



US 20030234284A1

(19) **United States**

(12) **Patent Application Publication**

Chiera

(10) **Pub. No.: US 2003/0234284 A1**

(43) **Pub. Date: Dec. 25, 2003**

(54) **CARTON WITH REDUCIBILITY FEATURE**

Publication Classification

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(51) **Int. Cl.⁷ B65D 5/12; B65D 5/32**

(52) **U.S. Cl. 229/120.011; 229/122.26**

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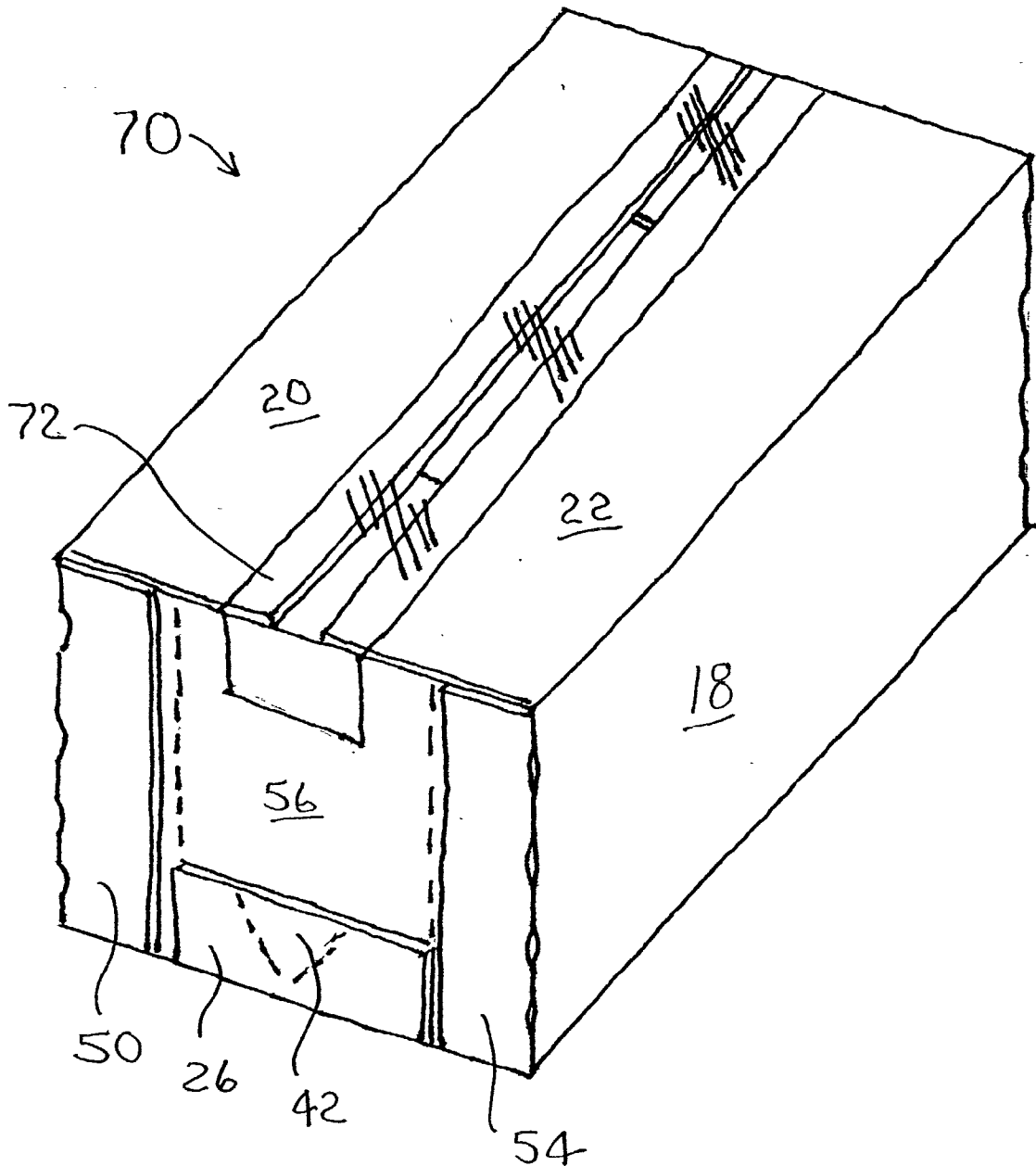
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(57) **ABSTRACT**

Bliss-type containers fabricated from paper, paperboard and/or corrugated paperboard are provided, having one or more regions of weakness to facilitate manual reduction of the used containers into substantially flattened configurations for facilitated recycling thereof.

(21) **Appl. No.: 10/178,160**

(22) **Filed: Jun. 24, 2002**



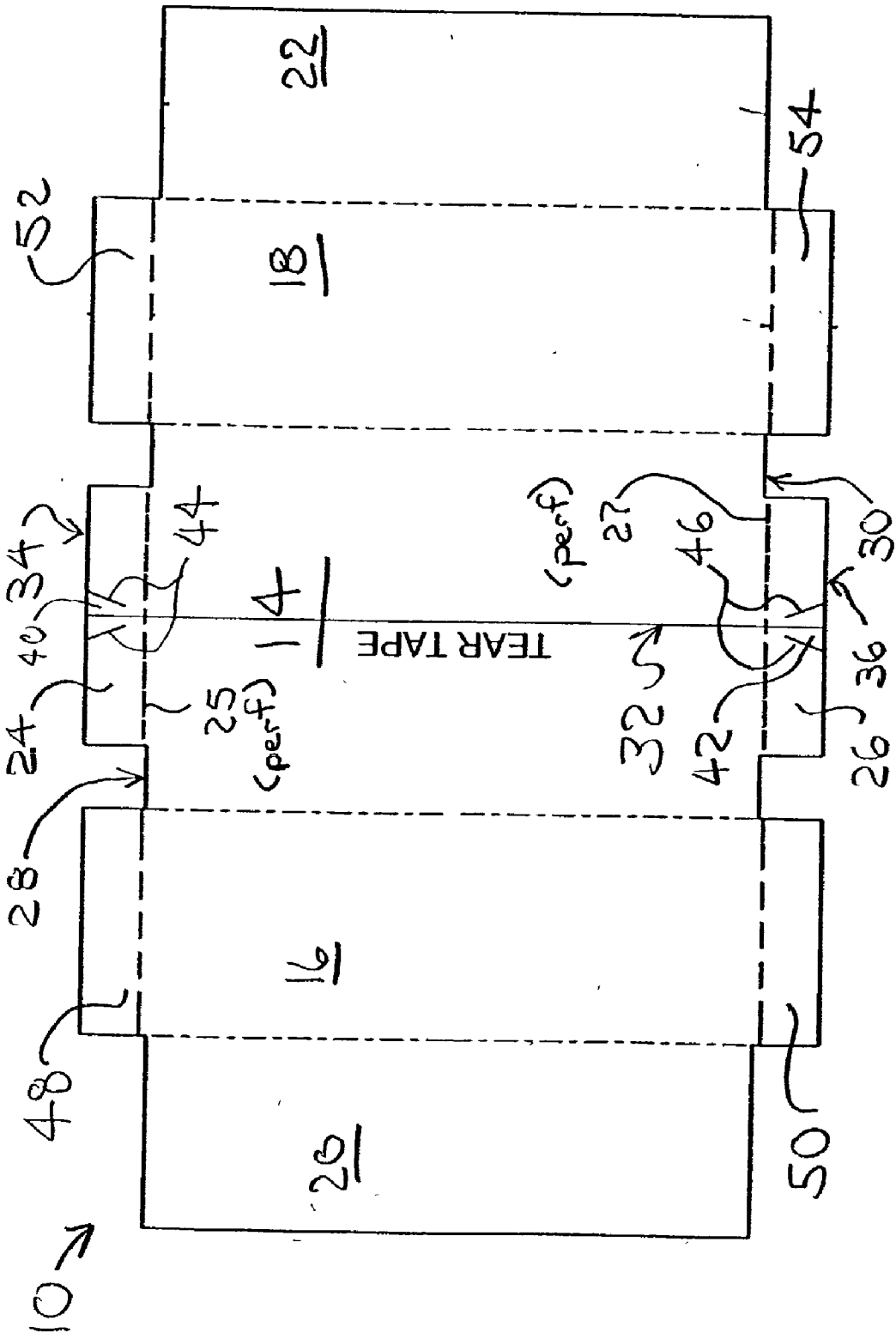


FIG. 1

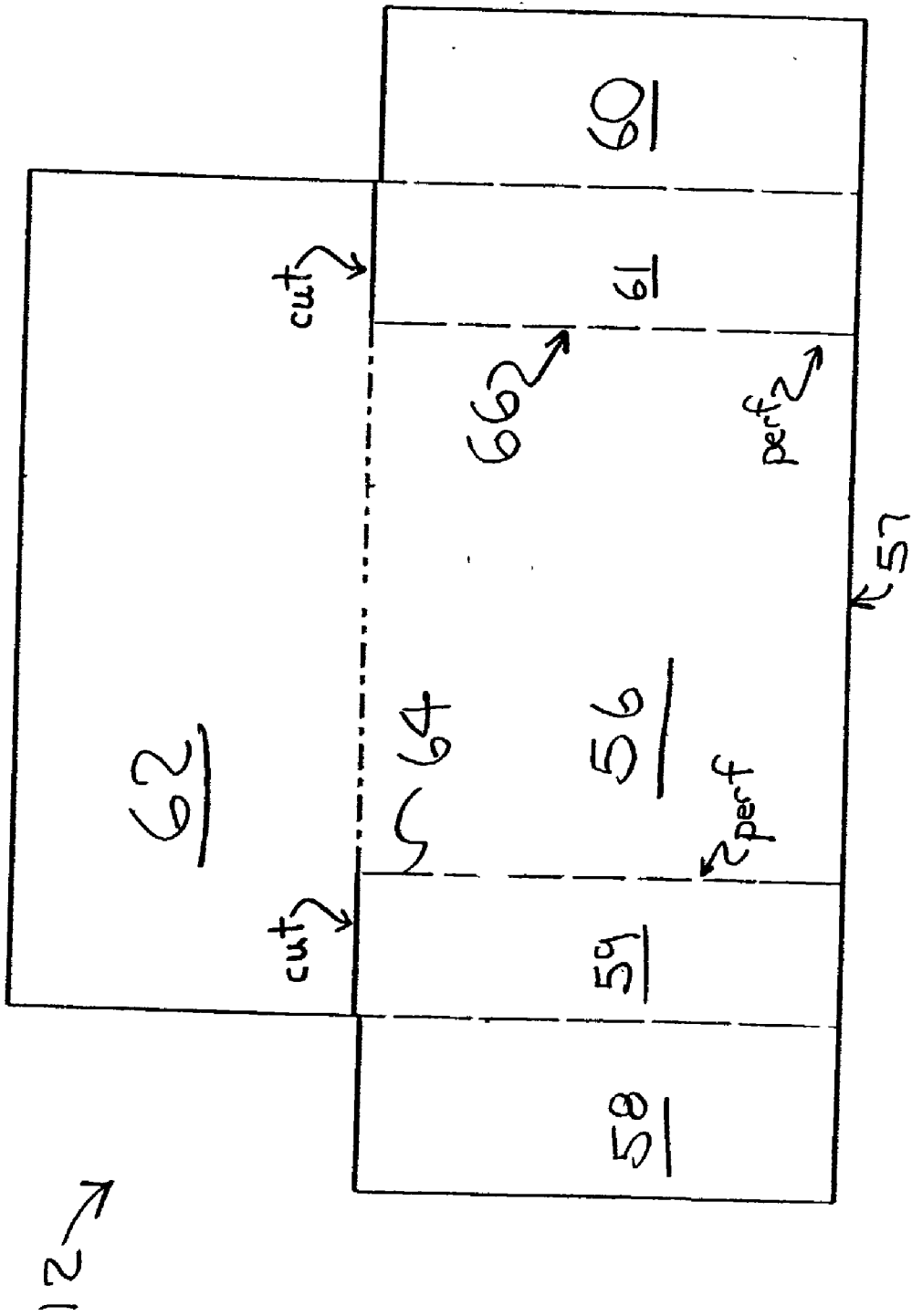


FIG. 2

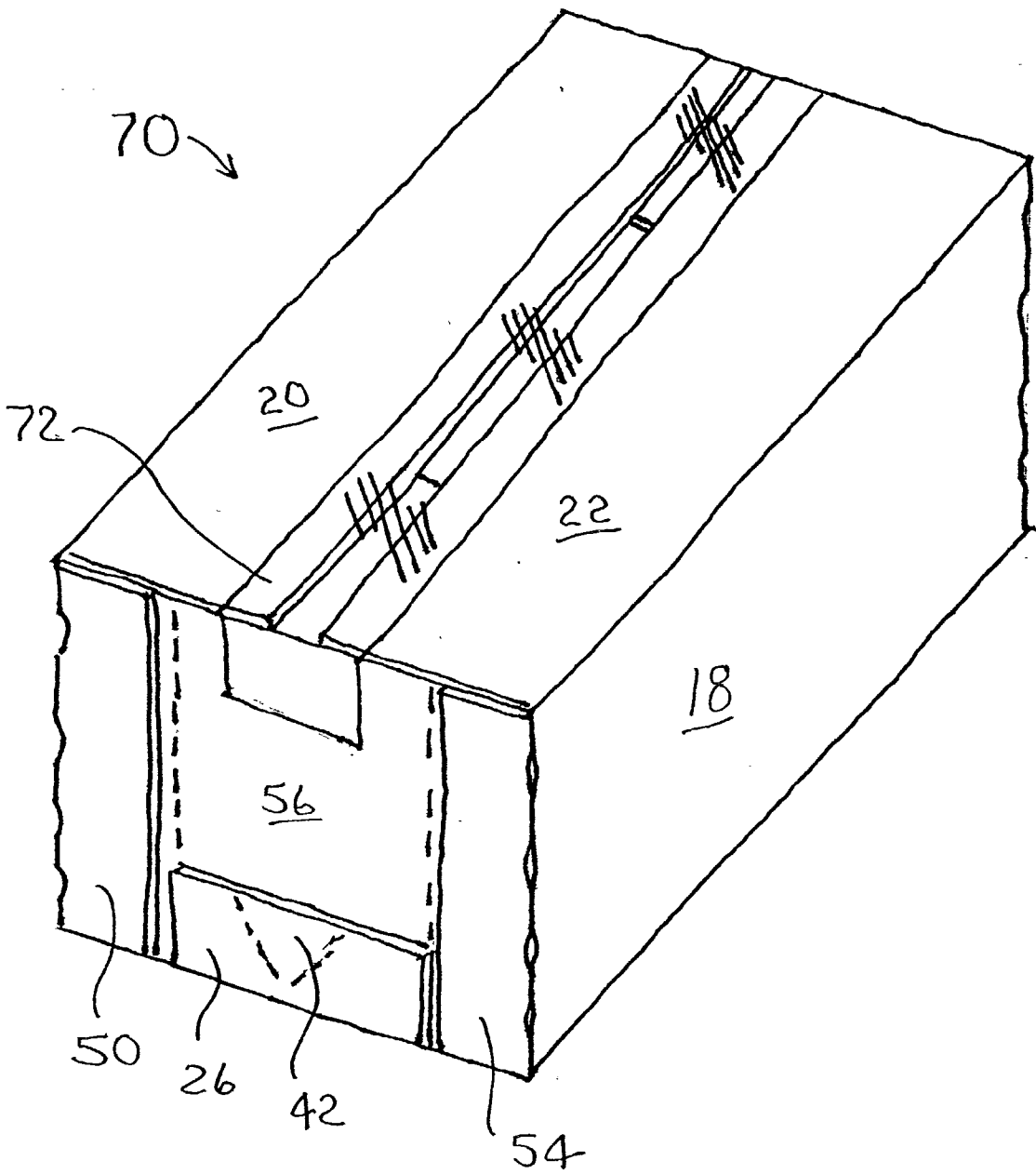


FIG. 3

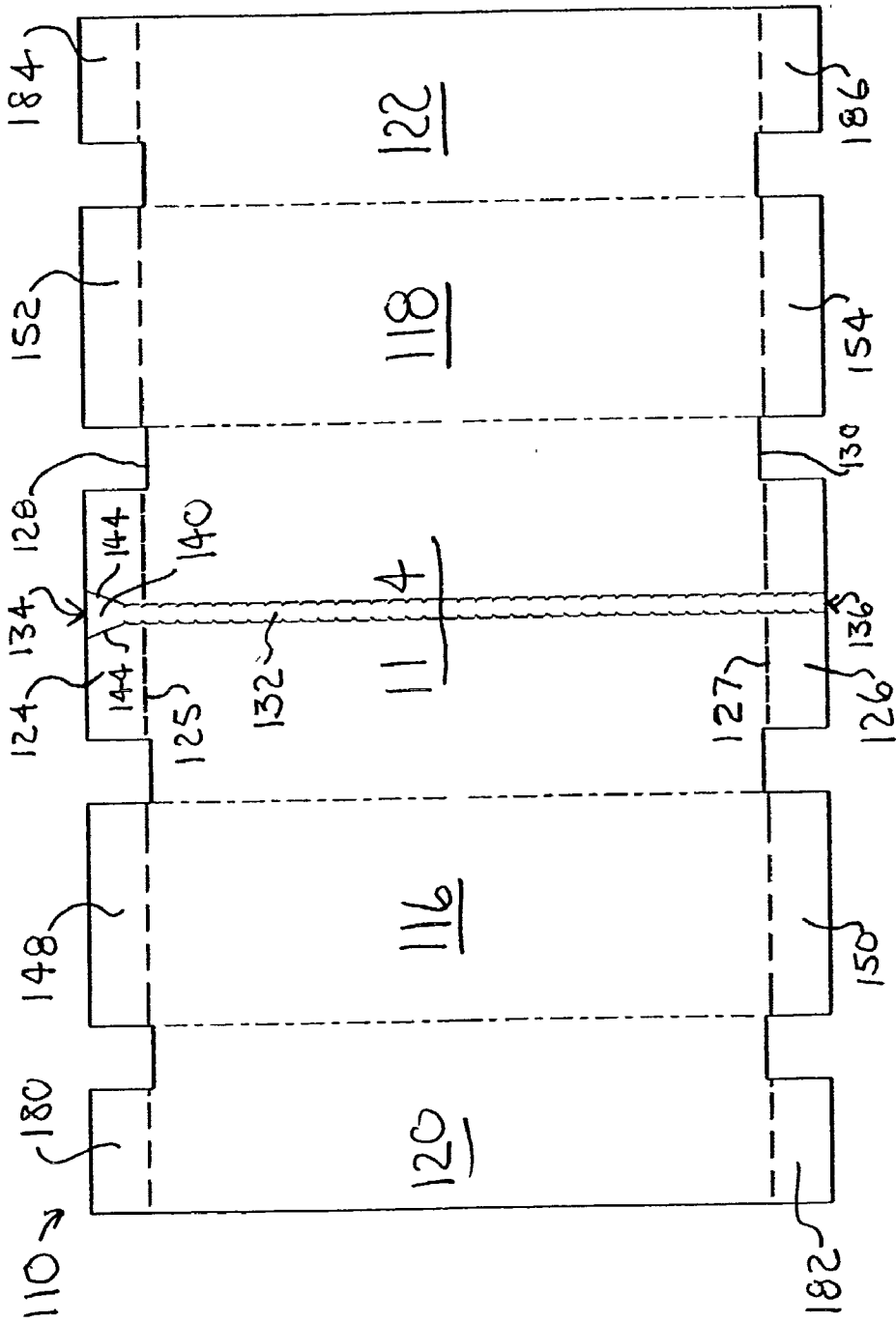


FIG. 4

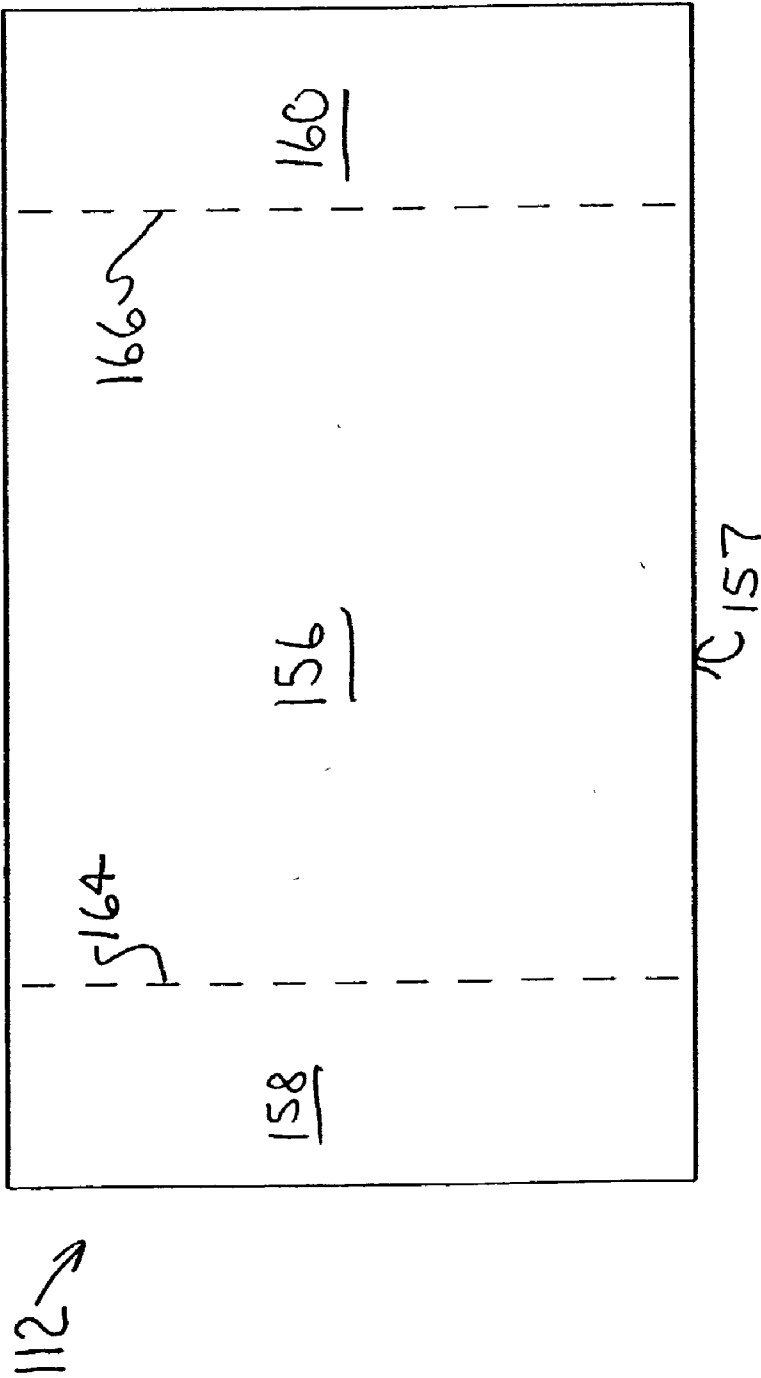


FIG. 5

170 →

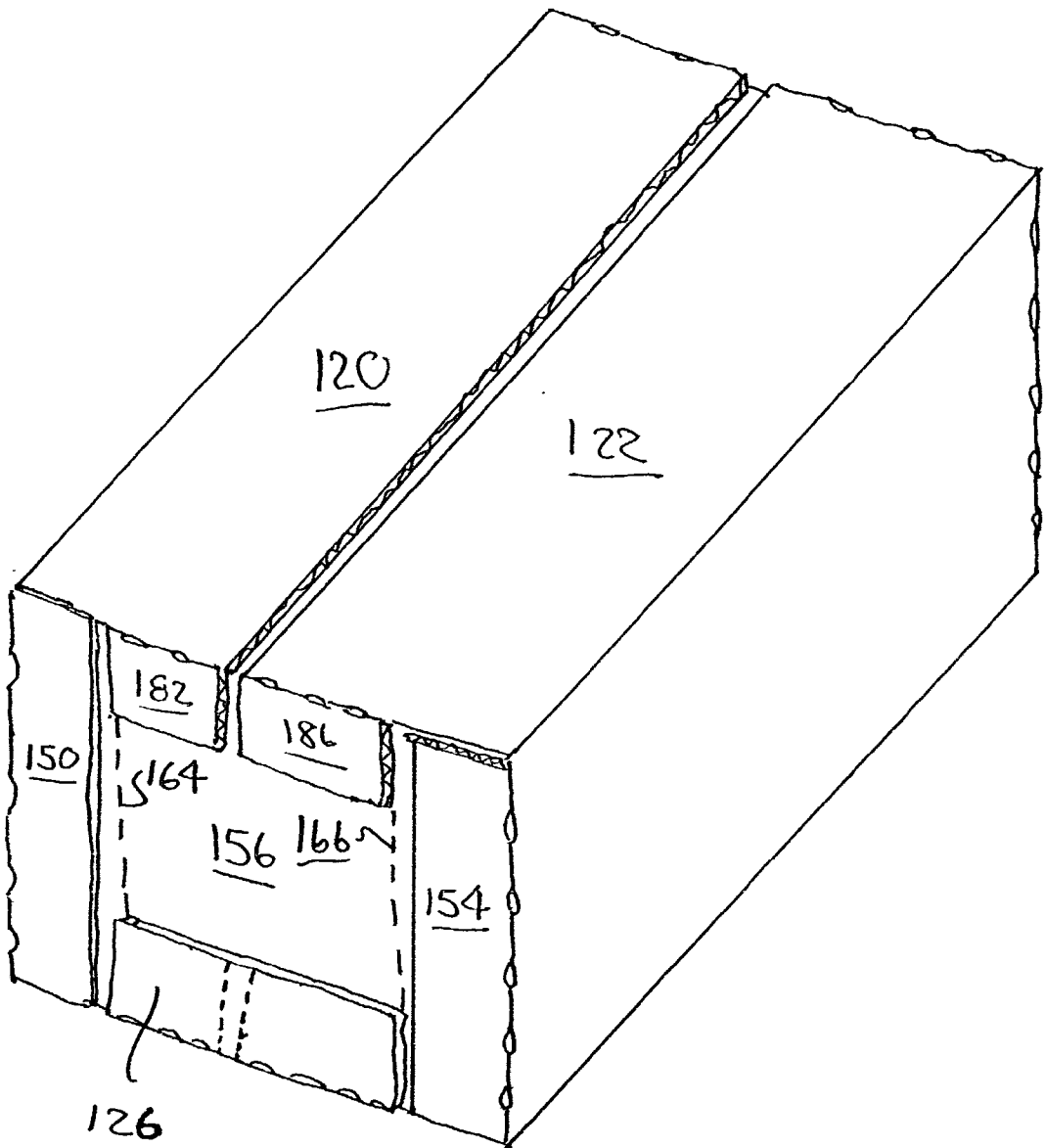


FIG. 6

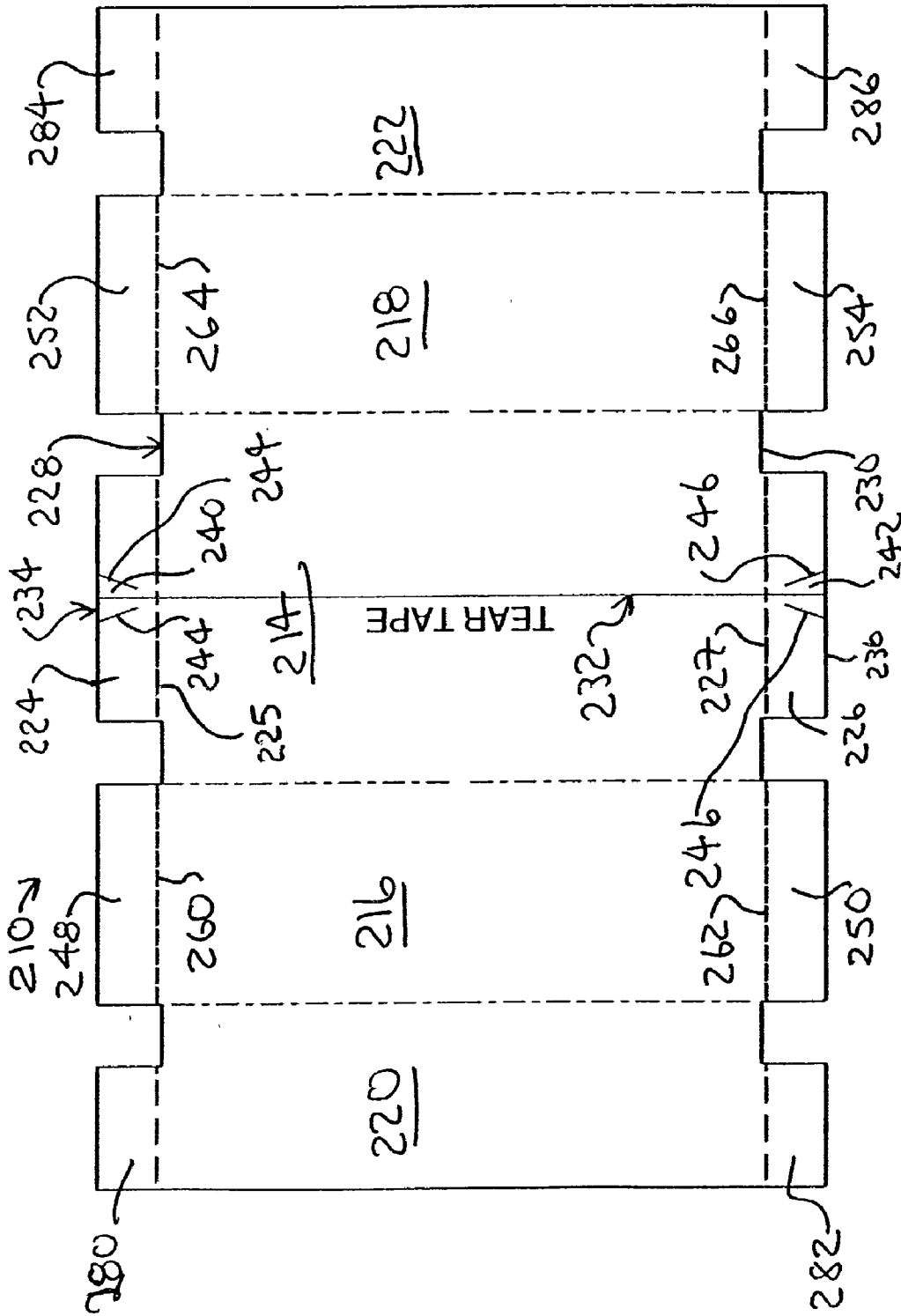


FIG. 7

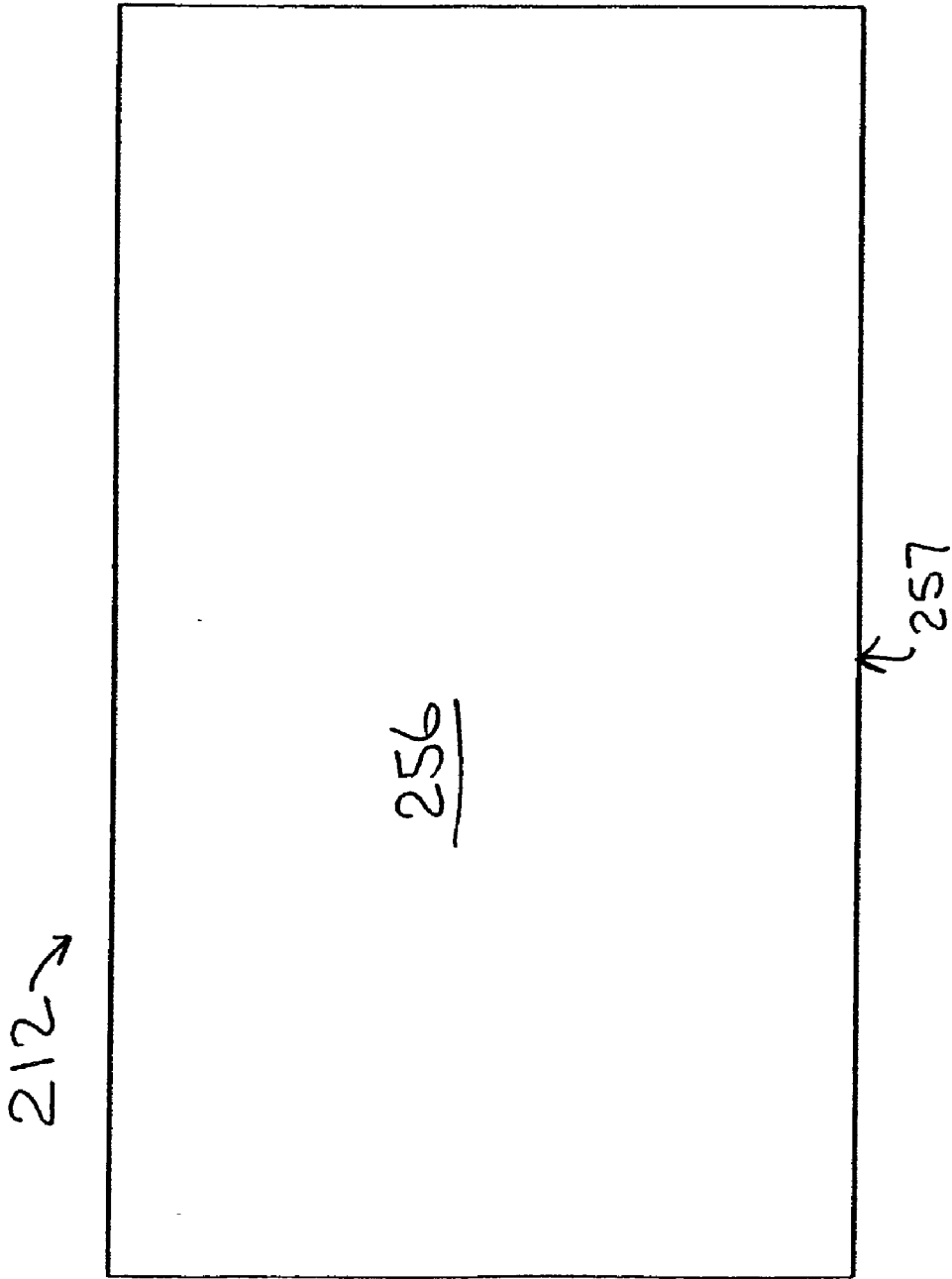


FIG. 8

270 →

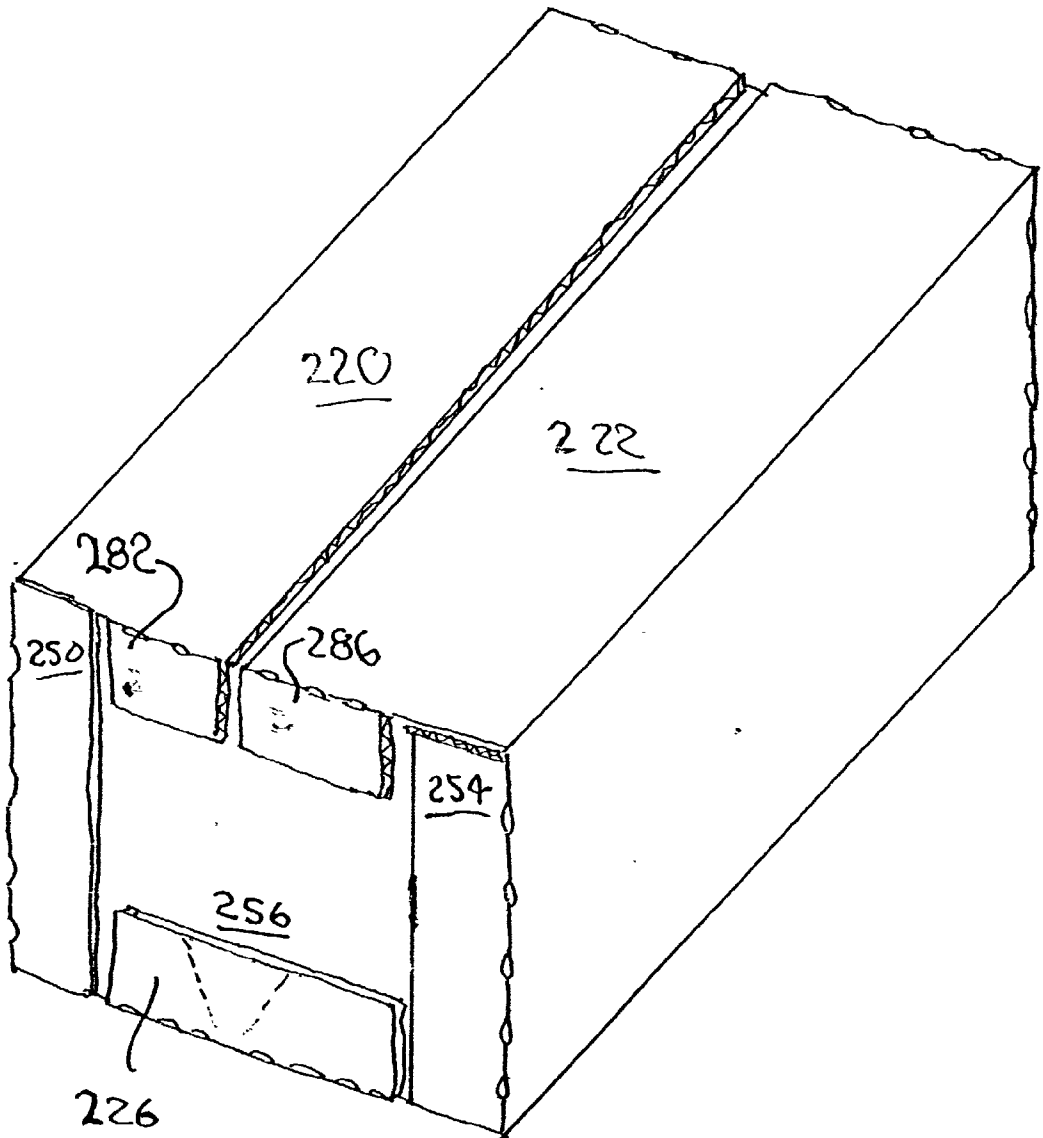


FIG. 9

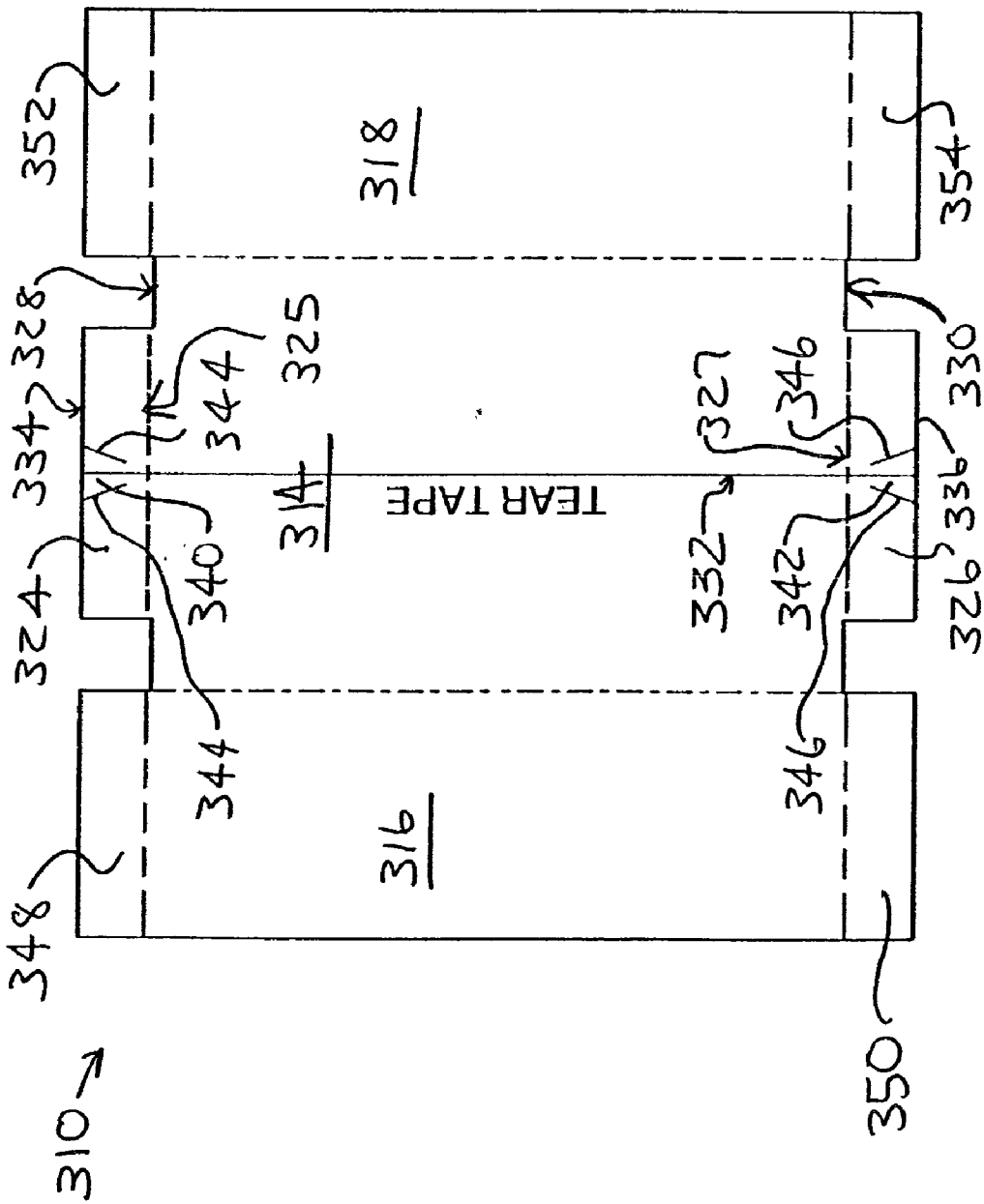


FIG. 10

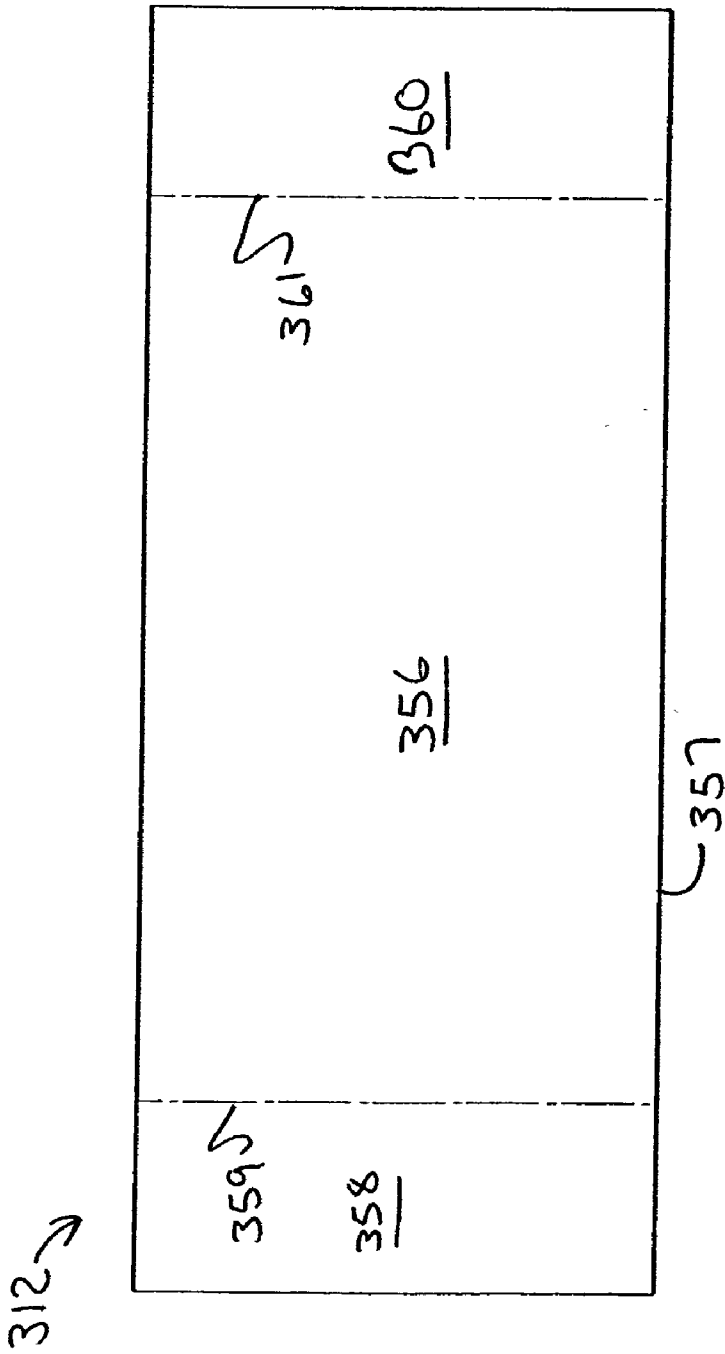


FIG. 11

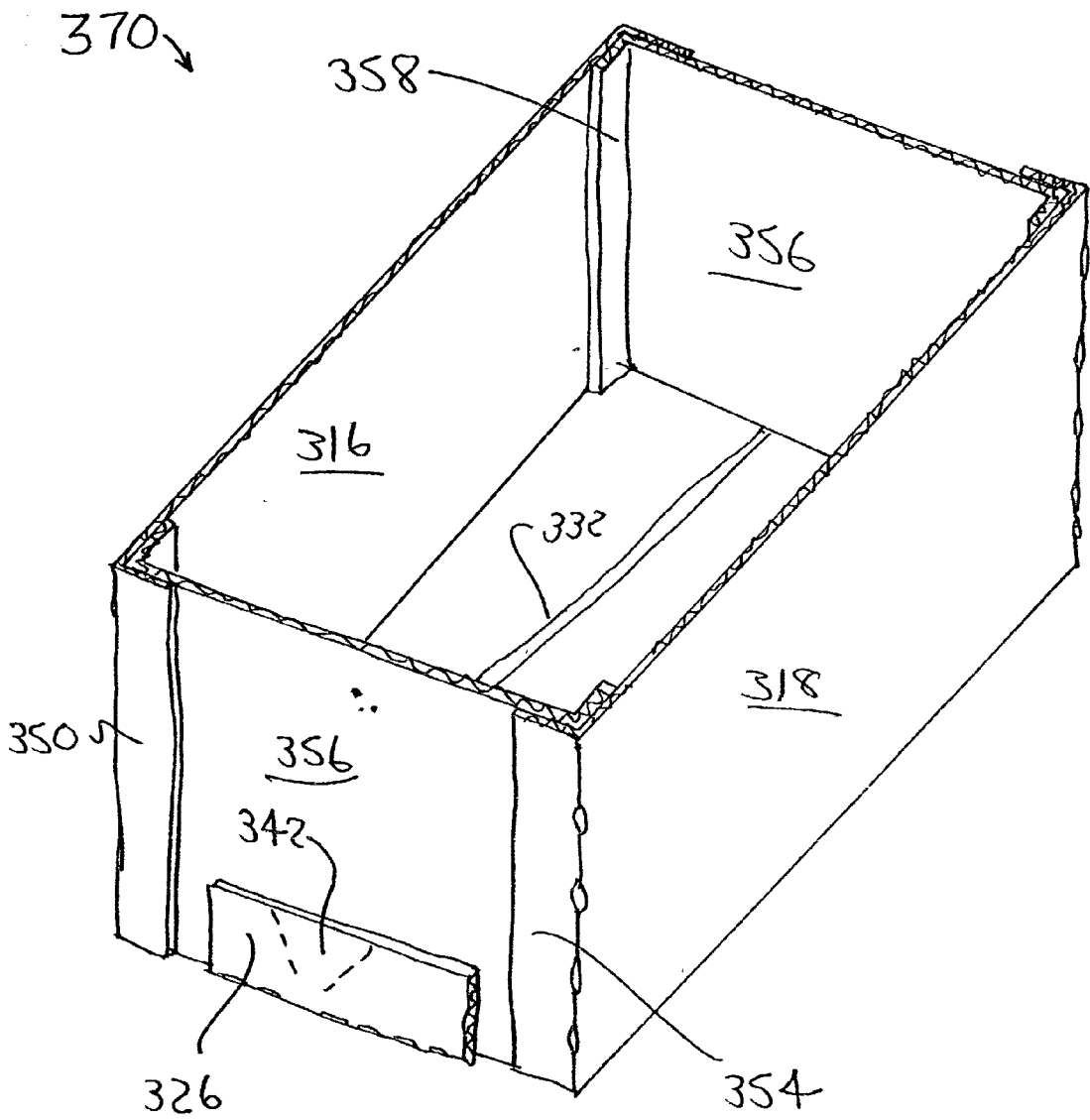


FIG.12

CARTON WITH REDUCIBILITY FEATURE

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The present invention is directed to containers for the shipment of materials, which containers are intended for a single use, to be discarded, and preferably recycled, after the single use. The present invention is, in particular, directed to such containers, being fabricated from primarily paper, paperboard and/or corrugated paperboard.

[0003] 2. Prior Art

[0004] A common container style that is used for the packaging and shipment of materials, in which the container is intended to be destroyed in the process of accessing the shipped materials, is a "Bliss" type box structure, formed from two end pieces and a body wrapper, all typically fabricated from corrugated paperboard material.

[0005] Such a "Bliss" type box is typically machine set up in which all three parts are glued together, forming five sides of the box fully enclosed and rigid. Excess material may be on the sixth side, which is folded and sealed to create a fully or partially enclosed panel resulting in a fully or partially enclosed box that is often difficult for the end user to open. In addition, the fully rigid "Bliss" type box is laborious to collapse. This is a potential drawback, in that when it is desired to recycle such boxes after use, many regions of the country have regulations that dictate that the collapsed boxes have a particular footprint or other specified configuration, in order to be accepted for recycling. Often, the process of reducing a prior art Bliss box to the required size or format requires more time and/or effort than can be afforded in a particular workplace environment, thus leading to unintended excess costs to the business, or the failure of the used boxes to be recycled.

[0006] A conventional Bliss box can be difficult to open by the end user because the sixth panel is sealed. If sealed with tape, the end user either is forced to pick at the tape with fingernails and peel the tape back to expose the contents, or is forced to use a razor knife to slice the tape, possibly slicing the contents in the process.

[0007] This opening process can become even more difficult if the sixth panel is sealed with adhesive (e.g., glue).

[0008] It would be desirable to provide a Bliss type container, preferably fabricated from primarily from paper, paperboard and/or corrugated paperboard, that is provided with enhanced reducibility, in order to facilitate reduction of the container into a specified minimum footprint, size or other format.

[0009] It would further be desirable to provide a Bliss type container that is also provided with enhanced openability by the end user.

[0010] These and other desirable characteristics of the invention will become apparent in light of the present specification, including claims, and drawings.

SUMMARY OF THE INVENTION

[0011] The present invention is directed, in part, to a container for packaging and shipping articles, fabricated at least in part from at least one of paper, paperboard and

corrugated paperboard material, the container being reducible from a packaging and shipping configuration, to a configuration that facilitates the flattening and bundling of pluralities of the container for subsequent recycling.

[0012] The container comprises a body wrap portion including at least a substantially rectangular center panel and two substantially rectangular side panels emanating from side edges of the substantially rectangular center panel, and disposed substantially perpendicular thereto, the two substantially rectangular side panels being disposed in substantially parallel, laterally spaced relation to each other. Two first attachment flaps emanate along first lines of weakness from opposing end edges of the substantially rectangular center panel, the two first attachment flaps being disposed substantially perpendicular to the substantially rectangular center panel, the two first attachment flaps further being disposed in substantially parallel, laterally spaced relation to each other. Two second attachment flaps emanate along second lines of weakness from opposing end edges of each of the substantially rectangular side panels emanating from side edges of the substantially rectangular center panel, the two second attachment flaps being disposed substantially perpendicular to the substantially rectangular center panel, the two second attachment flaps further being disposed in substantially parallel, laterally spaced relation to each other, the second lines of weakness being disposed substantially perpendicular to the first lines of weakness. Two end panel portions are provided, each including at least a central panel, each of the two end panel portions being disposed adjacent one of the end edges of the substantially rectangular center panel, each end panel portion having one of the first attachment flaps and one second attachment flap from each of the substantially rectangular side panels disposed in substantially parallel overlying affixed relation thereto, to define a container having five panel faces arranged in substantially rigid orientation thereto and an article containing region formed therewithin.

[0013] The container further includes at least one region of frangibility disposed in at least one of the body wrap portion and the two end panel portions, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container.

[0014] The body wrap portion further comprises, in one embodiment, two substantially rectangular closure panels, emanating from side edges of the substantially rectangular side panels, and disposed in substantially perpendicular relation thereto, the two substantially rectangular closure panels being further disposed in substantially parallel spaced relation to the substantially rectangular center panel, free edges of the two substantially rectangular closure panels being disposed in substantially parallel, adjacent relation to one another. The two substantially rectangular closure panels may be maintained in their substantially parallel spaced relation to the substantially rectangular center panel, by a tape closure member affixedly connecting at least the two substantially rectangular closure panels.

[0015] The at least one region of frangibility disposed in at least one of the body wrap portion and the two end panel portions, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container may comprise a tear

strip member embedded in the substantially rectangular center panel, and extending from one end edge to the other end edge thereof.

[0016] Alternatively, the at least one region of frangibility disposed in at least one of the body wrap portion and the two end panel portions, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container may comprise a pair of parallel perforations disposed in each central panel of each of the two end panel portions, extending from a top edge region thereof to a bottom edge region thereof, to facilitate separation of a free portion of each central panel from portions of each central panel to which the second attachment flaps are affixed.

[0017] Still further alternatively, the at least one region of frangibility disposed in at least one of the body wrap portion and the two end panel portions, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container may comprise a line of perforations disposed along the end edges of the substantially rectangular center panel, and each of the first attachment flaps, to facilitate separation of each central panel from the substantially rectangular center panel.

[0018] Two third attachment flaps may be provided, emanating along third lines of weakness from opposing end edges of each of the two substantially rectangular closure panels emanating from side edges of the substantially rectangular side panels, the two third attachment flaps being disposed substantially perpendicular to the substantially rectangular closure panels, the two third attachment flaps being further disposed in substantially parallel, laterally spaced relation to each other, the third lines of weakness being disposed substantially parallel to the first lines of weakness.

[0019] The two substantially rectangular closure panels may be maintained in their substantially parallel spaced relation to the substantially rectangular center panel, by affixation of the two third attachment flaps to the central panels of the two end panel portions. The at least one region of frangibility disposed in at least one of the body wrap portion and the two end panel portions, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container may comprise a tear strip member embedded in the substantially rectangular center panel, and extending from one end edge to the other end edge thereof. Alternatively, the at least one region of frangibility disposed in at least one of the body wrap portion and the two end panel portions, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container may comprise a pair of parallel perforations disposed in each central panel of each of the two end panel portions, extending from a top edge region thereof to a bottom edge region thereof, to facilitate separation of a free portion of each central panel from portions of each central panel to which the second attachment flaps are affixed. Still further alternatively, the at least one region of frangibility disposed in at least one of the body wrap portion and the two end panel portions, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of

the container may comprise a line of perforations disposed along the end edges of the substantially rectangular center panel, and each of the first attachment flaps, to facilitate separation of each end panel portion from the substantially rectangular center panel. The at least one region of frangibility disposed in at least one of the body wrap portion and the two end panel portions, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container may comprise lines of perforations disposed along the end edges of the substantially rectangular side panels, and each of the second attachment flaps, to facilitate separation of each end panel portion from the substantially rectangular side panels.

[0020] In another embodiment of the invention, the at least one region of frangibility disposed in at least one of the body wrap portion and the two end panel portions, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container comprises a tear strip member embedded in the substantially rectangular center panel, and extending from one end edge to the other end edge thereof, to facilitate separation of the substantially rectangular center panel into two remaining disconnection portions thereof, the two remaining disconnected portions of the substantially rectangular center panel being thereafter repositionable to orientations substantially parallel to the substantially rectangular side panels, to further permit the substantially rectangular side panels to be collapsed inwardly toward one another into substantially juxtaposed partially overlying relation to one another.

[0021] The invention is also directed, in part, to blanks for a container for packaging and shipping articles, fabricated at least in part from at least one of paper, paperboard and corrugated paperboard material, the container being reducible from a packaging and shipping configuration, to a configuration that facilitates bundling of pluralities of the container for subsequent recycling.

[0022] The blanks comprise a body wrap blank including at least a substantially rectangular center panel and two substantially rectangular side panels emanating from side edges of the substantially rectangular center panel, two first attachment flaps emanating along first lines of weakness from opposing end edges of the substantially rectangular center panel, two second attachment flaps emanating along second lines of weakness from opposing end edges of each of the substantially rectangular side panels emanating from side edges of the substantially rectangular center panel, the second lines of weakness being disposed substantially perpendicular to the first lines of weakness; and two end panel blanks, each including at least a central panel. The blanks further include at least one region of frangibility disposed in at least one of the body wrap blank and the two end panel blanks, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container.

[0023] The body wrap blank may further comprise two substantially rectangular closure panels, emanating from side edges of the substantially rectangular side panels. The at least one region of frangibility disposed in at least one of the body wrap blank and the two end panel blanks, to facilitate the manual reduction of the container, after use,

into a substantially flattened configuration toward facilitating recycling of the container may comprise a tear strip member embedded in the substantially rectangular center panel, and extending from one end edge to the other end edge thereof. Alternatively, the at least one region of frangibility disposed in at least one of the body wrap blank and the two end panel blanks, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container may comprise a pair of parallel perforations disposed in each central panel of each of the two end panel blanks, extending from a top edge region thereof to a bottom edge region thereof, to facilitate separation of a free portion of each central panel from portions of each central panel to which the second attachment flaps are affixed. The at least one region of frangibility disposed in at least one of the body wrap blank and the two end panel blanks, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container may alternatively comprise a line of perforations disposed along the end edges of the substantially rectangular center panel, and each of the first attachment flaps, to facilitate separation of each central panel from the substantially rectangular center panel. The blanks may further comprise two third attachment flaps emanating along third lines of weakness from opposing end edges of each of the two substantially rectangular closure panels emanating from side edges of the substantially rectangular side panels, the third lines of weakness being disposed substantially parallel to the first lines of weakness. The at least one region of frangibility disposed in at least one of the body wrap blank and the two end panel blanks, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container may comprise a tear strip member embedded in the substantially rectangular center panel, and extending from one end edge to the other end edge thereof. Alternatively, the at least one region of frangibility disposed in at least one of the body wrap blank and the two end panel blanks, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container may comprise a pair of parallel perforations disposed in each central panel of each of the two end panel portions, extending from a top edge region thereof to a bottom edge region thereof, to facilitate separation of a free portion of each central panel from portions of each central panel to which the second attachment flaps are affixed. Alternatively, the at least one region of frangibility disposed in at least one of the body wrap blank and the two end panel blanks, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container may comprise a line of perforations disposed along the end edges of the substantially rectangular center panel, and each of the first attachment flaps, to facilitate separation of each end panel portion from the substantially rectangular center panel. The at least one region of frangibility disposed in at least one of the body wrap blank and the two end panel blanks, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container may comprise lines of perforations disposed along the end edges of the substantially rectangular side panels, and each of the second attachment flaps, to facilitate separation of each end

panel portion from the substantially rectangular side panels. The at least one region of frangibility disposed in at least one of the body wrap blank and the two end panel blanks, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container may comprise a tear strip member embedded in the substantially rectangular center panel, and extending from one end edge to the other end edge thereof, to facilitate separation of the substantially rectangular center panel into two remaining disconnection portions thereof, the two remaining disconnected portions of the substantially rectangular center panel being thereafter repositionable to orientations substantially parallel to the substantially rectangular side panels, to further permit the substantially rectangular side panels to be collapsed inwardly toward one another into substantially juxtaposed partially overlying relation to one another.

[0024] The invention also comprises, in part, a method for reducing a container for packaging and shipping articles, fabricated at least in part from at least one of paper, paperboard and corrugated paperboard material, from a packaging and shipping configuration, to a configuration that facilitates the flattening and bundling of pluralities of the container for subsequent recycling, the method comprising the steps of:

[0025] providing a body wrap portion including at least a substantially rectangular center panel and two substantially rectangular side panels emanating from side edges of the substantially rectangular center panel, and disposed substantially perpendicular thereto, the two substantially rectangular side panels being disposed in substantially parallel, laterally spaced relation to each other,

[0026] providing two first attachment flaps emanating along first lines of weakness from opposing end edges of the substantially rectangular center panel, the two first attachment flaps being disposed substantially perpendicular to the substantially rectangular center panel, the two first attachment flaps further being disposed in substantially parallel, laterally spaced relation to each other,

[0027] providing two second attachment flaps emanating along second lines of weakness from opposing end edges of each of the substantially rectangular side panels emanating from side edges of the substantially rectangular center panel, the two second attachment flaps being disposed substantially perpendicular to the substantially rectangular center panel, the two second attachment flaps further being disposed in substantially parallel, laterally spaced relation to each other, the second lines of weakness being disposed substantially perpendicular to the first lines of weakness;

[0028] providing two end panel portions, each including at least a central panel, each of the two end panel portions being disposed adjacent one of the end edges of the substantially rectangular center panel, each end panel portion having one of the first attachment flaps and one second attachment flap from each of the substantially rectangular side panels disposed in substantially parallel overlying affixed relation thereto, to define a container having five

panel faces arranged in substantially rigid orientation thereto and an article containing region formed therewithin;

[0029] further providing at least one region of frangibility disposed in at least one of the body wrap portion and the two end panel portions, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container; and

[0030] tearing the container along the at least one region of frangibility to reduce the container to a substantially flattened configuration.

[0031] The step of providing the body wrap portion may further comprise the step of:

[0032] providing two substantially rectangular closure panels, emanating from side edges of the substantially rectangular side panels, and disposed in substantially perpendicular relation thereto, the two substantially rectangular closure panels being further disposed in substantially parallel spaced relation to the substantially rectangular center panel, free edges of the two substantially rectangular closure panels being disposed in substantially parallel, adjacent relation to one another.

[0033] The method may further comprise the step of maintaining the two substantially rectangular closure panels in their substantially parallel spaced relation to the substantially rectangular center panel, by a tape closure member affixedly connecting at least the two substantially rectangular closure panels.

[0034] The step of providing at least one region of frangibility disposed in at least one of the body wrap portion and the two end panel portions, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container may further comprise the step of:

[0035] providing a tear strip member embedded in the substantially rectangular center panel, and extending from one end edge to the other end edge thereof.

[0036] Alternatively, the step of providing at least one region of frangibility disposed in at least one of the body wrap portion and the two end panel portions, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container may further comprise the step of:

[0037] providing a pair of parallel perforations disposed in each central panel of each of the two end panel portions, extending from a top edge region thereof to a bottom edge region thereof, to facilitate separation of a free portion of each central panel from portions of each central panel to which the second attachment flaps are affixed.

[0038] The step of providing at least one region of frangibility disposed in at least one of the body wrap portion and the two end panel portions, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container further may further comprise the step of:

[0039] providing a line of perforations disposed along the end edges of the substantially rectangular center panel, and each of the first attachment flaps, to facilitate separation of each central panel from the substantially rectangular center panel.

[0040] The method may further comprise the step of:

[0041] providing two third attachment flaps emanating along third lines of weakness from opposing end edges of each of the two substantially rectangular closure panels emanating from side edges of the substantially rectangular side panels, the two third attachment flaps being disposed substantially perpendicular to the substantially rectangular closure panels, the two third attachment flaps being further disposed in substantially parallel, laterally spaced relation to each other, the third lines of weakness being disposed substantially parallel to the first lines of weakness.

[0042] The method may further comprise the step of maintaining the two substantially rectangular closure panels in their substantially parallel spaced relation to the substantially rectangular center panel, by affixation of the two third attachment flaps to the central panels of the two end panel portions.

[0043] The step of providing at least one region of frangibility disposed in at least one of the body wrap portion and the two end panel portions, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container further may further comprise the step of:

[0044] providing a tear strip member embedded in the substantially rectangular center panel, and extending from one end edge to the other end edge thereof.

[0045] The step of providing at least one region of frangibility disposed in at least one of the body wrap portion and the two end panel portions, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container may further comprise the step of:

[0046] providing a pair of parallel perforations disposed in each central panel of each of the two end panel portions, extending from a top edge region thereof to a bottom edge region thereof, to facilitate separation of a free portion of each central panel from portions of each central panel to which the second attachment flaps are affixed.

[0047] The step of providing at least one region of frangibility disposed in at least one of the body wrap portion and the two end panel portions, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container may further comprise the step of:

[0048] providing a line of perforations disposed along the end edges of the substantially rectangular center panel, and each of the first attachment flaps, to facilitate separation of each end panel portion from the substantially rectangular center panel.

[0049] The step of providing at least one region of frangibility disposed in at least one of the body wrap portion and

the two end panel portions, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container further may further comprise the step of:

[0050] providing lines of perforations disposed along the end edges of the substantially rectangular side panels, and each of the second attachment flaps, to facilitate separation of each end panel portion from the substantially rectangular side panels.

[0051] The step of providing at least one region of fragility disposed in at least one of the body wrap portion and the two end panel portions, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container may further comprise the step of:

[0052] providing a tear strip member embedded in the substantially rectangular center panel, and extending from one end edge to the other end edge thereof, to facilitate separation of the substantially rectangular center panel into two remaining disconnection portions thereof, the two remaining disconnected portions of the substantially rectangular center panel being thereafter repositionable to orientations substantially parallel to the substantially rectangular side panels, to further permit the substantially rectangular side panels to be collapsed inwardly toward one another into substantially juxtaposed partially overlying relation to one another.

BRIEF DESCRIPTION OF THE DRAWINGS

[0053] FIG. 1 is a plan view of the blank for an outer body wrapper for a container, according to a first embodiment of the invention.

[0054] FIG. 2 is a plan view of a blank for an end panel for a container according to the embodiment of FIG. 1.

[0055] FIG. 3 is a perspective view of a fully erected container according to the embodiment of FIGS. 1 and 2.

[0056] FIG. 4 is a plan view of the blank for an outer body wrapper for a container, according to a first embodiment of the invention.

[0057] FIG. 5 is a plan view of a blank for an end panel for a container according to the embodiment of FIG. 4.

[0058] FIG. 6 is a perspective view of a fully erected container according to the embodiment of FIGS. 4 and 5.

[0059] FIG. 7 is a plan view of the blank for an outer body wrapper for a container, according to a first embodiment of the invention.

[0060] FIG. 8 is a plan view of a blank for an end panel for a container according to the embodiment of FIG. 7.

[0061] FIG. 9 is a perspective view of a fully erected container according to the embodiment of FIGS. 7 and 8.

[0062] FIG. 10 is a plan view of the blank for an outer body wrapper for a container, according to another embodiment of the invention.

[0063] FIG. 11 is a plan view of a blank for an end panel for a container according to the embodiment of FIG. 10.

[0064] FIG. 12 is a perspective view of a fully erected container according to the embodiments of FIGS. 10 and 11.

DETAILED DESCRIPTION OF THE DRAWINGS

[0065] While this invention is susceptible of embodiment in many different forms, there is shown in the drawings and will be described herein in detail, a specific embodiment, with the understanding that the present invention is to be considered as an exemplification of the principles of the invention and is not intended to limit the invention to the embodiment illustrated.

[0066] In the figures, unless otherwise noted, the usual convention is observed that solid lines on the interior of a figure represents cuts, edges or points of inflection (like a ridge, crease or inwardly or outwardly projecting gusset), and broken or dashed lines indicate folds, score lines or other lines of weakness.

[0067] In one embodiment, shown in FIGS. 1-3, the container is formed from outer body wrapper blank 10 and two end piece blanks 12. Outer body wrapper blank 10 includes panel 14, two side panels 16 and 18 and two panels 20, 22. Wrapper blank 10 is preferably fabricated from corrugated paperboard, and a preferred direction for the flutes of the corrugation is from side to side, as blank 10 is viewed in FIG. 1. Panel 14 includes two flaps 24, 26 extending from end edges 28, and 30 of panel 14, respectively. Tear strip 32 extends from the edge 34 of the panel 24 to edge 36 of panel 26. Flaps 24, 26 include tabs 40, 42, formed by diverging pairs 44, 46 of perforations or through-cuts. Side panels 16, 18, likewise include end flaps 48, 50, 52 and 54, extending from their respective end edges, to improve the structural integrity of the articulated container. The two panel pieces 20, 22 are joined in abutment and taped together during articulation of the container—to complete formation of the four-sided body wrapper.

[0068] Each end piece blank 12 (FIG. 2) includes end panel 56, two wing panels 58, 60, and bottom-reinforcing panel 62. Blank 12 is preferably fabricated from corrugated paperboard, and a preferred direction for the flutes of the corrugation is from top to bottom, as blank 12 is viewed in FIG. 2. End panel 56 of each end piece blank 12 includes two perforation lines 64, 66, that may be broken with an applied tearing force.

[0069] To assemble the Bliss-style container 70 of FIG. 3, the two end piece blanks 12 are glued to the outer body wrapper blank 10, and folded up to render five sides of the container enclosed and rigid. Blanks 12 are laid on the ends of blank 10 such that panels 56 are positioned in overlying relation and affixed (e.g., by glue) to flaps 24, 26, with edges 57 of panels 56 being substantially aligned with fold lines 25, 27, respectively. At this stage of the formation process, the goods to be packaged may be placed on blank 10, positioned over panel 14. Alternatively, the formation of container 70 may continue with flaps 24, 26 being folded up perpendicular with panel 14, while panels 58, 60 being simultaneously or shortly thereafter being folded perpendicular to panels 56, for each of blanks 12. Panels 16 and 18 are folded up perpendicular to panel 14, and panels 58, 60 of each of blanks 12 being adhered (again, e.g., by glue) to the inside surfaces of panels 16 and 18, to create a container 70 with five closed or substantially closed sides, and an open

top area, into which the product to be packaged can then be lowered. The sixth side of container 70 remains open and facing upward, until after placement of the product. To close the package, panels 62 of each of blanks 12 are folded over to be parallel to their respective panels 56, and parallel to panel 14. Flaps 20, 22 are also folded over to positions to the outside of panels 62, and perpendicular to panels 16, 18 respectively (and parallel to panel 14). Flaps 20, 22 are held in position, for example, by tape 72, extending from one panel 56 to the opposite panel 56. The formation of container 70 may be accomplished by one of ordinary skill in the art of corrugated container formation, having the present disclosure before them, using generally known container formation techniques.

[0070] Typically, container 70 will be inverted 180° so that the sealed sixth side is in the bottom position, and the panel with the tear strip faces up. This is typically the preferred shipping orientation, and any indicia may be printed or otherwise placed on the outside surfaces of blank 10, so that the indicia will be “right side up”, once container 70 has been inverted as described.

[0071] Once the container 70 has arrived at the ultimate end user, it may be opened when either or both of the pull tabs 40, 42, created by lines of weakness 44, 46 in the panel flaps 24, 26 are pulled to remove the tear strip 32 from the panel 14. Upon pulling of tear strip 32, panel 14 is divided into two resultant panels, permitting access to the interior of container 70. Reduction of container 70 is continued separating flaps 24, 26 from panel 14, and thereafter by pulling down panels 56, tearing them along lines of weakness 64, 66. Flaps 58, 60, and their adjoining remnants 59, 61 from panels 56, remaining connected to panels 16 and 18.

[0072] At this point, the container may be collapsed to a substantially flat orientation for recycling and/or disposal, without requiring any further tearing of the remaining blank material and particularly without the use of any cutting implements.

[0073] In another alternative embodiment, shown in FIGS. 4-6, the container 170 formed from outer body wrapper blank 110 and two end piece blanks 112. Outer body wrapper blank 110 includes panel 114, two side panels 116 and 118 and two panels 120, 122. Wrapper blank 110 is preferably fabricated from corrugated paperboard, and a preferred direction for the flutes of the corrugation is from side to side, as blank 110 is viewed in FIG. 4. Panel 114 includes two flaps 124, 126 extending from end edges 128 and 130 of panel 114, respectively. Tear strip 132 extends from the edge 134 of the panel 124 to edge 136 of panel 126. Flap 124 includes tab 140 formed by diverging pairs 144 of perforations or through-cuts. Side panels 116, 118, likewise include end flaps 148, 150, 152 and 154, extending from their respective end edges, to improve the structural integrity of the articulated container. Panels 120, 122 include end flaps 180, 182, 184 and 186.

[0074] Each end piece blank 112 (FIG. 5) includes center panel 156 and two wing panels 158, 160. Two perforation lines 164, 166, that may be broken with an applied tearing force, separating center panel 156 from wing panels 158, 160. Blank 112 is preferably fabricated from corrugated paperboard, and a preferred direction for the flutes of the corrugation is from top to bottom, as blank 112 is viewed in FIG. 5.

[0075] To assemble the Bliss-style container 170 of FIG. 6, the two end piece blanks 112 are glued to the outer body wrapper blank 110, and folded up to render five sides of the container enclosed and rigid. Blanks 112 are laid on the ends of blank 110 such that panels 156 are positioned in overlying relation and affixed (e.g., by glue) to flaps 124, 126, with edges 157 of panels 156 being substantially aligned with fold lines 125, 127, respectively. At this stage of the formation process, the goods to be packaged may be placed on blank 110, positioned over panel 114. Alternatively, the formation of container 170 may continue with flaps 124, 126 being folded up perpendicular with panel 114. Panels 116 and 118 are folded up perpendicular to panel 114. Panels 148, 150, 152, 154 are folded perpendicular to panels 116, 118, into outside overlying relationship to corresponding ones of panels 158 and 160 of blanks 112, and adhered to, e.g., by glue, to create a container 170 with five closed or substantially closed sides, and an open top area, into which the product to be packaged can then be lowered.

[0076] The sixth side of container 170 remains open and facing upward, until after placement of the product. To close the package, flaps 120, 122 are folded over to positions perpendicular to panels 116, 118 respectively (and parallel to panel 114). Flaps 180, 182, 184 and 186 are folded perpendicular to panels 120, 122, into outside overlying relationship to center panels 156, and adhered thereto, e.g., by glue. The formation of container 170 may be accomplished by one of ordinary skill in the art of corrugated container formation, having the present disclosure before them, using generally known container formation techniques.

[0077] Typically, container 170 will be inverted 180° so that the sealed sixth side is in the bottom position, and the panel with the tear strip faces up. This is typically the preferred shipping orientation, and any indicia may be printed or otherwise placed on the outside surfaces of blank 110, so that the indicia will be “right side up”, once container 170 has been inverted as described.

[0078] Once the container 170 has arrived at the ultimate end user, it may be opened when pull tab 140 created by lines of weakness 144 in the panel flap 124 are pulled to remove the tear strip 132 from the panel 114. Upon pulling of tear strip 132, panel 114 is divided into two resultant panels, permitting access to the interior of container 170. Reduction of container 170 is continued by separating flaps 124, 126 from panel 114, and thereafter by pulling down panels 156, tearing them along lines of weakness 164, 166. Flaps 158, 160 remain connected to panels 116 and 118.

[0079] At this point, the container may be collapsed to a substantially flat orientation for recycling and/or disposal, without requiring any further tearing of the remaining blank material and particularly without the use of any cutting implements.

[0080] In another alternative embodiment, shown in FIGS. 7-9, the container 270 formed from outer body wrapper blank 210 and two end piece blanks 212. Outer body wrapper blank 210 includes panel 214, two side panels 216 and 218 and two panels 220, 222. Wrapper blank 210 is preferably fabricated from corrugated paperboard, and a preferred direction for the flutes of the corrugation is from side to side, as blank 210 is viewed in FIG. 7. Panel 214 includes two flaps 224, 226 extending from end edges 228 and 230 of panel 214, respectively. Tear strip 232 extends

from the edge 234 of the panel 224 to edge 236 of panel 226. Flaps 224 and 226 include tabs 240, 242 formed by diverging pairs 244, 246 of perforations or through-cuts. Side panels 216, 218, likewise include end flaps 248, 250, 252 and 254, extending from their respective end edges, to improve the structural integrity of the articulated container. Panels 220, 222 include end flaps 280, 282, 284 and 286.

[0081] Each end piece blank 212 (FIG. 8) includes a single panel 256. Blank 212 is preferably fabricated from corrugated paperboard, and a preferred direction for the flutes of the corrugation is from top to bottom, as blank 212 is viewed in FIG. 8.

[0082] To assemble the Bliss-style container 270 of FIG. 9, the two end piece blanks 212 are glued to the outer body wrapper blank 210, and folded up to render five sides of the container enclosed and rigid. Blanks 212 are laid on the ends of blank 210 such that panels 256 are positioned in overlying relation and affixed (e.g., by glue) to flaps 224, 226, with edges 257 of panels 256 being substantially aligned with fold lines 225, 227, respectively. At this stage of the formation process, the goods to be packaged may be placed on blank 210, positioned over panel 214. Alternatively, the formation of container 270 may continue with flaps 224, 226 being folded up perpendicular with panel 214. Panels 216 and 218 are folded up perpendicular to panel 214. Panels 248, 250, 252, 254 are folded perpendicular to panels 216, 218, into outside overlying relationship to corresponding portions of panels 256, and adhered to, e.g., by glue, to create a container 270 with five closed or substantially closed sides, and an open top area, into which the product to be packaged can then be lowered.

[0083] The sixth side of container 270 remains open and facing upward, until after placement of the product. To close the package, flaps 220, 222 are folded over to positions perpendicular to panels 216, 218 respectively (and parallel to panel 214). Flaps 280, 282, 284 and 286 are folded perpendicular to panels 220, 222, into outside overlying relationship to center panels 256 and adhered thereto, e.g., by glue. The formation of container 270 may be accomplished by one of ordinary skill in the art of corrugated container formation, having the present disclosure before them, using generally known container formation techniques.

[0084] Typically, container 270 will be inverted 180° so that the sealed sixth side is in the bottom position, and the panel with the tear strip faces up. This is typically the preferred shipping orientation, and any indicia may be printed or otherwise placed on the outside surfaces of blank 210, so that the indicia will be "right side up", once container 270 has been inverted as described.

[0085] Once the container 270 has arrived at the ultimate end user, it may be opened when one or both of pull tabs 240, 242 created by lines of weakness 244, 246 in the panel flaps 224, 226 are pulled to remove the tear strip 232 from the panel 214. Upon pulling of tear strip 232, panel 214 is divided into two resultant panels, permitting access to the interior of container 270. Reduction of container 270 is continued by separating flaps 224, 226 from panel 214, and thereafter by pulling down panels 256, tearing them along lines of weakness 260, 262, 264, 266. Flaps 248, 250, 252, 254 remain connected to panels 256.

[0086] At this point, the container may be collapsed to a substantially flat orientation for recycling and/or disposal,

without requiring any further tearing of the remaining blank material and particularly without the use of any cutting implements.

[0087] In still another alternative embodiment, shown in FIGS. 10-12, the tray 370 formed from outer body wrapper blank 310 and two end piece blanks 312. Outer body wrapper blank 310 includes panel 314, and two side panels 316 and 318. Wrapper blank 310 is preferably fabricated from corrugated paperboard, and a preferred direction for the flutes of the corrugation is from side to side, as blank 310 is viewed in FIG. 10. Panel 314 includes two flaps 324, 326 extending from end edges 328 and 330 of panel 314, respectively. Tear strip 332 extends from the edge 334 of the panel 324 to edge 336 of panel 326. Flaps 324 and 326 include tabs 340, 342 formed by diverging pairs 344, 346 of perforations or through-cuts. Side panels 316, 318, likewise include end flaps 348, 350, 352 and 354, extending from their respective end edges, to improve the structural integrity of the articulated tray.

[0088] Each end piece blank 312 (FIG. 11) includes center panel 356 and wing panels 358, 360 separated by fold lines 359, 361. Blank 312 is preferably fabricated from corrugated paperboard, and a preferred direction for the flutes of the corrugation is from top to bottom, as blank 312 is viewed in FIG. 11.

[0089] To assemble the Bliss-style tray 370 of FIG. 12, the two end piece blanks 312 are glued to the outer body wrapper blank 310, and folded up to render five sides of the tray. Blanks 312 are laid on the ends of blank 310 such that panels 356 are positioned in overlying relation and affixed (e.g., by glue) to flaps 324, 326, with edges 357 of panels 356 being substantially aligned with fold lines 325, 327, respectively. At this stage of the formation process, the goods to be packaged may be placed on blank 310, positioned over panel 314. Alternatively, the formation of tray 370 may continue with flaps 324, 326 being folded up perpendicular with panel 314. Panels 316 and 318 are folded up perpendicular to panel 314, with flaps 358 and 360 being folded perpendicular to panels 356, and to the inside of panels 316 and 318, and adhered thereto. Panels 348, 350, 352, 354 are folded perpendicular to panels 316, 318, into outside overlying relationship to corresponding portions of panels 356, and adhered to, e.g., by glue, to create a tray 370 with five closed or substantially closed sides, and an open top area, into which the product to be packaged can then be lowered.

[0090] Tray 370 may be enclosed, e.g., by shrink wrap or the like, to protect the contents and prevent them from falling out. The formation of tray 370 may be accomplished by one of ordinary skill in the art of corrugated container formation, having the present disclosure before them, using generally known container formation techniques.

[0091] Once the tray 370 has arrived at the ultimate end user, and the contents have been removed, reduction of the tray may be accomplished when one or both of pull tabs 340, 342 created by lines of weakness 344, 346 in the panel flaps 324, 326 are pulled to remove the tear strip 332 from the panel 314. Upon pulling of tear strip 332, panel 314 is divided into two resultant panels. Reduction of tray 370 is further continued by folding the remnants of panel 314 inwardly or outwardly to positions parallel to panels 316, 318, thus leaving a rectangular structure with open top and

bottom regions. By pushing panels **316** and **318** toward one another, the rectangular structure collapses into a flat orientation, with multiple thicknesses of corrugated material without requiring any further tearing of the remaining blank material and particularly without the use of any cutting implements.

[0092] The foregoing description and drawings merely explain and illustrate the invention, and the invention is not limited except insofar as the appended claims are so limited, as those skilled in the art who have the disclosure before them will be able to make modifications and variations therein without departing from the scope of the invention.

We claim:

1. A container for packaging and shipping articles, fabricated at least in part from at least one of paper, paperboard and corrugated paperboard material, the container being reducible from a packaging and shipping configuration, to a configuration that facilitates the flattening and bundling of pluralities of the container for subsequent recycling, the container comprising:

a body wrap portion including at least a substantially rectangular center panel and two substantially rectangular side panels emanating from side edges of the substantially rectangular center panel, and disposed substantially perpendicular thereto, the two substantially rectangular side panels being disposed in substantially parallel, laterally spaced relation to each other,

two first attachment flaps emanating along first lines of weakness from opposing end edges of the substantially rectangular center panel, the two first attachment flaps being disposed substantially perpendicular to the substantially rectangular center panel, the two first attachment flaps further being disposed in substantially parallel, laterally spaced relation to each other,

two second attachment flaps emanating along second lines of weakness from opposing end edges of each of the substantially rectangular side panels emanating from side edges of the substantially rectangular center panel, the two second attachment flaps being disposed substantially perpendicular to the substantially rectangular center panel, the two second attachment flaps further being disposed in substantially parallel, laterally spaced relation to each other, the second lines of weakness being disposed substantially perpendicular to the first lines of weakness;

two end panel portions, each including at least a central panel, each of the two end panel portions being disposed adjacent one of the end edges of the substantially rectangular center panel, each end panel portion having one of the first attachment flaps and one second attachment flap from each of the substantially rectangular side panels disposed in substantially parallel overlying affixed relation thereto, to define a container having five panel faces arranged in substantially rigid orientation thereto and an article containing region formed therein;

the container further including at least one region of frangibility disposed in at least one of the body wrap portion and the two end panel portions, to facilitate the

manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container.

2. The container according to claim 1, wherein the body wrap portion further comprises:

two substantially rectangular closure panels, emanating from side edges of the substantially rectangular side panels, and disposed in substantially perpendicular relation thereto, the two substantially rectangular closure panels being further disposed in substantially parallel spaced relation to the substantially rectangular center panel, free edges of the two substantially rectangular closure panels being disposed in substantially parallel, adjacent relation to one another.

3. The container according to claim 2, wherein the two substantially rectangular closure panels are maintained in their substantially parallel spaced relation to the substantially rectangular center panel, by a tape closure member affixedly connecting at least the two substantially rectangular closure panels.

4. The container according to claim 2, wherein the at least one region of frangibility disposed in at least one of the body wrap portion and the two end panel portions, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container comprises:

a tear strip member embedded in the substantially rectangular center panel, and extending from one end edge to the other end edge thereof.

5. The container according to claim 2, wherein the at least one region of frangibility disposed in at least one of the body wrap portion and the two end panel portions, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container comprises:

a pair of parallel perforations disposed in each central panel of each of the two end panel portions, extending from a top edge region thereof to a bottom edge region thereof, to facilitate separation of a free portion of each central panel from portions of each central panel to which the second attachment flaps are affixed.

6. The container according to claim 2, wherein the at least one region of frangibility disposed in at least one of the body wrap portion and the two end panel portions, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container comprises:

a line of perforations disposed along the end edges of the substantially rectangular center panel, and each of the first attachment flaps, to facilitate separation of each central panel from the substantially rectangular center panel.

7. The container according to claim 2, further comprising:

two third attachment flaps emanating along third lines of weakness from opposing end edges of each of the two substantially rectangular closure panels emanating from side edges of the substantially rectangular side panels, the two third attachment flaps being disposed substantially perpendicular to the substantially rectangular closure panels, the two third attachment flaps being further disposed in substantially parallel, laterally

spaced relation to each other, the third lines of weakness being disposed substantially parallel to the first lines of weakness.

8. The container of claim 7, wherein the two substantially rectangular closure panels are maintained in their substantially parallel spaced relation to the substantially rectangular center panel, by affixation of the two third attachment flaps to the central panels of the two end panel portions.

9. The container of claim 7, wherein the at least one region of frangibility disposed in at least one of the body wrap portion and the two end panel portions, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container comprises:

a tear strip member embedded in the substantially rectangular center panel, and extending from one end edge to the other end edge thereof.

10. The container of claim 7, wherein the at least one region of frangibility disposed in at least one of the body wrap portion and the two end panel portions, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container comprises:

a pair of parallel perforations disposed in each central panel of each of the two end panel portions, extending from a top edge region thereof to a bottom edge region thereof, to facilitate separation of a free portion of each central panel from portions of each central panel to which the second attachment flaps are affixed.

11. The container of claim 7, wherein the at least one region of frangibility disposed in at least one of the body wrap portion and the two end panel portions, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container comprises:

a line of perforations disposed along the end edges of the substantially rectangular center panel, and each of the first attachment flaps, to facilitate separation of each end panel portion from the substantially rectangular center panel.

12. The container of claim 7, wherein the at least one region of frangibility disposed in at least one of the body wrap portion and the two end panel portions, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container comprises:

lines of perforations disposed along the end edges of the substantially rectangular side panels, and each of the second attachment flaps, to facilitate separation of each end panel portion from the substantially rectangular side panels.

13. The container of claim 1, wherein the at least one region of frangibility disposed in at least one of the body wrap portion and the two end panel portions, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container comprises:

a tear strip member embedded in the substantially rectangular center panel, and extending from one end edge to the other end edge thereof, to facilitate separation of the substantially rectangular center panel into two remaining disconnection portions thereof, the two

remaining disconnected portions of the substantially rectangular center panel being thereafter repositionable to orientations substantially parallel to the substantially rectangular side panels, to further permit the substantially rectangular side panels to be collapsed inwardly toward one another into substantially juxtaposed partially overlying relation to one another.

14. Blanks for a container for packaging and shipping articles, fabricated at least in part from at least one of paper, paperboard and corrugated paperboard material, the container being reducible from a packaging and shipping configuration, to a configuration that facilitates bundling of pluralities of the container for subsequent recycling, the blanks comprising:

a body wrap blank including at least a substantially rectangular center panel and two substantially rectangular side panels emanating from side edges of the substantially rectangular center panel,

two first attachment flaps emanating along first lines of weakness from opposing end edges of the substantially rectangular center panel,

two second attachment flaps emanating along second lines of weakness from opposing end edges of each of the substantially rectangular side panels emanating from side edges of the substantially rectangular center panel, the second lines of weakness being disposed substantially perpendicular to the first lines of weakness;

two end panel blanks, each including at least a central panel;

the blanks further including at least one region of frangibility disposed in at least one of the body wrap blank and the two end panel blanks, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container.

15. The blanks according to claim 14, wherein the body wrap blank further comprises:

two substantially rectangular closure panels, emanating from side edges of the substantially rectangular side panels.

16. The blanks according to claim 15, wherein the at least one region of frangibility disposed in at least one of the body wrap blank and the two end panel blanks, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container comprises:

a tear strip member embedded in the substantially rectangular center panel, and extending from one end edge to the other end edge thereof.

17. The blanks according to claim 15, wherein the at least one region of frangibility disposed in at least one of the body wrap blank and the two end panel blanks, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container comprises:

a pair of parallel perforations disposed in each central panel of each of the two end panel blanks, extending from a top edge region thereof to a bottom edge region thereof, to facilitate separation of a free portion of each

central panel from portions of each central panel to which the second attachment flaps are affixed.

18. The blanks according to claim 15, wherein the at least one region of frangibility disposed in at least one of the body wrap blank and the two end panel blanks, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container comprises:

a line of perforations disposed along the end edges of the substantially rectangular center panel, and each of the first attachment flaps, to facilitate separation of each central panel from the substantially rectangular center panel.

19. The blanks according to claim 15, further comprising:

two third attachment flaps emanating along third lines of weakness from opposing end edges of each of the two substantially rectangular closure panels emanating from side edges of the substantially rectangular side panels, the third lines of weakness being disposed substantially parallel to the first lines of weakness.

20. The blanks of claim 19, wherein the at least one region of frangibility disposed in at least one of the body wrap blank and the two end panel blanks, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container comprises:

a tear strip member embedded in the substantially rectangular center panel, and extending from one end edge to the other end edge thereof.

21. The blanks of claim 15, wherein the at least one region of frangibility disposed in at least one of the body wrap blank and the two end panel blanks, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container comprises:

a pair of parallel perforations disposed in each central panel of each of the two end panel portions, extending from a top edge region thereof to a bottom edge region thereof, to facilitate separation of a free portion of each central panel from portions of each central panel to which the second attachment flaps are affixed.

22. The blanks of claim 15, wherein the at least one region of frangibility disposed in at least one of the body wrap blank and the two end panel blanks, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container comprises:

a line of perforations disposed along the end edges of the substantially rectangular center panel, and each of the first attachment flaps, to facilitate separation of each end panel portion from the substantially rectangular center panel.

23. The blanks of claim 15, wherein the at least one region of frangibility disposed in at least one of the body wrap blank and the two end panel blanks, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container comprises:

lines of perforations disposed along the end edges of the substantially rectangular side panels, and each of the

second attachment flaps, to facilitate separation of each end panel portion from the substantially rectangular side panels.

24. The container of claim 14, wherein the at least one region of frangibility disposed in at least one of the body wrap blank and the two end panel blanks, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container comprises:

a tear strip member embedded in the substantially rectangular center panel, and extending from one end edge to the other end edge thereof, to facilitate separation of the substantially rectangular center panel into two remaining disconnection portions thereof, the two remaining disconnected portions of the substantially rectangular center panel being thereafter repositionable to orientations substantially parallel to the substantially rectangular side panels, to further permit the substantially rectangular side panels to be collapsed inwardly toward one another into substantially juxtaposed partially overlying relation to one another.

25. A method for reducing a container for packaging and shipping articles, fabricated at least in part from at least one of paper, paperboard and corrugated paperboard material, from a packaging and shipping configuration, to a configuration that facilitates the flattening and bundling of pluralities of the container for subsequent recycling, the method comprising the steps of:

providing a body wrap portion including at least a substantially rectangular center panel and two substantially rectangular side panels emanating from side edges of the substantially rectangular center panel, and disposed substantially perpendicular thereto, the two substantially rectangular side panels being disposed in substantially parallel, laterally spaced relation to each other,

providing two first attachment flaps emanating along first lines of weakness from opposing end edges of the substantially rectangular center panel, the two first attachment flaps being disposed substantially perpendicular to the substantially rectangular center panel, the two first attachment flaps further being disposed in substantially parallel, laterally spaced relation to each other,

providing two second attachment flaps emanating along second lines of weakness from opposing end edges of each of the substantially rectangular side panels emanating from side edges of the substantially rectangular center panel, the two second attachment flaps being disposed substantially perpendicular to the substantially rectangular center panel, the two second attachment flaps further being disposed in substantially parallel, laterally spaced relation to each other, the second lines of weakness being disposed substantially perpendicular to the first lines of weakness;

providing two end panel portions, each including at least a central panel, each of the two end panel portions being disposed adjacent one of the end edges of the substantially rectangular center panel, each end panel portion having one of the first attachment flaps and one second attachment flap from each of the substantially rectangular side panels disposed in substantially paral-

lel overlying affixed relation thereto, to define a container having five panel faces arranged in substantially rigid orientation thereto and an article containing region formed therewithin;

further providing at least one region of frangibility disposed in at least one of the body wrap portion and the two end panel portions, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container; and

tearing the container along the at least one region of frangibility to reduce the container to a substantially flattened configuration.

26. The method according to claim 25, wherein the step of providing the body wrap portion further comprises the step of:

providing two substantially rectangular closure panels, emanating from side edges of the substantially rectangular side panels, and disposed in substantially perpendicular relation thereto, the two substantially rectangular closure panels being further disposed in substantially parallel spaced relation to the substantially rectangular center panel, free edges of the two substantially rectangular closure panels being disposed in substantially parallel, adjacent relation to one another.

27. The method according to claim 26, further providing the step of maintaining the two substantially rectangular closure panels in their substantially parallel spaced relation to the substantially rectangular center panel, by a tape closure member affixedly connecting at least the two substantially rectangular closure panels.

28. The method according to claim 26, wherein the step of providing at least one region of frangibility disposed in at least one of the body wrap portion and the two end panel portions, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container comprises the step of:

providing a tear strip member embedded in the substantially rectangular center panel, and extending from one end edge to the other end edge thereof.

29. The method according to claim 26, wherein the step of providing at least one region of frangibility disposed in at least one of the body wrap portion and the two end panel portions, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container further comprises the step of:

providing a pair of parallel perforations disposed in each central panel of each of the two end panel portions, extending from a top edge region thereof to a bottom edge region thereof, to facilitate separation of a free portion of each central panel from portions of each central panel to which the second attachment flaps are affixed.

30. The method according to claim 26, wherein the step of providing at least one region of frangibility disposed in at least one of the body wrap portion and the two end panel portions, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container further comprises the step of:

providing a line of perforations disposed along the end edges of the substantially rectangular center panel, and each of the first attachment flaps, to facilitate separation of each central panel from the substantially rectangular center panel.

31. The method according to claim 26, further comprising the step of:

providing two third attachment flaps emanating along third lines of weakness from opposing end edges of each of the two substantially rectangular closure panels emanating from side edges of the substantially rectangular side panels, the two third attachment flaps being disposed substantially perpendicular to the substantially rectangular closure panels, the two third attachment flaps being further disposed in substantially parallel, laterally spaced relation to each other, the third lines of weakness being disposed substantially parallel to the first lines of weakness.

32. The method of claim 31, further comprising the step of maintaining the two substantially rectangular closure panels in their substantially parallel spaced relation to the substantially rectangular center panel, by affixation of the two third attachment flaps to the central panels of the two end panel portions.

33. The method of claim 31, wherein the step of providing at least one region of frangibility disposed in at least one of the body wrap portion and the two end panel portions, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container further comprises the step of:

providing a tear strip member embedded in the substantially rectangular center panel, and extending from one end edge to the other end edge thereof.

34. The method of claim 31, wherein the step of providing at least one region of frangibility disposed in at least one of the body wrap portion and the two end panel portions, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container further comprises the step of:

providing a pair of parallel perforations disposed in each central panel of each of the two end panel portions, extending from a top edge region thereof to a bottom edge region thereof, to facilitate separation of a free portion of each central panel from portions of each central panel to which the second attachment flaps are affixed.

35. The method of claim 31, wherein the step of providing at least one region of frangibility disposed in at least one of the body wrap portion and the two end panel portions, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container further comprises the step of:

providing a line of perforations disposed along the end edges of the substantially rectangular center panel, and each of the first attachment flaps, to facilitate separation of each end panel portion from the substantially rectangular center panel.

35. The method of claim 31, wherein the step of providing at least one region of frangibility disposed in at least one of the body wrap portion and the two end panel portions, to facilitate the manual reduction of the container, after use,

into a substantially flattened configuration toward facilitating recycling of the container further comprises the step of:

lines of perforations disposed along the end edges of the substantially rectangular side panels, and each of the second attachment flaps, to facilitate separation of each end panel portion from the substantially rectangular side panels.

36. The method of claim 25, wherein the step of providing at least one region of frangibility disposed in at least one of the body wrap portion and the two end panel portions, to facilitate the manual reduction of the container, after use, into a substantially flattened configuration toward facilitating recycling of the container further comprises the step of:

providing a tear strip member embedded in the substantially rectangular center panel, and extending from one end edge to the other end edge thereof, to facilitate separation of the substantially rectangular center panel into two remaining disconnection portions thereof, the two remaining disconnected portions of the substantially rectangular center panel being thereafter repositionable to orientations substantially parallel to the substantially rectangular side panels, to further permit the substantially rectangular side panels to be collapsed inwardly toward one another into substantially juxtaposed partially overlying relation to one another.

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