March 24, 1942. J. V. HORR 2,277,403

COLLAPSIBLE CARDBOARD BASKET

Filed May 9, 1941 5 Sheets-Sheet 1

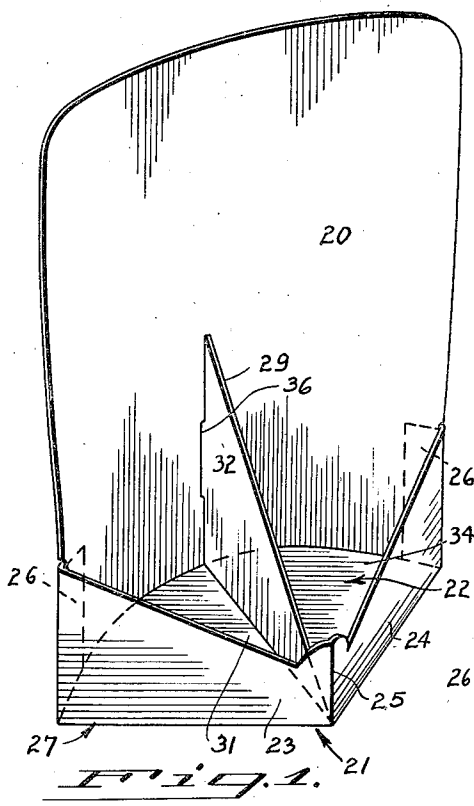


Fig. 1.

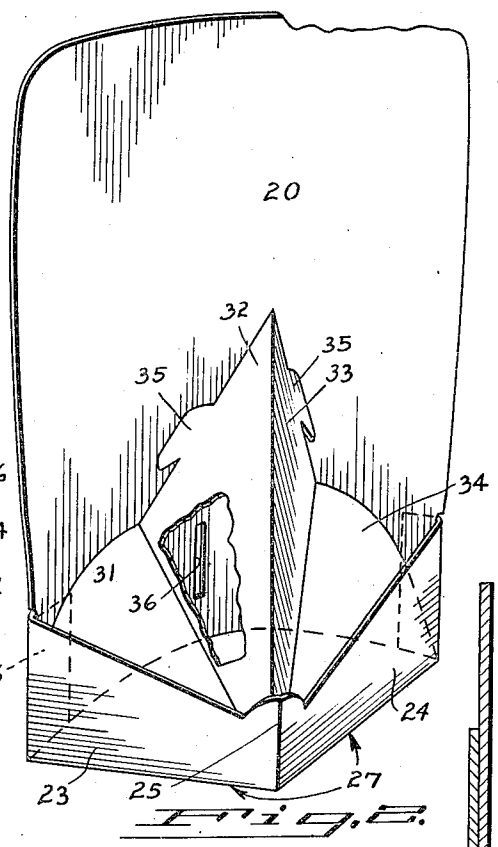


Fig. 2.

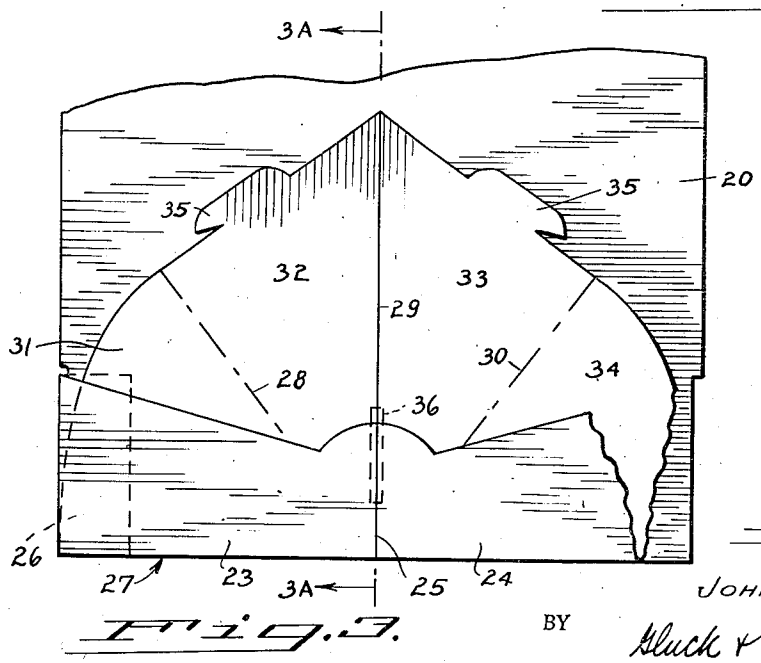


Fig. 3.

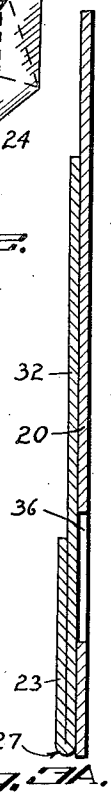


Fig. 3A.

INVENTOR.
JOHN V. HORR.

BY Gluck & Breitenfeld
ATTORNEYS.

March 24, 1942. J. V. HORR 2,277,403

COLLAPSIBLE CARDBOARD BASKET

Filed May 9, 1941 5 Sheets-Sheet 2

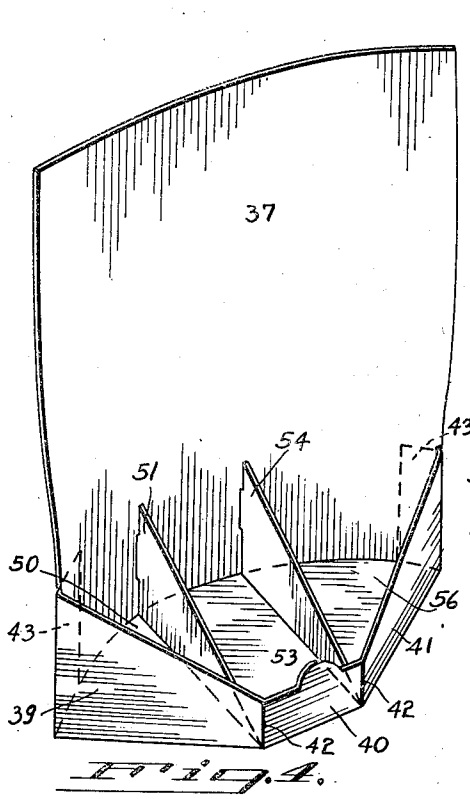


Fig. 4.

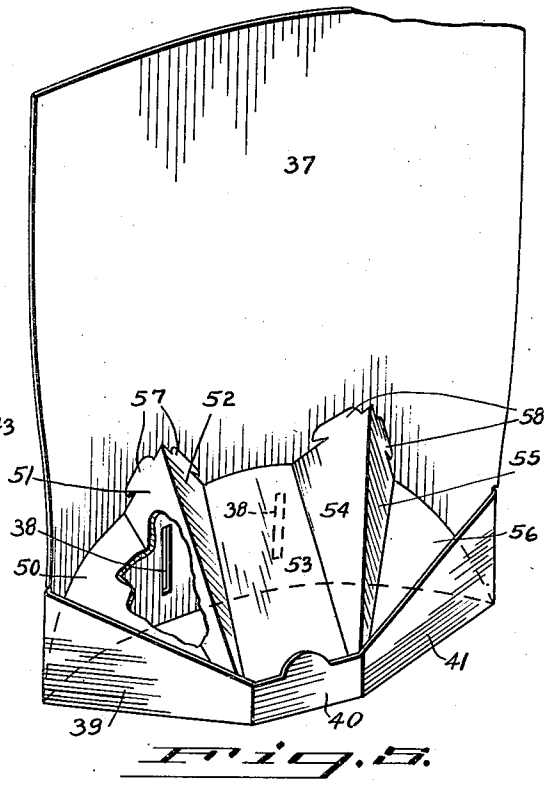


Fig. 5.

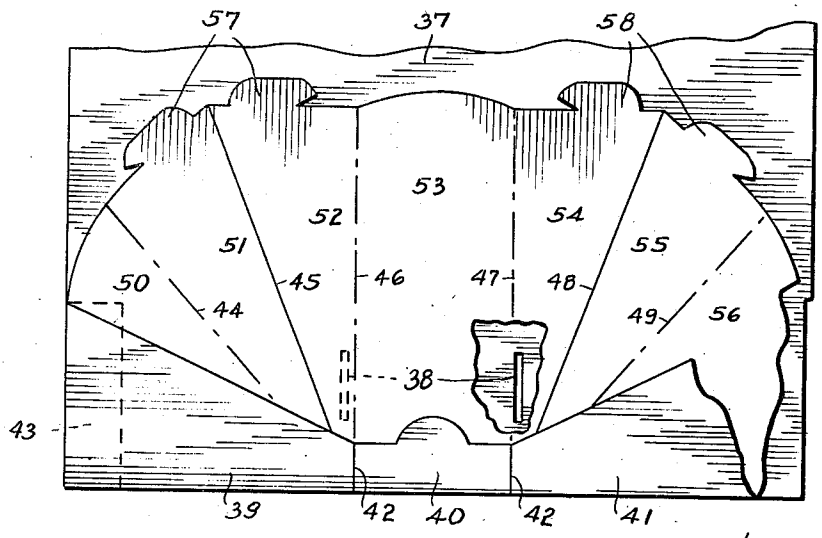


Fig. 6.

INVENTOR.
JOHN V. HORR.

BY Kluck & Breitenfeld
ATTORNEYS.

March 24, 1942. J. V. HORR 2,277,403

COLLAPSIBLE CARDBOARD BASKET

Filed May 9, 1941 5 Sheets-Sheet 3

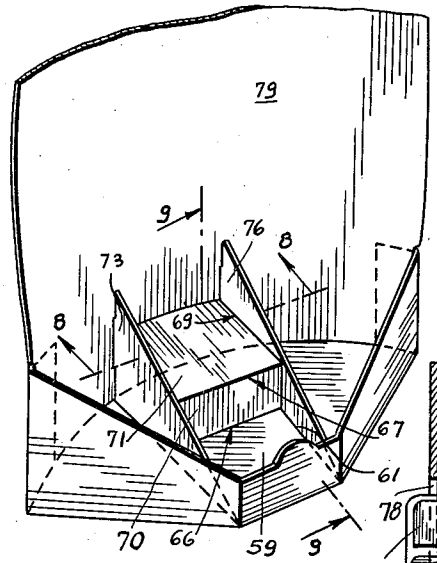


Fig. 7.

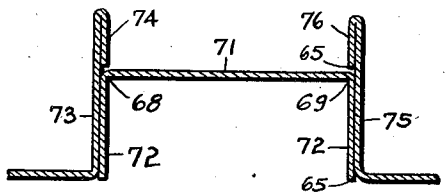


Fig. 8.

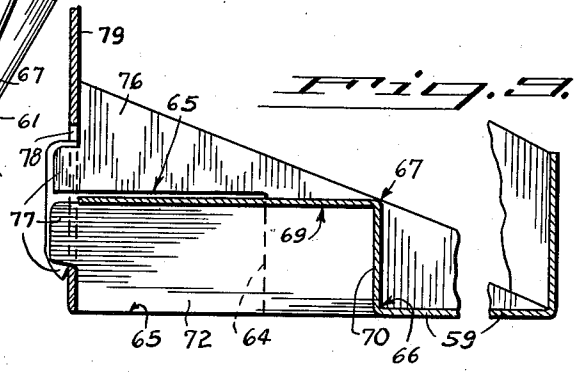


Fig. 9.

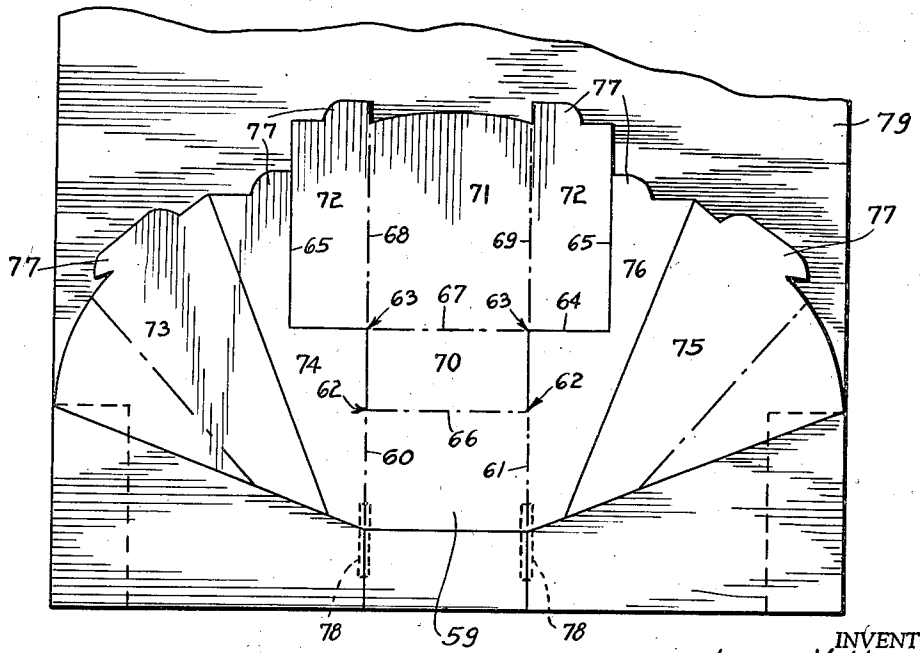


Fig. 10.

INVENTOR.
JOHN V. HORR.
BY Gluck & Breitenfeld
ATTORNEYS.

March 24, 1942. J. V. HORR 2,277,403

COLLAPSIBLE CARDBOARD BASKET

Filed May 9, 1941 5 Sheets-Sheet 4

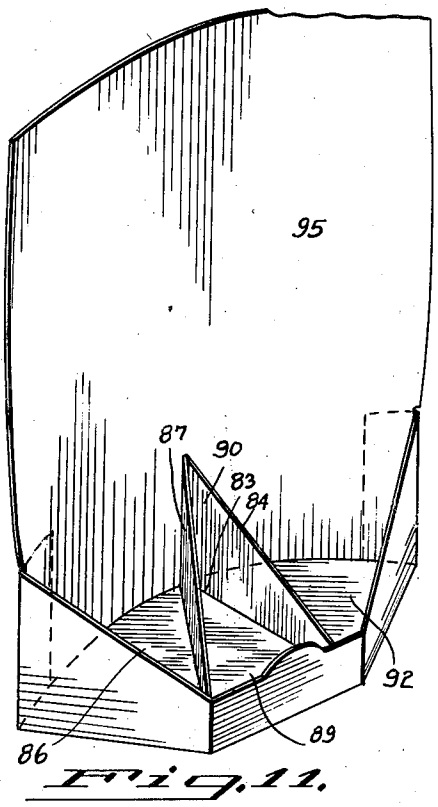


Fig. 11.

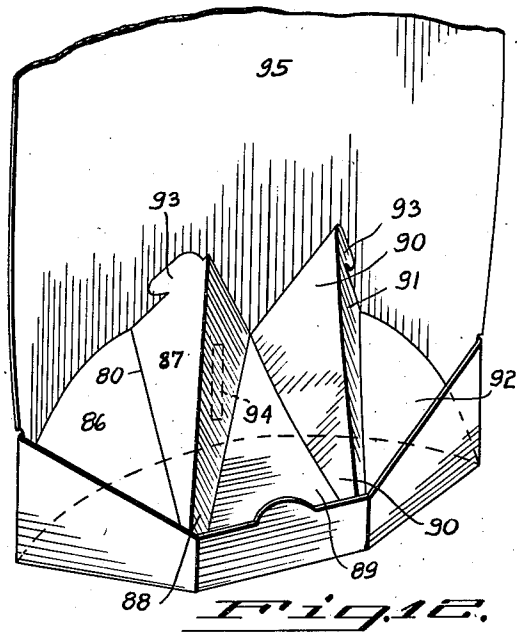


Fig. 1C.

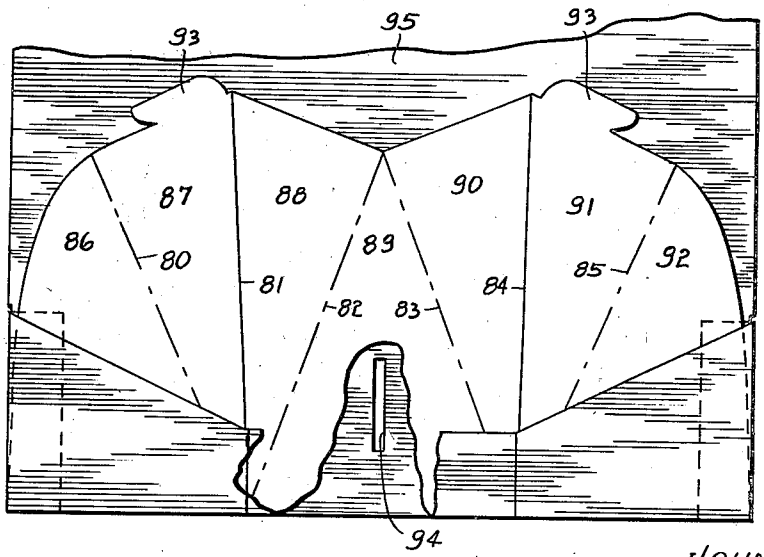


Fig. 1D.

INVENTOR.
JOHN V. HORR.

BY Bluck & Brentenfeld
ATTORNEYS.

March 24, 1942. J. V. HORR 2,277,403

COLLAPSIBLE CARDBOARD BASKET

Filed May 9, 1941 5 Sheets-Sheet 5

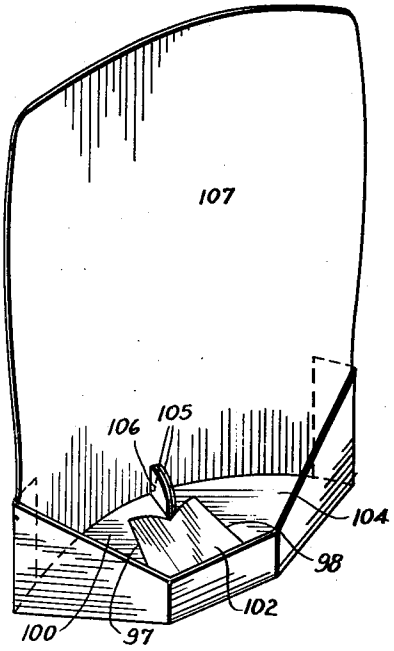


Fig. 14.

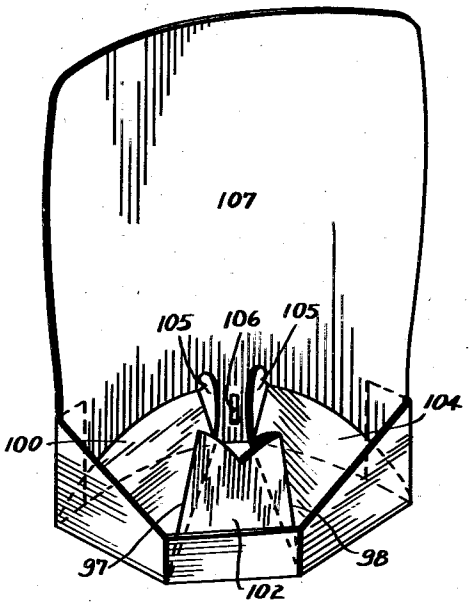


Fig. 15.

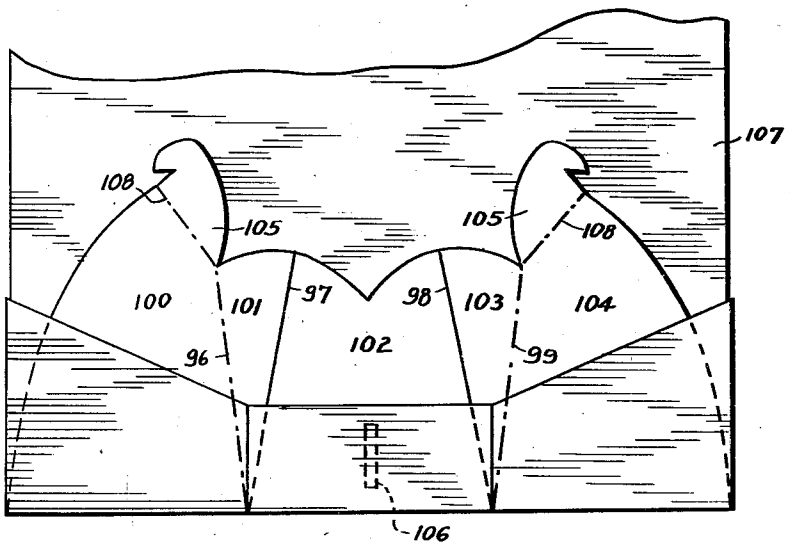


Fig. 16.

INVENTOR.
JOHN V. HORR.

BY Gluck & Breitenfeld
ATTORNEYS.

Patented Mar. 24, 1942 2,277,403

UNITED STATES PATENT OFFICE

2,277,403

COLLAPSIBLE CARDBOARD BASKET

John V. Horr, Hastings on Hudson, N. Y., assignor to Einson-Freeman Co., Inc., Long Island City, N. Y., a corporation of Delaware

Application May 9, 1941, Serial No. 392,622

11 Claims. (Cl. 206—44)

My present invention relates generally to collapsible cardboard structures and has particular reference to a basket-type device.

A cardboard basket constructed in accordance with the present invention is primarily intended for use in stores for the attractive accommodation of articles of merchandise on a counter or in a similar accessible position.

A general object of the invention is to provide a collapsible cardboard basket which may be inexpensively manufactured from a minimum quantity of cardboard stock, which may be readily collapsed into a substantially flat condition for purposes of shipment and storage, and which is easily adjusted into set-up condition when ready for use.

A particular feature of my invention lies in so designing the various parts that a minimum number of pasting or stapling operations are required during the manufacture of the device.

Briefly, the present basket is of the general type in which front and back sections are so interconnected with each other, and with a bottom section, that they may all be formed of flat sheets adapted to lie superposed when the basket is collapsed. When the device is set up, the front and back sections are adapted to bulge away from each other, and the bottom section is adapted to swing into the space between them.

It is a particular feature of my invention to form the bottom section of hinged areas adapted to define complementary floor portions and at least one intermediate pleat. The bottom section is hinged to either one or the other of the front and back sections, and the pleat is caused to extend in a general front-to-back direction.

In a preferred embodiment of the invention, the bottom section is hinged to the front section, and each pleat (whether there be one or more of them) is of increasing width from front to back, the pleat being arranged to stand upright so as to form a partition between the floor portions on each side of it.

A very useful embodiment of the invention provides the bottom section with areas defining three complementary floor portions and two intermediate pleats. Where the pleats are arranged to stand upright, the basket is thus divided into three compartments or bins.

In one special embodiment of the invention, the medial floor portion is so designed that it includes certain adjustable segments adapted to define a raised shelf or platform between the two partitions.

In each of the embodiments, a means is provided for releasably interengaging the bottom section with one or the other of the front and back sections. The preferred way of accomplishing this is to provide tabs on the bottom section for engagement with a suitably positioned slot or slots.

Generally speaking, the present invention provides an improved structure which lends itself readily to a number of attractive and useful variations, depending upon the particular use for which the basket is intended. In each case, the basket is unusually staunch and stable and affords not only competent support for the commodities in question but also an attractive array of associated panels on which suitable advertising or other embellishment may be placed.

I achieve the foregoing objects, and such other objects as may hereinafter appear or be pointed out, in the manner illustratively exemplified in the accompanying drawings, in which:

Figure 1 is a perspective view of a collapsible basket constructed in accordance with the present invention;

Figure 2 is a view similar to Figure 1 showing the parts in an intermediate partially collapsed relationship;

Figure 3 is a fragmentary plan view of the device, partly broken away, showing it in completely collapsed condition;

Figure 3A is a cross-sectional view taken substantially along the line 3A—3A of Figure 3;

Figures 4, 5, and 6 are views similar to Figures 1–3, of a modified construction;

Figure 7 is a fragmentary perspective view similar to Figure 4 showing a modification of the structure of Figure 4;

Figure 8 is an enlarged cross-sectional view taken substantially along the line 8—8 of Figure 7;

Figure 9 is an enlarged cross-sectional view taken substantially along the line 9—9 of Figure 7;

Figure 10 is a plan view of the device of Figure 7 in collapsed condition;

Figures 11, 12, and 13 are views similar to Figures 1, 2, and 3, illustrating a further modification; and

Figures 14, 15, and 16 are corresponding views showing a further modification.

The device which I have chosen to illustrate in Figures 1, 2 and 3 consists of the back section 20, the forward section 21, and the bottom section 22. Each of these sections is formed of a flat sheet of cardboard or its equivalent. The back section 20 has been shown substan-

tially rectangular and relatively large in comparison with the front section 21. The back section 20 affords an attractive area upon which advertising or other embellishment may be effectively arranged.

I have shown the front section composed of two parts 23 and 24 hinged together along the vertical hinge line 25. The front section is connected to the back section 20 at the sides, and one convenient way of accomplishing this is to form attachment flaps 26 at the sides of the front section and to secure these flaps, by adhesive means or otherwise, to the corresponding marginal portions of the back section 20.

When the device is collapsed, the sections 20 and 21 lie flat, one on top of the other, and when the basket is adjusted into set-up condition, the back section 20 bulges rearwardly and the front section 21 bulges or angles forwardly. The bottom section 22 is adapted to swing into operative position between the front and back sections.

The bottom section 22 may be hinged to one or the other of the front and back sections 20 and 21. It is more desirable that it be hinged to the front section, and for this reason this particular relationship of parts is shown in Figures 1–3, as well as in the other figures of the present drawings.

The hinged connection may be established by making the section 22 integral with the section 21, i. e., by cutting a single blank of cardboard into suitable shape, and folding it upon a transverse line which thereupon corresponds to the lower front edge 27 of the device.

The bottom section 22 is scored along the lines 28, 29, and 30, these lines diverging rearwardly from the hinge 25. This defines adjacent hinged areas 31, 32, 33, and 34. The areas 31 and 34 are adapted to define complementary floor portions of the resultant basket. The areas 32 and 33 are adapted to double upon themselves and to define an upright pleat extending transversely across the basket from front to back, the width of the pleat gradually increasing rearwardly.

Carried by the areas 32 and 33 are the tabs 35. These tabs are so positioned that they are brought together when the device is set up, and the back section 20 is provided with a slot 36 positioned to receive these tabs and thereby releasably lock the device in set-up condition.

Obviously, the pleat or partition may be made of various heights, to suit different uses. Also, while it is preferable that the pleat be caused to interengage with the back in such a manner as to stand upright and serve as a substantially vertical partition, it will be understood that such upright disposition of the pleat is not essential. Similarly, while I have shown the pleat centrally disposed so that the basket is divided into two compartments or bins of substantially equal capacity, it will be obvious that such symmetry is not an essential feature of the invention.

In Figures 4, 5, and 6 I have illustrated a modification in which the parts are so designed that the resultant basket defines three compartments or bins.

The back section 37 is essentially the same as the section 20 of Figure 1 except that it is provided with two slots 38 instead of with a single slot. The front section is formed of three parts 39, 40, and 41 hingedly united along the lines 42. Attachment flaps 43 serve to hold the front and back sections together at the sides.

The bottom section is in this case divided by score lines 44—49 into hinged areas 50—56. The areas 50, 53, and 56 define complementary floor portions when the device is set up. The areas 51 and 52 are adapted to fold upon each other to define a pleat between the areas 50 and 53, while the areas 54 and 55 are adapted to fold upon each other in a similar manner to provide a pleat between the areas 53 and 56.

It will be observed that the score lines 44, 45, and 46 diverge rearwardly from one of the hinge lines 42 while the score lines 47, 48, and 49 diverge rearwardly from the other hinge line 42. By virtue of the fact that the lines 46 and 47 are substantially parallel, the two resultant pleats extend in a general front-to-back direction to define substantially parallel upright partitions. Tabs 57, suitably positioned on the areas 51 and 52, are brought together when the basket is set up and are adapted to engage with one of the slots 38. Similar tabs formed on the areas 54 and 55 come together and engage with the other slot 38.

In Figures 7–10, I have illustrated a collapsible basket which is essentially the same as the one shown in Figures 4–6, except that the three middle areas of the bottom section have been slightly modified.

The middle area 59 is bounded by the hinge lines 60 and 61 up to the points 62. From each point 62 to the point 63 the bottom section is cut through. It is similarly cut through along the lines 64 and 65. By means of hinge or score lines 66, 67, 68, and 69, the medial area of the bottom section is caused to include the adjustable segments 70, 71, and 72. When the device is set up, these segments are adjustable, as shown in Figures 7, 8, and 9, to define a raised shelf or platform between the two partitions.

The partitions are formed as in Figures 4–6 by pleats similar to those shown in Figure 4. One pleat is formed by the areas 73 and 74, while the other pleat is formed by the areas 75 and 76. Tabs 77 formed on various areas of the bottom section, as shown, are brought together when the device is set up, and are adapted to be engaged within the slots 78 formed in the back section 79.

In Figures 11–13 I have illustrated a modified construction which is essentially similar to the device shown in Figures 4–6 except that the two pleats are caused to converge rearwardly.

It will be observed that the bottom section is divided by score lines 80—85 into adjacent areas 86—92. The areas 86, 89 and 92 define complementary floor portions, and since the score lines 82 and 83 converge rearwardly, the medial floor portion 89 is substantially triangular. The pleats that are formed by the areas 87, 88, 90 and 91 come together at the rear, and this brings the tabs 93 together so as to be engageable within the single slot 94 formed in the back section 95.

In Figures 14–16 I have illustrated a modified construction to illustrate the possibility of arranging the pleats in a manner other than upright.

The bottom section is divided by score lines 96—99 into adjacent areas 100—104. Tabs 105 are formed on the areas 100 and 104, and when the basket is set up these tabs are brought together and caused to engage within the slot 106 formed in the back section 107. The tabs 105 are hinged to the areas 100 and 104 along the lines 108, thereby allowing the tabs 105 to be

brought together in a substantially vertical plane when the engagement with the slot **106** is to be effected.

The pleats are in this construction formed of the areas **101** and **103**, and the adjacent portions of the area **102**. That is, when the area **101** folds over, along the line **97**, onto the adjacent portion of the area **102**, it forms one pleat. Similarly, when the area **103** folds over, along the line **98**, onto the adjacent portion of the area **102**, the other pleat is formed. These pleats are arranged in a substantially single plane, and lie substantially flat upon the floor of the basket when the device is set up.

In each of the embodiments herein illustrated, the bottom section may be formed as an integral part of the front section, these two sections being adapted to be cut from a single blank of cardboard stock. This method of construction is not essential, however, and the invention is not intended to be restricted to the use of any specific number of cardboard blanks. It is to be noted, however, that the construction is of such an improved character that by means of simple cutting and scoring operations, and with a minimum number of pasting and other assembling operations, a large variety of efficient useful basket-like structures can be produced.

In general, it will be understood that those skilled in the art may make changes in the details herein described and illustrated without departing from the spirit and scope of the invention as expressed in the appended claims. It is, therefore, intended that these details be interpreted as illustrative, and not in a limiting sense.

Having thus described my invention and illustrated its use, what I claim as new and desire to secure by Letters Patent is:

1. In a collapsible cardboard basket, the combination with front and back sections, of a bottom section formed of a flat sheet and comprising hinged areas adapted to form complementary floor portions and at least one intermediate pleat when the basket is set up, said bottom section being hinged to the bottom edge of one of said front and back sections, and said pleat extending in a general front-to-back direction.

2. In a collapsible cardboard basket, the combination with front and back sections, of a bottom section formed of a flat sheet and comprising hinged areas adapted to form complementary floor portions and at least one intermediate pleat when the basket is set up, said bottom section being hinged to the bottom edge of the front section, and said pleat extending in a general front-to-back direction, said pleat being of increasing height from front to back.

3. In a collapsible cardboard basket, the combination with front and back sections, of a bottom section formed of a flat sheet and comprising hinged areas adapted to form complementary floor portions and at least one intermediate pleat when the basket is set up, said bottom section being hinged to the bottom edge of the front section, and said pleat extending in a general front-to-back direction, said pleat being of increasing height from front to back, and standing upright so as to serve as a partition between the floor portions on each side of it.

4. In a collapsible cardboard basket, the combination with front and back sections, of a bottom section formed of a flat sheet and comprising hinged areas adapted to form complementary floor portions and at least one intermediate pleat when the basket is set up, said bottom section being hinged to the bottom edge of one of said front and back sections, said pleat extending in a general front-to-back direction, and means for releasably interengaging said bottom section with the other of said front and back sections when the basket is set up.

5. In a collapsible cardboard basket, the combination with front and back sections, of a bottom section formed of a flat sheet and comprising hinged areas adapted to form complementary floor portions and at least one intermediate pleat when the basket is set up, said bottom section being hinged to the bottom edge of the front section, said pleat extending in a general front-to-back direction and being of increasing height from front to back, and means for releasably interengaging said bottom section with the back section when the basket is set up.

6. In a collapsible cardboard basket, the combination with front and back sections, of a bottom section formed of a flat sheet and comprising hinged areas adapted to form complementary floor portions and at least one intermediate pleat when the basket is set up, said bottom section being hinged to the bottom edge of the front section, and means for releasably interengaging said bottom section with the back section when the basket is set up, said means comprising a slot in said back section, and tabs carried by said bottom section and engageable within said slot, said tabs being so positioned that they are brought together in alignment with said slot when the basket is set up.

7. In a collapsible cardboard basket, the combination with front and back sections, of a bottom section formed of a flat sheet and comprising hinged areas adapted to form complementary floor portions and at least one intermediate pleat when the basket is set up, said bottom section being hinged to the bottom edge of the front section, and means for releasably interengaging said bottom section with the back section when the basket is set up, said means comprising a slot in said back section, and tabs carried by said bottom section and engageable within said slot, said tabs being so positioned on certain floor portions that they are brought together in alignment with said slot when the basket is set up.

8. In a collapsible cardboard basket, the combination with front and back sections, of a bottom section formed of a flat sheet and comprising hinged areas adapted to form complementary floor portions and at least one intermediate pleat when the basket is set up, said bottom section being hinged to the bottom edge of the front section, and means for releasably interengaging said bottom section with the back section when the basket is set up, said means comprising a slot in said back section, and tabs carried by said pleat and engageable within said slot.

9. In a collapsible cardboard basket, the combination with front and back sections, of a bottom section formed of a flat sheet and comprising hinged areas adapted to form three complementary floor portions and two intermediate pleats when the basket is set up, said bottom section being hinged to the bottom edge of the front section, said pleats converging rearwardly and standing upright, thus serving as partitions which define a substantially triangular bin between them.

10. In a collapsible cardboard basket, the combination with front and back sections, of a bottom section formed of a flat sheet and comprising hinged areas adapted to form three comple-

mentary floor portions and two intermediate pleats when the basket is set up, said bottom section being hinged to the bottom edge of the front section, said pleats converging rearwardly and standing upright, thus serving as partitions which define a substantially triangular bin between them, said back section being provided with a slot, and tabs carried by said pleats and engageable within said slot.

11. In a collapsible cardboard basket, the combination with front and back sections, of a bottom section formed of a flat sheet and comprising hinged areas adapted to form three complementary floor portions and two intermediate pleats when the basket is set up, said pleats extending in a general front-to-back direction and standing upright to serve as partitions, and the medial floor portion including adjustable segments adapted to define a raised shelf lying between said partitions.

JOHN V. HORR.