

March 3, 1959

O. L. VINES
CARTON

2,875,937

Filed April 11, 1955

2 Sheets-Sheet 1

FIG. 1

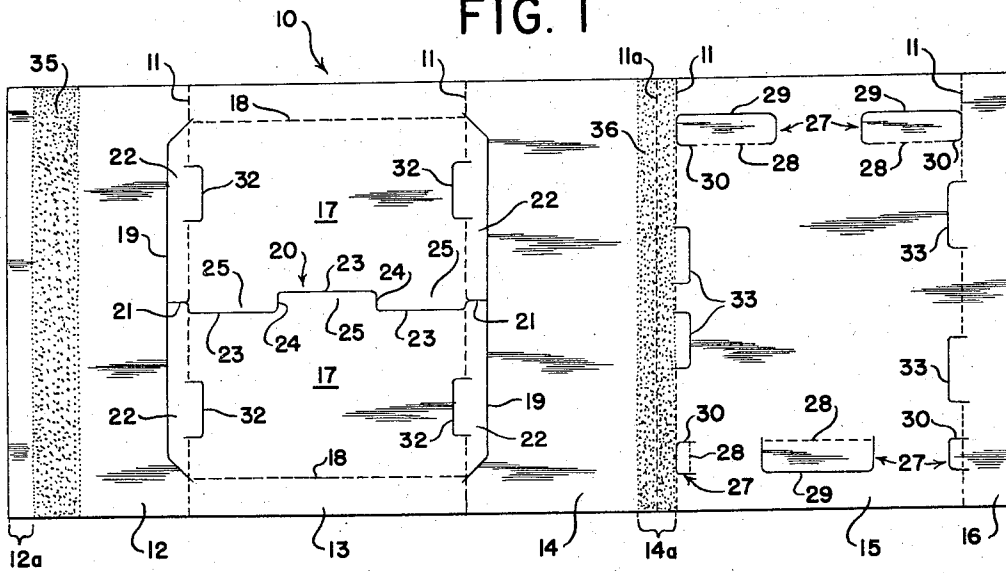
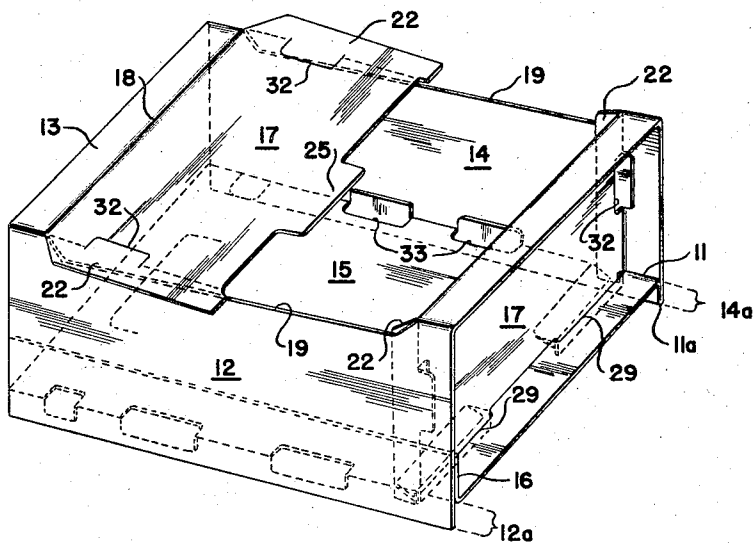


FIG. 2



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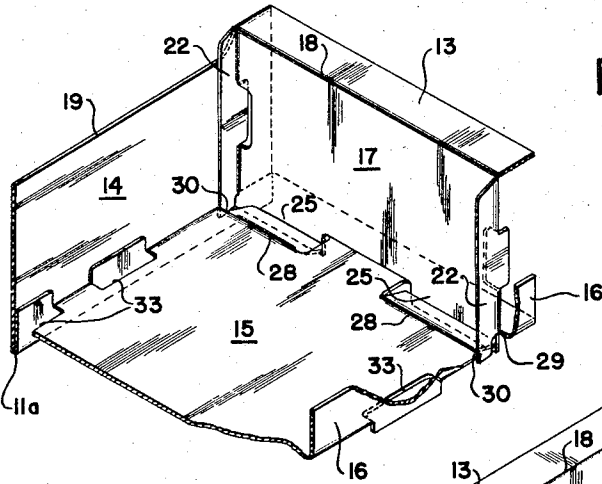


FIG. 3

FIG. 4

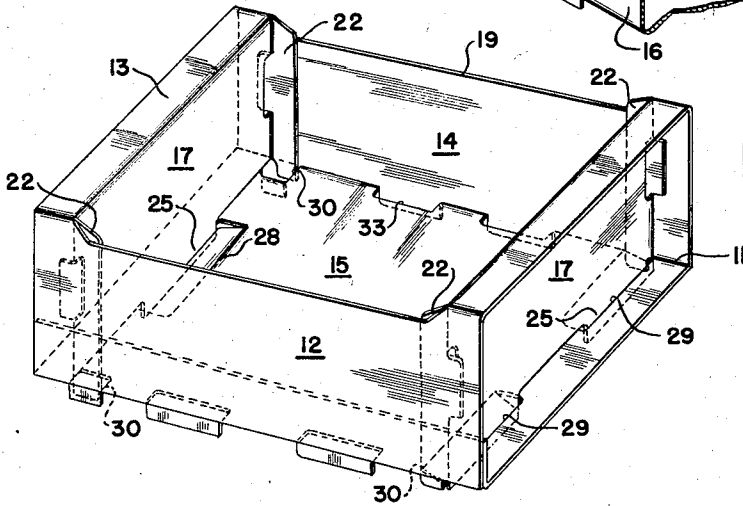
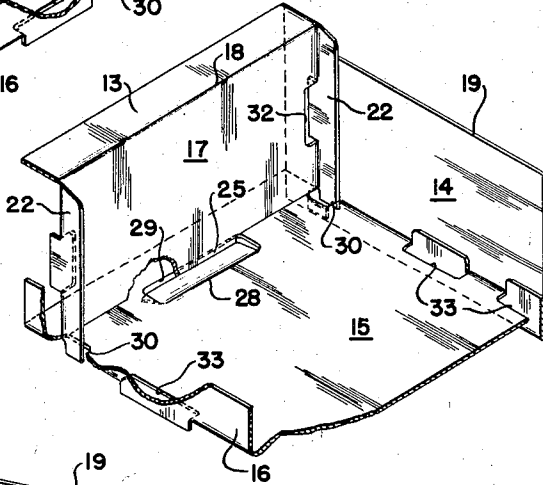


FIG. 5

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1

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CARTON

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Application April 11, 1955, Serial No. 500,414

7 Claims. (Cl. 229—16)

This invention relates to a folding carton, and more particularly to a carton blank capable of being folded to form a sturdy five-sided box.

Comestible articles are commonly packaged and distributed in five-sided open top containers advantageously wrapped with a piece of transparent cellophane film which permits the contents of the container to be seen while retaining the contents therein. In the case of most foods, the most generally satisfactory material from which to make the container is a sheet material, such as paper board, which lends itself to high speed mass production methods of manufacture, and to mechanical assembly and erection of the container when it is to be filled with its comestible contents. However, due to the delicate and perishable nature of certain fresh fruits and berries such as raspberries, strawberries, blueberries and the like, the development of a satisfactory paper board container for these foods has resisted the concerted efforts of many workers in this field. A satisfactory container for these foods must be at once strong, rigid, of minimum size and weight, and be provided with ventilation openings in order to prevent spoilage of the contents during shipment and storage. Up to the present time the only container that has met all of these requirements at reasonable cost has been the familiar wooden berry box of commerce.

I have now devised a container of paper board or similar material for such easily damaged and perishable foods. More particularly, I have devised a carton blank of unique structure that is capable of being erected by appropriate folding and gluing of the blank to form a five-sided carton or box that occupies no more space than the wooden boxes heretofore used for this purpose, that is completely rigid in structure, and that is strong enough to protect the contents of the carton from damage when packed in crates with a large number of other similar packages of fruit. Although specifically designed for use with soft and perishable fruits or berries it will be readily apparent that my new carton can be used as a container for many other commodities. Moreover, the paper board from which my carton is made can be treated with water-proofing materials, and can be imprinted with an identification or advertising matter, in a manner impossible with the wooden berry boxes of the prior art.

The carton blank of my invention comprises a substantially rectangular piece of sheet material provided with a plurality of spaced parallel fold lines extending laterally across the blank and defining serially a first side wall panel, a top panel, a second side wall panel, a bottom wall panel, and a glue panel. The top panel is formed with a pair of fold sections that, when folded downwardly into the erected carton, become the two end walls thereof, leaving the top of the carton open to view. The pair of fold sections are defined by a pair of longitudinally disposed fold lines extending across the top panel, a pair of transversely disposed channel-shaped cut lines in the portions of the two side wall panels adjoining the top panel, and a longitudinally disposed cut line extending across the top panel approximately intermediate the pair

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of longitudinal fold lines. Each fold line of the pair of longitudinal fold lines is spaced an appreciable distance inboard from one of the two longitudinal edges of the blank, the two fold lines being spaced apart a distance appreciably greater than twice the interior height of the end wall of the erected carton. The pair of channel-shaped cut lines disposed in the opposed side wall panels each connect the proximate ends of the pair of longitudinally disposed fold lines, the portion of each side panel defined by the channel-shaped cut line therein and the proximate transverse fold line comprising a wing element attached to the top panel at said transverse fold line. The two wing elements of the top panel are each bisected by a longitudinally disposed cut line dividing each wing element into two wing portions both of which are appreciably greater in length than the interior height of the end wall of the erected carton. The longitudinally disposed cut line extending across the top panel comprises (a) at least two longitudinal cut sections offset both longitudinally and transversely from each other, and (b) transversely disposed cut sections connecting the proximate ends of the offset longitudinal cut sections thereof. Each of the longitudinal cut sections of the longitudinally disposed cut line in the top panel is spaced from the proximate fold line of the pair of longitudinal fold lines substantially the same distance as the longitudinal cut sections offset therefrom are spaced from the other longitudinal fold line, adjacent edges of each of the fold sections of the top panel thereby being formed with uniform latching tongue portions. The longitudinally disposed cut line bisecting each wing element of the top panel is connected to the proximate end of the longitudinally disposed cut line extending across the top panel. The bottom panel of the blank is formed with cutout openings adapted to receive the latching tongue portions and the ends of the wing portions of each fold section when the fold sections and their attached wing portions are folded downwardly into the interior of the erected carton. The cutout openings in the bottom panel are disposed so that the latching tongues and the ends of the wing portions of the fold sections, when folded downwardly into the erected carton, snap thereinto and are held by the outboard and inboard edges of these openings against any movement of the fold sections.

The carton blank of my invention is folded about the lateral fold lines of the blank to form a four-sided structure. The fold sections of the top panel are then folded downwardly and inwardly about the pair of longitudinally disposed fold lines until the latching tongue portions and the ends of the wing portions of the fold sections snap into the corresponding cutout openings formed in the bottom panel of the carton. The resulting carton structure is characterized by the rigidity of the end walls thereof which in turn is attributable to the latching tongue portions and in particular to the wing portions of each fold section which, engaging the outboard and inboard edges of the cutout openings in the bottom panel, respectively, prevent any movement of the end walls of the erected carton. Advantageously the carton structure of my invention is formed with vent openings which automatically are formed in the carton structure when the carton blank is thus folded and erected.

My invention will be better understood from the following description, in conjunction with the accompanying drawings of which—

Fig. 1 is a plan view of the novel carton blank of my invention;

Fig. 2 is a perspective view of the carton blank partially folded to form the container of my invention, only one of the two fold sections of the top panel being folded downwardly and inwardly into the carton to form an end wall thereof;

Fig. 3 is a fragmentary perspective view of the inside of one end of the container of Fig. 2 showing how the end wall thereof is locked rigidly in place;

Fig. 4 is a fragmentary perspective view of the opposite end of the container of Fig. 2 showing how the end wall thereof is held in place, and

Fig. 5 is a perspective view of a slightly modified form of the carton of my invention.

As seen from Fig. 1 of the drawings, the carton blank 10 of my invention is formed from a single substantially rectangular piece of sheet material, such as paper-board or the like, that is provided with a plurality of spaced parallel fold lines 11 extending transversely across the blank 10. The fold lines 11 divide the blank serially into a first side panel 12, a top panel 13, a second side panel 14, a bottom panel 15 and a glue panel 16. In the preferred embodiment of my invention shown in Figs. 1 through 4, the side panels 12 and 14 are provided with auxiliary portions 12a and 14a, respectively, that form foot members for the carton when the carton blank 10 is erected as hereinafter described. In such case, the auxiliary portion 14a of the side panel 14 is formed with an auxiliary transverse fold line 11a about which the auxiliary foot portion of the side panel 14 is folded when the carton is erected. In the modification of my invention shown in Fig. 5 the auxiliary foot portions 12a and 14a of the two side panels are omitted.

The top panel 13 of the carton blank 10 is formed with a pair of fold sections 17 which, when folded downwardly into the interior of the erected carton, form the end walls thereof. The fold sections 17 in the top panel are defined by a pair of longitudinally disposed fold lines 18 each spaced an appreciable distance inboard from one of the two longitudinal edges of the blank, a pair of channel-shaped cutout lines 19 formed in each of the adjacent side wall panels 12 and 14 of the blank, and a longitudinally extending cutout line 20 disposed between the two longitudinal fold lines 18. The longitudinal fold lines 18 are both spaced about the same distance inboard from the proximate longitudinal edge of the blank, and are spaced apart from each other a distance appreciably greater than twice the interior height of the end wall of the erected carton. Each of the channel-shaped cutout lines 19 connects at one of its ends to the end of one of the longitudinal fold lines 18 and at its other end to the proximate end of the other of the two longitudinal fold lines 18. The portion of each side panel defined by the channel-shaped cut line 19 therein and the proximate transverse fold line 11 comprises a wing element connected to the two fold sections of the top panel by the associated transverse fold line 11. Each wing element is bisected by a longitudinally disposed cut line 21 dividing the wing element into two wing portions 22 each of which is appreciably greater in length than the interior height of the end wall of the erected carton. The two longitudinally disposed cut lines 21 are connected to the ends of the longitudinally disposed cut line 20 extending across the top panel 13.

The longitudinally disposed cut line 20 comprises three longitudinal cut sections 23 at least two of which are offset from each other both longitudinally and transversely, and transversely disposed cut sections 24 connecting the proximate ends of the offset longitudinal cut sections 23. Each longitudinal cut section 23 of the longitudinally disposed cut line 20 is spaced from the proximate longitudinal fold line 18 a distance substantially equal to that which all other longitudinal cut sections 23 are spaced from the longitudinal fold line 18 proximate thereto. This distance is advantageously approximately equal to the interior height of the end wall of the erected carton. The offset longitudinal cut sections 23 of the longitudinally disposed cut line 20 and the connecting transversely disposed cut sections 24 thereof define locking tongue portions 25 along abutting edges of the fold sections 17. Thus, each fold section 17 is

provided with locking tongue portions 25 and with wing portions 22 connected to the sides of the fold section along the associated transverse fold line 11.

The locking tongue portions 25 and the ends of the wing portions 22 engage cutout openings formed in the bottom panel 15 when the carton blank is erected to form the carton of my invention. The cutout openings formed in the bottom panel 15 may be punched therein, or, preferably, are defined by channel-shaped cutout lines 27 the ends of which are connected by fold lines 28. These cutout openings are disposed in the bottom panel 15 such that when the carton is erected as shown in Figs. 2 through 5 the latching tongue portions 25 of the fold sections 17 received therein will bear against the outboard edge 29 of the respective cutout opening while the ends of the wing portions 22 of the fold sections will bear against the inboard edge 30 of the respective cutout opening. As seen from the drawings, the cutout opening adapted to receive one of the latching tongue portions 25 of a fold section 17 may also serve to receive an adjoining wing portion 22 of the fold section.

The carton blank 10 is also advantageously formed with channel-shaped cut lines which, when the carton is erected, form ventilation openings in the carton. Thus the channel-shaped cut lines 32 in the top panel 13 connecting at their ends with the proximate fold lines 11 form ventilation openings in the end walls of the erected carton, while corresponding channel-shaped cut lines 32 in the bottom panel 15 form ventilation openings therein when the carton is erected. In addition, the cutout openings adapted to receive the latching tongue portions and wing portions of the fold sections 17 also serve as ventilation openings in the bottom panel of the carton.

To erect the carton, a transverse strip of glue is applied to the side panel 12 (or to the glue panel 16). When the side panels 12 and 14 of the carton are provided with auxiliary foot portions 12a and 14a, respectively, the glue strip 35 must be spaced an appropriate distance inboard of the end transverse edge of the side panel 12 as shown in Fig. 1 of the drawing. In addition, in such case glue is also applied in a strip 36 along the auxiliary portion 14a of the side wall panel 14 as shown in Fig. 1, care being taken to avoid applying glue to any part of the bottom panel 15, and in particular to any of the cutout portions thereof that might as a result interfere with the ready erection of the box. The side wall panel 14 of the carton blank is then folded about the fold line 11a, and the side wall panel 12 is folded about the proximate lateral fold line 11, the glue strip 35 thereon adhering to the glue panel 16 of the carton.

The fold sections 17 of the top panel are then folded downwardly and inwardly into the interior of the folded and glued carton blank to form the end walls of the erected carton. A semi-erected carton one of the fold sections 17 of which has been thus folded to form an end wall is shown in Fig. 2. As each fold section 17 is pressed into the interior of the carton, the wing portions 22 thereof formed from the adjacent side wall panels are automatically folded inwardly and upwardly until they are at right angles to the main portion of the fold section. As the fold section 17 comes into contact with the bottom panel 15, the latching tongue portions 25 thereof snap into the cutout openings in the bottom panel adapted to receive these tongue portions, and the ends of the wing portions 22 of the fold section snap into corresponding cutout openings in the bottom panel. As seen in Figs. 3 and 4, the end wall 17 of the erected carton is held rigidly in place by the cooperation of the latching tongue portions 25 of the end wall and the unique wing portions 22 at right angles thereto. That is to say, outward movement of the end wall 17 is prevented by its contact with the outboard edge 29 of the cutout openings into which the tongue portions 25 extend, while inward movement of the end wall is prevented by its contact with the inboard edge 30 of the cutout openings into which the wing portions

22 of the end wall extend. The resulting five-sided carton structure is exceptionally strong and sturdy due to the rigidly braced end wall construction which, in turn, results from the engagement of the wing portions 22 and the locking tongues 25 in the corresponding cutout openings of the bottom panel.

The channel-shaped cut lines 32 and 33 in the top panel and bottom panels become ventilation openings when the blank is folded to form a fully erected carton. These ventilation openings, which appear automatically when the carton blank is folded, are shown clearly in Figs. 2 through 5 of the drawings. Moreover, as explained hereinabove the cutout openings in the bottom panel into which the latching tongue portions 25 and wing portions 22 of the end walls 17 extend also provide ventilation openings that contribute to the utility of the carton structure.

As pointed out hereinbefore, the embodiment of my invention shown in Figs. 1 to 4 is provided with foot portions 12a and 14a formed from corresponding auxiliary portions of the side walls 12 and 14. The structure of these foot portions in the erected carton is shown especially clearly in Fig. 2 of the drawings. The foot portions maintain the underside of the bottom panel 15 out of contact with the object or objects on which the carton rests. Thus, the carton is particularly well suited for packaging fruit and other delicate comestible articles, large numbers of which packages are commonly placed together, one on top of another, in crates for shipment to market.

In the modification of my invention shown in Fig. 5, the side walls 12 and 14 of the carton blank are formed without the auxiliary portions 12a and 14a shown in Fig. 1. When a carton blank of my invention lacking these auxiliary side wall portions is folded about the lateral fold lines 11, the resulting carton is not provided with foot portions extending continuously along the lower edges of the two side walls, as is the carton shown in Fig. 2. However, the portions of the bottom panel 15 defined by the channel-shaped cut lines 33 extend downwardly as shown in Fig. 5, forming tabs or feet upon which the erected carton rests. The advantage of this construction resides in the substantial saving in the amount of sheet material required to manufacture a large number of such carton blanks.

In a further modification of my invention, the carton blank 10 is adapted to form a carton the end walls of which converge somewhat toward the bottom of the carton. The convergent end walls support part of the fruit (or other contents) contained in the upper portion of the carton and hence help avoid undue pressure on the fruit contained in the lower portion of the carton. In this modification of the carton blank, the distance between each longitudinal cut section 23 of the longitudinal cut line 20 and the proximate longitudinal fold line 18 is appreciably greater than the interior height of the erected carton. Thus, when the fold sections 17 are folded downwardly and inwardly into the erected carton, the lower edges of the two fold sections strike the bottom panel of the carton before the fold sections can become vertical (that is, normal to the bottom panel). The resulting end walls, therefore, are at a slightly obtuse angle with respect to the bottom wall, the lower edges of the end walls being slightly closer together than are the upper edges thereof. Of course in such case the cutout openings in the bottom panel 15 that are adapted to receive the locking tongue portions 25 and the ends of the wing portions 22 of the convergent fold sections (or end walls) are disposed somewhat closer together than are these cutout openings in the case of a carton having substantially vertical end walls. Moreover, when the carton is provided with convergent end walls as described, it is advantageous to form the carton blank so that the side walls and bottom walls will conform in shape to the trapezoidal configuration of the interior of the carton.

It will be seen from the foregoing description that the carton blank of my invention can be erected to form a novel carton structure of uncomplicated design and of exceptional strength and rigidity. The strength and rigidity of the carton structure is attributable to the unique construction of the end walls thereof, and to the manner in which the end walls are firmly locked in place when the carton is erected. Moreover, the sheet material of my carton blank can be treated with waterproofing compositions, such as wax or plastic, and can be printed with decorative or other matter. The carton blank lends itself to mass production methods of manufacture, and to erection by automatic set-up machinery. The erected carton can readily be filled with the desired contents, and the filled carton can then be wrapped with a sheet of a transparent material such as cellophane. In no other known carton comparable to mine are these unique combinations of characteristics to be found.

I claim:

1. A carton blank comprising a substantially rectangular piece of sheet material provided with a plurality of spaced parallel fold lines extending transversely across the blank, said transverse fold lines defining serially a first side panel, a top panel, a second side panel, a bottom panel and a glue panel, the top panel being provided with a pair of fold sections adapted to form the end walls of the carton when folded downwardly into the erected carton blank, said pair of fold sections being defined by a pair of longitudinally disposed fold lines extending across the top panel, a pair of transverse channel-shaped cut lines disposed in the portions of the two side wall panels adjoining the top panel, and a longitudinally disposed cut line extending across the top panel approximately intermediate the pair of longitudinal fold lines, said longitudinal fold lines being spaced an appreciable distance inboard from opposite longitudinal edges of the blank and being spaced apart a distance appreciably greater than twice the interior height of the end wall of the erected carton, the channel-shaped cut line disposed in each of the two side wall panels connecting the proximate ends of the two longitudinally disposed fold lines, the portion of each side panel defined by the channel-shaped cut line therein and the proximate transverse fold line comprising a wing element attached to the top panel at said transverse fold line, said longitudinally disposed cut line comprising (a) at least two longitudinal cut sections offset both longitudinally and transversely from each other and (b) a transversely disposed cut section connecting the proximate ends of the offset longitudinal cut sections thereof, each of the longitudinal cut sections being spaced the same distance from their proximate longitudinal fold lines, longitudinal cut lines in each side panel connected to the extremities of the longitudinally disposed cut line in the top panel and bisecting the wing element adjoining the top panel, the two wing portions of each bisected wing element being appreciably greater in length than the interior height of the end wall of the erected carton, said longitudinal and transverse cut sections of said longitudinally disposed cut line defining latching tongue portions at the adjoining edges of the two fold sections, said bottom panel being formed with cutout openings adapted to receive the latching tongue portions and the ends of the wing portions of each fold section when the fold section and its attached wing portions are folded downwardly and inwardly into the interior of the erected carton, said cutout openings in the bottom panel being disposed so that the latching tongue portions and the ends of the wing portions snap thereto and are held against any movement by the outboard and inboard edges of said openings.

2. A carton blank comprising a substantially rectangular piece of sheet material provided with a plurality of spaced parallel fold lines extending transversely across the blank, said transverse fold lines defining serially a first side panel, a top panel, a second side panel, a bot-

tom panel and a glue panel, the top panel being provided with a pair of fold sections adapted to form the end walls of the carton when folded downwardly into the erected carton blank, said pair of fold sections being defined by a pair of longitudinally disposed fold lines extending across the top panel, a pair of transverse channel-shaped cut lines disposed in the portions of the two side wall panels adjoining the top panel, and a longitudinally disposed cut line extending across the top panel approximately intermediate the pair of longitudinal fold lines, said longitudinal fold lines being spaced an appreciable distance inboard from opposite longitudinal edges of the blank and being spaced apart a distance appreciably greater than twice the interior height of the end wall of the erected carton, the channel-shaped cut line disposed in each of the two side wall panels connecting the proximate ends of the two longitudinally disposed fold lines, the portion of each side panel defined by the channel-shaped cut line therein and the proximate transverse fold line comprising a wing element attached to the top panel at said transverse fold line, said longitudinally disposed cut line comprising (a) at least two longitudinal cut sections offset both longitudinally and transversely from each other and (b) a transversely disposed cut section connecting the proximate ends of the offset longitudinal cut sections thereof, each of the longitudinal cut sections being spaced the same distance from their proximate longitudinal fold line, longitudinal cut lines in each side panel connected to the extremities of the longitudinally disposed cut line in the top panel and bisecting the wing element adjoining the top panel, the two wing portions of each bisected wing element being appreciably greater in length than the interior height of the end wall of the erected carton, said longitudinal and transverse cut sections of said longitudinally disposed cut line defining latching tongue portions at the adjoining edges of the two fold sections, said bottom panel being formed with cutout openings adapted to receive the latching tongue portions and the ends of the wing portions of each fold section when the fold section and its attached wing portions are folded downwardly into the interior of the erected carton, said cutout openings being defined by channel-shaped cut lines disposed in the bottom panel so that the latching tongue portions received in said cutout openings bear against the outboard edges of said cut lines and the ends of the wing portions received in said cutout openings bear against the inboard edges of said cut lines.

3. A carton blank according to claim 2 in which the fold sections and the bottom panel are provided with channel-shaped cut lines the ends of each of which connect with one of the transverse fold lines defining the transverse edges of the top panel and the bottom panel.

4. A carton blank comprising a substantially rectangular piece of sheet material provided with a plurality of spaced parallel fold lines extending transversely across the blank, said transverse fold lines defining serially a first side panel, a top panel, a second side panel, a bottom panel and a glue panel, said first side panel being formed with an auxiliary foot portion disposed along the transverse end edge of the panel and said second side panel being provided with a second auxiliary foot portion disposed along the transverse fold line defining the boundary between said second side panel and the bottom panel, the top panel being provided with a pair of fold sections adapted to form the end walls of the carton when folded downwardly into the erected carton blank, said pair of fold sections being defined by a pair of longitudinally disposed fold lines extending across the top panel, a pair of transverse channel-shaped cut lines disposed in the portions of the two side wall panels adjoining the top panel, and a longitudinally disposed cut line extending across the top panel approximately intermediate the pair of longitudinal fold lines, said longitudinal fold lines being spaced an appreciable distance inboard from opposite longitudinal edges of the blank and being spaced apart

a distance appreciably greater than twice the interior height of the end wall of the erected carton, the channel shaped cut line disposed in each of the two side wall panels connecting the proximate ends of the two longitudinally disposed fold lines, the portion of each side panel defined by the channel-shaped cut line therein and the proximate transverse fold line comprising a wing element attached to the top panel at said lateral fold line, said longitudinally disposed cut line extending across the top panel intermediate the pair of longitudinal fold lines comprising (a) at least two longitudinal cut sections offset both longitudinally and transversely from each other, and (b) a transversely disposed cut section connecting the proximate ends of the offset longitudinal cut sections thereof, each of the longitudinal cut sections being spaced from the proximate longitudinal fold line substantially the same distance as the longitudinal sections offset therefrom are spaced from the other longitudinal fold line longitudinal cut lines in each side panel connected to the extremities of the longitudinally disposed cut line in the top panel and bisecting the wing element adjoining the top panel, the two wing portions of each bisected wing element being appreciably greater in length than the interior height of the end wall of the erected carton, said longitudinal and transverse cut sections of said longitudinally disposed cut line defining latching tongue portions at the adjoining edges of the two fold sections, said bottom panel being formed with cutout openings adapted to receive the latching tongue portions and the ends of the wing portions of each fold section when the fold section and its attached wing portions are folded downwardly into the interior of the erected carton, said cutout openings in the bottom panel being disposed so that the latching tongue portions and the ends of the wing portions snap thereinto and are held against any movement by the outboard and inboard edges of said openings.

5. A carton blank according to claim 4 in which the fold sections and the bottom panel are provided with channel-shaped cut lines the ends of each of which connect with one of the transverse fold lines defining the transverse edges of the top panel and the bottom panel.

6. A carton blank comprising a substantially rectangular piece of sheet material provided with a plurality of spaced parallel fold lines extending transversely across the blank, said transverse fold lines defining serially a first side panel, a top panel, a second side panel, a bottom panel and a glue panel, the top panel being provided with a pair of fold sections adapted to form the end walls of the carton when folded downwardly into the erected carton blank, said pair of fold sections being defined by a pair of longitudinally disposed fold lines extending across the top panel, a pair of transverse channel-shaped cut lines disposed in the portions of the two side wall panels adjoining the top panel, and a longitudinally disposed cut line extending across the top panel approximately intermediate the pair of longitudinal fold lines, said longitudinal fold lines being spaced an appreciable distance inboard from opposite longitudinal edges of the blank and being spaced apart a distance appreciably greater than twice the interior height of the end wall of the erected carton, the channel-shaped cut line disposed in each of the two side wall panels connecting the proximate ends of the two longitudinally disposed fold lines, the portion of each side panel defined by the channel-shaped cut line therein and the proximate transverse fold line comprising a wing element attached to the top panel at said transverse fold line, said longitudinally disposed cut line comprising (a) at least two longitudinal cut sections offset both longitudinally and transversely from each other and (b) a transversely disposed cut section connecting the proximate ends of the offset longitudinal cut sections thereof, each of the longitudinal cut sections being spaced the same distance from their proximate longitudinal fold lines, said distance being substantially equal to the interior height of the erected carton, longitudinal

cut lines in each side panel connected to the extremities of the longitudinally disposed cut line in the top panel and bisecting the wing element adjoining the top panel, the two wing portions of each bisected wing element being appreciably greater in length than the interior height of the end wall of the erected carton, said longitudinal and transverse cut sections of said longitudinally disposed cut line defining latching tongue portions at the adjoining edges of the two fold sections, said bottom panel being formed with cutout openings adapted to receive the latching tongue portions and the ends of the wing portions of each fold section when the fold section and its attached wing portions are folded downwardly and inwardly into the interior of the erected carton, said cutout openings in the bottom panel being disposed so that the latching tongue portions and the ends of the wing portions snap thereto and are held against any movement by the outboard and inboard edges of said openings.

7. A carton blank comprising a substantially rectangular piece of sheet material provided with a plurality of spaced parallel fold lines extending transversely across the blank, said transverse fold lines defining serially a first side panel, a top panel, a second side panel, a bottom panel and a glue panel, the top panel being provided with a pair of fold sections adapted to form the end walls of the carton when folded downwardly into the erected carton blank, said pair of fold sections being defined by a pair of longitudinally disposed fold lines extending across the top panel, a pair of transverse channel-shaped cut lines disposed in the portions of the two side wall panels adjoining the top panel, and a longitudinally disposed cut line extending across the top panel approximately intermediate the pair of longitudinal fold lines, said longitudinal fold lines being spaced an appreciable distance inboard from opposite longitudinal edges of the blank and being spaced apart a distance appreciably greater than twice the interior height of the end wall of the erected carton, the channel-shaped cut line disposed in each of the two side wall panels connecting the proximate ends of the two longitudinally disposed fold lines, the portion of each side panel defined by the channel-shaped cut line therein and the proximate transverse fold line comprising a wing element attached to the

top panel at said transverse fold line, said longitudinally disposed cut line comprising (a) at least two longitudinal cut sections offset both longitudinally and transversely from each other and (b) a transversely disposed cut section connecting the proximate ends of the offset longitudinal cut sections thereof, each of the longitudinal cut sections being spaced the same distance from their proximate longitudinal fold lines, said distance being appreciably greater than the interior height of the erected carton, longitudinal cut lines in each side panel connected to the extremities of the longitudinally disposed cut line in the top panel and bisecting the wing element adjoining the top panel, the two wing portions of each bisected wing element being appreciably greater in length than the interior height of the end wall of the erected carton, said longitudinal and transverse cut sections of said longitudinally disposed cut line defining latching tongue portions at the adjoining edges of the two fold sections, said bottom panel being formed with cutout openings adapted to receive the latching tongue portions and the ends of the wing portions of each fold section when the fold section and its attached wing portions are folded downwardly and inwardly into the interior of the erected carton, said cutout openings in the bottom panel being disposed so that the latching tongue portions and the ends of the wing portions snap thereto and are held against any movement by the outboard and inboard edges of said openings.

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UNITED STATES PATENT OFFICE
CERTIFICATE OF CORRECTION

Patent No. 2,875,937

March 3, 1959

Oscar L. Vines

It is hereby certified that error appears in the above numbered patent requiring correction and that the said Letters Patent should read as corrected below.

In the grant, line 1, name of inventor, for "Oscar L. Vine" read -- Oscar L. Vines --; in the printed specification, column 3, line 36, for "panles" read -- panels --; line 43, for "carbon" read -- carton --.

Signed and sealed this 30th day of June 1959.

(SEAL)

Attest:

KARL H. AXLINE
Attesting Officer

ROBERT C. WATSON
Commissioner of Patents