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CONTAINER PROVIDED WITH COVER SEAL AND REMOVABLE INNER LID

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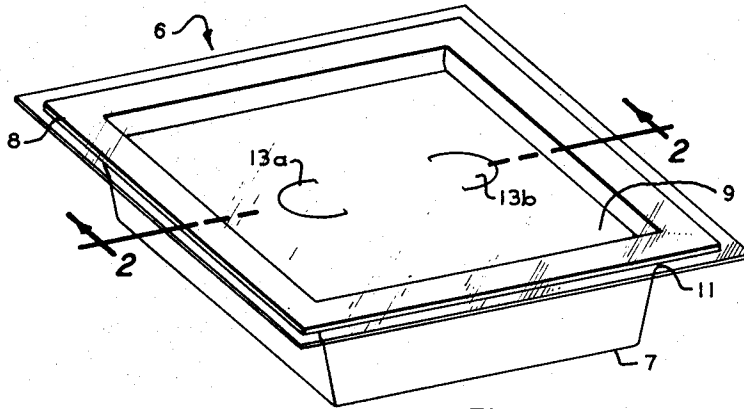


FIG. 1

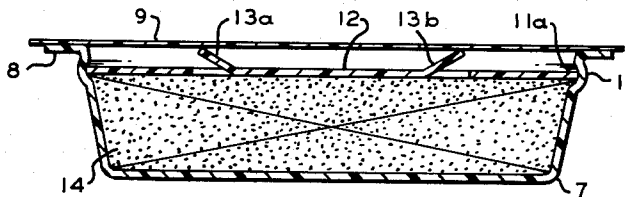


FIG. 2

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CONTAINER PROVIDED WITH COVER SEAL AND REMOVABLE INNER LID

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This invention relates to a container provided with a cover seal and a removable inner lid.

In recent years it has become increasingly common to package various items in containers molded of plastic or other flexible but relatively rigid materials. The use of such containers is becoming more and more widespread, particularly in the packaging and sale of foodstuffs. In the packaging of foodstuffs particularly, and also with some other items, it is desirable that the container be sealed at the time of filing, and foodstuffs containers provided with a cover seal which is applied when the container is filled are in use. However, one of the drawbacks in the use of such containers is that there is no convenient way to close the container after it has been opened. Thus unless the contents are all used relatively soon after the container has been opened, said contents must be transferred to another container which can be conveniently closed. This is troublesome at best and frequently results in the loss of some of said contents.

It is often an additional requirement that the cover seal be peelable from the container, which is generally accomplished by the use of a flexible film cover. Unfortunately, such cover seals are exceedingly prone to failure upon shipment of the closed containers. It has been found that deformations in the sealing area unavoidably occurring in handling and shipment, cause the flexible cover seal to pop off or peel away at various points. Thus, the package fails to avoid exposure of the contents, and is rendered unacceptable.

Finally, flexible cover seals present another problem when they are stripped away for access to the contents, namely, any carelessness in separating the cover, results in spillage of the contents.

Accordingly, it is an object of this invention to provide a superior formed container for perishable merchandise.

It is another object of the invention to avoid the destruction during shipment of the hermetic seal of the packages when using flexible cover seals.

Another object is to provide an improved container which can be initially sealed when filled and which can also be reclosed and reused after said outer seal has been permanently removed.

Still another object is to provide a container in which the contents are non-spillable during the separation of the outer cover seal.

Other objects, aspects, and advantages of the invention will become apparent to those skilled in the art from a study of the disclosure, the drawing and the appended claims.

The foregoing objects are achieved broadly in this invention by providing a novel package comprising: an open top formed container is provided with an outwardly projecting flange; a groove is provided around the inner surface of said side wall, and near the open top thereof; a removable rigid inner lid is adapted to snap into and out of the groove merely with a manually exertable force; and an outer cover seal is provided for said receptacle, the cover seal comprising a flat, flexible sheet for sealing the top of the receptacle at the flange.

Thus, the presence of the stiffening lid protects the seal area from deformation due to normal handling, except under the most extreme conditions of mishandling, and thereby holds the hermetic cover seal intact. Moreover,

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the inner lid holds the contents very neatly in place, no matter how careless the final consumer may be in peeling off the flexible cover.

For the purpose of more clearly describing the invention, reference is now made to the drawing, wherein:

FIGURE 1 is a schematic perspective illustrating the novel package as it appears to the consumer; and

FIGURE 2 is an elevational view in full section showing a merchandise container sealed according to the invention.

Referring now to the drawing, and to FIGURE 1 in particular, there is shown an open face formed container, generally designated 6, suitable for packaging perishable foodstuff, such as dry cereal.

The cup portion thereof is formed from a continuous plastic strip by the action of heat, pressure, and suitable forming dies, in a manner well known to those skilled in the art. A flange 8 (better seen in FIGURE 2) of undeformed plastic strip is left around cup 7 to provide a horizontal lip or margin, to which the periphery of flexible plastic cover seal 9 can adhere. Disposed within the inner surface of the side wall of cup 7 is a groove, manifested as ridge 11 in the outer surface, spaced from, but adjacent the top of the cup and running completely around the periphery of the cup. As seen in FIGURE 2, this groove accommodates a removable rigid inner lid 12 adapted to snap into and out of said groove 11a merely with a manually exertable force, most conveniently applied to opposing flaps 13a and 13b cut out in lid 12. Cover seal 9 comprises a flat, flexible sheet for covering the top of said receptacle in sealing contact with the upper surface of flange 8, which provides the initial protection for stored perishables during shipment. Cover 9 also overlaps flange 8 so that the flexible seal may readily be peeled off by the consumer.

In FIGURE 2, an elevational view in full section taken thru line 2—2 of FIGURE 1, is shown the novel container as it is shipped, with the perishables 14 being retained in position by removable snap-in lid 12, held in place by groove 11a. The flanges 8 are seen in sealing contact with cover seal 9.

The cover seal and cup can be heat-sealed together if formed from thermoplastics. Alternatively, if conventional materials are employed, they may be glued or stapled to one another to form the double closure. As a unit is required, a knife can most conveniently be employed to slit the cover seal and expose the inner lid of the pack.

The formed containers to which the instant invention is applied are conveniently fabricated from thermoplastic normally solid polymers and resins, such as the polyolefins, and especially high density polyethylene, because of its packaging properties and heat sealability. In general, any solid polymer of an aliphatic mono-1-olefin can be used within the scope of this invention. Examples of such starting materials include polymers and copolymers of aliphatic mono-1-olefins, such as ethylene, propylene, butene-1, hexene-1, octene-1, and the like. Polymers of aliphatic mono-1-olefins having a maximum of 8 carbon atoms per molecule and no branching nearer the double bond than the fourth position provide thermoplastic containers having desirable packaging properties. Homopolymers and copolymers, as well as mixtures of homopolymers and copolymers are suitable polymeric materials for the multipack of the invention.

Generally, the invention is applicable to all types of extrudable or deformable plastic resins, such as polyvinyl chlorides, polystyrene, nylon, and Teflon.¹ In fact, any materials that containers may be fabricated from, such as paper or wood, may be subjected to this invention.

¹A registered trademark for a polymer of tetrafluoroethylene.

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Similarly, the lids can comprise a several mil thick sheet of solid polyolefins. Other materials, such as cardboard, can likewise serve as the lid. If compatible polyolefins are used for both lid and cup, then heat sealing will be a convenient method of joining the two gaskets. If cardboard, or the like, is employed as the lid or cup, the use of any standard adhesive compound will be more convenient to secure container and lid to one another. The lid may, of course, be printed just as the film cover, or a conventional outer box.

Reasonable variations and modifications are possible within the scope of the foregoing disclosure, the drawings, and the appended claims to the invention.

I claim:

1. A package comprising:

- a cup-like member terminating at the open end with an outwardly projecting flange;
- a groove disposed in the inner surface of the walls of said cup-like member spaced below the open end thereof;

material to be packaged disposed in said cup-like member below said groove;

- a removable lid adapted to snap into and out of said groove positioned in said groove, said lid having at least one integral lift tab adapted to aid in removing said lid from said groove, and the upper surface of said lid being spaced below the open end of said member providing space therebetween; and

- a flat, flexible sheet covering the open end of said member and sealed to said flange.

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2. The package of claim 1 wherein the material to be packaged is dry cereal capable of being consumed from said cup-like member.

3. The package of claim 1 wherein both of said cup-like member and said flexible sheet are fabricated from normally solid polyolefins and are secured to one another by heat sealing.

4. The package of claim 1 wherein both of said cup-like member and said flexible sheet are fabricated from non-heat sealable materials and are secured to one another by adhesive.

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