

Aug. 13, 1963

F. P. CURTISS ETAL
CANTALOUPE CONTAINERS

3,100,595

Filed Feb. 27, 1961

2 Sheets-Sheet 1

FIG. 1

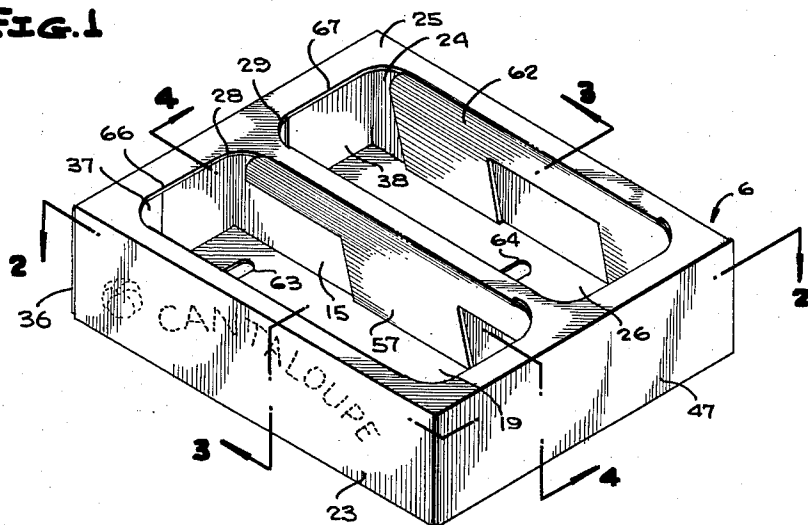
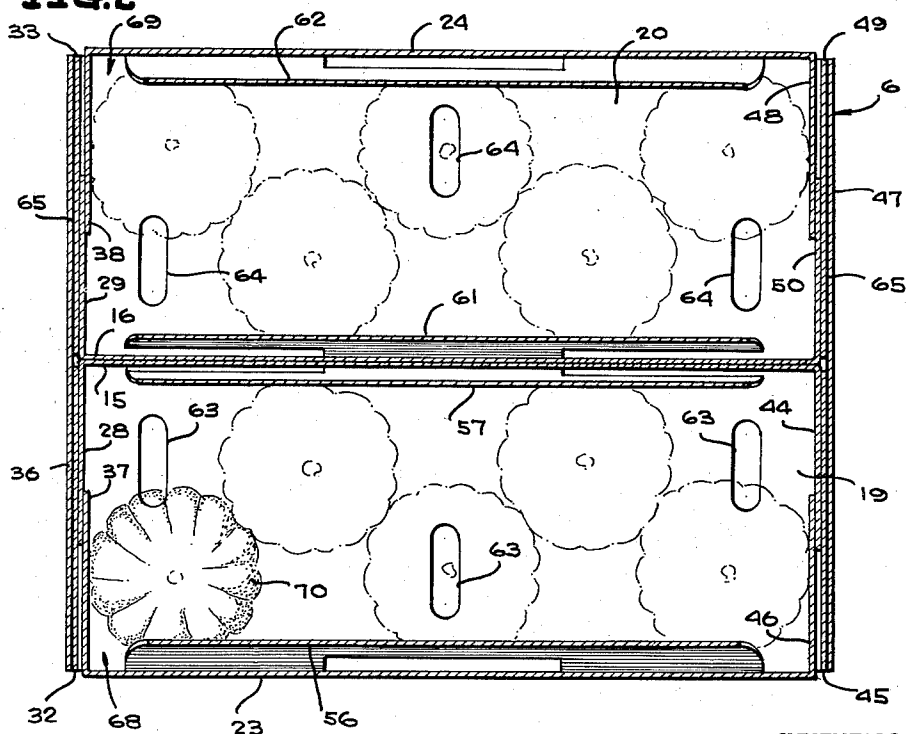


FIG. 2



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FIG. 3

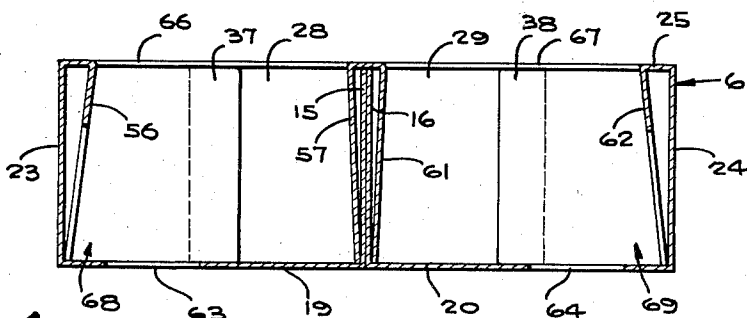


FIG. 4

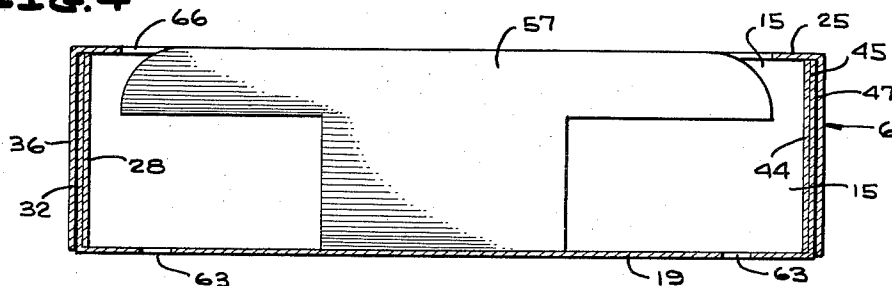
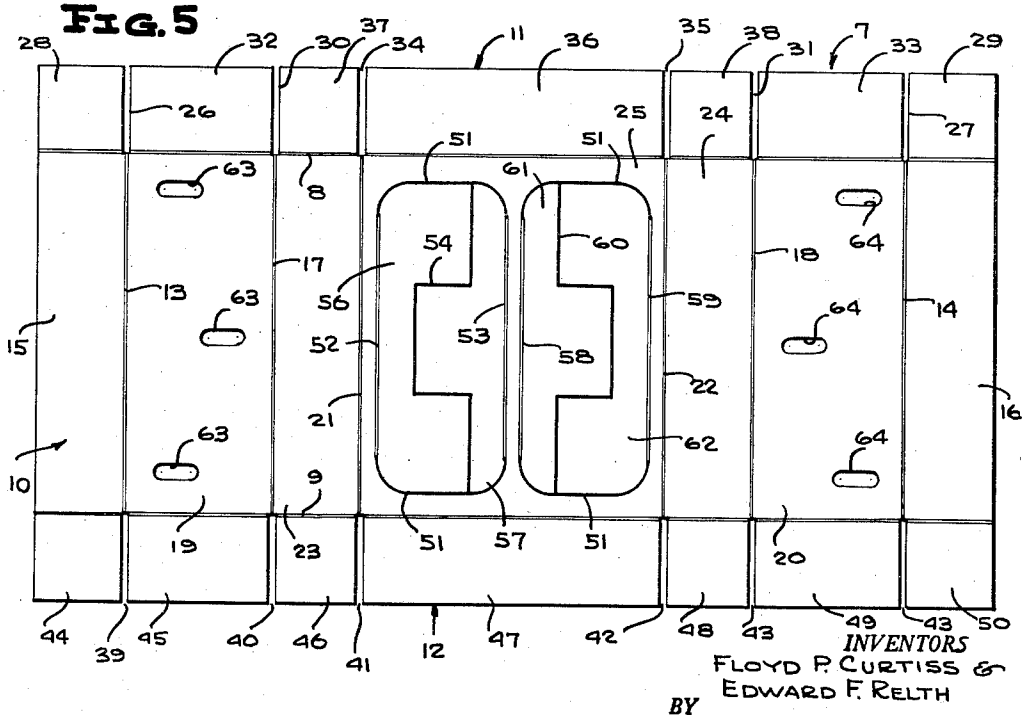


FIG. 5



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CANTALOUPE CONTAINERS

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8 Claims. (Cl. 229-27)

This invention relates in general to new and useful improvements in containers, and more particularly to a novel combined display and shipping container for cantaloupe and other large items of produce.

Large items of produce, such as cantaloupe, honeydew melons, etc., are customarily shipped in wooden crates due to the weights of such items. However, wooden crates are relatively expensive and must be opened before the items of produce can be inspected, as is usually the case in the selling of the produce. It is therefore the primary object of this invention to provide a novel paperboard container for large items of produce, particularly cantaloupes, which container is relatively inexpensive as compared to wooden crates and at the same time is of sufficient strength to properly protect the cantaloupe during shipment.

Another object of this invention is to provide a novel container for shipping and displaying large items of produce, such as cantaloupes, the containers including two container sections which are disposed in side-by-side relation and are connected together by a common top wall or cover panel, the container sections and the cover panel being integrally connected and the cover panel serving to rigidly connect together the two container sections.

Another object of this invention is to provide a novel container for shipping large items of produce, the container being formed from a single sheet of material and being readily folded to define two separate container sections; the two container sections being disposed in side-by-side relation and having a common cover panel, the cover panel serving to connect together upper edges or outer side walls of the two container sections, and the cover panel having depending end flaps which extend across the complete ends of the two container sections and secure together the ends of the container sections.

A further object of this invention is to provide a novel blank for forming a large container for receiving large items of produce, such as cantaloupe, the blank being rectangular in outline and formed of a sheet of paperboard or like paper product, and the blank being divided into walls and flaps by a plurality of fold lines and slits without the loss of any material whatsoever, the blank being foldable to define two separate container sections connected together by a single top wall panel.

Still another object of this invention is to provide a novel container for large items of produce, the container including two container sections connected together by a cover panel, the cover panel having enlarged openings therein aligned with the two container sections, and the individual openings being formed by folding a pair of flaps out of the cover panel with the flaps extending along the respective side walls of the respective container section and forming cushions for items of produce disposed within the container sections.

With the above, and other objects in view that will hereinafter appear, the nature of the invention will be more clearly understood by reference to the following detailed description, the appended claims and the several views illustrated in the accompanying drawing.

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In the drawing:

FIGURE 1 is a perspective view of the container which is the subject of this invention and shows generally the details thereof.

FIGURE 2 is a horizontal sectional view on a large scale taken along the line 2-2 of FIGURE 1 and shows the specific details of construction of the container including the relationship of cantaloupes disposed therein.

FIGURE 3 is an enlarged transverse sectional view taken along the line 3-3 of FIGURE 1 and shows further the details of construction of the container.

FIGURE 4 is an enlarged longitudinal sectional view taken along the line 4-4 of FIGURE 1 and also shows details of construction of the container.

FIGURE 5 is a plan view of the blank from which the container is formed.

Reference is now made to the drawings in detail wherein the container is generally referred to by the numeral 6. The container 6 is formed from a blank generally referred to by the numeral 7. The blank 7 is illustrated in FIGURE 5, and it is believed that the structural details of the container 6 may be best understood by first considering the details of the blank 7.

The blank 7 is formed of a sheet of paperboard or like paper product and is generally rectangular in outline, as is best shown in FIGURE 5. The blank 7 is provided with a pair of longitudinally extending fold lines 8, 9 which are disposed adjacent, but spaced inwardly of the side edges of the blank 7 to separate the blank 7 into a central wall portion and outer flap portions, the wall portion being generally referred to by the numeral 10, and the outer flap portions being generally referred to by the numerals 11 and 12.

The central wall portion 10 is divided into a plurality of individual walls by a plurality of fold lines which extend transversely of the blank 7 between the fold lines 8 and 9. These fold lines include outermost fold lines 13, 14 which set off at the opposite ends of the central wall portion 10 side walls 15, 16. Fold lines 17, 18 are spaced inwardly of the fold lines 13, 14, respectively, and the area of the central wall portion 10 between the fold lines 13 and 17 is in the form of a bottom wall 19 while the area of the central wall portion 10 between the fold lines 14 and 18 is in the form of a bottom wall 20. The central wall portion 10 is further divided by a pair of fold lines 21, 22 which are disposed adjacent the fold lines 17 and 18, respectively. The portion of the central wall portion 10 between the fold lines 17 and 21 is in the form of a side wall 23, whereas the portion of the central wall portion 10 between the fold lines 18 and 22 is in the form of a side wall 24. The portion of the central wall portion 10 between the fold lines 21 and 22 is in the form of a top wall or cover panel 25.

The outer flap portion 11 is divided into a plurality of individual end flaps by a plurality of transverse slits which are aligned with the fold lines of the central wall portion 10. These slits include a pair of outer slits 26, 27 which set off a pair of end flaps 28, 29 hingedly connected to the side walls 15, 16, respectively. A pair of slits 30, 31 are disposed inwardly of the slits 26, 27, respectively, and are aligned with the fold lines 17, 18, respectively. The portion of the outer flap portion 11 between the slits 26 and 30 is in the form of an end panel 32 on the end of the bottom wall 19, whereas the portion of the outer flap portion 11 between the slits 27 and 31 is in the form of an end flap 33 on one end of the bottom wall 20. The outer flap portion 11 is also

provided with a pair of slits 34, 35 which are aligned with the fold lines 21, 22, respectively, and define opposite ends of an end flap 36 which is disposed at one end of the central panel 25. The portion of the outer flap portion 11 between the slits 30, 34 is in the form of an end flap 37 on the side wall 23 while the portion of the outer flap portion 11 between the slits 31, 35 is in the form of an end flap 38 on the end of the side wall 24.

The outer flap portion 12 is provided with a plurality of slits identical to the slits formed in the outer flap portion 11. These slits include slits 39, 40, 41, 42, 43 and 44 which correspond to the slits 26, 30, 34, 35, 31 and 27, respectively. These slits in the outer flap portion 12 set off end flaps which include an end flap 44' on the side wall 15 corresponding to the end flap 22; an end flap 45 on the bottom wall 19 corresponding to the end flap 32; an end flap 46 on the side wall 23 corresponding to the end flap 37; an end flap 47 on the cover panel 25 corresponding to the end flap 36; an end flap 48 on the side wall 24 corresponding to the end flap 38; an end flap 49 on the bottom wall 20 corresponding to the end flap 33; and an end flap 50 on the side wall 16 corresponding to the end flap 29.

The cover panel 25 is provided with two pairs of opposed C-shaped cuts 51 with the C-shaped cuts of each pair being connected together by fold lines 52 and 53, which are in parallel relation, the fold line 52 being disposed adjacent the fold line 21, with the fold line 53 being disposed adjacent the center of the cover panel 25. The C-shaped cuts 51 are further connected together by a zig-zag cut 54 to define a generally C-shaped flap 56 connected to the cover panel 25 along the fold line 52 and a generally T-shaped flap 57 connected to the cover panel 25 along the fold line 53. The other pair of C-shaped cuts 51 are connected together by two parallel fold lines 58, 59 with the fold line 59 being disposed adjacent the fold line 22, and the fold line 58 being disposed adjacent the fold line 53. The C-shaped cuts 51 connected together by the fold lines 58, 59 are also connected together by a Z-shaped cut line 60 which defines a T-shaped flap 61 connected to the cover panel 25 along the fold line 58 and a C-shaped flap 62 connected to the cover panel 25 along the fold line 59.

The bottom wall 19 is provided with a plurality of oval-outline ventilation openings 63. Similar ventilation openings 64 are formed in the bottom wall 20.

In the forming of the container 6 from the blank 7, the blank 7 is folded along the fold line 13 until the side wall 15 is disposed normal to the plane of the bottom wall 19. The side wall 15 and the bottom wall 19 are then folded as a unit along the fold line 17 until the side walls 15 and 23 are in parallel relation. The walls 15, 19 and 23 are then folded along the fold line 21 until the bottom wall 19 is disposed parallel to the cover panel 25. The side walls 16 and 24 and the bottom wall 20 are folded in the same manner as described above with respect to the side walls 15 and 23 and the bottom wall 19. The folding of these latter walls may be done after the folding of the walls 15, 19 and 23, or simultaneously therewith.

The end flaps 28, 37, 38, 29, 44', 46, 48 and 50 are then folded inwardly into overlapping relation with respective ones of each other. Next, the end flap 32 is folded up in face-to-face relation with respect to the end flaps 28, 37, while the end flap 45 is folded up into face-to-face relation with respect to the end flaps 44', 46. In a similar manner, the end flap 33 is folded up into face-to-face relation with respect to the end flaps 38, 29 and the end flap 49 is folded up into face-to-face relation with respect to the end flaps 48 and 50.

The end flaps 47 and 43 are provided with adhesive coatings 65 and these are folded down into face-to-face engagement with the end flaps 32 and 33 on one hand and the end flaps 45 and 49 on the other hand. The

adhesive securement of the end flap 36 to the end flaps 32 and 33 and the adhesive securement of the end flap 65 to the end flaps 45 and 49 results in a rigid container construction. However, if desired, although not necessary, the overlapping portions of the end flaps 28 and 37 could be secured to each other and to the end flap 32; the overlapping portions of the end flaps 38 and 29 may be secured together and these end flaps may be secured to the end flap 33; the overlapping portions of the end flaps 44' and 46 may be secured together and these end flaps secured to the end flap 45; and the overlapping portions of the end flaps 48 and 50 may be secured together and these end flaps secured to the end flap 49. Further, the abutting faces of the side walls 15 and 16 may also be adhesively secured together.

After the blank 7 has been folded in the above described manner and the various portions thereof secured together, preferably by adhesive, although staples could be used, the flaps 56, 57, 61 and 62 are folded inwardly to the positions illustrated in FIGURES 1, 2, 3 and 4. This results in the formation of openings 66 and 67 in the cover panel 25 through which items of produce, such as cantaloupes 70 illustrated in FIGURE 2, may be placed, and viewed. At this time it is pointed out that in the formation of the container 6, there is actually formed two container sections, generally referred to by the numerals 68, 69, over which the cover panel 25 extends.

Reference is now made to FIGURE 3 in particular, wherein it is shown that the flaps 56 and 57 diverge downwardly and are wedged into the corners of the container section 68 along the side edges of the bottom wall 19 thereof. In a similar manner, the flaps 61 and 62 diverge downwardly and are wedged into the side corners of the container section 69 along the side edges of the bottom wall 20 thereof. The flaps 56, 57, 61 and 62 will be engaged by articles of produce packed within the container 6 and will have in effect a wedging action on the produce as well as a cushioning action thereon.

Although the container 6 has not been illustrated as being provided with suitable hand holes to facilitate the handling thereof, if desired, the ends of the container 6 may be provided with hand holes as desired.

It will be readily apparent from FIGURES 1 and 2 that the container 6 provides adequate protection for the articles of produce packed therein, such as the cantaloupes 70, and at the same time, the cantaloupes 70 may be readily viewed through the openings 66 and 67 to determine the size and quality thereof. Due to the specific construction of the container 6, the cantaloupes 70 or other produce may be readily shipped or stored within the container 6, the container 6 having ample strength to permit the stacking of numerous filled containers one upon the other. On the other hand, it will be readily apparent that the container 6 is formed from a minimum of material in that the blank 7 is of a rectangular outline and there is no loss of material.

From the foregoing, it will be seen that novel and advantageous provision has been made for carrying out the desired end. However, attention is again directed to the fact that variations may be made in the example container disclosed herein without departing from the spirit and scope of the invention, as defined in the appended claims.

What is claimed as new:

1. A one-piece container for cantaloupe and the like comprising a pair of container sections disposed in side-by-side relation, each container section including a bottom wall, an inner side wall, an outer side wall, and flaps connected to opposite ends of each side wall, a full width end flap secured to each end of each of said bottom walls, each inner side wall being formed from abutting free end panels and having adjacent upper free edges, a cover panel overlying said container sections at said upper free edges and being integrally connected to upper edges of

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said outer side walls, and end flaps at opposite ends of said cover panel and extending the full width thereof, said cover panel end flaps, said side wall end flaps and said bottom wall end flaps being permanently secured together, the container being a combined shipping and display container, and said cover panel having a pair of article passing openings with each of said openings being aligned with a respective one of said container sections, each article passing opening being of an extent corresponding to a major portion of the area of the respective container section and being of a width less than the respective container section with each opening having side edges spaced from said inner and outer side walls of the respective container section, and each article passing opening resulting in the formation of two depending panels extending generally the full length of the respective article passing opening with said depending panels being wider than the heights of said inner and outer side walls and sloping into abutting contact with corners defined by respective ones of said bottom wall and said inner and outer side walls to provide resilient cushions for cantaloupe and the like contained in said container.

2. The container of claim 1 wherein the combined maximum widths of each pair of said elongated panels being greater than the width of the respective article passing opening.

3. The container of claim 2 wherein one elongated panel of each pair of elongated panels is of a U-shape and the other elongated panel is of a T-shape.

4. A one-piece container for cantaloupe and the like comprising a pair of container sections disposed in side-by-side relation, each container section including a bottom wall, an inner side wall, an outer side wall, said inner side walls being defined by a pair of end panels disposed in back-to-back abutting engagement and having adjacent upper free edges, a cover panel overlying said container sections and being integrally connected to upper edges of said outer side walls and having a central portion abutting said end panel free edges, end flaps connected to opposite ends of each side wall, an end flap secured to each end of each of said bottom walls, end flap at opposite ends of said cover panel and extending the full width thereof, means permanently securing all of said end flaps together to form a rigid assembly, and said cover panel having a pair of article passing openings with each of said openings being aligned with a respective one of said container sections and having an extent corresponding to a major portion of but less than the areas of the respective container section.

5. A one-piece container for cantaloupe and the like comprising a pair of container sections disposed in side-by-side relation, each container section including a bottom wall, an inner side wall, an outer side wall, said inner side walls being defined by a pair of end panels disposed in back-to-back engagement and having adjacent upper free edges, a cover panel overlying said container sections and being integrally connected to upper edges of said outer side walls and having a central portion abutting said end panel free edges, end flaps connected to opposite ends of each side wall, an end flap secured to each end of each of said bottom walls, end flaps at opposite ends of said cover panel and extending the full width thereof, means permanently securing all of said end flaps together to form a rigid assembly, and said cover panel having a pair of article passing openings with each of said openings being aligned with a respective one of said container sections and having an extent corresponding to a major portion of the areas of the respective container section, each article passing opening being of a width less than the respective container section with each opening having side edges spaced from said inner and outer side walls of the respective container section, and each article passing opening resulting in the formation of two depending panels extending generally the full length of the respective article passing opening with said depending panels being wider

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than the heights of said inner and outer side walls and sloping into corners defined by respective ones of said bottom wall and said inner and outer side walls to provide resilient cushions for cantaloupe and the like contained in said container.

6. A blank for forming a two compartment container, said blank comprising a rectangular sheet having a pair of longitudinal fold lines extending the full length of said sheet and set inwardly from opposite edges of said blank and dividing said blank into a central wall forming portion and outer flap portions, a plurality of transverse fold lines extending between said longitudinal fold lines and dividing said central wall forming portions into individual container wall panels including a central top wall panel having a container section bottom wall panel and a pair of side wall panels on each side thereof, one side wall panel of said pair of side wall panels being disposed on opposite sides of a respective one of said bottom wall panels, said blank being symmetrical about a transverse center line thereof and said central top wall panel being of a width twice that of said bottom wall panels, all of said side wall panels being of the same width, and slits across said outer flap portions in alignment with each of said transverse fold lines dividing each outer flap portion into a plurality of end flaps wherein each of said wall panels has a flap at each end thereof, said top wall panel having a pair of elongated openings therein, each of said openings having an extent corresponding to a major portion of the extent of said bottom wall panels and having a width less than the width of a respective bottom wall panel, and each opening being formed by a pair of elongated flaps foldable out of the plane of said top wall panel, each of said elongated flaps having a maximum width in excess of the widths of said side wall panels whereby in an erected container each of said elongated flaps forms a sloping cushion extending generally the full length of the respective opening and has a free edge thereof wedged in a corner defined by one of said side wall panels and one of said bottom wall panels.

7. The container blank of claim 6 wherein said elongated flaps of each pair are in interstening relation and the combined width of each pair of said elongated flaps is greater than the width of the respective opening.

8. A one-piece container for cantaloupe and the like comprising a pair of container sections disposed in side-by-side relation, each container section including a bottom wall, an inner side wall, an outer side wall, said inner side walls being defined by a pair of end panels disposed in back-to-back engagement and having adjacent upper free edges, a cover panel overlying said container sections and being integrally connected to upper edges of said outer side walls and having a central portion abutting said end panel free edges, end flaps connected to opposite ends of each side wall, an end flap secured to each end of each of said bottom walls, end flaps at opposite ends of said cover panel and extending the full width thereof, means permanently securing all of said end flaps together to form a rigid assembly, and said cover panel having a pair of article passing openings with each of said openings being aligned with a respective one of said container sections and having an extent corresponding to a major portion of the areas of the respective container section, each article passing opening being of a width less than the respective container section with each opening having side edges spaced from said inner and outer side walls of the respective container section, and each article passing opening resulting in the formation of two depending panels extending generally the full length of the respective article passing opening with said depending panels sloping into the interior of the respective container section in diverging relation to provide resilient cushions for cantaloupe and the like contained in said container.

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