

**2007**

**PATENT ATTORNEYS**

**EXAMINATION**

**PAPER E**

The New Zealand Law and Practice  
relating to Interpretation and Criticism of Patent Specifications

Regulation 158 (1) (e)

Duration: 4 hours (plus 10 minutes for reading)

## Scenario

Your client is Top Scoop Corporation Inc. (refer to as "TSC"), based in USA. TSC is a manufacturer and supplier of cardboard food scoops for serving  
5 french fries and the like.

Document A ("A") describes a scoop that TSC have been manufacturing for at least 10 years. They have been selling this scoop widely around the world, and sell in New Zealand to Big Fat and Greasy (refer to as "BFG") a local fast  
10 food chain. TSC first sold the scoop to BFG in 1998. BFG presently buy 16 million scoops per year, for 7.5 cents each (\$1.2million per year).

Document B ("B") describes a scoop that TSC have just started manufacturing and supplying in USA. This new scoop has a built in pocket for  
15 holding condiment, such as ketchup, sauce or mustard. TSC have been thinking about offering this new scoop outside USA.

Coincidentally BFG contacted TSC in April 2007 to ask about scoops with built-in condiment holders. BFG say they have been approached  
20 by an Australian company, Cardboard Retail Products Pty Ltd (refer to as "CRP"). In March 2006 CRP offered to sell BFG a scoop with a built-in condiment pocket formed by a plastic slip glued to the inner face of the front wall of the container.

25 BFG weren't initially interested, but a recent audit has suggested that sauce sachets are costing BFG eleven times more than if they purchase sauce in bulk. After all of the additional costs (dispensers, cleaning, stocking and disposable pottles) the bulk sauce delivery should still cost less than half the cost of sauce sachets. BFG can eliminate the disposable pottles by  
30 supplying all of their chip scoops with a built in condiment pocket. If they can buy these scoops for 10cents each (\$1.6 million per year) they expect to still

save over \$500,000 per year overall.

The CRP product now has BFG very interested.

- 5 BFG have forwarded a sample of the CRP scoop to TSC and asked what similar product, if any, TSC can supply them. TSC designers have noted that the container is marked "Patents pending".

10 TSC have contacted you for advice. You have completed a nominal index search of New Zealand patents and located nothing. You have expanded to a subject classification search of New Zealand patents and have located Document C ("C").

15 C describes a scoop with a condiment compartment formed by a sheet of flexible material glued to the inner face of the front wall.

You report to TSC, who confirm that the CRP product is exactly as described with reference to Figure 1 of C.

20 As background they have supplied Document D ("D") and Document E ("E"). You have obtained a Document F ("F") that is cited in the background discussion of C.

25 You have also obtained the priority document for C, Document C2 ("C2"), and the IPONZ database entry for document C, Document C3 ("C3").

**TSC ask for your opinion whether they are free to sell their pocket container (described in B) to BFG, and what action if any you recommend.**

30

**Your answer should be in the form of a comprehensive report including**

**your opinion and recommendation. You should cover all relevant matters including, but not limited to, infringement (40 marks) and validity (40 marks) and other issues such as amendment and how the client might best proceed (20 marks).**

5

**Your answer should demonstrate that you can correctly apply the relevant New Zealand law to this fact situation. Marks will not be awarded for unexplained conclusions, unsupported opinion, long restatements of the law or for detailed explanations of High Court or IPONZ procedure.**

10

**If you choose to write on the extra claims copy provided please ensure you attach it to your answer script.**

15 **You can use the following abbreviations:**

**TSC: Top Scoop Corporation**

**BFG: Big Fat and Greasy**

**CRP: Cardboard Retail Products Pty Ltd**

20 **A: Old TSC container**

**B: New TSC container**

**C: NZ600321**

**C2: Priority document for C**

**C3: Register extract for C**

25 **D: US patent 6471119**

**E: US patent US 4502623**

**F: US patent 5720429**

Document A:

Description and drawings of present TSC product sold into NZ.

5

**A**

In the drawings, like numerals refer to similar parts throughout the several views.

FIG. 1 is a perspective view of the scoop in set-up position ready for the scooping and insertion of a product.

FIG. 2 is a front elevation of the carton of FIG. 1;

FIG. 3 is a top plan view of the carton of FIG. 1;

FIG. 4 is a sectional view of the subject carton taken along line 4-4 in FIG. 3.

3.

10

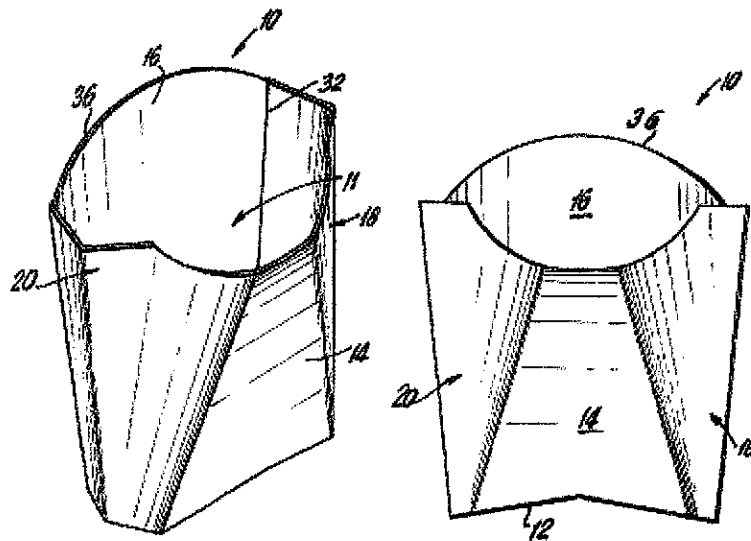


FIG.1

FIG.2

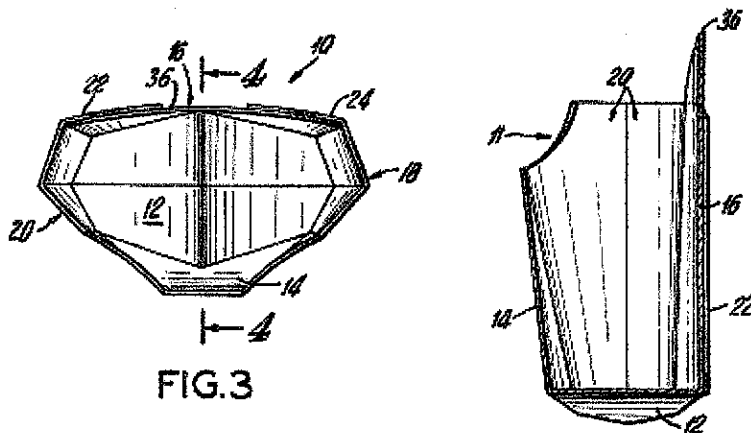


FIG.3

FIG.4

FIG. 5 illustrates the blank of the carton.

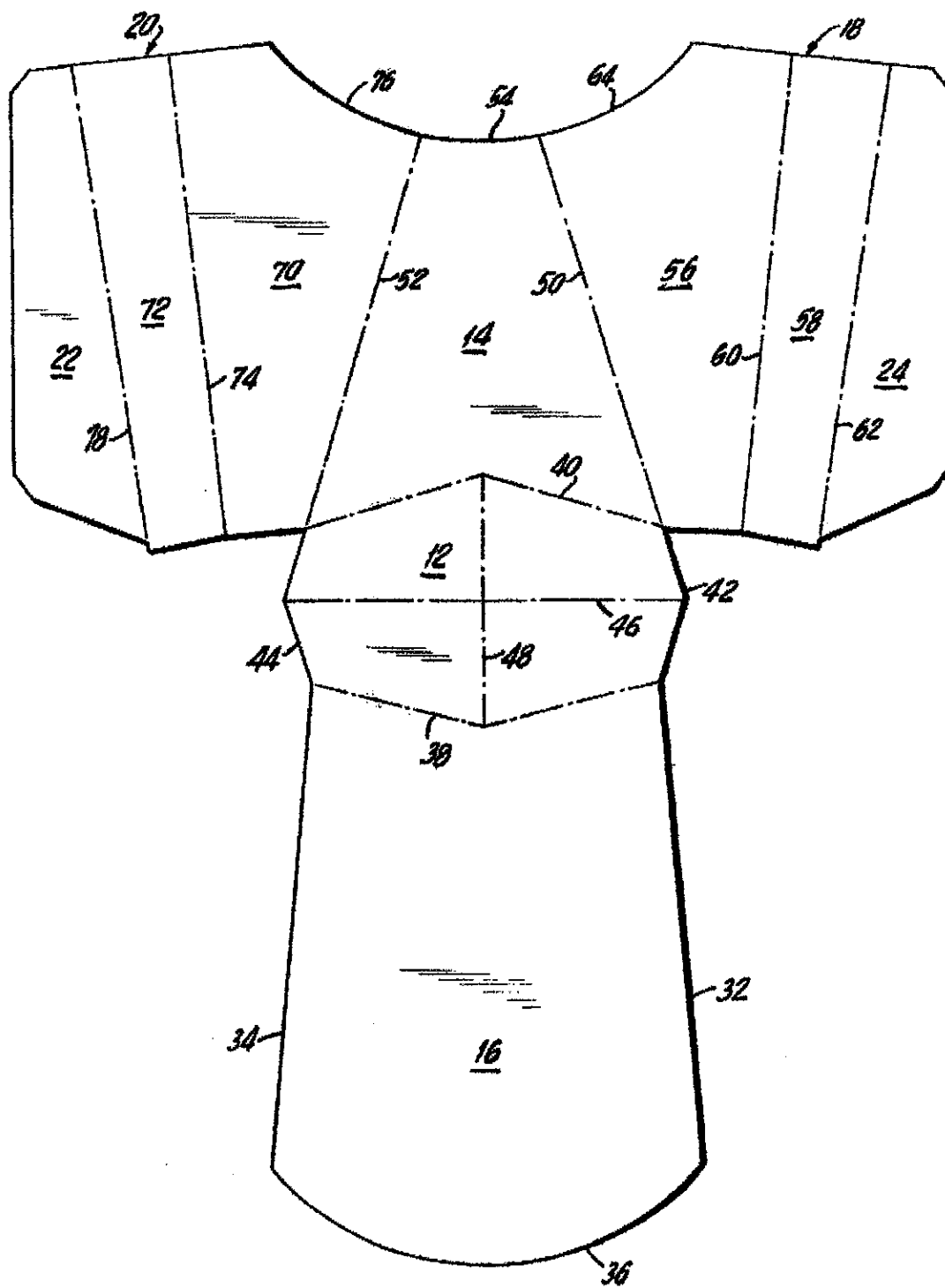


FIG.5

Referring to FIGS. 1 through 4, the carton is generally designated by the numeral 10. In its erected condition the carton is of hollow, conical configuration, having an open bell-mouth 11 at one end, and a closed bottom end 12 at the opposite end. Carton 10 further includes opposed side walls 14 and 16 which are interconnected by means of opposed end wall panels 18 and 20.

Glue strips 22 and 24 are respectively hingedly connected to the opposed end wall panels 18 and 20. The glue strips overlap, and are bonded to, the opposed edges of the side wall 16, as more clearly illustrated in FIG. 3.

As shown in FIG. 1, in the erected condition of the carton 10, the bell-mouth opening 11 facilitates the scooping of products, such as food items, into the carton, and the snap-up bottom panel 12 (see FIG. 2) insures that the carton is maintained in its set-up condition.

As illustrated in FIG. 4, the planes of the opposed side walls 14 and 16 diverge and extend from the bottom wall 12 of the erected carton.

Carton 10 is formed from a single blank of foldable paperboard material, of a configuration as illustrated in FIG. 5.

The first side wall panel 16 is of substantially isosceles trapezoidal shape including two diverging sides 32 and 34, and a top or free edge 36 which is of arcuate convex configuration.

The first side wall panel 16 is hingedly connected to the snap-up base 12 along hinge line 38.

The bottom panel 12 is of generally elongated, octagonal configuration, two side walls of which form the hinge line 38, while the opposite two side walls



form hinge line 40. The remaining four sides of elongated bottom panel 12 define opposed edges 42 and 44. The bottom panel 12 is bisected by a longitudinally extending score line 46, while the minor dimension of the bottom panel 12 is bisected by a second score line 48 which is disposed  
5 perpendicular to score line 46.

The second side wall panel 14 of carton 10 is hingedly connected to the elongated bottom panel along hinge line 40, and is of generally isosceles triangular shape, including two converging side edges, designated by the  
10 numerals 50 and 52. The free edge 54 of panel 14 is of arcuate concave configuration.

The end wall panels 18 and 20 are respectively hingedly connected to the second side wall panel 14 along fold lines 50 and 52.

15

The base of first side wall panel 16 defines an upper edge of the opening in the container while the vertex thereof is disposed adjacent the bottom panel 12. Conversely, the base of the second side wall panel 14 is disposed adjacent the bottom panel 12 while the vertex thereof defines an upper edge  
20 of the opening in the container. Thus, since the pairs of sides or edges 32, 34 and 50, 52 converge in opposite directions with respect to each other, the first and second side wall panels 14 and 16 are inverted with respect to each other when the carton 10 is erected, as will later become apparent.

25 End wall panel 18 includes two portions 56 and 58 hingedly connected along fold line 60 disposed intermediate the fold line 50, and the fold line 62 connecting the end wall panel 18 to the glue strip 24. The panel portion 56 is of generally triangular configuration, with the free end thereof including an arcuate portion 64 which fairs into the arcuate concave edge 54 of the side  
30 wall panel 14. Similarly, end wall panel 20 includes two panel portions 70 and 72 hingedly connected along fold line 74, with the triangular panel portion 70

including an arcuate free edge 76. The glue strip 22 is hingedly connected to the panel portion 72 of end wall 20 along fold line 78.

5 In the assembly of the carton 10, the glue strips 22 and 24 are folded about the fold lines 78 and 62 so as to overlap the outside surface of the side wall 16, with the edges 32 and 34 being respectively aligned with the fold lines 62 and 78. In such position, the glue strips 22 and 24 are adhesively bonded to the side wall panel 16.

10 By virtue of the longitudinally extending fold line 46 in the bottom panel 12, and the intermediate fold lines 60 and 74 in the end wall panels 18 and 20, the assembled carton may be folded to the flat configuration for easy storage. At such time, the opposed side walls 14 and 16 are in abutting relationship, and the panel portions 56, 58 and 70, 72 of the end walls 18 and 20 are  
15 likewise in abutting relationship.

In order to erect the carton 10, it is merely necessary to separate the panel portions 14 and 16, and simultaneously snap up the base panel 12 whereby the latter assumes the angled configuration illustrated in FIG. 2, about the fold  
20 line 48. In such position, the angled configuration of the bottom panel, working in conjunction with the erected carton maintains the carton in its set-up condition, at which time the enlarged bell-mouth opening 11 is provided to facilitate scooping of contents into the carton. Also, the planes of the side wall panels 14 and 16 diverge as they extend away from the bottom panel 12.

25 As shown in FIGS. 1 through 4, the container is a flat-foldable conical container of paper-board, with a snap-up bottom. The container is formed from a suitably configured paperboard blank including a generally octagonal bottom portion having longitudinally extending and laterally extending fold lines, opposed side walls, one of which is of isosceles trapezoidal shape,  
30 while the other is of isosceles triangular shape, as well as bellows-type intermediate end panels to provide a snap-up container of erected, conical

shape.

The containers may be made of a parafin paperboard or of paper-board provided with inner facings of liquid-type material, including various plastic materials in film form, or coatings sprayed or flowed in place on the inner surfaces of the finished containers.

Document B:

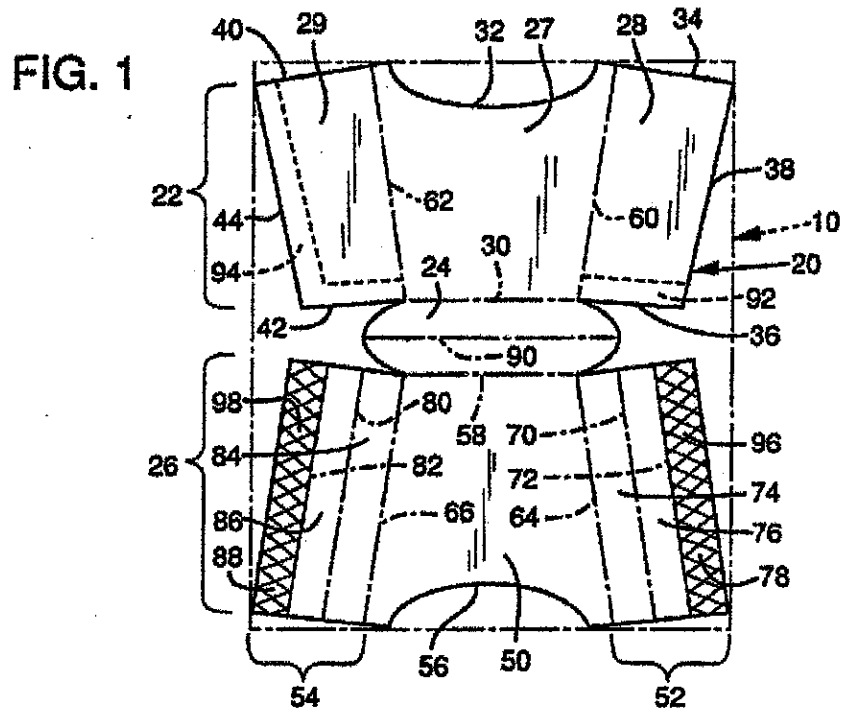
Description and drawings of new TSC product

5

**B**

FIG. 1 is plan view of the blank used to form the container.

FIG. 2 is a perspective view of the blank partially folded into a container.



**FIG. 2**

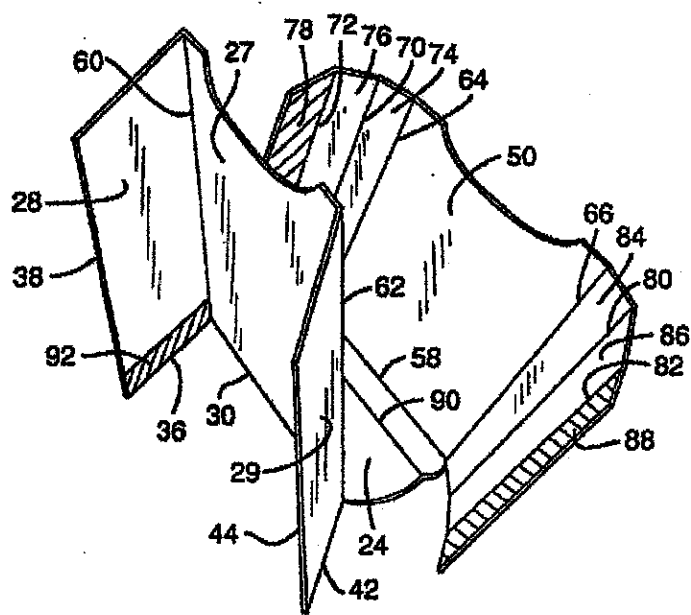
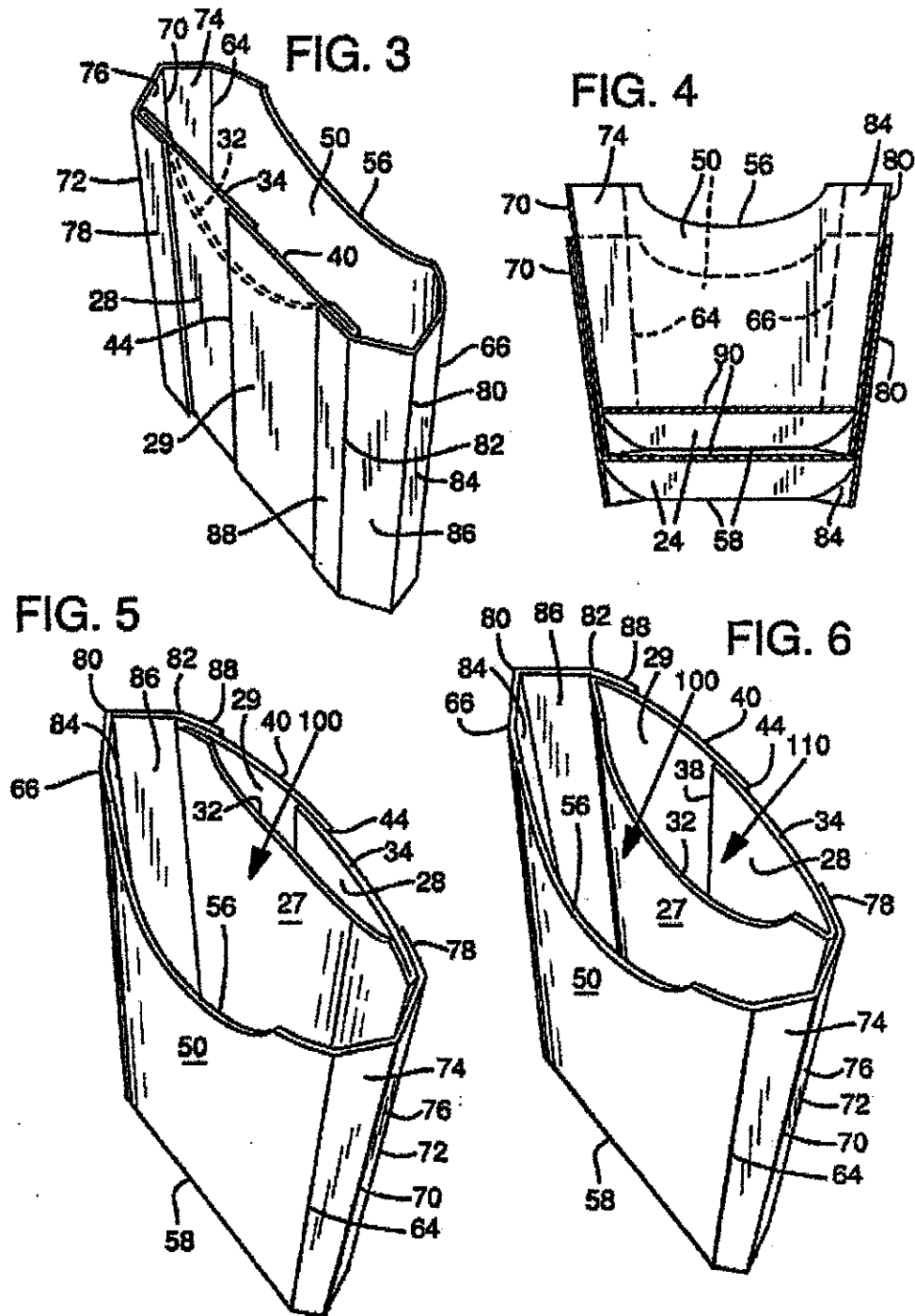


FIG. 3 is a perspective view of the assembled container.

FIG. 4 is a vertical cross section of containers of FIG. 3 arranged in nested relation.

FIG. 5 is a perspective view of the container with the condiment containing receptacle closed and FIG. 6 is a perspective view of the container with the condiment containing receptacle open.



Referring to FIG. 1, rectangular paperboard stock 10 is shown in dashed lines. The one piece blank 20 from which a container of the invention is constructed is shown in solid lines within rectangular paperboard stock 10.

5 Blank 20 has three major components, a first member 22, a second member 24 and a third member 26. First member 22 has a central portion 27, a first flap 28 and a second flap 29. Central portion 27 of first member 22 is hinged along its bottom along first fold line 30. The top of central portion 27 has a recessed cutout 32. The first flap 28 has a top 34, a bottom 36 and an outside  
10 edge 38. The second flap 29 has a top 40, a bottom 42 and an outside edge 44.

The third member 26 has a central portion 50, a first flap 52 and a second flap 54. Central portion 50 of third member 26 has a cutout 56 along its top.  
15 The bottom of central portion 50 of third member 26 is hinged to second member 24 along second fold line 58.

The first back wall flap 28 is hinged to the central portion 27 of back wall 22 along third fold line 60. Third fold line 60 intersects first fold line 30. Second  
20 flap 29 of first member 22 is hinged to the central portion 27 of first member 22 along fourth fold line 62. In the illustrated embodiment, the fourth fold line 62 intersects the first fold line 30. Third fold line 60 and fourth fold line 62 are slightly divergent such that the top of central portion 27 is wider than the bottom of central portion 27.

25 Central portion 50 of third member 26 is hinged to first flap 52 of third member 26 along fifth fold line 64. Fifth fold line 64 intersects second fold line 58. Second flap 54 of third member 26 is hinged to central portion 50 of third member 26 along sixth fold line 66. Sixth fold line 66 intersects second fold  
30 line 58. Fifth fold line 64 and sixth fold line 66 are slightly divergent such that the top of central portion 50 is wider than the bottom of central portion 50.

First flap 52 of third member 26 has seventh fold line 70 and eighth fold line 72 running generally parallel to fifth fold line 64 and generally segmenting first front wall flap 52 into innermost segment 74, central segment 76 and  
5 outermost segment 78. Outermost segment 78 can be designated as a first flap tab of third member 26.

Second flap 54 of third member 26 similarly has ninth fold line 80 and tenth fold line 82 running generally parallel to sixth fold line 66 and segmenting  
10 second flap 54 into innermost segment 84, central segment 86 and outermost segment 88. Outermost segment 88 can be designated as a second flap tab of the third member 26.

Second member 24 has eleventh fold line 90 parallel to first fold line 30 and  
15 second fold 58. Fold line 90 bisects second member 24.

First flap 28 of first member 22 has glue line 92 running along the bottom edge 36. The area of glue line 92 is indicated by the area beneath the dashed line and lies beneath the surface of first flap 28 shown in FIG. 1. Second flap  
20 29 has glue line 94 running along the back of bottom edge 42 and along side edge 44. The area of glue line 94 is shown by the area within the dashed line and is below the surface of second flap 29 shown in FIG. 1. In other words, glue lines 92 and 94 are not visible in FIG. 1 but are on the underside of the surface of the blank 20 shown in FIG. 1.

25

The top surface of first flap tab 78 is covered with glue line 96 shown as a double hatched area. The top surface of second flap tab 88 is covered with glue line 98 also shown as a double hatched area.

30 Each of the fold lines described above may be score lines which partially cut or coin the paperboard stock to create the fold lines. This technique is well



known in the paperboard container industry.

Referring now to FIG. 2, the assembly of the container will be explained. First flap 28 of first member 22 is folded behind central portion 27 of first member  
5 22. Glue line 92, shown in this figure as a hatched area, adheres bottom 36 of first flap 28 to the bottom of central portion 27 along fold line 30. Second flap 29 is then folded behind central portion 27 of back wall 22. Second flap 29 overlaps first flap 28 such that outside edge 44 of second flap 29 overlaps edge 38 of first flap 28. Glue line 94 (hidden in FIG. 2) adheres bottom edge  
10 42 of second flap 29 to the bottom of the central portion 27 along fold line 30. Since second flap 29 partially overlaps first flap 28, glue line 94 also adheres second flap 29 along edge 44 to first flap 28 along edge 38. This subassembly forms a fluid tight container receptacle between the combination of first flap 28, second flap 29 and central portion 27 of first member 22.

15  
Second member 24 is folded up against central portion 27 of first member 22 along fold line 30. Second member 24 is then folded down along fold line 90 and then up along fold line 58 such that fold line 58 lies coincidental along fold line 30 and central portion 50 of third member 26 lies atop central portion  
20 27 of first member 22.

First flap 52 is folded upon fold lines 64, 70 and 72 such that first flap tab 78 is folded behind first flap 28 as may be seen in FIG. 3. Glue line 96, shown in FIG. 2 as a hatched surface lying on tab 78, adheres first flap tab 78 to first  
25 flap 28 such that fold line 72 lies along fold line 60.

Second flap 54 is folded upon fold lines 66, 80 and 82 such that second flap tab 88 is folded behind second flap 29. Glue line 98, shown in FIG. 2 as a hatched surface lying on tab 88, adheres second flap tab 88 to second flap 29  
30 such that fold line 82 lies along fold line 62.

FIG. 3 shows the completed assembly with the thickness of the paperboard stock exaggerated to show the overlapping relationship of the various components.

- 5 The container, when partially or fully open, is capable of being stacked together in a nesting relationship as shown in FIG. 4.

The container may also be used as a scoop for filling the receptacle 100 with food products as shown in FIG. 5. The condiment receptacle 110 shown in  
10 FIG. 6 when collapsed as shown in FIG. 5 would not interfere with scooping up the food product into the food container receptacle 100. The condiment receptacle 110 may be opened by raising surfaces 32 and 28 and 29 as shown in FIG. 6. Food container receptacle 100 is bounded by a front wall which is the central portion 50 of third member 26, a back wall which is the  
15 central portion 27 of the first member 22, a bottom which is second member 24, a first side which is innermost segment 74 and central segment 76 of first flap 52 of third member 26, and a second side which is inner most segment 84 and central segment 86 of second flap 54 of third member 26.

- 20 Condiment container receptacle 110 has only a front wall which is the central portion 27 of first member 22 and a back wall which is the combination of first flap 28 and second flap 29 of first member 22. Condiment container receptacle 110 is therefore adjacent to food container receptacle 100 and shares a common wall which is central portion 27 of first member 22.

C

5

Patents Form No. 5

10

NEW ZEALAND  
PATENTS ACT, 1953

15

**COMPLETE SPECIFICATION**

20

**FOOD SCOOP WITH CONDIMENT COMPARTMENT**

25 I, James Burrige an Australian citizen of Castlereagh Road, Agnes Banks,  
NSW 2753, Australia, do hereby declare this invention, for which I pray a  
patent will be granted to me, and the method by which it is to be performed, to  
be particularly described in and by the following statement:

## **BACKGROUND**

The present invention relates to paperboard containers, particularly french fry scoops and the like, wherein a small segregated compartment is provided for  
5 a condiment for use with the foodstuff in the scoop or the main compartment thereof.

Inasmuch as containers of this type, normally formed of foldable paperboard, are a single-use product principally used in fast food establishments, and as  
10 such containers are used in very large quantities, it is particularly desirable that the costs associated therewith, both in materials and manufacturing, be maintained at a minimum.

The desirability of such containers with separate condiment compartments is  
15 exemplified by US 5720429, Cordle. In Cordle the pocket is defined by a rather elaborate extension and modification of the blank which is required to be glued up to the inner side wall of the container. The inventors consider that this is a difficult operation to automate or perform quickly by hand.

## **20 SUMMARY OF THE INVENTION**

It is a primary object of the invention to provide a food container or scoop with an internal condiment chamber which constitutes a significant and practical

improvement over known containers of this type.

In one aspect the invention consists in a food container formed from a unitary blank of foldable sheet material, said container comprising first and second  
5 opposed upstanding walls, opposed sides extending between and joining said walls, and a bottom extending between and joining said walls, said walls and sides having upper edges defining an upwardly opening container mouth, a pocket wall having having opposed side edges, a bottom edge and a top edge, said bottom edge being directly bonded to said first upstanding wall,  
10 said opposed side edges meeting adjoining said first wall and said top edge being free of said first wall, with said first wall, in an open position of said container for the reception of foodstuffs, being outwardly convex relative to said second wall with said inner surface thereof being concave, wherein said pocket wall may flex inwardly away from said concave inner surface to define  
15 a pocket.

In a further aspect the invention consists in a unitary folding blank for use in the forming of an upwardly opening food container with a condiment pocket, said unitary folding blank comprising longitudinally aligned first and second  
20 wall panels with a bottom panel section defined therebetween, said wall panels each having an outer edge and being foldable about said bottom panel section to position said outer edges in general overlying alignment with each other, and side panels adapted to engage and join said first and second

wall panels upon a folding thereof, and a pocket wall secured to a said first wall panel wherein, upon a convex flexing of said first wall panel about an axis generally parallel to said opposed side edges of said sheet, opposed side edges of said pocket wall will effectively move transversely toward each other and reduce the transverse distance therebetween wherein a convex flexing of said pocket wall relative to said first wall panel to create is achieved, to allow formation of a pocket.

The container has a pocket extending across one face of the container from side wall to side wall. The pocket wall is similar dimension to the face and is moveable from a closed position to an open position due to the outward flexing of the side wall.

The advantages of the container of the invention result from a unique structural relationship which provides for the formation of the condiment chamber utilizing only minimal material. The procedure for forming and folding the blank basically remains the same as that used in the formation of a conventional scoop, requiring only an additional, although highly unique, step of mounting a single planar sheet to form the pocket which defines the condiment chamber. Thus, substantially no change is required in the manufacturing techniques and apparatus used.

In achieving the objects of the invention, the container is formed from an

appropriate foldable sheet material, preferably paperboard, with the blank itself having a configuration which basically follows that of conventional similar containers. The blank, and hence the container, differ in the provision, in one or more of the embodiments to be disclosed, of a unique recess or  
5 aperture adjacent the upper edge of the front wall for facilitating access to the condiment chamber formed immediately inward thereof. Of significance with regard to the overall configuration of the blank is the capability of utilizing conventional blank forming and folding apparatus and the avoidance of an increase in the actual material of the blank.

The pocket defining the condiment chamber consists solely of the inner surface of the front wall and a single flat or planar sheet of flexible material, preferably a transparent thin synthetic resinous material such as acetate, Mylar, polyethylene, and the like. This single pocket sheet of material is  
15 positioned on the inner face of the front wall of the container prior to a folding of the blank and in face-to-face engagement therewith. The upper edge of the pocket sheet is generally aligned with the upper edge of the container wall, with the opposed side edge portions and the lower edge portion of the sheet bonded, normally by an appropriate adhesive, to the inner face of the  
20 container front wall. The upper edge portion of the sheet remains free, that is unsecured.

In use, upon a folding of the container blank to a position for the reception of



foodstuffs, the front wall thereof automatically assumes a convex configuration which inherently brings the opposed side edges of the pocket sheet laterally inward toward each other, either following and lying against the inner concave curvature of the front wall, or inwardly arcing away from the front wall along a curvature which generally mirrors the curvature of the front wall to provide the desired pocket. Should the pocket sheet tend to follow the curvature of the front wall, the pocket sheet, when the condiment is to be introduced, can merely be moved inwardly by a finger or, more likely, by the spout or nozzle of the condiment container moving inwardly thereagainst either over the upper edge of the front wall or through an appropriate recess or opening in the front wall adjacent the upper edge thereof.

The formed pocket only requires a flat pocket sheet secured flat on the inner face of the container wall. The pocket sheet is not folded, does not include side walls and opens either automatically or by the mere introduction of the discharge nozzle of a condiment container. The actual mounting of the pocket sheet to the blank requires minimal apparatus and does not interfere with the conventional folding operation for the container itself. Similarly, the material of the pocket sheet, while liquidproof for at least a limited time period, can be of any of a number of extremely inexpensive materials which require no preparation, pre-folding, or the like. Similarly, the actual size of the condiment pocket can vary by merely changing the width and/or height of the pocket sheet.

Other features of the invention will become apparent from the more detailed description of the invention following hereinafter.

15

## **BRIEF DESCRIPTION OF THE DRAWINGS**

FIG. 1 is a perspective view of a partially open container formed in accord with the present invention with the condiment pocket also partially open;

FIG. 2 is a perspective view of the container collapsed for shipping and storage with the pocket sheet in a planar position therein;

FIG. 3 is a transverse cross section view taken substantially on a plane passing along line 3--3 in FIG. 1;

FIG. 4 is a plan view of a blank from which the container is folded;

FIG. 5 illustrates a variation in the upper edge of the front wall adjacent the formed pocket;

FIG. 6 illustrates a further variation wherein the front wall includes an  
10 upwardly opening recess;

FIG. 7 is a further variation wherein the front wall includes a filling aperture therethrough immediately below the upper edge; and

15 FIG. 8 is a perspective view wherein the container, after a folding of the blank, is preformed, as opposed to the previously illustrated collapsible container, thus illustrating the application of the inventive concepts of the invention thereto.

## 20 **DESCRIPTION OF PREFERRED EMBODIMENTS**

Referring now more particularly to the drawings, FIGS. 1-4 illustrate a collapsible and selectively expandable container or carton 10 folded from a

blank 12 of paperboard or the like. The container 10, after an appropriate folding of the blank 12, will normally be shipped and stored in the collapsed position thereof, as illustrated in FIG. 2, and will be expanded prior to filling by merely applying inward pressure on the opposed side edges 14 thereof and  
5 upward pressure on the bottom panels 16 along a fold line 18 defined therebetween. FIG. 1 illustrates the container 10 partially open.

As the side edges 14 are moved inwardly toward each other, the front and rear walls 20 and 22 have the effective width thereof shortened with the walls  
10 bowing outward relative to each other and presenting opposed convex configurations, note in particular FIG. 3.

Noting the blank 12 in FIG. 4, it will be recognized that the front wall 20 is formed by a front wall panel 20' having opposed full height side flanges 24  
15 joined thereto along fold lines 14' which define the opposed edges 14 of the folded container 10. Upon a folding of the unitary blank 12, the side flanges 24 are adhesively secured to the opposed edge portions of a rear wall panel 22' and combined therewith to form the rear wall 22 of the container 10.

20 The above construction is substantially conventional. It is a primary purpose of the invention to provide this basic construction with a condiment pocket 26, that is a pocket specifically adapted to form a chamber for the reception of a condiment to be used in conjunction with foodstuffs contained within the

container or main chamber thereof.

The pocket 26 is simply although uniquely formed utilizing a single flat sheet 28 of flexible material, preferably of an appropriate waterproof or moisture proof synthetic resinous material. This pocket sheet 28 is positioned flat against the inner face of the front wall panel 20' and is in face-to-face engagement therewith. The planar pocket sheet 28, preferably rectangular, has a free upper edge 30, opposed side edges or edge portions 32 adhesively bonded to the front wall panel 20', and a bottom edge or edge portion 34 also adhesively bonded to the front wall panel 20'. The adhesive bonding extends continuously along the opposed side edges 32 and bottom edge 34 for a continuous sealing of these edges. The pocket sheet 28 retains its planar shape as the blank is folded to form the container 10 in the collapsed a position of FIG. 2.

The pocket chamber is formed only as the opposed side edges 14 of the collapsed container are moved inwardly toward each other to erect the container for the reception of foodstuffs. Upon doing so, the opposed side edges 32 of the pocket sheet 28 are, in effect, moved laterally toward each other, requiring a convex forming of the sheet 28 therebetween, preferably in opposition to the convex forming of the container front wall 20. Should the sheet 28 tend to follow the convex configuration of the front wall 20, the sheet 28 can be inwardly flexed by merely a flick of the fingers or the introduction of

the nozzle of a condiment container. As will be seen from the drawings, the upper openable edge 30 of the pocket sheet 28 generally aligns with the upwardly opening mouth of the container and along the upper extremity of the front wall 20. This front wall 20 may have the upper edge 36 thereof formed with a concave central portion which facilitates access to the pocket 26 and allows for the simultaneous formation, in adjacent blanks, of a scoop-like extension 38 on the rear wall 22. The pocket sheet 28 extends across the forwardly opening area defined by the concave upper edge portion 36 of the front wall 20 allowing for a direct engagement of the discharge nozzle of a condiment container thereagainst for a filling of the pocket chamber and, if necessary, a simultaneous inward flexing of the pocket sheet 28.

Noting FIGS. 1 and 2 in particular, the front wall 20 can include a central coplanar upwardly projecting tab 40 centrally positioned and extending above the concave upper edge portion 36. The tab, through opposed cut lines 42 defining continuations of the opposed edges of the tab 40, will actually extend a relatively short distance into the front wall 20 below the upper edge portion 36 whereby, upon a manual downward and outward pulling of the tab 40, a recess is defined for properly accommodating the discharge nozzle of a condiment dispenser and facilitating the orientation thereof for introduction of the condiment into the pocket 26.

As will be noted in FIG. 5, the tab can be eliminated, with reliance for a

guided introduction of the dispensing nozzle being provided by the concave upper edge portion itself. As seen in FIG. 6, the tab can be replaced by a permanently defined recess 44 or, noting FIG. 7, by an opening 46 through the front wall immediately below the upper edge 36.

Referring now to FIG. 8, the basic container 50 illustrated therein is of the type which, while formed from a unitary blank similar to the blank 12, is erected in a former to the expanded shape thereof, then glued and packed by nesting in multiple similarly formed containers or cartons, providing in effect a  
10 stack of preformed cartons. Such containers 50, prior to the final forming thereof and preferably on the blank prior to folding, will similarly be provided with a single planar pocket sheet 52, positioned and mounted in the same manner as sheet 28 to similarly define the desired open mouth condiment pocket,, upon the convex forming of the container front wall 56. As will be  
15 appreciated, the upper edge of the front wall 56 can be provided with any of the before described configurations and access enhancing features.

While the pocket 26 has been defined as formed in conjunction with the front wall, and in particular with the inner face thereof, should it be necessary or  
20 desirable, the single flat pocket sheet 28 can be secured to the inner face of the rear wall to provide the pocket thereat in a manner as described above.

The foregoing is illustrative of the features of the invention. While several

fairly closely related embodiments have been illustrated, it is to be appreciated that other embodiments, as they fall within the parameters of the claims appearing hereinafter, are also considered to be within the scope of the invention.



**I CLAIM:**

1. A food container formed from a unitary blank of foldable sheet material,  
said container comprising first and second opposed upstanding walls,  
opposed sides extending between and joining said walls, and a bottom  
extending between and joining said walls, said walls and sides having  
upper edges defining an upwardly opening container mouth, a pocket  
wall having opposed side edges, a bottom edge and a top edge, said  
bottom edge being directly bonded to said first upstanding wall, said  
opposed side edges joining said first wall and said top edge being free  
of said first wall, with said first wall, in an open position of said container  
for the reception of foodstuffs, being outwardly convex relative to said  
second wall with said inner surface thereof being concave, wherein said  
pocket wall may thereby flex inwardly away from said concave inner  
surface to define a pocket.
2. A container as claimed in claim 1 wherein said pocket wall comprises a  
pocket sheet overlying said inner surface of said first wall with opposed  
side edges of said pocket sheet intimately joined to said inner surface.
3. A container as claimed in claim 2 wherein said pocket sheet is in  
surface to surface contact with a portion of the inner surface  
dimensionally substantially equal to said pocket sheet.
4. A container as claimed in either claim 2 or claim 3 wherein said  
opposed side edges are bonded to said inner surface of said first wall.

5. A container as claimed in any one of claims 1 to 4 wherein the upper edge of the front wall of said container has a central concave extent generally aligned with said pocket wall between the side edges thereof, the top edge of said pocket wall extending across said concave extent of the upper edge of said front wall in generally upwardly spaced relation thereto for free access to said pocket wall over said front wall upper edge.
6. A container as claimed in any one of claims 1 to 5 wherein said first wall, below the top edge thereof and below the free upper edge of said pocket wall, has an access opening defined therein and communicating with said pocket.
7. A container as claimed in claim 2 including an aperture in said first wall spaced immediately below said top edge and in alignment with said pocket to define said access means for the introduction of a condiment into said pocket.
8. A container as claimed in any one of claims 1 to 7 wherein each side edge of said pocket wall joins said first wall along the junction between said first wall and said side walls.
9. A container as claimed in any one of claims 1 to 8 wherein said first wall is said front wall.
10. A unitary folding blank for use in the forming of an upwardly opening food container with a condiment pocket, said unitary folding blank comprising longitudinally aligned first and second wall panels with a

bottom panel section defined there between, said wall panels each having an outer edge and being foldable about said bottom panel section to position said outer edges in general overlying alignment with each other, and side panels adapted to engage and join said first and second wall panels upon a folding thereof, and a pocket wall secured to a said wall panel wherein, upon a convex flexing of said first wall panel about an axis generally parallel to said opposed side edges of said sheet, opposed side edges of said pocket wall will effectively move transversely toward each other and reduce the transverse distance therebetween wherein a convex flexing of said pocket wall relative to said first wall panel is achieved, to allow formation of a pocket.

11. A blank as claimed in claim 10 wherein said pocket wall comprises a single planar sheet of flexible material overlying and coextensive with an equally dimensioned corresponding portion of said first wall panel, said sheet having an unsecured upper edge generally aligned along the outer edge of said first wall panel, opposed side edges secured to said first wall panel, a bottom edge secured to said first wall panel.

12. A blank as claimed in either claim 10 or claim 11 including means defined by said first wall panel for forming access therethrough to said overlying planar sheet below said upper edge of said sheet.

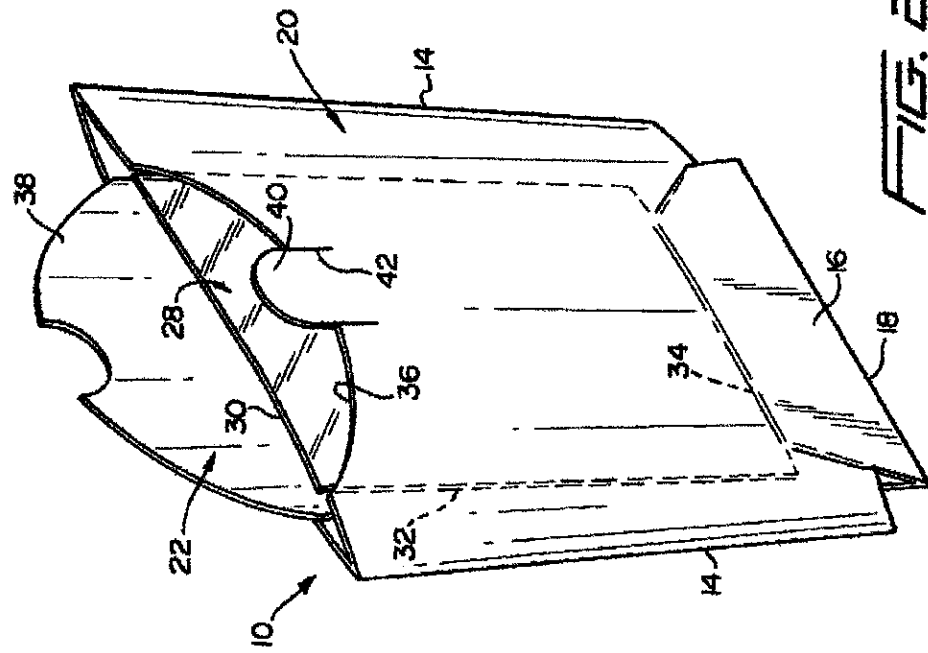


FIG. 2

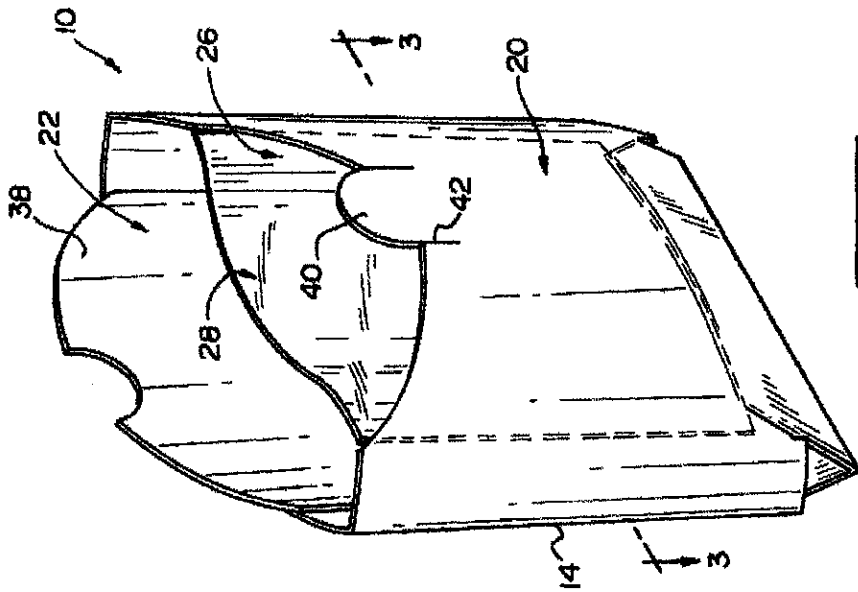
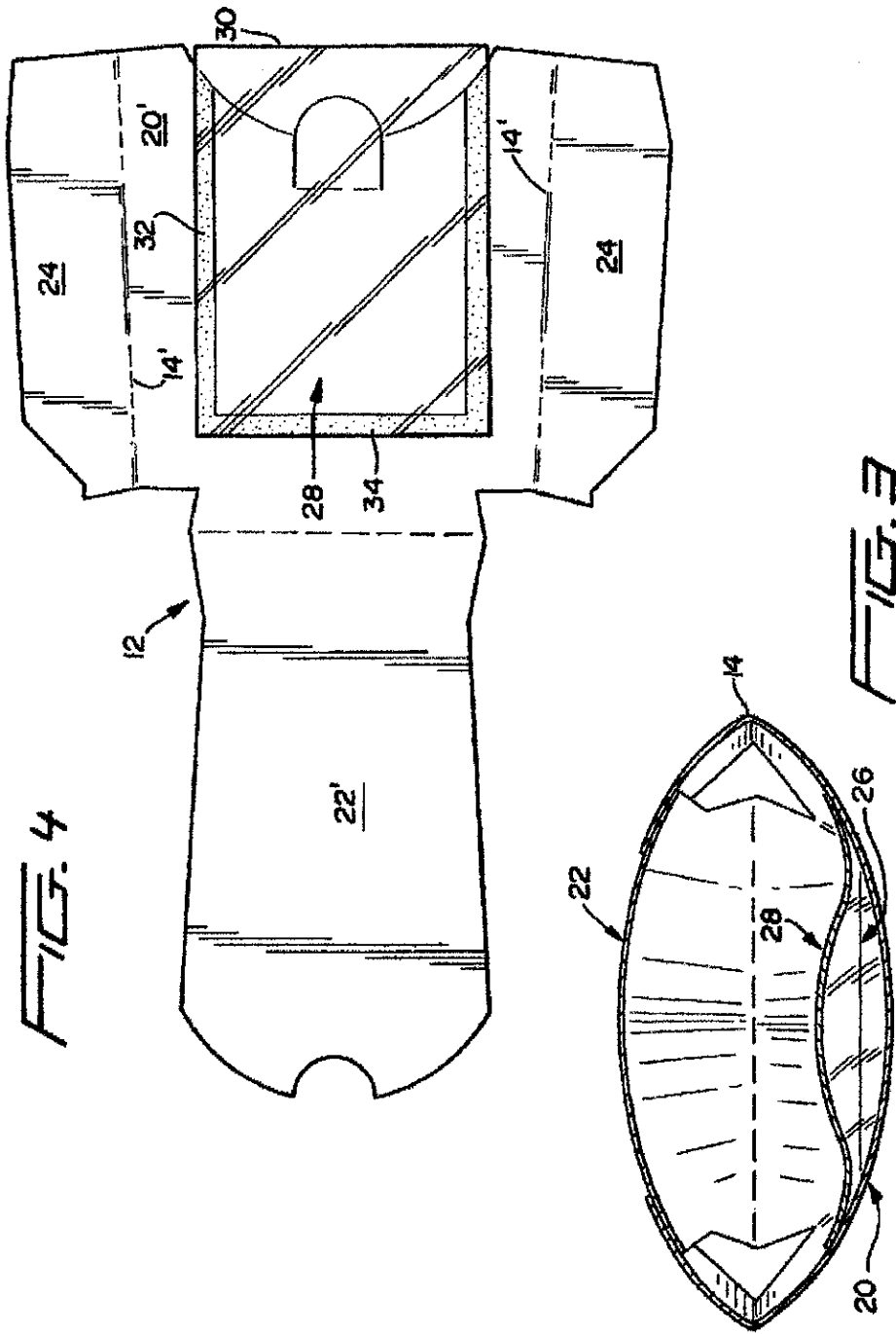
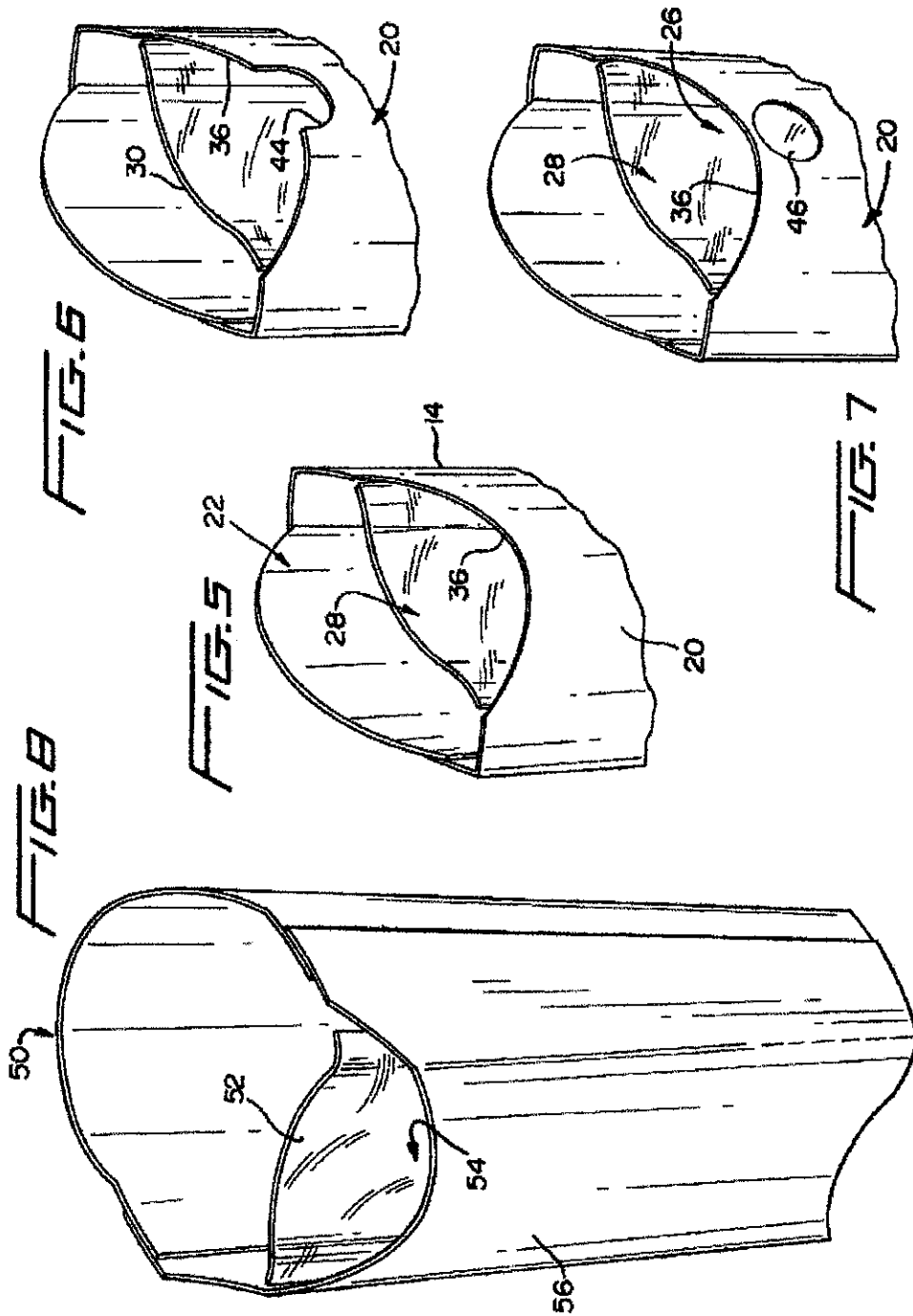


FIG. 1





# C2

AU Provisional application

## "A Container and Blank Therefor"

### **BACKGROUND**

5 The present invention relates to paperboard containers, particularly french fry scoops and the like, wherein a small segregated compartment is provided for a condiment for use with the foodstuff in the scoop or the main compartment thereof.

10 Inasmuch as containers of this type, normally formed of foldable paperboard, are a single-use product principally used in fast food establishments, and as such containers are used in very large quantities, it is particularly desirable that the costs associated therewith, both in materials and manufacturing, be maintained at a minimum.

15

The desirability of such containers with separate condiment compartments is exemplified by US 5720429, Cordle. In Cordle the pocket is defined by a rather elaborate extension and modification of the blank which is required to be glued up to the inner side wall of the container. The inventors consider that  
20 this is a difficult operation to automate or perform quickly by hand.

### **SUMMARY OF THE INVENTION**

It is a primary object of the invention to provide a food container or scoop with



an internal condiment chamber which constitutes a significant and practical improvement over known containers of this type.

The advantages of the container of the invention result from a unique  
5 structural relationship which provides for the formation of the condiment chamber utilizing only minimal material. The procedure for forming and folding the blank basically remains the same as that used in the formation of a conventional scoop, requiring only an additional, although highly unique, step of mounting a single planar sheet to form the pocket which defines the  
10 condiment chamber. Thus, substantially no change is required in the manufacturing techniques and apparatus used.

The container has a pocket extending across one face of the container from side wall to side wall. The pocket wall is similar dimension to the face and is  
15 moveable from a closed position to an open position due to the outward flexing of the side wall.

The container is formed from an appropriate foldable sheet material, preferably paperboard, with the blank itself having a configuration which  
20 basically follows that of conventional similar containers. The blank, and hence the container, differ in the provision, in one or more of the embodiments to be disclosed, of a unique recess or aperture adjacent the upper edge of the front wall for facilitating access to the condiment chamber formed immediately

inward thereof. Of significance with regard to the overall configuration of the blank is the capability of utilizing conventional blank forming and folding apparatus and the avoidance of an increase in the actual material of the blank.

5

The pocket defining the condiment chamber consists solely of the inner surface of the front wall and a single flat or planar sheet of flexible material, preferably a transparent thin synthetic resinous material such as acetate, Mylar, polyethylene, and the like. This single pocket sheet of material is positioned on the inner face of the front wall of the container prior to a folding of the blank and in face-to-face engagement therewith. The upper edge of the pocket sheet is generally aligned with the upper edge of the container wall, with the opposed side edge portions and the lower edge portion of the sheet bonded, normally by an appropriate adhesive, to the inner face of the container front wall. The upper edge portion of the sheet remains free, that is unsecured.

10

15

In use, upon a folding of the container blank to a position for the reception of foodstuffs, the front wall thereof automatically assumes a convex configuration which inherently brings the opposed side edges of the pocket sheet laterally inward toward each other, either following and lying against the inner concave curvature of the front wall, or inwardly arcing away from the front wall along a curvature which generally mirrors the curvature of the front

20

wall to provide the desired pocket. Should the pocket sheet tend to follow the curvature of the front wall, the pocket sheet, when the condiment is to be introduced, can merely be moved inwardly by a finger or, more likely, by the spout or nozzle of the condiment container moving inwardly thereagainst  
5 either over the upper edge of the front wall or through an appropriate recess or opening in the front wall adjacent the upper edge thereof.

The formed pocket only requires a flat pocket sheet secured flat on the inner face of the container wall. The pocket sheet is not folded, does not include  
10 side walls and opens either automatically or by the mere introduction of the discharge nozzle of a condiment container. The actual mounting of the pocket sheet to the blank requires minimal apparatus and does not interfere with the conventional folding operation for the container itself. Similarly, the material of the pocket sheet, while liquidproof for at least a limited time period, can be of  
15 any of a number of extremely inexpensive materials which require no preparation, pre-folding, or the like. Similarly, the actual size of the condiment pocket can vary by merely changing the width and/or height of the pocket sheet.

20 Other features of the invention will become apparent from the more detailed description of the invention following hereinafter.

## **BRIEF DESCRIPTION OF THE DRAWINGS**

FIG. 1 is a perspective view of a partially open container formed in accord with the present invention with the condiment pocket also partially open;

5 FIG. 2 is a perspective view of the container collapsed for shipping and storage with the pocket sheet in a planar position therein;

FIG. 3 is a transverse cross section view taken substantially on a plane passing along line 3—3 in FIG. 1;

FIG. 4 is a plan view of a blank from which the container is folded;

FIG. 5 illustrates a variation in the upper edge of the front wall adjacent the formed pocket;

FIG. 6 illustrates a further variation wherein the front wall includes an upwardly opening recess;

FIG. 7 is a further variation wherein the front wall includes a filling aperture  
20 therethrough immediately below the upper edge; and

FIG. 8 is a perspective view wherein the container, after a folding of the blank, is preformed, as opposed to the previously illustrated collapsible

container, thus illustrating the application of the inventive concepts of the invention thereto.

## **DESCRIPTION OF PREFERRED EMBODIMENTS**

5

Referring now more particularly to the drawings, FIGS. 1-4 illustrate a collapsible and selectively expandable container or carton 10 folded from a blank 12 of paperboard or the like. The container 10, after an appropriate folding of the blank 12, will normally be shipped and stored in the collapsed position thereof, as illustrated in FIG. 2, and will be expanded prior to filling by merely applying inward pressure on the opposed side edges 14 thereof and upward pressure on the bottom panels 16 along a fold line 18 defined therebetween. FIG. 1 illustrates the container 10 partially open.

15 As the side edges 14 are moved inwardly toward each other, the front and rear walls 20 and 22 have the effective width thereof shortened with the walls bowing outward relative to each other and presenting opposed convex configurations, note in particular FIG. 3.

20 Noting the blank 12 in FIG. 4, it will be recognized that the front wall 20 is formed by a front wall panel 20' having opposed full height side flanges 24 joined thereto along fold lines 14' which define the opposed edges 14 of the folded container 10. Upon a folding of the unitary blank 12, the side flanges

24 are adhesively secured to the opposed edge portions of a rear wall panel 22' and combined therewith to form the rear wall 22 of the container 10.

The above construction is substantially conventional. It is a primary purpose  
5 of the invention to provide this basic construction with a condiment pocket 26,  
that is a pocket specifically adapted to form a chamber for the reception of a  
condiment to be used in conjunction with foodstuffs contained within the  
container or main chamber thereof.

10 The pocket 26 is simply although uniquely formed utilizing a single flat sheet  
28 of flexible material, preferably of an appropriate waterproof or moisture  
proof synthetic resinous material. This pocket sheet 28 is positioned flat  
against the inner face of the front wall panel 20' and is in face-to-face  
engagement therewith. The planar pocket sheet 28, preferably rectangular,  
15 has a free upper edge 30, opposed side edges or edge portions 32  
adhesively bonded to the front wall panel 20', and a bottom edge or edge  
portion 34 also adhesively bonded to the front wall panel 20'. The adhesive  
bonding extends continuously along the opposed side edges 32 and bottom  
edge 34 for a continuous sealing of these edges. The pocket sheet 28 retains  
20 its planar shape as the blank is folded to form the container 10 in the  
collapsed a position of FIG. 2.

The pocket chamber is formed only as the opposed side edges 14 of the

collapsed container are moved inwardly toward each other to erect the container for the reception of foodstuffs. Upon doing so, the opposed side edges 32 of the pocket sheet 28 are, in effect, moved laterally toward each other, requiring a convex forming of the sheet 28 therebetween, preferably in  
5 opposition to the convex forming of the container front wall 20. Should the sheet 28 tend to follow the convex configuration of the front wall 20, the sheet 28 can be inwardly flexed by merely a flick of the fingers or the introduction of the nozzle of a condiment container. As will be seen from the drawings, the upper openable edge 30 of the pocket sheet 28 generally aligns with the  
10 upwardly opening mouth of the container and along the upper extremity of the front wall 20. This front wall 20 may have the upper edge 36 thereof formed with a concave central portion which facilitates access to the pocket 26 and allows for the simultaneous formation, in adjacent blanks, of a scoop-like extension 38 on the rear wall 22. The pocket sheet 28 extends across the  
15 forwardly opening area defined by the concave upper edge portion 36 of the front wall 20 allowing for a direct engagement of the discharge nozzle of a condiment container thereagainst for a filling of the pocket chamber and, if necessary, a simultaneous inward flexing of the pocket sheet 28.

20 Noting FIGS. 1 and 2 in particular, the front wall 20 can include a central coplanar upwardly projecting tab 40 centrally positioned and extending above the concave upper edge portion 36. The tab, through opposed cut lines 42 defining continuations of the opposed edges of the tab 40, will actually extend

a relatively short distance into the front wall 20 below the upper edge portion 36 whereby, upon a manual downward and outward pulling of the tab 40, a recess is defined for properly accommodating the discharge nozzle of a condiment dispenser and facilitating the orientation thereof for introduction of  
5 the condiment into the pocket 26.

As will be noted in FIG. 5, the tab can be eliminated, with reliance for a guided introduction of the dispensing nozzle being provided by the concave upper edge portion itself. As seen in FIG. 6, the tab can be replaced by a  
10 permanently defined recess 44 or, noting FIG. 7, by an opening 46 through the front wall immediately below the upper edge 36.



Referring now to FIG. 8, the basic container 50 illustrated therein is of the type which, while formed from a unitary blank similar to the blank 12, is erected in a former to the expanded shape thereof, then glued and packed by nesting in multiple similarly formed containers or cartons, providing in effect a stack of preformed cartons. Such containers 50, prior to the final forming thereof and preferably on the blank prior to folding, will similarly be provided with a single planar pocket sheet 52, positioned and mounted in the same manner as sheet 28 to similarly define the desired open mouth condiment pocket,, upon the convex forming of the container front wall 56. As will be appreciated, the upper edge of the front wall 56 can be provided with any of the before described configurations and access enhancing features.

While the pocket 26 has been defined as formed in conjunction with the front wall, and in particular with the inner face thereof, should it be necessary or desirable, the single flat pocket sheet 28 can be secured to the inner face of the rear wall to provide the pocket thereat in a manner as described above.

The foregoing is illustrative of the features of the invention. While several fairly closely related embodiments have been illustrated, it is to be appreciated that other embodiments are also considered to be within the scope of the invention.

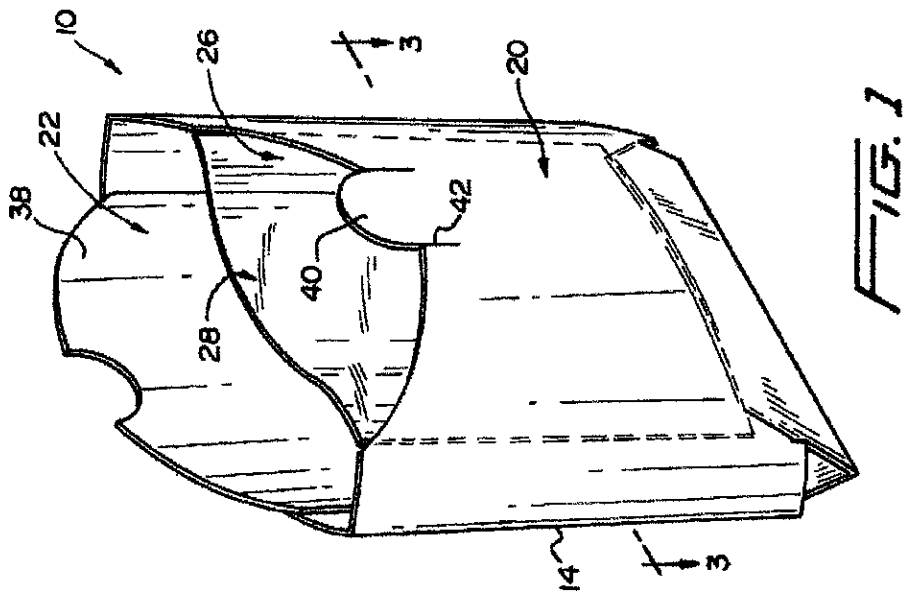


FIG. 1

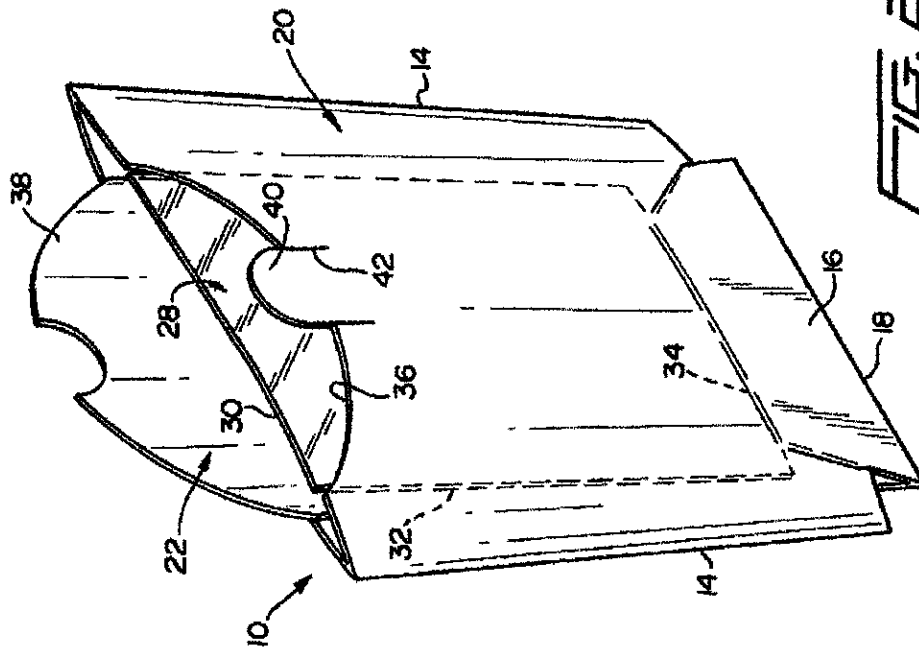
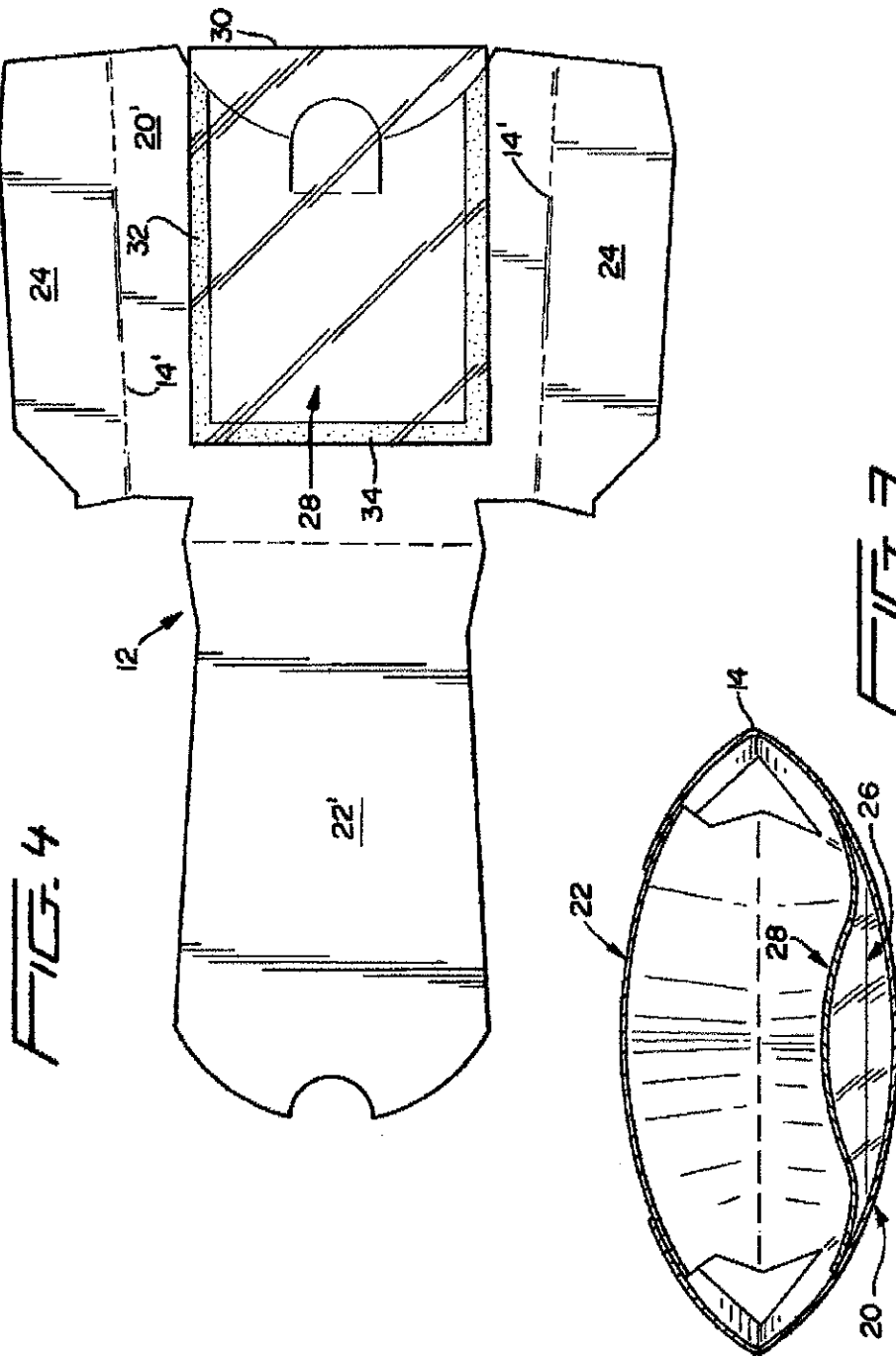
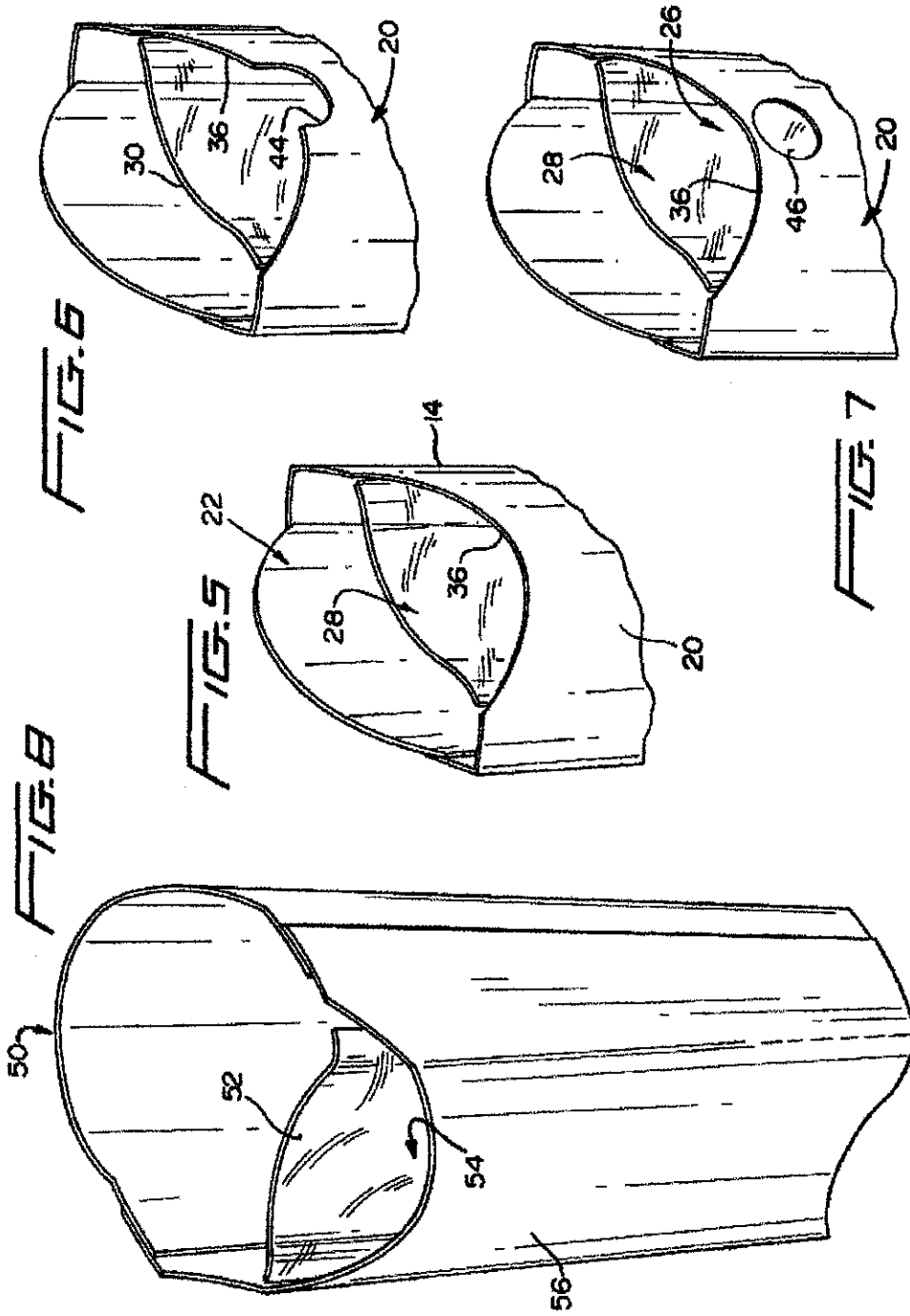


FIG. 2





**C3**

# Patent Details

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**Related Patents**

25 No Related Patents found

**Objections / Hearings**

There are no current objections or hearings present

**Renewal Interest**

No renewal interest on record or public access is restricted

30 **Applicant / Patentee & Licensee History**

No applicants nor licensees on record or public access is restricted

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US patent 6471119

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US006471119B2

(12) **United States Patent**  
**Cai**

(10) **Patent No.:** **US 6,471,119 B2**

(45) **Date of Patent:** **Oct. 29, 2002**

(54) **FOOD SCOOP WITH CONDIMENT HOLDER**

(75) **Inventor:** **Liming Cai, West Chester, PA (US)**

(73) **Assignee:** **Dopaco, Inc., Exton, PA (US)**

(\*) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) **Appl. No.:** **09/795,136**

(22) **Filed:** **Mar. 1, 2001**

(65) **Prior Publication Data**

US 2001/0035454 A1 Nov. 1, 2001

**Related U.S. Application Data**

(60) Provisional application No. 60/186,212, filed on Mar. 1, 2000.

(51) **Int. Cl.<sup>7</sup>** ..... **B65P 5/36; B65P 5/487**

(52) **U.S. Cl.** ..... **229/116; 229/120.12; 229/120.13; 229/120.18; 229/405; 229/906**

(58) **Field of Search** ..... **229/4.5, 116, 117.01, 229/120.12, 120.13, 120.18, 400, 405, 902, 904, 906**

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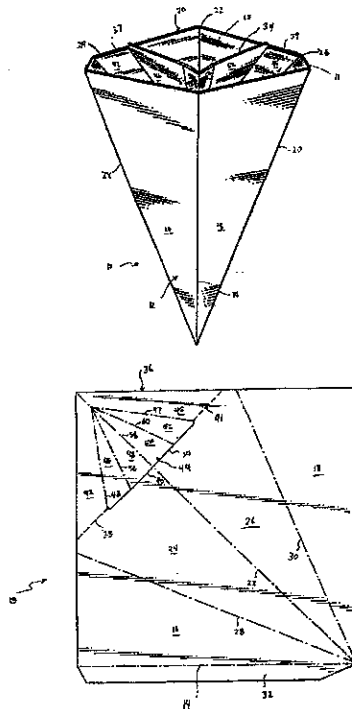
*Primary Examiner*—Gary E. Elkins

(74) *Attorney, Agent, or Firm*—Dennison, Schultz & Dougherty

(57) **ABSTRACT**

A collapsible, conical food scoop formed from a unitary blank of flexible material is disclosed which includes a first, food compartment and a second, condiment compartment. The condiment compartment is formed from a panel of material connected between first and second locations on the interior wall of the first compartment, and shifts between a first position overlaying the interior side wall of the food scoop when the scoop is collapsed and a second position spaced apart from the interior side wall for holding a condiment when the scoop is opened for use.

**15 Claims, 7 Drawing Sheets**



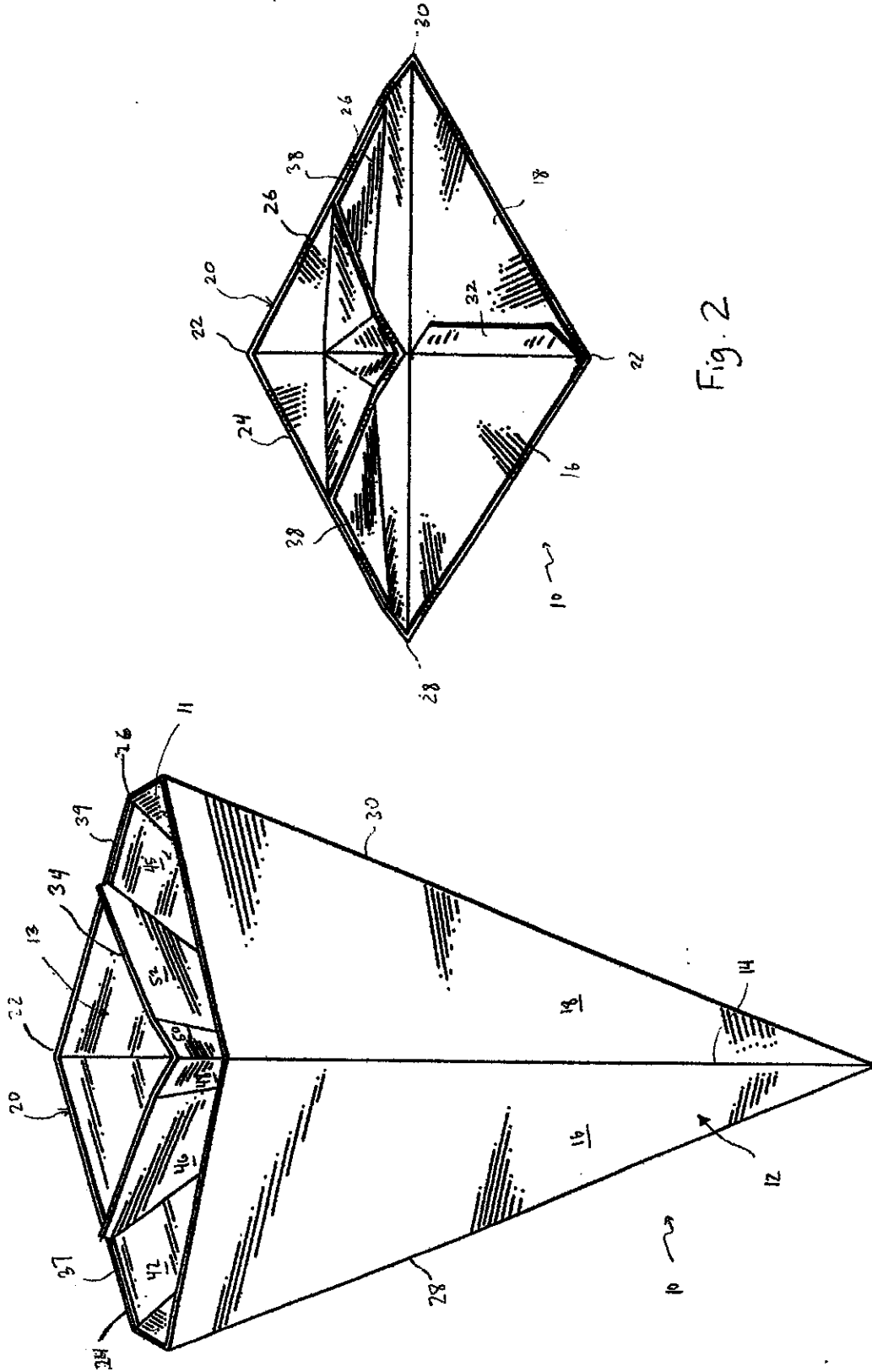


Fig. 2

Fig. 1

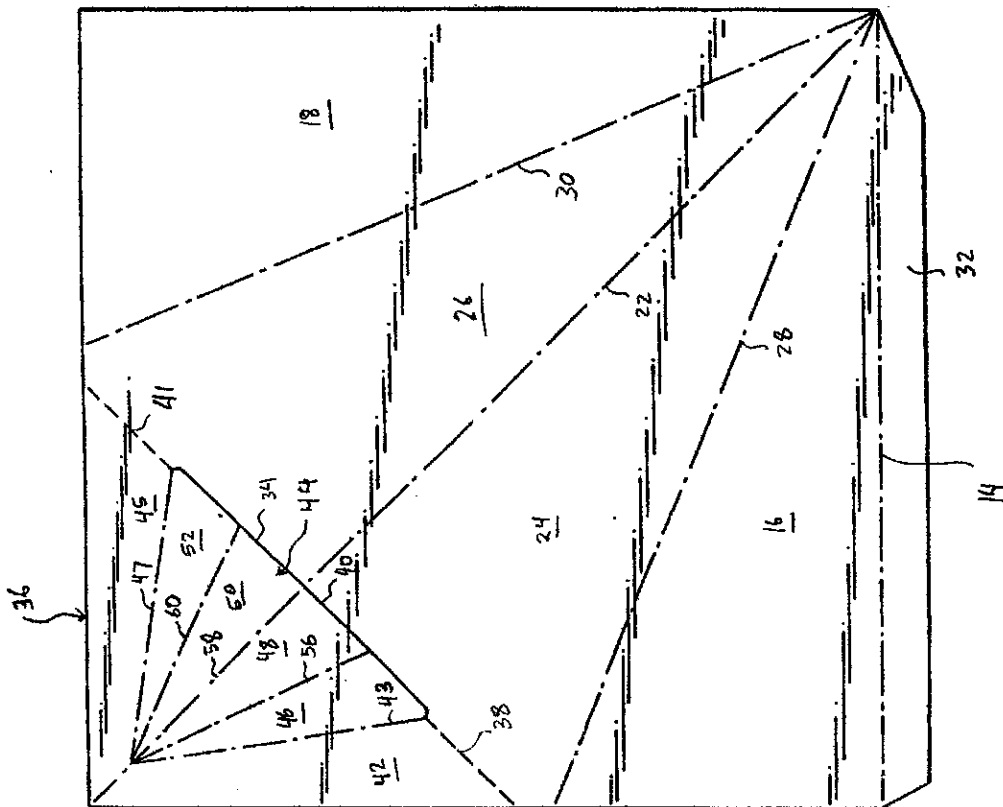


Fig. 3



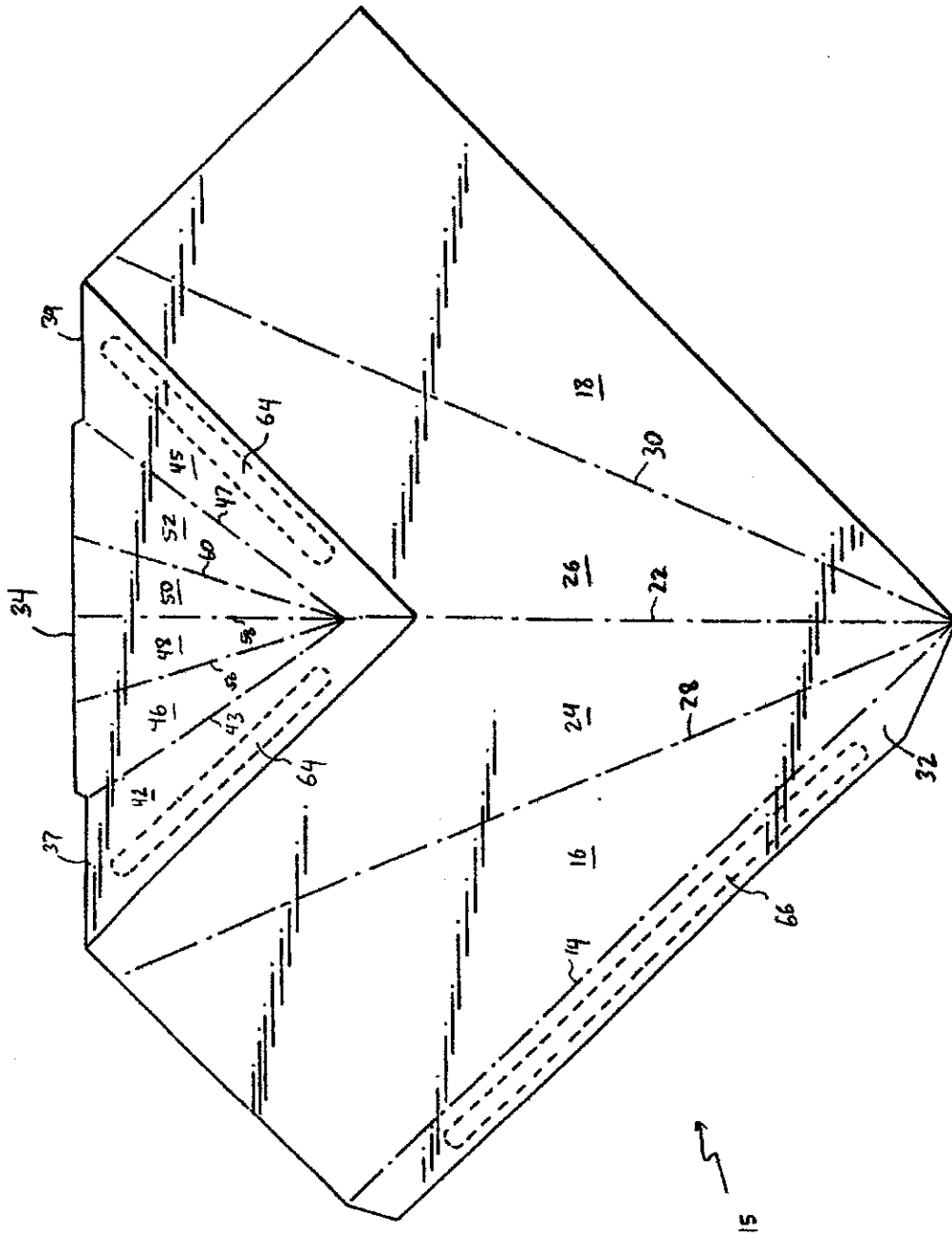


Fig. 4

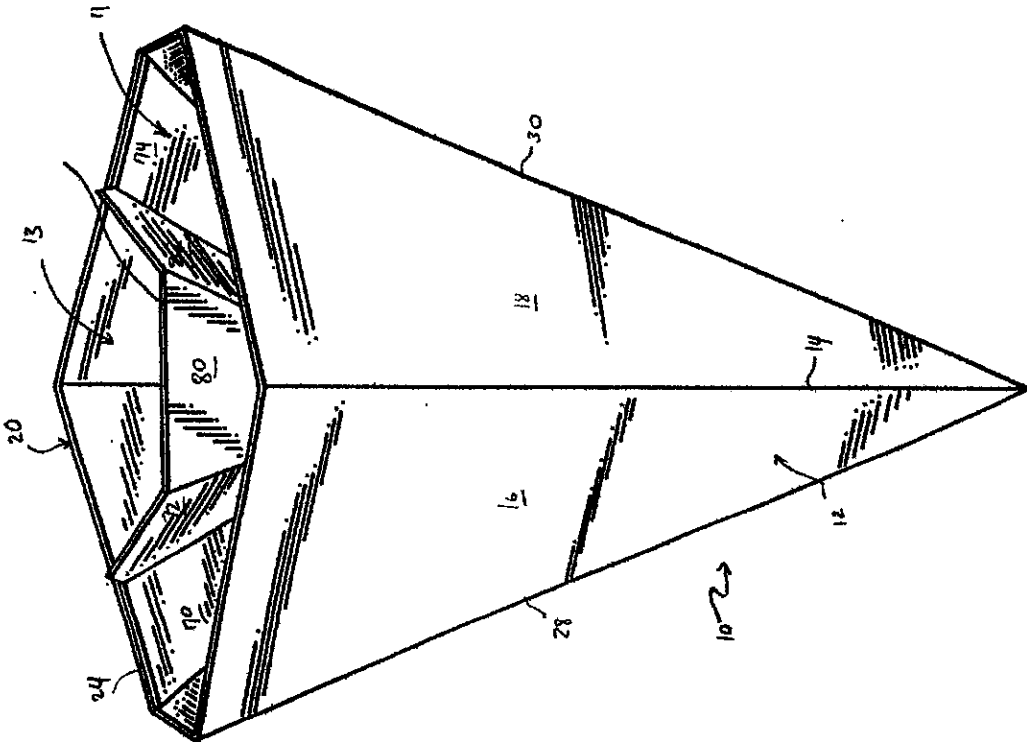


Fig. 5

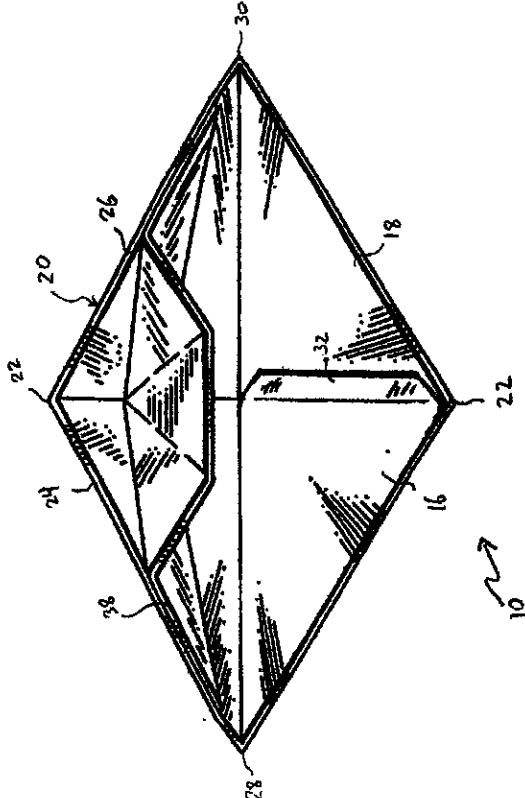


Fig. 6

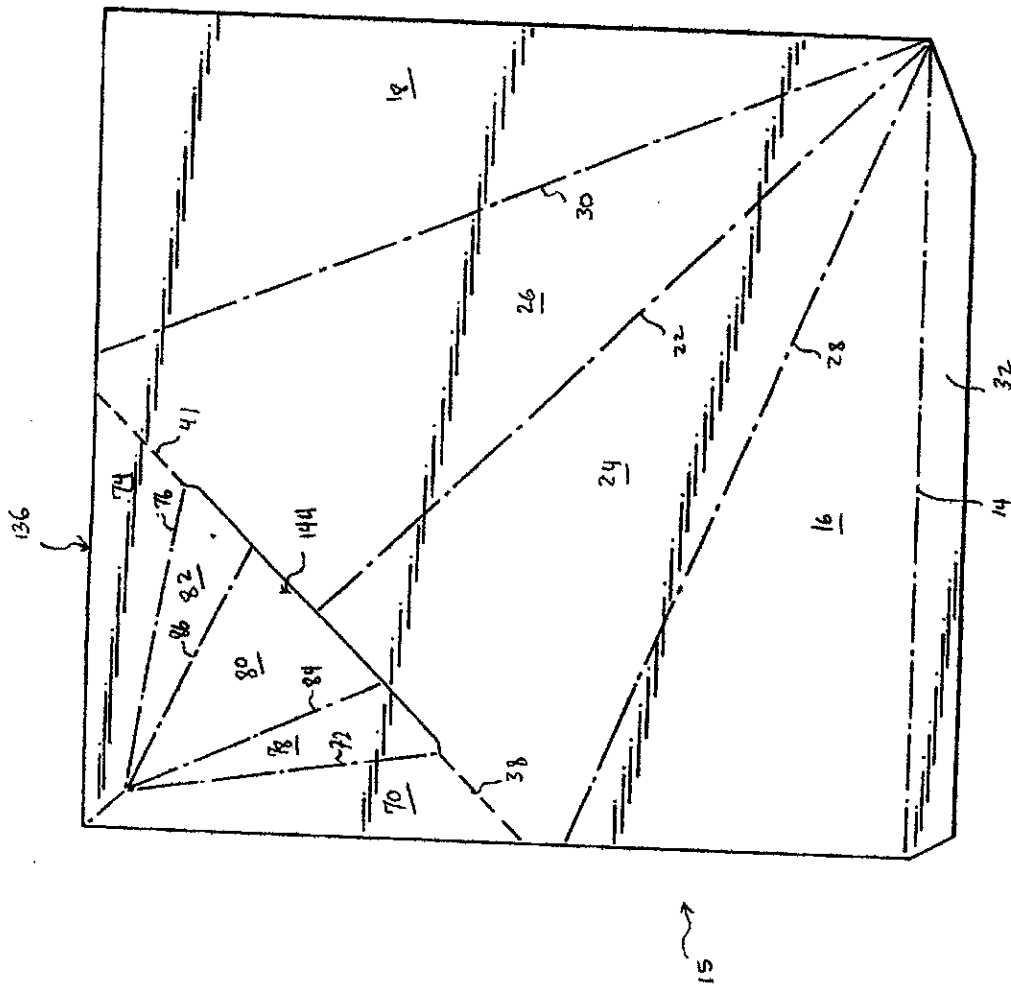


Fig 7

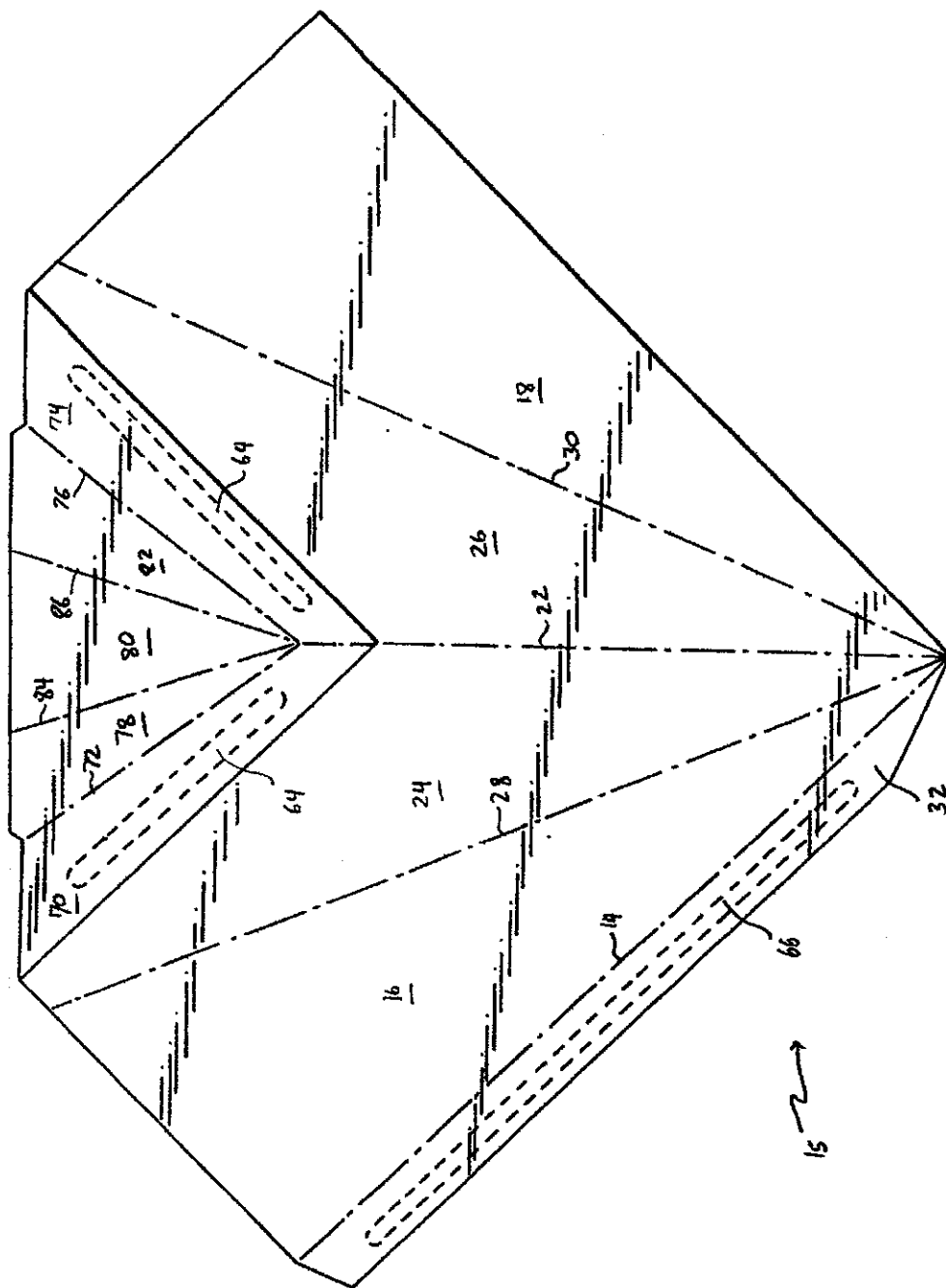


Fig 8

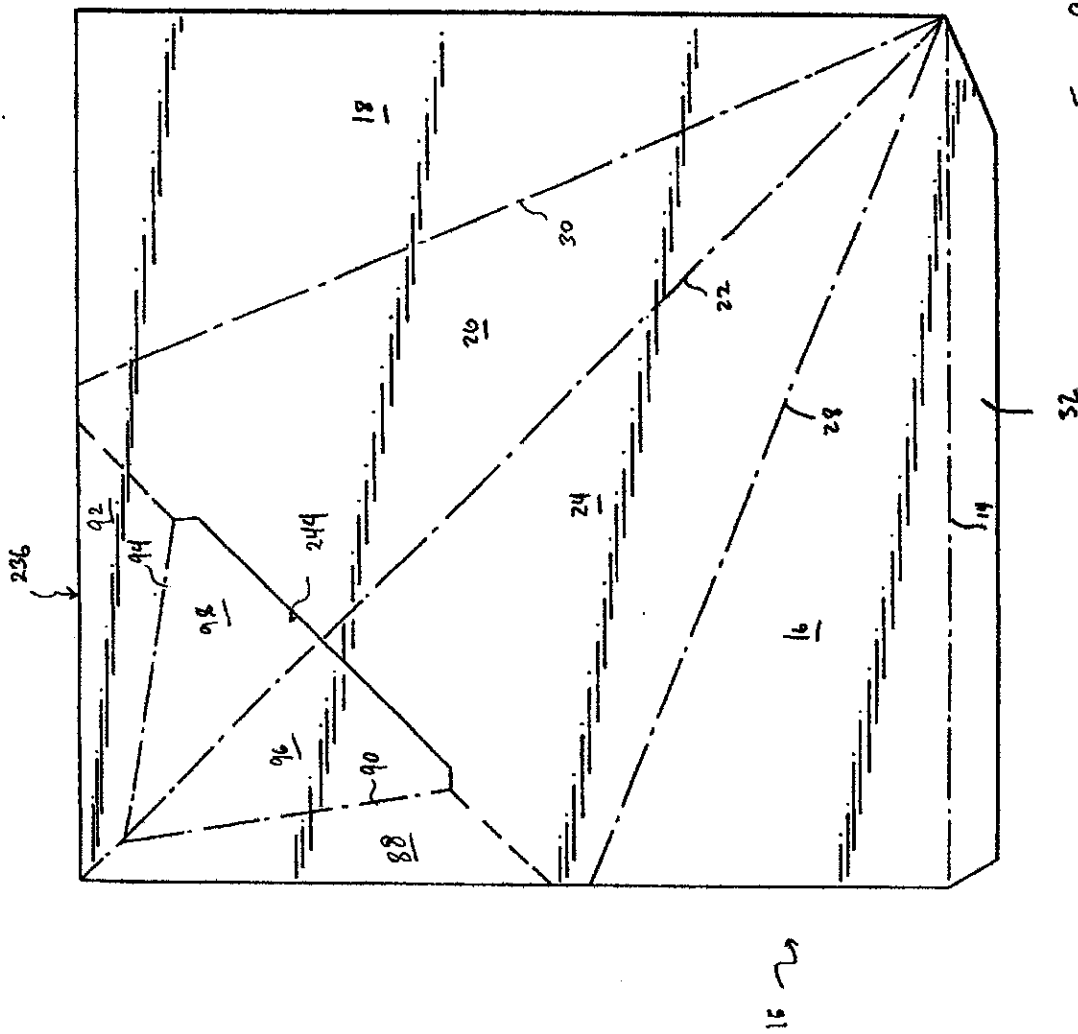


Fig. 9



**FOOD SCOOP WITH CONDIMENT HOLDER****CROSS REFERENCE TO RELATED APPLICATIONS**

This application claims the benefit of the U.S. Provisional Patent Application No. 60/186,212 filed on Mar. 1, 2000, the contents of which are incorporated herein by reference.

**TECHNICAL FIELD**

The present invention relates generally to a food scoop, and more specifically, to a food scoop with a condiment compartment.

**BACKGROUND OF THE INVENTION**

Finger foods, such as chicken nuggets, popcorn shrimp, french fries, and onion rings are often served from small paperboard containers. These containers may be pouch-shaped, like those used for french fries in many fast-food establishments, or cup or cone-shaped. Because such containers are often used to scoop individual servings from a product batch, they are sometime referred to as "food scoops."

The food products described above are often dipped into sauces or condiments, such as ketchup, mustard, or vinegar before they are eaten. Many food service establishments provide bulk containers of these condiments and small paper or plastic cups into which they can be dispensed. Alternately, the condiments may come prepackaged in a sealed container.

If the food product is consumed by a person while seated at a table, the condiment containers can be placed on the table. If a person wishes to walk with the container, on a boardwalk or at an amusement park, for example, or to eat the food product while driving a vehicle, the use of a condiment becomes more difficult. Both the condiment cup and food scoop must be held in one hand while the other hand grasps an item of food and dips it in the condiment. This method makes activities such as driving very difficult and possibly dangerous. It is also possible to dispense a condiment directly onto the food products in the food scoop, but this can be messy and often results in an uneven distribution of condiment. When walking or driving, therefore, persons sometimes forgo the use of sauces or condiments altogether, or have to endure the inconvenience of eating sticky, condiment-covered food products with their fingers.

Various attempts have been made to address this problem by providing food containers with compartments for holding condiment. For example, U.S. Pat. No. 5,875,957 to Yocum, owned by the assignee of the present invention, and U.S. Pat. No. 5,720,429 to Cordle show food scoops having interior pockets that can be filled with condiments. However, pockets such as these can be inadvertently squeezed, leading to condiment spills either into the food scoop or onto the user. These pockets also make containers more difficult to assemble and more costly to produce. U.S. Pat. No. 5,417,364 to Shaw and U.S. Pat. No. 5,842,631 to Berger show complex folding shelves formed separately from a food scoop and glued or otherwise attached to the food scoops for supporting a condiment receptacle. Such attachments also add to the cost of food scoops and make them more difficult to assemble. In addition, they do not securely retain a condiment receptacle when the food scoop is carried by a user or balanced in a moving vehicle.

It would therefore be desirable to provide a food scoop with an integrally formed condiment compartment which

compartment is capable of securely retaining a condiment even when the food scoop is carried or jarred, and that can be produced at substantially the same cost as existing food scoops that lack this inventive feature.

**SUMMARY OF THE INVENTION**

The present invention addresses these and other problems by providing a conical food scoop having a compartment for a condiment that extends inwardly from a side wall thereof. The food scoop and compartment are formed from a unitary blank of material. Furthermore, the food scoop can be stored in a flat, collapsed configuration and shifted to an open, use configuration by squeezing two portions of the container together. Preferably, the condiment compartment will open or deploy as the sidewalls of the food scoop are squeezed to form the scoop.

The food scoop and the condiment compartment are formed from a unitary blank of foldable material, such as paperboard. This allows the product to be produced using the same methods used for traditional food scoops.

It is therefore a principal object of the present invention to provide a conical food scoop having a compartment for holding a condiment.

It is another object of the invention to provide a collapsible food scoop having an integral condiment compartment.

It is a further object of the present invention to provide a collapsible food scoop having a condiment compartment that shifts into an open, use position when the food scoop is erected.

It is yet another object of the present invention to provide a collapsible, conical food scoop having a conical condiment compartment.

It is yet a further object of the present invention to provide a blank for forming a conical food scoop having an integral condiment compartment.

**BRIEF DESCRIPTION OF DRAWINGS**

The present invention will now be described, by way of example, with reference to the accompanying drawings, in which:

FIG. 1 is a front perspective view of a food scoop according to the present invention;

FIG. 2 is a top plan view of the food scoop of FIG. 1;

FIG. 3 is a plan view of a blank for forming the food scoop shown in FIG. 1;

FIG. 4 is a plan view of the blank of FIG. 3 in a partially folded condition;

FIG. 5 is a front perspective view of a second embodiment of a food scoop according to the present invention;

FIG. 6 is a top plan view of the food scoop of FIG. 5;

FIG. 7 is a plan view of a blank for forming the food scoop shown in FIG. 5;

FIG. 8 is a plan view of the blank of FIG. 7 in a partially folded condition; and,

FIG. 9 is a plan view of a blank for forming a food scoop according to a third embodiment of the present invention.

**DETAILED DESCRIPTION OF THE INVENTION**

Referring now to the drawings, wherein the showings are for purposes of illustrating several preferred embodiments of the invention only and not for the purpose of limiting same, FIGS. 1 and 2 show a food scoop designated generally by the

numeral 10 having a food compartment 11 and a condiment compartment 13. Food scoop 10 is assembled by folding and gluing a unitary blank 15 which is cut from a sheet of paperboard stock. To facilitate the description of the present invention, the food scoop will be generally described in a position in which it is normally used by a consumer, which is with the opening for the food at the top.

Food scoop 10 is assembled by folding the unitary blank shown in FIG. 3 which blank includes a front wall 12 having a first wall portion 16 and a second wall portion 18 attached to first wall portion 16 with a glue flap portion 32 along a vertical first fold line 14. Food scoop 10 further includes a rear wall 20 having a third wall portion 24 and a fourth wall portion 26 divided by a vertical second fold line 22. First wall portion 16 connects to third wall portion 24 along a third fold line 28, and second wall portion 18 connects to fourth wall portion 26 along fourth fold line 30 to form food scoop 10 and define the food and condiment compartments. The wall portions are preferably triangular and form an inverted conical food scoop in the assembled configuration.

Condiment compartment 13, which generally is a receiving area defined between a movable panel and one or more wall portion of the food scoop, extends into the interior of food compartment 11 and generally comprises a triangular panel 36 (shown in FIG. 3) connected to an upper edge 37 of third wall portion 24 along a fifth fold line 38 at one end, and connected to an upper edge 39 of fourth wall portion 26 along a sixth fold line 41 at the other end. A linear slit 40 connects fifth fold line 38 and sixth fold line 41 and allows the condiment holder to open in use as described hereinafter. Although the condiment container deploys automatically at the same time as the food scoop is erected into a use position, an upper edge portion 34 is created adjacent to linear slit 40 because the slit is not collinear with fifth fold line 38 and sixth fold line 41. Upper edge portion 34 extends peripherally beyond upper edges 37 and 39 and provides a finger grip location at which the condiment triangular panel 36 can be gripped and pulled out by a consumer.

Triangular panel 36 includes a first glue flap 42 connected to a central panel 44 along a seventh fold line 43 on one side, and a second glue flap 45 connected to central panel 44 along an eighth fold line 47 at an opposing side. Central panel 44 is further divided into a first sub-panel 46, a second sub-panel 48, a third sub-panel 50, and a fourth sub-panel 52. More specifically, seventh fold line 43 separates first sub-panel 46 from first glue flap 42. A tenth fold line 56 separates first sub-panel 46 from second sub-panel 48. An eleventh fold line 58 separates second sub-panel 48 from third sub-panel 50. A twelfth fold line 60 separates third sub-panel 50 from fourth sub-panel 52, and as stated hereinabove, eighth fold line 47 separates fourth sub-panel 52 from second glue flap 45.

The sub-panels are triangular and the first and second sub-panels 46, 47 overlay the third wall portion when triangular panel 36 is folded along fold lines 38 and 41. Similarly, third and fourth sub-panels 50 and 52 overlay fourth wall portion 26 when the triangular panel is folded. Moreover, eleventh fold line 58 is a center fold line which symmetrically divides central panel 44 and, more importantly, overlays second fold line 22 when triangular panel 36 is folded over. As will be explained herein, such configuration allows the condiment compartment to deploy automatically when the food scoop is erected into a use position.

The assembly of food scoop 10 will now be explained with particular reference to FIGS. 3 and 4. Triangular panel

36 is folded at fifth fold line 38 and sixth fold line 41 until it overlies third and fourth wall portions 24, 26, as best seen in FIG. 4. Linear slit 40, preferably created during the cutting of unitary blank 15 out of the paperboard stock, leaves upper edge portion 34 peripherally extending out beyond upper edges 37 and 39. Next, adhesive material is applied to glue receiving locations 64 and then first glue flap 42 and second glue flap 45 are adhesively secured to the top surfaces of third wall portion 24 and fourth wall portion 26 respectively and left to dry. Next, first wall portion 16 is folded along third fold line 28 until it overlies third wall portion 24. Then second wall portion 18 is folded along fourth fold line 30 until it overlies fourth wall portion 26 and where the outer edge of second wall portion 18 is aligned with first fold line 14. Therefore, a portion of second wall portion 18 overlies glue flap portion 32. Next, glue flap portion 32 is attached second wall portion by applying adhesive material such as glue a second glue receiving location 66. At this point, food scoop 10 is assembled in non-deployed position used for shipping and storage.

To open food scoop 10 into a use position, the side edges of the food scoop, which correspond to third fold line 28 and fourth fold line 30, are squeezed toward one another to form a cone with a top opening having a square or rhombohedral shape. As the side edges along third and fourth fold lines 28, 30 are squeezed, central panel 44 bows outwardly away from third and fourth wall portions 24, 26 to form the condiment compartment. The compartment can then be filled with a food product which will help to hold the container in an open configuration. When the first compartment is open the second compartment will also be open which allows it to easily be filled with ketchup or other condiment. It should be appreciated that since condiment compartment 13 is located within food scoop 10, if the condiment spills, most will fall into the food compartment and onto the food product rather onto the user. Moreover, the fold lines provide a minimal contact surface area with the consumer's hand, which reduces the amount of heat transferred to a consumer's hand by hot foods such as french fries.

Referring now to FIGS. 5-8, a second embodiment of the invention is illustrated. In this embodiment, elements common to both the first and second embodiments are identified by like numerals. Broadly, the difference between the food scoop in the second embodiment and the food scoop in the first embodiment lies in the number of fold lines formed in central panel 44. More specifically, a triangular panel 136 of the second embodiment includes a third glue flap 70 connected to a central panel 144 along a fourteenth fold line 72 on one side, and a fourth glue flap 74 connected to central panel 144 along a fifteenth fold line 76 at an opposing side. Central panel 144 is further divided into a fifth sub-panel 78, a sixth sub-panel 80, and a seventh sub-panel 82. More specifically, fourteenth fold line 72 separates fifth sub-panel 78 from third glue flap 70. A sixteenth fold line 84 separates fifth sub-panel 78 from sixth sub-panel 80. A seventeenth fold line 86 separates sixth sub-panel 80 from seventh sub-panel 82. Finally, as stated hereinabove, fifteenth fold line 76 separates seventh sub-panel 82 from fourth glue flap 74.

Similar to the first embodiment, the sub-panels of this embodiment are triangular and fifth sub-panel 78 overlies third wall portion 24 and seventh sub-panel 82 overlies fourth wall portion 26 when triangular panel 36 is folded along lines 38 and 41. As stated previously, such configuration will allow the condiment compartment to deploy automatically when the food scoop is erected into a use position.

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The food scoop in the second embodiment is assembled as discussed above in connection with the first embodiment. However, the presence of fewer fold lines in the condiment compartment results in the formation of a compartment having a generally pentagonal top opening as seen in FIG. 6 rather than four sided condiment compartment opening of the first embodiment.

Referring now to FIG. 9, a blank for forming a third embodiment of the food scoop is illustrated. In this embodiment, elements common to both the first and third embodiments are identified by like numerals. Broadly, the difference between the food scoop in the third embodiment and the food scoop of the first embodiment lies in the number of fold lines formed in the central panel. More specifically, triangular panel 236 of the third embodiment includes a fifth glue flap 88 connected to a central panel 244 along an eighteenth fold line 90 on one side, and a sixth glue flap 92 connected to central panel 244 along a nineteenth folding line 94 at an opposing side. Central panel 244 is further divided into an eighth sub-panel 96 connected to a ninth sub-panel 98 along a twentieth fold line 100. It should be noted that twentieth fold line 100 is aligned with and coincides on top of second fold line 22 when triangular panel 236 is folded to overlie third and fourth wall portions 24 and 26.

The subject invention has been describes herein in terms of several preferred embodiments; however, it will be appreciated that additions and modifications to the invention will be come evident to those skilled in the art upon a reading and understanding of the foregoing description together with the attached drawings. For example, the shape of the food scoop used can be varied without departing from the scoop of this invention. It is intended that all such obvious modifications and additions be included within the scope of this application.

I claim:

1. A food scoop, comprising:
  - a first compartment having first and second side walls defining a scoop interior and having a top edge defining an opening providing access to the interior, said food scoop being shiftable from a first closed configuration to a second open configuration, and,
  - a second compartment, said second compartment comprising at least one panel having a first end attached to said first wall, wherein said first end is integrally connected to said top edge, and a second end attached to said second wall wherein said second end is integrally connected to said top edge, and a central portion, said panel central portion being shiftable from a first location overlaying a portion of said first or second side wall and a second location spaced apart from said first wall;
 wherein, shifting said first compartment from said first configuration to said second configuration shifts said panel from said first location to said second location.
2. The food scoop of claim 1 wherein said second compartment is conical.
3. The food scoop of claim 1 wherein said panel further comprises a plurality of sub-panels connected to one another along a plurality of fold lines.

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4. The food scoop of claim 1 wherein at least some of said sub-panels are triangular.

5. The food scoop of claim 1 wherein said panel further comprises a first glue flap attached to said first portion of said inner side of said first compartment wall, and a second glue flap attached to said second portion of said inner side of said first compartment wall.

6. The food scoop of claim 1 wherein said first and second sidewalls are triangular and wherein said scoop is shaped like a pyramid.

7. The food scoop of claim 6 further including third and fourth triangular sidewalls connected between said first and second sidewalls.

8. The food scoop of claim 7 wherein said panel comprises first and second end portions attachable to said first and second sidewall and wherein said central portion comprises first and second subpanels.

9. The food scoop of claim 7 wherein said central portion comprises three triangular subpanels.

10. A food scoop, comprising:

first, second, third, and fourth triangular walls interconnected at fold lines and meeting at a bottom vertex, each of said walls having a top edge;

a panel having a first end connected to said first wall, a second end connected to said second wall, wherein said first end is integrally connected to said top edge of said first wall and said second end is integrally connected to said top edge of said second wall, and a central portion comprising first and triangular subpanels;

said food scoop being shiftable between a first, flat configuration wherein said first wall overlays said fourth wall and said panel overlays said first wall, and a second open configuration wherein said first, second, third and fourth walls define a pyramidal space having a top opening formed by the top edges of said first, second, third and fourth triangular walls.

11. A generally square blank for forming a conical food scoop having a condiment compartment comprising:

first, second, third and fourth interconnected triangular panels each having a vertex located at a first corner of said blank;

a fifth triangular panel having a vertex in the corner of the square blank diametrically opposed to said first corner and joined to said second panel at a first fold line and to said third panel at a second fold line;

said fifth triangular panel further including a plurality of triangular subpanels.

12. The blank of claim 11 further including a cut line connecting said first fold line and said second fold line.

13. The blank of claim 12 wherein said first fold line and said second fold line are collinear and wherein said cut line has a central portion parallel to said first fold line.

14. The blank of claim 11 wherein said triangular subpanels are spaced apart from the edge of said square blank.

15. The blank of claim 13 wherein said fifth triangular panel comprises first and second peripheral subpanels and a central subpanel having a vertex and a plurality of fold lines radiating from said vertex to said cut line.

\* \* \* \* \*

US patent 4502623

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**E**

# United States Patent [19]

Moore, Jr. et al.

[11] Patent Number: 4,502,623

[45] Date of Patent: Mar. 5, 1985

[54] **PRECISE VOLUME, DISPOSABLE FOOD CONTAINER**

[76] Inventors: Franklin Moore, Jr., 902 McBurney Dr., Lebanon, Ohio 45036; Clinton Fultz, 508 Preston Dr., Waynesville, Ohio 45068

[21] Appl. No.: 405,073

[22] Filed: Aug. 4, 1982

[51] Int. Cl.<sup>3</sup> ..... B65D 5/18

[52] U.S. Cl. .... 229/1.5 B; 206/499; 229/8; 294/55

[58] Field of Search ..... 221/303, 304, 307-310, 221/47, 63; 312/43; D7/6; 229/8, 21, 41 R, 41 B, 1.5 B, 16 R, 33; 294/55; 206/499

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Primary Examiner—William Price

Assistant Examiner—Gary E. Elkins

Attorney, Agent, or Firm—Jacox & Meckstroth

[57] **ABSTRACT**

A disposable container for serving a food product, such as french-fried potatoes or the like, particularly in a fast-food establishment. The disposable container is constructed from a single piece or blank of paperlike material or light card stock material. The blank has a front panel, a back panel, and a bottom panel, the back panel has a pair of extending side sections which are folded to a position substantially normal to the back panel. Each of the side sections has portions which engage the front panel and the bottom panel to establish a predetermined spacing between the front panel and the back panel. Thus, a predetermined volume is established in the disposable container.

2 Claims, 11 Drawing Figures

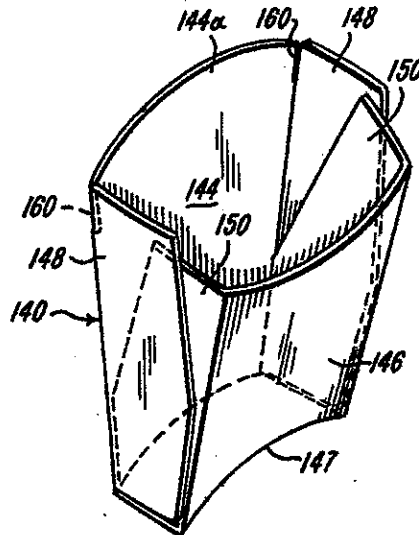


FIG-1  
(PRIOR ART)

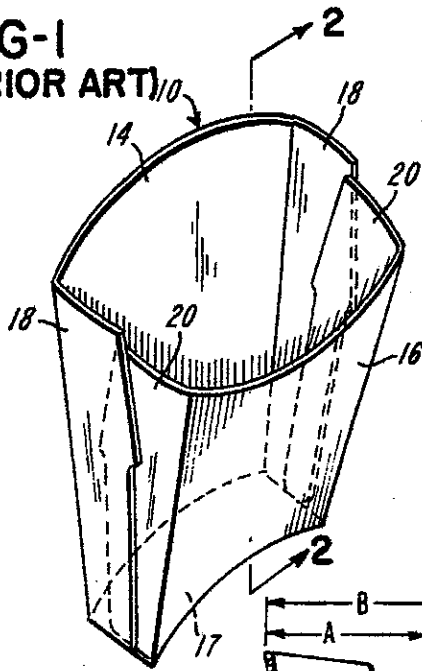


FIG-2  
(PRIOR ART)

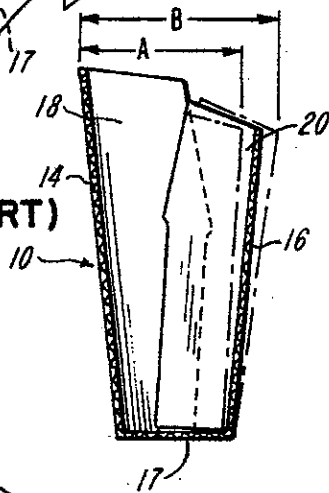


FIG-3

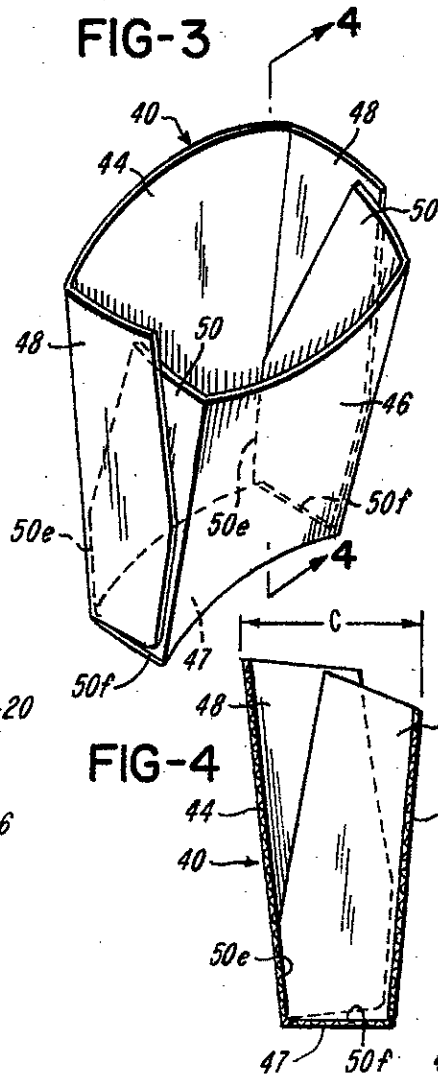


FIG-4

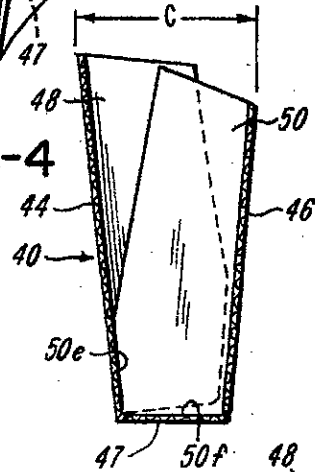


FIG-5

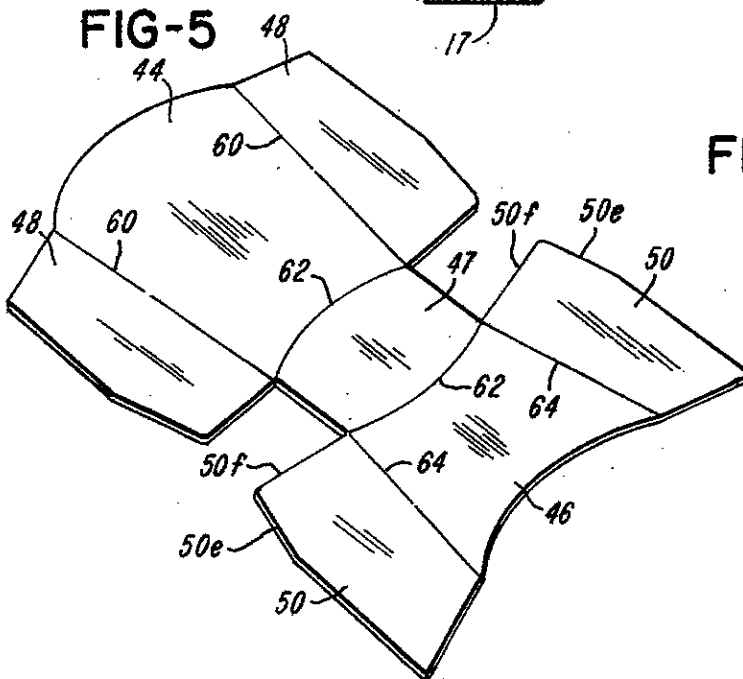


FIG-6

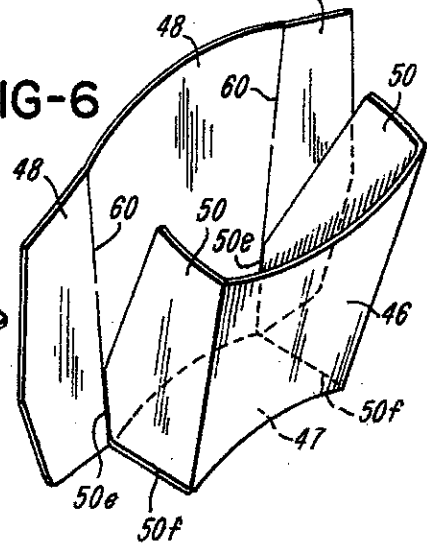


FIG-9

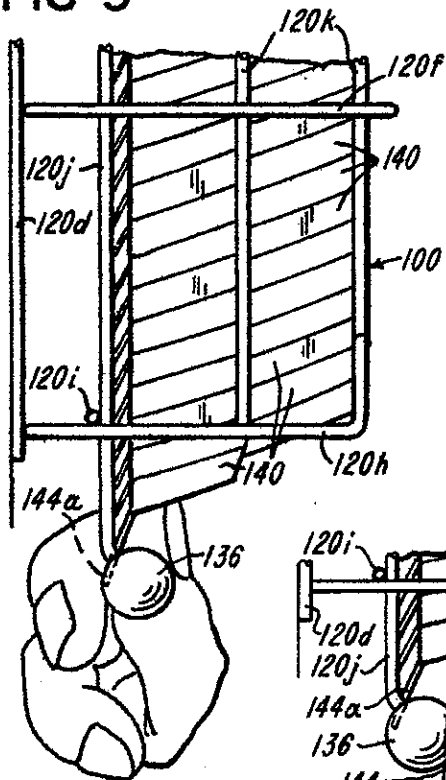


FIG-10

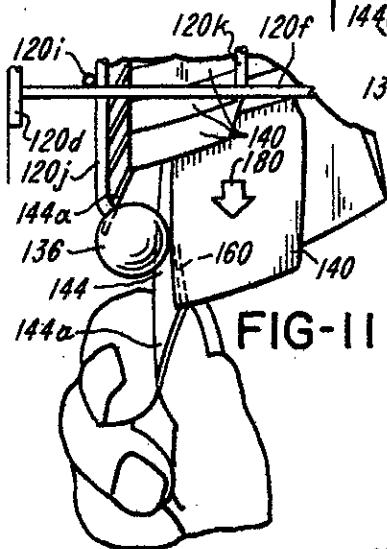
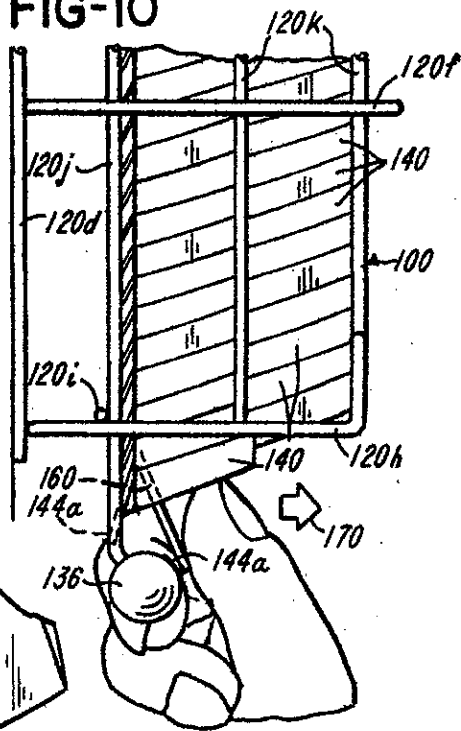


FIG-11

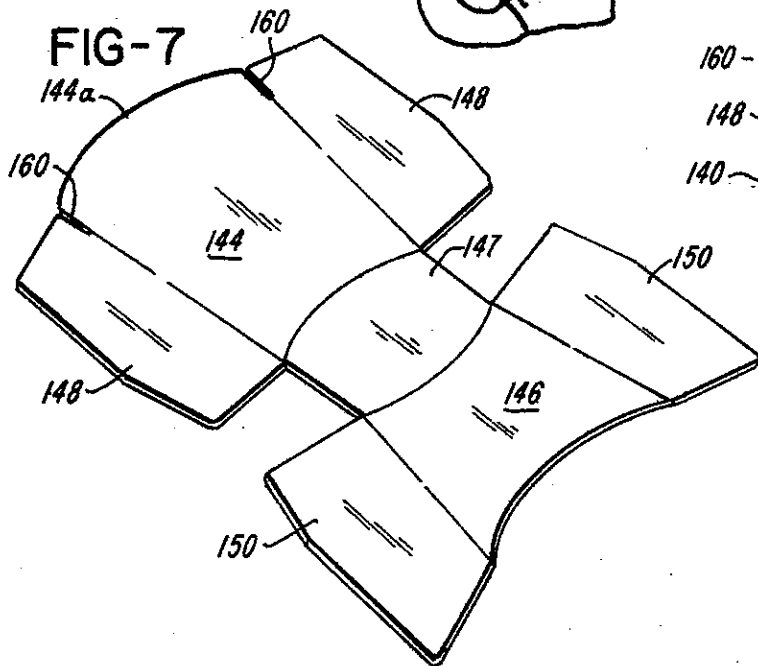


FIG-7

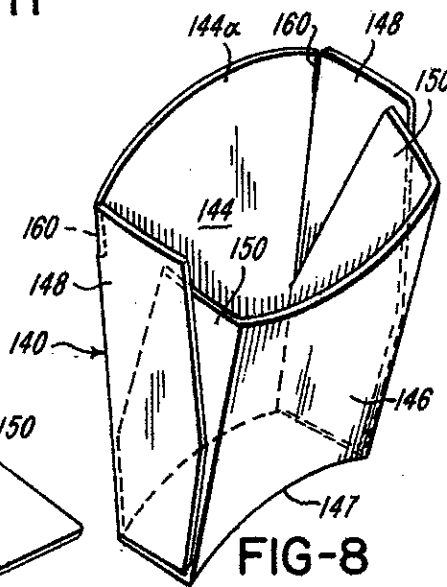


FIG-8

## PRECISE VOLUME, DISPOSABLE FOOD CONTAINER

### BACKGROUND OF THE INVENTION

In most fast-food establishments, food such as french-fried potatoes are sold. French-fried potatoes are conventionally served in disposable paper or paperlike cups or containers. An attendant fills the containers as orders for the french-fried potatoes are placed. Management desires that a given predetermined quantity of french-fried potatoes is served with each order therefor. Because of the high volume of sales of such paper cups or containers to those who operate fast-food establishments, the paper cups or containers are produced in large quantities by automatically operating machines.

In the past, the paper cups or food containers produced by such automatically operating machines have not been consistent in size. Thus, the volumetric capacity of the cups or containers has varied. Therefore, when an attendant fills the paper cups or containers, the quantities served are not consistent. Some customers may receive a larger quantity of french-fried potatoes than management intends, and some customers may receive a smaller quantity of french-fried potatoes than management intends.

It is, therefore, an object of this invention to provide a disposable paper cup or container for use in serving foods, such as french-fried potatoes or the like, in which such cups or containers can be mass produced and in which each cup or container has the same capacity.

It is another object of this invention to provide a method of production of such cups or containers.

Other objects and advantages of this invention reside in the construction of the cups or containers, the method of production, and the mode of use, as will become more apparent from the following description.

### SUMMARY OF THE INVENTION

A paper cup or container of this invention is produced from a piece of flat semi-rigid sheet of paper or paperlike material or card stock of the like, in which the piece consists of a blank which is accurately cut to a predetermined shape and dimensions, ready for folding and glueing. The piece is scored to enable folding thereof to be readily performed. The piece includes several fold parts to form front, back and bottom panels of the container. The front panel has a pair of opposed extending side sections, and the back panel has a pair of opposed extending side sections or flaps. Each of the side sections or flaps which extend from the back panel has a precisely formed edge which, upon folding, engages the front panel of the piece, as the lower edge of the side sections or flaps engages the bottom panel. The side sections of the front panel are folded and partially cover the side sections of the back panel, and are adhesively attached to the side sections of the back panel. Thus, the container is precisely formed to a predetermined size and has a precise predetermined volume.

### BRIEF DESCRIPTION OF THE VIEWS OF THE DRAWING

FIG. 1 is a perspective view of a cup or container produced in accordance with the prior art.

FIG. 2 is a sectional view taken substantially on line 2—2 of FIG. 1.

FIG. 3 is a perspective view, similar to FIG. 1, but illustrating a cup or container produced in accordance with this invention.

FIG. 4 is a sectional view taken substantially on line 4—4 of FIG. 3.

FIG. 5 is a perspective view of a piece of paper or paperlike material or card stock material cut from a sheet of the material as a step in formation of a cup or container in accordance with this invention.

FIG. 6 is a perspective view, illustrating another step in construction of a cup or container in accordance with this invention.

FIG. 7 is a perspective view, similar to FIG. 5, and illustrating a modification in the container or cup of this invention.

FIG. 8 is a perspective view, similar to FIG. 3, illustrating the container or cup of FIG. 7.

FIG. 9 is a fragmentary elevational view, drawn on a slightly larger scale than FIGS. 7 and 8, and illustrating a stack of the containers of FIGS. 7 and 8 in a retainer and dispenser structure and illustrating an initial step in removal of a container from the retainer and dispenser structure.

FIG. 10 is a fragmentary elevational view similar to FIG. 9, illustrating a succeeding step in removal of a container from the retainer and dispenser structure.

FIG. 11 is a fragmentary elevational view, similar to FIGS. 9 and 10, illustrating a succeeding step in removal of a container from the retainer and dispenser structure.

### PRIOR ART

FIGS. 1 and 2 illustrate a cup or container 10 produced in accordance with the prior art. The cup 10 has a front panel 14, a back panel 16, and a bottom panel 17. The bottom panel 17 joins the front panel 14 to the back panel 16. The front panel 14 has side sections 18 folded substantially normal to the front panel 14. The back panel 16 has side sections 20 which are folded substantially normal to the back panel 16. In the production of the cup 10, the side sections 18 and 20 are brought together, after folding thereof. The side sections 18 and 20 are brought together to any position in which a part of the side sections 20 are enclosed by the side sections 18. There is no fixed position for the side sections 18 with respect to the side sections 20. The side sections 18 and 20 are then glued together.

Due to the fact that there is no predetermined position of the side sections 18 with respect to the side sections 20, the front panel 14 and the back panel 16 may be at a minimum dimension "A" therebetween or at a maximum dimension "B" therebetween, as illustrated in FIG. 2. Therefore, the cup 10 has a relatively small capacity when the spacing between the panels 14 and 16 is as illustrated by dimension "A", or the cup 10 has a relatively large capacity when the spacing between the panels 14 and 16 is as illustrated by the dimension "B". Therefore, when the cup 10 of the prior art is used in a fast-food establishment to contain french-fried potatoes or the like, the quantity of the food contained therein may be relatively small when the dimension "A" exists and may be relatively large when the dimension "B" exists. As stated above, management of the fast-food establishment desires that each cup or container employed to contain food have the same capacity. Therefore, management objects to cups 10 made according to the prior art.



### DETAILED DESCRIPTION OF THIS INVENTION

A cup or container 40, illustrated in FIG. 3, and produced in accordance with this invention, comprises a front panel 44, a back panel 46, and a bottom panel 47. The bottom panel joins the front panel 44 to the back panel 46. The front panel 44 has side sections or flap portions or extension portions 48, and the back panel 46 has side sections or flap portions or extension portions 50. The front panel 44 is shown as being longer than the back panel 46. However, the front panel 44 and the back panel 46 may have the same dimensions, if so desired.

FIG. 5 shows a first step in the production of the cup or container 40, as the cup or container 40 comprises a single piece or blank of paper or paperlike material or card stock material or the like. The piece is cut from a larger sheet thereof. Score lines or fold lines 60 separate the side sections 48 from the front panel 44. Score lines 62 separate the bottom panel 47 from the front panel 44 and from the back panel 46. Score lines or fold lines 64 separate the back panel 46 from the side sections 50.

Each of the side sections 50 of the back panel 46 has an angular straight edge 50e and a lower edge 50f. As illustrated in FIGS. 3, 4, and 6, as the cup or container 40 is formed, the side sections 50 are moved toward the front panel 44 until the edges 50e engage the inner surface of the front panel 44 at the score lines 60. In this position of the side sections 50, the lower edges 50f are normally in engagement with the bottom panel 47. Then the side sections 48 of the front panel 44 are brought into enclosing relationship to the side sections 50 of the back panel 46, as best illustrated in FIG. 3. Then the side sections 48 are glued to the side sections 50. Therefore, a predetermined dimension "C" exists between the front panel 44 and the back panel 46 in each cup or container 40 produced, as illustrated in FIG. 4. Thus, each cup or container 40 has a predetermined shape and capacity, as the edges 50e for containing a food product, such as french-fried potatoes or the like, or for containing any other suitable substance or material.

#### FIGS. 7-10

FIGS. 7 and 8 illustrate a modification in the container or cup of this invention. A container or cup 140 shown in FIG. 8 is particularly adapted to be retained and dispensed by a retainer and dispenser unit 100, shown in FIGS. 9 and 10. The retainer and dispenser unit 100 is preferably of the type disclosed in application Ser. No. 348,350, filed Feb. 12, 1982.

The retainer and dispenser unit 100 comprises wire members 120d, 120f, 120i, 120j, 120k, and 120h, which are attached together to retain a stack of containers or cups 140, in the manner disclosed in patent application 348,350, as each of the containers 140 in the stack thereof is inverted.

Each of the containers or cups 140 has a front panel 144, a back panel 146, and a bottom panel 147. The front panel 144 has side sections 148 folded substantially normal to the front panel 144. The back panel 146 has side sections 150 which are folded substantially normal to the back panel 146. In the production of the container 140 the side sections 148 and 150 are brought together, after folding thereof and are then glued together in a manner discussed with respect to the container 40 of FIGS. 4, 5, and 6.

The front panel 144 is partially separated from the side sections 148 by slots 160. The slots 160 thus provide a flap portion 144a which is easily and readily deflected from the other portions of the front panel 144. Therefore, when it is desired to remove a container 140 from the retainer and dispenser unit 100, the portion 144a is grasped, as illustrated in FIG. 9 and deflected from abutment members 136 of the retainer and dispenser unit 100, as illustrated by an arrow 170 in FIG. 10. The lowermost container 140 is then easily removed from the retainer and dispenser unit 100 as the flap portion 144a is deflected and moved from the abutment members 136 and as the lowermost container 140 is drawn downwardly from the stack of containers 140, as illustrated by an arrow 180 in FIG. 11.

Although the preferred embodiment of the food container of this invention has been described, it will be understood that within the purview of this invention various changes may be made in the form, details, proportion and arrangement of parts, the combination thereof, and the mode of production, which generally stated consist in a food container within the scope of the appended claims.

The invention having thus been described, the following is claimed:

1. A disposable open top container for collecting and serving a food product and adapted to be used in a fast-food establishment, the container comprising:

a unitary piece of paper-like material including a front panel and a back panel connected by a bottom panel,

the front panel having a projecting lip portion with an upwardly curved upper edge to form a scoop and the back panel having a downwardly curved upper edge,

a pair of opposed side walls connected to the front panel and projecting therefrom at substantially right angles,

a pair of opposed side walls connected to the back panel and projecting therefrom at substantially right angles,

each of the side walls projecting from one of the panels having a first edge portion and a second edge portion forming an obtuse angle therebetween, the first edge portions of the side walls having a length generally equal to the spacing between the front and back panels adjacent the bottom panel and engaging the other of the panels for precisely spacing the back panel with respect to the front panel to determine the volumetric capacity of the container, the second edge portions of the side walls diverging from the one panel towards the plane of the other panel,

the side walls projecting from the other panel overlapping the side walls projecting from the one panel and being adhesively attached thereto to fix the relative positions of the panels,

each of the side walls projecting from the other panel having an edge portion diverging from the one panel towards the plane of the other panel,

the front panel having a pair of slots extending from the open top on opposite ends of the lip portion and partially separating the front panel from the side walls projecting therefrom, the slots providing a spring-like deflectable lip portion to facilitate separating the container from an adjacent container within a stack of nested containers.

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2. A disposable open top container for collecting and serving a food product and adapted to be used in a fast-food establishment, the container being arranged in a vertical stack of the containers disposed in inverted nested relation and retained within a dispenser unit with the lowermost container in the stack engaging an abutment located at the bottom of the dispenser unit, comprising:

a unitary piece of paper-like material including a front panel and a back panel connected by a bottom panel,

the front panel having a lip portion projecting beyond the back panel to form a scoop,

a pair of opposed side walls foldably joined to the front panel and extending substantially at right angles from the front panel,

a pair of opposed side walls foldably joined to the back panel and extending substantially at right angles from the back panel,

each of the side walls of one of the panels having a first edge portion and second edge portion forming an obtuse angle therebetween, the first edge por-

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tions of the side walls engaging the other of the panels for precisely spacing the back panel with respect to the front panel to determine the volumetric capacity of the container,

the side walls of the other panel at least partially enclosing the side walls of the one panel and being adhesively attached thereto to fix the relative positions of the panels,

the lip portion on the front panel of the lowermost container in the stack engaging the abutment on the dispenser unit and being flexible toward the back panel and around the abutment to release the lowermost container from the stack of inverted containers in a dispenser unit,

the front panel having a pair of slots extending from the open top on opposite ends of the lip portion and partially separating the front panel from the side walls projecting therefrom, the slots providing a spring-like deflectable lip portion to facilitate separating the container from the adjacent container within the stack of nested containers.

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US patent 5720429

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**F**



US005720429A

# United States Patent [19]

[11] Patent Number: 5,720,429

Cordle

[45] Date of Patent: Feb. 24, 1998

[54] **FOOD CONTAINER WITH FLIP-OUT CONDIMENT POCKET**

[76] Inventor: **Bradley D. Cordle**, 306 W. 26th St., Kearney, Nebr. 68847

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[21] Appl. No.: 775,953

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[51] Int. Cl.<sup>6</sup> B65D 5/36; B65D 5/4805

[52] U.S. Cl. 229/120.18; 229/117.06; 229/405; 229/904; 229/906

[58] Field of Search 229/117.05, 117.06, 229/120.18, 400, 405, 902, 904, 906

Primary Examiner—Gary E. Elkins  
Attorney, Agent, or Firm—Zarley, McKee, Thomte Voorhees & Sease; Mark D. Frederiksen

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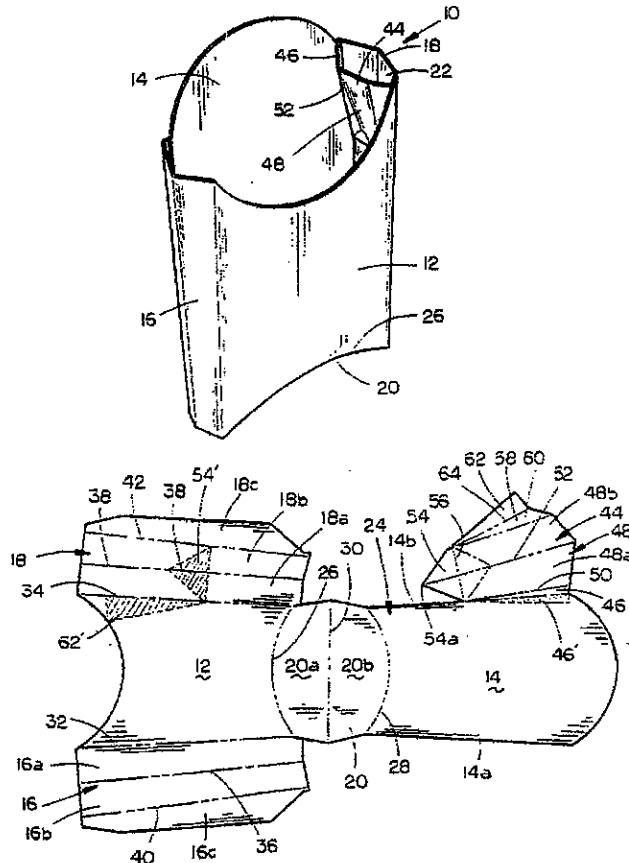
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### [57] ABSTRACT

The food container of the present invention includes a paperboard container with front and rear panels and collapsible side walls and collapsible bottom, permitting the container to be flattened to a nestable storage position. A flip-out pocket is operably mounted within the container, with a pocket panel having a forward edge mounted to the front panel, a rearward edge mounted to the rear panel, and a bottom edge mounted to the side wall. A central hinge extending from the top to the bottom of the pocket panel, and hinged connections of the edges of the pocket permit the pocket panel to be moved from a storage position flush against the side wall to an operable position with the upper edge spaced away from the upper edge of the side wall.

11 Claims, 2 Drawing Sheets



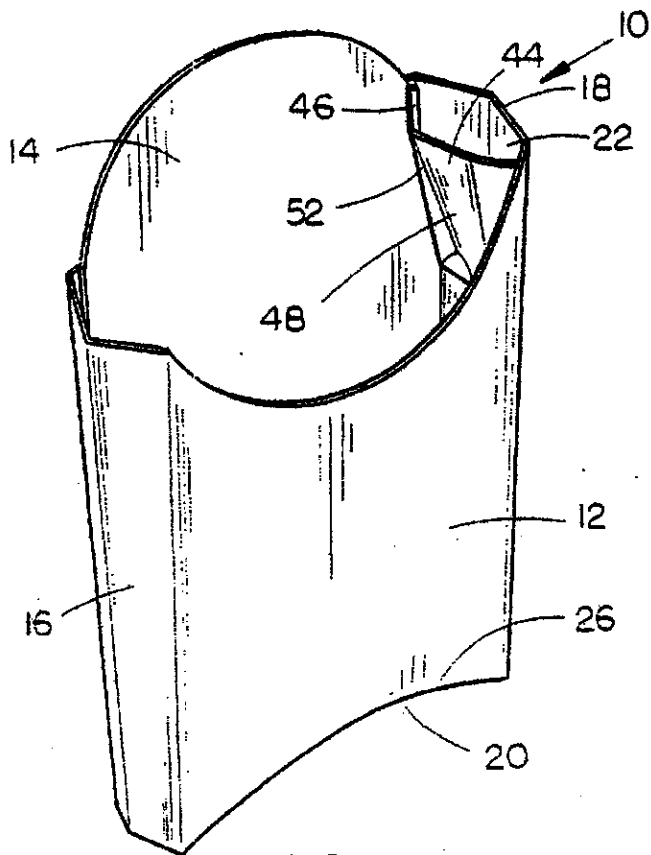


FIG. 1

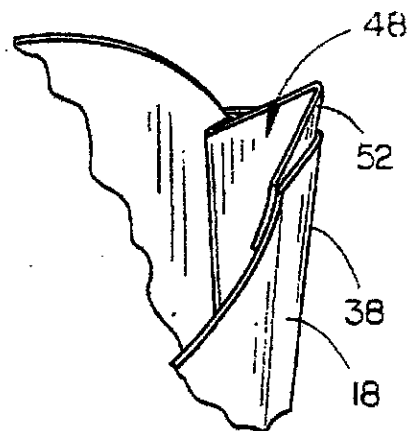


FIG. 2

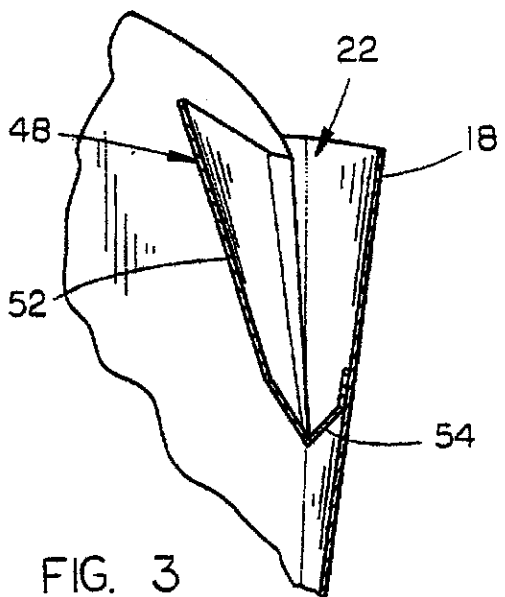


FIG. 3

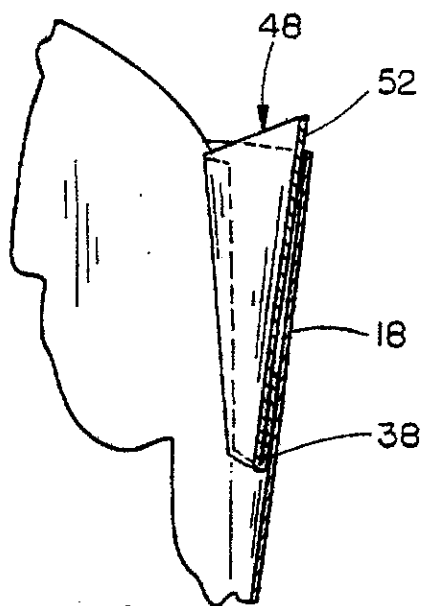


FIG. 4

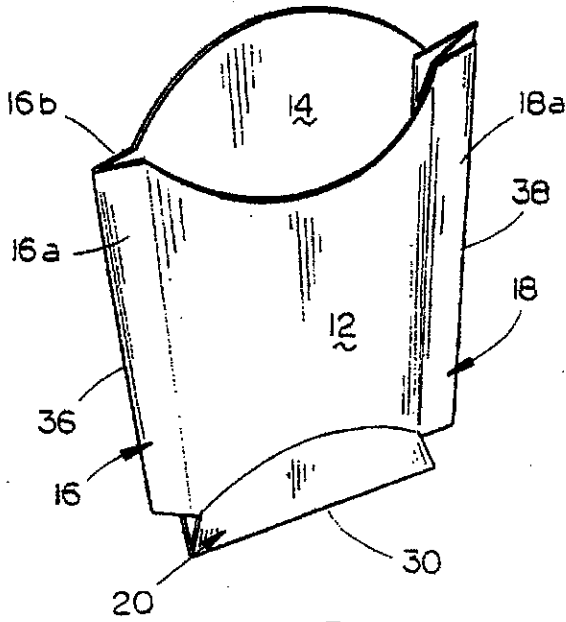


FIG. 5

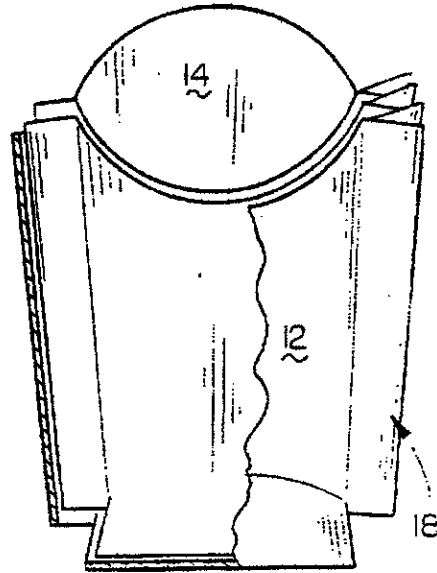


FIG. 6

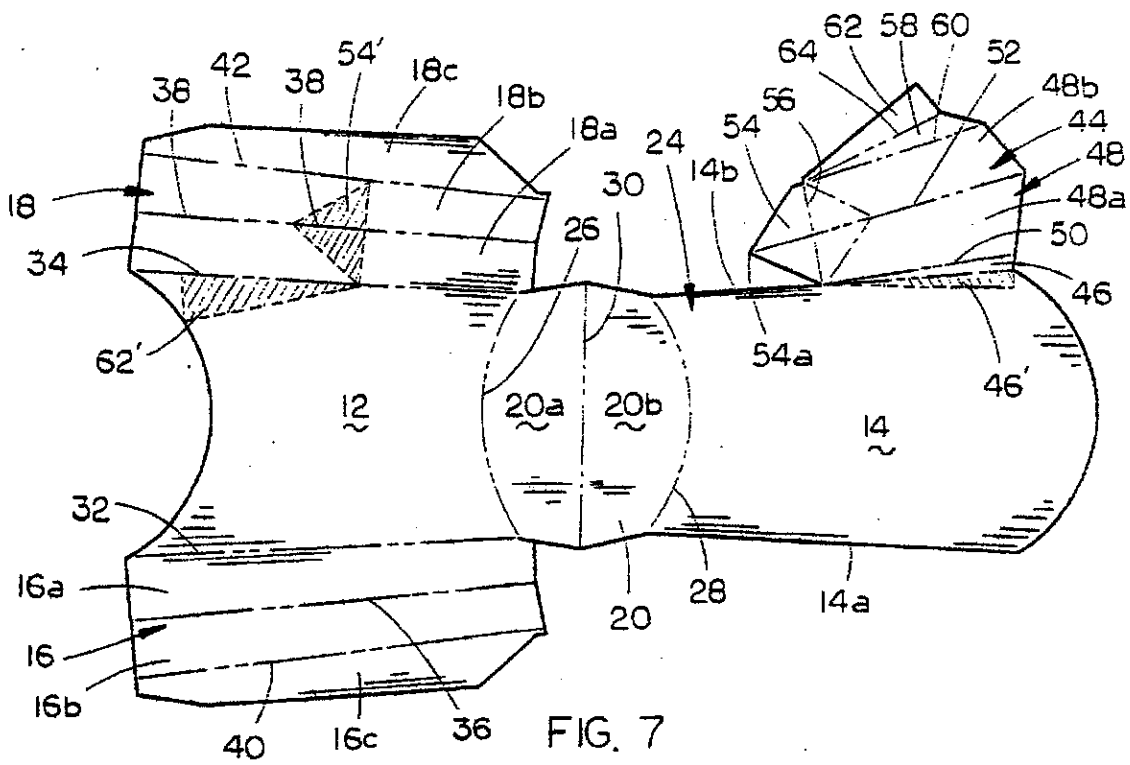


FIG. 7

## FOOD CONTAINER WITH FLIP-OUT CONDIMENT POCKET

### TECHNICAL FIELD

The present invention relates generally to paperboard food containers, and more particularly to stackable paperboard containers formed from a blank with a flip-out condiment pocket formed thereon.

### BACKGROUND OF THE INVENTION

Restaurants merchandising prepared foods, and particularly "fast food" restaurants, utilize disposable paperboard containers for various food products. Such containers have several characteristics which are required for this type of merchandising. First, the container must be able to be stacked and nested, one within another, either when partially or fully open. Second, the container must be economical to manufacture, simple to use, and be disposable after use.

It is frequently desirable to provide a condiment or sauce with the principal food product carried by the container. For example, containers of ketchup are frequently utilized with french fries, ketchup and/or mustard with hamburgers, and tartar sauce with fish or the like. The primary method for providing such condiments is in separately packaged materials, or in bulk quantities at a "condiment center".

### SUMMARY OF THE INVENTION

It is therefore a general object of the present invention to provide an improved paperboard food container with a condiment pocket which may be flipped from a storage position to an operable position.

Yet another object is to provide an improved paperboard food container with flip-out condiment pocket which may be stacked or nested during shipping and storage, yet provides an easily accessible pocket for retaining condiments within the container separate from the main food product.

Still another object of the present invention is to provide an improved paperboard food container with a flip-out condiment pocket which is economical to manufacture, simple to use, and refined in appearance.

These and other objects of the present invention will be apparent to those skilled in the art.

The food container of the present invention includes a paperboard container with front and rear panels and collapsible side walls and collapsible bottom, permitting the container to be flattened to a nestable storage position. A flip-out pocket is operably mounted within the container, with a pocket panel having a forward edge mounted to the front panel, a rearward edge mounted to the rear panel, and a bottom edge mounted to the side wall. A central hinge extending from the top to the bottom of the pocket panel, and hinged connections of the edges of the pocket permit the pocket panel to be moved from a storage position flush against the side wall to an operable position with the upper edge spaced away from the upper edge of the side wall.

### BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of the invention with the flip-out pocket in the operable position;

FIG. 2 is a partial perspective view of the invention with the flip-out pocket folded to the storage position;

FIG. 3 is a vertical sectional view through the flip-out pocket shown in FIG. 1;

FIG. 4 is a vertical sectional view through the flip-out pocket arranged in the storage position of FIG. 2;

FIG. 5 is a perspective view of the paperboard container in a flattened shipping/stacking condition;

FIG. 6 is a front elevational view of a plurality of paperboard containers nested inside one another, with a portion broken away to show the nesting relationship; and

FIG. 7 is a plan view of the blank used to form the container in accordance with the invention.

### DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to the drawings, in which similar or corresponding parts are identified with the same reference numeral and more particularly to FIG. 1, the paperboard container of the present invention is designated generally at 10 and includes a front panel 12, a rear panel 14, opposing folding side walls 16 and 18, a folding bottom 20, and a flip-out pocket designated generally at 22 attached to side wall 18.

Referring now to FIG. 7, a sheet of paperboard stock 24 is cut to form one piece blank 24, from which the container of the present invention is constructed. Blank 24 includes front panel 12 connected to rear panel 14 by bottom 20. Front panel 12 is hinged along a curved first fold line 26 to a forward edge of bottom 20. Similarly, the lower edge of rear panel 14 is hinged along a second fold line 28 to the opposing curved rearward edge of bottom 20. Bottom 20 is divided in half between the first and second fold lines by a third fold line 30, permitting front and rear panels 12 and 14 to be positioned closely adjacent one another in the flattened condition shown in FIG. 5, with third fold line 30 projecting downwardly and the forward and rearward halves 20a and 20b of bottom 20 located closely adjacent one another.

Side wall 16 is hinged along a fourth fold line 32 to one side edge of front panel 12, and extends freely therefrom. Similarly, the opposing side wall 18 is hinged along a fifth fold line 34 to the opposing side edge of front panel 12, and projects freely therefrom. Side wall 16 includes a forward half 16a connected to a rearward half 16b by a sixth fold line 36, generally parallel to fourth fold line 32. Similarly, side wall 18 includes a forward half 18a and rearward half 18b hinged at a seventh fold line 38 generally parallel to fifth fold line 34. A flap 16c projecting outwardly from side wall rearward half 16b is affixed to rear panel 14 and hinged to side wall rearward half 16b along eighth fold line 40. A similar flap 18c is hinged to side wall rearward half 18b along a ninth fold line 42, and is designed for attachment to rear panel 14. It should be noted that when flaps 16c and 18c are attached to rear panel 14, fold lines 40 and 42 will be juxtaposed upon the side edges 14a and 14b respectively of rear panel 14. Central fold lines 36 and 38 in side walls 16 and 18 permit the side walls to be flattened with sixth and seventh fold lines 36 and 38 projecting outwardly, as shown in FIG. 5, and the forward and rearward halves of the side walls in adjacent juxtaposition.

A pocket panel 44 projects outwardly from side edge 14b of rear panel 14, and is folded to form the flip-out pocket 22 (shown in FIG. 1). Pocket panel 44 includes a first triangular portion 46 hinged along side edge 14b. First portion 46 is folded along edge 14b and glued to rear panel 14 in a location shown by shaded triangular area 46'. First portion 46 forms a back wall of pocket 22. A side wall portion 48 of pocket panel 44 is hinged along a tenth fold line 50 to first portion 46. Side wall portion 48 includes a rearward trapezoidal portion 48a and a forward trapezoidal portion 48b, hinged together along the bases of the trapezoidal shape, on eleventh fold line 52. Eleventh fold line 52 is a reversible

fold permitting pocket panel 44 to be moved between a storage position shown in FIG. 2 and an operable position shown in FIG. 1, by reversing the direction of the fold of fold line 52.

Side wall portion 48 has a triangular shape bottom panel 54 forming the lower end thereof. Bottom panel 54 is folded along a twelfth fold line 56 oriented perpendicular to eleventh fold line 52, and is fastened to side wall 18 with the point 54a of the triangular portion of panel 54 centered on seventh fold line 38, as shown in the shaded triangular area 54'.

A triangular second portion 58 is hinged along a thirteenth fold line 60 forming the side edge of side wall portion 48. Second portion 58 forms a forward wall opposed to first portion 46. A triangular flap 62 is hinged along a fourteenth fold line 64 and is secured to front panel 12 in the triangular shaded portion 62'.

As shown in FIG. 1, pocket 22 is formed between pocket panel 44 and side wall 18, and may be flipped outwardly to form the pocket by pulling out on the upper end of side wall portion 48, away from container side wall 18. FIG. 3 shows side wall portion 48 of pocket 22 spaced outwardly away from container side wall 18, with bottom panel 54 forming the bottom of the pocket 22.

Pushing outwardly along eleventh fold line 52 will cause the side wall portion 48 to reverse along fold line 52 and nest against fold line 38 of container side portion 18, as shown in FIGS. 2 and 4. In this nested storage position, a plurality of containers 10 may be nested together as shown in FIG. 6, for storage or shipment.

Whereas the paperboard container with flip-out pocket of the present invention has been shown and described herein, many modifications, substitutions and additions may be made which are within the intended broad scope of the appended claims.

I claim:

1. A food container with flip-out pocket, comprising: a front panel spaced apart from a rear panel and connected thereto by a bottom and first and second side walls, to form a container with an open upper end; and an operable pocket formed at an upper end of the first side wall, operable between a storage position flush against the side wall, and an operable position open at an upper end to receive a condiment therein; said pocket including a pocket panel having opposing first and second side edges and top and bottom edges; said panel first side edge being hinged to the front panel; said panel second side edge being hinged to the back panel; said panel bottom edge being mounted to the first side panel; whereby the hinges permit pivotal movement of the pocket panel from the storage position, flush against the side panel, to the operable position, with the pocket panel upper edge spaced from the side wall upper edge.
2. The container of claim 1, wherein said container and pocket panel are formed of a paperboard material, and wherein said hinges are creases in the material permitting folding along each crease.
3. The container of claim 2, wherein said first and second side walls, said bottom wall, and said pocket panel, each have means for selectively collapsing the container to a nestable flattened position with the front panel in contact with the rear panel.
4. The container of claim 3, wherein said means for selectively collapsing the container includes:

said first side wall having a forward edge hinged along a first side edge of the front panel, a rearward edge hinged along a first side edge of the rear panel, and a central hinge extending along a height of the side wall, dividing the side wall into forward and rearward halves;

said second side wall having a forward edge hinged along a second side of the front panel, a rearward edge hinged along a second side edge of the rear panel, and a central hinge extending along a height of the side wall dividing the second side wall into forward and rearward halves;

said bottom having a forward edge hinged along a lower edge of the front panel, a rearward edge hinged along a lower edge of the rear panel, and a central hinge extending a width of the bottom dividing the bottom into forward and rearward halves; and

said pocket panel having a central hinge extending from the lower edge to the upper edge and dividing the pocket panel into forward and rearward halves.

5. The container of claim 4, wherein said pocket panel first side edge hinge has an upper end spaced away from an upper end of the front panel first side edge;

wherein the pocket panel first side edge hinge has a lower end juxtaposed on the front panel first side edge;

wherein the pocket panel second side edge has an upper end spaced away from an upper end of the rear panel first side edge;

wherein the pocket panel second side edge has a lower edge juxtaposed on the rear panel first side edge;

whereby the pocket panel forms a pocket with a perimeter at an upper end greater than a perimeter at a lower end thereof.

6. The container of claim 5, wherein said pocket panel includes a lower end portion folded upwardly at a fold line, the fold line oriented generally orthogonally to the pocket panel central hinge and forming a lowest end of the pocket.

7. The container of claim 1, wherein said first and second side walls, said bottom wall, and said pocket panel, each have means for selectively collapsing the container to a nestable flattened position with the front panel in contact with the rear panel.

8. The container of claim 7, wherein said means for selectively collapsing the container includes:

said first side wall having a forward edge hinged along a first side edge of the front panel, a rearward edge hinged along a first side edge of the rear panel, and a central hinge extending along a height of the side wall, dividing the side wall into forward and rearward halves;

said second side wall having a forward edge hinged along a second side of the front panel, a rearward edge hinged along a second side edge of the rear panel, and a central hinge extending along a height of the side wall dividing the second side wall into forward and rearward halves;

said bottom having a forward edge hinged along a lower edge of the front panel, a rearward edge hinged along a lower edge of the rear panel, and a central hinge extending a width of the bottom dividing the bottom into forward and rearward halves; and

said pocket panel having a central hinge extending from the lower edge to the upper edge and dividing the pocket panel into forward and rearward halves.

9. The container of claim 8, wherein said pocket panel first side edge hinge has an upper end spaced away from an upper end of the front panel first side edge;



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wherein the pocket panel first side edge hinge has a lower end juxtaposed on the front panel first side edge;

wherein the pocket panel second side edge has an upper end spaced away from an upper end of the rear panel first side edge;

wherein the pocket panel second side edge has a lower edge juxtaposed on the rear panel first side edge;

whereby the pocket panel forms a pocket with a perimeter at an upper end greater than a perimeter at a lower end thereof.

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10. The container of claim 9, wherein said pocket panel includes a lower end portion folded upwardly at a fold line, the fold line oriented generally orthogonally to the pocket panel central hinge and forming a lowest end of the pocket.

11. The container of claim 1, wherein said pocket panel includes a lower end portion folded upwardly at a fold line, the fold line oriented generally orthogonally to the pocket panel central hinge and forming a lowest end of the pocket.

\* \* \* \* \*

Extra copy of Claims of C:

1. A food container formed from a unitary blank of foldable sheet material,  
said container comprising first and second opposed upstanding walls,  
5 opposed sides extending between and joining said walls, and a bottom  
extending between and joining said walls, said walls and sides having  
upper edges defining an upwardly opening container mouth, a pocket  
wall having opposed side edges, a bottom edge and a top edge, said  
bottom edge being directly bonded to said first upstanding wall, said  
10 opposed side edges joining said first wall and said top edge being free  
of said first wall, with said first wall, in an open position of said container  
for the reception of foodstuffs, being outwardly convex relative to said  
second wall with said inner surface thereof being concave, wherein said  
pocket wall may thereby flex inwardly away from said concave inner  
15 surface to define a pocket.
2. A container as claimed in claim 1 wherein said pocket wall comprises a  
pocket sheet overlying said inner surface of said first wall with opposed  
side edges of said pocket sheet intimately joined to said inner surface.
3. A container as claimed in claim 2 wherein said pocket sheet is in  
20 surface to surface contact with a portion of the inner surface  
dimensionally substantially equal to said pocket sheet.
4. A container as claimed in either claim 2 or claim 3 wherein said  
opposed side edges are bonded to said inner surface of said first wall.
5. A container as claimed in any one of claims 1 to 4 wherein the upper

edge of the front wall of said container has a central concave extent generally aligned with said pocket wall between the side edges thereof, the top edge of said pocket wall extending across said concave extent of the upper edge of said front wall in generally upwardly spaced relation thereto for free access to said pocket wall over said front wall upper edge.

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6. A container as claimed in any one of claims 1 to 5 wherein said first wall, below the top edge thereof and below the free upper edge of said pocket wall, has an access opening defined therein and communicating with said pocket.

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7. A container as claimed in claim 2 including an aperture in said first wall spaced immediately below said top edge and in alignment with said pocket to define said access means for the introduction of a condiment into said pocket.

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8. A container as claimed in any one of claims 1 to 7 wherein each side edge of said pocket wall joins said first wall along the junction between said first wall and said side walls.

9. A container as claimed in any one of claims 1 to 8 wherein said first wall is said front wall.

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10. A unitary folding blank for use in the forming of an upwardly opening food container with a condiment pocket, said unitary folding blank comprising longitudinally aligned first and second wall panels with a bottom panel section defined there between, said wall panels each

having an outer edge and being foldable about said bottom panel section to position said outer edges in general overlying alignment with each other, and side panels adapted to engage and join said first and second wall panels upon a folding thereof, and a pocket wall secured to a said wall panel wherein, upon a convex flexing of said first wall panel about an axis generally parallel to said opposed side edges of said sheet, opposed side edges of said pocket wall will effectively move transversely toward each other and reduce the transverse distance therebetween wherein a convex flexing of said pocket wall relative to said first wall panel is achieved, to allow formation of a pocket.

11. A blank as claimed in claim 10 wherein said pocket wall comprises a single planar sheet of flexible material overlying and coextensive with an equally dimensioned corresponding portion of said first wall panel, said sheet having an unsecured upper edge generally aligned along the outer edge of said first wall panel, opposed side edges secured to said first wall panel, a bottom edge secured to said first wall panel.

12. A blank as claimed in either claim 10 or claim 11 including means defined by said first wall panel for forming access therethrough to said overlying planar sheet below said upper edge of said sheet.