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F. E. LONG

3,272,367

SEALED PACKAGE

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FIG. 1

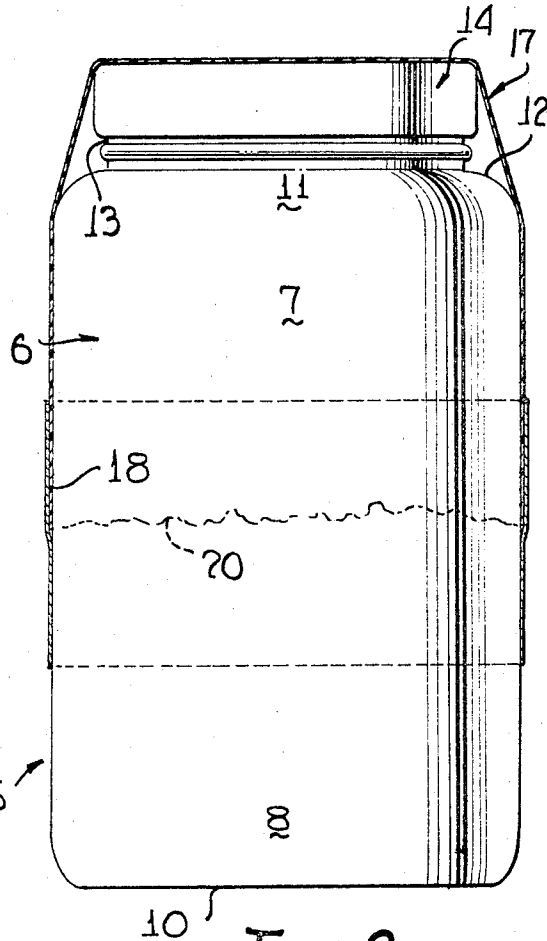
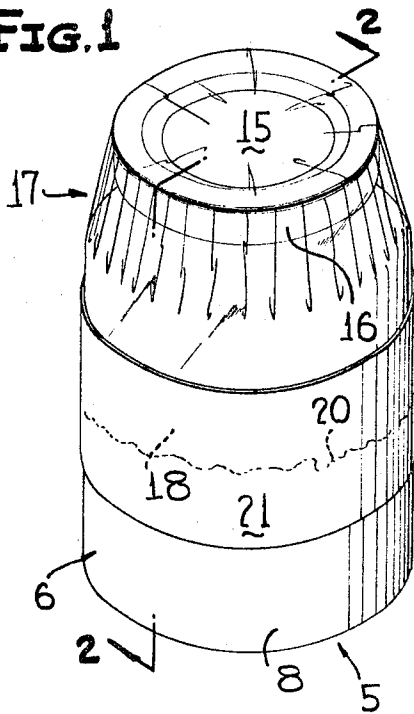


FIG. 2

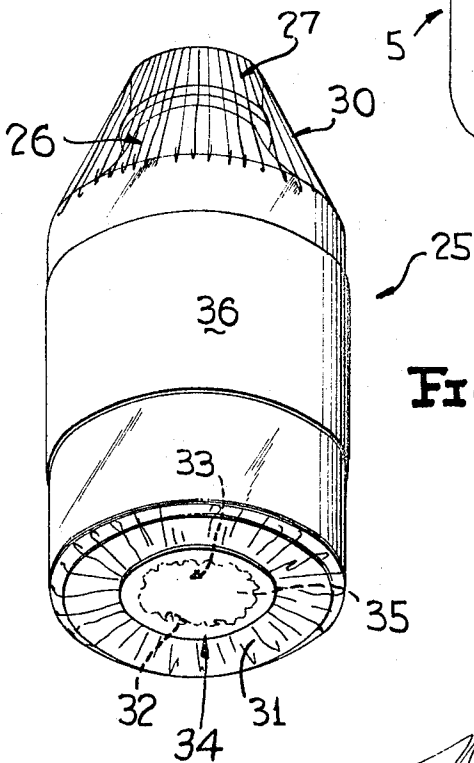


FIG. 3

INVENTOR
FLORREN E. LONG

BY
Mason, Porter, Miller & Stewart
ATTORNEYS

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SEALED PACKAGE

Florren E. Long, La Grange, Ill., assignor to Continental Can Company, Inc., New York, N.Y., a corporation of New York

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5 Claims. (Cl. 215—38)

This invention relates to a novel container and is particularly directed to a container having a dispensing opening closed by a removable closure and a sheet material seal drawn tightly over the closure and terminating at a label area of the container body in a selvage edge, and further including a label partially overlying the container body and the lower edge of the seal to simultaneously conceal the selvage edge and provide sanitary tamper-proof sealing of the container.

There are many different types of commercially available packages which include some type of sealing means for preventing contamination of the package contents. In most cases, however, such packages include a container having a closure which is comparatively simple to remove, exhaust some of the contents, and replace the closure without a visible indication that the package has been tampered and contents removed therefrom. Typical of such packages are conventional aerosol cans and processed food containers, such as baby food containers with twist-off metallic closures. While conventional valve mechanisms generally prevent contamination of the contents packaged in aerosol containers, the loss of contents cannot be detected. In the case of containers packaged with processed edible substances, the substances can be removed or can become contaminated by merely removing the closures thereof and upon replacement of these closures minor pilferage and contamination is substantially undetectable.

To overcome many of the disadvantages mentioned intricate and costly tamper-proof seals have been developed. For example, numerous closures are known which have frangible or break-away portions which fracture upon a first removal of such a closure from a container. However, such closures cannot be generally positively secured to the containers because the frangible portions initially formed the means for securing the closure to the containers. Therefore, such closures can be but loosely re-applied to the containers resulting in such disadvantages as the incapability of forming an air-tight seal between the containers and the closures.

It is, therefore, an object of this invention to provide a novel container combination including a container, a closure closing a dispensing opening of the container, and a novel tamper-proof seal which overcomes the above and many other disadvantages unprovided for by prior art devices.

A further object of this invention is to provide a novel sealed package including a container having a body terminating at an upper end portion in a neck defining a dispensing opening and at a lower end portion in a bottom wall, a closure closing the opening, a sheet material seal encompassing portions of the closure and the container body, the seal having a lower edge portion terminating at a label area of the body between the upper and lower end portions thereof, and the label wholly encircling the edge portion and a portion of the container body, the label performing the dual function of concealing an edge of the sheet material seal and securing the seal to the container body whereby mutilation or rupture of the seal and/or the label is indicative of an attempted or successful tampering of the package.

A further object of this invention is to provide a novel sealed package of the type immediately above-described in which the sheet material seal is formed from thin

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plastic material drawn about the container body and the selvage edge is irregular in outline.

A further object of this invention is to provide a novel sealed package including a container having a lower end portion terminating in a bottom wall and an upper end portion including a shoulder and a neck defining an opening of the container, a circumferential label area disposed between the shoulder and the bottom wall, a closure, means securing the closure to the neck closing the opening therein, a thin drawn sheet of plastic material forming a seal over the closure and a portion of the container body, the seal having a lower edge portion terminating at a selvage edge beneath the bottom wall, the bottom wall defining another label area of the container, a label wholly covering the lower edge portion and a portion of the bottom wall at the other of the label areas, and the label being secured to at least the lower edge portion of the seal.

With the above, and other objects in view that will hereinafter appear, the nature of the invention will be more clearly understood by reference to the following detailed description, the appended claims and the several views illustrated in the accompanying drawing.

In the drawing:

FIGURE 1 is a top perspective view of a novel sealed package constructed in accordance with this invention, and illustrates a sheet material seal drawn over a closure secured to a container and terminating in a generally irregular selvage edge at a label area of the container body, and a label concealing the selvage edge.

FIGURE 2 is an enlarged view taken along line 2—2 of FIGURE 1 with the seal and label being shown in section and the closure and container in side elevation, and more clearly illustrates the relationship between these elements.

FIGURE 3 is a bottom perspective view of another sealed package constructed in accordance with this invention and illustrates a sheet material seal wholly encompassing a container and closure and terminating in a selvage edge adjacent a bottom wall of the container, and a label overlying the selvage edge and concealing the same.

A novel sealed package constructed in accordance with this invention is best illustrated in FIGURES 1 and 2 of the drawing, and is generally designated by the reference numeral 5. The sealed package 5 comprises a container 6 having a generally cylindrical container body 7 terminating at a lower end portion 8 in a bottom wall 10. An upper end portion 11 of the container body 7 is provided with a shoulder 12 integrally merging into an upwardly directed neck or finish 13 defining a dispensing opening (not shown and unnumbered) of the container 6.

A closure 14 having an end wall 15 (FIGURE 1) and a depending peripheral skirt 16 is conventionally removable secured to the neck 13 of the container 6 as by, for example, complementary screw threads, lugs, or similar conventional closure securing means. The closure 14 is preferably hermetically sealed upon the neck 13 of the container 6 after the container 6 has been packaged with suitable contents, such as baby food, vegetables or other edible products. Non-edible products can be, of course, packaged in the container 6.

After the container 6 has been packaged and the opening (not shown) therein has been closed by the closure 14 a thin sheet material seal 17 is placed upon the end wall 15 of the closure 14 and drawn downwardly into intimate contact with the exterior surface (unnumbered) of the container body 7, as is best illustrated in FIGURE 2 of the drawing. The sheet material seal 17 is preferably constructed of thermoplastic film material, such as polyethylene, saran or similar polymer films. The seal 17 is preferably of a transparent or translucent nature to

permit visual inspection of the closure 14 and the upper portion 11 of the container body 7.

While the sheet material seal 17 is preferably constructed from plastic material, the same may be constructed from thin metallic material, such as aluminum foil, or thin paperstock material, in each case of a relative opaque nature.

The sheet material seal 17 includes a lower edge portion 18 terminating in a selvage edge 20 of a relatively irregular outline as viewed in side elevation. The edge portion 18 and the selvage edge 20 terminate at a label area (unnumbered) of the container body 7 between the shoulder 12 and the bottom wall 10.

A label 21 constructed of paper, plastic or similar sheet material is then applied in a conventional manner completely about the lower edge portion 18 of the seal 17 and a portion of the container body 7 (unnumbered) beneath the selvage edge 20. The label 21 is preferably adhesively secured to both the lower edge portion 18 of the sheet material seal 17 and the container body 7 to prevent the removal of the seal 17 without either destroying or mutilating the seal 17, the label 21 or both the seal and the label.

In addition to performing the characteristic functions of identification, advertising, product description, etc., the label 21 not only secures the sheet material seal 17 to the container body 7 in the manner just described and illustrated in the drawing, but further conceals the selvage edge 20 and thus forms a package which is highly esthetic and more commercially acceptable by consumers. The overlapped portions of the label 21 and the lower edge portion 18 of the seal 17 also provide a double thickness of material at substantially the midportion of the container body 7, as is best illustrated in FIGURE 2 of the drawing, and thus increases the resistance of the container 6 to rupture or breakage when the same is constructed from material such as glass.

To remove contents from the container 6 the seal 17 must be ruptured and torn to expose the closure 14 for manual removal thereof from the container 6. Instructions (not shown) printed on the closure 14 or the upper portion 11 of the container body 7 would advise a consumer that mutilation or destruction of the seal 17 indicates tampering of the package 5 and possible removal of the contents thereof and/or contamination of the packaged contents. In the event a person attempts to open the package 5 without mutilating or destroying the seal 17 by, for example, drawing the seal 17 directly axially upwardly to withdraw the lower edge portion 18 of the seal 17 from between the label 21 and the container body 7, the adhesive bond between the label 21 and both the lower edge portion 18 of the seal 17 and the container body 7 is greater than the internal strength of the label 21. Therefore, the label 21 would tear or rupture upon such an attempt to surreptitiously open the package 5, and either or both the container 6 and the closure 14 can be provided with instructions directing a consumer that destruction of the label 21 is an indication of an unauthorized attempt or successful pilfering of the container contents and possible contamination thereof.

Another novel package construction in accordance with this invention is illustrated in FIGURE 3 of the drawing and is generally designated by the reference numeral 25. The package 25 includes a container 26 which is substantially identical to the container 6 of FIGURES 1 and 2, and a complete description thereof is considered unnecessary for a thorough understanding of this invention.

A closure 27 closes an opening (not shown) of the container 26 and a sheet material seal 30 substantially identical to the sheet material seal 17 of the package 5 is tightly drawn about the closure 27 and the container 26. While the lower edge portion 18 of the sheet material seal 17 terminates in a label area of the container body 7, a lower edge portion 31 of the sheet material seal 30 terminates at a selvage edge 32 beneath a bottom wall 33

of the container 26. A sheet material member 34 which is substantially circular in form is preferably adhesively secured to both the edge portion 31 of the sheet material seal 30 and a central portion 35 of the container bottom wall 33. The adhesive bond between the member 34 and both the lower edge portion 31 of the seal 30 and the portion 33 of the bottom wall 35 is preferably greater than the internal inherent strength of the member 34 whereby mutilation and/or destruction of the member 34, the seal 30 or both would result upon any attempt to pilfer contents from the container 26. Thus, the member 34 functions in a manner substantially identical to the label 21 of the package 5 and can be similarly provided with advertising, contents identifying or other matter to serve as a secondary label at the bottom of the container 26 while primary advertising and identifying matter can be applied to a primary label 36 externally surrounding both the seal 30 and the container 26.

The sheet material member or label 34 is also preferably constructed from paperstock material and cooperates with the overlapped portion (unnumbered) of the lower edge portion 31 to provide a double thickness of material to increase the resistance to rupture and breakage of the container 26 during handling or shipping of a plurality of the packages 25, particularly when the packages 25 are stacked one atop another. That is, any force between the bottom wall 33 of a superimposed package 25 and a closure 27 of a subimposed package which might otherwise result in the breakage of the bottom wall 33 would be prevented by the combined effects of the double thickness of material adjacent the bottom wall 33, as was heretofore noted, as well as the single thickness of material of the sheet material seal 30 above the closure 27. Thus, the package 25 is highly resistant to breakage because of this bottom construction and the double thickness of material at the area of the label 36.

From the foregoing, it will be seen that novel and advantageous provision has been made for carrying out the desired end. However, attention is directed to the fact that variations may be made in the example packages disclosed herein without departing from the spirit and scope of the invention as defined in the appended claims.

I claim:

1. A tamper-proof sealed package comprising a container having a body terminating at one end portion in a bottom wall, a second end portion of said body having a neck defining an opening of said container, a closure, means removably securing said closure to said neck to close said opening, a sheet material seal drawn over said closure, said sheet material seal having a lower edge portion terminating in a selvage edge upwardly from said bottom wall and below said neck, a label wholly covering said selvage edge and a portion of said body adjacent said selvage edge, said label having a lower edge terminating above said bottom wall, and means located between said body and said label for positively securing said label to at least said adjacent body portion.

2. The sealed package as defined in claim 1 wherein said sheet material is plastic material.

3. The sealed package as defined in claim 1 wherein said selvage edge is irregular in outline.

4. The tamper-proof seal package as defined in claim 1 including means located between said sheet material seal and said label for positively securing said sheet material seal to said label, said last mentioned means being adhesive.

5. Tamper-proof sealed package comprising a container including a body terminating at a lower end portion in a bottom wall, said body having an upper end portion including a shoulder and a neck defining an opening of the container, a circumferential label area disposed between said shoulder and said bottom wall, a closure, means securing said closure to said neck thereby closing said opening, a thin sheet material seal drawn downwardly over said closure and about said body, said seal having a

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lower edge portion terminating at a selvage edge in said label area, a label wholly encompassing the lower edge portion and an adjacent portion of said body below said lower edge portion in said label area, and said label being secured to both the lower edge portion of the seal and the adjacent label area of the body, said label being secured by adhesive means and the adhesive bond between said label and both said body and seal being greater than the rupture strength of the label material.

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JOSEPH R. LECLAIR, *Primary Examiner.*FRANKLIN T. GARRETT, *Examiner.*V. A. TOMPSON, *Assistant Examiner.*

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