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(54) ARTICLE CARRIER AND BLANK THEREFOR

BEHÄLTERTRÄGER UND ZUSCHNITT DAFÜR

ELEMENT PORTE-ARTICLES ET DECOUPE DE CELUI-CI

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(72) Inventor: **BAKX, Martinus, C., M.**
NL-4416 LS Goes (NL)

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(74) Representative: **Hepworth, John Malcolm et al**
Hepworth Lawrence Bryer & Bizley Bloxam
Court Corporation Street
Rugby, Warwickshire CV21 2DU (GB)

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(73) Proprietor: **THE MEAD CORPORATION**
Dayton Ohio 45463 (US)

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Description

[0001] The present invention relates generally to carriers for articles such as beverage bottles, and in particular to carriers and blanks therefor of a type generally referred to as "basket carriers".

[0002] A variety of carriers for articles such as beverage bottles and the like are known. One such type of carrier is generally referred to as a "basket-style" carrier. In such a carrier, interconnected side and end walls and a bottom panel are suspended from a center handle. Typically, partitions are provided to divide the carrier into cells, one cell receiving each of the articles to be carried.

[0003] Many varieties of carriers of this type are known. In one such carrier, the end and side walls are all interconnected in the carrier blank, and one or both of the end walls are formed from a single panel. An example of a carrier of this type is shown in U.S. patent No. 2,733,832 of Newton. Because the carrier is usually printed with graphics for advertising and product identification, the uninterrupted end wall or walls provided by a carrier of this type can be advantageous. The printed graphics are uninterrupted by seams, fold lines or the like which can often be present in end panels of other types of basket carriers.

[0004] In blanks for basket carriers of the type shown in Newton, handle panels are usually disposed adjacent the end and side walls. However, the handle panels cannot be completely severed from the remainder of the blank, and it is necessary to connect the handle panel to the end panel along a vertical fold line. This results in an end panel which is not symmetrical. One side of the end panel must extend to a greater height along the handle than the other. This lack of symmetry may be regarded as aesthetically undesirable.

[0005] In addition, a carrier of the type shown in Newton is often formed with what are referred to as "strap-style partitions". These are narrow strips of material disposed between the handle panel and the side wall, and provide separation between adjacent articles only along a relatively small portion, e.g., near a bottle shoulder. It is not possible to provide partitions which extend deeper into the carrier, since the material for such partitions must necessarily come from the side walls.

[0006] Another example is US 2 920 791, Ringler, which illustrates a blank in which the handle panel is temporarily connected to the side panel by a small portion 3" to facilitate folding assembly of the blank.

[0007] What is needed, therefore, is an article carrier of the basket type, having uninterrupted end walls which are symmetrical about the handle. In addition, the carrier should be capable of being designed with partitions which may extend relatively deeply into the carrier.

[0008] In accordance with one aspect of the present invention, a blank for an article carrier is provided which includes a side panel having a first upper edge and a side edge, and an end panel having a second upper edge and a side edge. The end panel and the side panel

are interconnected at their side edges along a fold line. A handle panel is disposed adjacent a portion of the side panel along the first upper edge thereof and adjacent to a portion of the end panel along the second upper edge thereof. The handle panel is separated from the side panel by a first cut line extending along the first upper edge, and is partially separated from the end panel by a second cut line extending along a portion of the second upper edge, the second cut line terminating at a point spaced from the side edge of the handle panel and defining a connecting portion therebetween.

[0009] The connecting portion preferably has a width of approximately 1.0 to 5.0 millimeters.

[0010] The side edge of the handle panel and the second upper edge of the end panel may intersect substantially adjacent but spaced from the termination of the second cut line. The side edge of the handle panel and the second upper edge of the end panel may then intersect substantially along a radius of curvature.

[0011] A second aspect of the invention provides an article carrier comprising a side panel having a first upper edge and a side edge; an end panel having a second upper edge and a side edge. The end panel and the side panel are interconnected at the side edges along a fold line. A handle panel is separated from the side panel by a first cut line extending along the first upper edge and spaced therefrom, and being partially separated from the end panel by a second cut line extending along a portion of the second upper edge. The second cut line terminates at a point spaced from a side edge of the handle panel and defines a connecting portion therebetween. Preferably, the connecting portion may have a width of approximately 1.0 to 5.0 millimeters.

[0012] According to an optional feature of the second aspect of the invention the side edge of the handle panel and the second upper edge of the end panel intersect substantially adjacent but spaced from the termination of the second cut line. Preferably, the side edge of the handle panel and the second upper edge of the end panel intersect substantially along a radius of curvature.

BRIEF DESCRIPTION OF THE DRAWING

[0013] Fig. 1 is a plan view of a blank for an article carrier in accordance with the present invention, showing the inner surface thereof.

[0014] Fig. 2 shows the blank of Fig. 1 after folding of a portion of the blank to form an intermediate structure.

[0015] Fig. 3 shows the blank of Fig. 1 after further folding of a portion of the blank to form a further intermediate structure.

[0016] Fig. 4 shows the completed, collapsed article carrier formed from the blank of Fig. 1.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0017] Referring now to FIG. 1, the inner surface of a

blank for a basket-style carrier in accordance with the present invention is shown. The blank, which is preferably formed from a paperboard material, includes end panel 12, side panel 14, end panel 16 and side panel 18. These panels are interconnected along fold lines 20, 22 and 24 respectively. Connected along fold line 26 at an opposite end of side panel 18 is a glue flap 28.

[0018] A series of bottom flaps 30, 32, 34 and 36 are connected to panels 12, 14, 16 and 18 respectively by fold lines 38, 40, 42 and 44 respectively. Bottom panels 30, 32, 34 and 36 are configured so that when folded and connected, as described in further detail herein, the panels will form an automatic opening bottom wall structure, as is known in the art. Accordingly, bottom panel 32 includes a glue panel 46 connected along fold line 48, and bottom panel 36 includes a glue panel 50 connected thereto along fold line 52. In addition, bottom panels 32 and 36 each include locking tabs 54 and 56, respectively.

[0019] An outer handle panel 58 is disposed adjacent end panel 12 and side panel 14. Handle panel 58 is separated from side panel 14 by a cut line 60, and from end panel 12 by a cut line 62. Handle panel 58 is connected to end panel 12 at one side edge of handle panel 58, with the side edge of handle panel 58 and the upper edge of end panel 12 meeting along a radius of curvature 64.

[0020] Cut line 62 terminates short of the side edge of handle panel 58, as shown in FIG. 1. A connecting portion 66 of paperboard material extends between and interconnects handle panel 58 and end panel 12. The distance from the end of cut line 62 to the edge of handle panel 58 and end panel 12 is in the order of several millimeters, and preferably within a range from one to five millimeters. Connecting portion 66 is of a width which is sufficient to maintain the connection between handle panel 58 and end panel 12 during handling of the blank prior to folding and gluing.

[0021] In addition, handle panel 58 may be connected to end panel 12 and side panel 14 by a plurality of "nicks", as will be understood by those skilled in the art.

[0022] Outer handle panel 58 includes a hand aperture 68. A hand cushioning flap 70 is connected along a fold line to an upper edge of hand aperture 68.

[0023] A similar outer handle panel 72 is disposed adjacent end panel 16 and side panel 18. Handle panel 72 is separated from side panel 18 by a cut line 74, and from end panel 16 by a cut line 76. A connecting portion 78 is disposed between the end of cut line 76 and the edge of handle panel 72 and end panel 16. Preferably, connecting portion 78 is of similar dimensions as connecting portion 66. In addition, the side edge of handle panel 72 and the upper edge of end panel 16 meet along a radius of curvature 80.

[0024] A hand aperture 82 is formed in outer handle panel 72, and includes a hand cushioning panel 84 connected along an upper edge of aperture 82 along a fold line.

[0025] An inner handle panel 86 is connected to outer handle panel 58 along fold line 88. A hand aperture 90 is formed through handle panel 86.

[0026] Similarly, an inner handle panel 92 is connected to outer handle panel 72 along fold line 94. A hand aperture 96 is formed through handle panel 92.

[0027] A partition structure for the article carrier is formed at the lower ends of inner handle panels 86 and 92. Specifically, partition panel 98 is connected to handle panel 86 along fold line 100, and includes a glue panel 102 connected at an opposite end of partition panel 98 along fold line 104. A further partition panel 106 is connected to handle panel 86 along fold line 108, and includes a glue panel 110 connected to an opposite end thereof along fold line 112 to laterally extend from handle panel 86.

[0028] A partition panel 114 is connected to handle panel 92 along fold line 116, and has a glue flap 118 connected at the opposite end thereof along fold line 120.

[0029] A further partition panel 122 is connected to handle panel 92 along fold line 124, and includes a flue flap 126 connected at its opposite end along fold line 128.

[0030] A glue flap 130 is connected along fold line 132 at a side edge of inner handle panel 86. As will be described herein, glue flap 130 secures the handle structure to the interior surface of end wall 12.

[0031] In a similar manner, a glue panel 134 is connected along fold line 136 to a side edge of inner handle panel 92. In addition, glue panel 134 is made sufficiently long to connect with glue panel 110. A fold relief aperture 136 is defined between glue panels 110 and 134. These panels are connected to provide a connection between handle panels 86 and 92 which is particularly useful in facilitating handling of the carton blank.

[0032] The folding of the blank of FIG. 1 to form the completed article carrier is begun by applying glue to the blank shown in FIG. 1. In particular, glue is applied to glue flaps and panels 130, 102, 110, 134, 118 and 126 as shown by stippling in FIG. 1. In addition, glue is applied to the surface of either or both of handle panel pairs 58, 86 and 72, 92. (Application of glue to these panels is not depicted in FIG. 1.) The blank is then folded along fold lines 88 and 94 to produce the intermediate structure shown in FIG. 2.

[0033] As can be seen from FIG. 2, folding results in glue flap 130 being secured to the inner surface of end panel 12, and glue flap 102 and glue panel 110 being secured to an inner surface of side panel 14. Glue panel 134 is secured to an inner surface of end wall 16, and relief aperture 136 is disposed along fold line 22 separating side panel 14 and end panel 16. Glue flap 118 and glue panel 126 are secured to the inner surface of side panel 18.

[0034] Bottom panels 30, 32, 34 and 36 are folded along fold lines 38, 40, 42 and 44 respectively to produce the intermediate structure shown in FIG. 3.

[0035] Finally, glue flap 46 is folded along fold line 48, and glue flap 50 is folded along fold line 52. Glue is then

applied to the exposed surface of flaps 46 and 50. In addition, glue flap 28 is folded along fold line 26, and glue is applied to the exposed surface of flap 28.

[0035] Glue is next applied to one or both of the surfaces of handle panels 86 and 92. The intermediate structure of FIG. 3 is then folded along fold line 22. This produces the completed, collapsed article carrier structure shown in FIG. 4.

[0036] In use, the article carrier is erected by moving the outer edges of the collapsed carrier, defined by fold lines 22 and 26, inwardly toward each other. This moves the end panels and side panels into a rectangular configuration. In addition, bottom panels 30, 32, 34 and 36 automatically fold downwardly (not shown) in a known manner to create a complete bottom wall. Locking tabs 54 and 56 engage to lock the bottom panels into position. Further, opening of the collapsed structure moves the partition panels into position to define individual cells for the articles to be carried, in a manner which will be well understood by those skilled in the art.

[0037] During carton setup, the connecting portions 66 and 78 which interconnect end panel 12 and outer handle panel 58, and end panel 16 and outer handle panel 72, respectively, will be twisted and will wrap around the edges of the handle structure. This will normally result in a tearing of some or all of connecting portions 66 and 78. However, because of the relatively small width of these connecting portions, any such tearing will be aesthetically unnoticeable. Moreover, the relatively small width of the connecting portions will not interfere with the opening of the carton when compared with conventional basket-style carriers. Further, because the carrier has been glued, the connecting portions which are provided to hold the blank together are no longer needed for this purpose.

[0038] By providing a radius of curvature 64, 80 where the edges of each handle panel 58, 72 meet the upper edge of end panels 12 and 16, the end of slit 62, 76 will be positioned closer to the center of the edge of the handle in the erected carton while maintaining the preferred width for connecting portion 66, 78. Such a position for the end of slit 62, 76 helps to keep the tearing of material to a minimum, and helps prevent an increase in force required to open the collapsed carrier as compared to conventional carriers.

[0039] It will further be recognized by those skilled in the art that a separate advantage of the article carrier shown herein is that the depth of partition panels 98, 106, 114 and 122 may be adjusted during the design of the carrier to produce partition panels which extend into the carrier body to any desired depth. This may be accomplished simply by extending the length of the handle panels 86 and 92 from which the partition structure is formed. This will in turn permit partition panels 98, 106, 114 and 122 to be extended.

[0040] Of course, as will be recognized, increasing the depth of the partitions will affect the cost of the carrier, since deeper partitions will require greater paper-

board material. However, the present invention enables the carrier to be adjusted with respect to partition depth and corresponding cost as may be appropriate with regard to the particular circumstances for which the article carrier is being produced.

Claims

1. A blank for an article carrier, comprising a side panel (14) having a first upper edge and a side edge; an end panel (12) having a second upper edge and a side edge, said end panel and said side panel being interconnected at said side edges along a fold line (20); a handle panel (58) disposed adjacent a portion of said side panel along said first upper edge thereof and adjacent a portion of said end panel along said second upper edge thereof; said handle panel being separated from said side panel by a first cut line (60) extending along said first upper edge, and being partially separated from said end panel by a second cut line (62) extending along a portion of said second upper edge, **characterised in that** said second cut line (62) terminates at a point spaced from a side edge (64) of said handle panel and defining a connecting portion (66) therebetween.
2. The blank as defined in claim 1, wherein said connecting portion has a width of approximately 1.0 to 5.0 millimeters.
3. The blank as defined in claim 1 or claim 2, wherein said side edge of said handle panel (58) and said second upper edge of said end panel intersect substantially adjacent but spaced from the termination of said second cut line (62).
4. The blank as defined in claim 3, wherein said side edge of said handle panel and said second upper edge of said end panel intersect substantially along a radius of curvature.
5. An article carrier comprising a side panel (14) having a first upper edge and a side edge; an end panel (12) having a second upper edge and a side edge, said end panel and said side panel being interconnected at said side edges along a fold line (20); a handle panel (58) being separated from said side panel by a first cut line (60) extending along said first upper edge and spaced therefrom, and being partially separated from said end panel by a second cut line (62) extending along a portion of said second upper edge, **characterized in that** said second cut line (62) terminates at a point spaced from a side edge (64) of said handle panel and defining a connecting portion (66) therebetween.

6. An article carrier as defined in claim 5 wherein said connecting portion has a width of approximately 1.0 to 5.0 millimeters.
7. An article carrier as defined in claim 5 or claim 6, wherein said side edge of said handle panel (58) and said second upper edge of said end panel intersect substantially adjacent but spaced from the termination of said second cut line (62).
8. An article carrier as defined in claim 7, wherein said side edge of said handle panel and said second upper edge of said end panel intersect substantially along a radius of curvature.

Patentansprüche

1. Zuschnitt für einen Gegenstandsträger, umfassend eine Seitenwandfläche (14), die eine erste Oberkante und eine Seitenkante aufweist; eine Endwandfläche (12), die eine zweite Oberkante und eine Seitenkante aufweist, wobei die Endwandfläche und die Seitenwandfläche miteinander an den Seitenkanten entlang einer Faltlinie (20) verbunden sind; eine Griffwandfläche (58), die angrenzend an einen Abschnitt der Seitenwandfläche entlang der ersten Oberkante davon und angrenzend an einen Abschnitt der Endwandfläche entlang der zweiten Oberkante davon angeordnet ist; wobei die Griffwandfläche von der Seitenwandfläche durch eine erste Stanzlinie (60) getrennt ist, die sich entlang der ersten Oberkante erstreckt, und wobei diese von der Endwandfläche durch eine zweite Stanzlinie (62) teilweise getrennt ist, die sich entlang einem Abschnitt der zweiten Oberkante erstreckt, **dadurch gekennzeichnet, dass** die zweite Stanzlinie (62) an einem Punkt endet, der von einer Seitenkante (64) der Griffwandfläche beabstandet ist und der einen Verbindungsabschnitt (66) dazwischen definiert.
2. Zuschnitt nach Anspruch 1, wobei der Verbindungsabschnitt eine Breite von etwa 1.0 bis 5.0 mm aufweist.
3. Zuschnitt nach Anspruch 1 oder 2, wobei sich die Seitenkante der Griffwandfläche (58) und die zweite Oberkante der Endwandfläche im Wesentlichen angrenzend, jedoch von dem Ende der zweiten Stanzlinie (62) beabstandet schneiden.
4. Zuschnitt nach Anspruch 3, wobei sich die Seitenkante der Griffwandfläche und die zweite Oberkante der Endwandfläche im Wesentlichen entlang einem Krümmungsradius schneiden.
5. Gegenstandsträger, umfassend eine Seitenwand-

fläche (14), die eine erste Oberkante und eine Seitenkante aufweist; eine Endwandfläche (12), die eine zweite Oberkante und eine Seitenkante aufweist, wobei die Endwandfläche und die Seitenwandfläche miteinander an den Seitenkanten entlang einer Faltlinie (20) verbunden sind; eine Griffwandfläche (58), die von der Seitenwandfläche durch eine erste Stanzlinie (60) getrennt ist, die sich entlang der ersten Oberkante erstreckt und von dieser beabstandet ist, und wobei diese von der Endwandfläche durch eine zweite Stanzlinie (62) teilweise getrennt ist, die sich entlang einem Abschnitt der zweiten Oberkante erstreckt, **dadurch gekennzeichnet, dass** die zweite Stanzlinie (62) an einem Punkt endet, der von einer Seitenkante (64) der Griffwandfläche beabstandet ist und der einen Verbindungsabschnitt (66) dazwischen definiert.

6. Gegenstandsträger nach Anspruch 5, wobei der Verbindungsabschnitt eine Breite von etwa 1.0 bis 5.0 mm aufweist.
7. Gegenstandsträger nach Anspruch 5 oder 6, wobei sich die Seitenkante der Griffwandfläche (58) und die zweite Oberkante der Endwandfläche im Wesentlichen angrenzend, jedoch von dem Ende der zweiten Stanzlinie (62) beabstandet schneiden.
8. Gegenstandsträger nach Anspruch 7, wobei sich die Seitenkante der Griffwandfläche und die zweite Oberkante der Endwandfläche im Wesentlichen entlang einem Krümmungsradius schneiden.

Revendications

1. Découpe pour élément porte-articles, comprenant un panneau latéral (14) ayant un premier bord supérieur et un bord latéral; un panneau d'extrémité (12) ayant un deuxième bord supérieur et un bord latéral, ledit panneau d'extrémité et ledit panneau latéral étant interconnectés au niveau desdits bords latéraux le long d'une ligne de pliage (20); un panneau à poignée (58) contigu à une partie dudit panneau latéral le long dudit premier bord supérieur de celui-ci et contigu à une partie dudit panneau d'extrémité le long dudit deuxième bord supérieur de celui-ci; ledit panneau à poignée étant séparé dudit panneau latéral par une première ligne de coupe (60) s'étendant le long dudit premier bord supérieur, et étant partiellement séparé dudit panneau d'extrémité par une deuxième ligne de coupe (62) s'étendant le long d'une partie dudit deuxième bord supérieur, **caractérisé en ce que** ladite deuxième ligne de coupe (62) se termine en un point espacé d'un bord latéral (64) dudit panneau à poignée et définissant une partie de connexion (66) entre eux.

2. Découpe selon la revendication 1, dans laquelle ladite partie de connexion a une largeur d'environ 1,0 à 5,0 millimètres.
3. Découpe selon la revendication 1 ou 2, dans laquelle le ledit bord latéral dudit panneau à poignée (58) et ledit deuxième bord supérieur dudit panneau d'extrémité se coupent en une position sensiblement adjacente à la terminaison de ladite deuxième ligne de coupe (62) mais espacée de celle-ci. 5
4. Découpe selon la revendication 3, dans laquelle ledit bord latéral dudit panneau à poignée et ledit deuxième bord supérieur dudit panneau d'extrémité se coupent sensiblement le long d'un rayon de courbure. 15
5. Elément porte-articles comprenant un panneau latéral (14) ayant un premier bord supérieur et un bord latéral; un panneau d'extrémité (12) ayant un deuxième bord supérieur et un bord latéral, ledit panneau d'extrémité et ledit panneau latéral étant interconnectés au niveau desdits bords latéraux le long d'une ligne de pliage (20); un panneau à poignée (58) séparé dudit panneau latéral par une première ligne de coupe (60) s'étendant le long dudit premier bord supérieur et espacée de celui-ci, et étant partiellement séparé dudit panneau d'extrémité par une deuxième ligne de coupe (62) s'étendant le long d'une partie dudit deuxième bord supérieur, **caractérisé en ce que** ladite deuxième ligne de coupe (62) se termine en un point espacé d'un bord latéral (64) dudit panneau à poignée et définissant une partie de connexion (66) entre eux. 20
25
30
35
6. Elément porte-articles selon la revendication 5 dans lequel ladite partie de connexion a une largeur d'environ 1,0 à 5,0 millimètres.
7. Elément porte-articles selon la revendication 5 ou 6, dans lequel ledit bord latéral dudit panneau à poignée (58) et ledit deuxième bord supérieur dudit panneau d'extrémité se coupent en une position sensiblement adjacente à la terminaison de ladite deuxième ligne de coupe (62) mais espacée de celle-ci. 40
45
8. Elément porte-articles selon la revendication 7, dans lequel ledit bord latéral dudit panneau à poignée et ledit deuxième bord supérieur dudit panneau d'extrémité se coupent sensiblement le long d'un rayon de courbure. 50

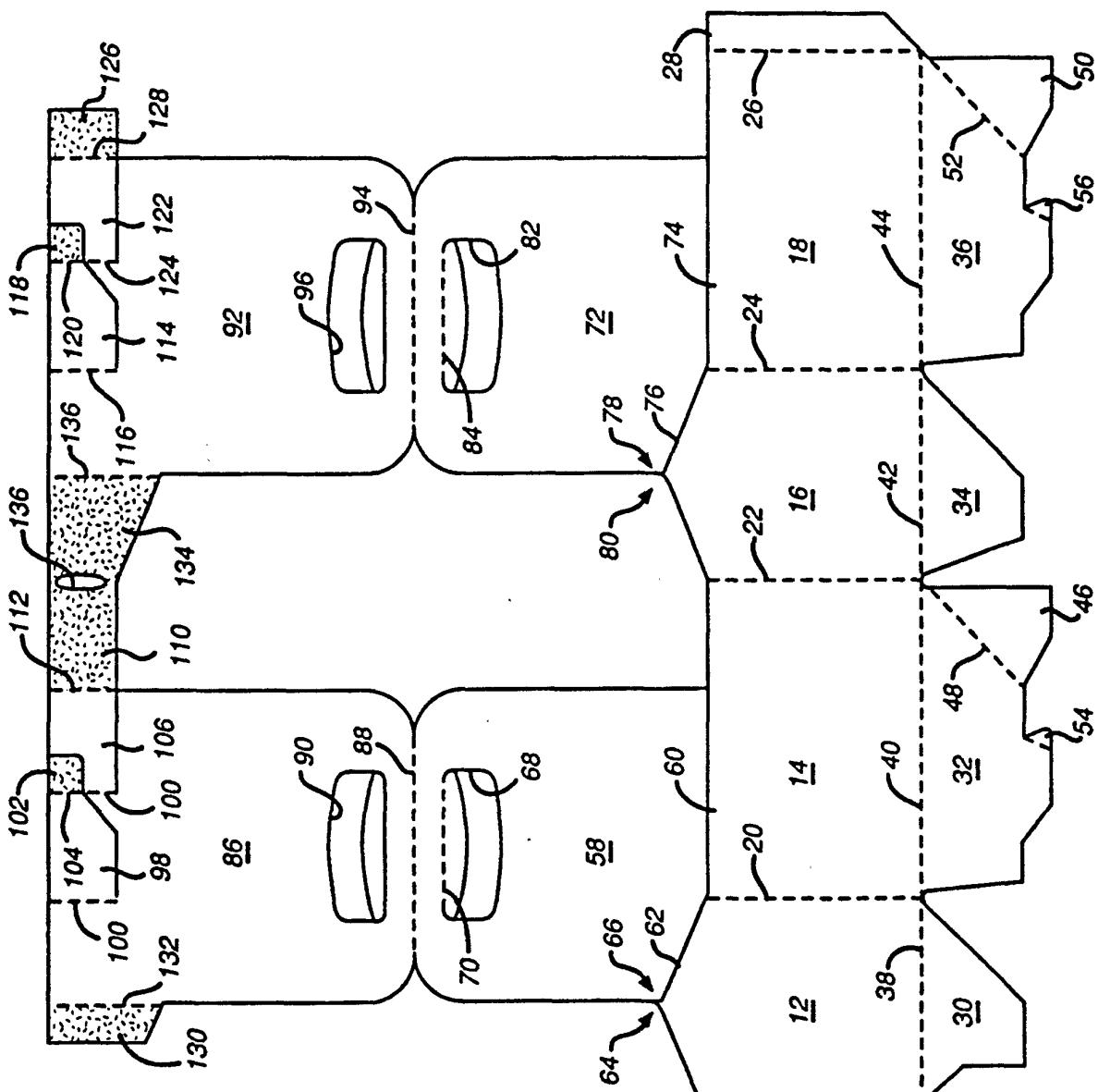


FIG. 1

FIG. 2

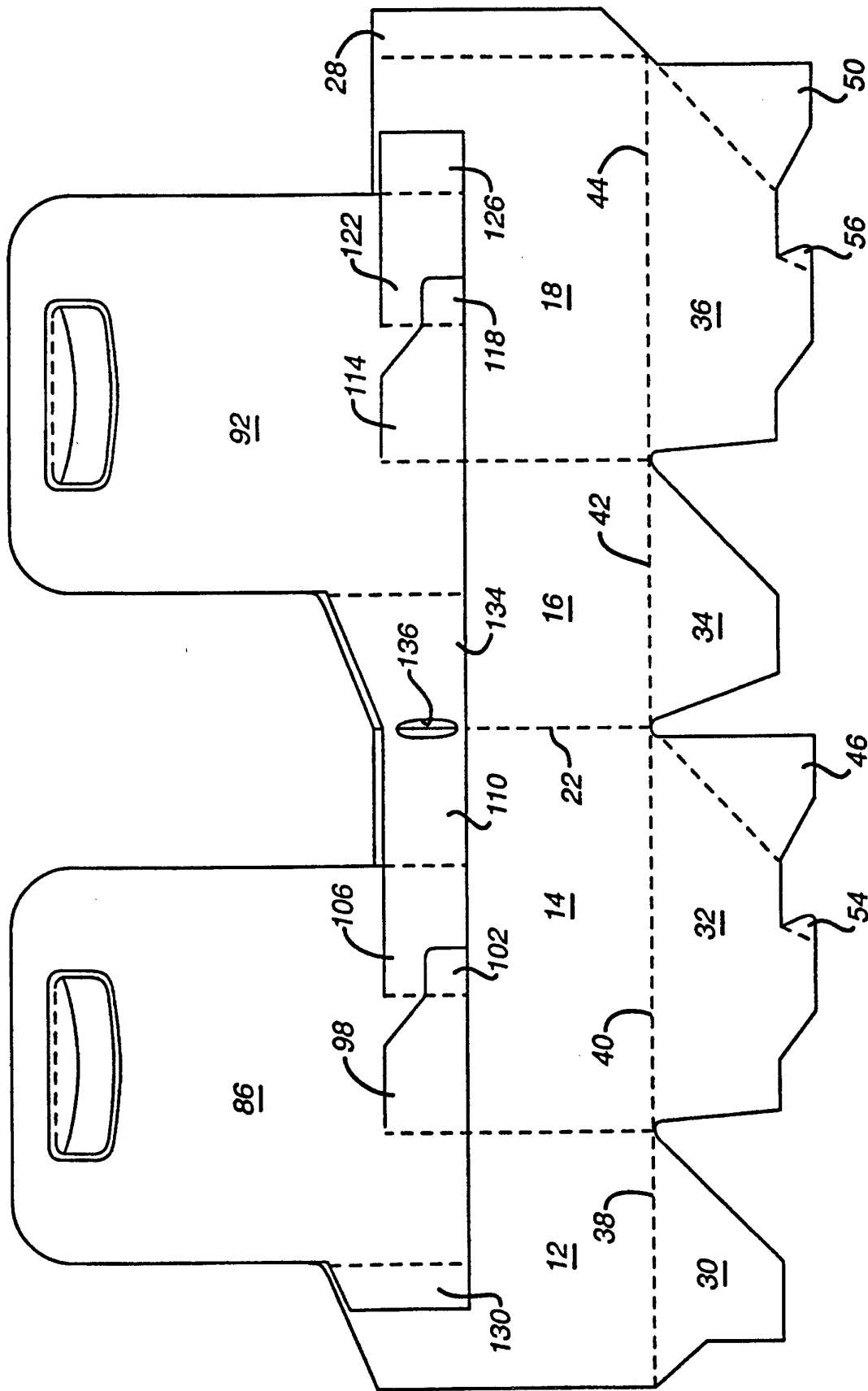
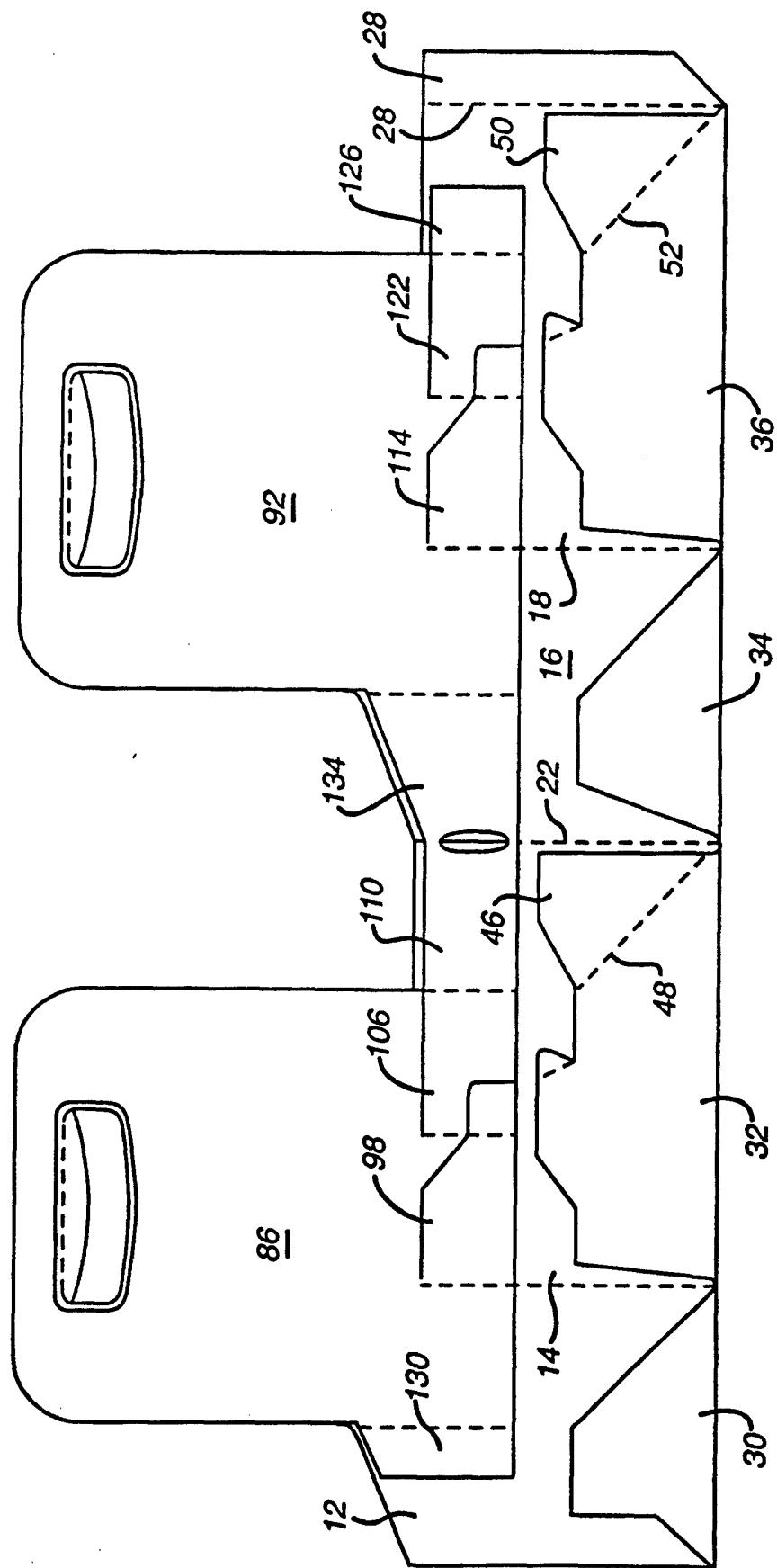


FIG. 3



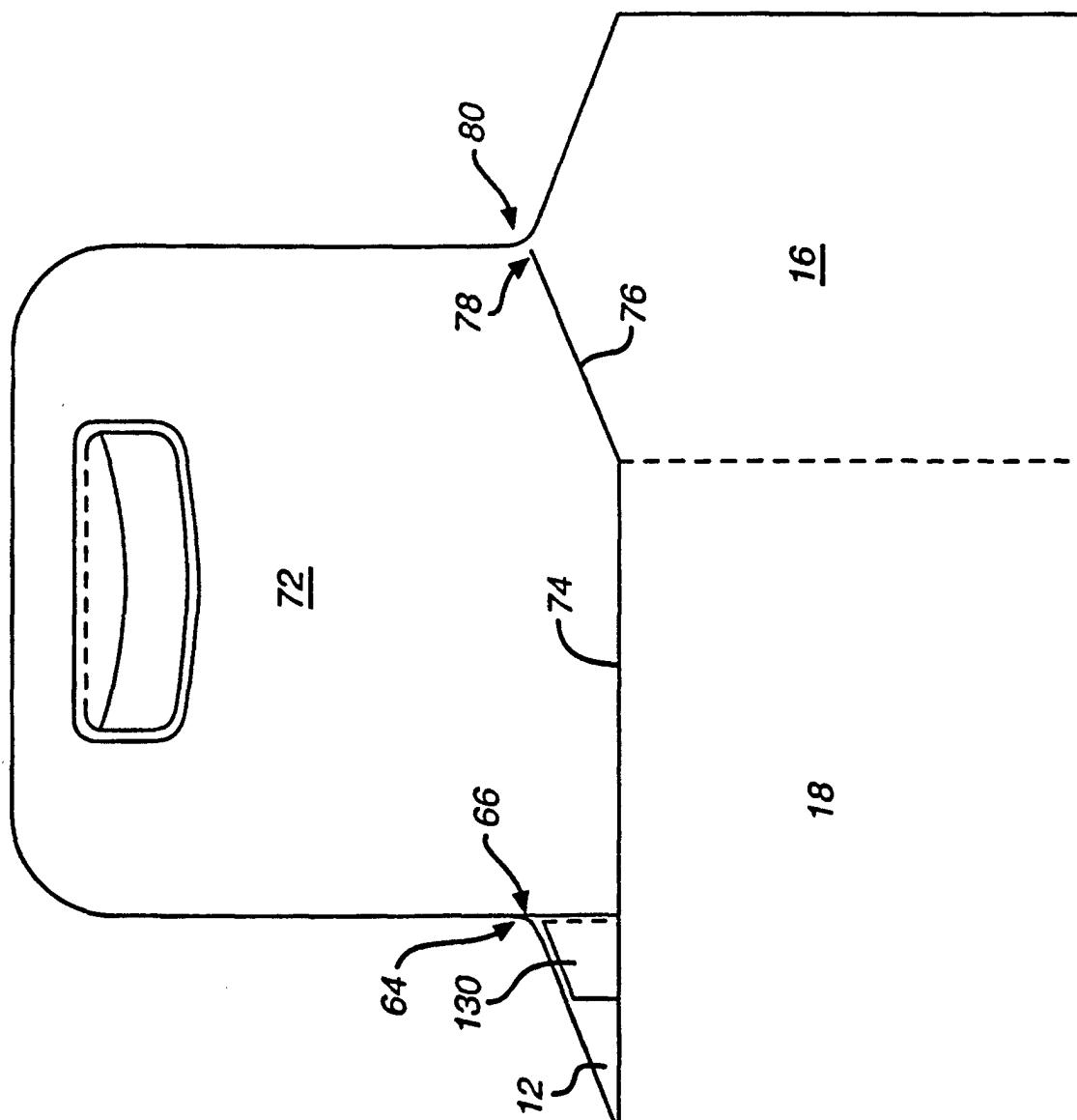


FIG. 4