June 10, 1958 R. K. WILSON 2,838,221

BASKET

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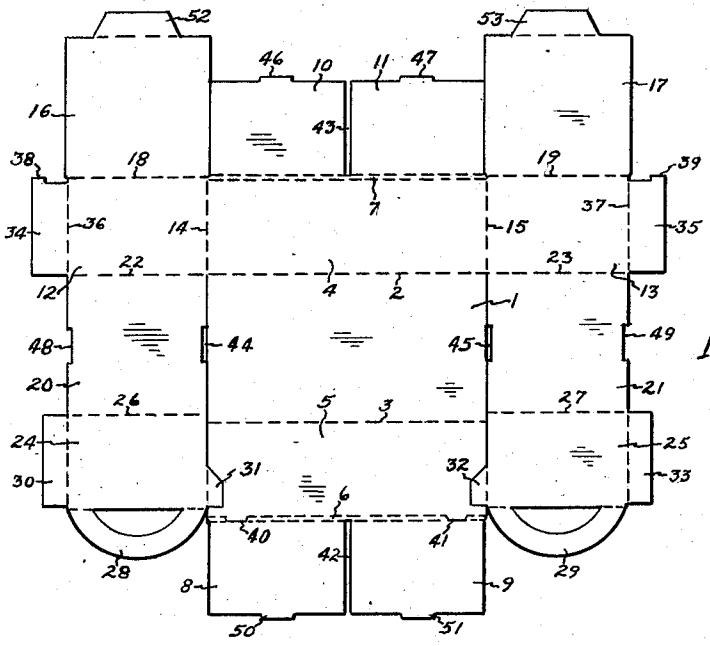

Fig. 1

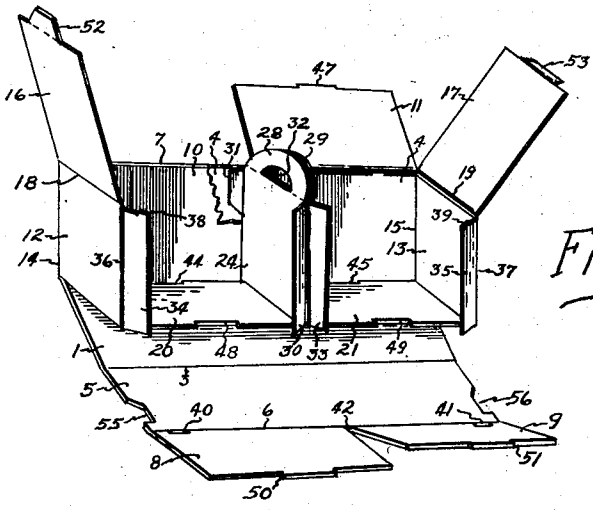

Fig. 2

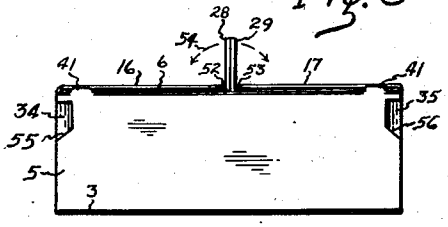

Fig. 3

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2,838,221

BASKET

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4 Claims. (Cl. 229—27)

This invention pertains to a basket, and, more particularly, to a compartmented basket having a handle and formed from a single blank or stiff foldable sheet material, such as paperboard, corrugated fiberboard, or the like.

Basket containers for shipping and handling vegetables, fruits and the like, should effectively protect the contents against crushing when the containers are stacked, should be light in weight, and should permit ready and repeated inspection. In packaging cucumbers, for example, it has been found economic to provide a basket to hold 24 cucumbers, and it is desired to provide in such basket a central partition, a central carrying handle and hinged cover panels or lids. Baskets of this general type have been heretofore suggested, but such baskets have been formed from more than one blank and have, in most cases, required glueing or stapling in the assembly or setting up and have been wasteful of material in that the outlines of the blanks have not approached closely to a rectangle. Such prior art baskets have, in many instances, had insufficient strength to withstand stacking when loaded.

It is a general object of this invention to provide an improved basket of the type adapted for packaging fruits, vegetables and the like, or other commodities.

A further object of this invention is to provide a single, one piece blank which, by folding alone and without glueing or stapling, may be formed into a strong and sturdy basket having double thickness side walls and bottom, a central partition, and a hinged cover.

Another object of the invention is to provide a basket which may be manufactured in the form of a single flat blank for shipment to the user and may then be readily and rapidly set up by relatively unskilled labor in the field without the use of tools or accessories of any kind.

The novel features which are believed to be characteristic of this invention are set forth with particularity in the appended claims. The invention itself, however, both as to its organization and method of operation, together with further objects and advantages thereof, may best be understood by reference to the following description taken in connection with the acompanying drawing, in which:

Fig. 1 is a plan view of a blank in accord with the invention;

Fig. 2 is a perspective view of a basket in process of assembly from the blank of Fig. 1, a small portion of an inner side wall panel being broken away; and

Fig. 3 is a side elevation of the completely assembled basket.

Referring to Fig. 1 of the drawing, there is shown a single one-piece blank for forming a complete basket with double thickness bottom, side walls and partition, with a central handle and with two hinged cover panels. In Fig. 1, solid lines indicate die cuts in the blank, while broken lines indicate scored lines along which the portions of the blank are folded to form the basket, some

of the scored lines comprising hinges useful after the basket is set up.

The blank includes a rectangular lower bottom panel **1** joined along scored side edges **2** and **3** to outer side panels **4** and **5**. The outer side panels, in turn, are joined along respective double scored edges **6** and **7**, which will constitute the upper side edges of the completed basket, to respective pairs of inner side panels **8**, **9** and **10**, **11**.

End panels **12** and **13** are joined along scored fold lines **14** and **15** to opposite respective end edges of outer side panel **4**, and the end panels have cover panels **16** and **17**, respectively, hingedly attached thereto along scored hinge lines **18** and **19**, respectively. Inner bottom panels **20** and **21** are attached to lower edges of the end panels along respective fold lines **22** and **23**, and the inner bottom panels carry respective partition panels **24** and **25** attached thereto along scored fold lines **26** and **27**, respectively, the fold lines **26** and **27** defining inner edges of the inner bottom panels lying opposite to the respective outer edges defined by scored lines **22** and **23**.

Arcuate handles **28** and **29** are formed as extensions of the partition panels, and scored hinges may be provided along the base portions of the handle extensions as indicated, to permit the handles more easily to swing out of the plane of the partition when the basket is in use, if desired.

Each partition panel has an anchoring flap at each side, such as flaps **30** and **31** of panel **24** and flaps **32** and **33** of panel **25**. Since flaps **31** and **32** are formed by cuts extending into the end portions of outer side wall panel **5**, these flaps are limited in size and extend through only a portion of the height of the respective partition panel, whereas flaps **30** and **33** are of substantially the full height of the partition panels except for an allowance for material thickness at the ends adjacent the handle portions of the partition. Flaps **30**, **31**, **32** and **33**, in completing the setting up of the basket, tuck into the side wall structure between the inner and outer side wall panels at the respective ends of the partition and thereby serve to hold the partition in upright position and in locked connection with the centers of the side walls of the basket.

End wall side flaps **34** and **35** are provided attached along fold lines **36** and **37** to end walls **12** and **13**, respectively, and these flaps serve to lock one vertical edge of each end wall to the side wall in the completed basket, the other vertical edge of each end wall being permanently joined, along fold lines **14** and **15**, respectively, to panel **4** of the other side wall. Flap **34** is provided, accordingly, at the edge of end panel **12** which is opposite the edge **14** along which the end panel is joined to an outer side wall panel, in this case, outer side wall panel **4**.

Each of flaps **34** and **35** is formed to have a small tab **38** and **39**, respectively, protruding from what is, in the set up basket, its upper edge, and small cut out sockets or slots are provided in the double scored fold line **6**, socket **40** being positioned to receive tab **38** and socket **41** being positioned to receive tab **39**. The sockets preferably include ears as shown. When engaged in sockets **40** and **41**, respectively, tabs **38** and **39** serve to lock the upper portion of the end panel to that one of the side walls to which the respective end panel is not permanently attached along a fold line **14** or **15**.

The inner side panels **8** and **9** are separated by a narrow slit or slot **42** having a width sufficient to pass the double thickness of the erected partition, and a slit **43** of the same width separates panels **10** and **11**.

Notches **44** and **45** are provided along the edges of inner bottom panels **20** and **21** in positions to receive

tabs 46 and 47 of inner side wall panels 10 and 11, respectively, when the basket is set up, and similar notches 48 and 49 are cut into the opposite edges of panels 20 and 21 to receive tabs 50 and 51, respectively, of inner side wall panels 8 and 9 in the set up basket.

Cover locking tabs 52 and 53 on lids 16 and 17 are arranged to be inserted flat under handles 28, 29 extending in the planes of the respective cover panels. If desired, tabs 52 and 53 may be bent downwardly perpendicularly to the cover panels for insertion under the handles and between the partition panels, as shown and described, for example, in the copending application of Tharpe et al., entitled Container, Serial No. 319,582 filed November 8, 1952.

To set up or erect the basket from the blank of Fig. 1, into the partially set up form of Fig. 2, the partition panels are first bent upwardly, along fold lines 26 and 27, and the inner bottom panels 20 and 21 are bent upwardly along fold lines 22 and 23. These bends or folds are conveniently made by a person standing near panels 10 and 11 by grasping handle 29 in the left hand and handle 28 in the right hand, raising the handles and pulling them toward the body. The handles and partition panels are next brought together inwardly, thereby folding end panels 12 and 13 along lines 14 and 15. With partition panels 24 and 25 brought together, and with flaps 31 and 32 folded to extend outwardly from one another, side panel 4 may be folded upwardly along line 2 and inner side panel 10 folded inwardly, over partition flap 31, and its tab 46 may be pressed into notch 44.

The outlined steps having been accomplished, the partially assembled basket has the appearance of Fig. 2, wherein it will be seen that handles 28 and 29 extend, to form a grippable double or composite handle, upwardly from the double thickness partition formed of the two partition panels, of which panel 24 is visible in Fig. 2. Flap 31 is in position against outer side wall panel 4 and locked under inner side panel 10, the inner side panel being partially broken away in Fig. 2 to disclose the position of flap 31. Flap 32 is similarly in position for locking under inner side panel 11 when this panel is folded inwardly to lock its tab 47 into notch 45 of the inner bottom panel 21. Lower bottom panel 1 is shown partially folded up into position to underlie inner bottom panels 20 and 21.

It will be seen that end edges 14 and 15 of outer side panel 4 are disposed to extend directly upwardly over corners at respective opposite ends of the lower bottom panel 1 and, when the lower bottom panel is brought up against the inner bottom panels, the end edges 14 and 15 will be perpendicular to all of the bottom panels. As the basket is set up, it will be apparent that side edges 36 and 37 of the end panels will extend vertically upwardly substantially directly above the other two respective corners of the lower bottom panel, whereby edges 14 and 36 of end panel 12 will be located over the corners at one end of the lower bottom panel and edges 15 and 37 of end panel 13 will be located substantially directly above the corners at the other end of the lower bottom panel. End panels 12 and 13 extend parallel to each other and perpendicularly to outer side panel 4, and, in the completed basket, the end panels extend to outer side panel 5 and perpendicularly thereto.

The setting up of the basket is completed from the Fig. 2 condition by folding inner side panel 11 inwardly to cover flap 32, tucking tab 47 into notch 45, by bringing up the lower or outer bottom panel 1 flush against the inner bottom panels, and by folding outer side panel 5 upwardly along fold line 3 to lie flush against inwardly folded end panel side flaps 34 and 35 and against outwardly folded partition flaps 30 and 33, and thereafter by folding in, along fold line 6, the inner side panels 8 and 9 to lock flaps 31, 32, 34 and 35 between the outer side panel and the inner side panels, finally tucking tabs 50 and 51 into respective notches 48 and 49. The partition panel flaps 30 and 33 will thus extend through slit 42 formed between the inner edges of the inner wall panels 8 and 9 and into portions of the side wall structure as formed by panels 5, 8 and 9.

As inner side panels 8 and 9 are folded inwardly over flaps 34 and 35, the upper tabs 38 and 39 enter respective sockets 40 and 41, thereby to lock the upper ends of the flaps 34 and 35 to the side wall structure and thus to hold the upper portions of end panels 12 and 13 against outward bulging when the basket is put to use. The lower edges of the end panels 12 and 13 are held inwardly sufficiently by the attachment to inner bottom panels 20 and 21, respectively, the panels 20 and 21 being, in turn, held in position by tabs 50 and 51 in notches 48 and 49, and in part by the bearing of wall panels 8 and 9 against the partition panels 24 and 25 at flaps 30, 31 and 32, 33, as well as by the snug fit of panels 20 and 21 between the outer wall panels 4 and 5.

When set up as described in connection with Fig. 2, and with the cover panels 16 and 17 hinged inwardly, tabs 52 and 53 being turned down either between the partition panels, or on opposite sides of the partition, the basket now has the appearance of Fig. 3. The basket is readily carried by the handle extensions 28, 29, and the cover panels 16 and 17 are readily openable to fill, to empty or to inspect the contents of the basket. If desired, the handles 28 and 29 may be folded into horizontal position under the cover panels to provide a top without upstanding projections and to facilitate stacking for shipment. Alternatively, the handle members may be folded over on top of the cover for stacking as indicated by arrows 54.

Notches 55 and 56, which appear in the outer side wall panel 5 as a result of the cutting therefrom of partition panel side flaps 31 and 32 as hereinabove described, effect the strength and appearance of the basket very little. As noted in Fig. 3, portions of end wall side flaps 34 and 35, the flaps being enclosed in opposite end portions of the side wall structure made up of panels 5, 8 and 9, are visible through notches 55 and 56 and serve to cover the notches. The sockets 40 and 41 are so cut as to provide ear portions upstanding from the outer wall panel 5 sufficiently to offer some protection to the locking tabs heretofore shown and identified as tabs 38 and 39. The ears of sockets 40 and 41 preferably do not protrude above the upper surfaces of the cover panels 16 and 17 when the basket is closed, however.

It will be seen from the above description that outer side wall panels 4 and 5, inner side wall panels 8, 9, 10 and 11, end wall panels 12 and 13, flaps 30, 33, 34 and 35, and partition panels 24 and 25, are all of substantially equal height, varying only by approximately the thickness dimension of the sheet material of which the basket is formed as necessary to permit the inner side wall panels to be folded over the flaps, for example. The outer bottom panel is slightly wider than the inner bottom panels, by approximately twice the thickness of the sheet material, to permit the inner panels 20 and 21 to lie between the outer side wall panels folded up along scored lines 2 and 3, whereas the cover panels 16 and 17 may be slightly wider, whereby their side edges will overlie the upper edges of the side wall structures when the covers are closed. Closure tabs 52 and 53 are proportioned to have base portions which will fit within the cut out portions of the handle extensions. Notches 44, 45, 48 and 49 are proportioned to receive tabs 46, 47, 50 and 51 with very little clearance, and tabs 38 and 39 should fit snugly within their respective sockets 40 and 41 in the side wall structure, whereby the tabs in each instance retain the end wall panels against inward or outward motion. The inner bottom panels and cover panels should have length dimensions substantially equal to one-half of the length of the lower bottom panel, less about the thickness dimension of the sheet material. A specific suitable material for the basket is 100% kraft "B" flute sheet,

consisting of a 42# outer liner, 26# corrugating medium and a 33# inner liner, which may be used to form a basket suitable for fancy cucumbers having an inside total length of 17¼ inches, width of 8¼ inches and height of 6 inches. A rectangle 39$\frac{13}{16}$ inches wide and 37½ inches long will provide a blank of the required dimensions for the basket, while a running length of 33¾ inches for each blank is required if the blanks are cut from a continuous strip of the required width with the handles **28** and **29** cut opposite the tabs **52** and **53**, respectively of the next blank.

To assist in a complete understanding of the structure of the basket and its blank and method of assembly, and to avoid unnecessary repetition, certain like portions of the blank and basket are identified by like numerals in more than one of the figures though such parts may be described in connection with only one figure. The description given herein of any part of the blank or basket as shown in any one of the figures will be understood to be equally applicable to the similarly identified part in each of the other figures.

While only certain preferred embodiments of this invention have been shown and described by way of illustration, many modifications will occur to those skilled in the art and it is, therefore, desired that it be understood that it is intended in the appended claims to cover all such modifications as fall within the true spirit and scope of this invention.

What is claimed as new and what it is desired to secure by Letters Patent of the United States is:

1. A substantially rectangular blank for forming a partitioned container, said blank comprising a bottom panel, a first side wall panel connected to said bottom panel by a foldline and extending therefrom toward one side of the blank, a second side wall panel connected to said bottom panel by an opposite foldline and extending therefrom toward the other side of the blank, a pair of end wall panels each secured to a respective end of said first side wall panel and extending therefrom toward opposite ends of the blank, a pair of bottom reinforcing panels joined to said end wall panels respectively and extending toward said other side of the blank, a respective partition panel secured to each said bottom reinforcing panel by a foldline and extending therefrom toward said other side of said blank and having a free edge opposite the foldline and a handle portion extending from said free edge, said bottom panel and said side wall panels being of substantially equal lengths, said bottom panel and said bottom reinforcing panels and said end wall panels and said partition panels being of substantially equal widths, each of said panels being rectangular, whereby said bottom reinforcing and partition panels have inner side edges extending along end edges of said bottom panel and said second side wall panel, a respective inwardly extending flap hingedly joined to the inner edge of each said partition panel and carved out of respectively opposite end portions of said second side wall panel, one end of said flap being substantially in line with said free edge, a respective outwardly extending flap hingedly attached to the outer edge of each said partition panel, a respective outwardly extending flap having a predetermined width dimension hingedly attached to the outer edge of each said end wall panel, said predetermined width dimension of said end-wall-panel-attached flaps being greater than the distance to which said end portions of said second side wall panel are so carved out as measured inwardly from the respective end edges thereof, and a respective inner wall panel joined to each said side wall panel by a foldline and extending toward said respectively opposite sides of said blank, each said inner end wall panel being slotted to receive one edge portion and the thereto attached flap of both said partition panels through each such slot upon erection of the container, said end panels being adapted to fold forwardly, said bottom reinforcing panels being foldable inwardly to overlie said bottom panel and to bring said partition panels, when folded upwardly, into juxtaposition across the center of the container, said end wall flaps being foldable inwardly to lie inwardly and coveringly against the carved out portions of said second side wall, and said inner side wall panels being foldable inwardly toward and parallel to the respective said side wall panels with said end wall flaps enclosed between said second side wall panel and the inner side wall panel which is thereto joined.

2. A substantially rectangular blank for forming a partitioned container, said blank comprising a bottom panel, a first side wall panel connected to said bottom panel by a foldline and extending therefrom toward one side of the blank, a second side wall panel connected to said bottom panel by an opposite foldline and extending therefrom toward the other side of the blank, a pair of end wall panels each secured to a respective end of said first side wall panel and extending therefrom toward opposite ends of the blank, a pair of bottom reinforcing panels joined to said end wall panels respectively and extending toward said other side of the blank, a respective partition panel secured to each said bottom reinforcing panel by a foldline and extending therefrom toward said other side of said blank and having a free edge opposite the foldline and a handle portion extending from said free edge, said bottom panel and said side wall panels being of substantially equal lengths, said bottom panel and said bottom reinforcing panels and said end wall panels and said partition panels being of substantially equal widths, each of said panels being rectangular, whereby said bottom reinforcing and partition panels have inner side edges extending along end edges of said bottom panel and said second side wall panel, a respective inwardly extending flap hingedly joined to the inner edge of each said partition panel and carved out of respectively opposite end portions of said second side wall panel, one end of said flap being substantially in line with said free edge, a respective outwardly extending flap hingedly attached to the outer edge of each said end wall panel, and a respective inner wall panel joined to each said side wall panel by a foldline and extending toward said respectively opposite sides of said blank, each said inner end wall panel being slotted to receive one edge portion and the thereto attached flap of both said partition panels through each such slot upon erection of the container, said end panels being adapted to fold forwardly, said bottom reinforcing panels being foldable inwardly to overlie said bottom panel and to bring said partition panels, when folded upwardly, into juxtaposition across the center of the container, said end wall flaps being foldable inwardly to lie inwardly and against the carved out portions of said second side wall thereby at least partially to cover the respective carved out portions, and said inner side wall panels being foldable inwardly toward and parallel to the respective said side wall panels with said end wall flaps enclosed between said second side wall panel and the inner side wall panel which is thereto joined.

3. A substantially rectangular blank for forming a partitioned container, said blank comprising a bottom panel, a first side wall panel connected to said bottom panel by a foldline and extending therefrom toward one side of the blank, a second side wall panel connected to said bottom panel by an opposite foldline and extending therefrom toward the other side of the blank, each said side wall panel having an end toward each of the respective ends of the blank, a respective end wall panel secured to a respective one of said ends of said side wall panels and extending therefrom toward the respective end of the blank, a pair of bottom reinforcing panels joined to said end wall panels respectively and each extending toward the side of the blank opposite the side wall to the end of which the respective end wall panel is secured, a respective partition panel secured to each said bottom rein-

forcing panel by a foldline and extending therefrom toward said respective opposite side of said blank and having a free edge opposite the foldline and a handle portion extending from said free edge, said bottom panel and said side wall panels being of substantially equal lengths, said bottom panel and said bottom reinforcing panels and said end wall panels and said partition panels being of substantially equal widths, each of said panels being rectangular, whereby each said bottom reinforcing and partition panel has an inner side edge extending along a respective one of said bottom panel end edges and a respective one of said second side wall panel end edges, a respective inwardly extending flap hingedly joined to the inner edge of each said partition panel and carved out of the end portion of the adjacent side wall panel, one end of said flap being substantially in line with said free edge, a respective outwardly extending flap having a predetermined width dimension hingedly attached to the outer edge of each said end wall panel, said predetermined width dimension of said end-wall-panel attached flaps being greater than the distance to which said end portions of said second side wall panel are so carved out and measured inwardly from the respective end edges thereof, and a respective inner wall panel joined to each said side wall panel by a foldline and extending outwardly therefrom toward the respective side of said blank, each said inner end wall panel being slotted to receive one edge portion and the thereto attached flap of both said partition panels through each such slot upon erection of the container, said end panels being adapted to fold forwardly, said bottom reinforcing panels being foldable inwardly to overlie said bottom panel and to bring said partition panels, when folded upwardly, into juxtaposition across the center of the container, said end wall flaps being foldable inwardly whereby a respective one of said end wall flaps lies inwardly and coveringly against each of said carved out side wall portions, and said inner side wall panels being foldable inwardly toward and parallel to the respective said side wall panels with said end wall flaps and said partition panel flaps enclosed between the respective inner and outer side wall panels.

4. A substantially rectangular blank for forming a partitioned container, said blank comprising a bottom panel, a first side wall panel connected to said bottom panel by a foldline and extending therefrom toward one side of the blank, a second side wall panel connected to said bottom panel by an opposite foldline and extending therefrom toward the other side of the blank, each said side wall panel having an end toward each of the respective ends of the blank, a respective end wall panel secured to a respective one of said ends of said side wall panels and extending therefrom toward the respective end of the blank, a pair of bottom reinforcing panels joined to said end wall panels respectively and each extending toward the side of the blank opposite the side wall to the end of which the respective end wall panel is secured, a respective partition panel secured to each said bottom reinforcing panel by a foldline and extending therefrom toward said respective opposite side of said blank and having a free edge opposite the foldline and a handle portion extending from said free edge, said bottom panel and said side wall panels being of substantially equal lengths, said bottom panel and said bottom reinforcing panels and said end wall panels and said partition panels being of substantially equal widths, each of said panels being rectangular, whereby each said bottom reinforcing and partition panel has an inner side edge extending along a respective one of said bottom panel end edges and a respective one of said second side wall panel end edges, a respective inwardly extending flap hingedly joined to the inner edge of each said partition panel and carved out of the end portion of the adjacent side wall panel, one end of said flap being substantially in line with said free edge, a respective outwardly extending flap hingedly attached to the outer edge of each said end wall panel, and a respective inner wall panel joined to each said side wall panel by a foldline and extending outwardly therefrom toward the respective side of said blank, each said inner end wall panel being slotted to receive one edge portion and the thereto attached flap of both said partition panels through each such slot upon erection of the container, said end panels being adapted to fold forwardly, said bottom reinforcing panels being foldable inwardly to overlie said bottom panel and to bring said partition panels, when folded upwardly, into juxtaposition across the center of the container, said end wall flaps being foldable inwardly whereby a respective one of said end wall flaps lies inwardly and against each of said carved out side wall portions thereby at least partially to cover said respective carved out portions, and said inner side wall panels being foldable inwardly toward and parallel to the respective said side wall panels with said end wall flaps and said partition panel flaps enclosed between the respective inner and outer side wall panels.

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