Dec. 17, 1968 A. W. LEDZION 3,416,697

PACKAGE AND REMOVABLE COVER THEREFOR

Filed Oct. 27, 1966

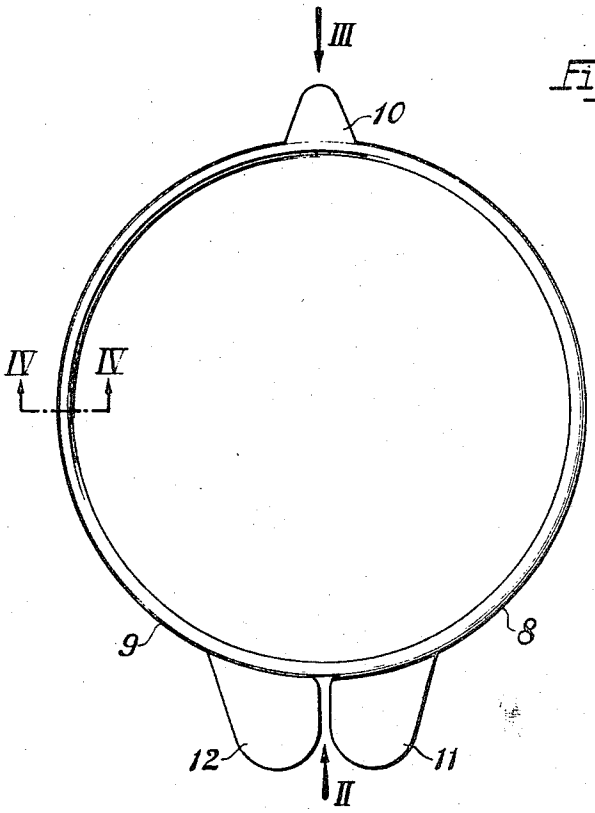


Fig_1

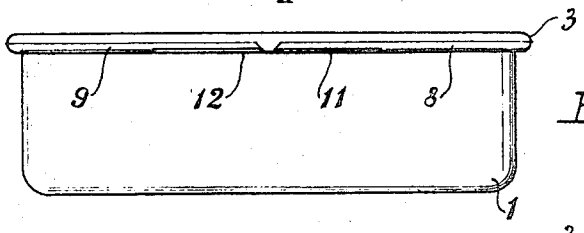


Fig_2

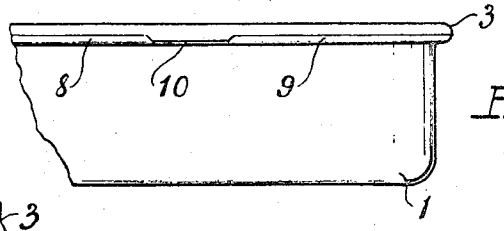


Fig_3

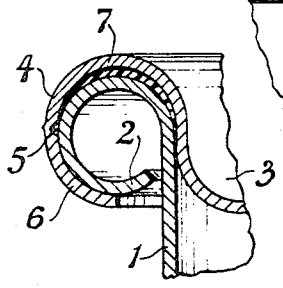


Fig_4

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3,416,697

PACKAGE AND REMOVABLE COVER THEREFOR

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9 Claims. (Cl. 220—54)

ABSTRACT OF THE DISCLOSURE

A package composed of a container and a cover having a tear-strip structure for releasing the cover. The cover rests on a lip at the open top of the container and has a pair of tear-strip means which extend along the outer periphery of the cover and are detachably connected thereto. This pair of tear-strip means respectively extend in non-overlapping relation along different peripheral portions of the cover, and the pair of tear-strip means have a total length which is at least slightly less than the length of the outer periphery of the cover. A lift tab is integral with the cover and extends from the periphery thereof between the pair of tear-strip means so that when the latter are removed the lift tab can be manipulated to remove the cover from the container.

The present invention relates to a package and in particular to a removable cover for a package, this cover being of the type which is adapted to be mounted at the open top of a container on the periphery of the container which defines the open top thereof.

More particularly, the present invention relates to that type of cover which has a tear-strip adapted to be torn from the cover to enable the latter to be removed from the container of the package.

Conventional covers of this latter type have certain disadvantages. Thus, it does not infrequently happen that the tear-strip snaps or becomes damaged in other ways during the opening of the package. Moreover, in those cases where the container is supplied with heated contents before the container is closed by the cover so as to be hermetically sealed thereby, the subsequent cooling of the contents of the container results in a lowering of the pressure within the container beneath atmospheric pressure. As a result, even when the tear strip has been removed, the atmospheric pressure which acts on the cover makes it difficult to separate the latter from the container.

It is a primary object of the present invention to provide a package which will avoid the above drawbacks.

In particular, it is an object of the present invention to provide a cover which will avoid the above drawbacks.

Thus, it is an object of the invention to provide a cover which can be removed readily from a container even if the pressure therein is less than atmospheric pressure.

Also, it is an object of the present invention to provide a cover with a tear-strip construction which can be very conveniently removed from the cover to enable the latter to be separated from the container.

Furthermore, it is an object of the present invention to provide a cover which will reliably prevent any injury to the operator during removal of the cover from the container.

Also, it is an object of the present invention to provide a construction which enables the operator to remove the cover either by manipulations carried out with one hand or by manipulations carried out with both hands.

Also, it is an object of the present invention to provide a construction which can be made in many different forms

utilizing many different types of materials both for the container as well as for the cover of the package.

According to the present invention the cover has at its outer periphery a pair of tear-strip means detachably connected to the cover to be torn therefrom when the cover is to be removed, this pair of tear-strip means of the invention respectively extending along different peripheral portions of the cover. Between the latter peripheral portions the cover is provided with an integral lift tab which projects from the periphery of the cover, so that after the pair of tear-strip means are removed the lift tab is accessible to the operator for lifting the cover away from the container.

The invention is illustrated by way of example in the accompanying drawings which form part of this application and in which:

FIG. 1 is a top plan view of a cover according to the present invention shown mounted on a container which is closed by the cover;

FIG. 2 is a front elevation of the package of FIG. 1 as seen in the direction of arrow II;

FIG. 3 is a rear elevation of the package of FIG. 1 as seen in the direction of arrow III; and

FIG. 4 is a fragmentary transverse sectional elevation taken along line IV—IV of FIG. 1 in the direction of the arrows and showing on an enlarged scale as compared to FIG. 1 the manner in which the cover coacts with the container of the package.

Referring now to the drawings, the package illustrated therein includes a container **1** having an open top and adapted to receive in its interior the contents of the package. In the illustrated example the container **1** is of a generally cylindrical configuration and may be made of a metal foil which has been suitably worked so as to have the hollow configuration shown in the drawings where the container has an open top. During the working of the metal foil to form the container **1**, this container is provided at its open top with a rolled lip **2** directed outwardly away from the interior of the container and having the approximately tubular configuration which may be circular in cross section, as is apparent from FIG. 4.

The cover **3** of the present invention is also made of a metal foil which is worked so as to have the hollow, recessed configuration apparent particularly from FIG. 4. Thus, the cover **3** extends across the open top of the container **1**, closing this open top and engaging the container **1** at its inner surface in the vicinity of its open top, and the cover **3** has an outer periphery **4** which extends along and is situated directly over the lip **2**. At its inner surface the periphery **4** of the cover **3** is scored so as to have an elongated groove **5** which provides the cover **3** with a line of weakness, and thus the portion **6** of the periphery **4** of the cover **3** which is situated beyond the groove **5** forms a tear-strip structure capable of being torn from the cover **3**, so that the latter can then be removed from the container **1**.

A sealing joint **7** made of any plastic material is situated between the cover **3**, at its periphery **4**, and the lip **2**.

As is apparent from FIGS. 1–3, the tear-strip **6** is divided into a pair of segments **8** and **9** which form a pair of tear-strip means respectively extending along different peripheral portions of the cover **3**. Between these peripheral portions where the pair of tear-strip means **8** and **9** are located, the cover **3** is integrally connected with a lift tab **10** which projects from the cover **3**. The pair of tear-strip means **8** and **9** in the illustrated example are of equal lengths and respectively terminate distant from the lift tab **10** in a pair of pull-tabs **11** and **12** which are accessible to the operator who upon grasping these pull tabs can pull and tear the pair of tear-strip means **8** and

9 from the periphery 4 of the cover 3. The pair of tear-strip means 8 and 9 respectively terminate distant from their pull-tabs 11 and 12 in the immediate vicinity of the lift tab 10, so that when the pair of tear-strip means 8 and 9 are torn from the cover 3, the lift tab 10 remains integrally connected thereto and is accessible to the operator for separating the cover 3 from the container 1.

The dividing of the tear-strip 6 into a pair of tear-strip means reduces the length along which the tear-strip means must be torn continuously during a single operation, so that in this way there is also a reduction in the risk of damaging the tear-strip and injuring the hands of the operator during the opening of the package. It is to be noted that it is extremely convenient for the operator to simultaneously grasp the pull-tabs 11 and 12 in both hands, respectively, pulling these tabs apart from each other so as to simultaneously remove the pair of tear-strip means 8 and 9 from the cover 3. Because of the balanced forces which act on the package it is unnecessary for the operator to hold the package during the simultaneous removal of the pair of tear-strip means. However, it is also possible for the operator to grasp both of the pull-tabs 11 and 12 in one hand and to simultaneously pull and tear the pair of tear-strip means from the cover 3.

After the pair of tear-strip means 8 and 9 have been torn from the cover 3, the lift tab 10 remains integrally connected thereto so as to enable the operator to lift the cover very readily from the container 1, even in the case where there is within the package a pressure which is less than atmospheric pressure. Furthermore, by reason of the clearly distinct locations of the pull-tabs 11 and 12 with respect to the location of the lift tab 10, there is no possibility of confusion between the lift tab 10 and the pull tabs 11 and 12. It is moreover clear that the position of the lift tab 10 shown in the drawing is not absolutely essential and that instead it can be situated elsewhere with the pair of tear-strip means 8 and 9 respectively having unequal lengths.

Various other constructions are possible without departing from the invention. In particular, the container 1 and the cover 3 can take many different forms, and the material which is used for the composition of the seal 7 can be any desired material.

For example, the container 1 can have the form of a relatively shallow cylinder, a truncated cone, a can, or a bottle. It can be made of metal, plastic, glass, or ceramic. The sealing joint can be made of plastic or rubber. Finally, the cover itself can be made of aluminum, tin, or a plastic material.

What is claimed is:

1. A container closure comprising a cover having an outer periphery, a pair of elongated tear-strip means detachably connected to said cover at said outer periphery thereof to be torn therefrom when the cover is to be removed from a container, said pair of tear-strip means respectively extending in non-overlapping relation along different peripheral portions of said cover and having a total length at least slightly less than the length of said outer periphery of said cover, and a lift tab integral with said cover and extending from said periphery thereof between said peripheral portions to which said pair of tear-strip means are detachably connected, so that after said pair of tear-strip means are removed said lift tab is accessible to the operator for lifting the cover from a container.

2. The combination of claim 1 and wherein said pair of tear-strip means are approximately of the same length.

3. The combination of claim 1 and wherein said pair of tear-strip means are of unequal lengths, respectively.

4. The combination of claim 1 and wherein said pair of tear-strip means terminate distant from said lift tab in a pair of pull-tabs, respectively, accessible to the operator for pulling and tearing said pair of tear-strip means from said cover.

5. The combination of claim 1 and wherein said pair of tear-strip means respectively terminate in the immediate vicinity of said lift tab leaving the latter integral with said cover after removal of said pair of tear-strip means therefrom.

6. The combination of claim 1 and wherein said pair of tear-strip means terminate adjacent each other in a pair of pull-tabs accessible to the operator for pulling and tearing said pair of tear-strip means from said cover.

7. The combination of claim 6 and wherein said pair of pull-tabs are respectively situated at a part of said cover which is opposed to that part thereof where said lift tab is situated.

8. The combination of claim 7 and wherein said pair of tear-strip means respectively terminate distant from said pull-tabs in the immediate vicinity of said lift tab.

9. A package comprising a container having an open top and including along said open top an endless, rolled lip directed outwardly away from the interior of said container and having an approximately tubular cross section, and a cover resting on said rolled lip and extending across the open top of said container for closing the latter, said cover having an outer periphery extending along said lip and carrying at said outer periphery a pair of non-overlapping tear-strip means detachably connected to said cover to be torn therefrom for releasing said cover from said container, said pair of tear-strip means together having a total length which is at least slightly less than the length of said outer periphery of said cover, and said pair of tear-strip means occupying different peripheral portions of said cover, respectively, said cover having an integral lift tab extending from its periphery and situated between said peripheral portions to which said pair of tear-strip means are detachably connected.

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