

April 9, 1963

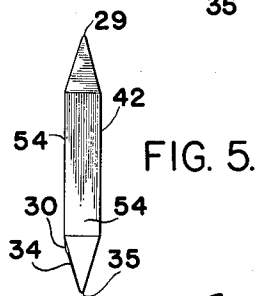
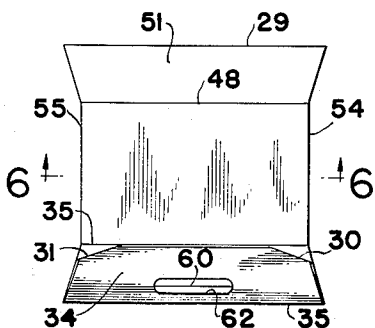
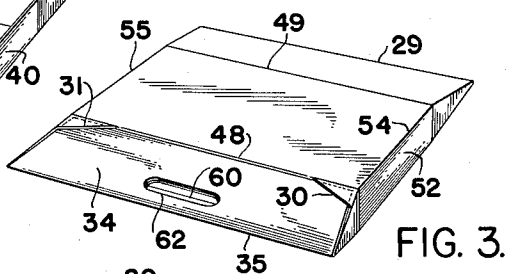
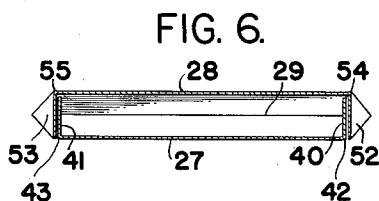
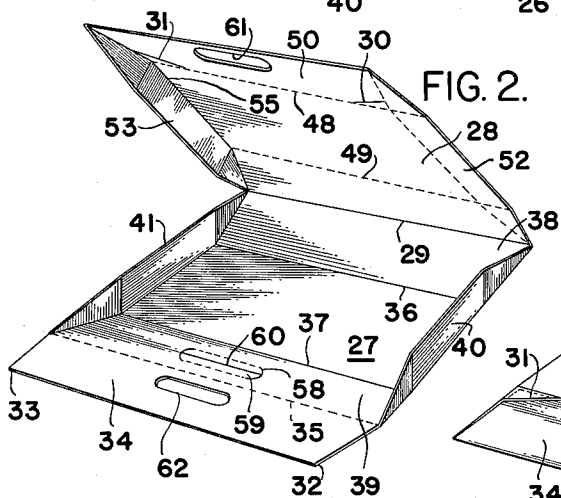
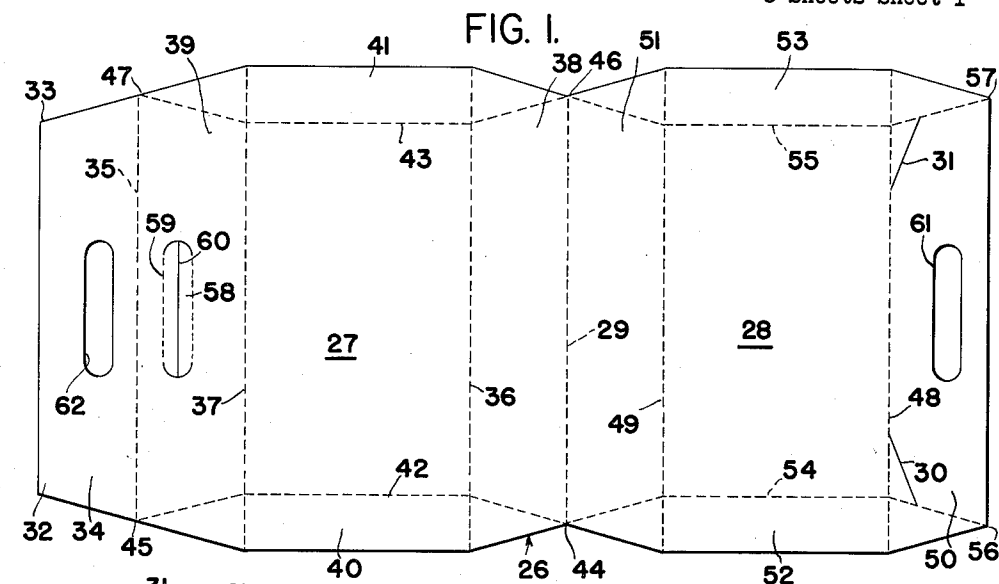
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3,084,843

FOLDED PAPERBOARD CONTAINERS

Filed Nov. 17, 1960

3 Sheets-Sheet 1



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3 Sheets-Sheet 3

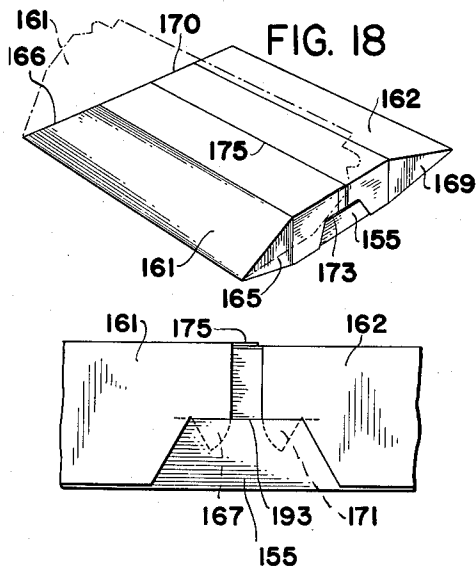
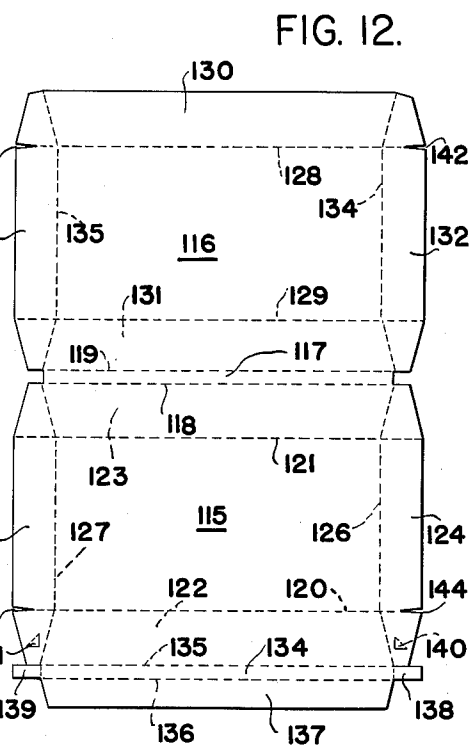
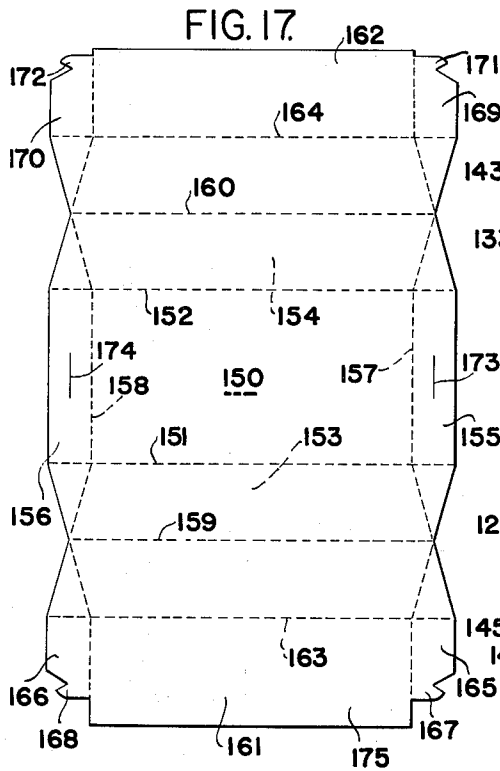


FIG. 19.

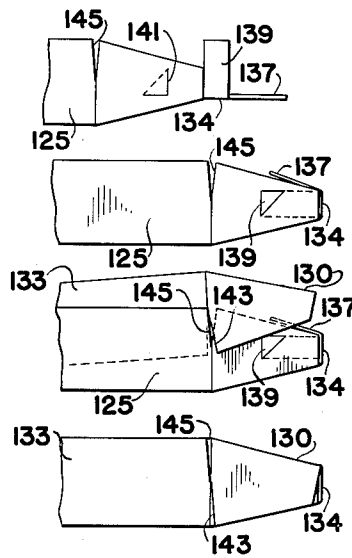


FIG. 13.

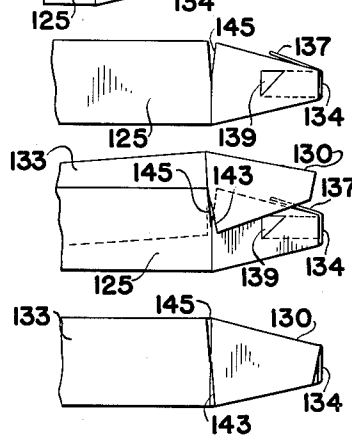


FIG. 14.

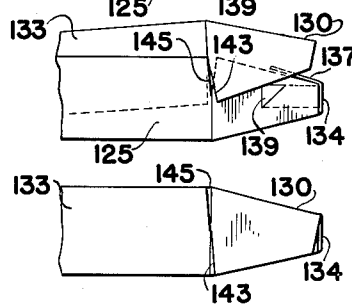


FIG. 15.

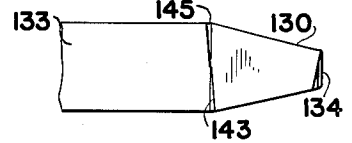


FIG. 16.

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3,084,843

FOLDED PAPERBOARD CONTAINERS

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2 Claims. (Cl. 229-16)

This invention relates to folded paperboard containers and more particularly to a container adapted for use in pizza and bakery shops.

It is the principal object of the present invention to provide a fold up paperboard container formed of a single struck sheet that can lie flat in stack formation until it is to be used and on which the contents can be deposited and the bottom, top and side ends of the container formed of the same sheet, the side end portions simply being formed by folding inwardly of the sides of the bottom and top sections in a circumflex manner to give height and rigidity to the container.

It is another object of the invention to provide a container formed of a single struck sheet in which upon the top section being brought over the bottom section and the sides thereof collapsed inwardly to support the sections in spaced relationship to one another, the fastening of the box is done by simply joining together a single end flap of the bottom section with the top section, and thereby to greatly reduce the number of movements required in preparing such containers.

It is still another object of the invention to provide a cake box type container that can be similarly made up of a single struck sheet having sufficient height for a cake between the bottom and top and in which the sides of the box container are provided also by the simple inward collapse of the sides of the bottom and top sections and circumflexed in such a manner that parts of the side end portions extend in different vertical planes and are angled with respect to one another to give rigidity and support between the top and bottom sections and wherein fastening flaps are extended from elevated front and rear portions for engagement with the angled parts of the side end portions of the bottom section to sustain the front and rear portions closed upon the bottom of the container.

It is still another object of the invention to provide a cake box formed with the immediate above object in mind in which the circumflexed ends of the completed container will conform to the shape of the top of the box to permit the stacking of the boxes upon their side ends along the tops of the boxes whereby the prepared boxes either with the goods or empty can be stacked with relation to one another in a compact and effective manner for storage purposes.

It is a further object of the invention to provide in a box formed of a single struck sheet that will be relatively flat for the purpose of storing pizza pie and having circumflexed folded in side end formations, that has handle means comprising openings in the top, bottom and flap sections of the box and through which fingers of the hand can be extended for the carrying of the box with its contents.

It is a still further object of the invention to provide a paperboard container folded from a single struck sheet in which the bottom and top sections are circumflexed inwardly to provide a support for the top sections over the bottom section in which the top section is formed of two parts adapted to be extended over the bottom section from the front and rear and the top section circumflexed side sections adapted to be hooked to the circumflexed side of the bottom section to hold the top section parts closed thereon.

Other objects of the invention are to provide a paper-

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board container for pizza, cakes and other like foods folded from a single struck sheet, having the above objects in mind, which is of simple construction, inexpensive to manufacture, light in weight, can be thrown away after having served its delivery purpose, adapted to be assembled about the goods in a wrapper-like manner yet have support at the side ends to provide for a box, can be stored and shipped in a flat and stacked manner, efficient and effective in use.

For other objects and for a better understanding of the invention, reference may be had to the following detailed description taken in connection with the accompanying drawing, in which

FIGURE 1 is a struck flattened sheet shaped and creased to provide a flat pizza-type box container when folded constructed according to one form of the invention,

FIG. 2 is a perspective view of the foldable struck sheet partially formed into a pizza-like container,

FIG. 3 is a perspective view of the completely folded container with the flap on the bottom section interlocked with the top section,

FIG. 4 is a top plan view of the folded container,

FIG. 5 is a side end view of the container,

FIG. 6 is a longitudinal sectional view of the box container as viewed on line 6-6 of FIG. 4,

FIG. 7 is a plan view of a struck cake box-type container having elevated front, rear and side ends for packaging of cakes constructed according to a modified form of the invention,

FIG. 8 is a perspective view of the container of FIG. 7 partially folded but open to receive the contents,

FIG. 9 is a perspective view of the cake container with the top section folded over the bottom section but with the bottom locking flaps left unjoined with the top section,

FIG. 10 is a perspective view of the cake container fully closed and the bottom flap joined with the top section,

FIG. 11 is a top plan view of the cake container with an illustration made as to the manner in which the container can be stacked by their side ends upon the tops of the boxes,

FIG. 12 is a plan view of a struck form of the invention having elevated front, rear and side ends extending in height of intermediate to the height to the forms of the invention shown in FIGS. 3 and 10 and constructed according to still another modified form of the invention,

FIG. 13 is a fragmentary side end elevational view of the bottom section with securing tabs folded upwardly,

FIG. 14 is a similar fragmentary elevational view with the securing tabs closed upon the side end,

FIG. 15 is a similar fragmentary elevational view of the top and bottom sections being joined with one another after the bottom section has been formed in accordance with the showing in FIG. 14,

FIG. 16 is a fragmentary end elevational view of the finally joined bottom and top sections as when the box is closed,

FIG. 17 is a plan view of the struck folded up container having the top section formed of separable parts and joined with the folded in side ends to be maintained closed and constructed according to a further modified form of the invention,

FIG. 18 is a perspective view of a completely closed and folded up container formed of the struck sheet shown in FIG. 17, and

FIG. 19 is an enlarged fragmentary end elevational view of the closed container shown in FIG. 18 and showing more clearly the manner in which the separable top section parts are through their side ends joined with the side ends of the bottom section.

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Referring now particularly to FIGS. 1 to 6, 26 represents a struck cardboard sheet as seen in FIG. 1 and adapted to be folded into a pizza pie or like container shown in FIG. 3. This struck sheet is creased to provide the easy folding of the portions of the container to make up the bottom, top, front, rear and side ends of the containers. The containers are stored in a flat manner until ready for use, upon laying the pizza pie thereon and this pie enclosed by the folding up of the box in much the same manner as it would be wrapped.

This struck sheet 26 comprises a bottom section 27, a top section 28, hingeable along a fold line 29 to overlie the bottom section and having oppositely-inclined side slits 30 and 31 adapted to receive corners 32 and 33 respectively of a flap extension 34 extending from a fold line 35 of the bottom section 27. The bottom section 27 has side fold lines 36 and 37 spaced from one another upwardly from which respective front and rear end portions 38 and 39 are lifted as side end portions 40 and 41 are ready to be raised and circumflexed along respective fold lines 42 and 43 to provide the side ends of the bottom section 27 from the fold up of the fold lines 36 and 37 in the bottom section, the fold lines 42 and 43 bias outwardly toward the ends of the fold lines 29 and 35 respectively to points 44, 45 and 46, 47. Because of the way the bottom section is struck and the fold lines are provided, the side ends are circumflexed or indented inwardly and parts of the side end portions 40 and 41 angled to give rigidity to the side ends of the box. The lines 42 and 43 could be in the form of curves extending inwardly between the points 44, 45, 46 and 47. The side end portions 40 and 41 take the shape best shown in FIG. 2 with the front and rear end portions drawn upwardly.

The top section 28 is formed and shaped similarly to the bottom section 27 to match the same, along parallel fold lines 48 and 49, the front and rear portions 50 and 51 are folded up as side end portions 52 and 53 are circumflexed inwardly to shape the ends of the container and to draw them over the respective bottom side end portions 40 and 41 of the bottom section. These top side end portions 52 and 53 are folded along respective fold lines 54 and 55 that respectively extend from the points 44, 46 to outer end corners 56 and 57 of the top section. With the contents in place upon the bottom section, the top section 28 extended over bottom section and the flap 34 of the bottom section is extended over the front portion 50 of the top section and the container is finally closed by extending the corners 32 and 33 into respective slits 30 and 31.

In order to provide a handle for the carrying of this container with the contents therein the front portion 39 of the bottom section 27 is cut to provide folds 58 and 59 that are separable from a center slit 60 and can be folded inwardly or outwardly as the fingers are extended there-through. In the front portion 50 of the top section 28 is an elongated opening 61 that becomes aligned with the opening provided by the foldable struck portions 58 and 59 of the front portion 39. Also aligned with the elongated opening 61 and the fold-in opening of the portion 39 is an elongated opening 62 in the fold over flap 34 that joins the front and rear sections together. With the fingers thrust therethrough all of these openings the container with its contents can be carried with safety.

To provide a cake box type container more adapted for cake or other pastries, so as to have elevated side ends yet following the basic idea of circumflexing inwardly the ends of the box to make it rigid and provide support for the cover, the modified form of the invention shown in FIGS. 7 to 11 has been made up. According to this form of the invention, there is provided between bottom and top sections 65 and 66 an intermediate raised rear portion 67 and a front raised portion 68 to which a fastener flap 69 is foldably connected. The bottom section 65 has spaced parallel fold lines 70 and 71 along which front and rear portions 72 and 73 are respectively folded, or

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raised as side end portions 74 and 75 are circumflexed inwardly along respective fold lines 76 and 77.

The top section 66 is similarly formed by having spaced parallel fold lines 78 and 79 from which respective front and rear portions 80 and 81 are folded downwardly as side end sections 82 and 83 are circumflexed or folded inwardly along respective end fold lines 84 and 85. The top section 66 on being drawn over the folded bottom section is folded along line 86 on the intermediate raised rear portion 67 while this portion 67 is hinged along fold line 87 connected with the rear portion 73 of the bottom section. The rear portion 67 has side end attaching flaps 88 and 89 that are folded inwardly respectively along lines 90 and 91 and have their respective hook ends 92 and 93 extended respectively through slits 94 and 95 in the respective inwardly folded side end portions 74 and 75 and on fold line 71 of the bottom section 65 in the manner as best seen in FIG. 8 to make up the rear end of the container.

To complete the forming of the bottom of the box, the front portion 68 is hinged upwardly along a fold line 96 and its end attaching flaps 97, 98 are folded inwardly on respective fold lines 99 and 100 and their respective hook ends 101 and 102 respectively hooked into slits 103 and 104 on fold line 70 of the bottom section and in the respective end portions 74 and 75. With the contents placed in the box, the cover section 66 can be drawn finally over the box and to close the same the flap 69 is folded along line 105 and its attaching projections 106 and 107 are respectively hooked into oppositely inclined slits 108 and 109 in the front portion 80 of the top section 66.

It will be noted that the completely closed box has indented ends as seen best in FIG. 11 that will conform to the contour of the top of the boxes and extending from front to rear so that the boxes can be placed upon end upon the top of a box container 110.

Referring now particularly to FIGS. 12 to 16, there is shown still another modified form of the invention in which the construction is similar to the form of the invention described with reference to FIGS. 7 to 11 but wherein the height of the front, rear and folded-in side end portions are less than the height of the cake box of FIGS. 7 to 11 but greater than the height of the first form of the invention shown in FIGS. 1 to 6, and so as to accommodate pies and other pastries of less height than cake. The struck sheet for this form of the invention is shown in FIG. 12 and comprises a bottom section 115 and a top section 116 connected to the bottom section through a narrow rear end connecting portion 117 and has fold lines 118 and 119 by which the bottom and top sections 115 and 116 are connected respectively therewith. The bottom section 115 has parallel front and rear fold lines 120 and 121 providing for front and rear fold upon portions 122 and 123 and side end portions 124 and 125 foldable upwardly along respective fold lines 126 and 127 and adapted to be flexed inwardly to provide indented side ends.

The top section has front and rear parallel fold lines 128 and 129 to which front and rear portions 130 and 131 are respectively connected. The top section 116 also has fold-in side end portions 132 and 133 that respectively fold inwardly in a circumflex manner along respective fold lines 134 and 135 and adapted to conform to and outwardly overlie the respective fold-in side end portions 124 and 125 of the bottom section 115. Matching with the connecting portion 117 is a narrow width front portion 134 that is connected through a fold line 135 with the front portion 122 and through a fold line 136 a narrow front flap 137 is connected. With the bottom section having the side end portions flexed as shown in FIG. 13, the narrow front portion 134 can be folded up to assume the position shown in FIG. 14 and the flap 137 folded inwardly. On the opposite ends of the flap connecting portion 134 are respective narrow end attaching flaps 138 and 139 that are fitted respectively into corner-shaped slits 140 and 141 in the respective

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fold-in end portions 124 and 125. With this done the bottom of the container has been completely formed and made ready to receive the goods to be enclosed in the container.

In order to hold the top section closed upon the bottom section, the side end portions 132 and 133 of the top section are provided with partial slits 142 and 143 along the fold line 128 and will engage with respective half-way tight fitting slits 144 and 145 in the manner as shown in FIGS. 15 and 16 to finally close the container and to hold the container sections locked with one another.

Referring now particularly to FIGS. 17, 18 and 19, there is shown a further modified form of the invention differing from the above-described forms in that the cover section is provided with separable top section parts but still providing the circumflexed or inwardly foldable side end sections to maintain the rigidity of the container. The struck sheet of this form of the invention includes a bottom section 150 having parallel fold lines 151 and 152 from which extend respectively front and rear end lift portions 153 and 154. At the opposite side ends of the bottom sections are respectively fold-in end portions 155 and 156 that hold circumflex fold lines 157 and 158 respectively. Connected respectively through fold lines 159 and 160 are respective separable top sections 161 and 162 having intermediate front and rear portion fold lines 163 and 164, extending respectively from the top part section 161 are half folded-in end portions 165 and 166 having respectively hook formations 167 and 168. The half way top section 162 has half fold-in side end portions 169 and 170. With pizza pie being disposed on the bottom section 150 and with the end portions 155 and 156 flexed inwardly, the rear top section part 162 is drawn over the bottom section and its respective hook catch formations 171 and 172 are extended respectively in respective slits 173 and 174 in the manner best shown in FIG. 19. Thereafter, the front top section part 161 is folded over the bottom section and its lip edge 175 overlaps the rear top section part 162 and its respective hook formations 167 and 168 also respectively extended into the slits 173 and 174 of the side end portions 155 and 156.

It should now be apparent that there has been provided an inexpensive container having use for pizza, cakes, pies and other pastries which can be folded or wrapped about the goods in such a manner to provide rigid end portions for supporting the top section over the bottom section and by which in effecting a box has been provided from a single struck sheet of cardboard, instead of having to assemble separate bottom and top structures as is common with present cake boxes. It should be further apparent that the retaining catch portions are an integral part of the container struck sheet and engage with slits to hold the container sections together.

While various changes may be made in the detail construction, it shall be understood that such changes shall be within the spirit and scope of the present invention as defined by the appended claims.

What is claimed is:

1. A folded container comprising a bottom section having transverse fold lines spaced from the front and rear thereof defining a center panel, and front and rear transverse end portions foldable upwardly to an inclined position at a relatively flat obtuse angle to said center panel; longitudinal fold lines extending across the center panel in perpendicular relation to said transverse fold lines, angularly disposed fold lines extending outwardly from the ends of said longitudinal fold lines and terminating at the ends of the transverse front and rear portions; the side edges of the bottom section including outwardly inclined front and rear portions extending from the ends of the transverse front and rear portions to the ends of the adjacent transverse fold lines and a central portion

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parallel to the longitudinal fold lines extending across the center panel, to form side portions when folded upwardly along said longitudinal and said angularly disposed fold lines circumflexed and providing a substantially flat vertical top edge, and a top section integral with said bottom section and extending oppositely from the outer end edge of said rear transverse portion, said top section having transverse fold lines spaced from the front and rear thereof defining a center panel, and front and rear transverse end portions foldable downwardly to an inclined position at a relatively flat obtuse angle to said center panel; longitudinal fold lines extending across the center panel in perpendicular relation to said transverse fold lines, angularly disposed fold lines extending outwardly from the ends of said longitudinal fold lines and terminating at the ends of the transverse front and rear portions; the side edges of the top section including outwardly inclined front and rear portions extending from the ends of the transverse front and rear portions to the ends of the adjacent transverse fold lines and a central portion parallel to the longitudinal fold lines extending across the center panel, to form side portions when folded downwardly along said longitudinal and said angularly disposed fold lines circumflexed and providing a substantially flat vertical bottom edge, the substantially flat vertical top and bottom circumflexed side portion top edges abutting to form a closed container having spaced parallel center panels and inclined tapered front and rear transverse end portions, said top section having a flap extension integral with the transverse edge of the front portion thereof and extending from a transverse fold line parallel to the first transverse fold line defining said top section the side edges of said flap extension being inclined inwardly and forming a continuation of the inclined edges of the side portions of the front transverse end portions thereof, and oppositely inclined side slits in the front transverse end portion of the bottom section to receive the corners of the side edges of the flap extension.

2. A folded container comprising a bottom section having transverse fold lines spaced from the front and rear thereof defining a center panel, and front and rear transverse end portions foldable upwardly to an inclined position at a relatively flat obtuse angle to said center panel; longitudinal fold lines extending across the center panel in perpendicular relation to said transverse fold lines, angularly disposed fold lines extending outwardly from the ends of said longitudinal fold lines and terminating at the ends of the transverse front and rear portions; the side edges of the bottom section including outwardly inclined front and rear portions extending from the ends of the transverse front and rear portions to the ends of the adjacent transverse fold lines and a central portion parallel to the longitudinal fold lines extending across the center panel, to form side portions when folded upwardly along said longitudinal and said angularly disposed fold lines circumflexed and providing a substantially flat vertical top edge, and a top section integral with said bottom section and extending oppositely from the outer edge of said rear transverse portion, said top section having transverse fold lines spaced from the front and rear thereof defining a center panel, and front and rear transverse end portions foldable downwardly to an inclined position at a relatively flat obtuse angle to said center panel; longitudinal fold lines extending across the center panel in perpendicular relation to said transverse fold lines, angularly disposed fold lines extending outwardly from the ends of said longitudinal fold lines and terminating at the ends of the transverse front and rear portions; the side edges of the top section including outwardly inclined front and rear portions extending from the ends of the transverse front and rear portions to the ends of the adjacent transverse fold lines and a central portion parallel to the longitudinal fold lines extending across the center panel, to form side portions when folded downwardly along

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said longitudinal and said angularly disposed fold lines circumflexed and providing a substantially flat vertical bottom edge, the substantially flat vertical top and bottom circumflexed side portion top edges abutting to form a closed container having spaced parallel center panels and inclined tapered front and rear transverse end portions, said front transverse end portions of said top and bottom sections having alignable openings therein, the opening in said top section being cut to provide folds separable from a center slit and extensible through the opening of the bottom section when aligned therewith, said top section having a flap extension integral with the transverse edge of the front portion thereof and extending from a transverse fold line parallel to the first transverse fold line defining said top section the side edges of said flap extension being inclined inwardly and forming a continuation of the inclined edges of the side portions of the front transverse end portions thereof, said flap ex-

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tension having an opening therein aligned with said openings in said front transverse end portions of said top and bottom sections, and opposingly inclined side slits in the front transverse end portion of the bottom section to receive the corners of the side edges of the flap extension.

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