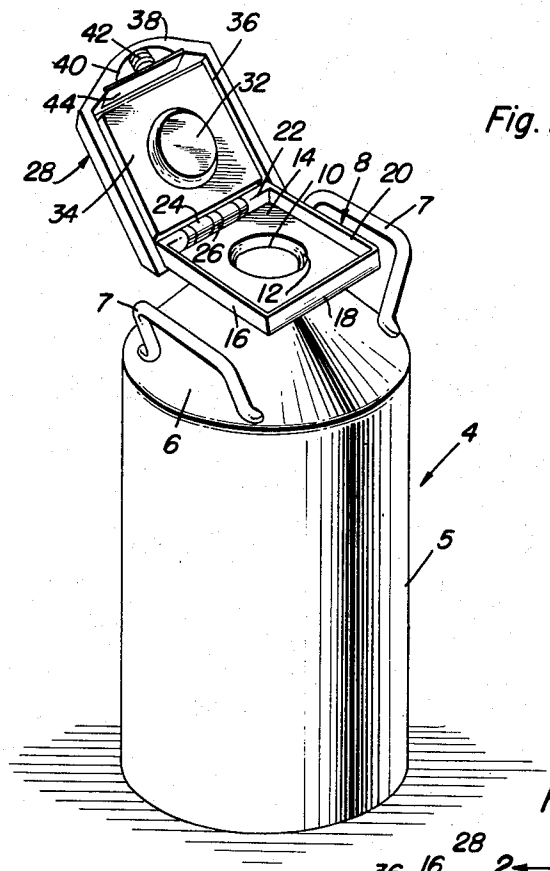


Fig. 3

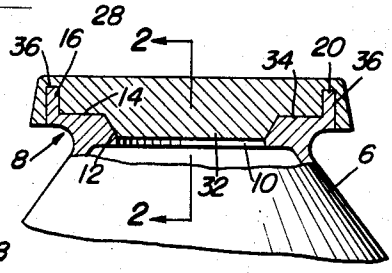
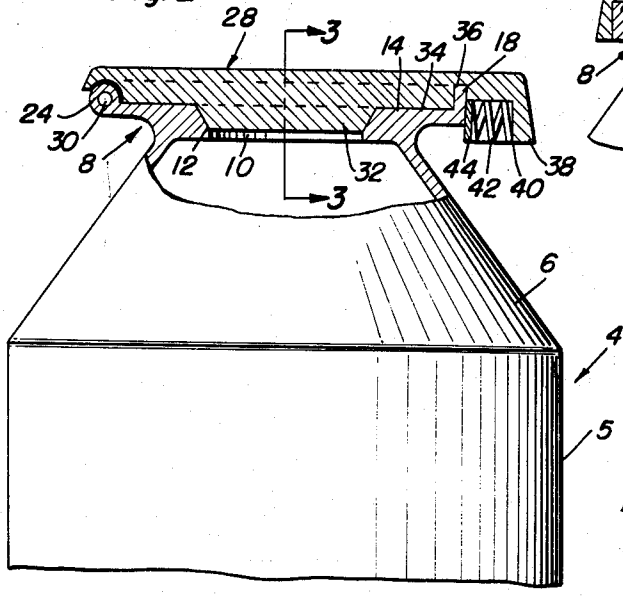


Fig. 2



Elmer C. Oldenburg

INVENTOR.

BY Clarence A. O'Brien and Harvey B. Jacobson

Attorneys

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CONTAINER CLOSURE

Elmer C. Oldenburg, Blakeley, Minn.

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3 Claims. (Cl. 220—31)

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The present invention relates to certain new and useful improvements in readily openable closures for various types of containers and has more particular reference to a closure construction which is highly practical and satisfactory when used in connection with the neck of a shipping type milk can.

An object of the invention is to provide a structurally distinct closure construction wherein the cooperating members thereof have intimate cooperating relationship with one another, whereby to provide a closure which lends itself to rough and haphazard handling while, at the same time, affording the desired sealing result.

It is a matter of common knowledge that milk cans are subjected to all sorts of thoughtless and rough-handling and are not always closed tightly. It is, therefore, another object of the invention to provide a closure which is such in construction that it will faithfully seal the contents of the can in a manner to exclude dirt and extraneous matter, will not open up accidentally if the can is dropped and will permit the can to be placed in a cooler or refrigerator during which period the closure will remain liquid-tight and thus prevent sprayed water or other coolants from entering the contents of the can.

Then, too, it is a further object of the invention to provide a closure which is permanently joined with the neck of the can and to in this manner prevent loss of the closure and, in addition, to minimize the likelihood of damage to the cooperating parts of the closure.

More specifically, the invention has to do with a closure construction which is characterized by a relatively stationary foundation member having centered opening surrounded by a flat outstanding shelf-like ledge, and a complemental relatively movable cover member having a centered stopper plugged into and closing said opening, said stopper having a surrounding flat lidding surface superimposed upon and impinging tightly against said ledge, whereby the cooperating surfaces effect an air-tight seal between themselves.

Novelty is also predicated on a closure of the stated construction wherein the cover member has a projecting marginal portion overhanging in the corresponding marginal portion of the foundation member and providing a hand-grip, said hand-grip being provided with a spring-pressed friction retainer which is releasably engageable with the corresponding marginal portion of the foundation member so as to effectively lock the cover in a closed position while, at the same time, permitting it to be conveniently opened when hand pressure is applied to hand-grip.

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Other objects and features and advantages will become more readily apparent from the following description and the accompanying sheet of illustrative drawings.

In the drawings wherein like numerals are employed to designate like parts throughout the views:

Figure 1 is a perspective view of a container, a milk can here, provided with a structurally improved closure constructed in accordance with the principles of the present invention showing the cover open;

Figure 2 is an enlarged fragmentary sectional and elevational view which is taken approximately on the vertical line 2—2 of Figure 3, looking in the direction of the arrows; and

Figure 3 is a similar fragmentary sectional and elevational view taken on the vertical line 3—3 of Figure 2, looking in the direction of the arrows.

Referring now to the drawings, the container, which is here a milk can, is denoted by the numeral 4 and the body portion or container proper is denoted by the numeral 5 and the usual truncated conical neck by the numeral 6 and handgrips by the numerals 7—7. It is to be understood, of course, that the closure may be used with other types of containers but for convenience is shown used on a milk can.

The aforementioned relatively stationary closure member, the basing portion, is denoted by the numeral 8. It is formed integral with the truncated end of the neck 6 and is relatively large and generally rectangular in plan view. This area is such that it overlies underlying portions of said neck. Member 8 is characterized by a centered circular hole or opening 10 having a beveled or conical surface 12. The opening is encompassed or surrounded by an outstanding horizontal flat portion which resembles a shelf and may be conveniently referred to as a shelf-like ledge 14. The marginal edge portions of this are provided with upstanding flanges 16, 18, 20 and 22 forming a rectangular rim. The flange 22 embodies hinge knuckles 24 cooperating with complemental knuckles 26 on the cover member 28, the knuckles being joined by a pin or the like 30 as shown in Figure 2 and effecting the desired hinge connection between the cover and basing member. The cover is of an areal extent to completely overlie the basing member 8. It is characterized by a central stopper 32 which is located on the underside and has a beveled periphery conforming with the conical surface 12. This stopper is plugged into the opening in the manner shown in Figures 2 and 3. The stopper is sur-

rounded by a flat lidding surface 34. The lidding surface 34 conforms with the ledge 14 and when the closer is closed said surfaces combine in tight superimposed or impinging relationship thus effecting a double seal between themselves and a further seal between the stopper and opening 10. The cover has an overhanging marginal rim portion which is provided with groove means 36 and the rim flanges 16 to 22 fit into the groove means in the manner shown in Figures 2 and 3 thus effecting a further seal between the parts. The forward end portion of the cover has a projection which extends well beyond the front flange 18 and provides a hand-grip 38. The underside of the projection is recessed at 40 to accommodate a coil spring 42 and a flat plate member 44 which constitutes a friction retaining clip. This clip engages the flange 18 in the manner shown in Figure 2 whereby to effectively retain the cover in closed position while, at the same time, allowing it to be swung open by hand pressure exerted against the hand-grip 38.

It is thought that persons skilled in the art to which the invention relates will be able to obtain a clear understanding of the invention after considering the description in connection with the drawings. Therefore, a more lengthy description is regarded as unnecessary.

Minor changes in the shape, size, materials and arrangement of parts may be resorted to in actual practice without departing from the spirit and scope of the invention as claimed.

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

1. A milk can construction comprising a container having a truncated conical neck provided at its truncated end with a fixed closure basing member, the latter having a centered opening encompassed by an outstanding flat surfaced shelf-like endless ledge, the outer marginal edge portion of the latter having upstanding flanges

cooperating in forming an endless marginal rim, and a cover member of a size greater than and hingedly connected with said closure basing member, the underside of said cover member having a centered stopper removably plugged into said opening, having a flat lidding surface surrounding said stopper and corresponding to and tightly superimposed on said ledge, and also having marginal groove means receiving said flanges, whereby said stopper fitting into said opening, said cooperating ledge and lidding surface, and flanges fitting into said groove means collectively effect a satisfactory and sanitary seal.

2. The structure of claim 1, wherein both of said members are rectangular in plan, and said cover member having a projecting marginal portion overhanging the cooperating flange of said basing member and providing a hand-grip.

3. The structure defined in claim 2, and said hand-grip being recessed on its underside, and a spring biased friction retainer mounted in said recess, said retainer being a flat clip frictionally engaging said last-named flange.

ELMER C. OLDENBURG.

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