

- [54] PACKAGE CONSTRUCTION
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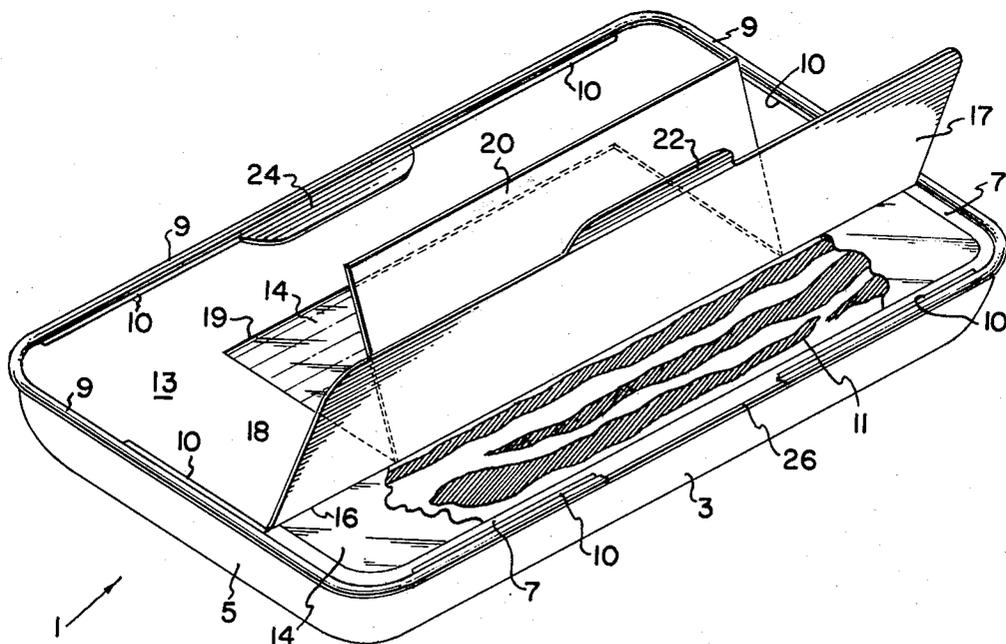
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[57] ABSTRACT

A package for food or the like comprises an open top tray closed by a transparent membrane and an opaque panel overlying the membrane to protect the tray's contents from exposure to light. The cover panel is scored longitudinally from end to end adjacent one side edge so as to form a hinged edge portion of the panel which may be swung upwardly relative to the membrane from one side of the tray to permit the contents at the one side of the tray to be inspected visually. The cover panel is slitted to form an inspection flap swingable about the score line, but from the opposite side of the tray. Either or both of the swingable portions of the panel may be manipulated without breaking the membrane and may be returned from raised position to lowered position.

5 Claims, 7 Drawing Figures

- [56] **References Cited**
- UNITED STATES PATENTS**
- 2,880,859 4/1959 Tupper ..... 229/43 X
- 3,219,253 11/1965 Davis ..... 206/45.31
- 3,233,819 2/1966 Flaherty ..... 229/43
- 3,298,505 1/1967 Stephenson ..... 229/43 X
- 3,301,465 1/1967 Flaherty ..... 229/43
- 3,391,852 7/1968 Waldrop ..... 229/43 X
- 3,464,832 9/1969 Mullinix ..... 99/171 TC



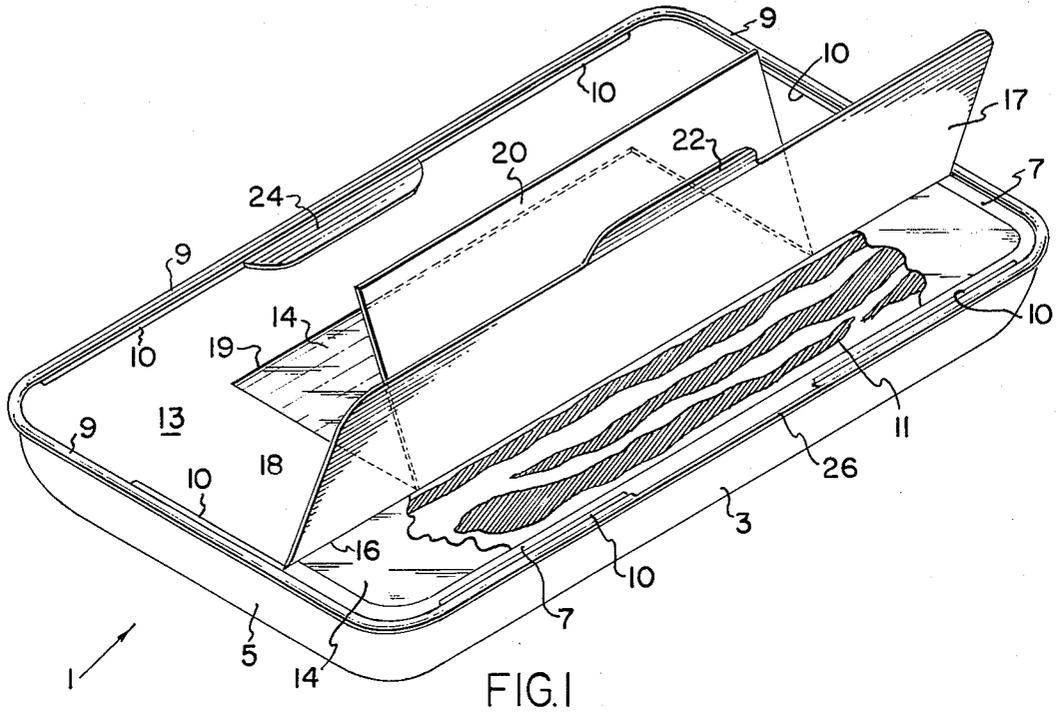


FIG. 1

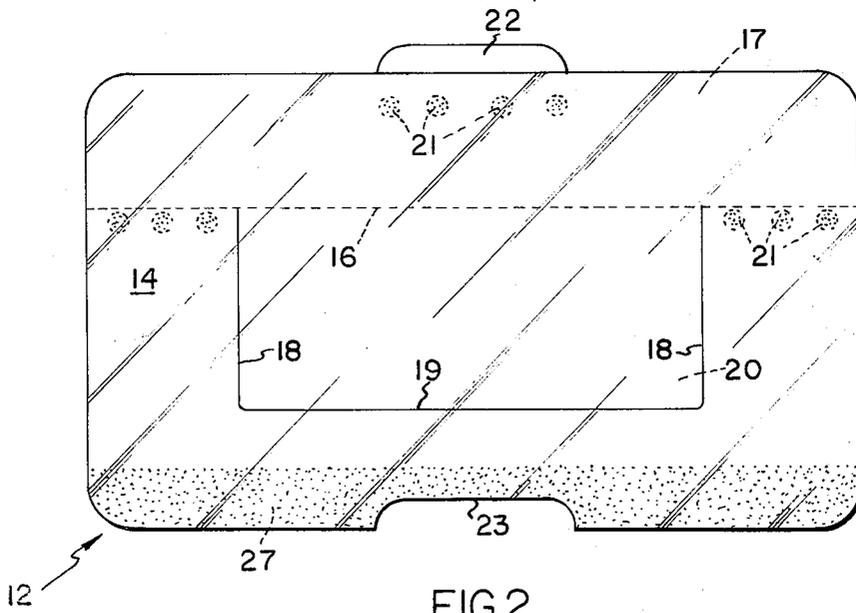


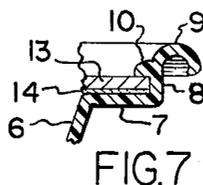
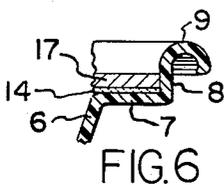
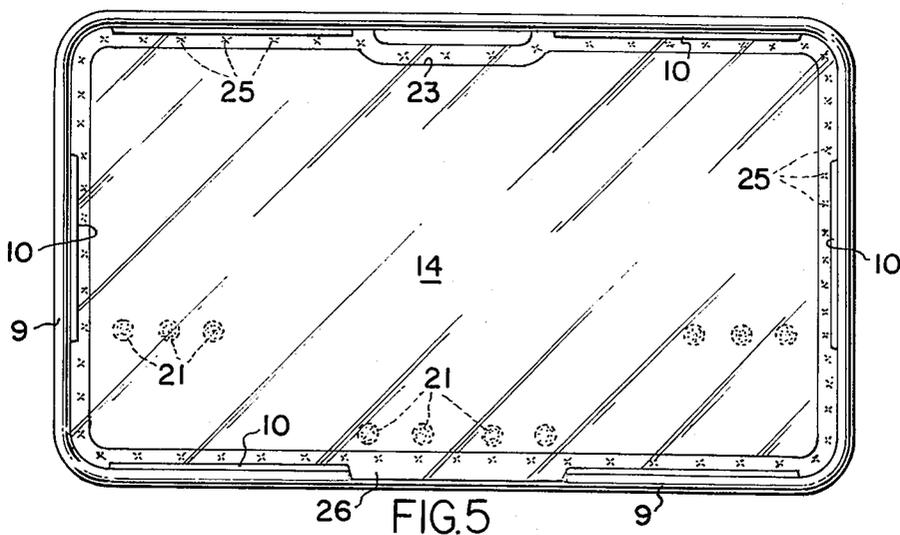
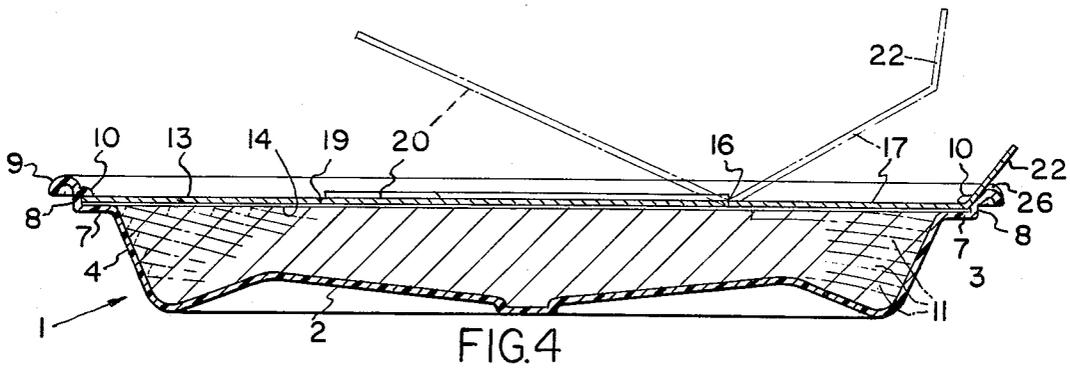
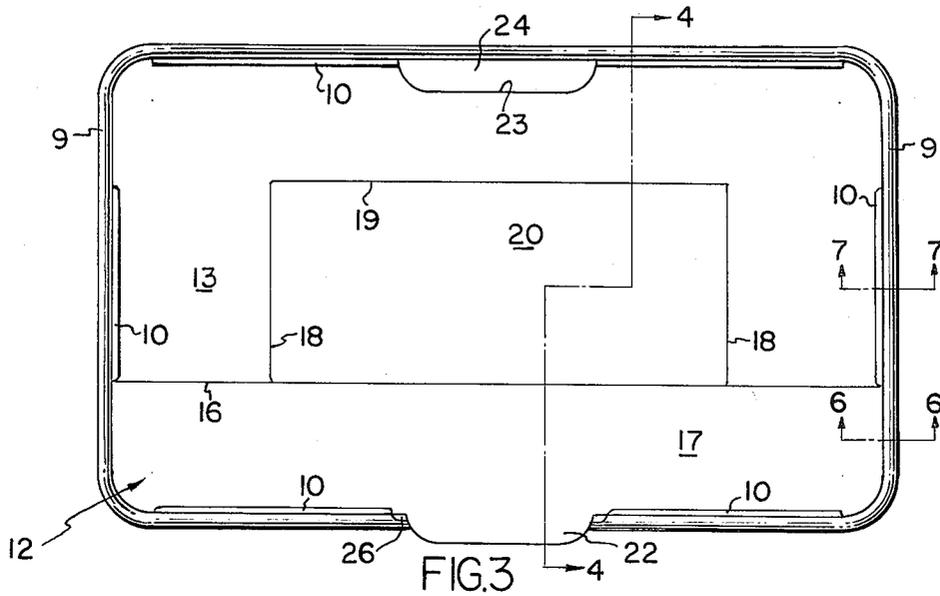
FIG. 2

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**PACKAGE CONSTRUCTION**

The invention herein disclosed relates to a package construction especially adapted for use in the packaging of food such as sliced bacon in such manner as to protect the package's contents from exposure to light and air, and yet permit a reasonable portion of the package's contents to be inspected visually.

The packaging of foodstuffs has many advantages, not the least of which is the protection of the foodstuffs from contamination and deterioration from exposure to light and air. Unfortunately, however, packaged foodstuffs cannot be inspected thoroughly by a consumer prior to purchase without opening of the package. The opening of food packages is discouraged, of course, for the obvious reason of guarding against contamination and deterioration of the contents of the packages. As a consequence, it is not uncommon for a customer to purchase a packaged food only to learn, at a later time, that the contents of the package do not conform to the customer's preference. The customer thus is dissatisfied and frequently makes a complaint. Such complaints are particularly prevalent in connection with packaged sliced bacon.

Although bacon is a high fat content food, a large number of purchasers of bacon seem to prefer a high percentage of lean content in the bacon. In the commercial slicing of bacon the slicing machines arrange successive strips in overlapping or shingled relation so as to expose one edge of each slice. The shingling of the bacon slices is an inherent characteristic of the slicing machinery and is advantageous in that it enables a given quantity of bacon to be packed in a reasonable size container and still expose to view a portion of each slice so as to permit a customer to see that each slice has at least some lean content.

Packages heretofore proposed for the packaging of bacon provide adequate protection of the contents against exposure to light and contamination, and many of such packages have included an inspection flap or the like which may be raised to enable a portion of the packaged contents to be viewed. Such flaps, however, conventionally are located at the central portion of the package. When the contents of the package comprise shingled strips of bacon or the like, raising of the flap still limits inspection of the bacon to the exposed edges only of the shingled strips. If the exposed edge of each visible strip amounts to about 10 percent only of the width of the strip, then about 90 percent of the width of the visible strips still is not viewable. Thus, it still is possible for a customer to be dissatisfied with the contents of the package when the latter is eventually opened for preparation and consumption of the food.

One object of this invention is to provide a food package which possesses all of the advantages of previously known packages for containing foodstuffs and which enables a considerably more satisfactory inspection of the contents to be obtained without opening of the package.

Another object of the invention is to provide a food package especially adapted for sliced, shingled bacon and which enables virtually the entire bacon slice at one side of the package to be viewed, without subjecting the contents of the package to contamination or adverse exposure.

A further object of the invention is to provide a food package of the character described which is little, if any, more expensive than packages heretofore pro-

posed for similar purposes. Further objects and advantages of the invention will be pointed out specifically or will become apparent from the following description when it is considered in conjunction with the appended claims and the accompanying drawings, in which:

FIG. 1 is an isometric view of a package constructed in accordance with the invention and illustrating inspection flaps incorporated in the cover in raised positions;

FIG. 2 is a bottom plan view of the cover;

FIG. 3 is a top plan view of a package constructed according to the invention;

FIG. 4 is a sectional view taken along the line 4—4 of FIG. 3;

FIG. 5 is a view similar to FIG. 3, but with the cover panel removed; and

FIGS. 6 and 7 are enlarged sectional views taken on the lines 6—6 and 7—7, respectively, of FIG. 3.

A package according to the disclosed embodiment of the invention comprises an open top tray 1 of molded, resiliently flexible, preferably plastic material such as polystyrene, the tray having a bottom 2 and upstanding, diverging, opposed side walls 3 and 4 and opposed end walls 5 and 6. The upper edge of each wall has a laterally extending, horizontal seat 7 for a purpose presently to be described. At the perimeter of the seat 7 is an upstanding wall 8 which terminates in an outwardly rolled flange 9. The wall 8 is provided at intervals with beads 10 which overhang and are spaced from the seat 7. The beads 10 are discontinuous for a purpose subsequently to be explained.

The tray 1 is adapted to contain any one of a number of food products. For purposes of illustration, however, the tray is disclosed as containing a plurality of bacon slices 11 arranged in overlapping or shingled relationship from the front wall 3 of the tray toward the rear wall 4, as is indicated in FIG. 4. The arrangement of the bacon strips in the tray 1 is such that virtually the entire upper surface of the strip 11 adjacent the wall 3 is visible, and the shingled relationship of the slices is such that the upper edge of each of the other strips also is visible.

A cover assembly 12 is provided for the open top of the tray and comprises a flat, opaque panel 13 formed of a relatively stiff, but bendable or flexible material such as high impact styrene or paperboard, the upper surface of which preferably is capable of being printed. The cover assembly also includes a transparent sheet or membrane 14 which is adhered to the lower surface of the panel 13 by adhesive or other means in a manner hereinafter to be explained. The membrane 14 is formed of a material such as oriented polystyrene which may be heat sealed or welded to the tray 1 in a manner and for a purpose presently to be explained.

The panel 13 is provided with a score line 16 extending longitudinally from end-to-end of the panel and adjacent one side edge of the latter so as to form a hinged portion 17 which is swingable about the score line 16. The panel preferably is provided with a pair of parallel slits 18 extending from the score line 16 toward, but terminating short of, the opposite side edge of the panel, those ends of the slits 18 remote from the score line 16 being joined by a slit 19 so as to form a flap 20 which also is swingable about the score line 16, but from the opposite side of the panel. The area of the flap 20 may vary, but it preferably is such as to enable a rea-

sonable portion of the contents of the tray to be inspected visually when the flap is raised.

The membrane 14 is secured to the lower surface of the panel 13 to maintain the panel and membrane assembled prior to their being fitted to the open top of a filled tray, but to permit movement of the panel 13 relative to the membrane 14 when desired without effecting inadvertent separation of the panel and the membrane. These objectives may be obtained by providing dots 21 of releasable adhesive between the members 13 and 14. The adhesive may be any one of a number of currently available adhesives, such as latex emulsions, pressure sensitive adhesives, or wax.

The free edge of the swingable portion 17 of the closure panel preferably is provided with a projecting tab 22 and, if desired, the opposite edge of the panel may have a recess 23 therein so as to avoid waste in the production of the closure panels. If the recess 23 is included, then the corresponding edge of the tray wall 4 should include a molded portion 24 which may be accommodated in the recess.

To condition the apparatus for use, the tray is filled with the food product whereupon the closure assembly 12 is fitted to the open top of the tray with the perimeter of the membrane 14 seated on the seat 7 of the tray. The membrane then may be heat sealed or welded to the tray in a conventional manner, for example, in the manner disclosed in U.S. Pat. No. 3,464,832. The welding of the membrane 14 to the tray seat 7 is indicated at 25 in FIG. 5.

When the cover assembly 12 is fitted to the open top of the tray the edges of the panel will engage the beads 10, but the upstanding wall 8 is sufficiently flexible to enable the panel to cam the beads 10 outwardly and permit the closure assembly to seat on the seat 7. When the closure assembly is seated on the seat 7 the resiliency of the wall 8 will cause the beads 10 to return to their original positions and in which they overlie the adjacent edges of the panel 13.

When the closure assembly 12 is seated on the tray seat 7, the tab 22 occupies a position in which it may be grasped by the fingers of a person. It is preferred that the wall 8 be reduced in height at the zone of the tab 22 so as to provide a recess 26 for the accommodation of the tab.

As has been stated earlier, the beads 10 are discontinuous. That is, they do not extend completely about the perimeter of the tray. As is best shown in FIG. 1, the beads 10 at the upper edge of the front wall 3 extend from opposite ends of the recess 26 toward, but terminate short of, the opposite ends of the front wall 3. Each of the side walls 5 and 6 includes a bead 10 which commences adjacent the score line 16 of the panel 13 and extends toward, but terminates short of, the wall 4. The rear wall 4 has beads 10 which terminate short of the end of walls 5 and 6.

Packages constructed in accordance with the invention conventionally are arranged in stacked relation in a refrigerator case so as to be available to customers. A customer desiring to inspect the contents of the package may exert an upward pull on the tab 22 so as to cause the hinged panel portion 17 to be swung upwardly about the score line 16. The beads 10 at the top of the front wall 3 and the adhesive dots 21 adjacent the tab 22 provide yieldable resistance to the upward swinging of the panel portion 17, but do not prevent such movement. The adherence between the panel por-

tion 17 and the membrane 14 at the dots 21 is less than that between the membrane 14 and the tray, thereby enabling relative movement of the portion 17 and the membrane without breaking the latter or unsealing the top of the tray. The beads 10 at the upper ends of the side walls 5 and 6, coupled with the adhesive dots 21 adjacent the score line 16, will cooperate to facilitate swinging of the panel portion 17 along the score line 16, thereby avoiding inadvertent raising of the entire panel 13.

When the hinged portion 17 has been swung upwardly, as is indicated in full lines in FIG. 1 and in dotted lines in FIG. 4, the contents of the package adjacent the front wall 3 of the tray may be viewed through the transparent membrane 14. If the tray contains bacon, substantially the entire length and width of the first strip 11 will be visible.

If the customer is satisfied with the appearance of the contents of the tray adjacent the front wall of the latter and desires further inspection of the contents, the flap 20 may be swung upwardly about the score line 16 to permit visual inspection of the central portion of the tray's contents through the transparent membrane 14.

If the customer is not satisfied with the appearance of the tray's contents, or decides for some other reason not to purchase the package, the panel portions 17 and 20 may be returned to their original positions so as to prevent exposure of the tray's contents to light.

When the tray's contents are to be removed, the panel 13 may be swung upwardly by means of the tab 22 so as to remove it from beneath the beads 10. If the adhesive dots 21 constitute the only means securing the panel and membrane together, the relative weakness of the panel-membrane adherence as compared to the membrane-tray adherence will enable the panel 13 to separate from the membrane, whereupon the latter may be cut open. If desired, however, the panel-membrane adherence may be made stronger than the membrane-tray adherence along the edge of the cover opposite the tab 22 by the provision of a band 27 of a non-releasable cement or adhesive between the membrane and the panel 13. In this construction upward movement of the entire panel will cause the membrane to be stripped off the tray, thereby exposing the contents of the latter.

The disclosed embodiment is representative of a presently preferred form of the invention, but is intended to be illustrative rather than definitive thereof. The invention is defined in the claims.

I claim:

1. A cover construction for a food package or the like comprising a transparent membrane; an opaque panel having opposite sides and ends overlying said membrane, said panel having between its sides a score line adjacent one side thereof and extending from one end to the opposite end to form a hinged edge portion between said score line and said one side of said panel, said hinged edge portion being swingable about said score line, said panel having a first slit between its opposite ends and extending along a line located between said score line and the opposite side of said panel and substantially parallel to but spaced from said score line, said panel also having slits at opposite ends of said first slit and extending to said score line to form a hinged flap swingable about said score line; and means adhering said panel to said membrane at selected zones to

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permit swinging movement of said hinged edge portion and of said flap relative to said membrane.

2. The construction set forth in claim 1 including a tab carried by and projecting from said hinged edge portion along said side of said panel to facilitate swinging of said portion.

3. A package construction for food or the like comprising an open top tray having a bottom and upstanding opposite side and end walls provided with seats adjacent their upper ends; a transparent membrane seated on said seats and forming a closure for the open top of said tray; a cover panel having an area at least as great as that of the open top of said tray and overlying said membrane, said panel having a score line substantially parallel to but spaced from one wall of said tray to form a hinged edge portion of said panel swingable upwardly relative to said membrane about said score line, whereby the contents of said tray adjacent said one wall thereof may be viewed through said membrane; adhesive means securing said panel to said membrane adjacent said score line between the latter and the opposite wall of said tray; adhesive means securing

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said panel to said membrane adjacent said opposite wall of said tray, the adhesion between said panel and said membrane adjacent said opposite wall being greater than the adhesion between said panel and said membrane adjacent said score line; and retaining bead means carried by said walls and overlying portions of said panel for retaining said panel in overlying relation to said membrane, said bead means being discontinuous at opposite ends of said hinged edge portion of said panel from said score line to said one wall of said tray.

4. The construction set forth in claim 3 wherein a flap is formed by a pair of substantially parallel, spaced apart slits in said panel extending from said score line toward the wall opposite said one wall of said tray, the slits of said pair of slits terminating short of said opposite wall and being joined by a third slit spaced from said score line.

5. The construction set forth in claim 3 wherein said membrane is sealed to said seats about the perimeter of said top.

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