

Nov. 16, 1965

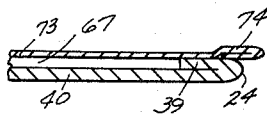
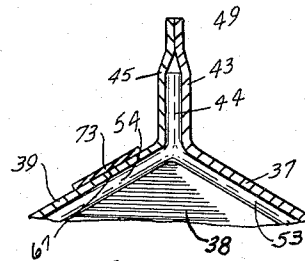
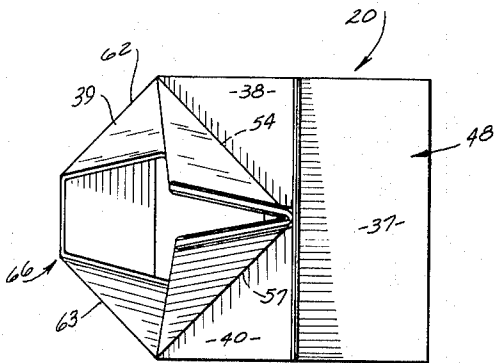
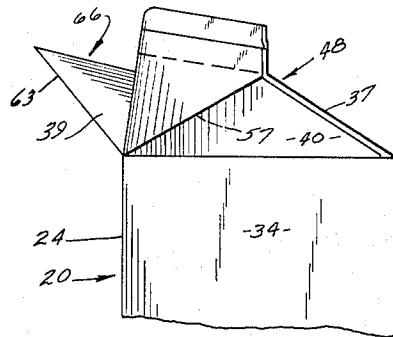
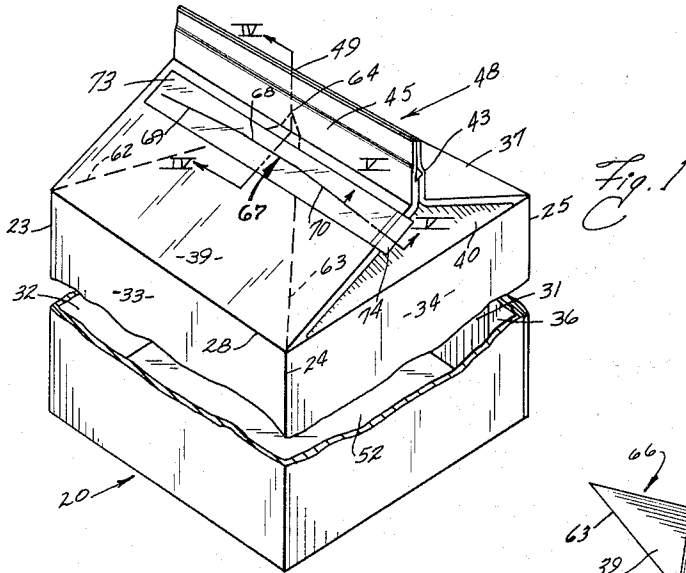
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3,217,966

CLOSURE STRUCTURE FOR A CONTAINER

Filed June 20, 1963

4 Sheets-Sheet 1



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CLOSURE STRUCTURE FOR A CONTAINER

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4 Sheets-Sheet 2

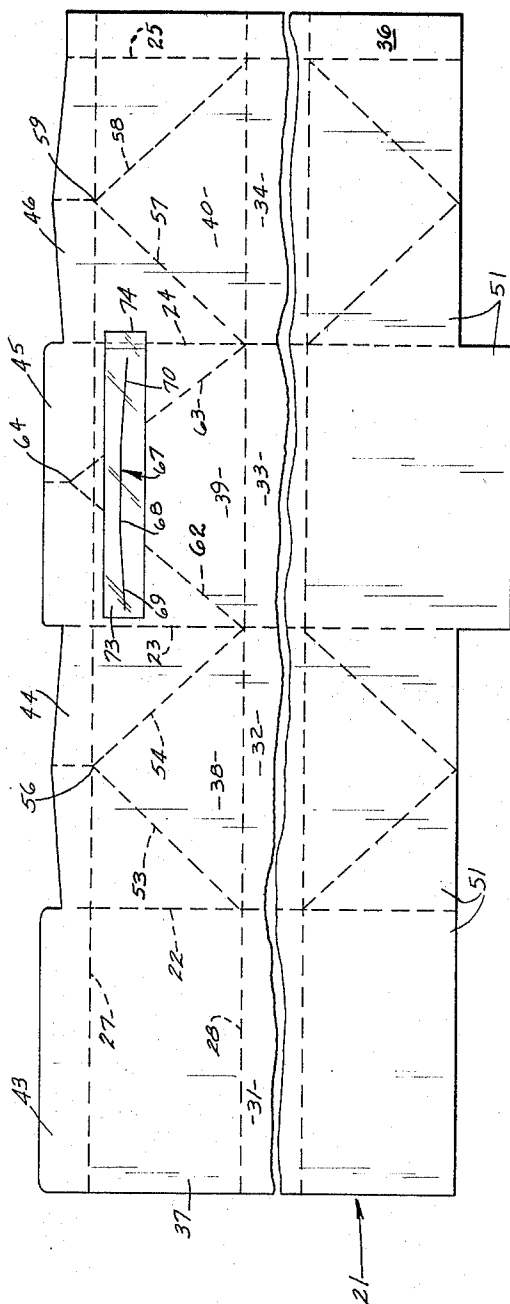


Fig. 6

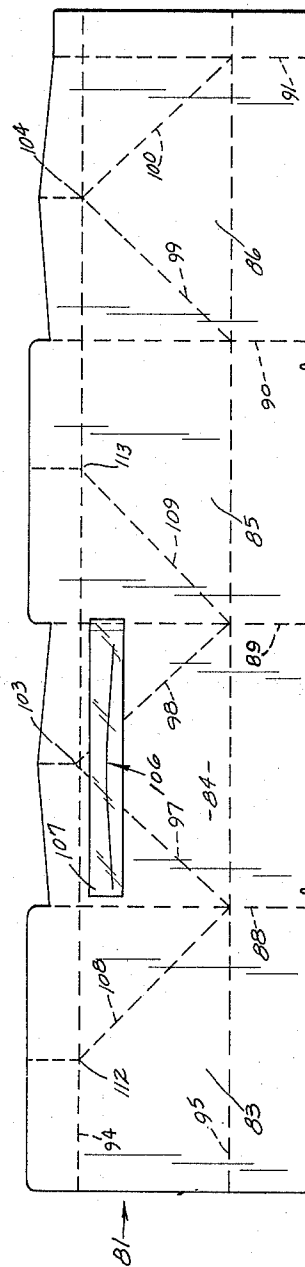


Fig. 7

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CLOSURE STRUCTURE FOR A CONTAINER

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4 Sheets-Sheet 3

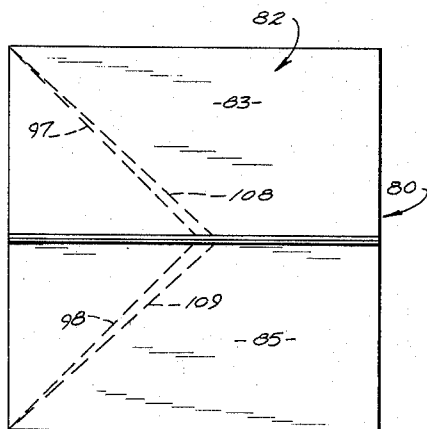


Fig. 8

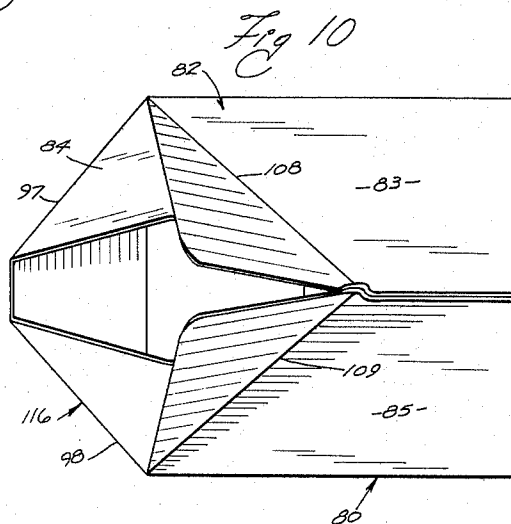


Fig. 10

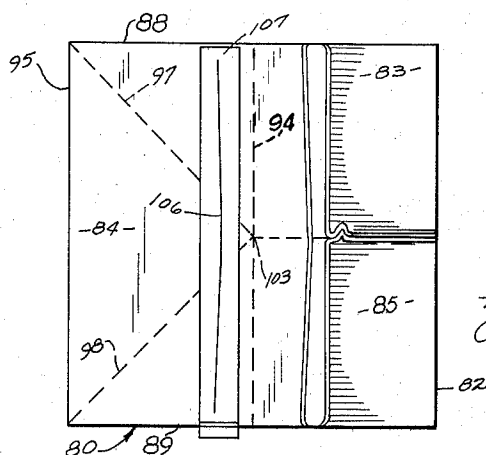


Fig. 9

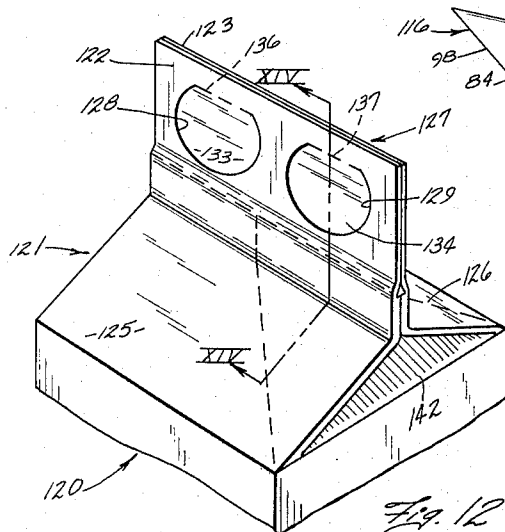


Fig. 12

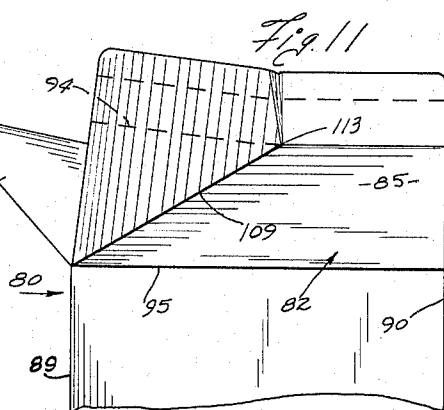


Fig. 11

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4 Sheets-Sheet 4

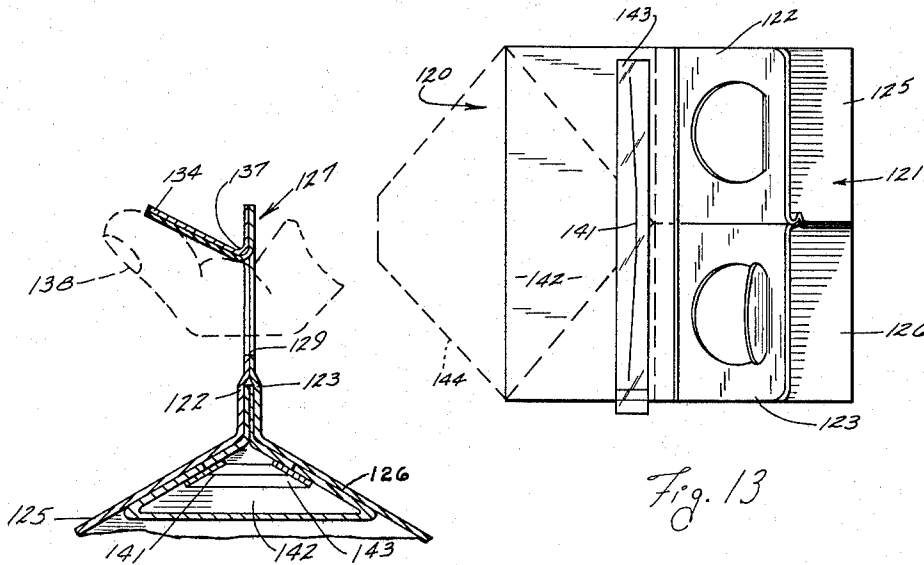


Fig. 13

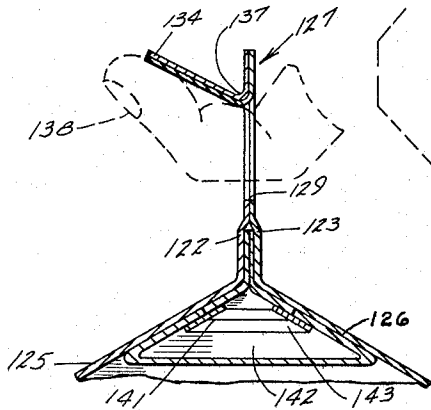


Fig. 14

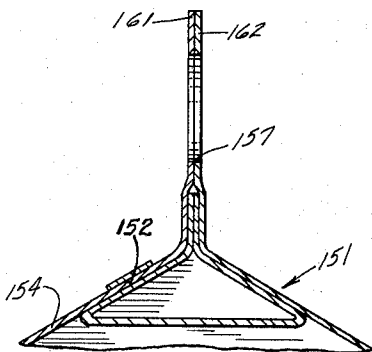
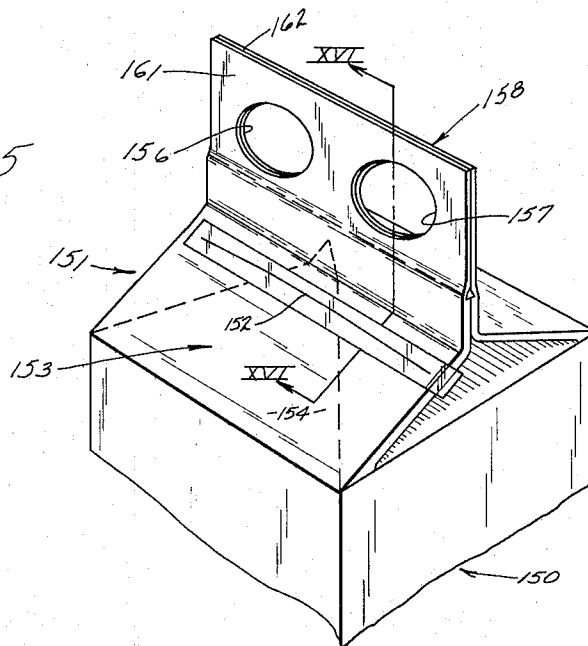


Fig. 16

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CLOSURE STRUCTURE FOR A CONTAINER

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Filed June 20, 1963, Ser. No. 289,376
8 Claims. (Cl. 229-17)

This invention relates in general to a container construction and, more particularly, to a closure structure for a coated, paperboard carton adapted for holding edible liquids, such as milk or juice, and having a self-contained pouring spout.

Coated, paperboard containers or cartons have been widely and successfully used for carrying a variety of liquids, such as dairy products. In fact, plastic-coated, paperboard cartons are fast becoming, if they are not already, the most widely used disposable containers for carrying liquid foods and beverages. However, the provision of a self-contained pouring spout for plastic-coated, paperboard cartons has given rise to several problems, the solutions of which have not been altogether satisfactory.

For example, many attempts have been made to provide a pouring lip on the self-contained spout (1) which would be incapable of accidental contamination after the closure structure is sealed and prior to first use of the spout, (2) which would be leakproof prior to the first use of the spout, (3) which would have a clean, unfuzzy lip after the pouring spout is formed, and (4) which could be returned to a closed position after its use so that the container is substantially closed and the pouring lip of the pouring spout is in a position where accidental contamination thereof can be minimized.

Containers having closure constructions, which have been designed to overcome at least some of the foregoing problems, are disclosed in my United States patent applications Serial No. 111,028, now Patent Number 3,118,586, entitled "Container Construction"; Serial No. 146,964, now Patent Number 3,162,349, entitled "Container Closure Construction"; and Serial No. 224,118, now abandoned, entitled "Carton Construction." In a continuing effort to improve upon the closure constructions and self-contained pouring spouts disclosed in the foregoing three patent applications, it was found that a very desirable result could be achieved, where a principally polyethylene coating is used, by providing a slit completely through the panel in which the pouring spout is formed and then covering said slit with a strip of adhesive tape which adheres firmly to the outer surface of the carton around the slit, but which can be removed manually and easily at the time that use of the pouring spout becomes desirable.

Accordingly, the objects of this invention have been to provide a plastic coated, paperboard carton including:

(1) A closure construction having an improved, self-contained pouring spout with a pouring lip which is formed substantially completely in a panel of the closure structure when the carton blank is fabricated and which is sealed with a strip of adhesive tape during such fabrication;

(2) A closure structure, as aforesaid, which is liquid tight when closed, following the filling of the associated container, which can be fabricated with a minimum of material beyond that required to enclose the volume of liquid contained therein, and which can withstand abusive treatment without becoming unsealed and without exposing the pouring spout to contamination;

(3) A closure structure, as aforesaid, in which the self-contained pouring spout has a pouring lip which is clean cut and unfuzzy, particularly on the inner side thereof, so as to avoid the collection of contaminating materials after it has been used, and which is arranged so

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that the pouring spout can be formed quickly and easily from a part of a panel in the closure structure with a minimum of effort by a person using the container;

(4) A closure structure, as aforesaid, which can be fabricated in the same operation that produces the remainder of the container by fully automatic machinery similar to that presently in use for such purposes, and which is pleasing in appearance and easy to handle; and

(5) A closure structure, as aforesaid, including an up-standing rib with an extension thereon having finger openings therethrough whereby the container can be easily grasped and safely transported both before and after the pouring spout has been opened for use.

Other objects and purposes of this invention will become apparent to persons familiar with this type of equipment upon reading the following descriptive material and examining the accompanying drawings, in which:

FIGURE 1 is a broken, perspective view of a coated, paperboard carton having a closure structure embodying the invention.

FIGURE 2 is a side elevation view of the upper end of a said carton showing the spout thereof in the open or pouring position.

FIGURE 3 is a top view of the closure structure with the pouring spout in the open position.

FIGURE 4 is a sectional view taken along the line IV-IV in FIGURE 1.

FIGURE 5 is a sectional view taken along the line V-V in FIGURE 1.

FIGURE 6 is a broken plan view of a carton blank from which a carton having said closure structure can be fashioned.

FIGURE 7 is a plan view of a fragment of a modified carton blank from which another carton embodying the invention can be fashioned.

FIGURE 8 is a top view of the modified closure structure in the closed position.

FIGURE 9 is a top view of the modified closure structure in a partially open position.

FIGURE 10 is a top view of the modified closure structure with the spout thereof in the pouring position.

FIGURE 11 is a side elevation view of the modified closure structure with the pouring spout thereof in the open position.

FIGURE 12 is a perspective view of the upper end of a carton having a closure structure embodying the invention and including an integral handle construction.

FIGURE 13 is a top view of the closure structure of FIGURE 12 in the partially open condition.

FIGURE 14 is a sectional view taken along the line XIV-XIV in FIGURE 12.

FIGURE 15 is a perspective view of the upper end of a carton having a pouring spout of the type disclosed on the carton of FIGURE 1 and having a handle construction of the type shown on the carton of FIGURE 12.

FIGURE 16 is a sectional view taken along the line XVI-XVI in FIGURE 15.

For convenience in description, the terms "upper," "lower" and words of similar import will have reference to the closure structure and parts of the carton associated therewith, as appearing in FIGURES 1, 11, 12 and 14. The terms "front," "rear" and words of similar import will have reference to the side of the carton from which the pouring spout opens and the opposite side of the carton, respectively. The terms "inner," "outer" and words of similar import will have reference to the geometric center of the closure structure, the carton and parts associated therewith.

General construction

The objects and purposes of the invention, including those set forth above, have been met by providing a con-

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tainer or carton which is preferably fabricated from a flat blank cut from a sheet of plastic-coated paperboard or the like. The plastic coating is preferably of the type, such as polyethylene, which is heat sealable. The carton has four side walls and a bottom wall arranged to define a rectangular chamber which is preferably square in cross section and is topped by a gabled closure structure. In one preferred embodiment, the closure structure is formed from four end panels which are connected to each other, and which are integral with and extend from the upper ends of the side walls a distance somewhat greater than half the perpendicular distance between a pair of opposing side walls.

One of the end panels has a slit which extends from a point adjacent one side edge thereof to a point adjacent the other side edge thereof near to, and substantially parallel with, the upper edge of the panel. The upper edge portions of the four panels are sealed together above the slit in the one upper panel to form an upstanding rib. The slit which may be in either the roof panel or a gable panel is covered with a strip of adhesive tape to seal it closed. The upstanding rib may extend a substantial distance above the ends panels and have finger openings therein to serve as a handle.

Detailed description

The container 20 (FIGURE 1), which illustrates one preferred embodiment of the invention, is fashioned from a blank 21, a portion of which is disclosed in FIGURE 6. The sheet material, from which the container blank 21 is cut, may be comprised of heavy paper stock or similar, suitable sheet material which is sufficiently stiff to be not only self-sustaining but also capable of withstanding reasonable amounts of rough handling without collapsing, particularly after a blank thereof is formed into the carton or container 20 of FIGURE 1. The sheet material is preferably coated with a composition including a heat-sealable plastic material, such as polyethylene, which may be compounded with other ingredients or additives for the purpose of improving the adhesive or other qualities of the composition. The plastic coating must be capable of achieving a strong adhesive bond with the paper stock and a strong cohesive bond with other surfaces of the carton blank having a similar coating when the blank is fashioned into a carton and the closure structure thereof is closed and sealed. It will be recognized that other types of plastic coatings and sealing methods may be used within the scope of the invention.

The blank 21 (FIGURE 6) is impressed, when it is cut, with a plurality of spaced and parallel score lines 22, 23, 24 and 25, and a pair of spaced fold lines 27 and 28, which intersect said score lines perpendicularly near the upper end of the blank 21. The score lines divide the container blank 21 into four side walls 31, 32, 33 and 34, preferably of equal width, and an edge tab 36, which is sealed to the free edge of the side wall 31 when the container 20 is formed from the blank 21. Said score lines and fold lines define therebetween the end panels 37, 38, 39 and 40 which are extensions of and are disposed directly above the side walls 31, 32, 33 and 34, respectively.

The fold line 27 defines the lower edge of the rib portions 43, 44, 45 and 46 which are integral with, and extend from, the upper edges of the end panels 37, 38, 39 and 40, respectively. The end panels 37 and 39 are the roof panels of the closure structure 48, and the end panels 38 and 40 form the gable panels of said closure structure 48. The rib portions 43, 44, 45 and 46 are, when the closure structure 48 is closed, sealed together to form an upstanding rib 49.

The carton 20 has a bottom wall 52 which is formed from the lower end panels 51 on the blank 21 in a manner similar to that disclosed in my above-mentioned patent application Serial No. 111,028, now Patent No. 3,118,586.

The gable panel 38 has a pair of fold lines 53 and 54 which converge from the intersections of the score lines 22 and 23 with the fold line 28 to the mid-point 56 in the

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upper edge of the gable panel 38. The gable panel 40 has fold lines 57 and 58 which converge upwardly from the intersection of the score lines 24 and 25 with the fold line 28 to the mid-point 59 in the upper edge of the gable panel 40. Accordingly, the mid-points 56 and 59 are disposed along the upper fold line 27.

The roof panel 39 has a pair of score lines 62 and 63 which converge upwardly from the intersections of the score lines 23 and 24 with the fold line 28 to a mid-point 64 in the rib portion 45 above the fold line 27. Accordingly, since the distance between the adjacent ones of the score lines 22, 23 and 24 is substantially identical, in this particular embodiment, the angle between the fold line 28 and the score line 62 or the score line 63 is greater than the angle between said score line 28 and any one of the fold lines 53, 54, 57 and 58. This arrangement has been found to facilitate the opening, the closing and the performance of the pouring spout 66 (FIGURES 2 and 3). However, satisfactory results can be achieved when other angular relationships of the score lines 62 and 63 with the fold line 28 are provided.

The roof panel 39 (FIGURE 6) has a slit 67 which is cut completely through the panel and which extends from a point near the score line 23 to a point near the score line 24, said slit being close to and substantially parallel with the fold line 27. The central portion 68 of the slit 67, which extends between the score lines 62 and 63, is preferably parallel with the fold line 27. The end portions 69 and 70 of said slit 67, at the opposite ends of the central portion 68, preferably slope downwardly slightly from said central portion.

A strip of adhesive tape 73 (FIGURES 1 and 6) is placed upon the roof panel 39 during the forming of the closure structure 48 so that it engages the surface of the roof panel 39 completely surrounding and adjacent the slit 67, whereby leaking through the slit 67 is prevented. An end 74 of the tape 73 is folded under and upon itself to provide a manually engageable tab which will not adhere to the closure structure 48 and, therefore, will be easily accessible for engagement when it becomes desirable to remove the strip 73.

Assembly

The container 20 (FIGURE 1) is assembled from the blank 21 (FIGURE 6) by folding the blank along the score lines 22, 23, 24 and 25 after which the edge tab 36 is secured along the entire length thereof to the free edge portion of the side wall 31 in the blank 21. After the bottom wall 52 (FIGURE 1) has been formed from the panels 51 in a substantially conventional manner, the end panels 37, 38, 39 and 40 are folded or prebroken along the fold lines 27, 53, 54, 57 and 58, respectively.

After the carton 20 has been formed and prebroken as set forth above, it is ready for immediate use. If the carton is filled at once, the rib portions 43, 44, 45 and 46 of the upper end panels are heated and brought together under pressure so that they are sealed tightly together in a liquid-tight arrangement. The adhesive strip 73 may be applied to the roof panel 39, so that it covers the slit 67, either during the forming of the blank 21 or at the time that the closure structure 48 is being formed from the blank 21. However, the adhesive strip 73 is preferably put in place upon the roof panel 39 before the container 20 is filled with liquid. This will prevent an accidental folding of the roof panel 39 along the score lines 62 and 63 or contamination of the spout 66 during the filling operation or the sealing of the closure structure 48.

When it becomes desirable to remove the contents from within the carton 20, the end 74 of the adhesive strip 73 is manually engaged and pulled upwardly away from the roof panel 39, whereby the adhesive strip is removed from the panel. Under some circumstances, the adhesive bond between the strip 73 and the surface of the roof panel 39 may be sufficient that the coating will be re-

moved from the panel with the adhesive strip 73. However, this will not adversely affect the operation of the pouring spout 66 since the roughened surface produced by the removal of the coating material will be on the outside of the spout. If the coating on the upper surface of the roof panel 39 is not materially disturbed by the removal of the strip 73, then said strip can be advantageously saved for covering the slit after the pouring operation has been performed.

After the strip 73 is removed from the roof panel 39, the side edges of the panel 39, defined by portions of the score lines 23 and 24, are manually engaged, as by means of the thumb and forefinger of the hand, and squeezed toward each other so that the central portion of the end panel 39 below the slit 67 is moved away from the portion of the end panel 39 above the slit 67. At the same time, the opposite ends of the rib portion 45 and the adjacent halves of the rib portions 44 and 46 move away from the other halves of the rib portions 44 and 46, which remain secured to the rib portion 43. This operation is facilitated by the fact that the seal holding the halves of the rib portion 44, for example, together is relatively weak by comparison with the seal securing said halves of rib portion 44 to the adjacent parts of the rib portions 43 and 45. When the pouring spout 66 is in its fully opened position, it will appear as disclosed in FIGURES 2 and 3. The central portion 68 of the slit 67 (FIGURE 6) defines the upper edge of the pouring lip on the pouring spout 66.

When the pouring operation has been completed, the front side of the pouring spout 66 is manually engaged and moved rearwardly toward the roof panel 37 until the rib portion 45 is again substantially parallel with and adjacent to the rib portion 43, whereby the roof panel 39 will be moved back into or substantially into its FIGURE 1 position.

The memory in the folded parts of the closure structure, and particularly in the sealed portions of the rib 49, will tend to hold the closure structure 48 in its closed position, even after the pouring spout 66 has been opened and closed. If the adhesive strip 73 is still usable, it can be placed over the slit 67 to seal it closed. If the strip 73 is not usable, it can be replaced by a piece of conventional Scotch tape for the purpose of again sealing the slit 67.

The carton 20 can now be returned to a storage place safely and without loss or contamination of its contents. The closure structure 48 and spout 66 can be reopened, when desired, by following and repeating the procedure discussed above.

During the moving of the pouring spout 66 into its open position (FIGURE 3), the roof panel 39 will normally be torn slightly at the opposite ends of the slit 67. However, this tearing will have no adverse effect upon the operation of the pouring spout 66 or the reclosing of the closure structure 48. By terminating the slit 67 short of the score lines 23 and 24, accidental opening of the slit 67, prior to placing the strip 73 upon the roof panel 39, is at least minimized. However, the strip 73 positively opposes any transverse movement of the parts of the panel 39 on opposite sides of the slit 67 after it is applied to the roof panel.

The carton 80 (FIGURES 8 to 11, inclusive) is fashioned from a blank 81 (FIGURE 7). The carton 80 has a modified closure structure 82 with end panels 83, 84, 85 and 86, which are defined by the score lines 88, 89, 90 and 91, and the fold lines 94 and 95. The gable panels 84 and 86 have converging fold lines 97, 98 and 99, 100 which converge upwardly to the midpoints 103 and 104, respectively.

In the closure structure 82 (FIGURE 9), the slit 106 is provided in the gable panel and an adhesive strip 107 is placed across the slit 106 in a manner similar to and for the same purposes as the adhesive strip 73. The roof panels 83 and 85 (FIGURE 7) have score lines 108

and 109, respectively, which extend upwardly from the intersections of the score lines 88 and 89 with the fold line 95 to points 112 and 113 along the fold line 94. The points 112 and 113 are preferably spaced respectively from the score lines 88 and 89 distances slightly greater than is the mid-point 103. Accordingly, and as shown in FIGURE 8, the score lines 108 and 109 are disposed inwardly of the fold lines 97 and 98 (FIGURE 8) when the closure structure 82 is in its closed and sealed position, prior to the opening of the pouring spout 116. With this arrangement the gable panel 84 (FIGURE 9) is separated from the adjacent portions of the roof panels 83 and 85 as the closure structure 82 is opened and the pouring spout 116 is moved into its FIGURE 10 position. When the closure structure 82 is in its FIGURE 9 position, the strip 107 can be removed easily from the gable panel 84 in substantially the same manner as discussed above with respect to the adhesive strip 73 on the carton 20 (FIGURE 1). After removal of the strip 107, the side edges of the gable panel 84 (FIGURE 9) are engaged along the score lines 88 and 89 between the thumb and forefinger and pressed tightly together so that the portion of the gable panel 84 below the slit 106 is forced frontwardly to form the pouring spout 116. The use of the pouring spout 116 will be the same as set forth above with respect to the pouring spout 66.

After the desired amount of liquid is removed from within the carton 80, the pouring spout 116 is urged rearwardly from its FIGURE 10 position to its FIGURE 9 position, after which the old adhesive strip 107 or a new adhesive strip may be placed over the slit 106. The adjacent portions of the end panels 83, 84 and 85 are now moved from their FIGURE 9 positions toward their FIGURE 8 positions whereby the closure structure 82 is moved into a position where leaking or contamination of the contents within the carton 80 is virtually eliminated under normal conditions of use.

The carton 120 (FIGURE 12) has a closure structure 121 which, in part, may be identical with the closure structure 82. However, the rib portions 122 and 123 on the roof panels 125 and 126 of the closure structure 121 are extended considerably beyond the upward projection of the corresponding rib portions of the closure structure 82, to form an integral handle 127. The handle 127 has a pair of finger openings 128 and 129 (FIGURE 12), which are formed by cutting arcuate slits in said rib portions 122 and 123. The flaps 133 and 134, which are produced by the slits creating the finger openings 128 and 129, respectively, are bent upwardly along hinge lines 136 and 137 into positions about as shown in FIGURE 14 with respect to the flap 134 to permit easy engagement of the handle 127 by the fingers 138 for the purpose of carrying the container 120.

The closure structure 121 (FIGURE 13) has a slit 141 in the gable panel 142, which slit is covered by an adhesive strip 143 in substantially the same manner as discussed above with respect to the adhesive strip 107 on the gable panel 84 (FIGURE 9). The only material difference between the operation of the closure structure 121 and the closure structure 82 results from the presence of the handle 127, and such difference occurs when the closure structure 121 is opened for the purpose of, and prior to, the opening of the pouring spout 144. That is, when the ends of the rib portions 122 and 123 adjacent said pouring spout 144 are pulled apart, the parts forming the flap 134 must be disengaged and the flap part on the rib portion 123 must be pulled through the finger opening 132 in the rib portion 122. However, in all other respects, the opening of the closure structure 121 and the forming and operation of the pouring spout 144 may be substantially the same as discussed above with respect to the closure member 82 and pouring spout 116.

The carton 150 (FIGURES 15 and 16) has a closure structure 151 which may be substantially similar to the closure structure 121, except that the slit 152 is located

in a roof panel 154 to form the upper edge of the pouring spout 153 which, therefore, is similar to the pouring spout 66 in the closure structure 48 (FIGURE 1). Finger openings 156 and 157 are provided in the handle member 158, which is formed by the upward, adjacent extensions of the rib portions 161 and 162.

The pouring spout 153 on the closure structure 151 is opened into a position which closely resembles the open position of the pouring spout 66 of the closure structure 48 (FIGURES 2 and 3). In a corresponding manner, the pouring spout 144 on the closure structure 121 will open into a position corresponding to the open position of the pouring spout 116 (FIGURE 10) of the closure structure 82.

Although particular preferred embodiments of the invention have been disclosed hereinabove for illustrative purposes, it will be recognized that variations or modifications of such disclosure, which come within the scope of the appended claims, are fully contemplated.

What is claimed is:

1. A closure structure for a container fabricated from coated paperboard and having four side walls arranged to define a rectangular compartment, the combination comprising:

a pair of roof panels integral with and extending upwardly substantially the same distance from a first pair of said side walls on opposite sides of said compartment;

a pair of gable panels integral with and extending upwardly from the other pair of side walls, said gable panels being integral with said roof panels along the adjacent edges thereof;

means defining a fold line extending across each of said roof and gable panels substantially parallel with the upper edges of said panels to define a rib portion on each panel;

means defining a pair of upwardly converging fold lines on each gable panel, folding of said gable panels inwardly and along said converging fold lines causing said roof panels to move toward each other so that said rib portions form an upstanding rib along the adjacent upper edges of said roof panels, and said roof panels slope downwardly from said rib;

means tightly securing in a leak-proof manner the rib portion on each roof panel to a part of the rib portion on each gable panel whereby the closure structure is sealed;

means defining a slit in one of said gable panels substantially parallel with, near to and below the fold line forming said rib portions, said slit intersecting the converging fold lines in said one gable panel near the upper ends of said converging fold lines, said slit having a central portion between said converging fold lines and a pair of end portions sloping downwardly slightly away from said central portion; and

a strip of material having a surface attached to the outer surface of said one panel so that said strip completely covers said slit, said strip being removable from said one panel.

2. A closure structure for a container fabricated from a thermoplastic coated paperboard and having side walls arranged to define a compartment, the combination comprising:

a pair of roof panels integral with and extending upwardly substantially the same distance from said side walls on opposite sides of said compartment;

a pair of gable panels integral with and extending upwardly from said side walls, each of said gable panels being between and connected to said roof panels along the adjacent side edges thereof, the junctions between said panels and said side walls being defined by score lines lying substantially within a plane substantially perpendicular to said side walls;

means defining a fold line extending across each of said roof and gable panels substantially parallel with

the upper edges of said panels to define a rib portion on each panel;

means defining a pair of upwardly converging fold lines on each gable panel converging upwardly from the opposite ends of the score line thereon, folding of said gable panels inwardly along said score lines and along said converging fold lines causing said roof panels to move toward each other so that said rib portions form an upstanding rib along the adjacent upper edges of said roof panels, and said roof panels slope downwardly from said rib;

means including a thermoplastic coating on the rib portions for tightly securing in a leakproof manner the rib portion on each roof panel to a part of the rib portion on each gable panel whereby the closure structure is sealed;

means defining a slit through one of said panels substantially parallel with, near to and below the fold line forming said rib portion thereof, said slit being confined between the side edges of said one panel to form a pouring lip therein when the said part of said one panel below said slit is moved outwardly; and a strip of material separably attached to the outer surface of said one panel so that said strip completely covers said slit and is secured to said one panel completely around the slit.

3. A structure according to claim 2 wherein said strip has an adhesive on the side thereof attached to said outer surface;

wherein said slit is in one roof panel;

wherein said one roof panel has a pair of upwardly converging fold lines, said slit intersecting said converging fold lines near their upper ends.

4. A structure according to claim 2 wherein the rib portions on said roof panels extend substantially above the rib portions on said gable panels; and

wherein said extended rib portions on said roof panels each have a pair of spaced finger openings there-through, the openings in one extended rib portion being coaxial with the finger openings in the other extended rib portion.

5. A structure according to claim 2 wherein said strip has an adhesive on the side thereof attached to said outer surface;

wherein said slit is in one roof panel; and

wherein said one roof panel has a pair of upwardly converging fold lines, said slit intersecting said converging fold lines near their upper ends.

6. A closure structure for a container fabricated from coated paperboard and having four side walls arranged to define a rectangular compartment, the combination comprising:

a pair of roof panels integral with and extending upwardly substantially the same distance from a first pair of said side walls on opposite sides of said compartment;

a pair of gable panels integral with and extending upwardly from the other pair of side walls, said gable panels being integral with said roof panels along the adjacent edges thereof;

means defining a fold line extending across each of said roof and gable panels substantially parallel with the upper edges of said panels to define a rib portion on each panel;

means defining a pair of upwardly converging fold lines on each gable panel, folding of said gable panels inwardly and along said converging fold lines causing said roof panels to move toward each other so that said rib portions form an upstanding rib along the adjacent upper edges of said roof panels, and said roof panels slope downwardly from said rib;

means tightly securing in a leakproof manner the rib portion on each roof panel to a part of the rib portion on each gable panel whereby the closure structure is sealed;

means defining a slit in one of said gable panels substantially parallel with, near to and below the fold line forming said rib portions, each roof panel having a fold line therein parallel with and directly overlying a fold line in said one end panel when the closure structure is closed; and

a strip of material having a surface attached to the outer surface of said one panel so that said strip completely covers said slit, said strip being removable from said one panel.

7. A closure structure for a container fabricated from a thermoplastic coated paperboard and having four side walls arranged to define a rectangular compartment, the combination comprising:

a pair of roof panels integral with and extending upwardly substantially the same distance from a first pair of said side walls on opposite sides of said compartment;

a pair of gable panels integral with and extending upwardly from the other pair of side walls a distance slightly less than the upward extent of the roof panels, said gable panels being integral with said roof panels along the adjacent edges thereof, the junctions between said panels and said side walls being defined by score lines lying substantially within a plane perpendicular to said side walls;

means defining a fold line extending across each of said roof and gable panels near to and substantially parallel with the upper edges of said panels to define a rib portion on each panel;

means defining a pair of upwardly converging fold lines on each gable panel converging upwardly from the opposite ends of the score line thereon, folding of said gable panels inwardly along said score lines and along said converging fold lines causing said roof panels to move toward each other so that said rib portions form an upstanding rib along the adjacent upper edges of said roof panels, and said roof panels slope downwardly from said rib;

means including a thermoplastic coating on the rib portions tightly securing in a leak-proof manner the rib portion on each roof panel to a part of the rib portion on each gable panel whereby the closure structure is sealed;

means defining a slit through one of said gable panels substantially parallel with, near to and below the fold line forming said rib portion thereof, said slit intersecting the converging fold lines on said one gable panel to form a pouring lip therein when the part of said one gable panel below said slit is moved outwardly; and

a strip of material separably attached to the outer surface of said one panel so that said strip completely covers said slit and is secured to said one panel completely around the slit.

8. A closure structure for a container fabricated from

coated paperboard and having four side walls arranged to define a rectangular compartment, the combination comprising:

a pair of roof panels integral with and extending upwardly substantially the same distance from a first pair of said side walls on opposite sides of said compartment;

a pair of gable panels integral with and extending upwardly from the other pair of side walls a distance less than the upward extent of the roof panels, said gable panels being integral with said roof panels along the adjacent edges thereof;

means defining a fold line extending across each of said roof and gable panels substantially parallel with the upper edges of said panels to define a rib portion on each panel;

means defining a pair of upwardly converging fold lines on each gable panel, folding of said gable panels inwardly and along said converging fold lines causing said roof panels to move toward each other so that said rib portions form an upstanding rib along the adjacent upper edges of said roof panels, and said roof panels slope downwardly from said rib;

means tightly securing in a leakproof manner the rib portion on each roof panel to a part of the rib portion on each gable panel whereby the closure structure is sealed;

means defining a slit in one of said gable panels substantially parallel with, near to and below the fold line forming said rib portions, each roof panel having a fold line therein disposed substantially parallel with and near to one of the fold lines in said one end panel when said closure structure is closed, said fold lines in said roof panels being disposed inwardly of the fold lines in said one end panel; and

a strip of material having a surface attached to the outer surface of said one panel so that said strip completely covers said slit, said strip being removable from said one panel.

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