

March 17, 1964

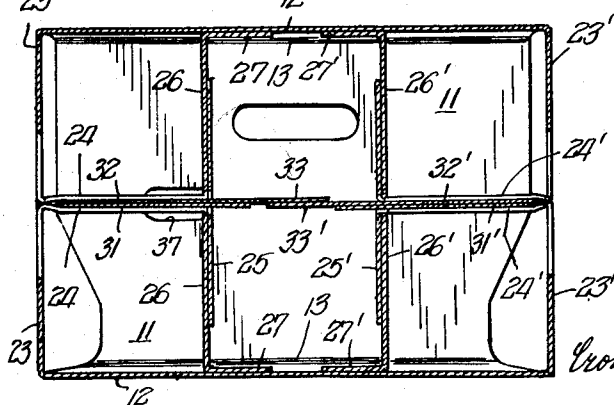
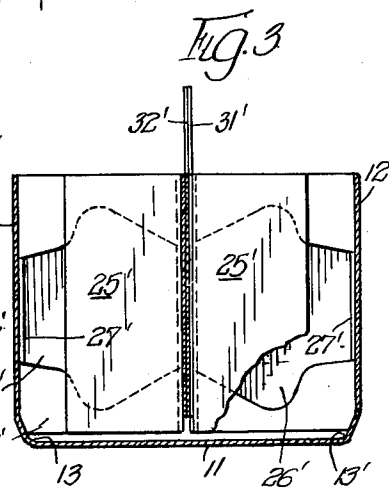
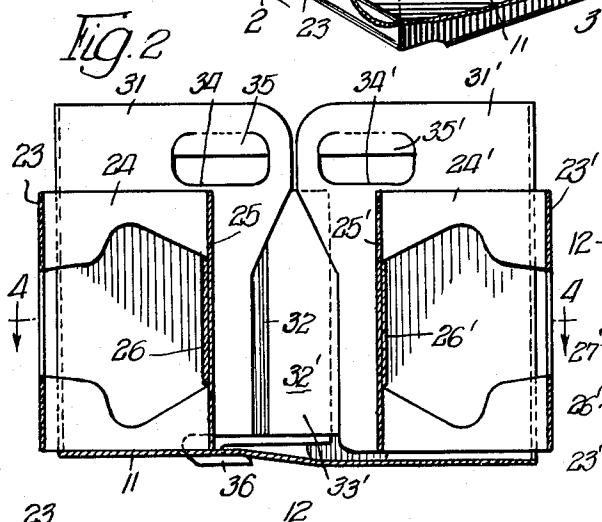
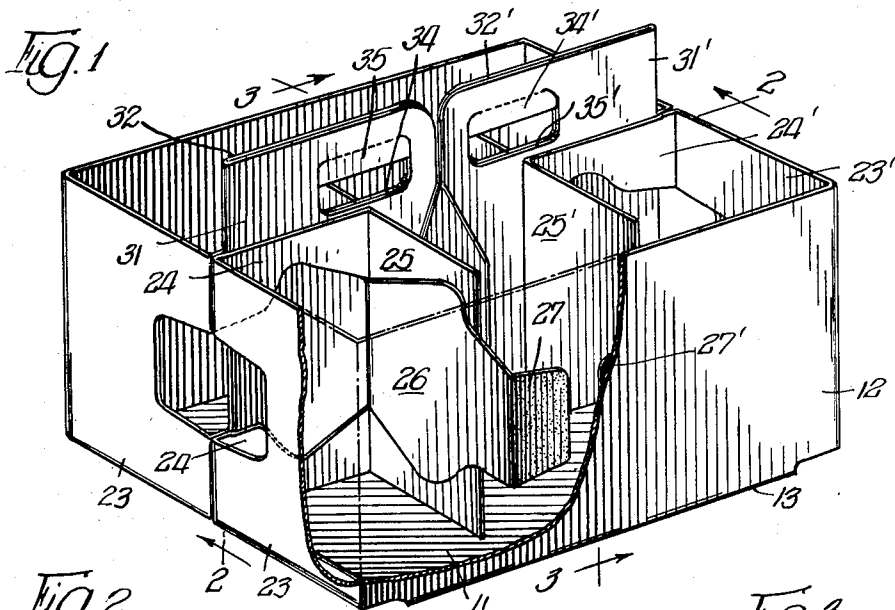
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3,125,243

ARTICLE CARRIER

Filed Oct. 30, 1961

5 Sheets-Sheet 1



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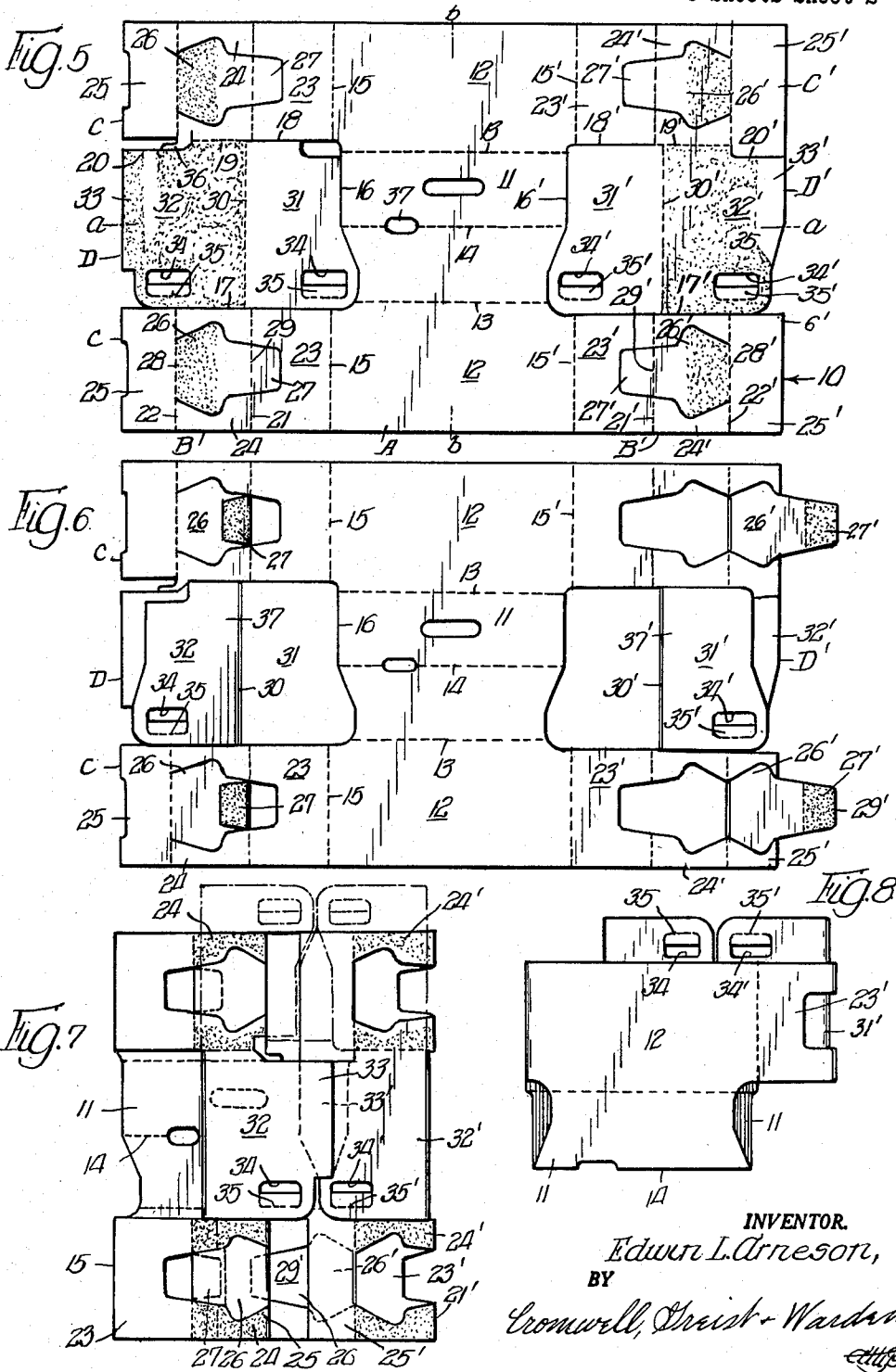
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ARTICLE CARRIER

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ARTICLE CARRIER

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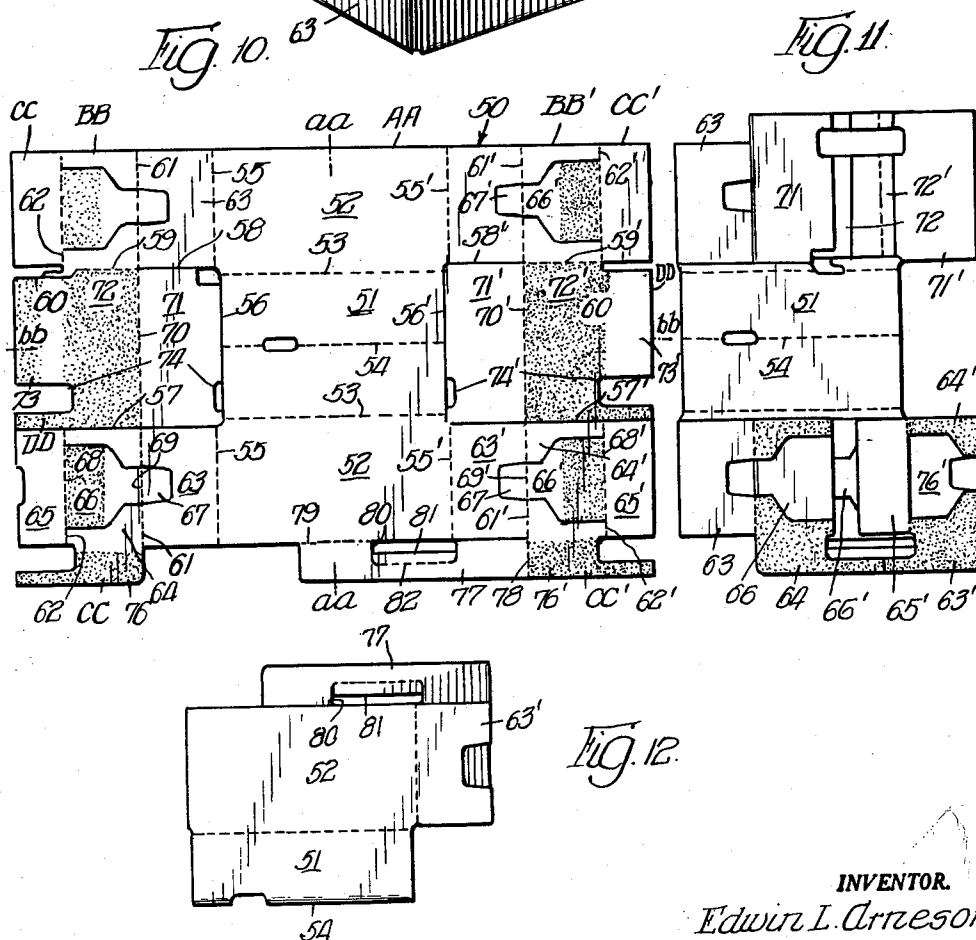
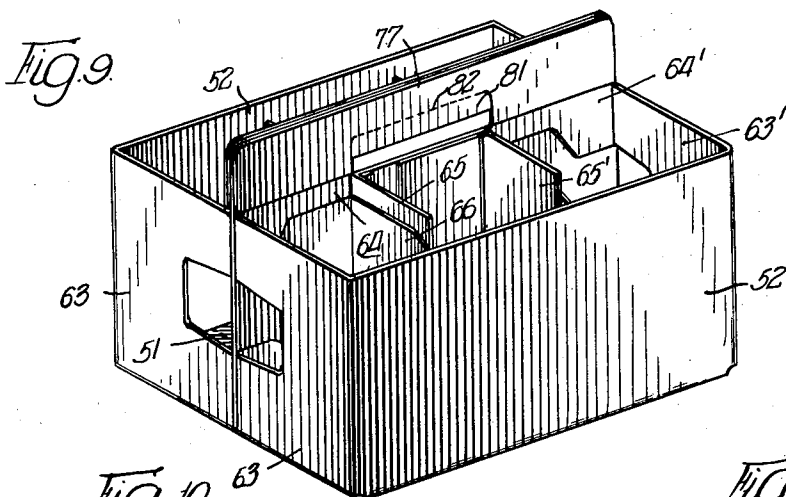


Fig. 12

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ARTICLE CARRIER

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Fig. 13

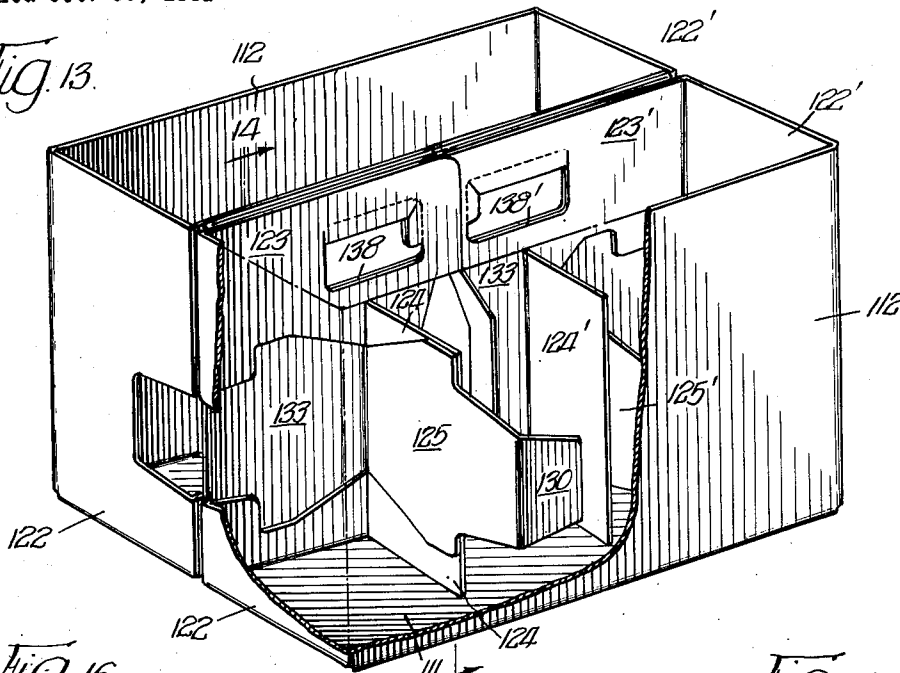


Fig. 16

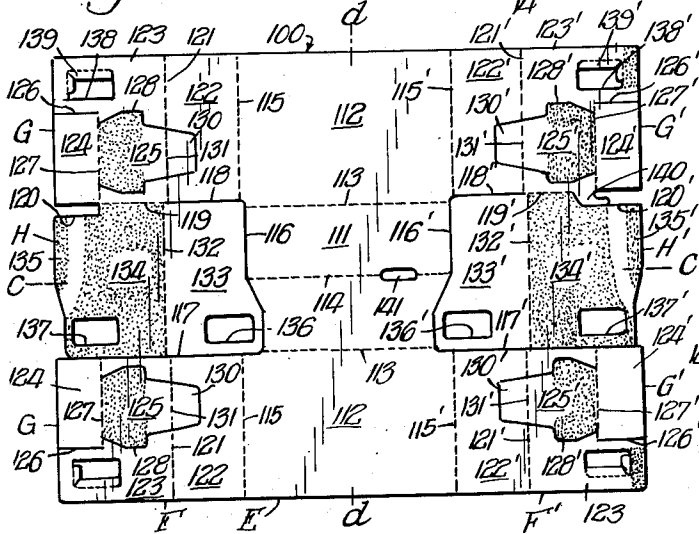


Fig. 14

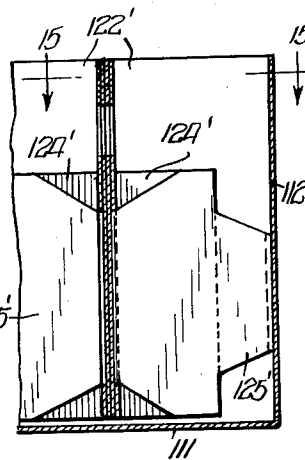
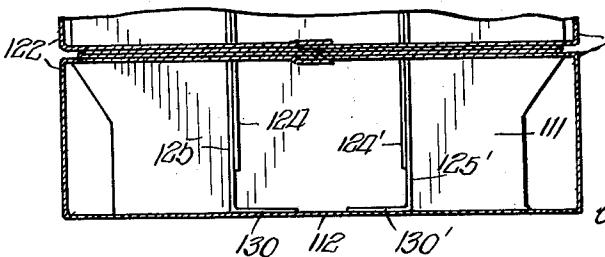


Fig. 15



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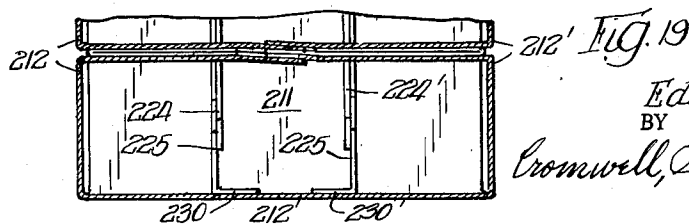
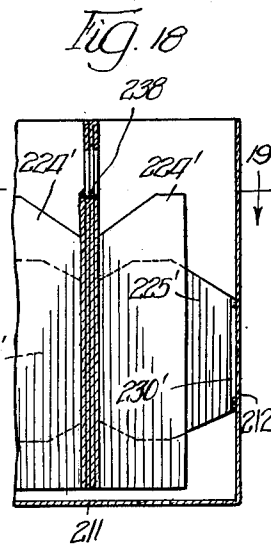
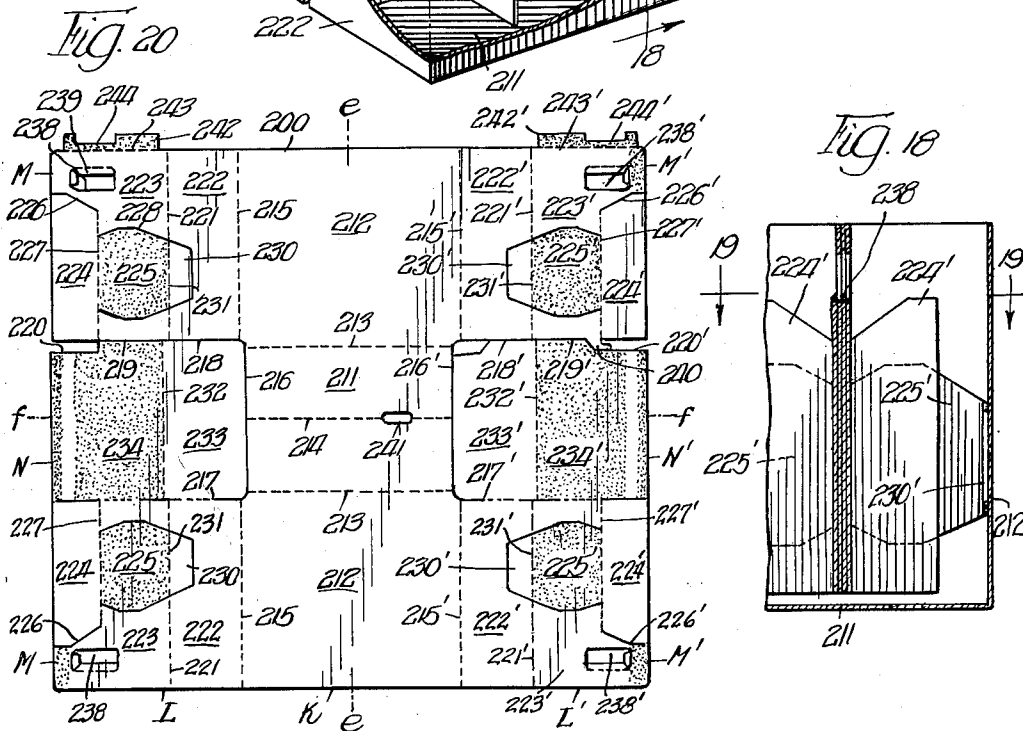
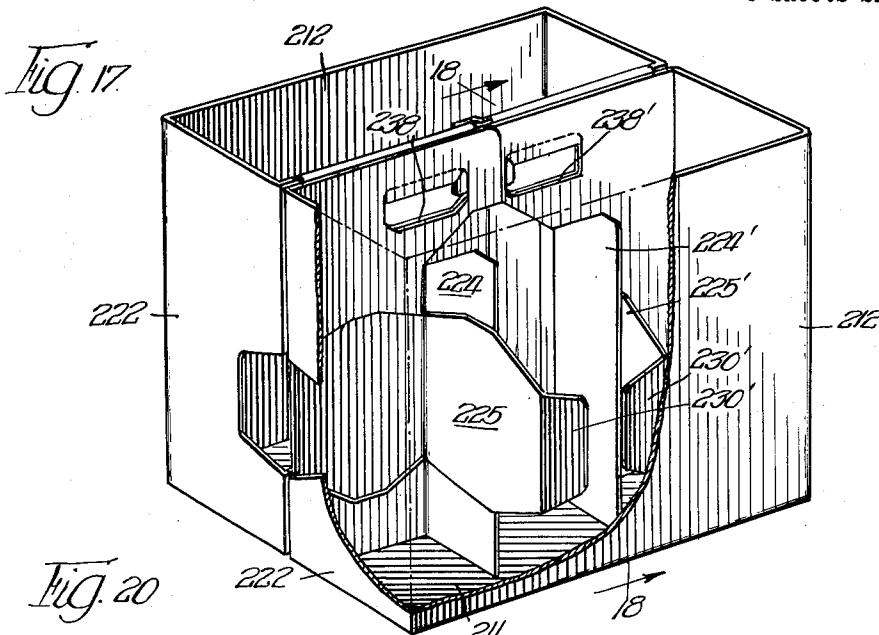
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ARTICLE CARRIER

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3,125,243

ARTICLE CARRIER

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Filed Oct. 30, 1961, Ser. No. 148,328

15 Claims. (Cl. 220-113)

This invention relates to article carriers of the type which are fabricated from a single blank of flexible sheet material, with the blank being cut and creased to divide the same into a plurality of panels which are thereafter folded and secured in predetermined relation so as to provide, when in article receiving position, twin compartments separated by a longitudinally extending center partition and associated handle structure with each compartment divided into a multiplicity of article accommodating cells by cross partitions extending in longitudinally spaced relation between the center partition structure and the oppositely disposed side walls of the carrier.

This application is a continuation-in-part of my earlier filed application, Serial No. 10,971, filed February 25, 1960, now Patent No. 3,093,265.

Cellular carriers have heretofore been produced for use in connection with the marketing of bottled beverages such as soft drinks, beer and the like. Generally, such carriers have been provided for products which are sold in bottles designed to be returned to the bottling plant for refilling and reuse a number of times, and the carriers have been formed of relatively heavy paperboard stock in order to withstand the rough usage encountered upon repeated trips between the bottling plant and the product user. The use of relatively heavy paperboard stock and the employment of certain structural features which have been considered necessary to obtain a sufficiently rugged construction has kept the cost of such carriers relatively high. With the introduction of single trip or disposable glass bottles in the beverage industry, a demand has been created for a more economical paperboard carrier, that is, one which is sufficiently rugged for single trip use between the bottling plant and the purchaser of the beverages and which is not too costly so that it can be discarded along with the empty bottles after its first use. Carriers have been designed for this purpose which employ a paperboard blank of much lighter weight material than heretofore used, for example, .020 stock, as compared with the .040 stock commonly used, so as to substantially reduce the cost of the carriers and make it practical from an economical standpoint to employ them with the single trip bottles. Such lightweight board carriers have been used to some extent for certain bottled beverages, but they have not been acceptable for use in the marketing of beer in the single trip bottles, particularly, where the beer is transported by the railroads. The packaging rules enforced in rail transportation of bottled beer packaged in paperboard carriers provide for a minimum of .040 inch of paperboard material between the bottles in the carrier. Where the carrier is formed of lightweight board, that is, .020 stock, with a single thickness of material between the bottles, the minimum thickness requirement is not met and the carrier cannot be used for rail transportation.

It is a general object of the present invention, therefore, to provide an improved article carrier which is fabricated from a single sheet or blank of relatively lightweight, flexible paperboard material wherein the blank is cut and folded so as to provide in the erected carrier a double thickness of material between the articles in the adjoining cells.

It is a more specific object of the invention to provide an improved paperboard article carrier fabricated from a

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paperboard blank of a minimum size which is slitted, creased and folded to provide opposed side walls, a longitudinal partition and handle structure paralleling the side walls, and cross partition members which are taken at least in part from the longitudinal partition structure and which extend between the latter and the side walls when the carrier is in erected condition with the cross partitions providing a double thickness of material between the cells and the longitudinal partition structure having portions in the areas between the cells on opposite sides thereof which afford a double thickness of material for separating the articles.

It is a further object of the invention to provide a twin compartment multi-cellular bottle carrier formed from a rectangular sheet of paperboard of relatively lightweight, for example, .020 thickness, which is cut and scored to provide a bottom wall forming panel, side wall panels hinged to opposite side edges thereof, pairs of end wall and longitudinal partition panels hinged to the opposite ends of the respective side walls, longitudinal partition and handle forming panels which are cut from the material between the end wall and longitudinal partition panels at each end of the blank and cross partition forming panel elements which are cut at least in part from the longitudinal partition panels adjacent the end wall forming panels.

It is another object of the invention to provide in an article carrier of the character described a longitudinal partition and handle structure which parallels the side walls and which is reinforced by panel portions taken from the side margins of the blank and affording multiple thickness of material in the top margins of the partition and handle structure.

These and other objects and advantages of the invention will be apparent from a consideration of the several embodiments of the article carrier which are shown by way of illustration in the accompanying drawings wherein:

FIGURE 1 is a perspective view of an article carrier having embodied therein the principal features of the invention, the carrier being shown in set-up empty condition and with portions of a side wall and an adjoining end wall thereof broken away;

FIGURE 2 is a longitudinal vertical section taken on the line 2-2 of FIGURE 1;

FIGURE 3 is a transverse section taken on the line 3-3 of FIGURE 1;

FIGURE 4 is a horizontal cross section taken on the line 4-4 of FIGURE 2;

FIGURE 5 is a plan view of the inside face of the prepared blank from which the carrier is formed, the view showing adhesive applied to certain areas of the blank preliminary to executing the first folding operations;

FIGURE 6 is a plan view showing the blank following the first folding and subsequent adhesive applying operations;

FIGURE 7 is a plan view showing the blank at a further stage in the folding thereof;

FIGURE 8 is a plan view of the completed carrier in the flat knocked down condition;

FIGURE 9 is a perspective view of a modified form of the article carrier in set-up, empty condition;

FIGURE 10 is a plan view of the inside face of the prepared blank from which the carrier of FIGURE 9 is formed, the view showing adhesive applied to certain areas of the blank preliminary to executing the first folding operations;

FIGURE 11 is a plan view showing the blank of FIGURE 10 following certain folding and adhesive applying operations;

FIGURE 12 is a plan view of the completed carrier of FIGURE 9 in flat, knocked down condition;

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FIGURE 13 is a perspective view of a further form of the article carrier having embodied therein the principal features of the invention, the carrier being shown in set-up, empty condition with portions of a side wall and an adjoining end wall thereof broken away;

FIGURE 14 is a partial cross section taken on the line 14—14 of FIGURE 13;

FIGURE 15 is a fragmentary longitudinal section taken on the line 15—15 of FIGURE 13;

FIGURE 16 is a plan view of the inside face of the prepared blank from which the carrier of FIGURE 13 is formed, the view showing adhesive applied to certain areas of the blank preliminary to executing the first folding operations;

FIGURE 17 is a perspective view of a still further modification of the article carrier, the carrier being shown in set-up, empty condition and with portions broken away;

FIGURE 18 is a partial cross section taken on the line 18—18 of FIGURE 17;

FIGURE 19 is a fragmentary plan view; and

FIGURE 20 is a plan view of the inside face of the prepared blank from which the carrier of FIGURE 17 is formed, the view showing adhesive applied to certain areas of the blank preliminary to executing the first folding operations.

Referring first to FIGURES 1 to 8 of the drawings, there is illustrated one embodiment of the carrier which incorporates the principles of the invention. In the illustrated form, the carrier is fabricated from a flat blank 10 (FIGURE 5) of flexible paperboard sheet material which is of generally rectangular outline and which is relatively thin; for example, having a thickness of 0.020 inch, commonly referred to in the paperboard industry as 20 point stock. The blank 10 is cut and scored to divide the same into wall and partition forming panels which are thereafter folded and secured together to form the carrier of FIGURE 1. Since the cut and scored blank 10 is, to a large extent, symmetrical about the longitudinal and transverse center lines $a-a$ and $b-b$, respectively, corresponding elements which are found on opposite sides of the longitudinal center line $a-a$ will be designed by the same reference numerals and where an element found on one side of the transverse center line $b-b$ has a counterpart on the other side thereof, it will be designated by the same reference numeral primed.

The blank 10 is divided in the longitudinal direction thereof into three sections with the center section A and the two end sections B and B' being very nearly equal in size. The center section A is subdivided to provide a bottom and side walls for the carrier and the two end sections B and B' are subdivided to provide a combination partition and handle structure. The center blank section A is divided in the direction transversely of the blank 10 into a center or bottom wall forming panel 11 and two side wall forming panels 12. The bottom wall forming panel 11 is separated from the side wall forming panels 12 by a pair of parallel, longitudinally extending crease or score lines 13 which are spaced a predetermined distance apart, which distance is less than the overall width of the carrier in its set-up article receiving condition. The bottom wall panel 11 is subdivided into two parts or half-panels by a longitudinal score line 14 which coincides with the center line $a-a$ of the blank and which permits folding of the bottom wall so that the carrier may be fabricated in collapsed condition. Each of the side wall forming panels 12 is separated from the end sections B and B' of the blank by transversely extending, parallel score lines 15 and 15' which form hinge lines for two pairs of blank sections C, C and C', C', the latter constituting the outside portions of the blank end sections B and B' or the four corner sections of the blank 10. The bottom wall forming panel 11 is separated from the center portions D and D' of the blank end sections B and B' by the cutting lines 16 and 16' which extend in the direction transversely of the blank between corresponding ends of

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the longitudinal score lines 13 and which are offset inwardly relative to the transverse score lines 15 and 15'.

The blank portions or sections D and D' are separated from the corner sections C and C' at one side of the blank by longitudinally extending and aligned cutting lines 17 and 17' which are parallel with and offset outwardly of the longitudinal score line 13 between the bottom wall panel and the side wall panel 12 at that side of the blank. At the other side of the blank the sections D and D' are partially separated from adjoining corner sections C and C' by longitudinally extending and aligned cutting lines 18 and 18' which are parallel with and extend in outwardly offset relation from the ends of the longitudinal score line 13 toward the ends of the blank. The blank sections D and D' remain attached to the corner sections C and C' along hinge forming perforated lines 19 and 19' which constitute outward extensions of the cutting lines 18 and 18' and which terminate short of the end edges of the blank. The blank sections D and D' are cut free of the terminal end portions of the adjoining corner sections C and C' along the longitudinal lines 20 and 20' which may also be parallel with the score line 13 and in approximate alignment therewith.

The four corner sections C, C and C', C' of the blank are subdivided into wall and partition forming panels in an identical manner by longitudinally spaced, parallel, transverse score lines 21, 22 and 21', 22'. They provide pairs of end wall forming panels 23 and 23', which adjoin the side wall panels 12, longitudinal partition forming panels 24 and 24' which are separated from the adjoining end wall panels 23 and 23' by the hinge forming score lines 21 and 21' and end panel members 25 and 25' which are separated from the adjoining longitudinal partition forming panels 24 and 24' by the hinge forming score lines 22 and 22' and which constitute one element of two part cross partition members in the set up form of the carrier. The end wall forming panels 23 and 23' and the longitudinal partition forming panels 24 and 24' are approximately the same size and have a dimension in the lengthwise direction of the blank which is approximately one-third the corresponding dimension of the side wall panels 12. The end panel members 25 and 25' have a dimension in the longitudinal direction of the blank which is no less than half the corresponding dimension of the adjoining longitudinal partition panels 24 and 24'.

Cross partition forming panel members 26 and 26' are cut from the end wall and longitudinal partition panels 23, 24 and 23', 24' in the corner sections C and C' of the blank. The cross partition members 26 and 26' are defined by pairs of generally U-shaped cutting lines which face toward opposite ends of the blank and which extend from the transverse crease lines 22 and 22' across the longitudinal partition panels 24 and 24' and a predetermined distance into the end wall panels 23 and 23' sufficient to form glue tabs 27 and 27' on the free ends of the members 26 and 26'. The members 26 and 26' are adapted to hinge about the portions 28 and 28' of the score lines 22 and 22' while the glue tabs 27 and 27' are adapted to hinge about the score lines 29 and 29' which are formed initially as portions of the transverse score lines 21 and 21'. The laterally spaced side edge forming lines which constitute the legs of each of the U-shaped cuts defining the cross partition members 26 and 26' extend in the longitudinal direction of the blank and are spaced inwardly of the lateral edges of the corner sections of the blank. These cutting lines have outwardly bowed portions so that the maximum transverse dimension of each of the cross partition members 26 and 26' is substantial, being somewhat less however than the corresponding dimension of the end panel members 25 and 25' against which these members are folded to form two ply or double thickness cross partitions which, in the erected condition of the carrier extend in transverse planes laterally of the longitudinal partition structure and

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are connected to the inside faces of the side walls 12 by securing the glue tabs 27 and 27' to the latter.

The longitudinal partition and handle forming sections D and D' at the opposite ends of the blank are subdivided by hinge forming transverse score lines 30 and 30' into longitudinal partition and handle forming panels 31, 32 and 31', 32'. These panels are of approximately the same dimension in the longitudinal direction of the blank in the handle forming areas thereof which are adjacent the cutting lines 17 and 17' while in the partition forming areas adjacent the cutting lines 18 and 18' the innermost panels 31 and 31' have a dimension in the longitudinal direction of the blank which is somewhat less than that of the outermost panels so that when the panels 31 and 31' are folded about the score lines 30 and 30' into face engagement with the panels 32 and 32', respectively, the handle forming marginal portions are in aligned superimposed relation and the panels 32 and 32' have marginal edge portions 33 and 33' which, in the set up condition of the carrier, are overlapped and secured together. Finger holes 34 and 34' are cut in the handle forming portions of the panels 31, 32 and 31', 32' which are spaced equal distances from the hinge lines 30 and 30' so that they are in alignment when the panels are folded upon each other and hinged reinforcing flaps 35 and 35' are provided in the finger holes.

The panels 31, 32 and 31', 32' are freed from the partition forming panels in the corner sections C and C' at the one side of the blank by the cutting lines 17 and 17' and from the wall forming panels in the center section A of the blank by the cutting lines 16 and 16'. At the other side of the blank the panels 31 and 31' are freed from the end wall panels 23 and 23' in the adjoining corner sections C and C' of the blank by the cutting lines 18 and 18' which permits the panels 31 and 31' to be folded about the hinge lines 30 and 30' onto the panels 32 and 32', respectively. The cutting lines 20 and 20' free the cross partition panel members 25 and 25' from the panels 32 and 32' so that the former may hinge about the score lines 22 and 22' when the carrier is set up. The panels 32 and 32' remain connected to the bottom forming edges of the longitudinal partition panels 24 and 24' on the hinge forming perforation lines 19 and 19' so that these panels may be folded into face engaging relation and secured together to form a longitudinal partition structure.

At one corner of the blank the cross partition member 25 is cut away at its inner end and a hook formation 36 is provided on the inner edge of the adjoining longitudinal partition forming panel 24 which is adapted to engage in a slot-like aperture 37 provided in the bottom wall panel 11 so as to anchor the latter to the longitudinal partition and hold the carrier in set up condition until the articles are placed therein.

The blank 10, when cut and scored, is glued and folded to provide the carrier which is illustrated in FIGURE 1. A suitable adhesive is initially applied to the cross partition panel members 26, 26' and the longitudinal partition panels 32, 32' as shown in FIGURE 5. The cross partition members 26' are folded outwardly about the hinge lines 28' into face engagement with the adjoining panel members 25' at the one end of the blank. At the other end of the blank the cross partition panel members 25 are folded inwardly about the score lines 22 into engagement with the adhesive coated portions of the cross partition members 26 and the tab members 27 are folded outwardly about the score lines 29 after which adhesive is applied to the exposed faces of the tabs 27 and 27' at both ends of the blank, as shown in FIGURE 6. The longitudinal partition panels 31 and 31' are also folded outwardly about the score lines 30 and 30' into engagement with the adhesive coated faces of the partition panels 32 and 32', respectively. The partition forming panels 24' and 25' in the corner sections C', C' of the blank are then folded inwardly about the score lines 21' into overlying relation with the side wall panels 12 and

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the end wall panels 23', bringing the adhesive coated faces of the tab members 27' into engagement with the respective side walls 12. The corner sections, C, C are thereafter folded inwardly about the score lines 15 to bring the adhesive coated faces of the tab members 27 into engagement with the inside faces of the respective side wall panels 12. These folding operations bring the longitudinal partition and handle panels 31, 32 and 31', 32' into the position shown in FIGURE 7 where the marginal portions 33 and 33' of the panels 32 and 32' are overlapped and adhesively secured together. Thereafter, adhesive is applied to the exposed faces of the longitudinal partition panels 24, 24 and 24' 24'. Finally, the folded and connected longitudinal partition and handle panels 31, 32 and 31', 32' are swung about the hinges 19 and 19' to bring the panels 32 and 32' into engagement with the adhesive coated surfaces of the longitudinal partition panels 24 and 24' at one side of the bottom wall panel 11 and the assembly is folded about the center score line 14 to bring the adhesive coated faces of the other pair of longitudinal partition panels 24 and 24' into engagement with the exposed faces of the longitudinal partition panels 31 and 31'. This completes the gluing and folding operations and provides the carrier in knocked down condition as shown in FIGURE 8.

When opened up as shown in FIGURE 1, the carrier provides a multi-cellular carrier with two rows of three cells each on opposite sides of a center or longitudinal partition structure which has upstanding portions providing a handle or suspending means. The cross partition forming members 25, 26 and 25', 26' are secured in face-to-face engagement and each pair thereof is anchored to the inside face of a side wall by associated glue tab members 27 and 27' so as to provide rigid cross partitions each with a double thickness of the board material between the bottles or other articles which are placed in the cells. In the area of the longitudinal partition which extends between the two center cells, the panels 32 and 32' have overlapped marginal portions 33 and 33' which provide a double ply so that the articles in these cells are separated by two thicknesses of the board material. At the ends of the carrier the folded longitudinal partition panels 31, 32 and 31', 32' extend full depth between the end cells so as to cover the openings left in the longitudinal partition panels 24 and 24' by cutting the cross partition members 26 and 26' therein and folding the same out of the plane thereof whereby at least two thicknesses of the board material are provided between articles placed in the end cells. The carrier is designed so that the distance between the bottom score lines 13 forming the bottom hinges with the side walls is less than the combined width of the articles in the cells and some of the strain on the hinges is relieved by engagement of the bottom edges of the articles with the side walls above the hinges. Since the carrier employs a blank of rectangular shape and minimum size, substantial savings in material are achieved and when lightweight stock is employed a very economical or inexpensive carrier can be produced which has adequate strength and rigidity for single trip use and which satisfies the railway bottled beer shipping requirements as to the minimum stock separating the bottles in the cells.

A modified form of the carrier of FIGURE 1 is illustrated in FIGURES 9 to 12. In this form, the carrier is fabricated from a generally rectangular blank 50 which is cut and scored as shown in FIGURE 10. The blank 50, which is initially somewhat wider than the blank 10, is divided into wall and partition forming panels of a character similar to those found in the carrier of FIGURE 1 and also handle reinforcing and cover panels, the latter being taken from the additional material at one side of the blank resulting from the employment of the wider blank.

The blank 50 is generally symmetrical about longitudinal and transverse center lines *aa—aa* and *bb—bb*. It

is divided in the longitudinal direction into three sections with the bottom and side wall forming center section AA and the two end sections BB and BB' in which the panels for the longitudinal cross partition structure are formed being of nearly equal dimension in the longitudinal direction of the blank. The center section AA is subdivided in the direction transversely of the blank into a bottom wall forming panel 51 and two side wall forming panels 52, on opposite sides of the bottom wall forming panel 52 and separated therefrom by parallel, laterally spaced, longitudinal score lines 53, the latter being spaced apart a distance which is less than the overall width of the carrier in its set up article receiving condition. The bottom wall panel 51 is further subdivided into two equal panel sections or parts by the longitudinal score line 54 which coincides with the longitudinal center line *bb-bb* of the blank so as to permit folding of the bottom wall. The two side wall panels 52 are separated from the end sections BB and BB' of the blank by transversely extending score lines 55 and 55' which form hinge lines for the corner blank sections CC and CC'. The bottom wall forming panel 51 is separated from the center portions DD and DD' by transversely extending cutting lines 56 and 56' which extend between the corresponding ends of the longitudinal score lines 53 and 53' and which are offset inwardly of the transverse score lines 55 and 55'.

The longitudinal partition and handle forming center portions DD and DD' of the blank end sections BB and BB' are separated from the blank corner portions or sections CC and CC' at one side of the blank by longitudinally extending and aligned cutting lines 57 and 57' which are parallel with and offset outwardly of the longitudinal score line 53 between the bottom wall panel 51 and the side wall panel 52 at that side of the blank. At the other side of the blank the sections DD and DD' are partially separated from the adjoining corner sections CC and CC' by aligned cutting lines 58 and 58' which are parallel with and extend in outwardly offset relation from the ends of the longitudinal score line 53 towards the ends of the blank. The blank sections DD and DD' remain attached to the corner sections CC and CC', respectively, along hinge forming perforated lines 59 and 59' which constitute outward extensions of the cutting lines 58 and 58' which terminate short of the end edges of the blank. These sections are cut free of the terminal end portions of the corner sections along the longitudinal lines 60 and 60', both of the latter being parallel with and offset inwardly of the blank relative to the perforated lines 59 and 59' from the outer ends of which they extend.

The four corner sections CC, CC and CC', CC' of the blank are subdivided in an identical manner by transversely extending, longitudinally spaced, parallel score lines 61, 62 and 61', 62' to provide pairs of end wall forming panels 63 and 63' which adjoin the side wall panels 52, longitudinal partition forming panels 64 and 64' which are separated from the adjoining end wall panels 63 and 63' by the hinge forming score lines 61 and 61', and end panel members 65 and 65' which are separated from the adjoining longitudinal partition forming panels 64 and 64' by the hinge forming score lines 62 and 62'. The last mentioned end panel members 65 and 65' constitute one element of two part cross partition members in the set up form of the carrier. The end wall forming panels 63 and 63' are all the same size. The longitudinal partition forming panels 64 and 64' have the same dimension in the longitudinal direction of the blank, while the end panel members 65 and 65' are of the same size with the dimension in the longitudinal direction of the blank being no less than one-half the corresponding dimension of the adjoining longitudinal partition forming panels 64 and 64'. Cross partition forming panel members 66 and 66' are cut from the longitudinal forming panels 64 and 64' in the blank

corner sections CC and CC' on generally U-shaped cutting lines which face toward opposite ends of the blank and which extend from the transverse crease lines 62 and 62' across the longitudinal partition panels 64 and 64' and a predetermined distance into the end wall panels 63 and 63' sufficient to form glue tabs 67 and 67' on the free ends of the members 66 and 66'. The cross partition members 66 and 66' are adapted to hinge about center portions 68 and 68' of the score lines 62 and 62' while the glue tabs 67 and 67' are adapted to hinge about the score lines 69 and 69' which were formed initially as portions of the transverse score lines 61 and 61'. The cross partition members 66 and 66' and their associated glue tabs 67 and 67' correspond to members 26, 26' and 27, 27' in the form of the carrier shown in the blank of FIGURE 5.

The longitudinal partition and handle forming sections DD and DD' at the opposite ends of the blank are subdivided by hinge forming transverse score lines 70 and 70' into longitudinal partition and handle forming panels 71, 72 and 71', 72'. These panels are of the same dimensions in the transverse direction of the blank. In the longitudinal direction of the blank the panels 71 and 71' have a greater dimension than the corresponding dimension of the end wall panels 63 and 63', the transverse score lines 70 and 70' being aligned with the transverse score lines 61 and 61'. The panels 72 and 72' have a dimension in the longitudinal direction of the blank which corresponds to the combined dimension in the same direction of the adjoining sets of longitudinal and cross partition panels 64, 65 and 64', 65' in the blank corner sections CC and CC' so as to provide marginal portions 73 and 73' which are adapted to be overlapped in the set up condition of the carrier. The marginal portions along one side of the panels 71, 72 and 71', 72' adjacent the cutting lines 57 and 57' constitute handle forming portions which have hand hole forming openings 74 and 74' cut therein, the latter being in alignment when the panels 71 and 71' are folded about the score lines 70 and 70' into face engagement with the panels 72 and 72'.

The longitudinal partition forming panels 64 and 64' at the one side of the blank have integral laterally extending portions providing handle reinforcing members 76 and 76' which are identical with the handle forming marginal portions of the panels 72 and 72' and which are adapted to be brought into face-to-face aligned engagement with the same when the carrier is set up. A handle cover member 77 is provided along the same side of the blank and is adapted to hinge about a transverse score line 78 which constitutes an extension of the transverse score line 61' and which separates the handle cover panel from the handle reinforcing panel 76' on the longitudinal partition panel 64'. The cover panel 77 is separated from the end wall panel 63' and the side wall panel by a partly perforated, partly cut line 79 so that this panel may be readily broken loose and freed from the side wall panel 52 and the end wall panel 63' when the carrier is set up. The handle cover panel 77 is approximately the same dimension in the longitudinal direction of the blank as the side wall panels 52. A handle hole formation 80 is cut in the panel 77 and provided with a reinforcing tab or flap 81 which is adapted to hinge about the score line 82. The handle opening 80 is located so that it aligns with the openings 74 and 74' when the carrier is set up as shown in FIGURE 9.

The blank 50, when cut and scored as shown in FIGURE 10 is glued and folded to provide the carrier which is illustrated in FIGURE 9. The gluing and folding operations are substantially the same as the gluing and folding operations performed in assembling the carrier illustrated in FIGURE 1. As indicated in FIGURE 10, an adhesive is initially applied to the inside surfaces of the handle reinforcing panels 76 and 76' which extend from the longitudinal partition forming panels 64 and 64' so as to secure these members to the handle cover

panel 77 when the longitudinal partition panels 64 and 64' are folded as shown in FIGURE 11. An adhesive is applied to the opposite or outside surfaces of the members 76 and 76', which are uppermost in the condition of the panel shown in FIGURE 11, in order to secure these panels to the handle forming sections of the panels 71, 72 and 71', 72'. The completed carrier, when opened up as shown in FIGURE 9, corresponds to the carrier shown in FIGURE 1, except for minor variations in cutting the partition panels and in the handle structure. The handle structure is reinforced by the additional panels 76 and 76' and the outer cover panel 77 which is located on the one side of the carrier so as to cover the handle portions of the panels 71, 72 and 71', 72' and which provides for a minimum of three plies of material throughout the length of the handle and also presents a finished appearance on both sides thereof.

The form of the carrier illustrated in FIGURES 13 to 16 is also similar to the carrier of FIGURE 1. It differs primarily in the arrangement of the cross partition members so as to eliminate the openings in the end wall panels which, when the carrier is used with certain products, may be considered objectionable due to the loss of advertising space on the end wall panels or for other reasons.

The blank 100 (FIGURE 16) from which this form of the carrier is fabricated is similar to the blank 10, being taken from relatively thin paperboard stock, and being of rectangular outline. It is cut and creased or scored to provide a plurality of wall and partition forming panels which when folded and secured together in the proper manner, form the carrier of FIGURE 13. The blank 100 is generally symmetrical about longitudinal and transverse center lines *c-c* and *d-d*. It is divided in the longitudinal direction into three sections, with the bottom and side wall forming center section E and the two end sections F and F', in which the panels for the longitudinal and cross partition structure are formed, being very nearly equal in size. The center section E of the blank is subdivided in the direction transversely of the blank into a bottom wall forming panel 111 and two side wall forming panels 112 which are laterally spaced and on opposite sides of the bottom wall forming panel 111, being separated from the latter by longitudinal crease or score lines 113 about which the side wall panels hinge into upright position relative to the bottom wall panel 111 in the erected form of the carrier. Preferably, the score lines 113 are spaced apart a distance which is less than the overall width of the carrier in its set up article receiving condition. The bottom wall forming center panel 111 is subdivided into two parts by a longitudinally extending score line 114 which coincides with the longitudinal center line *c-c* of the blank and which permits folding of the bottom wall and fabrication of the carrier in collapsed condition. The side wall panels 112 are separated from the end sections F and F' of the blank by transversely extending score lines 115 and 115' which form hinge lines for the corner sections G and G' of the blank which constitute the outside portions of the blank end sections F and F'. The bottom wall forming panel 111 is separated from the center portions H and H' of the blank end sections F and F' by the cutting lines 116 and 116' which extend in the direction transversely of the blank between corresponding ends of the longitudinal score lines 113 and which are offset inwardly of the transverse score lines 115 and 115'.

The longitudinal partition and handle forming center portions H and H' of the end sections F and F' of the blank are separated from the corner portions or sections G and G' at one side of the blank by longitudinally extending and aligned cutting lines 117 and 117' which are parallel with and offset outwardly of the longitudinal score line 113 between the bottom wall panel 111 and the side wall panel 112 at that side of the blank. At the other side of the blank, the blank sections H and H' are partially separated from the adjoining corner sections G and G'

by longitudinally extending and aligned cutting lines 118 and 118' which are parallel with and extend in outwardly offset relation from the ends of the longitudinal score line 113 toward the ends of the blank. The blank sections H and H' remain attached to the corner sections G and G', respectively, along hinge forming perforated lines 119 and 119' which constitute outward extensions of the cutting lines 118 and 118' and which terminate short of the end edges of the blank. The blank sections H and H' are cut free of the terminal edge portions of the adjoining corner sections G and G' along the longitudinal lines 120 and 120', which are parallel with and offset inwardly of the blank relative to the perforated lines 119 and 119'.

The four corner sections G, G, and G', G' of the blank are each subdivided in an identical manner into wall and partition forming panels by parallel, longitudinally spaced, transverse score lines 121 and 121' to provide pairs of end wall forming panels 122 and 122' which adjoin the side wall panels 112 and longitudinal partition forming panels 123 and 123' which are separated from the adjoining end wall panels 122 and 122' by the hinge forming score lines 121 and 121'. End panel members 124 and 124' and cooperating panel members 125 and 125' which constitute two part cross partition members in the set up form of the carrier are taken from the longitudinal partition forming panels 123 and 123'. The end portions of the longitudinal partition forming panels 123 and 123' are cut on the longitudinally extending lines 126 and 126' to free the top ends of the one set of cross partition panels 124 and 124', and the panels 123 and 123' are scored on the transverse lines 127 and 127' which form hinges for the cross partition panels 124 and 124'. The hinge forming score lines 127 and 127' are spaced from the score lines 121 and 121' in the longitudinal direction of the blank a distance corresponding to the distance between the score lines 115, 115' and 121, 121'. The cross partition forming panels 125 and 125' are derived by cutting the longitudinal partition panels 123, 123' and the adjoining end wall panels 122, 122' on the generally U-shaped cutting lines 128 and 128'. The cuts are made so that the end of the leg forming portions of the U terminate at the transverse score lines 127 and 127' and the latter form hinges for folding the panels 125, 125' and 124, 124' into double ply forming engagement. The bight portions of the U-shaped cuts extend into the end wall panels 122, 122' so as to provide end portions 130 and 130' which constitute glue tabs at the free ends of the cross partition forming panels 125 and 125', which glue tabs 130 and 130' are adapted to be folded about the portions 131 and 131' of the transverse score lines 121 and 121' and to be secured to the side wall panels 112 in the set up form of the carrier (FIGURES 13 and 15). The laterally spaced side edge forming lines which constitute the legs of the U-shaped cuts 128 and 128' defining the cross partition members 125 and 125' extend in the longitudinal direction of the blank and are spaced inwardly of the lateral edges of the corner sections G and G' of the blank. These cutting lines have outwardly extending portions so that the maximum transverse dimension of each of the cross partition members 125 and 125' is substantial, being only slightly less than the corresponding dimension of the end panel members 124 and 124' against which these members are folded to form the two ply or double thickness partitions, which, in the erected condition of the carrier (FIGURES 13, 14 and 15) extend in transverse planes or laterally of the longitudinal partition structure and are connected to the inside faces of the side walls by securing the glue tabs 130 and 130' to the side wall panels 112.

The sections H and H' at the opposite ends of the longitudinally extending center portion of the blank are subdivided by hinge forming, transverse score lines 132 and 132' into longitudinal partition and handle forming panels 133, 134 and 133', 134'. These panels are of approxi-

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mately equal dimensions in the longitudinal direction of the blank and in the handle forming areas thereof which are adjacent the cutting lines 117 and 117'. In the partition forming areas adjacent the cutting lines 118 and 118' the outermost panels 134 and 134' have a dimension in the longitudinal direction of the blank which is somewhat greater than that of the innermost panels 133 and 133' so that when the panels 133 and 133' are folded about the score lines 132 and 132' into face engagement with the panels 134 and 134', respectively, the handle forming marginal portions are in aligned superimposed relation and the panels 134 and 134' have free marginal edge portions 135 and 135' which, in the set up condition of the carrier, are overlapped and secured together. Finger holes 136, 136' and 137, 137' are cut in the handle forming portions of the panels 133, 133' and 134, 134' which are spaced equal distances from the hinge lines 132 and 132' so that they are in alignment when the panels are folded upon each other. Finger holes 138 and 138' having hinged outer edge reinforcing flaps 139 and 139' are cut in the outer corners of the blank sections G, G and G', G' so as to align with the finger holes 136, 137 and 136', 137' in the final longitudinal partition structure.

The panels 133, 134 and 133', 134' are freed from the partition forming panels at the corners G and G' at the one side of the blank by the cutting lines 117, 117' and from the wall forming panels in the transversely extending center section E of the blank by the cutting lines 116 and 116'. At the other side of the blank the panels 133 and 133' are freed from the end wall panels 122 and 122' in the adjoining corner sections G and G' of the blank by the cutting lines 118 and 118' which permits the panels 133 and 133' to be folded about the hinge lines 132 and 132' onto the panels 134 and 134', respectively. The cutting lines 120 and 120' free the cross partition panel members 124 and 124' from the panels 134 and 134' so that the panels 124 and 124' may hinge about the score lines 127 and 127' when the carrier is set up. The panels 134 and 134' remain connected to the bottom forming edges of the longitudinal partition panels 123 and 123' on the hinge forming perforation lines 119 and 119' so that these panels may be folded into face engaging relation and secured together to form a longitudinal partition structure.

At one corner of the blank the cross partition member 124' is cut away at its inner end and a hook formation 140 is provided on the inner edge of the adjoining longitudinal partition forming portion of the panel 123' which is adapted to engage in a slot-like aperture 141 provided in the bottom wall panel 111 so as to anchor the latter to the longitudinal partition and hold the carrier in set up condition until the articles are placed therein.

The blank 100, when cut and scored, is glued and folded to provide the carrier which is illustrated in FIGURE 13. The gluing and folding operations are similar to those described in connection with the carrier illustrated in FIGURES 5 to 8 of the drawings. A suitable adhesive is applied to the cross partition panel members 125 and 125' and the longitudinal partition panels 134 and 134' as shown in FIGURE 16. The cross partition members 125 and 125' are folded outwardly about the hinge lines 127 and 127' into face engagement with the panel members 124 and 124' at all four corners of the blank. At the one end of the blank the panel members 124' are then folded inwardly about the score lines 127'. The longitudinal partition and handle reinforcing panel members 133 and 133' are folded about the score lines 132 and 132' into face engagement with the adjoining panels 134, 134'. An adhesive is then applied to the exposed glue tabs 130 and 130' after which the corner sections G, G at the one end of the blank are folded inwardly about the score lines 121, 121 followed by the folding in of the corner sections G', G' at the other end of the blank about the score lines 127'. The longitudinal partition and handle reinforcing panels 133, 134

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and 133', 134' are folded about the score lines 119 and 119' onto the two longitudinal partition panels 123 and 123' to which they are attached. The assembly is finally folded about the center score line 114 to complete the fabrication of the carrier in a flattened condition.

When opened up as shown in FIGURE 13, the carrier provides a multi-cellular basket-type container with two rows of three cells on opposite sides of the center longitudinal partition structure which has its upper portions extending to the same height as the side and end walls and which provides a handle or suspending means. The cross partition forming members 124, 125 and 124', 125' are secured in face-to-face engagement and each pair thereof is anchored to the inside face of the side wall by associated glue tab members 130 and 130' so as to provide rigid cross partitions each with a double thickness of the board material between the bottles or other articles which are placed in the cells. In the area of the longitudinal partition which extends between the two center cells the panels 134 and 134' have overlapped marginal portions 135 and 135' which provide double plies so that adjacent portions of the articles in these cells are separated by two thicknesses of board material. At the ends of the carrier the folded and glued longitudinal partition panels 133, 134 and 133', 134' extend full depth between the end cells so as to cover the openings left in the longitudinal partition panels 123 and 123' by cutting the cross partition members 125 and 125' therein and folding the same out of the plane thereof whereby at least two thicknesses of the board material is provided between the adjacent portions of the articles placed in the end cells. The handle forming upper portion of the longitudinal partition is reinforced by the panel portions obtained from the blank corner sections G and G' so that the handle portion is provided with four plies or four thicknesses of the board material affording adequate strength and rigidity.

A further modification of the carrier is illustrated in FIGURES 17 to 20 which is adapted to afford full depth protection to bottles of greater height. This form of the carrier is similar to that of the previously described carrier, differing primarily in the construction of the longitudinal partition and handle members.

The blank 200 from which this form of the carrier is fabricated is similar to the blank 100 and is cut and creased or scored in a similar manner so that it is generally symmetrical about the transverse and longitudinal center lines indicated at e, e, and f, f in FIGURE 20. The blank 200 is divided in the longitudinal direction into a bottom and side wall forming center section K and two end sections L and L' with the panels for the longitudinal cross partition structure being formed in the latter. The center section K of the blank is subdivided in the transverse direction of the blank into a bottom wall forming panel 211 and two side wall forming panels 212 on opposite sides of the bottom wall panel 211. The side wall panels 212 are separated from the bottom wall panel 211 by longitudinally extending score lines 213 about which the side wall panels hinge into upright position relative to the bottom wall panel 211 in the erected form of the carrier. Preferably, the score lines 113 are spaced apart a distance which is somewhat less than the overall width of the carrier in set up article receiving position. The bottom wall panel 211 is subdivided into two equal parts by a longitudinally extending score line 214 which coincides with the longitudinal center line f-f of the blank and which permits folding of the bottom wall and fabrication of the carrier in collapsed condition. The side wall panels 212 are separated from the blank end sections L and L' by transversely extending score lines 215 and 215' which form hinge lines for the corner sections M, M and M', M' of the blank, the latter constituting the outside portions of the blank end sections L and L'. The bottom wall forming panel 211 is separated from the center portions N and N' of the blank end sections L and L' by the cutting lines 216 and 216' which extend in the direction

transversely of the blank between corresponding ends of the longitudinal score lines 213 and which are offset inwardly of the transverse score lines 215 and 215'.

The longitudinal partition and handle forming portions N and N' of the blank are separated from the adjoining corner portions or sections M and M' at one side of the blank by longitudinally extending and aligned cutting lines 217 and 217' which are parallel with and offset outwardly of the longitudinal score lines 213. At the other side of the blank the sections N and N' are partially separated from the adjoining corner sections M and M' by longitudinally extending and aligned cutting lines 218 and 218' which are parallel with and extend in outwardly offset relation from the ends of the longitudinal score line 213 towards the end of the blank. The blank sections N and N' remain attached to the adjoining corner sections M and M', respectively, along hinge forming perforation lines 219 and 219', the latter constituting outward extensions of the cutting lines 218 and 218' and terminating short of the end edges of the blank. The blank sections N and N' are cut free of the terminal edge portions of the adjoining corner sections M and M' along the longitudinal lines 220 and 220' which are parallel with and offset inwardly of the blank relative to the perforated lines 219 and 219'.

The four corner sections M, M and M', M' of the blank 200 are subdivided in an identical manner into wall and partition forming panels by parallel, longitudinally spaced, transverse score lines 221, 221' to provide pairs of end wall forming panels 222 and 222' which adjoin the side wall panels 112 and longitudinal partition forming panels 223 and 223' which are separated from the adjoining end wall panels 222 and 222' by the hinge forming score lines 221 and 221'. End panel members 224 and 224' and cooperating panel members 225 and 225', which constitute two part cross partition members in the set up form of the carrier, are taken from the longitudinal partition forming panels 223 and 223' and the end wall forming panels 222, 222'. The end portions of the longitudinal partition panels 224 and 224' are cut on the lines 226 and 226' to free the top ends of the one set of cross partition panels 224 and 224' and the longitudinal partition panels 223 and 223' are scored on the transverse lines 227 and 227' to form hinges for the cross partition panels 224 and 224'. The score lines 227 and 227' are spaced from the score lines 221 and 221' in the longitudinal direction of the blank a distance corresponding to the distance between the score lines 215, 215' and 221, 221'. The cross partition forming panels 225 and 225' are derived by cutting the panels 223, 223' and the panels 222, 222' on the generally U-shaped cutting lines 228 and 228', with the cuts being made so that the ends of the leg portions of the U terminate at the score lines 227 and 227' and the right portions of the U-shaped cuts extend into the end wall panels 222 and 222' thereby providing glue tabs 230 and 230' at the free ends of the cross partition panels 225 and 225', which glue tabs are adapted to fold about the portions 231 and 231' of the transverse score lines 221 and 221' and to be secured to the side wall panels 112 in the set up form of the carrier (FIGURES 17 and 19). The lines which constitute the legs of the U-shaped cuts 228 and 228' defining the cross partition members 225 and 225' extend in the longitudinal direction of the blank and are spaced inwardly of the lateral edges of the corner sections M, M and M', M' of the blank. These cutting lines have outwardly extending portions so that the maximum transverse dimension of each of the cross partition members 225 and 225' is substantial, being only slightly less than the corresponding dimension of the end panel members 224 and 224' against which these members are folded to form the two ply double thickness partitions which, in the erected condition of the carrier (FIGURES 17, 18 and 19), extend in transverse planes and on opposite sides of the longitudinal

tudinal partition structure and are connected to the inside faces of the side walls 112 by glue tabs 230 and 230'.

The sections N and N' at the opposite sides of the center section of the blank are subdivided by hinge forming transverse score lines 232 and 232' into longitudinal partition forming panels 233, 234 and 233', 234'. The panels 233, 234 and 233', 234' are freed from the partition forming panels in the corner sections M and M' at the one side of the blank by the cutting lines 217, 217' and from the wall forming panels in the center section K of the blank by the cutting lines 216 and 216'. At the other side of the blank the panels 233 and 233' are freed from the end wall panels 222 and 222' by the cutting lines 218 and 218' which permits the panels 233 and 233' to fold about the hinge lines 232 and 232' onto the panels 234 and 234', respectively. The panels 234 and 234' remain connected to the bottom forming edges of the longitudinal partition panels 223 and 223' on the hinge forming perforation lines 219 and 219' so that these panels may be folded into face engaging relation and secured together to form a longitudinal partition structure as in the forms of the carrier previously described.

At one corner of the blank 200 the cross partition member 224' is cut away at the inner end and a hook formation 240 is provided on the inner edge of the adjoining longitudinal partition panel 223' which is adapted to engage in a slot-like aperture 241 provided in the bottom wall panel 211 so as to anchor the latter to the longitudinal partition and hold the carrier in set up condition until the articles are placed therein.

Finger holes 238 and 238' having hinged outer edge reinforcing flaps 239 and 239' are cut from the outer corners of the blank sections M, M and M', M' and handle reinforcing panels 242, 242' are provided on the one side edge of the blank 200 which are adapted to fold about the score lines 243 and 243' into face engagement with the longitudinal partition forming panels 223 and 223'. The reinforcing panels 242 and 242' are cut out at 244 and 244' to provide finger holes which align with the finger holes 238 and 238' in the adjacent panels when the panels 242 and 242' are hinged into face engagement therewith.

The blank 200, when cut and scored, is glued and folded to provide the carrier which is illustrated in FIGURE 17. The gluing and folding operations are the same as described in connection with the form of the carrier illustrated in FIGURES 13 to 16 with the handle reinforcing panels 242 and 242' having an adhesive applied to the faces thereof and being folded so as to be trapped between the pairs of longitudinal partition panels 223, 223 and 223', 223'.

When the carrier is opened up as shown in FIGURE 17, it provides three rows of cells on opposite sides of the center partition structure with double thicknesses of board material between the adjacent portions of the bottles or other articles which are placed in the cells. The center partition structure extends the full height of the side and end walls and has three plies of board material at the top edge which affords adequate strength and rigidity for the partition. The carrier is particularly adapted for accommodating the recently introduced large size bottles which have a greater height than normal beverage bottles.

I claim:

1. An article carrier comprising, when completed and erected, a bottom wall panel, upstanding side wall panels hinged to opposite side edges of said bottom wall panel, a pair of end wall panels at each end thereof hinged to corresponding ends of the side wall panels and extending in end wall forming relation between the same, an upright longitudinal partition hinged at its opposite ends to the adjacent inner edges of the end wall panels, said longitudinal partition comprising pairs of longitudinal partition panels at each end thereof which are hinged at

their outer edges to the adjacent inner edges of the end wall panels, a cross partition panel member hinged to the inner edge of each said longitudinal partition panel, a supplemental cross partition panel member cut from a center portion in the vertical direction of each said longitudinal partition panel and hinged about the inner edge of the adjoining cross partition panel member into face engaging, double ply relation therewith, and a cross partition connecting member extending in hinged relation from said cross partition and secured to a side wall panel, said cross partition connecting member being an integral marginal extension on the free edge of said supplemental cross partition member and said connecting member being cut from an end wall panel.

2. An article carrier comprising, when completed and erected, a bottom wall panel, upstanding side wall panels hinged to opposite side edges of said bottom wall panel, a pair of end wall panels at each end of the carrier connected by upright corner forming hinges to corresponding ends of the side wall panels and extending therebetween, an upright longitudinal center partition hingedly connected at its opposite ends to inner edges of the end wall panels of each pair thereof, said longitudinal partition comprising a pair of longitudinal partition panels at each end thereof, which are in face-to-face relation and hinged at their outer edges to the adjacent pair of end wall panels, a cross partition forming panel member hinged to the inner edge of each said longitudinal partition panel, a cross partition flap member cut from each said longitudinal partition panel so as to swing about the inner edge of the adjoining cross partition panel member into face engaging, double ply forming relation therewith, a cross partition connecting member extending between said cross partition and a side wall panel, a pair of longitudinal partition reinforcing panels at each end of said longitudinal center partition, the panels of each said pair thereof being folded and trapped between a pair of said longitudinal partition forming panels so as to cover the openings therein resulting from cutting said cross partition flap members therefrom, said longitudinal partition reinforcing panels having upper marginal portions extending above the upper edges of said longitudinal partition panels and forming a handle for suspending the carrier, and a cover panel for said handle which is integrally hinged to the outer edge of the upper marginal portion of one of said longitudinal partition panels.

3. A paperboard article carrier comprising in assembled and erected condition, a bottom wall panel, a pair of upstanding side wall panels hinged to opposite side margins of said bottom wall panel, an end wall and partition forming structure integrally hinged by an upright crease to each end margin of each of said side wall panels, each end wall and partition forming structure comprising three panels integrally hinged to one another on crease lines paralleling the crease hinging the same to said side wall panel, said integrally hinged panels constituting an end wall panel, a longitudinal partition forming panel, and a cross partition forming panel, with the latter disposed at a right angle to the side wall panel, a supplemental cross partition panel cut from said longitudinal partition forming panel and having a portion thereof hinged into face-to-face engagement with a portion of the first mentioned cross partition forming panel, a connecting flap member on said supplemental cross partition panel which is cut from the end wall forming panel adjoining said longitudinal partition forming panel and secured to a side wall panel to hingedly connect the cross partition forming panel to said side wall panel, pairs of longitudinal partition and handle forming members which are foldable upon each other on upright crease lines and which are integrally hinged to the lower edges of one longitudinal partition forming panel of each pair thereof at opposite ends of the carrier, each pair of said longitudinal partition and handle forming members being secured between a pair of longitudinal partition forming panels so as to

provide a double thickness of material in the openings which result from cutting therefrom the cross partition panel members, one panel of each of said pairs of longitudinal partition and handle forming panels having a dimension in the lengthwise direction of the carrier which is greater than one-half of the length of the carrier whereby the inner marginal portions of said longitudinal partition and handle panels are overlapped and secured together to form a double thickness of material in the article separating area thereof.

4. An article carrier comprising, in completed and erected condition, a bottom wall panel, a pair of upstanding side wall panels integrally hinged to side margins of said bottom wall panel, an end wall and partition forming structure integrally hinged along an upright crease to each end margin of each of said side wall panels, each said structure comprising at least three panels integrally hinged to one another along crease lines paralleling the crease line hinging the same to said side wall panel, said integrally hinged panels constituting in order from said last named crease line an end wall panel, a longitudinal partition panel and a cross partition panel which is at a right angle to said longitudinal partition panel, a second cross partition panel cut from the longitudinal partition panel, said second cross partition panel being hinged about a vertical score line which coincides with the hinge line connecting the first mentioned cross partition panel with its associated longitudinal partition panel to position a portion thereof in face-to-face double ply forming relation with said first mentioned cross partition panel, a glue flap hinged to the free edge of said second cross partition panel and hingedly connected to an adjacent side wall panel, said cross partition panel members each having a dimension in the direction normal to their connecting hinge line which is at least half the dimension in the corresponding direction of the longitudinal partition panel to which said first mentioned cross partition panel is connected, and a longitudinal partition forming and suspending member integrally hinged to the lower margin of one of the longitudinal partition forming panels at each end of the carrier, each said longitudinal partition forming member comprising a pair of panels folded upon each other about an upright crease and trapped between a pair of longitudinal partition panels at the end of the carrier so as to provide a double thickness of material in the areas of the openings in the longitudinal partition panels which result from cutting the cross partition forming panels therefrom, said longitudinal partition forming and suspending members having vertically extending inner marginal portions which overlap one another and are secured together so as to provide a unitary longitudinal partition structure with a double thickness of material in the article separating center area thereof.

5. An article carrier comprising, when completed and erected, a bottom wall panel, upstanding side wall panels hinged to opposite side edges of said bottom wall panel, a pair of end wall panels at each end thereof hinged to corresponding ends of the side wall panels and extending in end wall forming relation between the same, an upright longitudinal partition hinged at its opposite ends to the adjacent inner edges of the end wall panels, said longitudinal partition comprising pairs of longitudinal partition panels at each end thereof which are hinged at their outer edges to the adjacent inner edges of the end wall panels, a cross partition panel member hinged to the inner edge of each said longitudinal partition panel, a supplemental cross partition member cut partially from an end wall and partially from the associated longitudinal partition panel and hinged about an inner edge of said longitudinal partition panel into face engaging double ply relation with a portion of said cross partition panel member, and a cross partition connecting member extending in hinged relation at the outer edge of said supplemental cross partition member and secured to a side wall panel.

6. An article carrier as recited in claim 5 and each

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panel of said pairs of longitudinal partition panels having a handle forming top extension.

7. An article carrier as recited in claim 5 and one panel of each of said pairs of longitudinal partition panels having a handle forming top extension.

8. An article carrier as recited in claim 7 and a handle cover and reinforcing panel hinged on a vertical hinge line to one of said handle forming top extension.

9. An article carrier comprising in the completed and erected condition thereof, a bottom wall panel, a pair of upstanding side wall panels, a pair of end wall panels at each end of the carrier which are connected along upright corner forming hinge lines to corresponding ends of the side wall panels and extend in wall forming relation between the same, an upright longitudinal partition structure connected at its opposite ends on upright hinge lines to the adjacent inner edges of the end wall panels of each pair thereof, said longitudinal partition structure comprising pairs of longitudinal partition forming panels at each end thereof, the panels of each pair of said longitudinal partition forming panels being connected in face-to-face relation and integrally hinged to the adjacent pair of end wall panels, a first cross partition panel member hinged to the inner upright edge of each of said longitudinal partition panels and disposed in a transverse plane, a second cross partition panel member cut from each of said longitudinal partition panels and hinged about the inner edge of the associated first cross partition panel member into face engaging relation with the latter to form therewith a double ply cross partition, a connecting tab member on the end of each said second cross partition panel member which is cut from an end wall panel and which is secured to a side wall panel so as to hingedly connect said second cross partition member to said side wall, and said longitudinal partition structure including pairs of longitudinal partition and handle panels, the panels of each said pair of the latter being folded upon each other and trapped between a pair of said longitudinal partition forming panels so as to cover the openings therein resulting from cutting said second cross partition members therefrom.

10. An article carrier as recited in claim 9 and said side wall panels, said end wall panels and said longitudinal partition structure being the same height so as to afford full depth protection for the articles.

11. An article carrier comprising, when completed and erected, a bottom wall forming panel, a pair of upstanding side wall forming panels hinged to the bottom edges of said bottom wall forming panel, an end wall and partition forming structure integrally hinged along an upright crease to each end edge of each of said side wall forming panels, each said end wall and partition forming structure comprising an end wall panel integrally hinged to the side wall panel and a longitudinal partition forming panel hinged to the end wall panel, a cross partition forming panel member cut at least in part from the longitudinal partition forming panel and hinged out of the plane thereof so as to be disposed at a right angle to a side wall forming panel, a cross partition flap member cut at least in part from each of the longitudinal partition panels and hinged about the inner vertical edge of the adjoining cross partition forming panel member into face-to-face cross partition forming relation therewith whereby to form a two-ply cross partition structure, said cross partition members each having a dimension in the direction normal to their connecting hinge line which is at least half the width of an end wall forming panel, a flap-like member hingedly connected to each said cross partition and secured to a side wall panel, and a foldable longitudinal partition reinforcing panel member integrally hinged to the lower edge of one of the longitudinal partition forming panels at each end of the carrier and upwardly folded so as to be trapped between the longitudinal partition panels and to provide a double thickness of material in the areas of the openings of the longitudinal partition panels which result

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from cutting the cross partition flaps therefrom, said longitudinal partition reinforcing panel members having overlapping inner marginal portions which are secured together thereby to provide a rigid longitudinal partition structure with a double thickness of material in the article separating center area thereof, and said longitudinal partition forming panels having upper marginal extensions constituting handle portions.

12. An article carrier as recited in claim 11 and relatively narrow handle reinforcing strips integrally hinged to the top edges of certain of said handle forming upper marginal extensions on said longitudinal partition forming panels which strips are folded downwardly and trapped between said marginal extensions.

13. A paperboard blank which is cut and scored for fabricating a cellular article carrier, said blank being generally rectangular and being divided by longitudinally extending, transversely spaced, parallel score lines and longitudinally spaced, transversely extending scoring and cutting lines into a center section having a bottom wall forming panel and adjoining side wall forming panels and four corner sections each having an end wall panel and a longitudinal partition forming panel, each said longitudinal partition forming panel and its adjoining end wall panel being subdivided to provide a pair of cross partition forming panels which are hinged to each other on a common transverse score line intermediate the side edges of the longitudinal partition panel one of said pair of cross partition panels being taken from the outer margin of the longitudinal partition panel, the other one of said pair of cross partition panels being taken in part from the remaining portion of said longitudinal partition panel and having a portion along the margin opposite its hinged connection with the associated cross partition panel which is taken from the adjoining end wall panel.

14. A blank for an article carrier characterized by a generally rectangular sheet of paperboard material cut and creased longitudinally and transversely to divide the same into a series of integrally connected wall forming panels, which panels comprise a bottom wall panel, laterally extending side wall panels, four sets of end wall and longitudinal partition panels integrally connected to the ends of the side wall panels by hinge forming crease lines extending transversely of the blank, and longitudinal partition and handle forming panels at opposite ends of the blank which extend between the two sets of oppositely disposed end wall and longitudinal partition panels, each said set of end wall and longitudinal partition panels comprising in the order named an end wall panel, a longitudinal partition panel and a cross partition panel, said last named end wall and longitudinal partition panels being of approximately equal dimensions and said cross partition panel having a width which is less than the width of the end wall panels and greater than one-half thereof, cross partition flaps and integral glue tabs therefor which are cut from the longitudinal partition panel and the end wall panel, respectively, of each set thereof and which are adapted to hinge out of the plane thereof about the hinge forming crease line connecting the longitudinal partition panel and the adjoining cross partition panel, said longitudinal partition and handle forming panels each having a dimension in the longitudinal direction of the blank corresponding approximately to the dimension in the same direction of the adjoining set of end wall and longitudinal partition panels and each being subdivided by a transverse crease line into two panel portions which are adapted to be folded about said crease line upon each other, one of said last mentioned panel portions having a dimension in the longitudinal direction of the blank which is greater than one-half the corresponding dimension of the side wall panels.

15. A blank for an article carrier characterized by a generally rectangular sheet of paperboard material cut and creased longitudinally and transversely to divide the same into a series of integrally connected wall forming

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panels, which panels comprise a bottom wall panel, laterally extending side wall panels, four sets of end wall and longitudinal partition panels integrally connected to the ends of the side wall panels by hinge forming crease lines extending transversely of the blank, longitudinal partition and handle forming panels at opposite ends of the blank which extend between the two sets of oppositely disposed end wall and longitudinal partition panels, each said set of end wall and longitudinal partition panels comprising in the order named an end wall panel, a longitudinal partition panel and a cross partition panel, said cross partition panel having a width which is less than the width of the end wall panels and greater than one-half thereof, cross partition flaps cut from each of said longitudinal partition panels and adapted to hinge out of the plane thereof about the hinge forming crease line connecting the longitudinal partition panel and its associated cross partition panel, said longitudinal partition and handle forming panels each having a dimension in the longitudinal direction of the blank which is greater than twice the dimension in the same direction of the adjacent end wall and each being subdivided by a transverse crease line into two panel portions which are adapted to be folded about said crease line upon each other, one of said last mentioned panel portions having a dimension in the longitudinal direction of the blank which is greater than one-half the corresponding dimension of the side wall panels, said longitudinal partition panels having marginal portions extending along the side edges of the blanks which form handle panels and handle reinforcing strips extending along the one side edge of the blank which strips are separated from said marginal portions by a longitudinally extending crease line.

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sion in the same direction of the adjacent end wall and each being subdivided by a transverse crease line into two panel portions which are adapted to be folded about said crease line upon each other, one of said last mentioned panel portions having a dimension in the longitudinal direction of the blank which is greater than one-half the corresponding dimension of the side wall panels, said longitudinal partition panels having marginal portions extending along the side edges of the blanks which form handle panels and handle reinforcing strips extending along the one side edge of the blank which strips are separated from said marginal portions by a longitudinally extending crease line.

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