

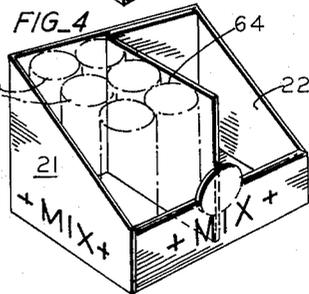
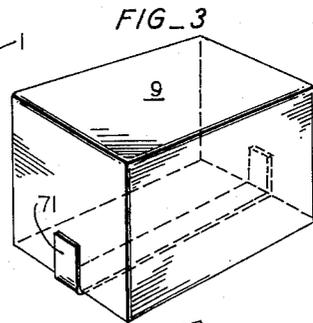
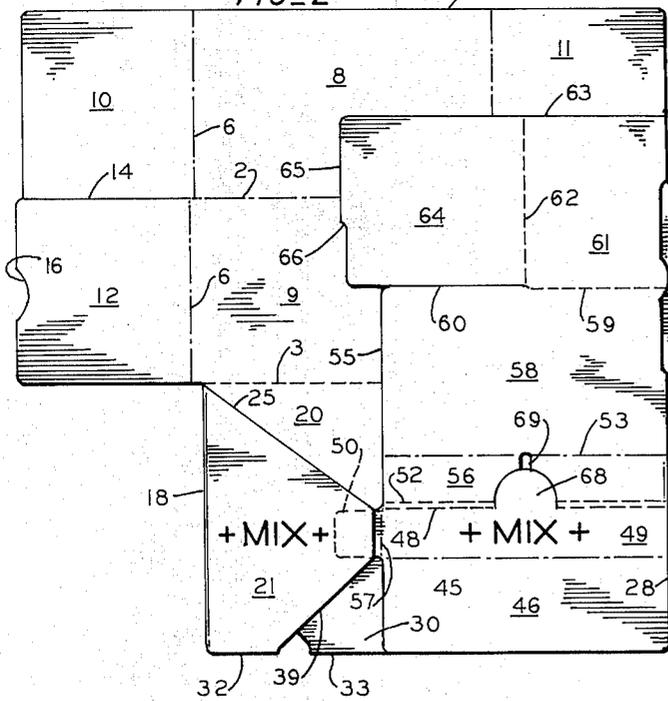
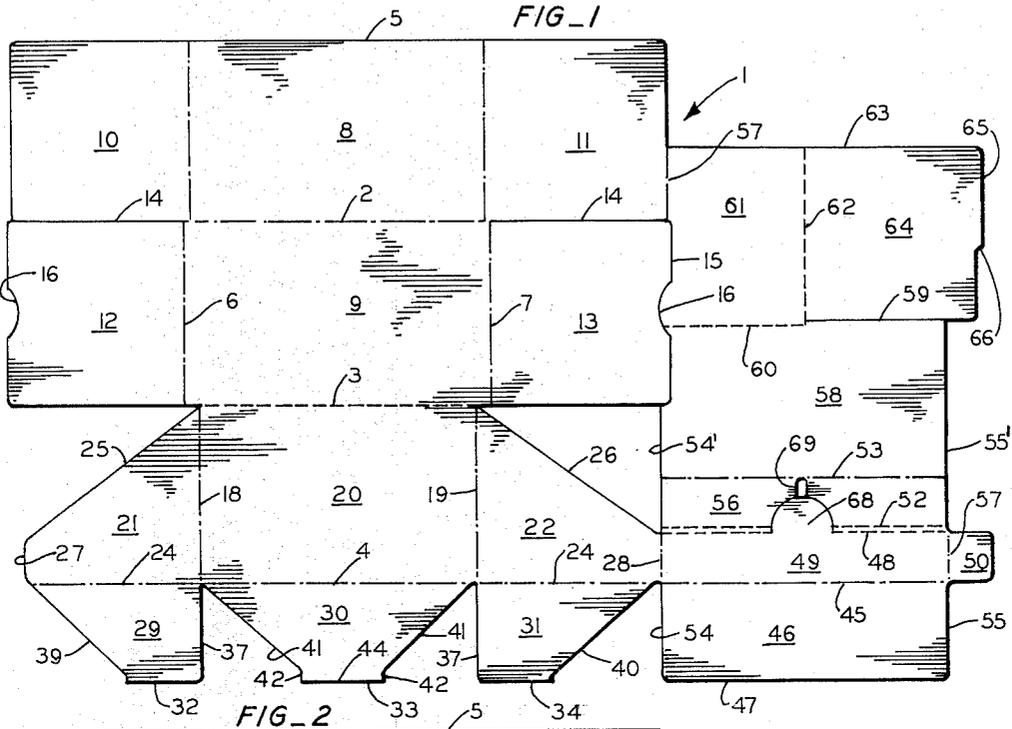
Jan. 4, 1966

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DISPLAY PACKAGE

3,227,266

Filed March 12, 1965

2 Sheets-Sheet 1



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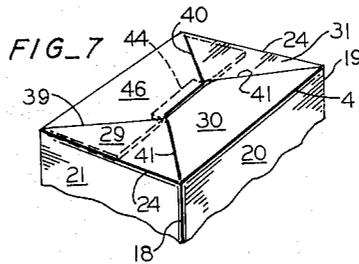
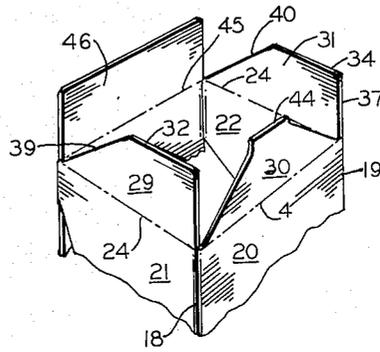
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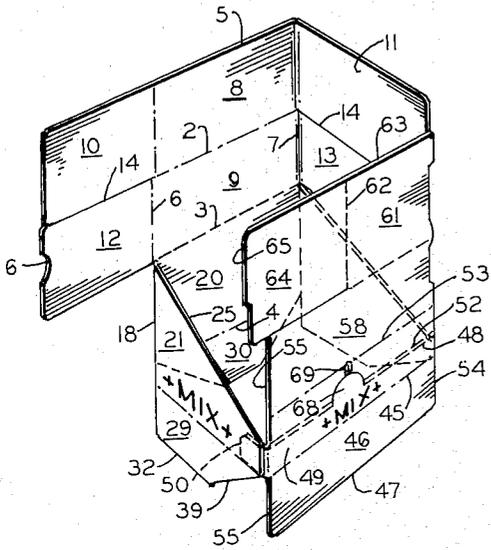
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2 Sheets-Sheet 2

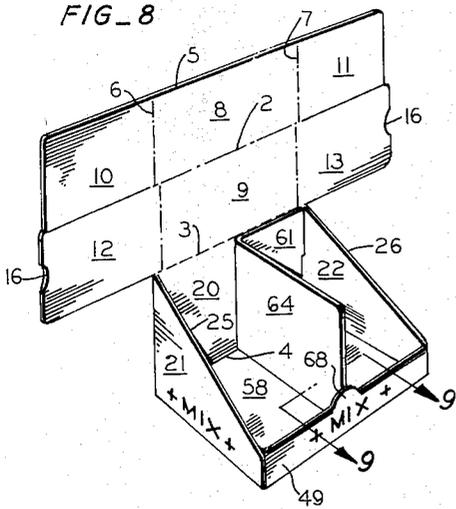
FIG_6



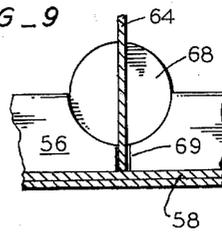
FIG_5



FIG_8



FIG_9



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3,227,266

DISPLAY PACKAGE

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 10 Claims. (Cl. 206-44)

This invention relates to a display package and has for one of its objects the provision of a shipping container for the safe shipment of articles or packaged goods, such as bottles or the like, and which container is adapted to be quickly opened without disturbing the contents and converted into an attractive and stable display package exposing the contents, but holding them safely and attractively while enabling the contents to be individually removed from the container.

Another object of the invention is the provision of a combined shipping container and display package formed from a single sheet of fiberboard folded along crease lines to provide a container adapted to not only cushion the contents against injury thereto during shipment, but to fully enclose the contents, and which container, when opened, is adapted to form an attractive display package exposing the contents for display, and removal, free from loose or swinging panels, special locking tabs, etc., and which display package is rugged and rigid and adapted to be readily carried or moved from place to place with the contents therein without buckling or otherwise becoming distorted.

A still further object of the invention is the provision of a shipping container and display container that is formed from a single sheet of cardboard folded and connected to provide a flat blank for shipment and storage, and which blank is adapted to be quickly set up to provide a strong shipping container that is fully enclosed when filled and closed without the use of locking tabs and slits therefor, and the consequent distortion and tearing resulting from such structure, and which container when filled, closed, sealed and delivered to its destination is adapted to be quickly opened and converted into an attractive display cabinet or package with the contents safely held therein but exposed for viewing and removal, as desired.

Other objects and advantages will appear in the description and in the drawings.

In the drawings:

FIG. 1 is a plan view of the blank from which the shipping container and display package are adapted to be formed.

FIG. 2 is a plan view of the blank of FIG. 1 with a portion folded on itself and parts of the blank connected to form a flat carton or container ready to be set up without further gluing or stapling.

FIG. 3 is a perspective view of the completed shipping container formed from the blank of FIG. 2 when filled, closed and sealed, and which container incorporates therein the display package structure.

FIG. 4 shows the display package when the carton or container of FIG. 3 is opened (the container being empty for showing structure thereof).

FIG. 5 is a perspective view of the first step in forming the container following the step shown in FIG. 2, the proportions of the panels being exaggerated so as to more clearly show the various parts.

FIG. 6 is a fragmentary perspective view in which the carton of FIG. 5 is inverted to show the bottom closure flaps.

FIG. 7 is a view similar to that of FIG. 6 showing the bottom closure flaps of FIG. 6 in closed position.

FIG. 8 is a perspective view showing the shipping container right side up after the bottom closure flaps are closed, and which container is ready for loading and closing.

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FIG. 9 is an enlarged fragmentary cross sectional view as seen from line 9-9 of FIG. 8.

In detail the blank of FIG. 1 is a planar sheet generally designated 1, preferably die cut from double-faced corrugated fiberboard, having the corrugations extending vertically, as viewed in FIG. 1. Said blank is formed with three parallel, horizontally extending, spaced folding creases 2, 3, 4 spaced below the upper edge 5 of the blank 1, and a pair of parallel, vertical, horizontally spaced vertical folding creases 6, 7 extend across the terminating ends of creases 2, 3 from edge 4. These creases 2, 3, 7, 6 and edge 5 define the outlines of a pair of horizontally extending rectangular panels or walls 8, 9, the former being along edge 5.

At the opposite ends of the panel 8 outwardly of creases 6, 7 are outward, rectangular continuations or panels 10, 11 of panel 8, and rectangular continuations or panels 12, 13 are outwardly of the ends of panel 9. The latter are preferably slightly shorter than panels 10, 11, and each of these panels 10-13 terminate in outer free edges, while horizontal cuts 14 in opposite outward continuation of crease 2 separate the panels 10, 12 and 11, 13 at corresponding ends of walls 8, 9 from each other. The free outer end edge 15 of end panel 13 may be formed with a relatively shallow arcuate cut 16 at a point intermediate the ends of edge 15, and a corresponding arcuate cut also designated 16 is along the free outer edge of panel 12.

In the completed shipping carton or container, when folded to enclose the contents, the panel 9 will be the top wall, the panel 8 the front wall, and panels 10, 12 will fold one over the other to form end closure flaps at one end of the package, with the panel 12 outermost, while panels 11, 13 will similarly fold one over the other at the other end of the package to form end closure flaps with panel 13 outermost.

The folding crease 3, on the other hand, also defines a line of slits to provide a line of weakness for severing the panels 8-13 as a unit from the remainder of the package when the package is opened to provide a display case or package.

Referring to the remainder of the blank below panels 8-13 (FIG. 1) a pair of vertical, parallel horizontally spaced folding creases 18, 19 are almost in alignment, downwardly, with folding creases 6, 7 but are slightly closer together, and are equally spaced inwardly, or toward each other relative to creases 6, 7, and these creases 18, 19 together with creases 3, 4 define the outline of a rectangular panel 20 that is substantially similar to panel 9, and will form the rear wall of the display package and shipping container when the blank is fully folded, while the panel 8 will form the front wall of the shipping container, in opposed relation to panel 20.

Adjoining creases 18, 19 and oppositely outwardly thereof are generally right angle triangular portions 21, 22, the crease 4 continuing outwardly past the creases 18, 19 as at 24 to define one side of each right angle, while the creases 18, 19 respectively define the other side. The remaining outlines of the portions 21, 22 are defined by free end edges 25, 26 that extend from the ends of the folding crease 3 to points equally spaced from and above the outer ends of creases 24. A relatively short free end edge 27 parallel with crease 18 extends from the outer end of edge 25 to the outer end of the adjacent crease 24, while a folding crease 28 parallel with and of the same length as edge 27 extends between the outer end of edge 26 and the other end of the crease 24 that is adjacent to the latter.

Below the crease 4 and respectively below the portions 21, 20, 22 are portions 29, 30, 31, and when the shipping container and display package are set up these portions will form three of the four bottom closure flaps.

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The outer free edges 32, 33, 34 of the portions 29-31 are parallel with crease 4 and are in alignment with each other and the portions 29, 31 are the end portions adjoining and extending the full length of creases 24 respectively, while portion 30 is the intermediate portion and extends the length of crease 4.

The adjacent edges 37 of the pair of end portions 29, 31 extend in continuation of creases 18, 19 to the outer edges 32, 34 thereof, while the outer edges 39, 40 of the pair of portions 29, 31 that are opposite to edges 37 extend slantingly and convergently outwardly relative to each other from the end edge 27 of portion 21 and the crease 28. These slanted edges 39, 40 terminate at their outer ends slightly short of the end edges 32, 34 at points well spaced from the edges 37 and from said points the edges continue at right angles to edges 32, 34 and to said edges.

The opposite end edges 41 of the central portion 30 extend convergently outwardly relative to each other from the ends of crease 4, to points equally spaced from end edge 33 and then they continue at 42 outwardly to edge 33 thus defining the ends of a horizontally elongated tab 44, the outer edge of which is the edge 33 while its end edges are the short edges 42.

At this point it is seen that the only remaining portion of the blank is the portion at the right end thereof, as seen in FIG. 1, and said portion is connected with the previously described part of the blank along crease line 28 only. This remaining portion is in continuation of the right hand side of the blank of FIG. 1 and the creases 4, 24 continue across this remainder as at 45 to divide said remaining portion into a rectangular panel 46 that is of the same horizontal length as panel 20, and its lower free edge 47 is substantially in alignment with edges 32, 33, 34 of the bottom folding flaps 29-31.

Spaced above the folding crease 45 is a folding crease 48 that is parallel with crease 45 and that extends from the upper end of the short folding crease 28, normal thereto, to define the upper edge of a narrow rectangular panel 49. This panel 49 projects outwardly of the blank at the end thereof opposite to the folding crease 28 to provide a rectangular tab 50.

Adjacent to and parallel with crease 48 but spaced thereabove approximately the thickness of the blank is a folding crease 52 and spaced from crease 52 a distance approximately equal to the distance between creases 45, 52 is another folding crease 53, also parallel with crease 48. These creases 52, 53 define two opposite edges of a narrow panel 56 similar in width to panel 49.

The end free edges 54, 55 of the panel 46 are at right angles to edge 47 and a crease 57 corresponding to crease 28 extends across tab 50 in alignment with the free edge 55 of panel 46.

Above the folding creases 28 and 57 the free end edges 54, 55 continue as 54' and 55', the former terminating at about the corner of panel 13, and at the lower end of free edge 15 of said panel, and continuing to a point approximately opposite to the arcuate cut 16 in panel 13. The lower edges of the panels 12, 13 as seen in FIG. 1 are free and generally opposite to the diagonally extending edges 25, 26 of panels 21, 22, and they are also in longitudinal alignment with perforated crease 3. Also panel 13 extends slightly past the upper end of free edge 54' and slightly into a substantially rectangular panel 58 that adjoins the folding crease 53. The upper edge of this panel 58 is defined by a cut 59 that extends inwardly toward panel 13 from the upper end of edge 55' about half the horizontal length of panel 58, and a folding crease 60 continues parallel with cut 59 to the arcuate cut 16 in panel 13, but slightly offset toward crease 53. This panel 58 is about the same dimension as panel 9, since, in the folded container, it forms the bottom of the container in opposed relation to the panel 9.

Above the crease 60 and adjoining it is a rectangular panel 61 that extends away from panels 11, 13 across the panel 58 a distance substantially equal to one half the

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length of panel 20, or panels 8, 9 and a folding crease 62 extends from the juncture between crease 60 and edge 59 to the upper free edge 63, which edge 63 is in continuation of the upper free edge of panel 61. The edge of panel 61 opposite to folding crease 62 is preferably tacked to panel 11 by a small frangible connection 57 of the blank, which functions to hold the panels 11, 61 in a folding operation to be described, but which is readily broken. The edges 59, 63 and folding crease 62 define three of the edges of a rectangular panel 64 that is above panel 58 and to the right of panel 61. This panel 64 projects beyond the free edge 55' of panel 58 and terminates in a free edge 65 that has a jog in it to provide a slight shoulder 66 at a point intermediate the ends of said edge 65. The upper portion of the panel 64 above the shoulder is thus slightly wider than the portion therebelow.

Referring back to the narrow panel 56 that is between folding creases 48 and 53, midway between the ends of this panel 56 a tab 68 is cut out, one end of said tab being integral with the panel 49, and the folding crease 58 is interrupted by said tab, so that the latter will not fold over when the panel 56 is folded over along crease lines 48, 52 as will later be explained.

The end of tab 68 opposite to the end thereof that connects with panel 49 is substantially semicircular in outline, and a short slot 69 extends from the arcuate outer end of said tab 68 to the crease 53.

In the display package that is formed, the panel 64 will form a partition and this slot 69 will receive one end of the partition to hold it in a position extending across the container.

In operation the first step in forming the container is to fold the blank of FIG. 1 on itself (FIG. 2) along folding crease 18 and folding crease 28 so that the narrow end portion of panel 21 overlies the tab 50, and the latter is glued or otherwise suitably secured to said narrow end portion of panel 21.

In this condition, the blanks may be stored or shipped flat, since from this point on the container may be set up.

The second step in forming the container is to swing the panels 46, 49, 56, 58, 61, 64 as a unit, away from the portion of the blank over which said panels are disposed, along crease 28 and connection 57, and creases 7 and 19, so that the panels 46, 49, 56, 58, 61, 64 will be in spaced opposed relation to panels 8, 9, 20 and 30. The panels 12, 13 will remain planar with panel 9, and the panels 21, 29 will be in spaced opposed relation to panels 22, 31 and at right angles to the panel 20.

When this is done the blank may be inverted so that the bottom folding flaps 29, 30, 31 and 46 will be uppermost (FIG. 6) and then, in succession, flaps 46, 29, 31 and 30 are folded horizontally to lapping relation and the tab 44 so sprung past the free outer edge of flap 46 into the container to lock the bottom flaps together (FIG. 7).

The bottom flaps having been locked in position, the container is again positioned upright and the tack 57 may be broken so that the panels 46, 49, 56, 58, 61 and 64 may be folded independently of the remaining panels. When this is done the panel 56 is folded into the container along creases 48, 52 so as to lie against the inner side of panel 49, and in this position the panel 58 will extend horizontally over and against the bottom flaps 29, 30, 31 and 46 and to the rear panel 20 to form the inner smooth bottom of the container.

At this point it is noted that the tab 68 will remain upright, but slot 69 will extend to the panel 58. The panel 64 is then swung over the bottom panel 58 to a position perpendicular to the wall 20 and the lower portion of the outer free edge of panel 64 will snap into slot 60, while the tab will extend to the shoulder 66 in panel 64 so the outer surface of tab 68 and the free edge of panel 64 above said tab will be generally in the same vertical plane (FIG. 5). It will be noted that panel 61 is flat against panel 20 when the partition panel 64 is swung over the panel 58.

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After the container is formed to this point, it may be filled with objects such, for example, as bottles 70, indicated in dotted line in FIG. 4, at the near side of partition 64.

To close the container, the panel 9 is folded over to form the upper wall of the container along the perforated crease 3, and panel 8 is then folded along crease 2 to form the forward or front wall of the container. The end flaps 10, 11 are then folded along creases 6, 7 to form inner end walls, and flaps 12, 13 are folded down over the inner end walls to form the outer end walls. This will bring the arcuate cuts 16 lowermost and intermediate the ends of the free end edges of the flaps 12, 13. Tape 71 (FIG. 3) or any other suitable readily removable means may tape secure the outer end flaps or walls to the bottom of the container, which tape may extend across the lower folding flaps at the juncture between them, to securely hold the container sealed against unfolding, for shipment and storage.

When the filled package or container is received by the retail store, it is merely necessary to break the tape 71 and unfold the panels 8-13 along the perforated crease 3, and then sever said panels along said crease and a display package (FIG. 4) may be placed on the shelf, the articles 70 being attractively exposed due to the narrow front side and progressively narrowing end walls in a direction from the rear of the container to the front.

The provision of the double bottom and ends is highly desirable since the container must protect the containers 70 which are relatively fragile, and the display carton when handled at the stores must be strong and capable of being carried and handled with a minimum of flexing and distortion.

I claim:

1. A blank of fiberboard and the like for folding to form a combination shipping container and display box, comprising:

- (a) a planar sheet of fiberboard of generally rectangular outline in two sections having adjoining free edges along a line of division with a portion of said sheet along said line integrally connecting said sections and said sections being foldable one on the other about a folding line extending along and longitudinally of said edges and across said portion;
- (b) one section of said pair being formed with a folding crease extending thereacross in a direction normal to said folding line dividing said one section into two parts;
- (c) one part of said pair thereof being formed with folding creases extending normal to each other defining the adjoining edges of a plurality of panels foldable along the last mentioned creases to form the rear wall, a plurality of outer bottom wall flaps, and two opposite inner sidewalls of the container to be formed;
- (d) the other part of said pair thereof being formed with folding creases extending normal to each other defining the adjoining edges of a plurality of panels foldable along the last mentioned creases to form the top wall, outer front wall, and a pair of outer sidewalls outwardly of each of said inner sidewalls of the container to be formed;
- (e) the other section of said pair thereof being formed with a plurality of folding creases including a straight cut in extension of one of the last mentioned folding creases, defining adjoining edges of a plurality of panels foldable along the last mentioned folding creases to form a single inner bottom wall, and a partition for dividing the interior of the container to be formed into a pair of compartments respectively between said partition and said opposite inner sidewalls.

2. In a blank as defined in claim 1:

- (f) the said folding crease dividing said one section into a pair of parts being weakened therealong for

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ready severance of said other part from said one part whereby the panels to form said top wall, outer front wall and outer end walls may be removed from the remainder of said blank and from the container after the latter has been formed;

- (g) said other section including adjoining panels between and foldable along a plurality of the folding creases in said outer section to form a relatively narrow vertical inner front wall as compared with the height of said rear wall opposed to said rear wall, an outer bottom wall flap, when said sheet is folded to form said container to form a front wall inwardly of said outer front wall that is narrow relative to the width of said rear wall, and an outer bottom wall flap integral with said last mentioned bottom wall flap when said sheet is folded to form said container.

3. In a blank as defined in claim 2:

- (h) the portion of said sheet connecting said pair of sections being at one end of the panel in said other section that is to form a narrow inner front wall, and an extension on the opposite end of the last mentioned panel;

- (i) one of the panels in said one section of said sheet for forming one of said inner sidewalls of the container being along the outer edge of said sheet opposite to said extension and being engageable with said extension upon folding said sheet on itself along the folding line defining the juncture between said pair of sections for connecting said sections preparatory to unfolding the blank to position the panels for forming front and rear walls in spaced opposed parallel relation at right angles to the panels for forming the sidewalls.

4. A container comprising:

- (a) a single, generally rectangular sheet of fiberboard and the like formed with a plurality of pairs of spaced parallel folding creases extending normal to each other, including cuts in extension of certain of said creases, folded along said creases to provide such container, having a vertically disposed front wall, a vertically disposed rear wall opposed thereto, a pair of spaced opposed vertically disposed sidewalls and horizontally disposed top and bottom walls in opposed relation, and a vertical partition extending between said rear wall and said front wall and intermediate said opposed sidewalls;

- (b) said front wall comprising an inner wall extending upwardly from said bottom wall and of less height than said rear wall, and an outer wall outwardly of said inner wall relative to the inside of said container extending upwardly from the level of said bottom wall to substantially the same height as said rear wall;

- (c) said opposed sidewalls including inner and outer sidewalls relative to the inside of said container;

- (d) said top wall, outer front wall and said outer sidewalls being integrally connected with each other, and said outer front wall and said outer sidewalls separate from said inner front wall and said inner sidewalls with said top wall integrally connected with said rear wall along the upper edge of said rear wall along a line of weakness for severing said top wall and said outer front wall and outer sidewalls from said container along said line of weakness to leave a display package having a relatively narrow front wall and an open top for viewing and exposing the contents of the container when said container has objects therein on said bottom wall and extending upwardly above said inner front wall.

5. In a container as defined in claim 4:

- (e) partition engaging means on said inner front wall in releasable engagement with said partition for holding said partition in a position extending substantially normal to said inner front wall; and

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- (f) said bottom wall including a uniform horizontally disposed wall and a horizontally disposed lower wall;
 (g) said upper wall being integrally connected with said inner front wall; and,
 (h) means integrally connecting said partition with said upper bottom wall for supporting said partition vertically in engagement with said partition engaging means. 5
6. In a container as defined in claim 4:
 (e) the upper edges of said opposed inner sidewalls extending slantingly upwardly from the upper edges of said inner front wall to the upper edges of said rear wall to expose such objects at the sides of said package when the outer sidewalls are removed from the container. 10 15
7. In a container as defined in claim 6:
 (f) said partition extending substantially the full height of said rear wall adjacent to said front wall and rear wall whereby said partition will support said top wall horizontal intermediate said sidewalls when said top wall extends over said container and such contents. 20
8. In a container as defined in claim 6:
 (f) said outer end walls and said outer sidewalls extending upwardly from substantially the level of said bottom wall to substantially the full height of said rear wall for supporting said top wall horizontal at its ends. 25
9. A display holder for articles comprising:
 (a) a single blank of fiberboard and the like formed with a plurality of folding creases extending normal to each other, including cuts in extension of certain of said creases, folded along said creases to provide such holder, having a horizontally disposed bottom wall, a vertically disposed rear wall and a vertically disposed front wall respectively extending upwardly from said bottom wall, and vertically disposed spaced opposed sidewalls extending normal to said front and 30 35

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- rear walls also extending upwardly from said bottom wall, and a vertically disposed partition wall parallel with said sidewalls and spaced between the latter;
 (b) said bottom wall including an upper wall and a lower wall and said front wall including an outer wall and a pair of vertically disposed inner walls in face-to-face engagement integrally connected along their upper edges with one of said inner walls being innermost relative to the inside of said holder to thereby provide an innermost front wall;
 (c) said upper bottom wall being integrally connected with said innermost front wall along the lower edge of the latter;
 (d) said partition wall being integrally connected with said upper bottom wall along the edge of said upper bottom wall that is remote from said innermost front wall and adjacent to said rear wall and extending transversely across said upper bottom wall; and
 (e) means on said innermost front wall in releasable engagement with said partition wall for releasably holding said partition wall in its position extending across said upper bottom wall.
10. In a holder as defined in claim 9:
 (f) said front wall including said innermost front wall being of substantially less height than the height of said rear wall;
 (g) said opposed sidewalls terminating in upper edges extending slantingly upwardly from the upper edge of said front wall to the upper edge of said rear wall;
 (h) the upper edge of said partition wall being horizontal and substantially the same height as said rear wall.

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THERON E. CONDON, *Primary Examiner.*