United States Patent

Lancaster

[15] **3,659,756**

[45] **May 2, 1972**

[54] CONTAINER COVER

[72] Inventor: **John Kenneth Lancaster,** 630 Eagle Lane, Palatine, Ill. 60067

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[52] **U.S. Cl.**.....**222/531,** 222/541, 222/556

[51] **Int. Cl.**.....**B65d 47/08,** B65d 47/10

[58] **Field of Search**.....222/153, 531, 541, 532, 556; 215/42

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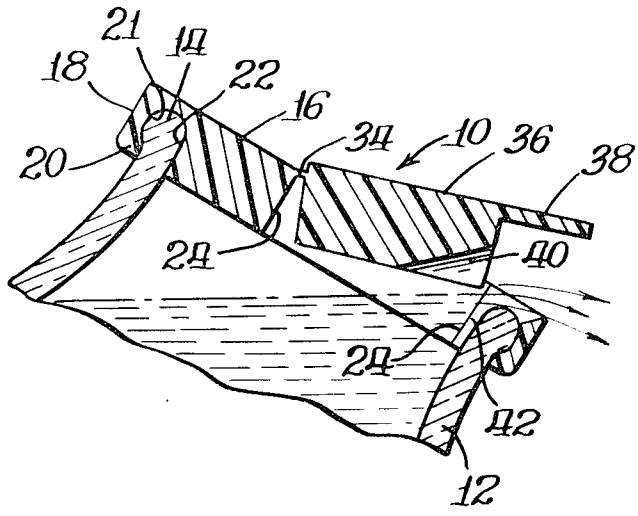
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Assistant Examiner—Frederick R. Handren
Attorney—Frank R. Thienpont

[57] **ABSTRACT**

A one piece cover for a container with a hand actuatable tearstrip portion to provide a pour opening and to form a closure for the opening. The cover is adapted to be semi-permanently attached to and thus ordinarily difficult to remove from the container. The tear sections which define the pour opening and the tearstrip portion seal the contents of the container and make it possible to ascertain that the container had not been previously opened, and the closure forms the means for re-closing the container when not in use. In addition, the closure and the cover are provided with a spout for dripless pour flow.

7 Claims, 10 Drawing Figures



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3,659,756

Fig. 1.

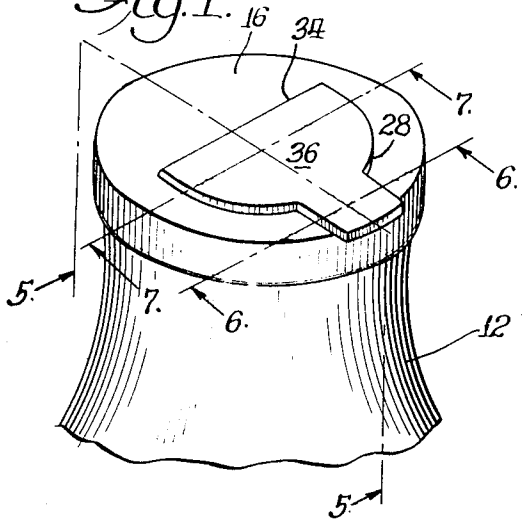


Fig. 2.

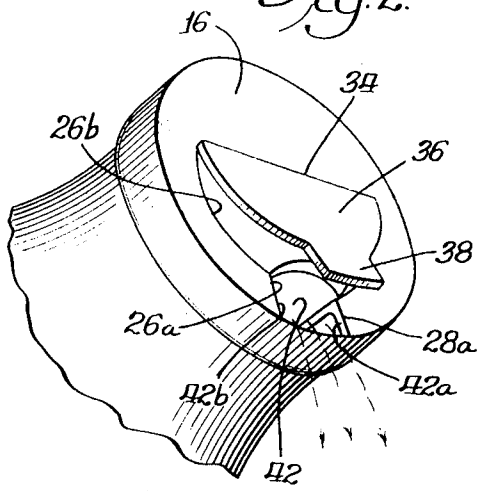


Fig. 3.

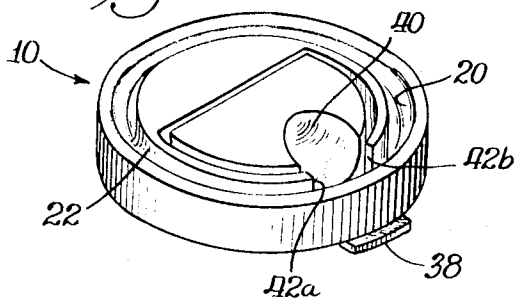


Fig. 4.

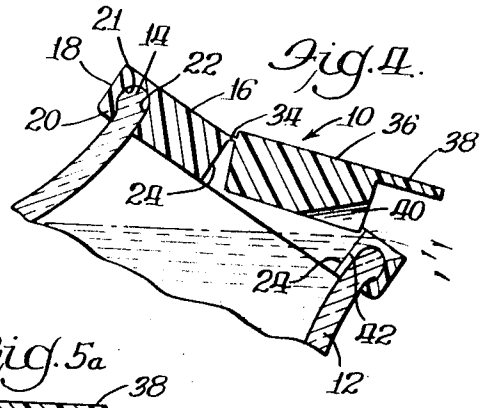


Fig. 5.

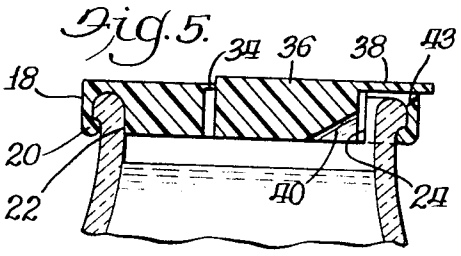


Fig. 5a

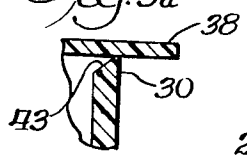


Fig. 6.

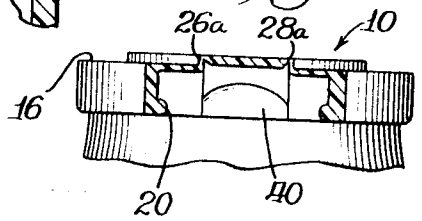


Fig. 7.

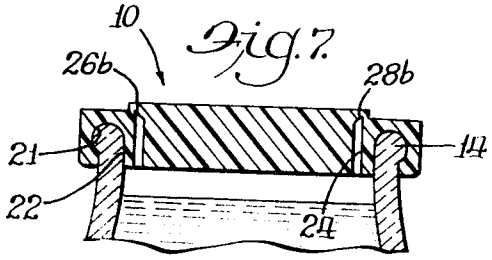


Fig. 8.

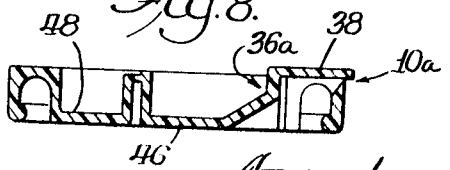
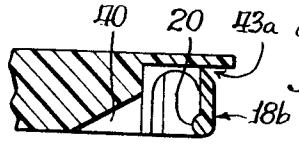


Fig. 9.



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CONTAINER COVER

This invention relates to covers for containers and embodies a tamperproof and leakproof seal for the contents of the container which may be readily and easily opened by a simple hand action. The hand removable tearstrip which defines the pour opening initially is completely sealed in the plastic by very thin connecting integral portions of the plastic. The thin connecting portions are torn by a simple hand ripping action which breaks the seal. This tearing of the seal enables the consumer to ascertain that the container has not been previously opened, assures him of the sanitation of the contents and that the quantity is as stated on the container. Once opened by tearing the tear section, thus breaking the seal, and lifting the tearstrip, a suitable pouring spout is formed which enables the user to pour without dripping and thus reduces waste. If the entire contents of the container are not initially completely used, the tearstrip, now being a closure member, again can be releasably secured in a reclosed position.

Other features of this invention include the fact that the cover is designed to be semi-permanently attached to the container so that it is not ordinarily removable by the consumer. It may be returned with the container to the bottler or vendor who will then remove it and replace it with an unused cover completely sealed as before. The cover embodying this invention is also such that it can be embossed while being processed and can be made of readily available flexible plastic. Probably only limited retooling of existing cover equipment is necessary to adopt and make this invention.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view illustrating the cover embodying the present invention and a portion of a glass milk bottle;

FIG. 2 is a view similar to FIG. 1 but with the tearstrip open showing the contents being poured;

FIG. 3 is a bottom view of the cover illustrating in more detail the pouring arrangement;

FIG. 4 is a view similar to FIG. 2 but showing the container and cover in cross section;

FIGS. 5 and 5a are a cross-sectional view taken along the line 5—5 of FIG. 1, FIG. 5a being an enlarged portion of FIG. 5;

FIG. 6 is a cross-sectional view taken along line 6—6 of FIG. 1;

FIG. 7 is a cross-sectional view taken along the line 7—7 of FIG. 1;

FIG. 8 is a cross-sectional view of another embodiment of the invention; and

FIG. 9 is a cross-sectional view of a portion of a closure illustrating another embodiment of the tearstrip or closure arrangement for sealing the container near the thumb grip tab.

BRIEF DESCRIPTION OF THE PREFERRED EMBODIMENTS

In FIG. 1, the cover **10** embodying the present invention is shown engaged to the neck of a conventional milk bottle **12**. The bottle **12**, shown more clearly in FIG. **4**, is provided with a neck opening or dispensing mouth which terminates in a peripheral lip **14**, conventionally an enlarged rim or bead on the edge of the bottle.

The cover **10** is seen to comprise a flat, disc-like body portion **16** of some thickness and surrounded by a depending skirt **18** formed integrally with portion **16**. The skirt has a lower lip **20** formed inwardly which is adapted to be in tight sealing engagement with the under surface of the bottle opening lip or bead. As clearly shown in FIG. **4**, the skirt portion is radially spaced from the portion **16** to define therewith an inverted substantially U-shaped recess **21** which receives the lip **14** of the bottle **12** in sealing engagement. The recess **21** is defined in part by a wall **22** which extends down into the bottle **12** and sealingly hugs the inside surface of the bottle. The resiliency of the plastic material permits the skirt portion **18** with its lip **20** to be pressed over the rim **14** in semi-permanent sealing engagement therewith. This makes it ordinarily quite difficult for the consumer to remove the cover so that the cover will be returned with the bottle where it will be removed and replaced with an unused cover when the bottle is refilled.

The portion **16** is provided with a hand tearout pour opening **24** which is defined generally by tear sections **26** and **28**. These tear sections begin at the outer periphery of the disc-like portion as at **30** (FIG. **5***a*) and extend laterally and then inwardly as lines **26***a* and **28***a* slightly beyond the bottle rim to form a grip tab. The tear sections then follow the general contour of the rim **14** as tear section portions **26***b* and **28***b* to form a semicircular pour opening finally terminating slightly beyond one half the bottle opening at a straight line hinge **34** which provides a hinge for the tearstrip **36** integral with the portion **16**. Tearstrip **36**, which also forms a closure member for the pour opening, may extend inwardly into the bottle neck as shown, for example, in FIGS. **5** and **7**. Tear strip **36** may be slightly thicker and extend upwardly above the upper surface of portion **16** to make a clearly discernible closure member as more clearly shown in FIGS. **1**, **2**, and **5**. The tearstrip **36** also extends outwardly beyond the bottle rim and skirt **18** so as to form a thumb gripping portion or grip tab **38** for the tearstrip. The underside of the tearstrip or closure member **36** is formed with a cavity or recess defined by convex surface **40** which, as shown in FIGS. **3** and **4** opens toward the bottle rim so as to form part of a pouring spout when the closure member **36** is opened. The inner wall **22** is interrupted to provide an opening **42** defined by spaced wall portions **42***a* and **42***b* as shown in FIGS. **2**, **3** and **4**. The portion of the skirt **18** adjacent the grip tab **38**, as shown in FIGS. **4**, **5**, and **5***a*, is formed with an inclined wall **44** which terminates at the grip tab **38**. Thus there is formed a unique pouring spout which is more clearly shown in FIGS. **2** and **4**.

To recapitulate when a container with the present invention is handled by a consumer, he can visually inspect the cover and determine that the contents of the bottle are intact by noting that the tearstrip is completely intact at the tear sections. Then, to open the container, he simply grabs the grip tab **38** and pulls upwardly, ripping the tear sections **26** and **28** to the hinge **34** and pours contents from the bottle, such as shown by way of example in FIG. **4**.

Turning now to FIG. **8**, it is to be noted that in the interest of saving material, the central portion of the closure member **36***a* can be cored, that is provided with thin walls such as shown at **46** and, similarly, the remainder of the top portion **16** can be cored, or provided with thin walls such as shown at **48**, to reduce the amount of material being used in the cover. Otherwise, the function and the operation of the cover designated as **10***a* is similar to that shown in the previously described figures.

FIG. **9** shows an optional configuration of the skirt portion to which the tab **38** is attached by the tear section. The upper part of the skirt portion has an upper slanted wall **43***a* inclined downwardly and outwardly as distinguished from the downwardly and inwardly inclination as shown in FIG. **5**. This is another means of connecting the tearstrip to the side wall at the initial tear section to form the pouring spout area.

What is claimed is:

1. A resilient plastic cover for a container comprising:

a disc-like body portion,

holding means integral with said body portion for attaching said cover to said container,

a hand tear out pour opening in said cover,

closure means closing said pour opening including a tearstrip, said tearstrip having a gripping tab formed at one end and a hinge at the other end thereof integrally securing said closure means to said disc-like portion, and spout means formed in part as a recessed surface on the underside of said closure means and in part on said holding means.

2. The cover as claimed in claim **1** wherein said spout means comprises a recessed surface on the underside of the cover means exposed when said closure is opened and a cutaway portion on said holding means.

3. The cover as claimed in claim 1 wherein said holding means comprises an annular skirt depending from said body portion and a side wall portion as part of said body portion and spaced from said skirt to define recess means adapted to grip the rim of the container.

4. The cover as claimed in claim 1 wherein said closure means is defined by spaced tear sections on said body portion and extending into a part of said holding means, said gripping tab being manually engageable to rip along the tear sections to form the hand tear out pour opening.

5. The cover as defined in claim 3 wherein said closure means is defined by spaced tear sections on said body portion extending into a part of said annular skirt, said gripping tab being manually engageable to rip along the tear sections to form the hand tear out pour opening, said gripping tab and closure means being adapted to engage with said body portion and skirt in container reclosed position.

6. A resilient plastic cover for a container comprising:

a disc-like body portion,

holding means integral with said body portion for attaching said cover to said container,

a hand tear out pour opening in said cover,

closure means closing said pour opening including a tearstrip, said tearstrip having a gripping tab formed at one end and a hinge at the other end thereof integrally securing said closure means to said disc-like portion, and

tear sections comprising a first peripherally extending portion disposed between the top of said holding means and the underside of said body portion, spaced portions extending substantially parallel from each end of said peripherally extending tear section inwardly a distance substantially the thickness of the container rim and divergent portions generally paralleling the edge of the container and extending to a chord forming said hinge for the closure means, the top of said skirt adjacent to said first peripherally extending tear section being provided with an inclined side wall facing inwardly of the container.

7. A resilient plastic cover for a container comprising:

a disc-like body portion,

holding means integral with said body portion for attaching said cover to said container,

a hand tear out pour opening in said cover,

closure means closing said pour opening including a tearstrip, said tearstrip having a gripping tab formed at one end and a hinge at the other end thereof integrally securing said closure means to said disc-like portion, and

tear sections comprising a first peripherally extending portion disposed between the top of said holding means and the underside of said body portion, spaced portions extending substantially parallel from each end of said peripherally extending tear section inwardly a distance substantially the thickness of the container rim and divergent portions generally paralleling the edge of the container and extending to a chord forming said hinge for the closure means, the top of said skirt adjacent to said first peripherally extending tear section being provided with an inclined side wall facing outwardly of the container.

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