

Aug. 13, 1963

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3,100,598

BACON CARTON

Filed Nov. 9, 1959

2 Sheets-Sheet 1

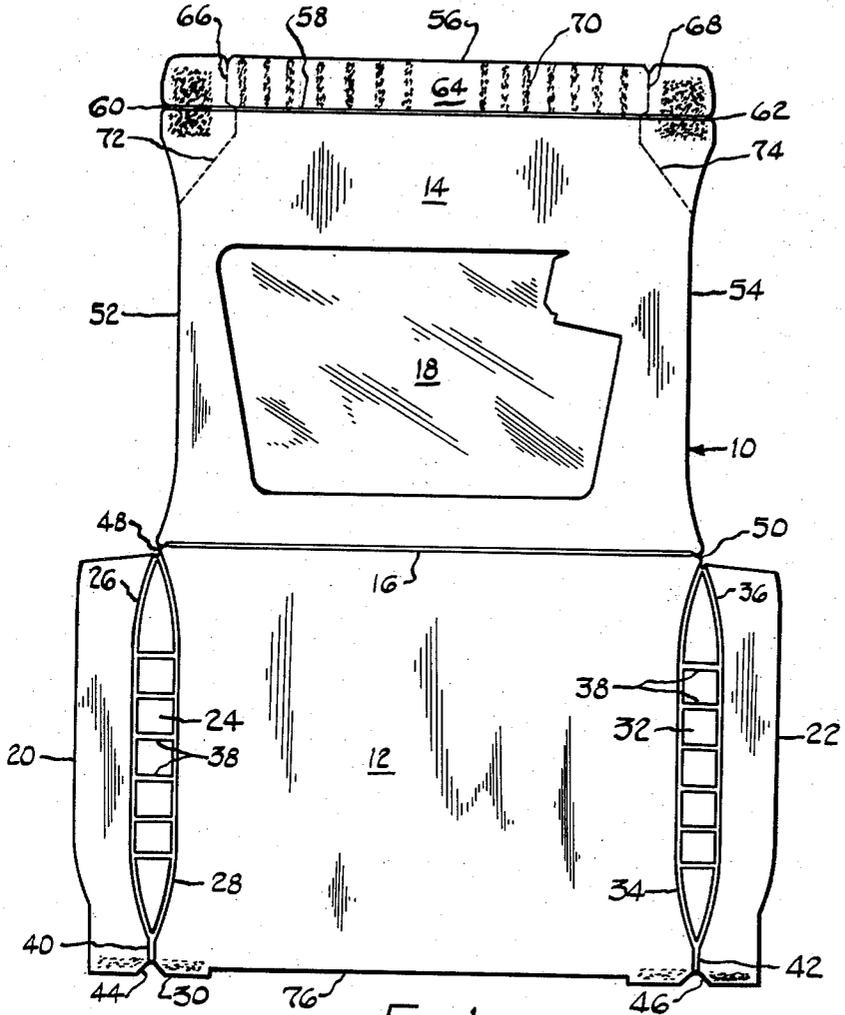


FIG. 1

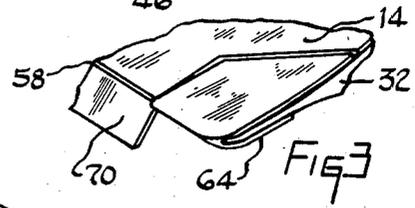


FIG. 3

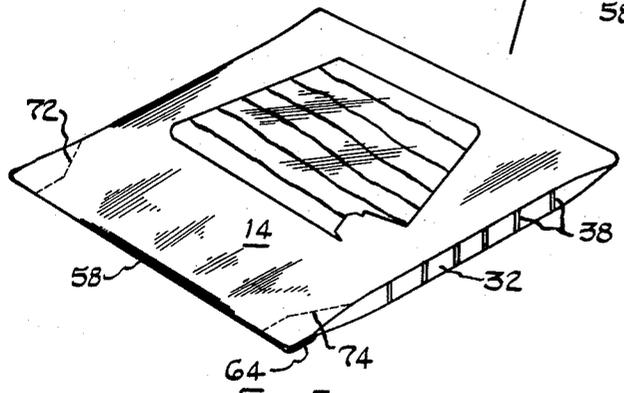


FIG. 2

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2 Sheets-Sheet 2

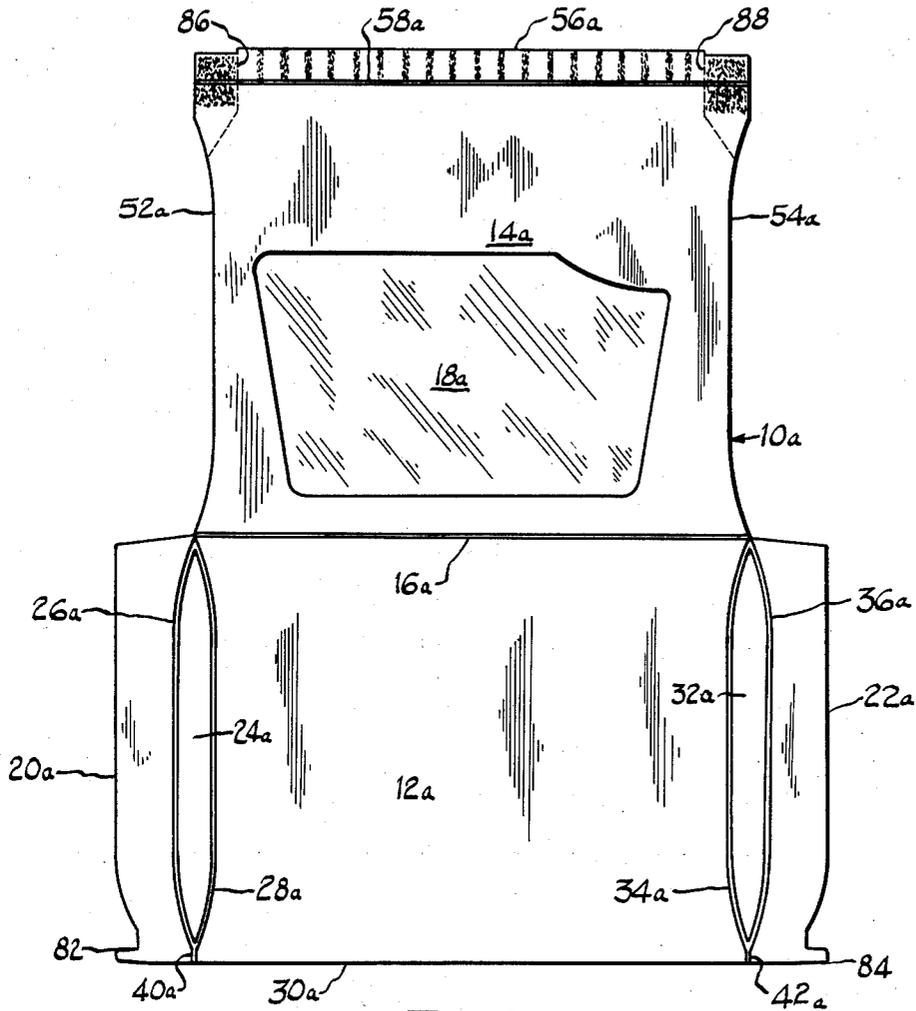


FIG. 4

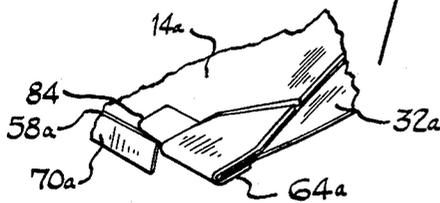


FIG. 5

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BACON CARTON

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 Filed Nov. 9, 1959, Ser. No. 851,602
 11 Claims. (Cl. 229-87)

This invention relates in general to improvements in the art of packaging and, more particularly, to improvements in reclosable cartons adapted to enclose and conform generally to the shape of a group of shingled strips of material such as bacon.

In the packaging of food products such as bacon, sliced beef, and other materials packed in flat, layer-type packages, it is important that the package present a neat and attractive appearance and be convenient for consumer use. To this end, the package should closely conform to the shape of the material packaged. It should be reasonably sturdy and retain its shape throughout use and shipment; and it should be easily openable to facilitate removal of all or a part of the contents. Further, it is preferable that the package can be reclosed securely after it has once been opened. In this way, the remaining portion of contents may be retained and stored within the original package.

While many packages have been designed to meet several of the requirements, there is still a need for improvement. Particularly needed are simple packages possessing a high degree of rigidity when they are both opened and closed. Generally, packages currently on the market completely unfold when opened. The result is that, where provision is made for reclosing the package, it must usually be completely refolded about the contents. Also, packages having a reclosing feature are comparatively complex and expensive to fabricate and assemble.

The present invention is directed to a package which completely encloses the product and satisfies the above noted requirements. It has been devised to overcome the deficiencies of the prior art. Accordingly, it is a primary object of this invention to provide an improved package for shingled, sliced material which is simple to reclose after being first opened.

Another object of this invention is to provide an improved package blank for sliced product which is economical to manufacture and use.

An additional object of this invention is to provide a bacon folder blank having improved means for initially closing, opening, and then reclosing the package.

A further object of this invention is to provide a reclosable package which exhibits a high degree of rigidity in both the open and closed conditions.

Still another object of this invention is to provide an improved bacon package adapted to be folded about and completely enclose a shingled group of bacon slices, which generally conforms to the shape of the draft of product and will not completely unfold upon being opened.

Additional objects and advantages, if not specifically set forth herein, will be readily apparent to one skilled in the art from the following description taken in conjunction with the drawings, in which:

FIGURE 1 is a plan view of the interior surface of the preferred package blank in unfolded condition;

FIGURE 2 is a perspective view of a folded and sealed package comprising the blank of FIGURE 1 folded about a group of product;

FIGURE 3 is a partial perspective view of one corner of the package along the side which may be opened, showing the package as it appears reclosed;

FIGURE 4 is a plan view of the interior surface of a second embodiment of the package blank in unfolded condition; and

FIGURE 5 is a partial perspective view, similar to FIGURE 3, showing the package of the second embodiment as it appears reclosed.

Initially, the package blank is cut and scored from a sheet of suitable relatively stiff packaging material to provide joined top and bottom panels, side flaps joined to both ends of the latter panel, and a refoldable flap along one edge of the top portion. The refoldable flap extends across the upper edge of the top (as viewed in FIGURE 1) and is adapted to be folded about and secured to the open edge of the bottom portion. The bottom portion (or the side walls joined thereto) includes means for resecuring the top in folded condition after the package is first opened.

Package blanks so produced exhibit a plurality of die-cut, crease-scored, cut-scored, and perforated lines. By "crease-scored" lines we mean those lines which are pressed or indented in the surface of the paperboard, or other equivalent packaging material, by a relatively blunt die. Crease-scored lines preferably do not break or cut the surface of the material, but are provided to enable the material to be folded along those lines. The term "cut-scored" refers to fold lines wherein only the surface of the material is severed by partially cutting the material with a relatively sharp die. However, both crease-scored and cut-scored lines are to facilitate bending the package rather than breaking it. Cut-scored lines provide an even weaker area at which to bend the material and eliminate "bellying" or distortion of the material surface adjacent the scored line, such as is found with crease-scoring. Perforated lines are lines of weakness provided where the blank is to be physically separated or broken, rather than merely bent or creased. While, in general, crease-scored lines are sufficient to provide all of the folds in this package, we have found it preferable to cut-score the blank at certain points which will be particularly noted in the following description.

As previously indicated, each blank, generally 10, is divided into two major portions, namely, a bottom 12 and a top 14, by score line 16. The top panel 14 may be conveniently provided with a window 18 which is cut from the blank 10 in the same initial cutting and scoring operation that forms the blank. Two side flaps 20 and 22 extend from the left and right side, respectively, of the bottom 12, adjacent the ends of line 16. A wall section 24 defined by a pair of bowed score lines 26 and 28 separates the body of side flap 20 from the bottom 12 proper. As may be seen in FIGURE 1, the lines 26, 28 are joined at their ends at line 16 and near an outside edge 30 of bottom 12, but bow outwardly to provide mid-sections which are straight and substantially parallel to and spaced from one another. A similar wall section 32 is provided between the body of the right side flap 22 and bottom 12 by a pair of lines 34, 36. Each wall section 24, 32 generally follows the profile of the shingled material to be enwrapped. The end portion of the pairs of lines 26, 28 and 34, 36 converge and may be either straight or curved crease-scored lines. Preferably, the ends are curved as shown in the drawings. The mid-sections of score lines 26, 28, 34, and 36 may be cut-scored to insure that the wall sections 24, 32 will not be bent longitudinally between the bowed score lines.

A plurality of strengthening ribs 38 are located on walls 24, 32 transverse to the straight mid-sections of score lines 26, 28 and 34, 36, respectively. Ribs 38 may conveniently be provided by crease-scoring the blank as shown in FIGURE 1. Two additional score lines 40, 42 extend from the lower juncture (as seen in FIGURE 1) of lines 26, 28 and 34, 36, respectively, to the outside edge 30 of bottom 12. Lines 40, 42 are preferably cut-scored to reduce "bellying" of the interior surface of the blank, which would tend to disarrange the fold and hinder

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proper sealing of the package. The outside edge 30 preferably contains arcuate notches 44, 46 at the ends of score lines 40, 42, respectively. Additionally, arcuate notches 48, 50 are located at the peripheral junctures of score lines 26, 28, 16 and 34, 36, 16, respectively. Such notches provide the folded package with rounded corners, thereby lessening the possibility of causing damage to other packages with sharp corners.

Referring now to the top portion 14 of the carton blank 10, the sides 52 and 54 thereof are cut substantially symmetrical (with reference to crease line 16 dividing the top and bottom portions) to the crease lines 28, 40 and 34, 42, respectively, on the bottom portion 12. Window 18 may be provided in the top portion 14, as illustrated. When this is done, it is desirable to glue in place a transparent film, such as cellophane or rubber hydrochloride, or other greaseproof and transparent material having a high gloss low water absorption and good resistance to stretching and wrinkle development.

The distance between score line 16 and the outside edge 56 of the top portion 14 exceeds the corresponding distance between the score line 16 and outside edge 30 of the bottom portion 12. However, score line 58 extends the width of top 14 parallel to score line 16 and spaced therefrom a distance substantially equal to the distance between crease 16 and outside edge 30. The sides 52, 54 contain arcuate notches 60, 62, respectively, at the ends of score line 58. That part of the top portion 14 extending beyond crease line 58 to the outside edge 56 forms a closure margin 64 which will be turned under the outside edge 30 of the bottom portion 12 when the package is sealed. This closure margin 64 is divided lengthwise into three sections by a pair of perforated lines 66, 68. The outside edge 56 may be notched at lines 66, 68, and the corners of the margin 64 may be rounded as illustrated. The large section of margin 64 between 66, 68 constitutes a refoldable flap 70 which is releasably sealable to the underside of bottom portion 12 by means of spaced stripes of adhesive thereon.

At the crease line 58, the perforated lines 66, 68 turn inwardly to join with a second pair of parallel perforated lines 72, 74, respectively, forming a neck of lesser width than the refoldable flap 70. These lines of perforation extend downwardly a short distance and then turn outwardly extending to the sides 52, 54, respectively, of the top portion 14. It may be seen that perforated lines 66, 72 and perforated lines 68, 74 form a pair of detachable corners on the outside edge 56 of the top 14. Adhesive is solidly applied to these corners both above and below score line 58.

An engaging means for resealing the refoldable flap 70 is located adjacent the outside edge 30 of bottom portion 12. Preferably the engaging means, as illustrated in FIGURE 1, comprises a recess 76 cut inwardly of the free edge 30 about $\frac{3}{32}$ of an inch. The ends of recess 76 are square cut and are located to correspond to the width of the neck formed between perforated lines 72, 74.

Concerning the side flaps 20, 22 (as viewed in FIGURE 1) the upper edges thereof are slightly beveled just below a projection of score line 16 so that, when bent inwardly across bottom portion 12, they will tend to slide under top 14 when it is folded thereover. The lower portions of side flaps 20 and 22 are reduced in width and cut perpendicular to a juncture with the outside edge 30 of bottom 12. These straight edges of flaps 20 and 22 are cut parallel to crease lines 40 and 42, respectively, a distance equal to the distance between those crease lines and the ends of the recess 76.

A suitable adhesive is applied to areas at each side of crease lines 40 and 42. Thus, when the flaps are folded inwardly to form the end walls, the areas to which adhesive has been applied may be bonded together to hold the walls and flaps permanently in place. In practice, we have found that it is preferable to use a thermoresponsive adhesive for all the previously mentioned applica-

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tions. Vinyl acetate resin emulsion is suitable; however, other types of adhesives and glues, including pressure-sensitive adhesives, may obviously be used.

The carton blank thus described is formed into a package in the following manner. A group of shingled slices of material, such as bacon, is first placed on the bottom portion 12 of the carton blank 10. The side flaps 20, 22 are then turned upwardly, creasing along lines 28 and 34. The flaps are then turned inwardly and creased along lines 26 and 36. At this point the inturned flaps may be secured to the bottom portion by means of adhesive applied adjacent to crease lines 40 and 42; or, if the adhesive is thermo-responsive, they may be sealed by a later step. In either instance, while the inturned flaps are held in place the top portion 14 is turned upward and forward and creased along score line 16 so that the upper surface of the sliced material and flaps 20 and 22 are covered thereby. The closure margin 64 is then turned downwardly under the bottom portion 12 by creasing along line 58. Finally, the closure margin 64 is secured in place by adhesive previously applied to the areas illustrated in FIGURE 1. If the thermoresponsive adhesive is used, it is merely necessary to apply heat and pressure along the closed edge of the package to form all of the seals. Additional glue seals may be applied between the top and side flaps 20, 22 if desired.

To open, the consumer need merely grasp the refoldable flap 70 which, because of the striped adhesive thereon, is less firmly secured to the bottom portion 12 than at the corners, and tear forwardly along the perforated lines 66, 68. The entire top is then pulled upwardly from the package by lifting the refoldable flap 70, tearing along the perforated lines 72 and 74, and breaking the blue seals, if any, on flaps 20, 22. This will expose the contents of the package, which will be only partially restrained by the infolded flaps 20 and 22. Obviously, it is then a simple matter to remove any desired amount of the contents from beneath the flaps.

To reclose the package, it is simply necessary to fold the top 14 down across the contents and pull the refoldable flap 70 beneath the outside edge 30 of the bottom portion 12. When this is done, the crease line 58 will be bent about the edge of the recess 76 and the narrowed neck area between perforated lines 72 and 74 will be engaged within the recess 76. The wider refoldable flap 70 will then remain in place since it is too wide to pass through the recess 76. The package may then be reopened and reclosed any number of times that the consumer desires.

A similar carton blank and package having a modified engaging means for reclosure is illustrated in FIGURES 4 and 5. Parts corresponding to the previously described embodiment are denoted by like reference characters bearing the subscript "a." The modified embodiment includes a pair of projections 82, 84 at the lower corners of end flaps 20a and 22a, respectively, while the recess along the lower outside edge 30a (of the preferred embodiment) is omitted. Also, on the top portion 14a perforated lines 86, 88 extend straight downwardly below the closure margin 64a and then outwardly to sides 52a, 54a without forming a narrowed neck portion beneath the margin 64a. For simplicity, the second embodiment has not been shown to include strengthening ribs or corner notches.

The modified package is initially folded in the same manner as previously described. In the originally sealed position, perforated lines 86, 88 will correspond roughly to the lower edges of inturned flaps 20a and 22a, respectively. The package is first opened in the same manner by grasping enclosure flap 70a and tearing along the perforated lines 86, 88. However, when it is desired to reclose the package the top portion 14a is inserted under the projections 82, 84, and the closure flap 70a is then turned under the free edge 30a of the bottom portion 12a. To reopen, it is merely necessary to pull the top portion from beneath projections 82, 84.

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Obviously, many modifications and variations of the invention as hereinbefore set forth may be made without departing from the spirit and scope thereof, and therefore only such limitations should be imposed as are indicated in the appended claims.

We claim:

1. An improved package blank cut and scored from relatively stiff packaging material for enwrapping sliced and shingled food product, said blank comprising: a bottom panel; a top panel divided from said bottom panel by a score line; a closure margin extending across said top panel oppositely disposed from said bottom panel, said closure margin being adapted to be folded under an edge of said bottom panel opposite said score line; a pair of detachable corners included in said top panel, said corners including the ends of said closure margin; a refoldable flap comprising the remainder of said margin between said detachable corners; and an engaging member connected to said bottom panel at said edge thereof, said engaging member adapted to overlie the opposite ends of said refoldable flap to resecure said refoldable flap when folded about said edge subsequent to detachment of said corners at the initial opening of a package formed from said blank.

2. An improved package blank cut and scored from relatively stiff packaging material for enwrapping sliced and shingled food product, said blank comprising: a bottom panel; a top panel divided from said bottom panel by a score line; a closure margin extending across said top panel oppositely disposed from said bottom panel, said closure margin being adapted to be folded under an edge of said bottom panel opposite said score line; a pair of detachable corners included in said top panel, said corners including the ends of said closure margin; a refoldable flap comprising the remainder of said margin between said detachable corners; and a recess in said bottom panel along said edge, said recess being of a lesser dimension than said refoldable flap whereby the refoldable flap may be resecured in folded position subsequent to detachment of said corners at the initial opening of a package formed from said blank.

3. An improved package blank cut and scored from relatively stiff packaging material for enwrapping sliced and shingled food product, said blank comprising: a bottom panel having a single outside edge; a top panel divided from said bottom panel by a score line, said top panel being disposed opposite said outside edge; flaps extending from opposite sides of said bottom panel adjacent said top panel, said flaps being divided from said bottom panel by score lines; a closure margin extending across said top panel oppositely disposed from said bottom panel, said closure margin being adapted to be folded under said bottom panel at the outside edge thereof and secured thereto; a pair of detachable corners included in said top panel, said corners including the ends of said closure margin; a refoldable flap comprising the remainder of said margin between said detachable corners; and an engaging member connected to said bottom panel at said edge thereof, said engaging member adapted to overlie the opposite ends of said refoldable flap to resecure said refoldable flap when folded about said edge subsequent to detachment of said corners at the initial opening of a package formed from said blank.

4. An improved package blank cut and scored from relatively stiff packaging material for enwrapping sliced and shingled food product, said blank comprising: a bottom panel having a single outside edge; a top panel divided from said bottom panel by a score line, said top panel being disposed opposite said outside edge; flaps extending from opposite sides of said bottom panel adjacent said top panel, said flaps being divided from said bottom panel by score lines; a closure margin extending across said top panel oppositely disposed from said bottom panel, said closure margin being adapted to be folded under said bottom panel at the outside edge thereof and secured there-

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to; a pair of detachable corners included in said top panel, said corners including the ends of said closure margin; a refoldable flap comprising the remainder of said margin between said detachable corners; and a recess in said bottom panel along said outside edge, said recess being of a lesser dimension than said refoldable flap whereby the refoldable flap may be resecured therein in folded position subsequent to detachment of said corners at the initial opening of a package formed from said blank.

5. An improved package blank cut and scored from relatively stiff packaging material for enwrapping sliced and shingled food product, said blank comprising: a bottom panel; a top panel extending from said bottom panel, said top panel adapted to be creased and folded across the bottom panel; side flaps extending from the sides of said bottom panel adjacent said top panel, said flaps being foldable inwardly upon said bottom portion to form side walls having generally rectangular mid-sections and tapering ends corresponding to the profile of said product; a closure margin extending across said top panel oppositely disposed from said bottom panel, said closure margin being adapted to be folded under and secured to said bottom panel at an outside edge thereof; a pair of detachable corners included in said top panel, said corners including the ends of said closure margin; a refoldable flap comprising the remainder of said margin between said detachable corners; and engaging members connected to said bottom panel at said edge thereof, said engaging members adapted to overlie the opposite ends of said refoldable flap to resecure said refoldable flap when folded under said edge subsequent to detachment of said corners at the initial opening of a package formed from the blank.

6. An improved package blank cut and scored from relatively stiff packaging material for enwrapping sliced and shingled food product, said blank comprising: a bottom panel; a top panel extending from said bottom panel, said top panel adapted to be creased and folded across the bottom panel; side flaps extending from the sides of said bottom panel adjacent said top panel, said flaps being foldable inwardly upon said bottom portion to form side walls having generally rectangular mid-sections and tapering ends corresponding to the profile of said product; a closure margin extending across said top panel oppositely disposed from said bottom panel, said closure margin being adapted to be folded under and secured to said bottom panel at an outside edge thereof; a pair of detachable corners included in said top panel, said corners including the ends of said closure margin; a refoldable flap comprising the remainder of said margin between said detachable corners; a necked area on said top panel immediately inwardly of said closure margin defined by the inner outline of said detachable corners, said necked area having a lesser dimension than said refoldable flap; and a recess in said bottom panel along said outside edge, said recess corresponding to the dimension of the necked area of said top panel and adapted to engage said refoldable flap subsequent to detachment of said corners at the initial opening of a package formed from the blank.

7. An improved package blank cut and scored from relatively stiff packaging material for enwrapping sliced and shingled food product, said blank comprising: a bottom panel having a single outside edge; a top panel extending from said bottom panel opposite said outside edge; side flaps extending from the sides of said bottom panel adjacent said top panel; wall sections at said sides of said bottom panel, each of said wall sections defined by a pair of bowed score lines on each flap, said lines having straight and parallel mid-sections tapering to intersections at each end; a closure margin extending across said top panel, said margin being adapted to be folded about the outside edge of said bottom panel and secured thereto; a pair of detachable corners included in said top panel, said corners including the ends of said closure margin; a refoldable flap comprising the remainder of said margin between said detachable corners; and corners engaging members con-

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nected to said bottom panel at said edge thereof, said engaging members adapted to overlie the opposite ends of said refoldable flap to resecure said refoldable flap when folded about said edge subsequent to detachment of said corners at the initial opening of a package formed from said blank.

8. The improved package blank of claim 7 wherein said outside edge of said bottom panel is recessed to form the engaging member cooperable with said refoldable flap.

9. A reclosable carton for packaging shingled, sliced food product, said carton comprising a bottom panel having a single outside edge; walls extending upwardly from opposite sides of said bottom panel, said walls having generally rectangular mid-sections and tapering ends; a top panel articulated to an edge opposite said outside edge of said bottom panel, said top panel overlaying said bottom panel and walls; a closure margin extending across said top panel, said closure margin being folded about said outside edge and secured to the underside of said bottom panel; a pair of corners included in said top panel and detachable therefrom, said corners including the ends of said closure margin; a refoldable flap comprising the remainder of said margin between said corners, said corners being secured more firmly to said bottom panel than the refoldable flap; and an engaging member connected to said bottom panel at said edge thereof interiorly of said top panel, said engaging member adapted to overlie the opposite ends of said refoldable flap to resecure said refoldable flap when folded about said edge subsequent to detachment of said corners at the initial opening of said carton.

10. The reclosable carton of claim 9 wherein the engaging member comprises projections associated with said

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walls at said outside edge, said projections being folded inwardly between said top and said bottom panel and extending to the area of said top adjacent said refoldable flap.

11. A reclosable carton for packaging shingled, sliced food product, said carton comprising: a bottom panel, said bottom panel having a recess in one edge thereof; walls extending upwardly from opposite sides of said bottom panel, said walls having generally rectangular mid-sections and tapering ends; a plurality of strengthening ribs pressed into each wall; a top panel articulated to said opposite edge of said bottom panel, said top panel overlaying said bottom panel and walls; a closure margin extending across said top panel, said closure margin being folded about said one edge and secured to the underside of said bottom panel; a pair of corners detachable from said top panel, said corners including the ends of said closure margin; a refoldable flap comprising the remainder of said margin between said corners and a necked area on said top panel immediately inwardly of said closure margin, said refoldable flap being secured less firmly than said end portions of the closure margin to said bottom panel whereby it may be detached therefrom and from said corners and resecured in said recess.

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