March 24, 1964 I. S. LIZAN ETAL 3,126,140

COMBINED CARTON AND SEAT

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FIG. 1

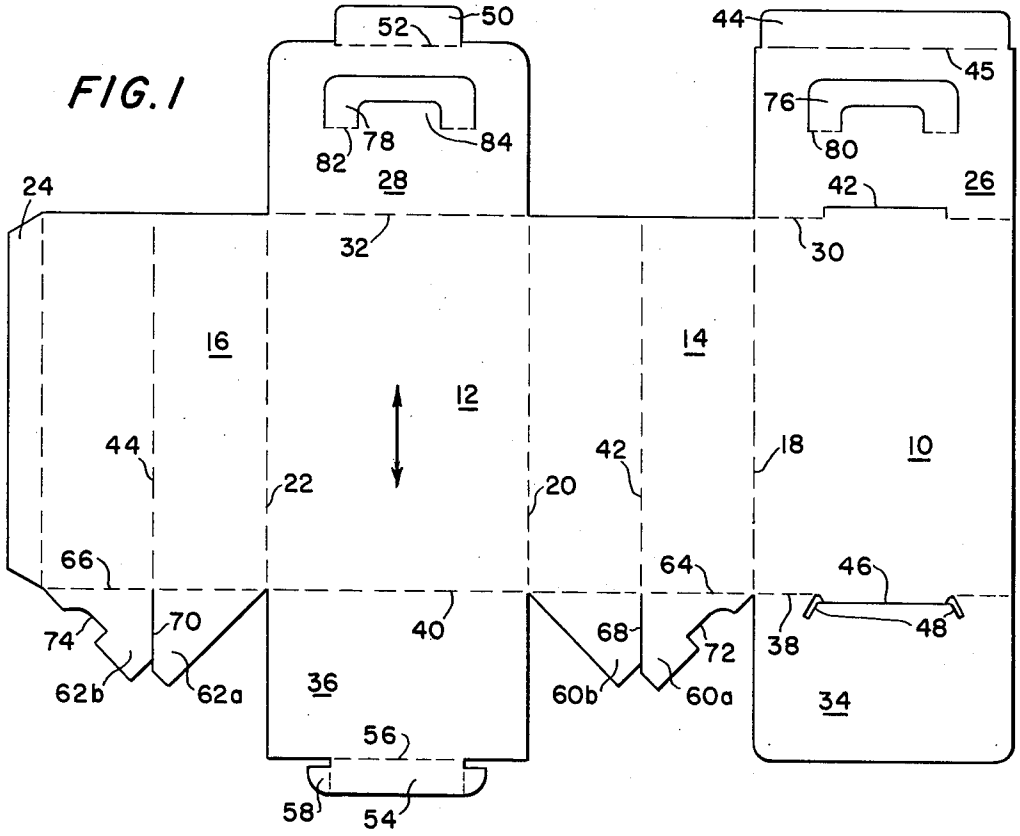


FIG. 2

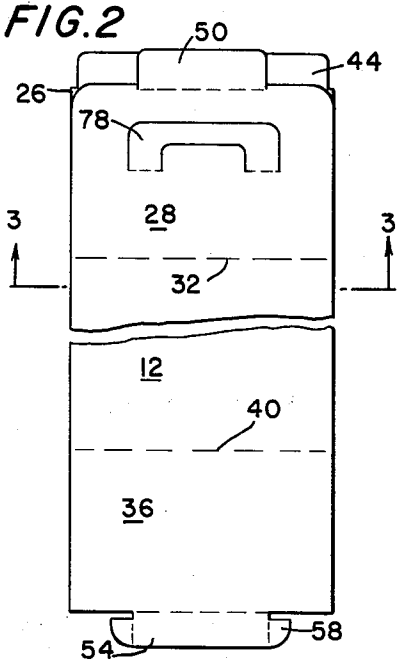


FIG. 3

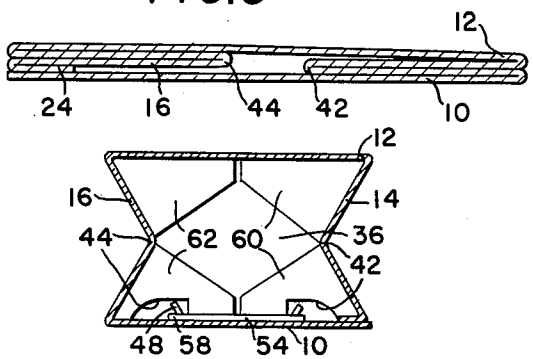


FIG. 9

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FIG. 4

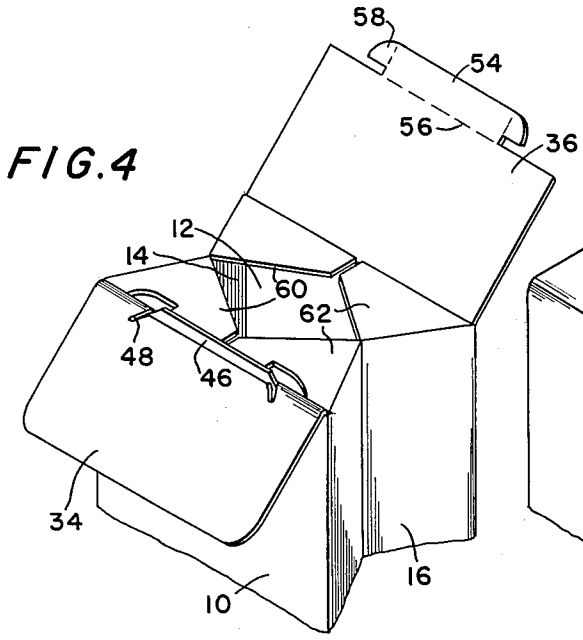


FIG. 5

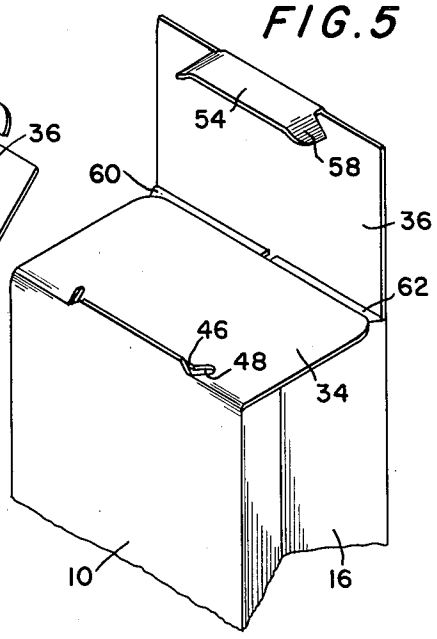


FIG. 6

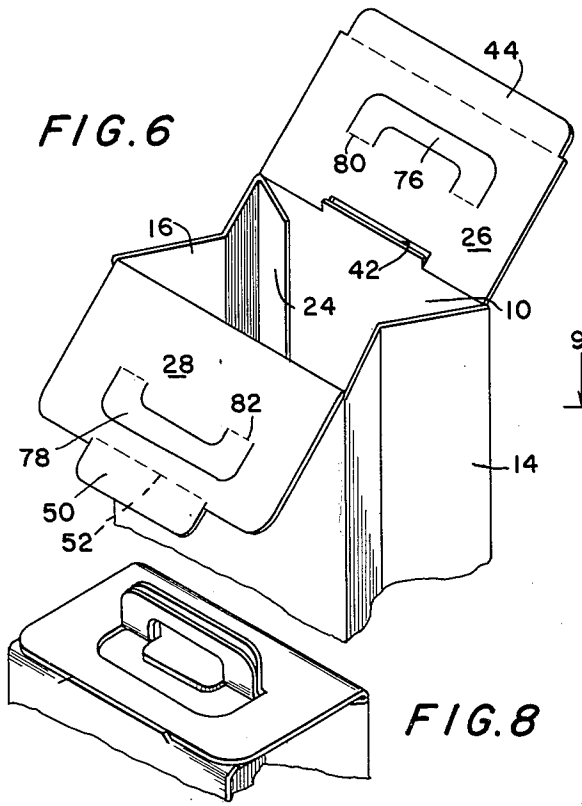
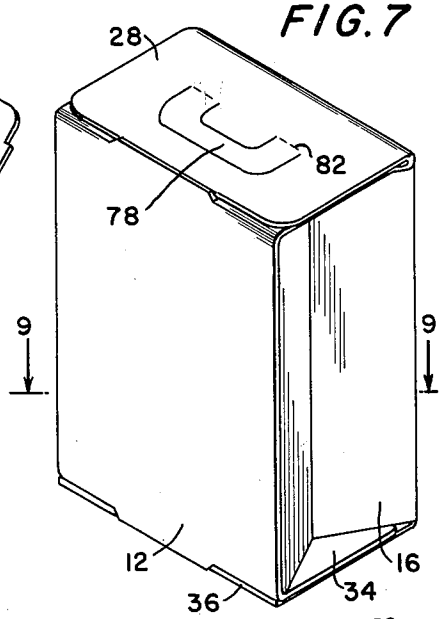


FIG. 8

FIG. 7



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COMBINED CARTON AND SEAT

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8 Claims. (Cl. 229—16)

The present invention relates to a combined carton and seat and, more particularly, to a light-weight combined portable carton and seat.

It is an object of the present invention to provide an article which is of relatively light weight and readily carried by hand, which may serve, both, as a carton and container for articles and also as a body support or seat and is particularly desirable for use by persons attending at places where they may be required to remain for prolonged periods of time and where seats and other necessities or conveniences, such as food, for instance, are not readily available. By way of example, the combined carton and seat of the present invention may be of utmost convenience for persons who are required to stand in a line, for any reason, for prolonged periods of time, or persons who are spectators at sports or other events that take place in the open, such as golf matches, or on picnics.

It is the object of the present invention to provide a combined carton and seat which may be easily and conveniently taken along by a person who may require its use.

It is also an object of the present invention to provide a combined carton and seat, of the character described, which provides ample storage capacity within.

It is another object of the present invention to provide a combined carton and seat, of the character described, which is sufficiently strong and sturdy to support even a heavy person.

It is still another object of the present invention to provide a combined carton and seat, of the character described, which may be collapsed into flat folded position when not in use, for convenient storage, and which may be easily set up for use.

It is a further object of the present invention to provide a combined carton and seat, of the character described, which may be easily and economically mass-produced and may be made available at a relatively low cost.

The foregoing and other objects and advantages of the combined carton and seat of the present invention will become more readily apparent to those skilled in the art from the embodiment thereof shown in the accompanying drawings and from the description following. It is to be understood, however, such embodiment is shown by way of illustration only, to make the principles and practice of the invention more readily comprehensible and without any intent of limiting the invention to the specific details therein shown.

In the drawings:

FIG. 1 is a plan view of a blank from which a preferred embodiment of a combined carton and seat of the present invention may be formed;

FIG. 2 is a plan view of the blank of FIG. 1, shown in glued and flat-folded condition; broken across to indicate indetermined length;

FIG. 3 is a section taken on line 3—3 of FIG. 2;

FIG. 4 is a fragmentary, isometric view of the bottom end of the embodiment of carton seat, shown in a first state of closing the same;

FIG. 5 is a view similar to that of FIG. 4 showing the carton seat bottom in a succeeding stage of closing;

FIG. 6 is a fragmentary, isometric view of the top end of the carton seat preparatory to closing the same;

FIG. 7 is an isometric view of the carton seat taken at an angle of 180° to that of FIG. 6, showing the carton seat as fully closed and set up for use as a seat;

FIG. 8 is a fragmentary, isometric view of the upper portion of the carton, as seen in FIG. 7; with the handle means in position for carrying; and

FIG. 9 is a section taken on line 9—9 of FIG. 7.

Referring now in greater detail to the embodiment of the invention illustrated in the drawings; the same is shown to comprise a section of substantially rigid paper board, such as a relatively, heavy duty corrugated paper board and comprising a rectangular central section scored to provide pairs of alternating panels of even width, including a pair of front and rear panels, 10 and 12, respectively, alternated by a pair of side panels, 14 and 16, respectively; panel 14 being defined from panels 10 and 12 by fold lines 18 and 20, respectively, and panel 16 being defined from panel 12 by fold lines 22. One of the endmost of the four panels, as 16, may be provided at its under edge with a glue flap extension, 24.

Panels 10 and 12 are each provided with top-wall forming panels, 26 and 28, at one end, defined from their respective panels by fold lines, 30 and 32, respectively and with bottom wall forming panels 34 and 36, respectively defined from panels 10 and 12 by fold lines, 38 and 40, respectively.

Each of top and bottom wall forming panels, 26 and 28, and 34 and 36, are of a width equal to the width of the respective front and rear wall panels to which they are attached and of a length or height less than the width of a side wall panel, 14 and 16.

Each of side wall panels 14 and 16 is divided at its longitudinal center into two equal parts, 14*a* and 14*b*, and 16*a* and 16*b*, respectively by fold lines 42 and 44, respectively, formed parallel to and facing in a direction opposite to fold lines 18, 20 and 22. And it may here be said that the blank may be so cut from a continuous strip of corrugated paper board, that the length of panels 10, 12, 14 and 16 and of the fold lines, 18, 20, and 22, defining them from one another run parallel to the corrugation of the board, as indicated by a double-direction arrow in FIG. 1 of the drawings.

Top wall panel 26 is formed with a slit, 42, slightly inwardly from and parallel to folding line 30 and with an outwardly extending tongue, 44, at its outer edge, preferably of slightly lesser width therefrom. Panel 34, is likewise formed with a slit 46, parallel to and slightly inwardly formed with a slit 46, parallel to and slightly inwardly from fold line 38, and at each end of slit 46, with relatively short slots or recesses, 48, extending divergently inwardly into panel 34.

Panel 28 is provided, at its outer edge with a tongue 50 defined from the panel by fold line 52, which is of a width substantially equal to the width of slit 42 in panel 26. Panel 36 is provided, at its outer edge, with a tongue 54 defined therefrom by fold line 56, which is of a width equal to the width of the slit 46 in panel 36. Tongue 54 is provided at each end with projecting ears, 58, of slightly lesser width than tongue 54, and spaced from the outer edge of panel 36 a distance equal approximately to double the thickness of the corrugated board from which the carton seat is formed.

Each of panels 14 and 16 is provided at its bottom edge with an outwardly tapering extension, 60 and 62 respectively, which is generally the shape of an isosceles triangle whose apex may be truncated to reduce its altitude to a height not exceeding one-half of the width of panels 10 or 12. Extensions 60 and 62 are defined from panels 14 and 16 by fold lines, 64 and 66, respectively, facing in the same direction as fold lines 18, 20, and 22 and may be longitudinally divided by cut lines, 68 and 70,

respectively, that are continuous with fold lines 42 and 44, respectively, to divide each of the extensions into two sections each having the general shape of a right angle triangle and designated as 60*a* and 60*b* and 62*a* and 62*b*. Extension section 60*a* and 62*b* which are closest to the adjacent side edges of the blank, are each provided in its diagonal edge with a cutout or recess, 72 and 74, respectively, the purpose for which will hereafter be made clear.

Each of top wall panels 26 and 28 is formed with a struck out section of U-shape, 76 and 78, respectively, in substantially registering relation with one another, whose legs are defined from the panels 26 and 28, respectively, by fold lines, 80 and 82, respectively; the struck-out sections 76 and 78 being adapted to be up-ended along their respective base fold lines to serve as handle portions.

As the initial step in forming the carton seat of the present invention, the blank may be folded on fold lines 18, 20 and 22 and on fold lines 42 and 44, and glue flap 24 adhesively secured to the edge of panel 10, preferably on its inner surface, to form a flat folded and glued body, with panels 14 and 16 inwardly folded, along fold lines 42 and 44, between panels 10 and 12, as shown in FIGS. 2 and 3 of the drawings. In this glued and flat-folded form, the carton seat blank may be stored and shipped at and from the place of manufacture, and also stored at the point of distribution and by the purchasers, until required to be set up for use.

To set up the flat-folded glued blank in readiness for use, walls 10 and 12 may be spread apart. Bottom-wall panel 34 may then be folded over on fold lines 33 across the bottom opening of the set up blank; inwardly folding, at the same time, extensions 60*a* and 60*b*, and 62*a* and 62*b* of panels 14 and 16, which panel 34 will overlie. Thereafter, panel 36 is folded over panel 34 and tongue 54 offset along fold line 56 and inserted into slit 46; its ears 58 being bent at an angle thereto to pass through slots 48. It will be seen that clearance recesses 72 and 74 on extensions 60*a* and 62*b* will afford clearance for ears 58 and permit them to return and remain in substantial alignment with the tongue 54, to overlie the marginal edge portion of the slot 48 and lock panel 36 in place on panel 34 to form a securely closed bottom wall for the carton seat which, being of double ply, will be strong and sturdy.

The top end of the carton seat may be closed by first folding the top panel 26 across the top opening of the set up carton and tongue 44 to offset along fold line 45 and inserted into the opening of carton. Thereafter, top wall panel 28 is folded over panel 26 and tongue 50 offset on fold line 52 and inserted into slit 42 of panel 26.

It will be apparent that because panels 12 and 14 are of greater width than the parallel side edges of panels 26, 28, 34, and 36, they will remain partially folded along the fold lines 42 and 44 and their sections will extend diagonally into the space between panels 10 and 12, and their top and bottom edges will engage respectively panels 26 and 34 on the inside of the carton, and the wall section 14*a* and 14*b* and 16*a* and 16*b* will form reinforcing braces between the top and bottom walls of the carton, so that together with panels 10 and 12 they will support the weight of a person resting on the top or bottom walls of the carton, either of which may serve as a seat.

It will be seen that when panels 26 and 28 are folded across the top opening of the carton, handle members 76 and 78 will be disposed in oppositely facing directions with the fold lines 80 and 82 at their respective bases being in substantial register. To set up sections 76 and 78 to serve as a handle, panel 28 may be up-ended; handle section 76 of panel 26 may then be raised from horizontal position and slightly rearwardly tilted along fold line 80, in the direction of panel 10. Handle section 78 may then be likewise outwardly offset along fold lines 82. Panel 28 may then be moved back into closed position at the same time inserting the tongue 84 defined between the legs of handle section 78 through the space between legs of handle section 76, the latter being inserted through the opening in panel 28 formed by the up-ending of handle section 78 and the tongue 54 is then reinserted into the slit 42. By this procedure handle sections 76 and 78 project uprightly from the top wall of the carton in juxtaposed relation for their combined use as a handle.

The handle sections, 76 and 78 may at any time thereafter be flat folded against the top wall, to permit the latter to be used as a smooth body supporting surface of the seat. It will be readily understood, since the carton seat of the invention is set up from the flat folded and glued blank without the use of any gluing and without the use of extraneous attaching means, that it may be collapsed and restored to flat-folded position, whenever desired, to be stored in such compact state until another occasion for its use arises.

This completes the description of the carton seat of the present invention, of the blank from which it is formed and of the manner in which it may be set up. It will be readily apparent that such carton seat affords great convenience for its user; being capable of compact storage when not in use; being of light weight for carrying and yet sufficient sturdy and rigid to support the weight of a person and being collapsible into compact state when not in use.

It will also be apparent that numerous variations and modifications may be made in the carton seat of the present invention and in the blank from which it is formed, by anyone skilled in the art, in accordance with the principles of the invention hereinabove set forth and without the exercise of any inventive ingenuity. We desire, therefore, to be protected for any and all such modifications and variations that may be made within the spirit of the invention and the scope of the claims hereto appended.

What we claim is:

1. A portable and collapsible combined carton and seat, of the character described, comprising a first pair of upright wall sections; a bottom wall section; and a top wall section, said top and bottom wall sections each comprising a pair of overlapping panels, each said panel hingedly connected by one edge to an edge of one of said first pair of upright wall sections; means releasably interengaging said top and bottom wall section forming panels in overlapping relation; and a second pair of upright wall sections, each of said second pair of upright wall sections comprising a pair of upright wall portions disposed at an angle to one another and extending inwardly into the space between said top and bottom wall sections, each of said upright wall portions hingedly connected by one upright edge to an upright edge of the adjacent wall portion and hingedly connected by its other upright edge to the adjacent upright edge of one of said first-named pair of upright wall sections, each said upright wall portion being of a width not exceeding one half the width of a wall section of said first pair of upright wall sections; said top wall section panels and said bottom wall section panels each of a length less than the width of one of said second pair of wall sections; and handle means provided on said top wall section and foldable thereagainst.

2. A portable and collapsible combined carton and seat, of the character described, comprising a first pair of upright wall sections; a bottom wall section; and a top wall section; said top and bottom wall sections each comprising a pair of overlapping panels, each said panel hingedly connected by one edge to an edge of one of said upright wall sections, means releasably interengaging said top and bottom wall forming panels in overlapping position, and a second pair of wall sections each comprising a pair of upright wall portions disposed at an angle to one another and extending inwardly into the space between said top and bottom wall sections; each of said upright wall portions hingedly connected by one upright edge to an upright edge of the adjacent wall portion and hingedly connected by its other edge to the adjacent upright edge of

one wall section of said first pair of upright wall sections; each of said upright wall portions provided with an extension hingedly connected with the full width of its bottom edge extending inwardly and overlapping a bottom wall section panel; said top wall section panels and said bottom wall section panels each of a length less than the width of one of said second pair of wall sections; and handle means provided on said top wall section and foldable thereagainst.

3. A portable and collapsible combined carton and seat, of the character described, comprising a first pair of upright wall sections, a bottom wall section and a top wall section each said top and bottom wall sections comprising a pair of overlapping panels, each said panel hingedly connected by one edge to an edge of one of said upright wall sections; means releasably interengaging said top and bottom wall forming panels in overlapping position; and a second pair of upright wall sections, each of said second pair of wall sections comprising a pair of upright wall portions disposed at an angle to one another and extending inwardly into the space between said top and bottom wall sections, each of said upright wall portions hingedly connected by one upright edge to an upright edge of the adjacent wall portion and hingedly connected by its other upright edge to the adjacent upright edge of one wall section of said first pair of upright wall sections; each said upright wall portion being of a width not exceeding one half of the width of one wall section of said first pair of wall sections, and each of said upright wall portions provided with an extension hingedly connected with the full width of its bottom edge and extending inwardly and overlying a bottom wall section panel; said top wall section panels and said bottom wall section panels each of a length less than the width of one of said second pair of wall sections; and handle means provided on said top wall section and foldable thereagainst.

4. The combined carton and seat of claim 1, wherein said handle means is flat foldable and integrally formed with said top wall section.

5. The combined carton and seat of claim 3, wherein the means releasably interengaging the panels of said bottom wall section in overlapping relation comprise a tongue hingedly connected to the edge of one of said panels, said tongue having a laterally extending ear at each end thereof, and a slit formed at the base of the other of said panels adapted to receive said tongue, a slot formed at each end of said slit, each said slot extending divergently inwardly into said panel, said tongue extending into said slit and said ears each extending through one of said slots and engaging a marginal inner edge portion of said slot and a clearance recess formed in the marginal edge portion of each said hinged extension facing the adjacent one of said one pair of wall sections, in position to permit the insertion therethrough of one of said ears.

6. A blank for a portable and collapsible combined carton and seat, comprising a fiberboard body cut and scored to provide four panel sections defined from one another by scored fold lines facing in the same direction, and a glue tab at the edge of one of said panels, a substantially rectangular extension at each end of alternate of said panels, said extensions each defined from said panels by a scored fold line facing in the same direction as the fold lines defining said panels from one another, the other two of said panels each being of a width not exceeding the width of one of said alternate panels and formed with a fold line extending lengthwise thereof at its midpoint and facing in the direction opposite to the fold lines defining said panels from one another; said panel extensions each being of a length less than the width of one of the other two of said panels; the extensions of the panels at one end of said blank each having a U-shaped handle member struck out therefrom in position to have the handle member on one of said extensions register with the opening formed by the erection of the handle member on the other of said extensions to project therethrough when said extensions are overlapped and said handle members are erected.

7. A blank for a portable and collapsible combined carton and seat, comprising a fiberboard body cut and scored to provide four panel sections defined from one another by scored fold lines facing in the same direction, and a glue tab at the edge of one of said panels, a substantially rectangular extension at each end of alternate of said panels, said extensions each defined from said panels by a scored fold line facing in the same direction as the fold lines defining said panels from one another, the other two of said panels each being of a width not exceeding the width of one of said alternate panels and formed with a fold line extending lengthwise at its midpoint and facing in the direction opposite to the fold lines defining said panels from one another, the part of each of the others of said panels to each side of its said fold line provided with an extension at one free edge thereof extending the full width of said edge and defined therefrom by a fold line facing in the same direction as said fold lines defining said panels from one another; said panel extensions each being of a length less than the width of one of the other two of said panels; the extensions of the panels at one end of said blank each having a U-shaped handle member struck out therefrom in position to have the handle member on one of said extensions register with the opening formed by the erection of the handle member on the other of said extensions to project therethrough when said extensions are overlapped and said handle members are erected.

8. The portable and collapsible combined carton and seat of claim 1, wherein said handle means comrises a U-shaped handle member struck out from each of the panels of said top wall section; the handle member of the innermost of said overlapping top wall panels erectable through the opening in the outermost of said overlapping top wall panels formed by the erection of the handle member struck therefrom.

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