United States Patent

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[54] **WRAPPER FOR TUBULAR OPEN-ENDED SECONDARY PACKAGES**
3 Claims, 4 Drawing Figs.

[52] **U.S. Cl.** **206/65,** 229/40, 229/51
[51] **Int. Cl.** **B65d 5/02,** B65d 5/54, B65d 71/00
[50] **Field of Search** ..... 206/65, 65(C), 45.11, 80; 229/40, 52(B), 51(DIV.), 87(M)

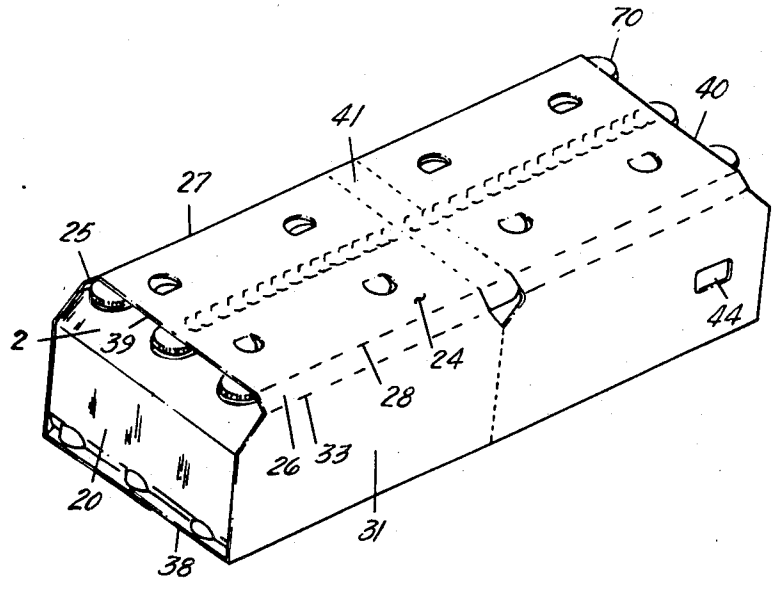
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ABSTRACT: For enveloping a plurality of tubular open-ended secondary packages each of which includes primary packages therein, a wrapper is disclosed having top, bottom and spaced side walls foldably joined along their side edges to form an open-ended tubular structure, the wrapper being disposed relative to the secondary packages in such manner that the side walls thereof overly and cover the open ends of the secondary packages. A plurality of holding tabs are struck from the bottom wall of the wrapper and inserted above the bottom panels of the secondary packages and underneath the bottoms of adjacent primary packages to secure the secondary packages against dislodgment through the open ends of the wrapper. A longitudinal tear strip is provided for severing the top panel of the wrapper so as to expose the secondary packages therein or if desired a transverse tear strip may be provided in the top wall together with perforations in the side and bottom walls for separating the wrapper into two or more component parts.



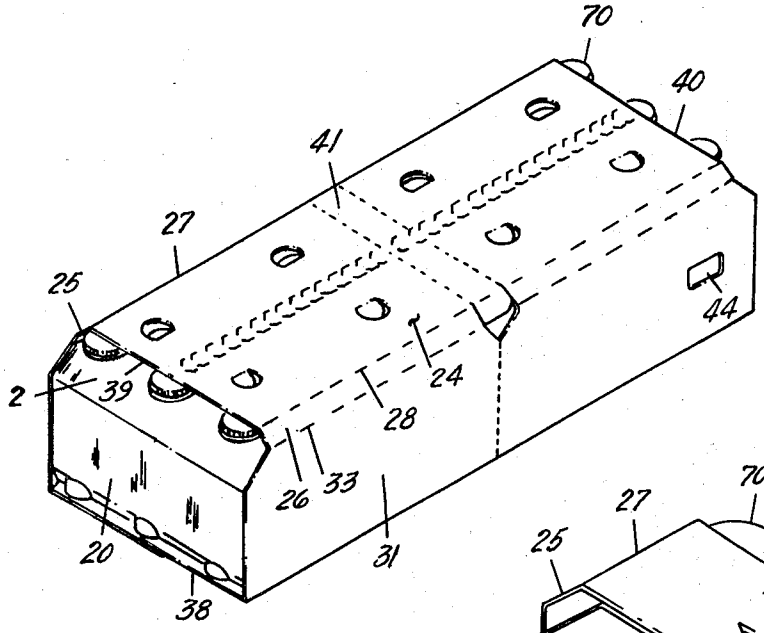


FIG. 1

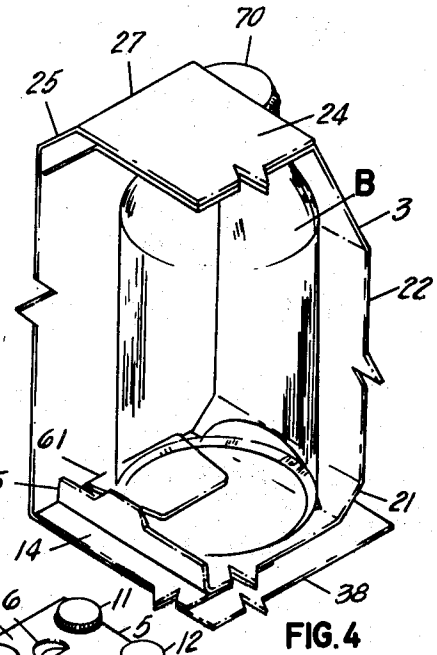


FIG. 4

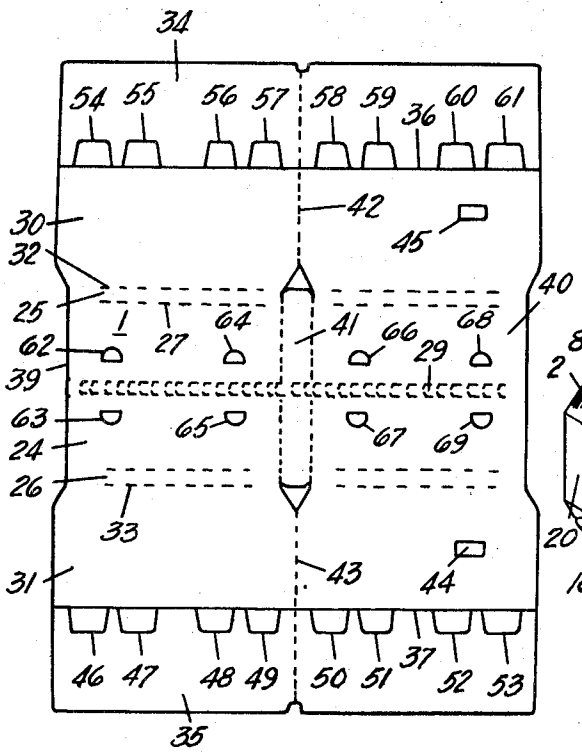


FIG. 2

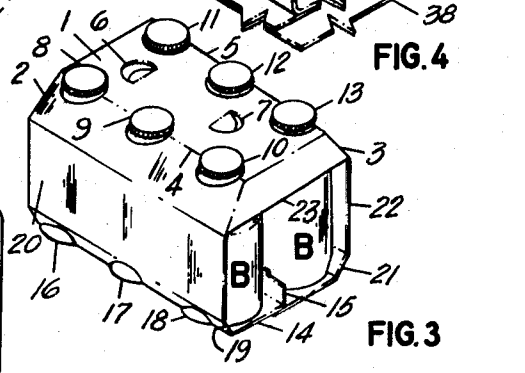


FIG. 3

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WRAPPER FOR TUBULAR OPEN-ENDED SECONDARY PACKAGES

According to conventional practice a plurality of open-ended tubular secondary packages are packed in a conventional corrugated container having top, bottom and side walls. Such practice is objectionable because of the expense of the corrugated case and because of the difficulty and expense which attends drop loading of secondary packages into the corrugated container. In addition attractive printing on corrugated surfaces is more difficult than on paperboard of the type customarily used in the formation of so-called folding boxes.

According to the invention a wrapper of paper board or similar material is provided for enveloping a plurality of tubular open-ended secondary packages arranged in side by side relationship, the wrapper being disposed with its side walls in overlying relation to the ends of the secondary packages. By this means the cost of corrugated containers is eliminated, better printing areas are provided, and the economy which attends machine package formation are utilized rather than the conventional droploading operations customarily used in conjunction with corrugated containers. Furthermore, by the invention, a secure locking arrangement is provided whereby the secondary packages are held within the wrapper and the general shape of the resulting package provided by this invention is more convenient to carry than is a conventional corrugated container, since according to one aspect of the invention, it is possible to separate the wrapper into a plurality of smaller packages if desired.

The structure of this invention utilizes a wrapper folded about a plurality of open-ended secondary packages each of which contains at least one row of primary packages. The primary packages are secured within the wrapper by holding tabs struck from the bottom wall of the wrapper and inserted between the upper surface of the bottom panels of the secondary packages and the lower ends of the adjacent primary packages. Security of the holding action is enhanced by a plurality of locking tabs which are struck from the top wall of the wrapper and folded into apertures formed within the top panel of the secondary packages. These tabs in addition define finger receiving openings which facilitate carrying the package.

For a better understanding of the invention reference may be had to the following detailed description taken in conjunction with the accompanying drawings in which FIG. 1 is a perspective view of a package formed according to the present invention; FIG. 2 is a plan view of the wrapper utilized in the formation of the package of FIG. 1; FIG. 3 is a perspective view of a conventional secondary package having top, bottom and spaced side panels arranged to form an open-ended tubular structure in which primary packages are disposed; and in which FIG. 4 is an enlarged fragmentary cutaway perspective view of a corner of the package depicted in FIG. 1 and which shows in detail the structure whereby the secondary packages are secured within the wrapper.

With reference to the drawings the conventional secondary package comprises the upper panel designated by the numeral 1 together with sloping shoulder panels 2 and 3 which are foldably joined to upper panel 1 along fold lines 4 and 5 respectively. The upper panel 1 together with the sloping shoulder panels 2 and 3 are herein sometimes referred to as the top panel of the secondary package. Formed in top panel 1 is a pair of finger gripping openings 6 and 7. Corner slits 8—13 are formed along the fold lines 4 and 5 in conventional fashion to receive portions of the caps of the packaged bottles "B" which of course constitute primary packages. The bottom panel of the secondary package is designated by the numeral 14 and may include a pair of lap panels secured together if desired. Furthermore a medial keel 15 preferably is provided. Corner slits 16, 17 and 18 are formed in the bottom sloping panel 19 which interconnects side panel 20 with bottom panel 14. In like fashion on the other side of the secondary package, a sloping panel 21 interconnects side panel 22 with bottom panel 14 and a plurality of bottle receiving slits are formed in sloping panel 21 which correspond to slits 16—18 inclusive.

The ends of the secondary package may include an end panel such as is designated by the numeral 23 in FIG. 3 and such an end panel may be provided at both ends of the secondary package.

Of course the secondary package shown in FIG. 3 and described above is simply representative of the type of package to which the invention is applicable and it is not necessary that any particular form of secondary package be utilized so long as it constitutes an open-ended tubular structure in which at least one row of primary packages is disposed.

According to this invention, a plurality of secondary packages are arranged in side by side relationship and the group of secondary packages is enveloped by a wrapper constructed according to this invention.

In the drawings the uppermost wall portion of the wrapper is designated generally by the numeral 24. A pair of sloping wall portions 25 and 26 are foldably joined to the side edges 27 and 28 of the uppermost wall portion 24. As used herein the term top wall contemplates the uppermost wall portion 24 together with the sloping wall portions 25 and 26.

For opening the wrapper so as to expose the secondary packages, a longitudinal tear strip 29 of conventional construction is formed within the uppermost wall portion 24.

The wrapper incorporates side walls 30 and 31 which are foldably joined to sloping panels 25 and 26 along fold lines 32 and 33 respectively. Bottom lap panels 34 and 35 are foldably joined to the bottom edges of side walls 30 and 31 along fold lines 36 and 37 respectively. These lap panels 34 and 35 are overlapped and secured together by glue or other suitable means and form a composite bottom wall which in the drawings is designated generally by the numeral 38.

As is best seen in FIGS. 1 and 2, the end edges of the top wall are cut away as indicated at 39 and 40 so as to conform generally with the sloping shoulder panels 2 and 3 of the end secondary packages.

For the purpose of dividing the package as shown in FIG. 1 into a pair of smaller packages, a tear strip 41 is provided in the top wall of the wrapper and this tear strip coincides with perforated lines 42 and 43 which extend through the side walls and through the bottom wall of the wrapper. Of course the manner of separation of the package of FIG. 1 and FIG. 2 into smaller packages is obvious, it being simply necessary to remove the tear strip 41 in conventional fashion and thereafter to break the package into two parts along the perforated lines 42 and 43.

In order to render the contents of the secondary packages visible from the outside of the complete tertiary package formed by the wrapper of this invention, viewing windows 44 and 45 may be formed in the side walls 31 and 30 of the wrapper, if desired.

In order to secure the secondary packages within the wrapper according to a feature of this invention, a plurality of holding tabs 46—53 inclusive are struck from the bottom lap panel 35 and are foldably joined to the bottom edge 37 of side wall 31. In like fashion a plurality of holding tabs 54—61 inclusive are struck from the bottom lap panel 34 and are foldably joined to the bottom edge of side wall 30 along fold line 36. With the secondary packages disposed within the wrapper as shown in FIG. 1, the holding tabs 46 and 47 are inserted into the open end of the end secondary package in such manner that these tabs overly the bottom panel 14 of the secondary wrapper and are disposed below the end bottles "B". Of course, holding tab 46 is disposed on one side of the medial keel 15 while the holding tab 47 is disposed on the other side of the medial keel 15. At the other end of this secondary package, the holding tabs 54 and 55 are inserted into the open ends of the secondary package between the bottom lap panels thereof and the bottom ends of the end primary packages and are hence captured therebetween, it being obvious that holding tabs 54 and 55 are disposed on opposite sides of the medial keel 15. Of course all of the secondary packages cooperate with the remaining holding tabs as will be obvious from the drawings. For example, the arrangement as disclosed

in the drawings is such that the secondary package at the other end of the wrapper is secured at one end by holding tabs **60** and **61** and at its other end by holding tabs **52** and **53**. Similarly one intermediate package to the left of tear lines **42** and **43** is secured at one end by holding tabs **56** and **57** and at the other end by holding tabs **48** and **49** while the remaining secondary package is secured at one end by holding tabs **58** and **59** and at the other end by holding tabs **50** and **51**.

For the purpose of enhancing the security of the package and as a supplemental holding means for the holding tabs **46—61**, a plurality of locking tabs **62—69** inclusive are struck from the topmost portion **24** of the top wall of the wrapper. As is apparent in the drawings, locking tabs **62** and **63** are disposed in coincidental relationship to the finger gripping apertures such as **6** and **7** and hence may be inserted into the apertures **6** and **7**. When so inserted, these locking tabs **62** and **63** secure the top portion of the secondary package against dislodgement through the open ends of the wrapper. Of course the remaining secondary packages are secured by the remaining pairs of locking tabs. For example, the secondary package at the other end of the wrapper is secured by locking tabs **68** and **69** while the secondary package disposed to the left of perforated lines **42** and **43** is secured at the top portion by locking tabs **64** and **65** while the remaining secondary package is secured by the locking tabs **66** and **67**.

FIG. **4** simply is an enlarged fragmentary perspective view of the bottle designated in FIG. **1** by the numeral **70**. From FIG. **4** it is apparent that the holding tab **61** is inserted through the end of the adjacent secondary package in such manner as to overly the bottom wall **14** and so as to occupy a position underneath the bottle "B" whose position is designated by the numeral **70**. From FIG. **4** it is apparent that any tendency for the secondary package to move toward the right would result in a collision of the medial panel **15** with the holding tab **61**. Furthermore the tab **60** would engage the bottom edge of the sloping panel **19** and hence would aid in securing the secondary package within the wrapper. Of course a similar cooperation of parts occurs at the opposite end of the secondary package.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

We claim:

1. A wrapper for enveloping a plurality of tubular open-ended secondary packages each having top, bottom and spaced side panels and each including at least one row of primary packages therein and said secondary packages being arranged in side by side relation with their open ends in common planes, said wrapper comprising top, bottom and spaced side walls foldably joined along their side edges to form an open-ended tubular structure, said wrapper being disposed about the secondary packages in such manner that the side walls thereof overlay and cover the open ends of said secondary packages, a plurality of holding tabs struck from the bottom wall of said wrapper adjacent the open ends of said secondary packages and extending into said open ends to positions between the ends of the adjacent primary packages and the bottom panels of the associated secondary packages respectively, said holding tabs being disposed in a plane substantially parallel to the bottom wall of the wrapper, and a plurality of pairs of locking tabs struck from the top wall of the wrapper, each pair of locking tabs being aligned with one secondary package and each secondary package having apertures formed in the top panel thereof in coincidental relation with said locking tabs and said locking tabs being inserted into the associated apertures to aid in holding the secondary packages within the wrapper.

2. A wrapper according to claim **1** wherein each secondary package inclu des two rows of primary packages and wherein a holding tab is associated with each end primary package in each row of primary packages.

3. A wrapper according to claim **2** wherein each secondary package is provided with a medial keel along the inner surface of the bottom panel thereof and wherein a pair of tabs is associated with each end of each secondary package, the tabs of each pair of tabs being disposed on opposite sides of the keel of the associated secondary package.