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PROTECTIVE CIGARETTE PACKAGE

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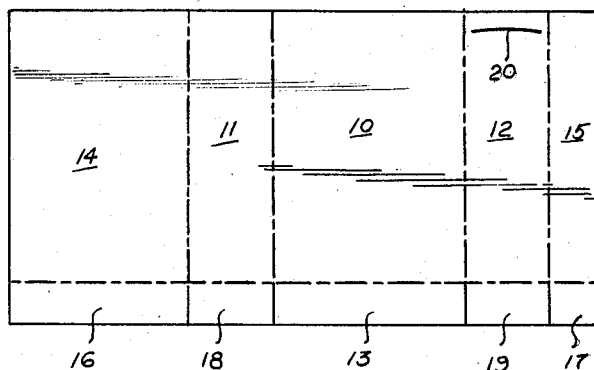


FIG. 1

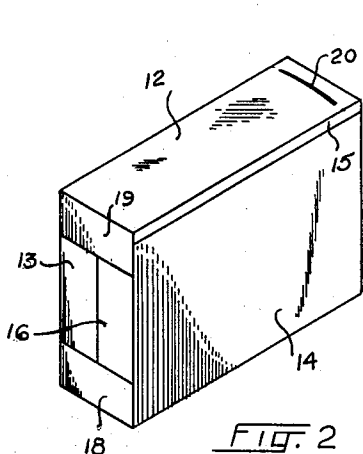


FIG. 2

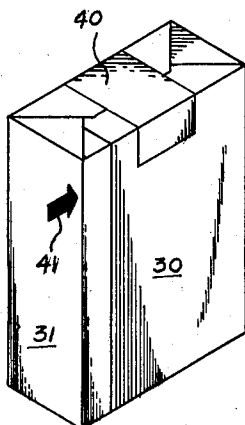


FIG. 3

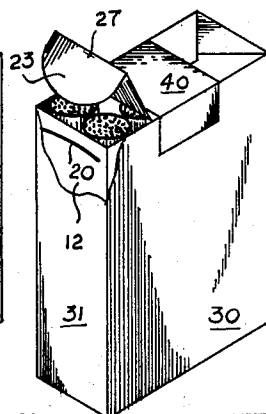


FIG. 4

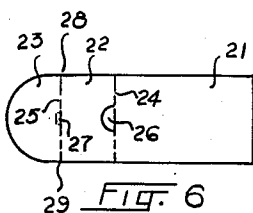


FIG. 6

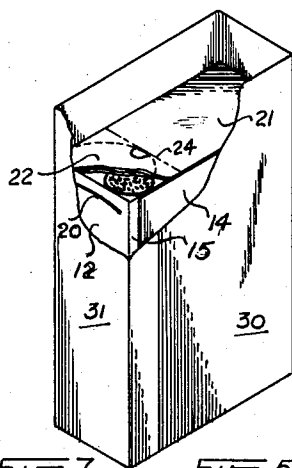


FIG. 5

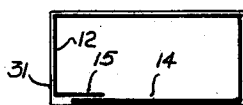


FIG. 8

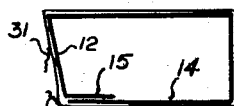


FIG. 9

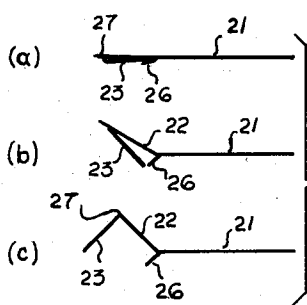


FIG. 7

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## PROTECTIVE CIGARETTE PACKAGE

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8 Claims. (Cl. 229—87)

This invention relates to an improved package for cigarettes or similar articles and in particular to a reinforced package which may be readily opened and which provides continuing protection to its contents during normal usage.

Numerous proposals have been advanced for packages of this general type which can be readily opened and reclosed and which have a sufficient rigidity to protect the contents. However, in many cases, such proposals have been found to be commercially impractical due to reasons of cost, inability to be coordinated into machine packaging processes, lack of consumer acceptance, or for other reasons. In contrast therewith, my invention employs conventional packing materials in shapes which may be handled in conventional high speed packaging apparatus and which entail a minimum of waste of materials.

An object of the invention is to provide a reinforced, readily openable cigarette package.

Another object is to provide an easily reclosable package affording protection to the contents following initial opening of the package.

Another object is to provide an easily openable cigarette package requiring no separate tear strip with removal and loss of the outer wrapper and its protective function.

Another object is to provide a cigarette package in which the conventional revenue stamp may be affixed in a normal position thereon and remain in position to assist in reinforcing the package during normal use thereof.

Other objects and advantages will be come apparent as the description proceeds when considered in conjunction with the accompanying drawings in which:

Fig. 1 is a developed view of an open top reinforcing liner for the package;

Fig. 2 is a perspective view of the assembled liner showing the bottom and slidable wall portions;

Fig. 3 is a perspective view of the finished package as an article of commerce;

Fig. 4 is a perspective view of the opened package showing the combined liner cover and package opener in raised position;

Fig. 5 is a perspective view showing the package at an intermediate stage of manufacture with the combined liner cover and package opener in nested position;

Fig. 6 is a developed view of the combined liner cover and package opener;

Fig. 7 is a side elevation view of the combined liner cover and package opener in (a) folded position; (b) partially opened position and (c) fully opened position;

Fig. 8 is a schematic plan view of the open top container prior to puncture of the outer wrapper of the package; and

Fig. 9 is a schematic plan view of the open top container during the puncturing of the outer wrapper.

In general, my invention comprises a package of substantially parallelepiped shape having a cup shaped stiff container with walls and bottom and with an open top into which is nested a folded stiff insert forming a cover

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for the container and protecting the ends of the cigarettes during the heat sealing of the outer wrapper. A conventional heat sealable wrapper encloses the container and the insert and is adapted to be punctured by a corner of the insert as the container is deformed by pressure applied by the user adjacent its top portion. The insert is adapted to be unfolded following the puncturing of the wrapper and to be pulled upwardly in order to rupture a sufficient portion of the wrapper to permit extraction of the cigarettes, but not to rupture the wrapper sufficiently to permit it to be detached from the package and to lose its protective function. The tuck end of unfolded insert, moreover, is adapted to be reinserted in the wall of the container, thus to reclose the container and to help protect the contents of the package against crushing and contamination.

Reference now is made to Fig. 1 in which a developed view of the container is depicted. Preferably, the container is formed from a rectangular sheet of hard milled paper or light gauge board which will provide a form retaining, stiff package liner protecting the cigarettes from crushing. The sheet comprises a full size first side panel 10 bounded by full size end panels 11 and 12 and bottom flap 13. The other or second side panel comprises a foreshortened portion 14 and an overlapping supplementary narrow portion 15 having bottom flaps 16 and 17 respectively. The end panels 11 and 12 likewise have bottom flap portions 18 and 19 and end panel 12 has slit 20 provided adjacent its upper end for a purpose later to appear. The blank may be scored along lines, as indicated, permitting use of the entire blank with no wastage of material.

By suitable folding techniques on conventional high speed machines the above described blank is formed into the parallelepiped shape as shown in Fig. 2, providing the open top container into which the contents may be inserted from the open end thereof. In forming the container, the several bottom flaps may be affixed to each other by a suitable adhesive material, but as a significant feature, the upper region of the foreshortened side panel 14 and overlapping portion 15 are left free to slide with respect to each other, thus providing a movable lap joint therebetween.

Referring now to Fig. 6, I provide a combined container cover and package opener insert, comprising a die cut strip of stiff cardboard, or the like, having a generally rectangular shape with a rounded portion at one or both ends. This insert comprises a main panel 21, an intermediate panel 22 and a rounded end panel 23, respectively separated by pressed score lines 24 and 25. Score line 24 is broken and cut through at a central region to provide a locking tab 26 attached to main panel 21 and score line 25 is broken and cut through at a central region to provide a smaller lifting tab 27 attached to intermediate panel 22. Accordingly, the main panel of the insert may remain in its covering position with respect to the open top container at all times, while the intermediate panel hinged to the main panel, as well as the end panel hinged to the intermediate panel, may both be raised to permit access to the contents of that container.

In assembling the improved package, after the shaped container of Fig. 2 is filled, the cover and insert member is arranged in nested relation over the top of the exposed cigarettes, as seen in Fig. 5, being folded as shown in Fig. 7a. At this time the extreme edge of end panel 23 is locked under the tab 26 and the lifting tab 27 projects outwardly a short distance sufficient to be readily engaged by the nail of a thumb or finger. It will be noted that the planar area of the folded insert is rectangular and corresponds to the rectangular open area at the top of the container. Moreover, it will be seen that

a double thickness of the insert material is provided at corners 28 and 29 of the folded insert thus giving it an increased rigidity in these particular regions.

Following the filling of the container and the positioning of the folded insert thereover, the package is 5 enwrapped with a selected heat sealable outer wrapper. As is known, the proper sealing of such wrappers in high speed machines requires a package configuration and solidity adaptable to the type of wrapper employed. In view of the protection afforded the ends of the ciga- 10 rettes by the insert and in view of the rigidity of the thus closed stiff container, my invention permits the use of any of the well known types of outer wrappers. A suitable wrapper material, for example, is disclosed in the patent to Farrell et al. 2,430,459. I prefer, in particular, 15 to use the thin wrapping material known under the trademark Reyseal, comprising aluminum foil laminated by a microcrystalline wax to a tissue paper and bearing printed matter on its outer surface and with its heat sealing surface in contact with the container and insert. 20

The Reyseal wrapper comprises a side portion 30 covering the lapped sides 14 and 15 of the container; an end portion 31 covering the end 12 of that container with its slot 20; as well as the remaining side, top, end and bottom portions and all with a length sufficient to 25 permit both the top and bottom of the package to be sealed, as the wrapper ends are tucked in place in a conventional manner, as seen in Fig. 3. As the wrapper is heat sealed, it will be understood that it attaches itself to both the hard, smooth surfaced insert and to the con- 30 tainer, as well as attaching itself to overlapped portions of the wrapper material, thus forming a rigid, tightly wrapped package. In particular, the wrapper is tightly drawn over those edges of the package which form a junction between the nested insert and the open 35 top of the container walls.

Considering now Figs. 3 and 4, the customary revenue stamp 40 is affixed to the outer surface of the top of the wrapped package lying with its long axis transversely of the rectangular shaped top. In order to take advantage of the supplementary reinforcing of that stamp, I prefer to dispose the stamp so that its longitudinal edge coincides with the score line 24 in the insert. More- 40 over, I prefer to imprint on the wrapper a suitable notation, such as arrow 41 to indicate the region at which pressure is to be applied during initial opening. 45

With the foregoing in mind, the operation of the package components will be apparent. As diagrammatically seen in Figs. 8 and 9, the sealed package in the region of arrow 41 has unbroken wrapper walls 30 and 31 and relatively slidable container walls 14 and 15. 50 By pushing against the container wall 12, the area of the open top of the container is reduced as wall 15 slides along wall 14 and the reinforced corner 29 of the insert punctures the wrapper wall 31. The exposed corner 29 is then lifted to further tear the wrapper. Concomitantly with lifting corner 29 upwardly, the end of the outer panel 23 is disengaged from locking tab 26, as seen in Fig. 7b, and the panels 23 and 22 are partially 60 raised, meanwhile tearing the upper flaps of the outer wrapper along parallel lines at the top of the container walls. At this time, the tab 23 is raised sufficiently to permit ready grasping with the fingers, as seen in Fig. 7c, in order to raise it to the position shown in Fig. 4, at which position withdrawal of one or more cigarettes can be accomplished, the tearing of the upper flaps of the wrapper meanwhile having proceeded to the junction of that wrapper with stamp 40. No further tearing of the outer Reyseal wrapper is required during subsequent usage with the result that, in contrast with many conventional 70 cigarette packages, the main body of that wrapper remains in position on the package and continues to fulfill, in large measure, its original protective and ornamental functions. Upon relief of the initial opening pressure against the slidable walls 14 and 15, those walls 75

again move to their original positions, due to the resilient nature of the package contents and the parallelepiped form of the package is restored.

After extracting a cigarette, the user then recloses the package by turning panel 23 downwardly and engaging it, if desired, in slit 20 in container wall 12. Thus, a form retaining closed package is made available at all times for protecting the remaining cigarettes from contamination and crushing. Tab 27, moreover, remains 10 in an exposed position where it may readily be employed for subsequent openings of the package.

For the purpose of improved sealing and appearance, the upper surfaces of the cover and opener insert may be covered with foil or other wrapper material. It will further be noted, that, with the exception of the small amount of material forming panel 23 of the insert, a minimum of container forming material is employed, thus further reducing the cost of the package, but with- 15 out sacrifice to its form retaining shape and volume.

While continued use of the package will doubtless normally cause some mutilation of the revenue stamp 40, this may not necessarily occur and, if desired, precancelled stamps can easily be employed by the manufacturer. Although the invention has been disclosed in the specific usage of cigarette packages, it will, of course, 20 be recognized that I do not intend it to be so limited and on the contrary disclose it for use with packages containing other types of articles as well.

As many widely different embodiments of my invention may be made without departing from the spirit and scope of the same, it is understood that the invention is not limited except as defined in the appended claims. 30

What I claim as new and desire to secure by Letters Patent of the United States is:

1. A protective package comprising in combination, a stiff parallelepiped shaped, open-top container member having a first side wall, a second side wall, end walls and a bottom panel attached to each of said walls, said bot- 40 tom panels being affixed to each other and said second side wall comprising a foreshortened panel attached to one of said end walls and having a width less than the width of said first side wall, and a supplementary panel attached to the other of said end walls, said foreshortened and supplementary panels being separate from each other and lying in slidable juxtaposed relation to each other 45 whereby they may slide with respect to each other in order to reduce the area of the open top of said container member, a separate stiff insert forming a cover for said container and including a rectangular area corresponding to the normal area of said open top of said container and adapted to project laterally therefrom as said top area is reduced, said insert being openable and reclosable and having an extensible portion adapted to engage with said container during reclosing of said 50 package, thereby to maintain the protective nature of the opened package, and a wrapper encasing said container and insert and adapted to be punctured by a corner of said projecting insert as said foreshortened and supplementary panels slide with respect to each other during the reduction of said top area, said package after being opened having the characteristic of substantially retaining its parallelepiped shape during normal usage. 55

2. A package as defined in claim 1 wherein said insert comprises a main panel section mounted to remain in covering relation to said container at all times, an intermediate panel section hinged to said main panel section and an end panel section hinged to said intermediate panel section, said intermediate and end panel sections being adapted to be raised to provide access to said container. 60

3. A package as defined in claim 2 wherein said end panel section is folded against said intermediate panel section prior to opening of said package thereby to pro- 65

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vide a reinforced corner of said insert suitable for puncturing said wrapper.

4. A package as defined in claim 3 including an integral tab means disposed on said main panel for retaining said end panel in folded position prior to opening of said container.

5. A package as defined in claim 2 including means disposed on said intermediate panel for assisting in the raising of said end and intermediate panels.

6. In a protective cigarette package, an open top stiff container having a parallelepiped form and including a first side wall, a second side wall, end walls and a bottom panel attached to each of said walls, said bottom panels being affixed to each other, said second side wall having a foreshortened panel attached to one of said end walls and having a width less than the width of said first side wall, and a supplementary panel attached to the other of said end walls, said foreshortened and supplementary panels being separate from each other and lying in slidable juxtaposed relation to each other, an insert having a rectangular shaped area corresponding to the normal open top area of said container and comprising a combined cover and package opener mounted at the open top of said container, said insert being openable and reclosable and having an extensible portion adapted to engage with said container during reclosing of said package, thereby to maintain the protective nature of the opened package, a heat-sealable wrapper encasing said container and insert and serving to hold said insert in place, said insert including a main panel section adapted to remain in covering and reinforcing relation to said container at all times, an intermediate panel section hinged to said main panel section and an end panel section hinged to said intermediate panel section, said end panel section being folded against said intermediate panel section prior to opening of said package thereby

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to provide a reinforced edge suitable for puncturing said wrapper along one top edge of said parallelepiped as said foreshortened and supplementary panels are moved to reduce the area of the open top of said container, said end panel section being accessible following the initial puncturing of said wrapper whereby raising of the hinged end and intermediate panel sections following that initial puncturing will serve to tear said wrapper along the parallel top edges as said end and intermediate panel sections of said insert are raised, thus to permit access to the interior of said package without substantially impairing the protective values of that package, said package after being opened having the characteristic of substantially retaining its parallelepiped shape during normal usage.

7. A package as defined in claim 6 wherein said container includes an end wall having a slot therein to receive the end panel section of said insert during reclosing of the opened package.

8. A package as defined in claim 6 wherein said wrapper comprises an outer aluminum foil layer laminated by a microcrystalline wax to an inner tissue paper layer and tightly wrapped at the upper edges of said parallelepiped thereby to insure tearing along well defined lines.

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