Oct. 4, 1966 J. VESAK 3,276,660

FRUIT BASKET AND HANDLE

Filed March 30, 1965 3 Sheets-Sheet 1

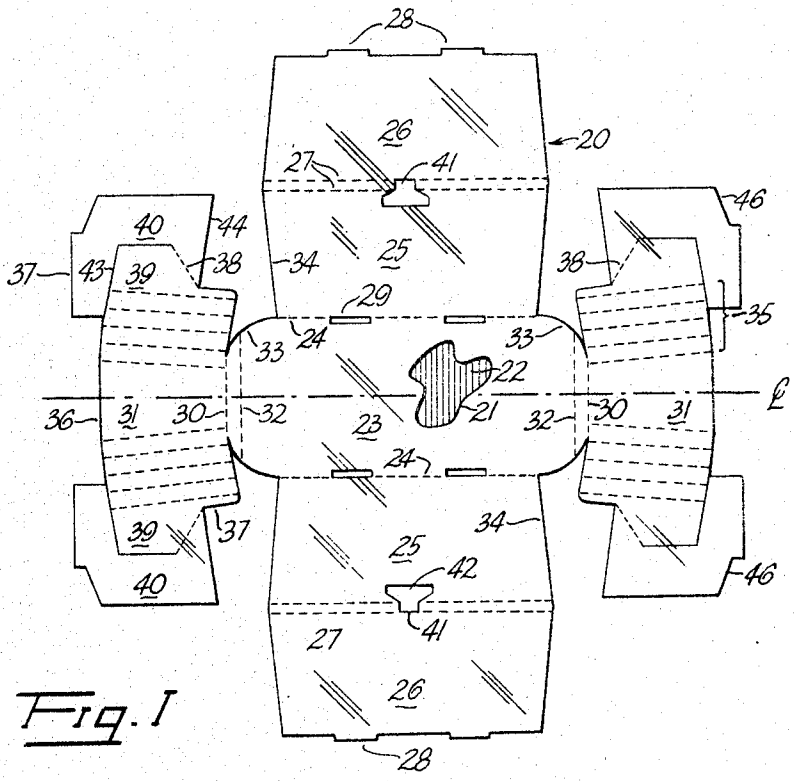


Fig. 1

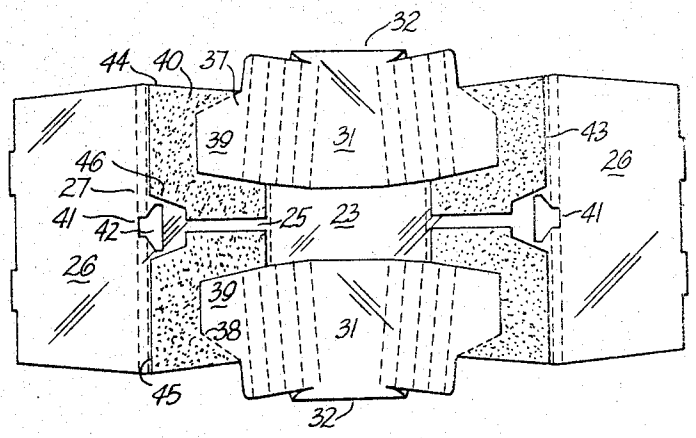


Fig. 2

INVENTOR:
JOSEPH VESAK
BY Robert W. Brubaker
AGENT

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FRUIT BASKET AND HANDLE

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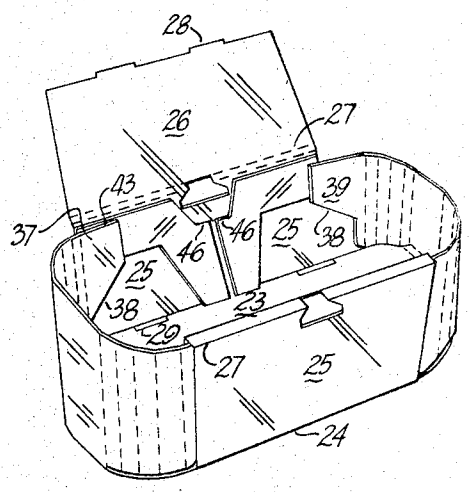


Fig. 3

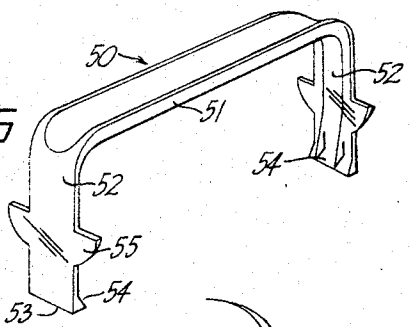


Fig. 5

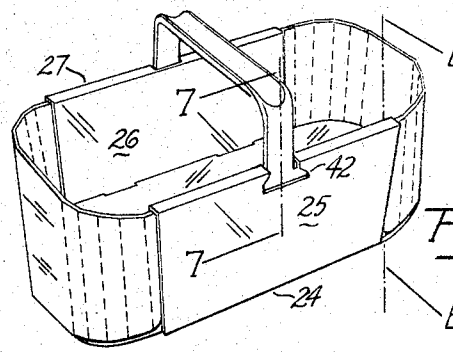


Fig. 4

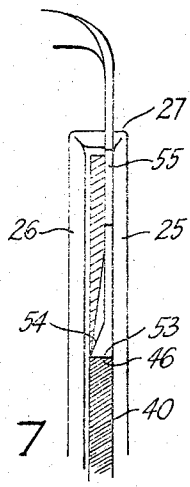


Fig. 7

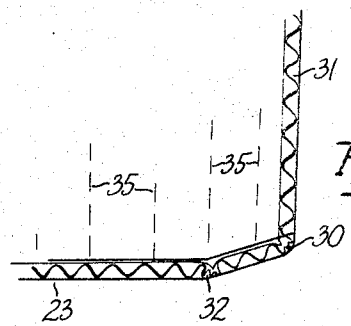


Fig. 6

INVENTOR:
JOSEPH VESAK
BY Robert W. Brukardt
AGENT

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FRUIT BASKET AND HANDLE

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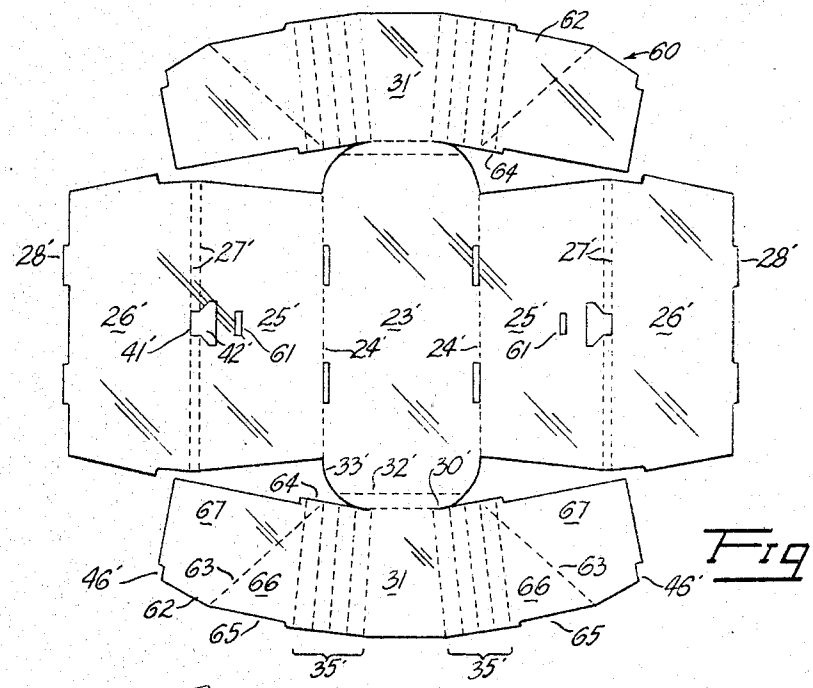


Fig. 8

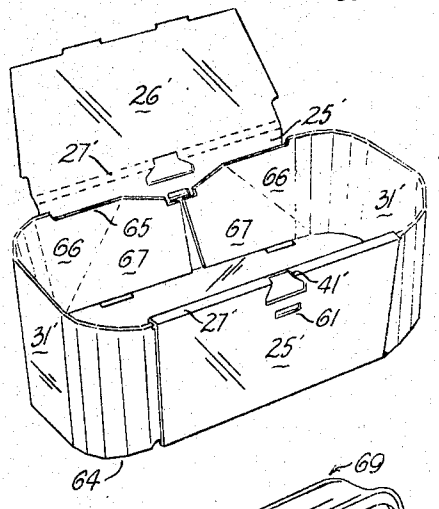


Fig. 9

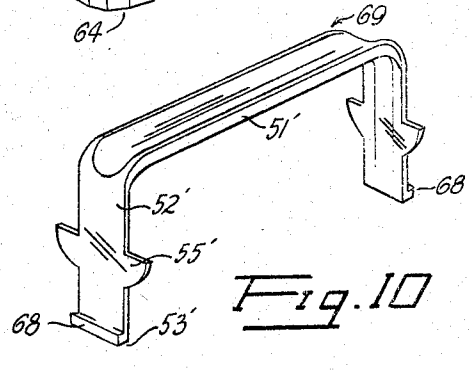


Fig. 10

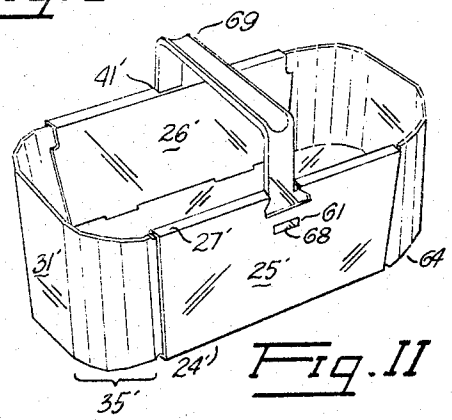


Fig. 11

INVENTOR:
JOSEPH VESAK
BY Robert W. Brukardt
AGENT

United States Patent Office

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FRUIT BASKET AND HANDLE

Joseph Vesak, Richmond, British Columbia, Canada, assignor to Crown Zellerbach Canada Limited, Vancouver, British Columbia, Canada, a corporation of British Columbia

Filed Mar. 30, 1965, Ser. No. 443,914
13 Claims. (Cl. 229—34)

This invention relates to open top baskets with handles and more particularly to collapsible baskets formed from foldable blanks of corrugated paperboard or the like and having handle members that releasably engage the basket walls.

Many types of open top baskets with handles have been in commercial usage for marketing fresh fruits, vegetables and other commodities. A common type is the wood splint basket which is necessarily assembled during manufacture and is not thereafter collapsible for storage or shipment to the user. Such wood baskets are formed with upwardly and outwardly flaring walls with curved end wall portions.

In recent years corrugated fibreboard baskets have come into usage as they provide advantageous cushioning for the packaged articles and may be attractively printed. Such fibreboard baskets have generally been of rectangular conformation. Heretofore fibreboard baskets, having curved end portions and upwardly and outwardly flaring walls similar to the traditional wood baskets, have been of an unduly complicated manufacture or assembly and have generally required the user to utilize fastening means such as stitches to secure the basket in an erected condition and attach the handle thereto.

The present invention constitutes an improvement in the art in providing a basket formed from a unitary blank which may be readily erected by the user without the use of extraneous tools or materials and further provides for the releasable attachment of a semi-rigid but resilient handle member which securely engages the basket walls also without the use of extraneous securing means. More particularly, the invention provides a basket construction having double panel thickness opposed side walls foldably connected to respective side edges of the basket bottom panel with the paired panels in each side wall connected to each other along a top fold line and wherein said side wall paired inner and outer panels are each spaced apart by extensions of the basket curved end walls which are interposed therebetween spacing the same to facilitate insertion of the handle member through suitable openings provided in the beforementioned top fold connection. The securement of the end wall extensions to the side walls positions and maintains the end walls in their erected curved condition. All of the above is accomplished with a heretofore unrealized simplicity of manufacture of the collapsed basket, and of erection of the same to basket form.

In the drawings which illustrate embodiments of the invention:

FIGURE 1 is a plan view of a foldable blank embodying the invention;

FIGURE 2 is a plan view of the blank shown in FIGURE 1 after the same has been folded and secured together in the collapsed carton formation;

FIGURE 3 is a perspective view of a basket in an intermediate stage of assembly;

FIGURE 4 is a perspective view of a completely erected basket with handle member attached;

FIGURE 5 is a perspective view of the handle member used with the basket construction shown in FIGURES 1 through 4;

FIGURE 6 is a partial cross-section through lines 6—6 of FIGURE 4;

FIGURE 7 is a partial cross-section through lines 7—7 of FIGURE 4;

FIGURE 8 is a plan view of a blank disclosing a further embodiment of the invention;

FIGURE 9 is a perspective view of a partially erected basket formed from the blank of FIGURE 8;

FIGURE 10 is a perspective view of a handle member used with the basket construction shown in FIGURES 8, 9 and 11;

FIGURE 11 is a perspective view of the basket of FIGURE 9 completely erected and with the handle member attached.

In FIGURE 1 is a plan view of the inner surface of the blank **20** with fold lines represented by dotted lines in the drawings and solid lines indicating cut lines or edges. The fold lines may be either lines of scoring or lines of perforations to precisely determine the folds utilized in the erection of the basket. In the drawing, the inner facing of the blank is cut away at **21** to disclose the corrugations **22** and their preferred orientation in respect to the blanket to facilitate erection of the basket. It is to be noted that the blank is symmetrical about both longitudinal and transverse center lines and consequently the reference numerals are not necessarily repeated on repetitive structural features.

The blank comprises a bottom panel **23** with side edges determined by fold lines **24** which further serve as the connection of the outer side wall panels **25**. Inner side wall panels **26** are foldably connected to the upper edges of the respective outer side wall panels **25** by top folds constituted by spaced apart parallel lines of scoring **27**. Locking tabs **28** extend from the bottom edges of the inner side wall panels **26** in alignment with the corresponding slots **29** in the bottom panel adjacent to the fold lines **24** or other suitable tab engaging means. The fold connections **30** integrate the end wall portions of the blank to the bottom and side wall portions affording a unitary construction. The bottom panel **23** may be further provided with collapsing scores **32** in parallel spaced apart relation to the end edges **30** of the bottom panel. Curved free end edges **33** of the bottom panel **23** extend longitudinally outwardly from the intersection of the end edges **34** of the side wall panels **25** with the bottom panel **23**.

The end wall **31** portions of the blank **20** include a multiplicity of fold lines **35**, preferably perforated score lines, arranged on either side of the longitudinal center line of the blank **20** as shown in FIGURE 1. The individual fold lines in each grouping on either side of the medial line are preferably in respective parallel relation to each other but diverge outwardly from the medial line towards the free top edge **36** of the end walls. End wall extensions **37** are foldably connected to the remote one of the fold lines **35** in each grouping. The end wall extensions **37** include a reflex fold line **38** dividing said end wall extensions into first and second sections **39** and **40**. The end wall extensions **37** are proportioned in a manner hereinafter described to permit their disposition intervening the outer and inner side wall panels **25** and **26** in the erected condition of the basket. Further detail as to the conformation and inter-relation of parts of the blank will be described in greater detail hereinafter in relation to the basket structure itself.

FIGURE 2 shows a further stage of the manufacture of the collapsed basket wherein the end walls **31** and extensions thereof **37** are infolded about the collapsing scores **32** in the bottom panel into flatwise relation with the interior surface of the carton blank **20** in juxtaposition with the bottom panel **23** and the outer side wall panels

25. The second sections 40 of the end wall extensions 37 are preferably adhesively secured, as indicated by stipuled area in the drawing, to the inner surface of the side wall outer panels 25 with the end edges 44 in alignment with the underlying end edge 34, not shown, of the outer side wall panels 25 and with the second section top edges 45 in closely aligned relationship with the side wall top scores 27 whereby an abutting relationship will be gained in the erected condition of the basket. The said second sections are also provided with a recess defined by edges 46 adjacent the handle slots 41. The handle slots 41 extend into the top fold area extending between the spaced apart lines of scoring 27 and extend downwardly into the outer side wall panel 25 providing a broadened trapezoidal shaped slot portion 42.

To erect the basket from the collapsed condition shown in FIGURE 2, it is merely necessary to raise the end walls 31 upwardly and outwardly until the side wall outer panels 25 attain the desired upright relation as shown in FIGURE 3. In this position the first section 39 top edges 43 are disposed adjacent the side wall top fold 27. The inner side wall panels 26 are then folded downwardly and inwardly about the top edge scores 27 until the locking tabs 28 seat in the corresponding openings 29 in the basket bottom panel 23. The end wall extensions 37 are thus folded about the reflex fold line 38 whereby the first and second sections 39–40 thereof are disposed in mutual flatwise relation intervening the respective outer and inner side wall panels 25 and 26 providing a double thickness spacing therebetween which spacing is further provided for in the spacing of the respective paired parallel scores 27 constituting the top fold connection of these panels.

The handle member 50 shown in FIGURE 5 may be formed from a rigid but resilient material which may be a plastic such as polystyrene, polyethylene, polypropylene and comprises a horizontal handle gripping portion 51 extending transversely of the basket and spanning the distance between the side walls. The end posts 52 support the ends of the gripping portion 51 and terminate in bottom ends 53 having lug members 54 inwardly projecting in the plane of the handle member. Intermediate the vertical height of the end posts 52 are extending wings 55. The handle member 50 may be readily inserted in the handle slots 41 due to its resilient construction and the resilient construction of the basket side walls whereby the wings 55 may be passed through the enlarged side wall portion 42 of the handle slots until the end posts bottom ends 53 and lugs 54 abut the end wall extension recess edges 46 whereby the handle is securely maintained against accidental dislodgement and vertical movement by the beforementioned bottom end abutment with the recess edges 46, as best shown in FIGURE 7 and the abutment of the top edges of the wings 55 with the side wall top fold 27. The container is then fully erected as shown in FIGURE 4.

FIGURE 6 is a cross-section through lines 6—6 of FIGURE 4 and illustrates that the collapsing scores 32 are operative only during the collapsed condition of the basket and serves the important function of permitting conformation of the end wall in preferred outwardly flared rounded contour.

FIGURES 8 through 11 inclusive disclose a further embodiment of the invention.

The blank 60 in FIGURE 8 shows the further embodiment of the invention with portions of the structural arrangement corresponding to FIGURE 1 being indicated by like reference numbers distinguised by prime marks for the sake of simplicity and the avoidance of unnecessary duplication of description. In this embodiment, handle locking slots 61 are positioned in each outer wall panel 25′ in alignment with the handle slots 41′. These slots are of a size and conformation to accommodate extending lugs of a handle member to be described hereinafter.

A principal deviation in the structural features of blank 60 in contract to blank 20 of FIGURE 1 resides in the end wall extensions 62. Here the reflex fold line 63 extends from bottom edge 64 to top edge 65 and foldably connect the end wall extension first section 66 and second section 67 throughout their adjacent extent. Accordingly, to form a collapsed basket, it is necessary to fold the end wall extensions 62 along the reflex fold lines 63 so that the second sections 67 overlie the respective connected first sections 66 and adjacent portions of end wall 31′ included between the multiplicity of fold lines 35′. The end walls 31′ and folded extensions 62 are then infolded about the collapsing scores 32′ in the bottom panel into flatwise relation with the interior surface of the bottom panel 23′ and outer side wall panels 25′ and the second sections 67 adhesively secured to the contacting portions of the outer side wall panels 25′.

The basket is then erected to the upstanding wall formation, as shown in FIGURE 9, by raising the end walls 31′ upwardly and outwardly. The basket formation is then completed by infolding the inner side wall panels 26′ all in the manner previously described.

The handle member 69 shown in FIGURE 10 substantially conforms to the hereinbefore described handle construction except that the extending lugs 68 project outwardly from the handle end posts 52′. Thus the end posts are inwardly deflected for insertion through the handle slots 41′ and thus, due to the tension arising from the resilience of the handle gripping portion 51′ and end posts 52′, the extending lugs 68 snap into locking engagement in the respective handle locking slots 61 in the outer side wall panels 25′. The extending lugs 68 and handle locking slots 61 are shown as being of rectangular shape and cooperatively sized to permit the snap-in engagement but the shape may be obviously altered as long as there is a cooperative association whereby the handle is restrained from vertical or lateral movement by the locking engagement under spring tension of the extending lugs and the confinement of the end posts in the top fold handle slots 41′ as shown in the completed basket FIGURE 11.

An optional feature, best shown in FIGURES 8 and 9, is the downward projection of end wall bottom edges 64 in the region of the curved end wall portions determined by the groups of fold lines 35′. As the end walls 31 are raised in erecting the basket, the edge projections 64 automatically come into abutting engagement with the free edge curved portions 33′ of the bottom panel 23′.

It is also noted that the collapsing scores 32 or 32′ are optional but afford the advantage of permitting a preferred curved and upwardly-outwardly flaring contour of the end walls 31–31′ despite the fact that the end wall extension second sections may be permanently secured in the flat collapsed condition of the basket to the outer side wall panels 25–15′ and the reflex fold lines 38 or 63 in the embodiments disclosed are spaced inwardly from the respective side wall panel end edges 34 and in acute angular relation to the subjacent portion of the bottom panel 23–23′ in the erected condition of the basket.

In the claims:

1. A collapsible open top basket with an interengaging handle, the basket having upwardly and outwardly flaring walls with curved end portions, the basket formed from a foldable blank and comprising a bottom panel with longitudinal side edges defined by fold lines and curved free edge end portions, side walls connected to the bottom panel longitudinal edges by the fold lines and having inner and outer panels with a top fold connection therebetween, end walls with a multiplicity of scores therein extending between free top and bottom edges and substantially conforming to the bottom panel curved end edges, end wall extensions foldably connected to the remote ones of the multiplicity of scores, said end wall extensions each having reflex scores therein determining first and second sections thereof folded to mutual flat-

wise relation in collapsing and erecting the basket, the end wall extensions each being disposed intervening the side wall inner and outer panels in secured relation therewith, a handle slot in each side wall top fold, a handle member with a gripping portion extending transversely of the basket and end posts extending through the handle slots with bottom ends of the end posts between the side wall inner and outer panels, extending lugs on the end posts in the plane defined by the handle gripping portion and end posts, said extending lugs abutting free edges in the walls to restrict the handle against vertical movement.

2. A collapsible basket according to claim 1 wherein the end wall extension second sections are each secured to the inner face of the adjacent outer side wall panel.

3. A collapsible basket according to claim 1 wherein the said first and second sections are in mutual flatwise relation providing a double thickness spacing between the side wall inner and outer panels, the side wall top folds each being determined by a pair of parallel scores providing for the spacing and facilitating the handle insertion and disposition.

4. A collapsible basket according to claim 1, wherein the handle member extending lugs project inwardly, a recessed edge in the second sections of the end wall extensions, said recessed edges disposed adjacent the handle slots, the handle member end posts bottom ends and lugs abutting said recessed edges whereby the handle is restrained against vertical movement.

5. A collapsible basket according to claim 1, wherein the handle member extending lugs project outwardly, handle locking slots disposed in the outer side wall panels in vertical alignment with the respective top fold handle slots, the rigid, resilient handle member under tension with the extending lugs disposed in the respective locking slot, the handle being restrained from vertical or lateral movement by the locking engagement under spring tension of the extending lugs and the confinement of the end posts in the top fold handle slots.

6. A collapsible basket according to claim 1, wherein the reflex scores are spaced inwardly from end edges of the side wall panels throughout at least a major portion of the reflex score length.

7. A collapsible basket according to claim 1, wherein the reflex scores are spaced inwardly from end edges of the side wall panels throughout at least a major portion of the reflex score length and said reflex scores are disposed in acute angular relation to the subjacent portion of the bottom panel.

8. A collapsible basket with an interengaging handle, the basket having upwardly and outwardly flaring walls with curved end portions, the basket formed from a foldable blank and comprising a bottom panel with longitudinal side edges defined by fold lines and curved free edge end portions, side walls connected to the bottom panel longitudinal edges by the fold lines and having inner and outer panels with a top fold connection therebetween, end walls with a multiplicity of scores therein extending between free top and bottom edges and substantially conforming to the bottom panel curved end edges, end wall extensions foldably connected to the remote ones of the multiplicity of scores, said end wall extensions each having reflex scores therein determining first and second sections thereof folded to mutual flatwise relation in collapsing and erecting the basket, the end wall extensions each being disposed intervening the side wall inner and outer panels in secured relation to the respective side wall outer panel, a pair of collapsing scores are each disposed in the bottom panel in parallel spaced relation to a respective bottom panel end fold connection to the basket end walls, a handle slot in each side wall top fold, a handle member with a gripping portion extending transversely of the basket and end posts extending through the handle slots with bottom ends of the end posts between the side wall inner and outer panels, extending lugs on the end posts in the plane defined by the handle gripping portion and end posts, said extending lugs abutting free edges in the walls to restrict the handle against vertical movement.

9. A collapsible basket according to claim 8 wherein the said first and second sections are in mutual flatwise relation providing a double thickness spacing between the side wall inner and outer panels, the side wall top folds each being determined by a pair of parallel scores providing for the spacing and facilitating the handle insertion and disposition.

10. A collapsible basket according to claim 8 wherein the handle member extending lugs project inwardly, a recessed edge in the second sections of the end wall extensions, said recessed edges disposed adjacent the handle slots, the handle member end posts bottom ends and lugs abutting said recessed edges whereby the handle is restrained against vertical movement.

11. A collapsible basket according to claim 8 wherein the handle member extending lugs project outwardly, handle locking slots disposed in the outer side wall panels in vertical alignment with the respective top fold handle slots, the rigid, resilient handle member under tension with the extending lugs disposed in the respective locking slot, the handle being restrained from vertical or lateral movement by the locking engagement under spring tension of the extending lugs and the confinement of the end posts in the top fold handle slots.

12. A collapsible basket according to claim 8 wherein the reflex scores are spaced inwardly from end edges of the side wall panels throughout at least a major portion of the reflex score length.

13. A collapsible basket according to claim 12 wherein said reflex scores are disposed in acute angular relation to the subjacent portion of the bottom panel.

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JOSEPH R. LECLAIR, *Primary Examiner.*

D. T. MOORHEAD, *Assistant Examiner.*