

March 10, 1953

P. WASYLUKA

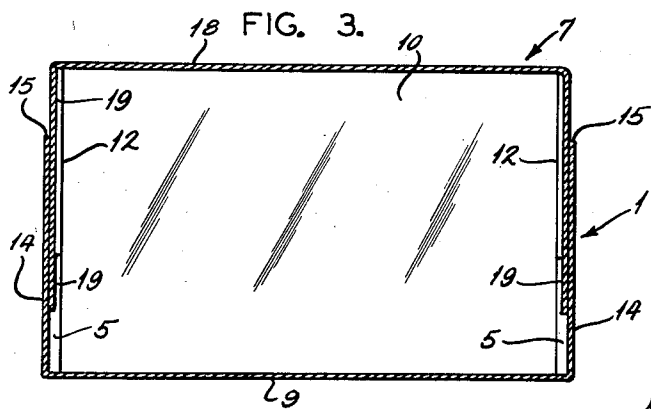
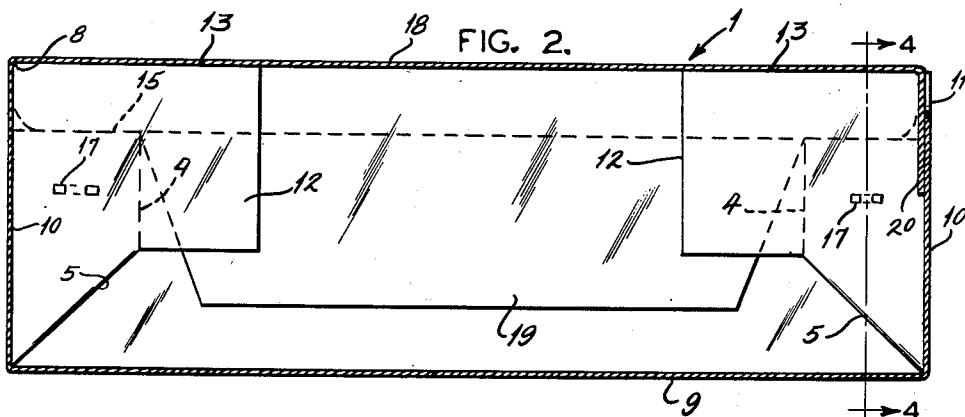
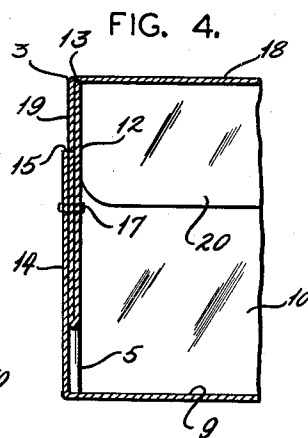
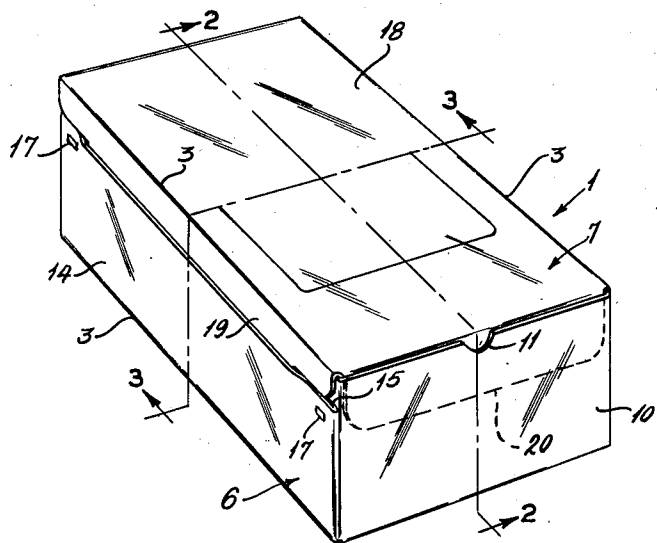
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CARTON

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FIG. 1.



INVENTOR:
Paul Wasyluka,
by Carr & Carr & Gravelly,
HIS ATTORNEYS.

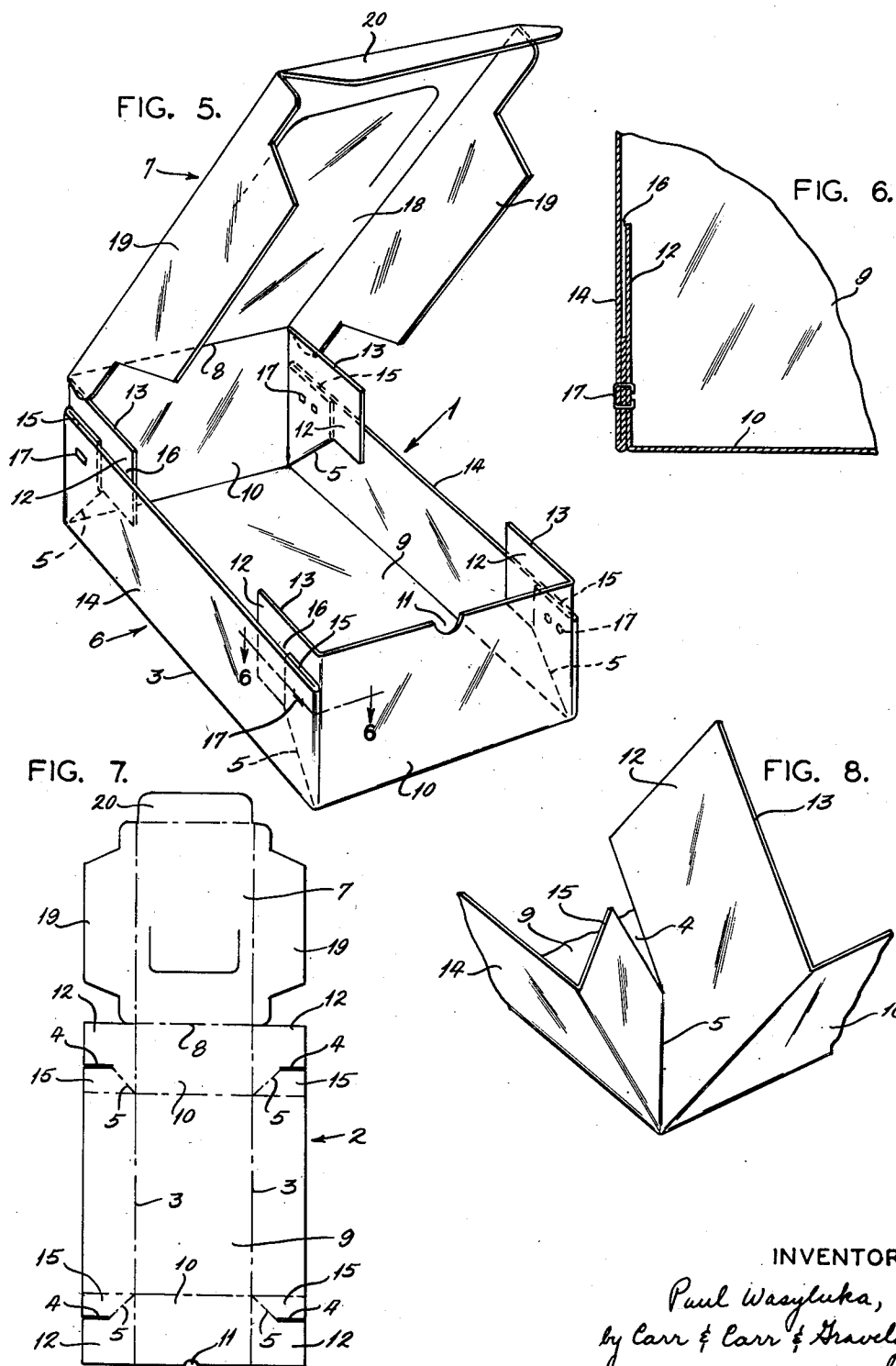
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INVENTOR:

Paul Wasyluka,
by Carr & Carr & Gravelly,
HIS ATTORNEYS.

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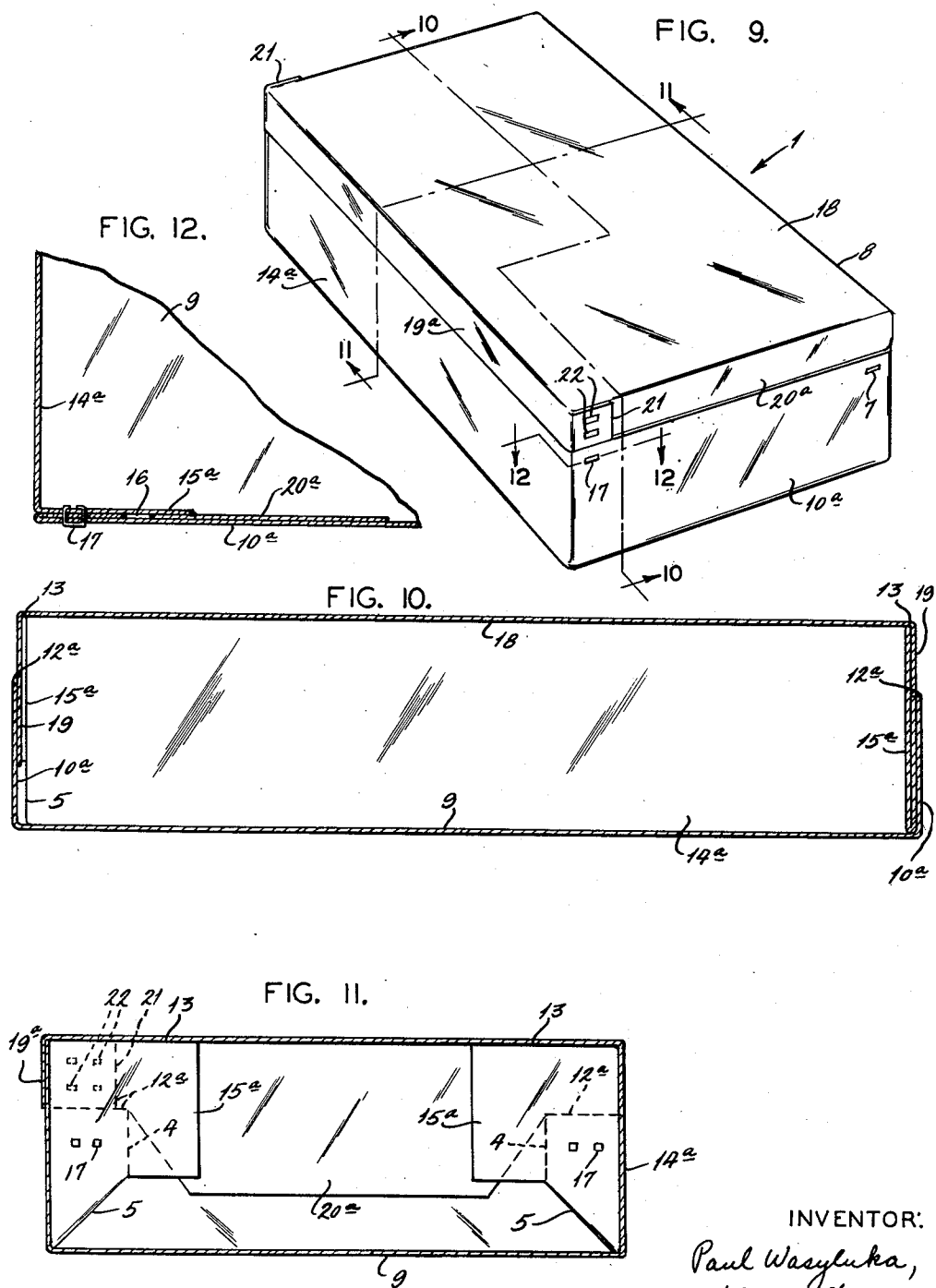
P. WASYLUKA

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CARTON

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INVENTOR:
Paul Wasyluka,
by Carr & Carr & Gravelly,
HIS ATTORNEYS.

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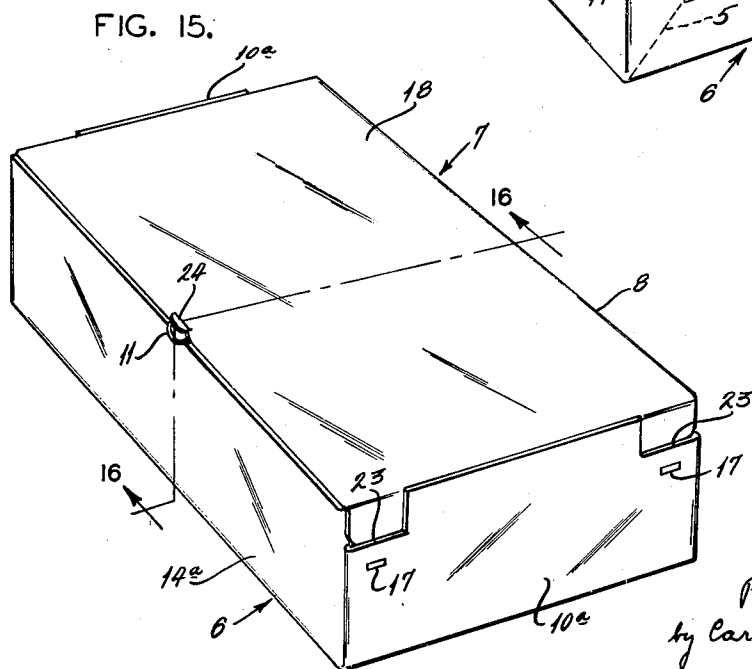
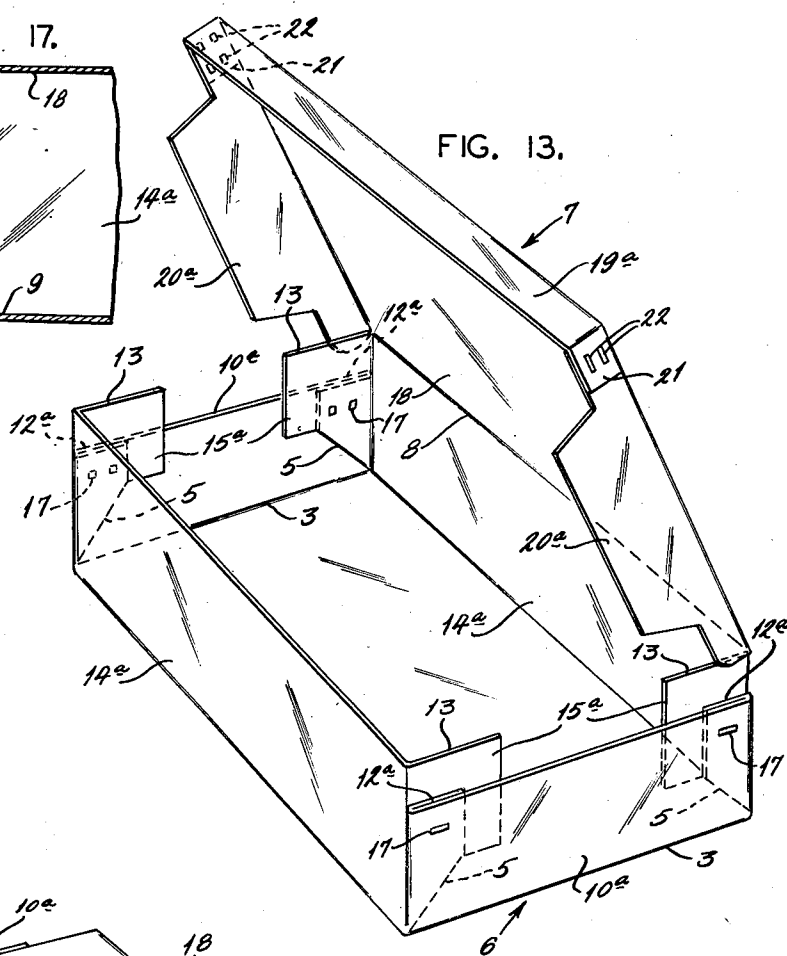
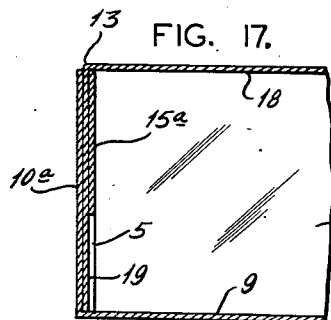
P. WASYLUKA

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CARTON

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INVENTOR:
Paul Wasyluka,
by Carr & Carr & Gravelly,
HIS ATTORNEYS.

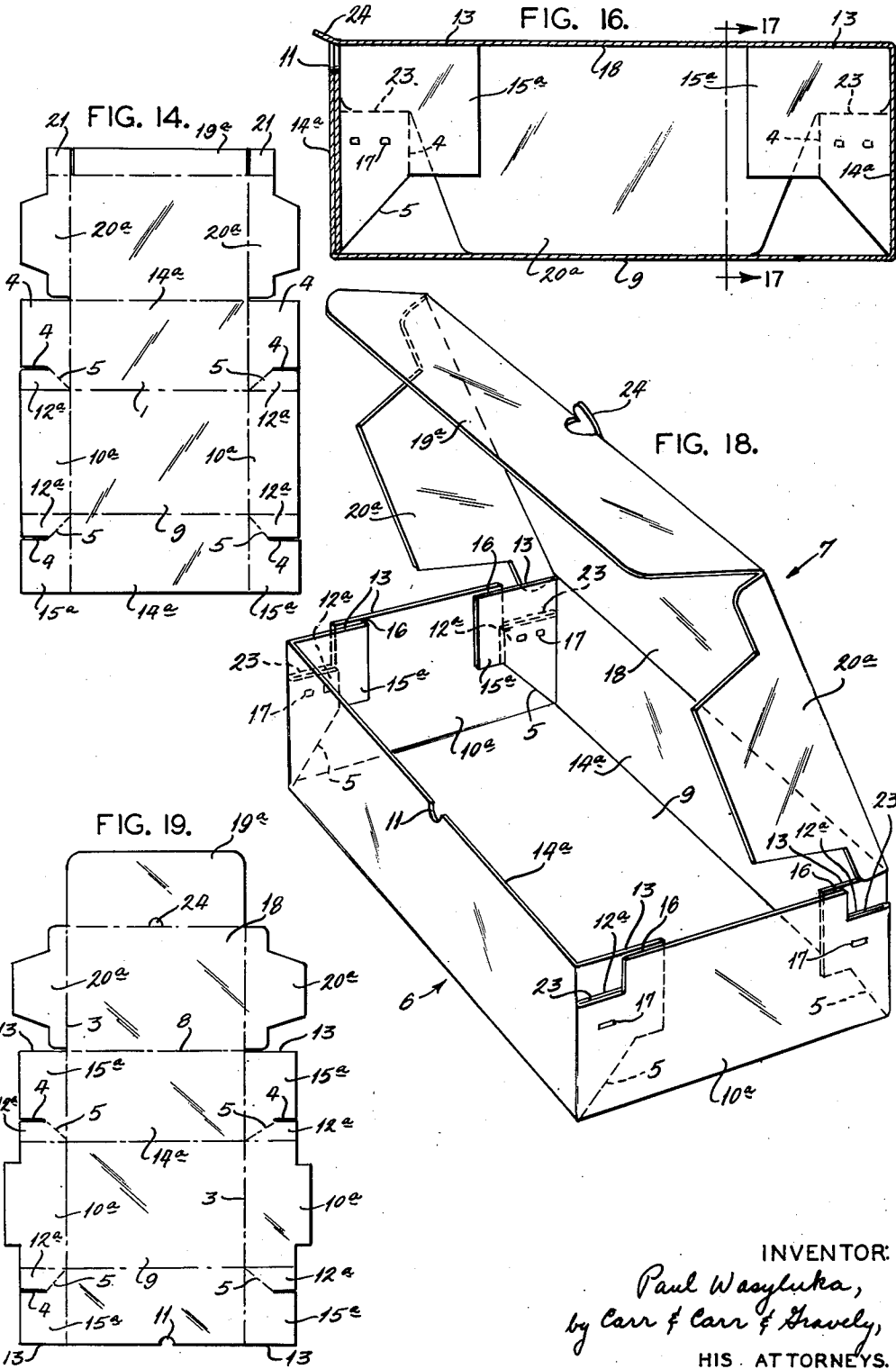
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CARTON

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UNITED STATES PATENT OFFICE

2,630,962

CARTON

Paul Wasyluka, St. Louis, Mo., assignor to Gaylord Container Corporation, St. Louis, Mo., a corporation of Maryland

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7 Claims. (Cl. 229—31)

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This invention relates to folded blank paperboard boxes or cartons of the type having a hinged cover and vertical corners formed by folding in portions of adjacent sides and securing the fold thereto.

The principal object of the present invention is to provide a simple economical carton of the above type which will provide good protection for shipping and/or storing vegetables and fruits or other products and which at the same time is amply strong for stacking.

Another object of the invention is to provide a box of the type hereinbefore mentioned which can be made from a single blank, which can be assembled easily, and which requires only one staple at each corner fold.

Another object is to provide in a box of the type hereinbefore mentioned, a folded corner construction which forms a supporting ledge for a depending marginal tuck flap of the closed cover and a positioning pocket for said cover flap.

The invention consists in the folded blank paperboard box and in the parts and combination and arrangements of parts that are hereinafter described and claimed.

The invention is more fully explained by reference to the accompanying drawings, which form part of this specification and wherein like numerals refer to like parts wherever they occur.

Fig. 1 is a perspective view of the principal embodiment of my invention showing a carton in its closed position,

Fig. 2 is a vertical cross-sectional view taken along the line 2—2 in Fig. 1,

Fig. 3 is a vertical cross-sectional view taken along the line 3—3 in Fig. 1,

Fig. 4 is a fragmentary vertical cross-sectional view taken along the line 4—4 in Fig. 2,

Fig. 5 is a perspective view of said carton with its upper cover section in a partially open position,

Fig. 6 is a fragmentary horizontal cross-sectional view taken along the line 6—6 in Fig. 5,

Fig. 7 is a plan view of the blank from which the principal embodiment of my invention is folded and formed,

Fig. 8 is a perspective view of a typical corner section in its partially assembled position prior to stapling,

Fig. 9 is a perspective view of a modified form of my invention,

Fig. 10 is a vertical cross-sectional view taken along the line 10—10 in Fig. 9,

Fig. 11 is a vertical cross-sectional view taken along the line 11—11 in Fig. 9,

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Fig. 12 is a fragmentary horizontal cross-sectional view taken along the line 12—12 in Fig. 9,

Fig. 13 is a perspective view of said modified form of carton with its upper cover section in a partially open position,

Fig. 14 is a plan view of the blank from which said modified form of my invention is folded and formed,

Fig. 15 is a perspective view showing still another modified form of my invention,

Fig. 16 is a vertical cross-sectional view taken along the line 16—16 in Fig. 15,

Fig. 17 is a vertical cross-sectional view taken along the line 17—17 in Fig. 16,

Fig. 18 is a perspective view of said second modified form of my invention showing the upper cover section in a partially open position,

Fig. 19 is a plan view of the blank from which said second modified form of carton is folded and formed.

My paperboard box or carton 1 is folded from a blank 2 having scores 3, slits 4 and diagonal scores 5 therein and comprises a tray-like lower body section 6 with an upper cover section 7 hingedly secured thereto by means of a scored hinge 8. The lower body section 6 comprises a bottom portion 9, two high end walls 10, one of said high end walls 10 having a finger notch 11 therein on its upper margin, the other having the upper cover section 7 hingedly secured to the upper margin thereof, each of said high end walls 10 having high end wall marginal flanges 12 thereon, said high end wall marginal flanges 12 having cover supporting edges 13 on the upper margins thereof, and two low side walls 14 each having low side wall marginal flanges 15 thereon. The low side walls 14, the low side wall marginal flanges 15 and the high end wall marginal flanges 12 form cover flap receiving pockets 16. Staples 17 secure the low side walls 14 to the low side wall marginal flanges 15 and high end wall marginal flanges 12.

The upper cover section 7 comprises a top portion 18 hingedly secured to a high end wall 10, marginal tuck flaps or side marginal flaps 19 folded downwardly from said top portion 18 and an end marginal flap 20 folded downwardly from said top portion 18 opposite the hinge 8.

The construction hereinbefore described permits rapid assembly of the tray-like lower body section 6 by folding the high end wall 10 with the finger notch 11 therein upwardly, then folding the low side walls 14 upwardly causing the high end wall marginal flanges 12 and the low side wall marginal flanges 15 to automatically

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fold inwardly to form a right angle corner of three thicknesses, the cover flap receiving pockets 16 and cover supporting ledges 15 for the upper cover section 7. The three thicknesses are then stapled together. The other high end wall 10 is then folded upwardly causing the high end wall marginal flanges 12 and the low side wall marginal flanges 15 to automatically fold inwardly to form a right angle corner of three thicknesses, the cover flap receiving pockets 16 and cover supporting ledges 15 for the upper cover section 7. These three thicknesses are then stapled together. Obviously, the lower body section 6 can be formed by several other sequences of action.

The upper cover section 7 is formed by folding the side marginal flaps 19 and the end flap 20 downwardly.

In the assembled position, the side marginal flaps 19 of the upper cover section 7 fit in the cover flap receiving pockets 16 in the lower body section 6, the inside surface of the top portion 18 of the upper cover section 7 rests on the cover supporting edges 13 and the end portions of the side marginal flaps 19 rest on the supporting ledges or the top edges of the low side wall 14 and the low side wall marginal flanges 15. The end marginal flap 20 fits within the carton.

A modified form of this carton is shown in Fig. 9 through Fig. 14. This modified form of carton is similar to the principal carton with minor exceptions. The modified carton is folded from a blank 2 having scores 3, slits 4 and diagonal scores 5 therein and comprises a tray-like lower body section 6 with an upper cover section 7 hingedly secured thereto by means of a scored hinged 8. The lower body section 6 comprises a bottom portion 9, two high side walls 14a, one of said high side walls 14a having the upper cover section 7 hingedly secured to the upper margin thereof, each of said high side walls 14a having high side wall marginal flanges 15a thereon, said high side wall marginal flanges 15a having cover supporting edges 13 on the upper margins thereof, and two low end walls 10a each having low end wall marginal flanges 12a thereon. The low end walls 10a, the low end wall marginal flanges 12a and the high side wall marginal flanges 15a form cover flap receiving pockets 16. Staples 17 secure the low end walls 10a to the low end wall marginal flanges 12a and high side wall marginal flanges 15a.

The upper cover section 7 comprises a top portion hingedly secured to a high side wall 14a, marginal tuck flaps or end marginal flaps 20a folded downwardly from said top portion 18 and a side marginal flap 19a folded downwardly from said top portion 18 opposite the hinge 8, said side marginal flap 19a having tabs 21 added thereto.

The lower body section 6 of this modification is formed in the manner as hereinbefore described. The upper cover section 7 is formed by folding end marginal flaps 20a and the side marginal flap 19a downwardly, folding the tabs 21 on said side marginal flap 19a inwardly toward said end marginal flaps 20a and securing said tabs 21 thereto by means of staples 22.

In the assembled position, the end marginal flaps 20a of the upper cover section 7 fit in the cover flap receiving pockets 16 in the lower body section 6, the inside surface of the top portion 18 of the upper cover section 7 rests on the cover supporting edges 13 and the end portions of the end marginal flaps 20a rest on the supporting ledges or the top edges of the low end wall 10a and the low end wall marginal flanges 12a. The

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side marginal flap 19a fits over and on the outside of the high side wall 14a of the lower body section 6.

Another modified form of this carton is shown in Fig. 15 through Fig. 19. This modified form of carton uses the same corner constructions in the lower body section 6 as in the principal embodiment. The lower body section 6 comprises a bottom portion 9, two high side walls 14a, one of said high side walls 14a having a finger notch 11 therein on its upper margin, the other having the upper cover section 7 hingedly secured to the upper margin thereof, each of said high side walls 14a having high side wall marginal flanges 15a thereon, said high side wall marginal flanges 15a having cover supporting edges 13 on the upper margins thereof, and two end walls 10a of the same height as the high side walls 14a, each end wall having a low portion 23 at the upper corners thereof, said end walls 10a having low end wall marginal flanges 12a thereon. The end walls 10a, the low end wall marginal flanges 12a and the side wall marginal flanges 15a form cover flap receiving pockets 16. Staples 17 secure the end walls 10a to the low end wall marginal flanges 12a and high side wall marginal flanges 15a.

The upper cover section 7 comprises a top portion 18 hingedly secured to a high side wall 14a, marginal tuck flaps or end marginal flaps 20a and a side marginal flap 19a folded downwardly from said top portion 18, said end and side marginal flaps 20a and 19a being of the same height as the height of the high side walls 14a and end walls 10a so that the lower margins of said end and side marginal flaps 20a and 19a rest on the bottom portion 9 of the lower body section 6. A finger tab 24 extends from the top portion 18 of the upper cover section 7 in cooperative relation with the finger notch 11 in the high side wall 14a of the lower body section 6.

In the assembled position the end marginal flaps 20a of the upper cover section 7 fit in the cover flap receiving pockets 16 in the lower body section 6 so that the lower edges thereof rest on the bottom portion 9 of the lower body section 6. The inside surface of the top portion 18 of the upper cover section 7 rests on the cover supporting edges 13. The end portions of the end marginal flaps 20a rest on the supporting ledges or the top edges of the low portions 23 of the end walls 10a and the low end wall marginal flanges 12a. The side marginal flap 19a fits within the carton so that the lower edge thereof rests on the bottom portion 9 of the lower body section 6.

What I claim is:

1. A carton comprising a lower bottom section having a bottom portion, two high end walls folded upwardly therefrom, one wall having an upper cover section hingedly secured to the upper margin thereof, each of said high end walls having high end wall marginal flanges thereon, said high end wall marginal flanges having cover supporting edges upon the upper margins thereof, and two low side walls each having low side wall marginal flanges with supporting ledges thereon, said high end wall marginal flanges and said low side wall marginal flanges being connected together along a diagonal fold line, said diagonal fold line being of a length less than the height of said low side wall, said low side walls and said high end wall marginal flanges being maintained in spaced parallel relation thereby providing cover flap receiving pockets, said low side wall marginal flanges being positioned therebe-

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tween, said cover flap receiving pockets being adjacent and between the ends of said supporting ledges, said upper cover section comprising a top portion hingedly secured to said high end wall of said lower body portion, side marginal flaps folded downwardly from said top portion, said side marginal flaps slipping into said cover flap receiving pockets and the ends of said side marginal flaps seating on said supporting ledges, and an end flap folded downwardly from said top portion.

2. A carton comprising a lower bottom section having a bottom portion, two side walls folded upwardly therefrom, one wall having an upper cover section hingedly secured to the upper margin thereof, each of said side walls having side wall marginal flanges thereon, said side wall marginal flanges having cover supporting edges upon the upper margins thereof, and two end walls each having end wall marginal flanges with supporting ledges thereon, said side wall marginal flanges and said end wall marginal flanges being connected along an intermediate diagonal fold line of a length less than the height of either said side walls or said end walls, said end walls being maintained in spaced parallel relation with the adjacent said side wall marginal flanges thereby providing cover flap receiving pockets, said end wall marginal flanges being positioned therebetween, said cover flap receiving pockets being adjacent and between the ends of said supporting ledges, said upper cover section comprising a top portion hingedly secured to said side wall of said lower body portion, said marginal flaps folded downwardly from said top portion, said end marginal flaps slipping into said cover flap receiving pockets, said end marginal flaps having shoulders abutting against said supporting ledges, and a side flap folded downwardly from said top portion, said side flap having tabs secured thereto adapted to be fastened to said end marginal flaps.

3. A carton comprising a lower body section having a bottom portion, two side walls folded upwardly therefrom, one side wall having an upper cover section hingedly secured to the upper margin thereof, each of said side walls having side wall marginal flanges thereon, said side wall marginal flanges having cover supporting edges on the upper margins thereof, and two end walls, each end wall having a low portion at the upper corners thereof, said end walls having low end wall marginal flanges thereon, said side wall marginal flanges and said low end wall marginal flanges being connected along a diagonal fold line, said diagonal fold line being of a length less than the height of the low portion of said end wall, said end walls being maintained in spaced parallel relation with the adjacent said side wall marginal flanges thereby providing cover flap receiving pockets, said low end wall marginal flanges being positioned therebetween, said cover flap receiving pockets being adjacent and between the ends of said supporting ledges, said upper cover section having a top portion hingedly secured to a side wall, end marginal flaps and a side marginal flap folded downwardly from said top portion.

4. A carton comprising a lower body section having a bottom portion, two side walls folded upwardly therefrom, one side wall having an upper cover section hingedly secured to the upper margin thereof, each of said side walls having side wall marginal flanges thereon, said side wall marginal flanges having cover supporting edges

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on the upper margins thereof, and two end walls, each end wall having a low portion at the upper corners thereof, said end walls having low end wall marginal flanges thereon, said side wall marginal flanges and said low end wall marginal flanges being connected along a diagonal fold line, said diagonal fold line being of a length less than the height of the low portion of said end walls, said end walls being maintained in spaced parallel relation with the adjacent said side wall marginal flanges thereby providing cover flap receiving pockets, said low end wall marginal flanges positioned therebetween, said cover flap receiving pockets being adjacent and between the ends of said supporting ledges, said upper cover section having a top portion hingedly secured to a side wall, end marginal flaps and a side marginal flap folded downwardly from said top portion, said end marginal flaps being of substantially the same height as the height as said end walls of said lower body section so that the lower margins of said end marginal flaps rest on the bottom portion of the lower body section.

5. A relatively deep one-piece carton comprising a body section and a hinged cover panel with depending marginal flaps thereon, said body section having a rectangular body panel and a parallel pair of opposing vertical high walls and a parallel pair of opposing vertical low walls, each corner of said body section being provided with an infolded corner member defined by foldable connections to the vertical end edges of the adjacent body walls and defined by a crease line extending diagonally from the lower corner of said infolded corner member and a slit angularly disposed thereto, said slit extending from the end of said crease line to a free edge of said infolded corner member, said crease line being of a length less than the height of either of said foldable vertical adjacent end wall connections, said infolded corner member being secured in flatwise relation to the inner face of said adjacent lower wall, the upper edge of the portion of the infolded corner member which is foldably connected to the vertical end edge of said adjacent low end wall forming a supporting ledge, the portion of the infolded corner member which is foldably connected to the vertical end edge of said high adjacent wall being in spaced parallel relation to the inner face of said low adjacent wall and forming a pocket therebetween, said cover panel marginal flaps depending from the free edges adjacent the hinged portion having a tongue with shoulders on the ends thereof adapted to abut said supporting ledges formed by said corner members, said tongue portion thereof being adapted to be received into said pocket formed by said infolded corner member in a closed position of said carton.

6. The carton set forth in claim 5 wherein both the length of the said infolded corner member crease and the length of said angularly disposed slit are equal to substantially one-half the height of said foldable connection to said lower adjacent wall, said angularly disposed slit terminating at the upper end of the vertical edge of said infolded corner member portion foldably connected to said adjacent lower wall and said supporting ledge is in alignment with the upper edge of said lower wall and said pocket forming portion of said infolded corner member is displaced from said lower adjacent wall by an amount equal to the thickness of the other infolded corner member portions.

7. A relatively deep one-piece carton compris-

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ing a body section and a cover panel with depending marginal flaps thereon, said body section having a rectangular body panel and a parallel pair of opposing vertical side walls and a parallel pair of opposing vertical end walls, each corner of said body section being provided with an infolded corner member defined by foldable connections to the vertical end edges of the adjacent body walls and defined by a crease line extending diagonally from the lower corner of said infolded corner member and a slit angularly disposed thereto, said slit extending from the end of said crease line to a free edge of the infolded corner member, parallel to the end edge of one of the adjacent vertical body walls, said crease line being of a length less than the height of either of said side or end walls, said infolded corner member being secured in flatwise relation to the inner face of the vertical wall whose end edge is parallel to said slit forming a supporting ledge positioned beneath the upper edge of one of said walls, the portion of the infolded corner member which is foldably connected to the vertical end edge of said adjacent wall being in spaced parallel relation to the inner face of said vertical wall and forming a pocket therebetween, said cover panel marginal flaps depending from

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the end edges thereof having a tongue with shoulders on the ends thereof adapted to abut said supporting ledges formed by said corner members, said tongue portion thereof being adapted to be received into said pocket formed by said infolded corner member in a closed position of the carton.

PAUL WASYLUKA.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,135,588	Kendrick	Apr. 13, 1915
2,106,907	Brunt	Feb. 1, 1938
2,199,204	Levkoff	Apr. 30, 1940
2,357,155	Williams	Aug. 29, 1944
2,367,008	Davidson	Jan. 9, 1945
2,419,646	Inman	Apr. 29, 1947
2,471,883	Miessler	May 31, 1949

FOREIGN PATENTS

Number	Country	Date
490,316	Great Britain	Aug. 12, 1938