

Sept. 12, 1939.

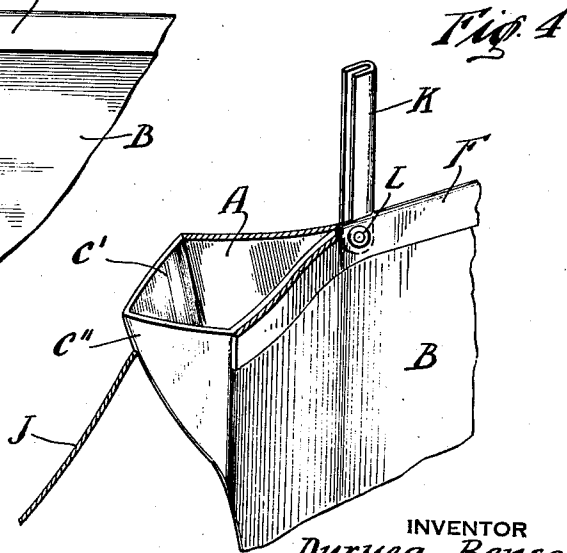
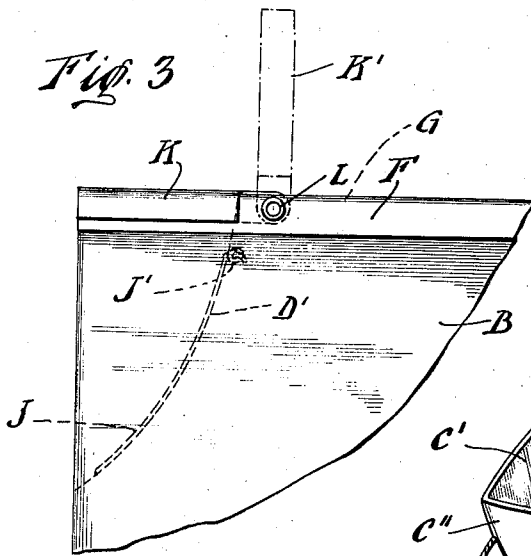
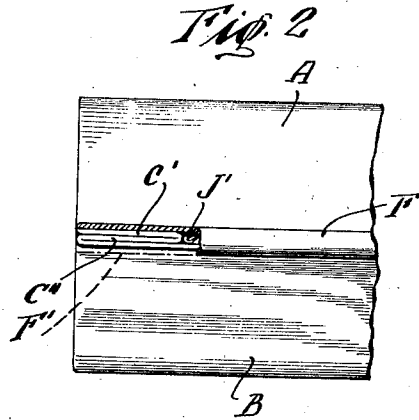
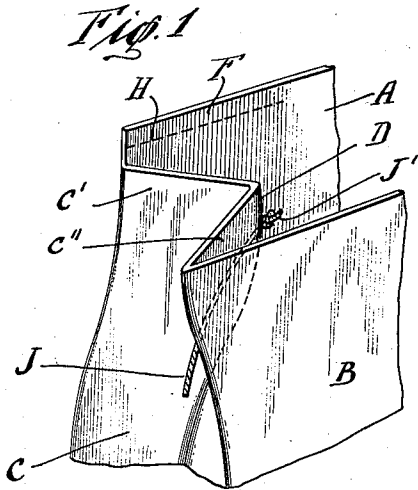
D. BENSEL

2,172,930

DISPENSING CONTAINER

Filed Dec. 22, 1934

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

Fig. 5.

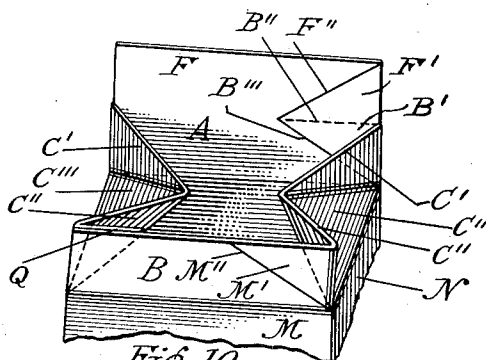
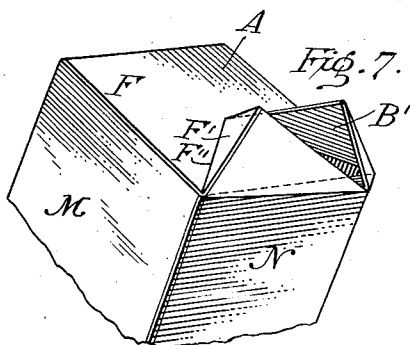
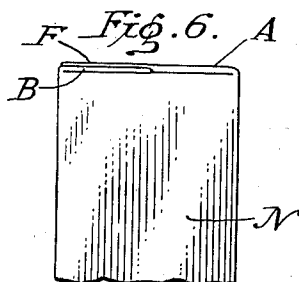
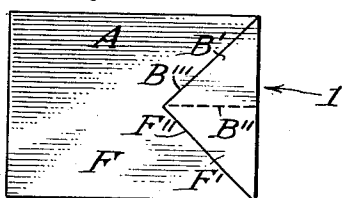


Fig. 10.

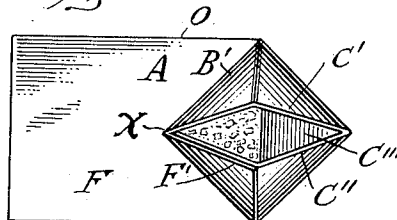


Fig. 11.

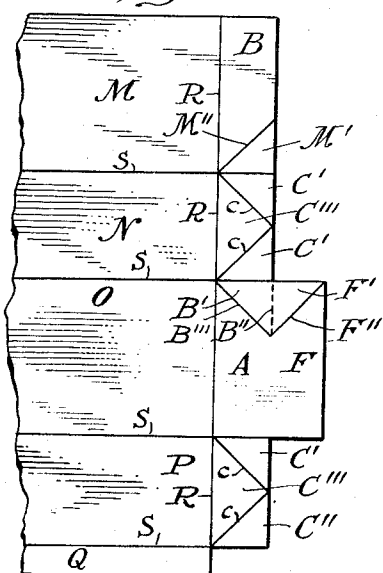


Fig. 8.

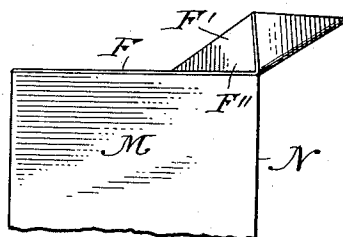


Fig. 9.

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2,172,930

## DISPENSING CONTAINER

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N. Y.

Application December 22, 1934, Serial No. 758,820

17 Claims. (Cl. 229—17)

This invention relates to packaging containers; and has been made with the idea of providing an improved simple pouring container of closable nature, such container particularly valuable for packaging cereal flakes, powders for various purposes, flour, meal, coffee, tea, sugar, salt, soap flakes and other products which are fluent because ground, granulated, pulverized or otherwise naturally or artificially broken up or free flowing in non-liquid condition, although, of course, the use of the invention is not to be thus limited.

The invention aims to provide a novel and improved packaging container, of low weight and cost, which can be easily and permanently sealed where packed yet by a seal of such nature that the same can be easily broken by the consumer; which includes a packaging wall component released for the first time to act as an element instantaneously adjustable to form a pouring spout on thus breaking the seal; and which includes means for conveniently yet securely temporarily resealing the package at the break in the seal following readjustment of said well component to its original condition.

In an approved form of container according to the invention, the same at an upper corner thereof is formed to include three wall portions, two of which are opposite side wall portions mutually upwardly converged toward a ridge or crest line on the container where the same is to be sealed after filling, and the third of which is an end wall portion having an inwardly directed fluting trapped within and at said crest line and between said side wall portions when the package is sealed; the sealing means preferably being a severable strip, and preferably present as a flap of cardboard or other suitable material integral with one of said side wall portions, folded down along said crest line over the other side wall portion and suitably permanently secured thereto. By this arrangement, immediately upon breaking such seal, as by tearing or cutting the strip or flap along the crest line of the container above said fluting, the latter can be drawn out and reversed to extend beyond the container to form a perfect pouring spout. Inasmuch as said fluting in its original condition presents an outwardly opening pocket the top of which is co-extensive with the length of the crest line to be broken to open the package, very conveniently a knife can be inserted into said pocket at the top of the latter and then thrust upwardly through the crest line to break the same exactly as required; which is why, for one reason, such an

easily severable material as paper or cardboard is preferred for the making of the container where the sealing strip is a flap integral with a wall thereof.

In combination with the features aforesaid, the container also includes a closing means for the severed part of the seal which is in the nature of a spring-metal fitment or equivalent, preferably in the form of a U-shaped clip pivotally secured to the top of the container near the crest line thereof and adjacent to the inner end of the fluting when extended inwardly of the container. Then this clip when swung up above its pivotal mounting can be cleared away from the part of the crest line to be severed, with such mounting acting to prevent an unnecessarily extensive severing. Following a reversal of the fluting to form the pouring spout aforesaid, and a dispensing of a part of the contents of the container, and then a restoration of such fluting to its normal condition, the clip is ready to be swung down to straddle the marginal portions of the container on both sides of the severed length of the crest line and resiliently grip these marginal portions for again closing the container securely but with the latter now in condition to be readily reopened without further mutilation of any part for reestablishment and another use of the pouring spout.

The invention will be more clearly understood, and the various objects and advantages thereof fully appreciated, from the following description of a now preferred embodiment of the invention illustratively shown in the accompanying drawings, in which

Fig. 1 is a fragmentary perspective view showing a corner of a container being folded together to form the fluting aforesaid in an end wall portion, with one of the side wall portions carrying a sealing strip as an integral flap in readiness to be folded over a crest line on the container running away from such corner to seal the package;

Fig. 2 is a fragmentary top plan view of the container after the folding procedure shown in Fig. 1 has been completed to establish said crest line, and after the flap has been bent over the same and secured in place to seal the package—such flap, however, being illustrated as partially broken away to show clearly the inwardly directed fluting of the end wall now trapped within such seal;

Fig. 3 is a fragmentary side elevation, showing the container sealed by said flap, and showing the clip aforesaid in full lines in normal posi-

tion and in broken lines swung up to clear away from the part of the seal to be severed by a consumer to adapt said fluting to be transformed temporarily into a pouring spout;

5 Fig. 4 is a view similar to Fig. 1, showing the seal severed, and the pouring spout established;

Fig. 5 is a top view of a modified form of container with the top closed;

10 Fig. 6 is a fragmentary side elevation of Fig. 5 looking in the direction of the arrow I;

Fig. 7 is a fragmentary perspective view showing the pouring spout established;

Fig. 8 is a plan view of Fig. 7;

Fig. 9 is a fragmentary side view of Fig. 8;

15 Fig. 10 is a fragmented perspective view of the container, in the act of closing down the sealing flaps; and

20 Fig. 11 is a layout of the blank of Fig. 5, in fragmentary form, illustrating the scores of the reseal end of the container.

Similar reference characters refer to similar parts throughout the several views of the drawings.

25 Referring to Figs. 1 to 4 in detail, the container end or corner illustrated includes a pair of opposite side walls the upper portions A and B of which will for convenience hereinafter be called the side walls, and a connecting end wall the upper portion C of which will for convenience hereinafter be called the end wall.

30 Said end wall C has a central vertical fold D extending from its top edge downwardly for a short distance, so that when the side walls A and B are further mutually upwardly converged than as shown in Fig. 1, and to an extent to bring their upper margins close together along the top of the container, as shown in Fig. 2, the portions C' and C'' of the end wall on opposite sides of said fold and somewhat below the same will form the inwardly directed fluting aforesaid, and such a fluting now completely collapsed at its top, as also shown in Fig. 2, with the general contour of such fluting side-elevationally of the container substantially as indicated by the broken line D' of Fig. 3.

45 Assuming that the container is now filled, a flap F shown as constituting an integral extension at the top of side wall A is folded over the crest line G now established by the parts being brought together as last described, and extended 50 down over the upper marginal portion of said wall B, and there secured permanently in place, as by a strong glue. The parts are now assembled as shown in Fig. 2, but with the seal formed by the flap F extended not only the required distance 55 along the top of the container to the right of the showing of Fig. 2 to completely seal the container, but also to the left in Fig. 2 all the way over the inwardly directed fluting C'—C'', as indicated by the dot and dash line F' of Fig. 2. This results in tucking the top of the fluting tightly 60 within the top seam thereby established along said crest line and effectually and tightly sealing the container all along said seam, especially if, as in some cases may be desirable, said fluting at 65 its top is given an application of hot wax or other suitable material. As will be understood, the thus tucked-in fluting will present an inwardly directed outwardly opening pocket; such pocket being deepest lengthwisely of the container just 70 below the crest line G.

75 Flap F as shown carries a printing or other indicium at H, so located as to lie and be exposed along the crest line G when the flap is secured in place to make the aforesaid top seam, and of

such a length as to extend over this upper corner of the container to a point adjacent to the inner end of the top of the pocket last-mentioned; to constitute a guide to the consumer in breaking the temporary severable seal portion, as 5 for instance by inserting a kitchen knife into said pocket to the depth permitted by the top thereof and then making an upcut with said knife along the crest line G.

10 When the crest line is thus or otherwise broken over the length of indicium H, the fluting is freed for pull-out reversal to arrange the end wall portions C' and C'' as shown in Fig. 4 and thereby form a pouring spout as illustrated. To facilitate such pull-out, this fluting is shown as provided 15 with a device here comprising a thin cord or string J knotted at J' and projecting through the end wall C near the fold D.

20 A permanent movable auxiliary seal or closure for acting in a secure and tight manner relative to the severed part of the top seal of the container along crest line G, after a restoration of the fluting to its normal condition following a dispensing of the contents of the container by the aid of such fluting when arranged as a pouring 25 spout as aforesaid, is shown as being in the form of a U-shaped spring metal clip K pivotally mounted on the top of the container by having one end thereof secured by a metallic rivet L to the top seam along the crest line G at a point such 30 that when the clip is swung up to the broken line position K' in Fig. 3 the said seam can be severed along the length of indicium H as above described with such rivet acting as a limiting means to prevent too extended a severing of said seam. There may be a considerable number of dispensings of the contents of the container before the latter is emptied, and in preparation for each of these the clip is swung up as just stated, and the fluting is reversed to form the pouring spout as shown in Fig. 5. Upon the completion of each of these dispensings, said fluting is again reversed to be returned to its normal condition as shown in Fig. 2; and then, with the upper marginal portions of the container below the indicium H held together, the clip K is swung down as shown in Fig. 3, to straddle such marginal portions and securely and tightly temporarily close the container.

35 The modified form of container shown in Figs. 5 to 10 inclusive, is, in many respects similar to that shown in Figs. 1 to 4, with the exception that in Figs. 5 to 10, the carton shown has no crest, and is so developed as to create a carton of complete rectangular contour, with a flat top, 40 but is made and shipped in flat condition.

The establishment of the pouring spout is accomplished in the same manner, by fluting, as in Figs. 1 to 4.

45 In Fig. 11, there is shown a layout of a carton blank embodying the details of the flat top carton, and the blank comprises the main body-forming panels M, N, O and P, the latter panel being provided with a glue flap Q which is to be connected to the side edge of panel M to form 50 a rectangular carton. The panels, M, N, O and P and glue lap are scored from each other by score lines S.

55 One or both end edges of the blank are provided with end closing flaps B, C''', F' and C'''. Minor flap B is provided with a triangular portion M', scored from B by a diagonal score line M'' and traversed by score line S being thus scored from 60 its adjacent minor flap C'''. 65

All of the end closing flaps herein are scored from the body panels by a common score line R.

Minor flap C''' is provided with two adjacent triangular sub-portions C' and C' these latter being scored from flap C''' by divergent diagonal score lines c—c.

Major cover flap A—F is provided with a triangular flap F'—B' at one of its sides adjacent minor flap C''', above, said flap F'—B' being scored from A—F by two divergent triangular score lines F'' and B''. The triangular flap F' is traversed centrally by a weakening perforated line B'', and the triangular sub-flap B' is scored from its adjacent sub-flap C' by the extension of body score line S.

The opposite side of major cover flap A—F is scored by an extension of body score line S from a minor triangular sub-flap C', which in turn is diagonally scored from minor flap C''' by a score line c. Minor flap C''' is also provided with a triangular sub-flap C'' scored therefrom by diagonal score line c. This latter flap C''' with its sub-flaps is identical with the other flap C''' in its structure, and when the carton is erected to its rectangular assembly, coacts, oppositely to the other minor flap C''', to close the carton end, as will now be described in detail.

After the gluing of the glue lap Q to the end edge of panel M, the carton body is opened and the scored carton end closing members are broken on their score lines, as in Fig. 10, and the two triangular flaps C''' are pushed inwardly towards each other, dragging with them the associate sub-flaps C', C'', these, in turn, drawing the minor end flap B and the major closing flap A—F downwardly, as partially indicated in Fig. 10. Upon complete closure, cover flap A—F, as in Figs. 5 and 6, with a touch of glue on the F section thereof, covers all of the inturned flaps, and it then appears as in Fig. 5, wherein is shown the scored diagonal flaps F' and B' with the perforated weakened line B'', exposed for manipulation for opening and reclosing.

As in the perspective view, Fig. 7, the weakened line B'' is broken and by bending the triangular flaps F' and B' upwardly on their score lines F'' and B'', the fluting formed by the flaps C'''—C'—C'' is exposed. As in Fig. 2, the inner triangular end formed in the flute by the converging ends of the flaps C'''—C'—C'' is then pulled outwardly leaving the spout thus formed in open outwardly extending position, shown also in Figs. 8 and 9. Thus the contents X of the package, Fig. 8 are exposed for pouring.

To reclose the spout the outer end thereof is pushed backwardly into the original fluted position, and the cover flaps F' and B' snap back to approximately their original positions and the contents of the carton are thereby protected from debris.

When the carton blank of Fig. 11 is folded on one of its score lines S, between body panels N and O, the glue lap Q is bent on its scored line S and glued to the side edge of panel M, the carton is then in flat condition and is so shipped to the user who erects the carton, fills and seals it.

It will be noted that the pouring spout herein is created by the novel scoring and coordination of the same style and number of closing flaps customarily used on cartons of this type, and is thus constructed without the use of additional parts. It will further be noted that all of the end closing flaps are continuous with one another and are integral with one another.

It will further be noted that in the modified form of Figs. 5 to 10, the major flap F—A, when glued, forms the permanent seal, and the weakened line triangular flaps F'—B' form the temporary seal.

Having thus described the invention what is claimed is:

1. A packaging and dispensing container having a corner portion formed by opposite walls united to form a seal a portion of which comprises a temporary seal, and an end or third wall forming a fluting extending inwardly beneath said temporary seal and uniting said opposite walls, and means supported by said container for folding said fluting outwardly when said temporary seal is broken to form a pouring spout substantially as described.

2. A packaging and dispensing container having a portion thereof formed by opposite walls united to form a main seal, said seal having a temporary severable portion and a permanent portion in combination with a movable closure or auxiliary seal coextensive with said temporary seal portion, said closure having a permanent connection with said main seal, said connection defining the terminals of said permanent and temporary seal portions whereby said main seal is reinforced and said temporary seal portion is closable by said closure or auxiliary seal, substantially as described.

3. A packaging and dispensing container having opposite walls united to form a main seal for said container, said seal including a temporary seal portion and a permanent seal portion, and a movable closure or auxiliary seal for said temporary seal portion permanently secured by a pivoted connection to said main seal, said connection defining the union of said temporary and permanent seal portions, whereby said main seal is reinforced and a closure or auxiliary seal is provided for said temporary seal portion.

4. A packaging and dispensing container as specified in claim 3, wherein the movable closure or auxiliary seal is substantially U-shaped in cross-section whereby the legs of the U are adapted to receive and embrace the temporary seal portion.

5. A packaging and dispensing container as defined in claim 3, in which the pivotal connection extends through said walls and forms a stop or means confining the breaking of the seal to the temporary seal portion.

6. The packaging and dispensing container described in claim 1, in which the two first-mentioned walls are united also beyond the temporary seal to form a permanent seal in line with the temporary seal beyond the fluting when inwardly folded, and a movable closure or auxiliary seal movably mounted on the package for movement relative to the two first-mentioned seals to reinforce the permanent seal and to reclose the temporary seal after the same is severed; substantially as described.

7. A pouring container comprising opposite side walls; an intermediate wall connecting the side walls and inwardly turned between said opposite walls to form a recess extending to the exterior of the container; a closure flap of severable material extending from end to end of, and attached to one of said opposite walls and passed over the free edges of the intermediate wall and secured to the other opposite side wall and adapted to be easily severed at the portion over the recess, whereupon the inwardly turned intermediate wall may be pulled outwardly to form

a pouring spout; and stop means secured over said flap and adapted to limit said severing.

8. A pouring container comprising opposite side walls; an intermediate wall connecting the side walls and inwardly turned between said opposite walls to form a recess extending to the exterior of the container; a closure flap of severable material extending from end to end of, and attached to one of said opposite walls and passed over the free edges of the intermediate wall and secured to the other opposite side wall and adapted to be easily severed at the portion over the recess, whereupon the inwardly turned intermediate wall may be pulled outwardly to form a pouring spout; and a spring clip of U-shaped cross-section clamped over said flap at said portion.

9. A pouring container comprising opposite side walls; an intermediate wall connecting the side walls and inwardly turned between said opposite walls to form a recess extending to the exterior of the container; a closure flap of severable material extending from end to end of, and attached to one of said opposite walls and passed over the free edges of the intermediate wall and secured to the other opposite side wall and adapted to be easily severed at the portion over the recess, whereupon the inwardly turned intermediate wall may be pulled outwardly to form a pouring spout; and a spring clip of U-shaped cross-section clamped over said flap at said portion and pivotally connected at its inner end to the container and in part removable from said portion and forming stop means secured over said flap and adapted to limit said severing.

10. A carton comprising a blank of bendable sheet material including opposed side walls having a closure extending along the tops thereof, pivot means fixed in the closure, said closure having a permanent part on one side of the pivot means, an openable part on the opposite side of said means, and a clip of U-shaped cross-section pivotally mounted on said means and having its legs embracing opposite sides of said openable part.

11. A paperboard container comprising two end body walls each having plural inwardly folded top portions cooperating to provide a closure, two portions of each wall having adjoining edges, the adjoined edges being linear across the container in the closed position and the edges of each pair of the portions being continuous one with the other at their inner ends; two coating body side walls each having a top portion cooperating with the plural portions to form the closure; one of the side wall portions having its edge disposed substantially linear with and adjoining the first adjoining edges; and an extension continuous with the top portion of the other side wall and being attached to the outer surface of the first-mentioned top side wall portion; said extension providing, at its base, single-ply parts above said pairs of adjoined edges; whereby the single ply paperboard above one of said pairs of edges may be severed, so that the adjacent parts of said side wall portions, together with the outermost portions of said plural end wall portions, may then be expanded, whereby to expose the continuous end edges thereat, so that the latter may then be grasped and drawn outwardly to also draw said plural portions outwardly for forming a pouring spout.

12. A carton comprising an end closure having a rectangular under panel including a main triangular portion and two triangular flaps which

are folded on said portion, said flaps having two of their edges adjoining; an outer panel having a rectangular end part covering said flaps, said end part including two triangular flaps which register in flat covering relation with the first flaps; said second triangular flaps having therebetween a breakable line which registers with said adjoining edges and the respective registered flaps being also registered with and above said main triangular portion, so that when said line is broken the registered pairs of flaps may be turned upwardly into substantial vertical positions, whereby said main portion may then be drawn outwardly in order to also draw the second-mentioned pair of triangular flaps from the other pair of triangular flaps, so as to form a pouring spout.

13. A carton comprising four body folds having thereon end closure panels which form a continuous extension thereof, said panels including an under member; a second under member including a main triangular portion and two triangular sub-panels which are folded on said portion, said subpanels having two of their edges adjoining along the center of the main portion; a side panel, an outer covering side panel having one of its margins adhesively attached to the other side panel; said covering panel having an end part including two triangular sub-panels which register with and above the first sub-panels, said second sub-panels having therebetween a breakable line which registers with said adjoining edges, so that when said line is broken the registered pairs of sub-panels may be turned upwardly, whereby said main portion may then be drawn outwardly so as to draw said registered pairs of sub-panels apart in order that a spout opening may be formed.

14. A carton constructed from a blank of paperboard comprising an end closure having a rectangular under panel including a main triangular portion and two triangular sub-panels, said sub-panels having two of their edges adjoining along the center of said portion; a side panel, an outer covering side panel having one of its margins adhesively attached to the first side panel; said covering panel having an end part including two triangular sub-panels which register with the first two sub-panels, said second two sub-panels having therebetween a breakable line which registers with said adjoining edges, so that when said line is broken the registered pairs of sub-panels may be lifted upwardly and turned backwardly, whereby said main portion with its sub-panels may tend to spring forwardly to form an open pouring spout, the last-mentioned sub-panels having their outer edge portions substantially continuous with the adjoining edge portions of the sub-panels of said outer covering panel.

15. A closure and dispensing spout for a paperboard carton having four coating body-forming panels, comprising four united flaps which extend from said panels, said flaps including an inner side member and an outer covering side member permanently sealed to the first member, said outer member having therein at one of its ends an easily severable line and there being a hinged sub-flap on each of the opposite sides of said line, and an end member disposed in folded relation below the sub-flaps, so that when the paperboard is severed on said line the sub-flaps may be swung into substantially open position, whereby the folded end flap may then be drawn outwardly to form an open spout.

16. A carton constructed of a blank of paper-board comprising four body-forming panels and four united closure flaps which extend from said panels; said flaps including a pair of side members and sealing means therefor, said means including an extension on one of said members, said extension being engaged in overlapping relation on the other member; a second pair of members folded in fluted relation under the first members, one of said fluted members in association with parts of the first members being adapted to form a pouring spout; two side portions of the last-mentioned fluted member being triangular and having adjoining edges in the folded position, said sealing means being provided with a weakened openable line above said edges; said side portions having thereunder a connecting triangular portion, the apex of said latter portion being innermost, whereby when said means are opened on said line the side portions and said

associated parts may be drawn outwardly, so that said apex may then be reached for also drawing out said connecting portion whereby to form the spout.

17. A packaging and dispensing carton comprising front and back, and end body walls having four flaps extending therefrom and forming a closure, said flaps including an under side member, an opposite outer side member having a marginal side portion permanently attached to the first member, and an end member folded in fluted relation below the first members, the side portions of the end member being continuous with the end portions of the side members, said outer side member having above the folded member a temporarily sealed, severable portion, said folded end member being adapted, when said severable portion is severed, to be drawn outwardly to form a dispensing spout.

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