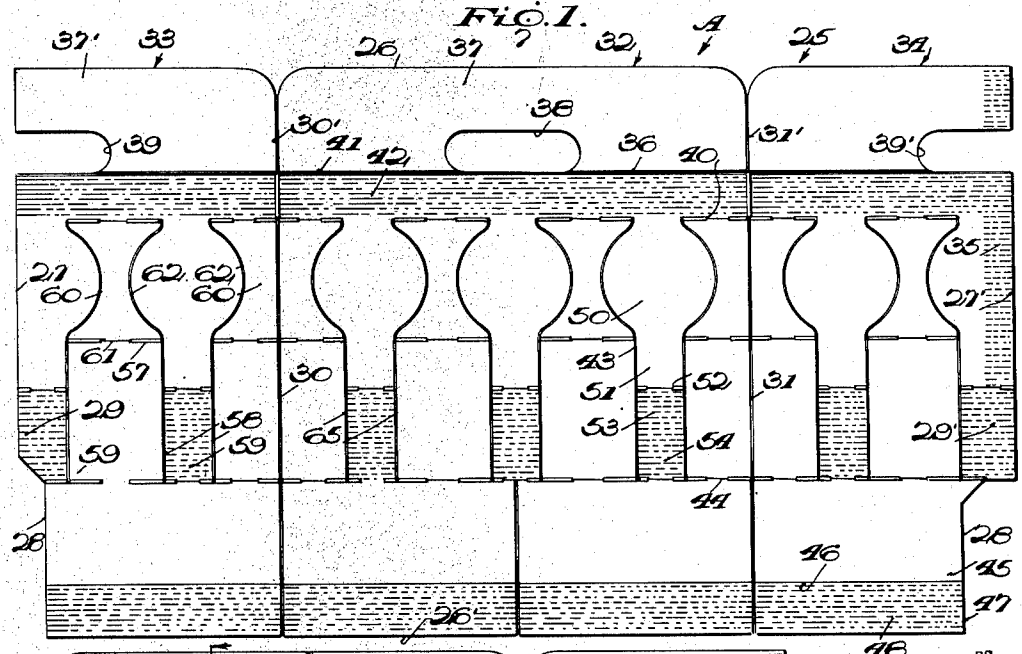
Sept. 9, 1952 H. V. BOLDING 2,609,981

TUMBLER CARRYING CARTON

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FIG. 1.



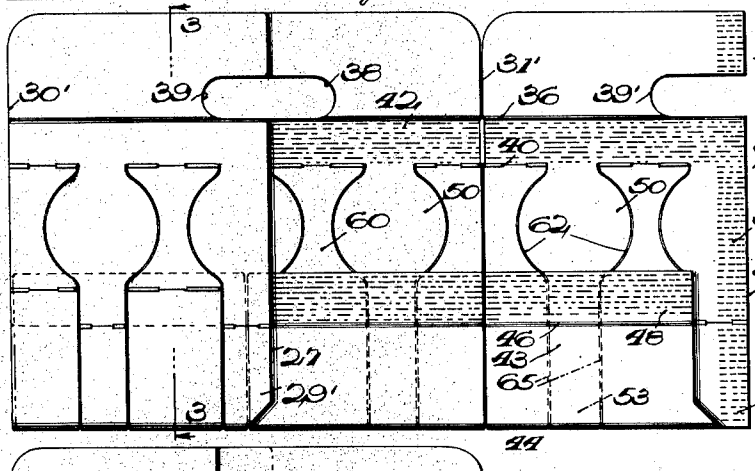


FIG. 2.

FIG. 3.

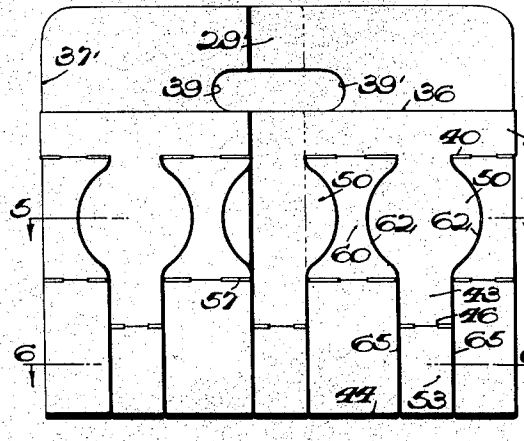


FIG. 4.

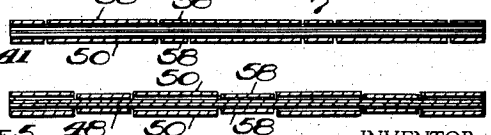


FIG. 5.

FIG. 6.

INVENTOR

Hubert Velman Bolding

BY Richard L. Underwood

ATTORNEY

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Fig. 7.

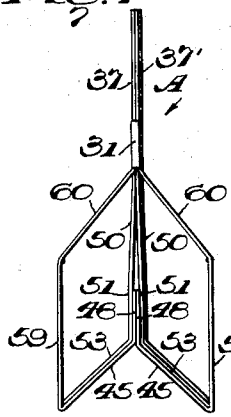


Fig. 8.

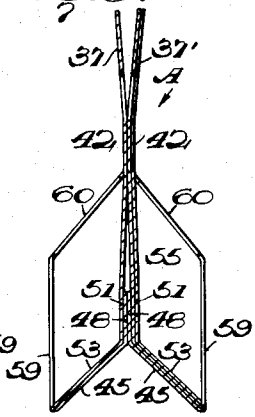
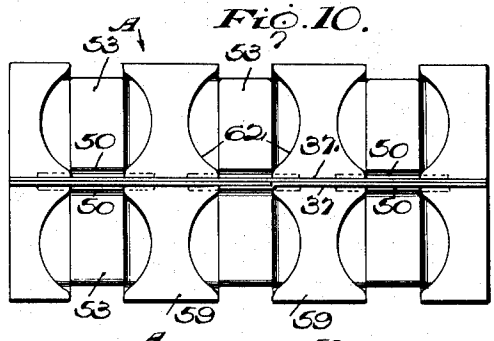


Fig. 10.



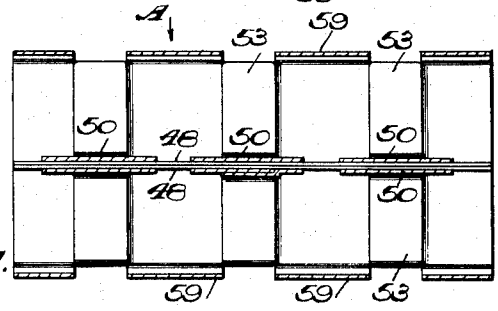


Fig. 9.

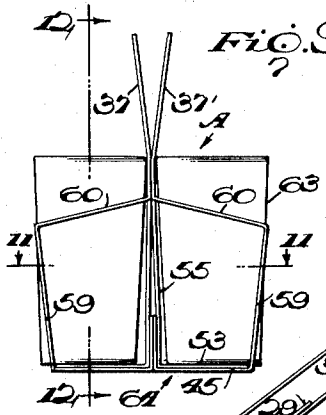
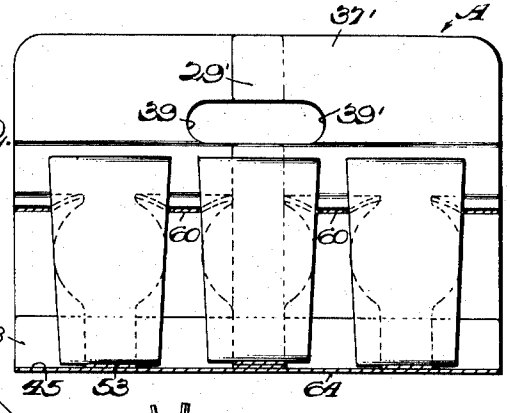


Fig. 11.

Fig. 12.



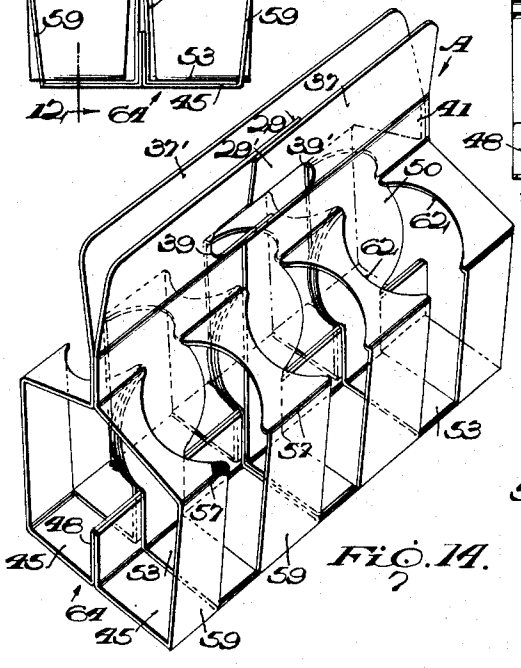
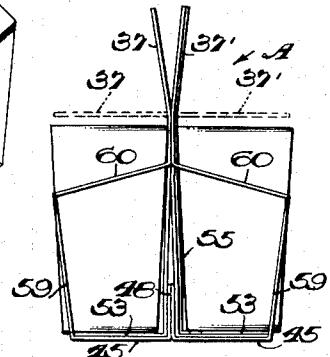


Fig. 14.

Fig. 13.



INVENTOR

Hubert Velman Bolding.

BY Richard L. Underwood

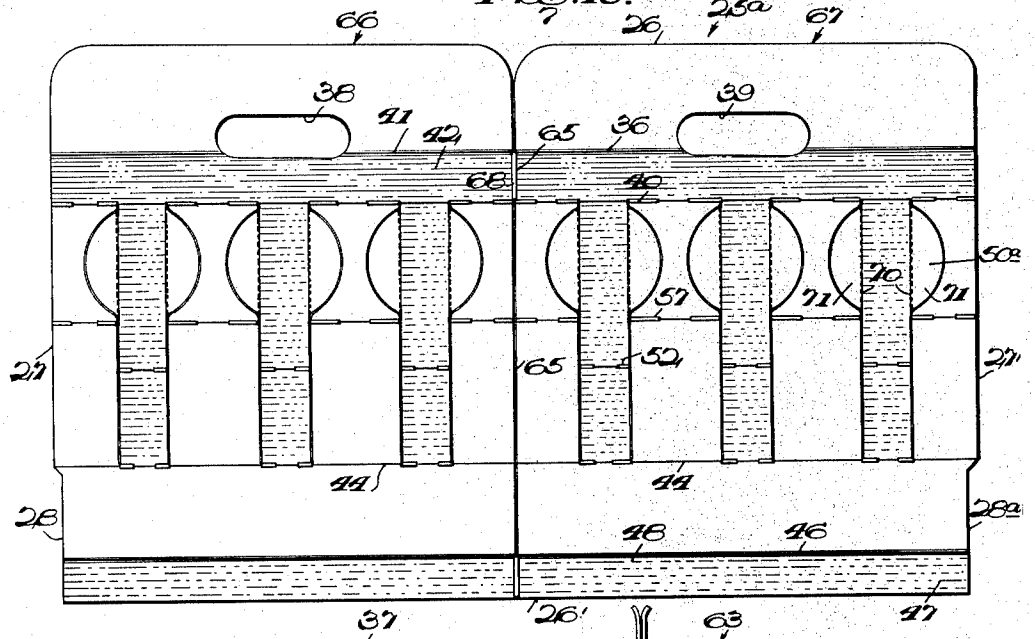
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FIG. 15.



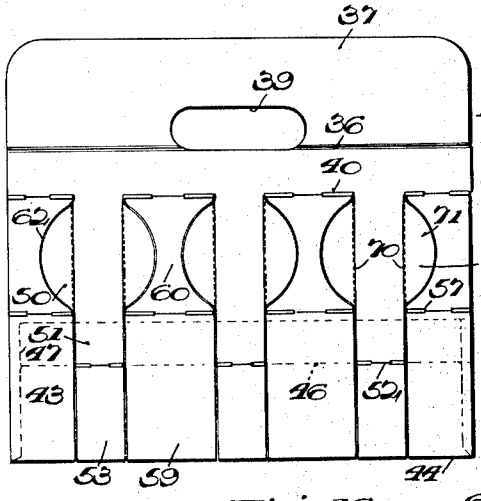


FIG. 16.

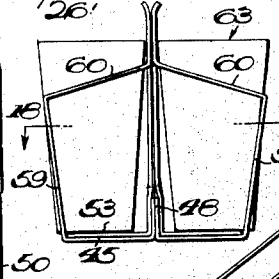


FIG. 17.

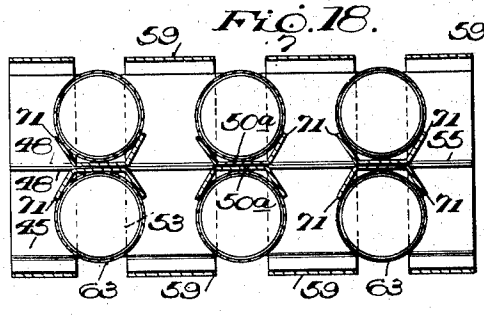


FIG. 18.

FIG. 19.

INVENTOR

BY Hubert Velman Bolding.

Richard L. Anderson ATTORNEY

Patented Sept. 9, 1952

2,609,981

UNITED STATES PATENT OFFICE

2,609,981

TUMBLER CARRYING CARTON

Hubert Velman Bolding, Jeffersonville, Ind., assignor to The Bradley & Gilbert Company, Louisville, Ky., a corporation of Kentucky

Application April 11, 1950, Serial No. 155,276

4 Claims. (Cl. 224—48)

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This invention relates to improvements in carrier cartons for such as glass tumblers and glass or other material containers of generally similar form.

In the bulk packing of glass tumblers and the like for shipment to retailers it is now necessary for the manufacturer to put paper, straw or other loose separating material between the glasses in order to avoid or reduce breakage thereof in transit, and to pack the glasses thus protected in large corrugated paper cases, wooden boxes, or barrels.

This form of packing makes substantial handling difficulties, especially for the larger retailers, such as department stores and ten cent stores, which make themselves felt to the manufacturer in the form of sales resistance. These difficulties include not only breakage occurring in transit from the manufacturer to the retailer, but also the breakage occurring in the necessary individual unpacking of the glasses on arrival of a shipment usually done by relatively unskilled help of the retailer, lack of proper counter display facilities for the glasses, and the trouble, expense, and further hazards of breakage involved in wrapping and delivery of the glasses to the customer. Further, cash-and-carry customers are loath to buy and carry with them more than a few glasses at a time due to the unwieldy nature of the package usually made up by the salesperson, and the risk of breakage in carrying the glasses home.

The primary object of the present invention is to provide carrier cartons which serve as efficient shipping containers, as attractive counter displays, and as safe and convenient carriers by means of which a retail customer can easily and confidently carry glasses purchased, whereby the above stated difficulties are substantially eliminated or reduced.

Another important object of the invention is to provide a carrier carton of the character indicated above which involves dividers dividing the body of the carton into individual glass receiving cells or compartments, and a carrying handle composed of two pieces or sections capable of being separated and folded down onto the tops of the glasses to protectively hold the glasses in place, so that in making up a shipment the manufacturer need only place the glasses in the cells or compartments and fold the handle pieces downwardly and place the resultant closed container along with others of the same in a convenient corrugated paper case; and so that upon arrival of a shipment the retailer need only open the shipping case, remove the cartons therefrom

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and bend the handle pieces upwardly together into carrying position, and place the cartons in a suitable arrangement on a counter, to obtain an attractive display of the glasses in condition for immediate delivery to a cash-and-carry customer or for easy and safe transit to the customer by delivery service.

A further important object of the invention is to provide carrier cartons of the character indicated above which are capable of being easily and inexpensively made from single blanks of cardboard or similarly suitable sheet material, which can be folded for shipment and storage in a compact flat form, and which can be quickly and easily expanded from such flat form to receive the glasses or the like.

A still further important object of the invention is to provide a carrier carton of the above indicated character which readily lends itself to being made in an attractive and ornamental shape, and which can be readily embossed and/or printed upon to endow the same with eye appeal and advertising merit.

Other important objects and advantageous features of the invention will be apparent from the following description and the accompanying drawings, wherein for purposes of illustration only, specific embodiments of the invention are set forth in detail.

In the drawings, wherein like or similar numerals designate like parts throughout the several views:

Fig. 1 is a plan view of a blank from which the preferred form of carton is formed by folding end portions of the blank inwardly and securing together resultant overlapping edges thereof;

Fig. 2 is a view similar to Fig. 1, showing one of the end portions folded inwardly onto the intermediate portion of the blank and glued and stapled in position;

Fig. 3 is a transverse vertical section taken on the line 3—3 of Fig. 2;

Fig. 4 is a view similar to Fig. 2 showing both end portions of the blank folded inwardly and glued and stapled in position;

Fig. 5 is a horizontal section taken on the line 5—5 of Fig. 4;

Fig. 6 is a horizontal section taken on the line 6—6 of Fig. 4;

Fig. 7 is an end elevation of the carton in partly expanded condition;

Fig. 8 is a transverse vertical, substantially central section taken through the carton;

Fig. 9 is an end elevation of the carton in fully expanded condition;

Fig. 10 is a top plan view of Fig. 9;

Fig. 11 is a horizontal section taken on the line 11—11 of Fig. 9;

Fig. 12 is a vertical longitudinal section taken on the line 12—12 of Fig. 9;

Fig. 13 is a view similar to Fig. 9, showing tumblers in place in the carton, with the handle sections, shown in dotted lines, folded down onto the upper ends of the tumblers to form a shipping container;

Fig. 14 is a perspective view of the carton, in expanded condition, ready to receive tumblers;

Fig. 15 is a plan view of a blank from which another form of carton is formed by folding the same at a point midway between its ends;

Fig. 16 is a side elevation of the blank folded, glued, and stapled to form the carton;

Fig. 17 is an end elevation of the carton of Fig. 16 in expanded condition, with tumblers in place therein;

Fig. 18 is a top plan view of Fig. 17, and

Fig. 19 is a perspective view of the carton in expanded condition and ready to receive tumblers.

Referring to Figs. 1–14 of the drawings showing the preferred form of carton A, the numeral 25 generally designates the elongated rectangular blank of cardboard, having an upper longitudinal edge 26, a lower longitudinal edge parallel to the upper edge 26', and parallel similar opposite end edges 27, 27'. Lower portions of the end edges are cut away as indicated at 28 to define securing flaps 29, 29' thereabove.

Parallel, vertical left and right hand fold lines 30 and 31, respectively, are equally spaced from the end edges 27, 27' and are longitudinally spaced to define the length of the desired carton, the fold lines being formed by weakening or indenting the material of the blank. The portion of the blank between the fold lines 30 and 31 constitutes the back or intermediate section 32 of the carton and the portions of the blank outlying the fold lines 30 and 31 form end portions 33 and 34 which are folded inwardly upon the intermediate section 32 to form the front section of the carton, wherein the flap 29' overlies or overlaps the other flap 29. The inward surface of the overlying flap 29' is provided with adhesive such as glue, as indicated at 35 whereby the flaps are secured together. The reduced end edge portions 28 do not overlap.

The blank 25 further has an upper longitudinal or horizontal fold line 36 parallelly spaced from the upper edge 26 at a distance to define the similar longitudinally elongated separable carrying handle sections 37, 37' when the blank is folded, the handle sections being formed with registered elongated hand holes 38 and 39. The hand hole 38 is formed in its entirety in the intermediate or back section 32 of the blank, while the hand hole 39 is formed of two half holes 39, 39' formed in the end edges 27, 27' on the end portions 33 and 34 of the blank which register when the blank is folded. Above the fold line 36 the vertical fold lines 30 and 31 are slotted at 30' and 31' to define the outer ends of the handle sections 37, 37'.

Spaced intermediate longitudinal fold lines 40 are parallelly spaced below the upper fold line 36 to define therebetween areas of the front and back sections adapted to be glued together as indicated at 41 in Fig. 3, the face of the blank between the fold lines 36 and 40 being covered with a strip 42 of adhesive, as shown in Figs. 1 and 2, for this purpose.

The spaced intermediate fold lines 40 also serve as the upper boundaries of partition-forming members 58. Keyhole-shaped components 43 are formed by vertical slots cut into the blank 25. The lower ends of the forms 43 are joined to the blank 25 along a lower intermediate longitudinal fold line 44, which is parallelly spaced from the lower edge 26' of the blank at a distance to define carton bottom forming portions 45 half as wide as the bottom of the carton A. A lower longitudinal fold line 46 parallel to and close to the lower edge 26' is provided to define tabs 47 having adhesive applied thereto as indicated at 48 whereby the related tabs are glued together in upright positions, as indicated at 49 in Fig. 3.

The keyhole-shaped forms 43 have the circular upper portions 50 and the narrower parallel-sided lower portions 51. The lower portions 51 have fold lines 52 intermediate their upper and lower ends which define subportions 53 coated on one side with adhesive, as indicated at 54, for gluing to the upper surfaces of the related bottom portions 45, whereby the subportions 53 serve as rests for the tumbler bottoms and the remaining upper parts of the portions 51 and the circular upper portions 50 together with the tabs 47 form a central longitudinal partition 55 between two longitudinal rows of tumblers 56 when the carton A is in expanded condition, as shown in Figs. 9, 13 and 14.

An important phase of the invention resides in the rigidifying and strengthening effect of the face-to-face secured tabs 47 which extend continuously across the longitudinal dimension of the carton along its central median line. Since the tabs are integral with bottom-forming portions 45, a continuous central longitudinal truss is provided, to which the narrow portions 51 of forms 43 may be secured as by adhering or otherwise. This arrangement distributes the load throughout the bottom and vertical members and is of particular importance where fragile articles such as glass tumblers are loaded in the container. The backs of keyhole forms 43, which are in face-to-face relation when the carton is assembled, may or may not be secured to one another. Sufficient strength and rigidity are provided by the central truss.

A fifth and discontinuous fold or score line 57 is formed in the blank 25 parallel to and just above the score line 52 and is produced only in the transverse partition-forming members 58 which result from the cutting out by slots of the keyhole-shaped members 43. The members 58 have parallel-sided lower portions 59 reaching downwardly from the score line 57, which are connected at their lower ends to the blank 25 at the score line 44, and hour-glass shaped upper portions 60 which reach upwardly from the score line 57 and are connected at their upper ends to the blank 25 at the score lines 40. The score line 57 where it traverses the members 58 is supplemented by linear slots 61.

With carton A in expanded condition, as shown particularly well in Figs. 7–11, the transverse partition-forming members 58 have their lower portions 59 in perpendicular positions along the lateral extremities of the carton, and their upper portions 60 extend in substantially horizontal positions between the perpendicular lower portions 59 and the central longitudinal partition 55. The facing semi-circular edges 62 of adjacent members 58 conformably engage opposite sides of upper portions of the tumblers 63, whereby the tumblers while resting upon the rigidifying portions 53 of the carton bottom 64 are held apart

against lateral contact with each other. In addition, the facing vertical edges **65** of adjacent perpendicular lower portions **59** of the members **58** engage the outer side of the tumblers **63** and prevent laterally outward displacement thereof. Laterally inward displacement of the tumblers **63** and contact of the inward sides thereof with tumblers in the row along the opposite side of the carton A is precluded by the presence of the central longitudinal partition **55** constituted by the tabs **48, 48** and the associated circular portions **50** of the keyhole-shaped members **43**. With tumblers **63** in place in the carton, the handle portions **37, 37'** are to be bent down to the dotted-line position shown in Fig. 13, from their full-line positions, so as to overlie the upper ends of the tumblers. This bent-down arrangement of the handle sections not only reduces the vertical height of the carton A for compact packing in cases but serves to protect the tops of the tumblers and to hold the tumblers down in place in the carton.

Referring to Figs. 15–19, showing a modified form of carton B, the carton is formed from a blank **25***a* of the same size and shape as the blank **25** of carton A described above. However, the blank **25**, instead of having two vertical score lines defining end sections to be folded inwardly onto an intermediate section, has only one vertical score line **65**. The single score line **65** is located midway between the blank end edges **27** and **27'**, to define similar front and back sections **66** and **67**, respectively. Absent from the blank ends are the flaps **29, 29'** characterizing carton A, and the edges **27, 27'** are only slightly cut away at the lower part thereof, as indicated at **28***a*. The score line **65** provides two foldable connections **68** and **69** between the two sections **66** and **67**, the remainder being slotted.

Otherwise the blank **25***a* of carton B is the same as blank **25** of carton B, with the exception of the circular portions **50***a* of the members **43**. Instead of the portions **50***a* being plain, they are provided with parallel vertical score lines **70, 70** which provide for bending the resultant tabs or ears **71, 71** forwardly, as shown in Fig. 18, to engage opposite sides of the individual tumblers **63** and thereby provide means, in addition to the partition-forming members **58**, to prevent lateral contact of adjacent tumblers **63** with each other. The tabs **71** form part of the central longitudinal partition **55**.

What I claim is:

1. A blank for forming a carrier carton comprising an elongated rectangular sheet having upper and lower longitudinal edges and opposite end edges, an upper longitudinal score line parallelly spaced from said upper edge to define handle portions, an upper intermediate score line parallelly spaced below said upper score line to define connecting portions between said upper score line and said upper intermediate score line, a lower intermediate score line parallelly spaced below said upper intermediate score line to define partition-forming portions between upper intermediate and lower intermediate score lines, said lower intermediate score line being parallelly spaced above the lower edge of the blank to define bottom-forming portions therebetween, and a lower score line parallelly spaced below said lower intermediate score line and spaced upwardly from the lower edge of the blank to define connecting portions for said bottom-forming portions, said partition-forming portions being formed with laterally spaced pairs of vertical slots, said vertical slots defining members therebetween having upper portions serving as components of a longitudinal partition for said carton and supplementing said partition-forming portions, said members having lower portions supplementing said bottom-forming portions to provide a bottom for the carton, adjacent pairs of said vertical slots acting to define therebetween portions of said blank arranged to serve as longitudinally spaced transverse partitions for the carton, said upper portions of said longitudinal partition components having laterally spaced vertical score lines defining ears on opposite sides of said upper portions arranged to supplement said transverse partitions.

2. A blank for forming a carrier carton comprising an elongated rectangular sheet having upper and lower longitudinal edges and opposite end edges, an upper longitudinal score line parallelly spaced from said upper edge to define handle portions, an upper intermediate score line parallelly spaced below said upper score line to define connecting portions between said upper score line and said upper intermediate score line, a lower intermediate score line parallelly spaced below said upper intermediate score line to define partition-forming portions between upper intermediate and lower intermediate score lines, said lower intermediate score line being parallelly spaced above the lower edge of the blank to define bottom-forming portions therebetween, and a lower score line parallelly spaced below said lower intermediate score line and spaced upwardly from the lower edge of the blank to define connecting portions for said bottom-forming portions, said blank having a pair of longitudinally spaced vertical score lines dividing said blank into two substantially similar end portions and an intermediate portion, said intermediate portion constituting a back section, said end portions together forming a front section coextensive with said back section when folded inwardly onto said back section.

3. A blank for forming a carrier carton comprising an elongated rectangular sheet having upper and lower longitudinal edges and opposite end edges, an upper longitudinal score line parallelly spaced from said upper edge to define handle portions, an upper intermediate score line parallelly spaced below said upper score line to define connecting portions between said upper score line and said upper intermediate score line, a lower intermediate score line parallelly spaced below said upper intermediate score line to define partition-forming portions between upper intermediate and lower intermediate score lines, said lower intermediate score line being parallelly spaced above the lower edge of the blank to define bottom-forming portions therebetween, and a lower score line parallelly spaced below said lower intermediate score line and spaced upwardly from the lower edge of the blank to define connecting portions for said bottom-forming portions, said partition-forming portions being formed with laterally spaced pairs of vertical slots, said vertical slots defining members therebetween having upper portions serving as components of a longitudinal partition for said carton and supplementing said partition-forming portions, said members having lower portions supplementing said bottom-forming portions to provide a bottom for the carton, adjacent pairs of said vertical slots acting to define therebetween portions of said blank arranged to serve as longitudinally spaced transverse partitions for the carton, said upper

portions of said longitudinal partition components having laterally spaced vertical score lines defining ears on opposite sides of said upper portions arranged to supplement said transverse partitions, said blank having a pair of longitudinally spaced vertical score lines dividing said blank into two substantially similar end portions and an intermediate portion, said intermediate portion constituting a back section, said end portions together forming a front section coextensive with said back section when folded inwardly onto said back section, said pairs of vertical slots being arranged in the front and back sections to register when the front and back sections are superimposed.

4. A blank for forming a carrier carton comprising an elongated rectangular sheet having upper and lower longitudinal edges and opposite end edges, an upper longitudinal score line parallelly spaced from said upper edge to define handle portions, an upper intermediate score line parallelly spaced below said upper score line to define connecting portions between said upper score line and said upper intermediate score line, a lower intermediate score line parallelly spaced below said upper intermediate score line to define partition-forming portions between upper intermediate and lower intermediate score lines, said lower intermediate score line being parallelly spaced above the lower edge of the blank to define bottom-forming portions therebetween, and a lower score line parallelly spaced below said lower intermediate score line and spaced upwardly from the lower edge of the blank to define connecting portions for said bottom-forming portions, said partition-forming portions being formed with laterally spaced pairs of vertical slots, said vertical slots defining members therebetween having upper portions serving as components of a longitudinal partition for said carton and supplementing said partition-forming portions, said members having lower portions supplementing said bottom-forming portions to provide a bottom for the carton, adjacent pairs of said vertical slots acting to define therebetween portions of said blank arranged to serve as longitudinally spaced transverse partitions for the carton, said upper portions of said longitudinal partition components having laterally spaced vertical score lines defining ears on opposite sides of said upper portions arranged to supplement said transverse partitions, said blank having a single vertical score line midway between its end edges defining similar front and back sections arranged to be folded into superimposed coextensive relation, the said pairs of vertical slots being arranged in said front and back sections to register with the front and back sections in superimposed relation.

HUBERT VELMAN BOLDING.

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