Note: Within nine months of the publication of the mention of the grant of the European patent in the European Patent Bulletin, any person may give notice to the European Patent Office of opposition to that patent, in accordance with the Implementing Regulations. Notice of opposition shall not be deemed to have been filed until the opposition fee has been paid. (Art. 99(1) European Patent Convention).
Description

FIELD OF THE INVENTION

[0001] The present invention relates to a carton and blank for forming a carton, more specifically, but not exclusively to a carton having a carrying handle and a dispenser.

BACKGROUND OF THE INVENTION

[0002] In the field of packaging it is often required to provide consumers with a package comprising multiple primary product containers. Such multi-packs are desirable for shipping and distribution and for display of promotional information. For cost and environmental considerations, such cartons or carriers need to be formed from as little material as possible and cause as little wastage in the materials from which they are formed as possible. Another consideration is the strength of the packaging and its suitability for holding and transporting large weights of articles.


[0004] It is desirable to provide multi-packs with a carrying handle for a user to carry the multi-pack and a dispenser or an access means for a user to remove the primary product containers from the multi-pack.

[0005] The present invention seeks to overcome or at least mitigate the problems of the prior art.

SUMMARY OF INVENTION

[0006] According to a first aspect of the present invention there is provided a carton for packaging one of more articles, comprising a plurality of walls including a top wall, a first side wall, a second side wall, a first end wall, a second end wall and a bottom wall, the carton having a handle structure defined at least in part in an outer panel of one of the plurality of walls and at least in part in an inner panel of the one of the plurality of walls, the outer panel being disposed in at least partially overlapping relationship with the inner panel to form the one of the plurality of walls, the outer panel comprising an outer handle strap, the inner panel comprising an inner handle strap, the outer handle strap being continuously formed with the outer panel at a first end and severably attached by a frangible connection to the outer panel at a second end, opposing the first end, the inner handle strap comprising a first end disposed in the inner panel and continuously formed with the inner panel, the inner handle strap comprising a second end disposed in a third panel of another one of the plurality of walls, the outer handle strap being secured to the inner handle strap, the handle structure having a central portion defined by the outer handle strap which central portion is displaceable out of the plane of the one of the plurality of walls upon severance of said frangible connection, the carton further comprising an access device struck at least in part from the one of the plurality of walls, the access device being disposed adjacent to the first end of the outer handle strap.

[0007] Advantageously the handle structure and the access device can be employed either independently or together.

[0008] Optionally, the handle structure comprises a reinforcing strap.

[0009] Preferably, the reinforcing strap is hinged to the inner handle strap and is secured to the inner handle strap in face contacting relationship.

[0010] Optionally, the reinforcing strap is struck at least in part from the inner panel.

[0011] In some embodiments, the third panel forms a first end closure panel of the another one of the plurality of walls and wherein the carton further comprises a first side end closure panel forming in part the another one of the plurality of walls, the first side end closure panel having a first cutaway portion configured and arranged to expose a portion of the inner handle strap that is disposed in the first end closure panel.

[0012] Optionally, the carton further comprises a second side end closure panel forming in part the another one of the plurality of walls, the second side end closure panel having a second cutaway portion configured and arranged to expose the portion of the inner handle strap disposed in the first end closure panel.

[0013] Preferably, the first cutaway portion and the second cutaway portion define a recess which exposes the portion of the inner handle strap that is disposed in the first end closure panel.

[0014] Optionally, the one of the plurality of walls comprises the top wall, and the access device comprises a detachable portion of the top wall.

[0015] Preferably, the access device further comprises a detachable portion of the first side wall, the second side wall and the second end wall so as to form a removable corner portion.

[0016] Alternatively, the one of the plurality of walls comprises at the top wall, and the access device comprises a detachable portion of the first side wall, second side wall and second end wall so as to form a removable portion.

[0017] Alternatively, the one of the plurality of walls comprises the top wall, and the access device comprises an aperture defined in the top wall.

[0018] According to a second aspect of the present invention there is provided a blank for forming a carton, the blank comprising a plurality of panels for forming a top wall, a first side wall, a second side wall, a first end wall, a second end wall and a bottom wall, in a set-up carton an outer panel of the top wall being disposed in at least partially overlapping relationship with an inner panel of the top wall to form the top wall, the blank further comprising a handle structure defined at least in part in the outer panel and at least in part in the inner panel, the outer panel comprising an outer handle strap, the inner panel comprising an inner handle strap, the outer handle strap being continuously formed with the outer panel at a first end and severably attached by a frangible connection to the outer panel at a second end, opposing the first end, the inner handle strap comprising a first end disposed in the inner panel and continuously formed with the inner panel, the inner handle strap comprising a second end disposed in a third panel of another one of the plurality of walls, the outer handle strap being secured to the inner handle strap, the handle structure having a central portion defined by the outer handle strap which central portion is displaceable out of the plane of the one of the plurality of walls upon severance of said frangible connection, the carton further comprising an access device struck at least in part from the one of the plurality of walls, the access device being disposed adjacent to the first end of the outer handle strap.
strap being continuously formed with the outer panel at a first end and severably attached by a frangible connection to the outer panel at a second end, opposing the first end, the inner handle strap comprising a first end disposed in the inner panel and continuously formed with the inner panel, the inner handle strap comprising a second end disposed in a third panel of the first end wall, the outer handle strap being arranged to be securable to the inner handle strap, the handle structure having a central portion defined by the outer handle strap which central portion, in a set-up carton, is displaceable out of the plane of the top wall upon severance of said frangible connection, the blank further comprising an access device defined, at least in part in the outer panel and at least in part, in the inner panel, the access device being disposed adjacent to the first end of the outer handle strap. [0019] Within the scope of this application it is envisaged and intended that the various aspects, embodiments, examples, features and alternatives set out in the preceding paragraphs, in the claims and/or in the following description and drawings may be taken independently or in any combination thereof. For example, features described in connection with one embodiment are applicable to all embodiments unless there is incompatibility of features.

BRIEF DESCRIPTION OF THE DRAWINGS

[0020] Exemplary embodiments of the invention will now be described with reference to the accompanying drawings, in which:

Figure 1 is a plan view from above of a blank for forming a carton according to a first embodiment of the invention;
Figure 2 is a perspective view from above of a first end of the carton formed from the blank of Figure 1 showing a handle structure in a stowed state;
Figure 3 is a perspective view from above of a second opposite end of the carton formed from the blank of Figure 1 showing a handle structure in a stowed state;
Figure 4 is a perspective view from above of an end portion of the carton formed from the blank of Figure 1 showing the handle structure in a deployed state;
Figure 5 is a perspective view from above of the carton formed from the blank of Figure 1 showing the deployment of an access means;
Figure 6 is a plan view from above of a blank for forming a carton according to a second embodiment of the invention;
Figure 7 is a plan view from above of a blank for forming a carton according to a third embodiment of the invention;
Figure 8 is a perspective view of the inside of a carton erected from the blank of Figure 7, showing a top wall of the carton viewed from below;
Figure 9 is a perspective view of the carton formed from the blank of Figure 7, showing a first end wall of the carton wherein a displaceable tab is exposed to view in a recess formed by respective cutaway portions in the side end closure panels of that end wall; and
Figure 10 is a perspective view of the carton formed from the blank of Figure 7, showing a second end wall having a rounded upper end corner from which an access device is formed.

DETAILED DESCRIPTION OF EXEMPLARY EMBODIMENTS

[0021] Detailed descriptions of specific embodiments of the package, blanks and cartons are disclosed herein. It will be understood that the disclosed embodiments are merely examples of the way in which certain aspects of the invention can be implemented and do not represent an exhaustive list of all of the ways the invention may be embodied. As used herein, the word “exemplary” is used expansively to refer to embodiments that serve as illustrations, specimens, models, or patterns. Indeed, it will be understood that the packages, blanks and cartons described herein may be embodied in various and alternative forms. The figures are not necessarily to scale and some features may be exaggerated or minimised to show details of particular components.

[0022] Well-known components, materials or methods are not necessarily described in great detail in order to avoid obscuring the present disclosure. Any specific structural and functional details disclosed herein are not to be interpreted as limiting, but merely as a basis for the claims and as a representative basis for teaching one skilled in the art to variously employ the invention.

[0023] Referring to Figure 1 there is shown a plan view of a blank 10 capable of forming a carton 90 for packaging one or more primary products containers, such as, but not limited to, bottles or cans, hereinafter referred to as articles A.

[0024] In the embodiments detailed herein, the terms ‘carton’ and ‘carrier’ refer, for the non-limiting purpose of illustrating the various features of the invention, to a container for engaging, carrying, and/or dispensing articles, such as product containers. It is contemplated that the teachings of the invention can be applied to various product containers, which may or may not be tapered and/or cylindrical. Exemplary containers include bottles (for example metallic, glass or plastics bottles), cans (for example aluminium cans), tins, pouches, packets and the like.

[0025] The blanks 10, 110, 210 are formed from a sheet of suitable substrate. It is to be understood that, as used herein, the term “suitable substrate” includes all manner of foldable sheet material such as paperboard, corrugated board, cardboard, plastic, combinations thereof, and the like. It should be recognized that one or other numbers of blanks may be employed, where suitable, for example, to provide the carrier structure 90 or 290 described in more detail below.
In the exemplary embodiments, the blank 10, 110 are configured to form a carton or carrier 90 for packaging an exemplary arrangement of exemplary articles. In a first illustrated exemplary embodiment, the arrangement is a 2 x 6 matrix or array and the articles A are cans. In a second illustrated exemplary embodiment, the arrangement is a 3 x 6 matrix or array and the articles A are cans. The blanks 10, 110 can be alternatively configured to form a carrier for packaging other types, number and size of article and/or for packaging articles in a different arrangement or configuration.

The blank 10 comprises a plurality of main panels 12a, 12b, 14, 16, 18 for forming: a second top panel 12a, a first side wall 14, a bottom wall 16, a second side wall 18 and a first top panel 12b in set-up carton 90. The second top panel 12a is hinged to the first side wall 14 by a fold line 11. The first side wall 14 is hinged to the bottom wall 16 by a fold line 13. The bottom wall 16 is hinged to the second side wall 18 by a fold line 15. The first top panel 12b is hinged to the second side wall 18 by a fold line 17.

The plurality of main panels 12a, 12b, 14, 16, 18 form a tubular structure in a set-up condition. Each of the ends of the tubular structure are at least partially closed by end closure panels 20a, 22a, 24a, 26a and 20b, 22b, 24b, 26b. End closure panels 20a, 22a, 24a, 26a are configured to form a first end wall to close, at least in part, a first end of the tubular structure and end panels 20b, 22b, 24b, 26b are configured to form a second end wall to close, at least in part, a second end of the tubular structure. A first end closure panel 20a is hinged to a first end of the second top panel 12a by a fold line 21a. A second end closure panel 22a is hinged to a first end of the first side wall 14 by a fold line 23a. A third end closure panel 24a is hinged to a first end of the bottom wall 16 by a fold line 25a. A fourth end closure panel 26a is hinged to a first end of the second side panel 18 by a fold line 27a.

A fifth end closure panel 20b is hinged to a second end of second top panel 12a by a fold line 21b. A sixth end closure panel 22b is hinged to a second end of first side wall 14 by a fold line 23b. A seventh end closure panel 24b is hinged to a second end of bottom wall 16 by a fold line 25b. An eighth end closure panel 26b is hinged to a second end of the second side wall 18 by a fold line 27b.

A handle structure H is provided in part by respective portions of the second top panel 12a and the first top panel 12b. The handle structure H comprises an outer handle strap 30 defined in part by a first aperture 44a struck from the first top panel 12b and in part by a second aperture 44b struck from the first top panel 12b. The outer strap 30 comprises a first cushioning flap 42a hinged to a first side thereof by a fold line 43a and a second cushioning flap 42b hinged to a second side, opposing the first side, of the outer strap 30 by a fold line 43b. A weakened line of severance 46 extends transversely across the outer strap 30 between the first aperture 44a and the second aperture 44b. The weakened line of severance 46 defines a first end of the outer strap 30. The opposite end of the outer strap 30 is continuous with the first top panel 12b. Continuous is intended to include integrally formed and uninterrupted. Preferably, the material at the end of the outer strap 30 is unitary with the material of the first top panel 12b.

The handle structure comprises an inner handle strap 32 struck in part form the second top panel 12a and in part from the fifth end closure panel 20b. The inner strap 32 is defined in part by a third aperture 36 (that is struck from the second top panel 12a) and in part by a cut line 40a. Cut line 40a is contiguous with aperture 36 and extends from aperture 36 through the second top panel 12a and into the fifth end closure panel 20b. Inner strap 32 is also defined in part by a fourth cut line 40c which is defined in part in second top panel 12a and in part in the fifth end closure panel 20b. The second cut line 40c is contiguous with fold line 40b and collinear therewith.

A reinforcing strap 34 is hinged to a portion of the inner strap 32 struck from the second top panel 12a. The reinforcing strap 34 is hinged to the inner strap 32 by the fold line 40b. The fourth aperture 38b defines a recess or rebated portion of the inner strap 32 and in a recess or rebated portion of the reinforcing strap 34, which is apparent when the reinforcing strap 34 is folded about the fold line 40b and disposed in overlapping relationship with a portion of the inner strap 32.

A first cut line 31 defines a first end of the reinforcing strap 34 and a second cut line 33 defines a second end of the reinforcing strap 34. The first and second cut lines 31, 33 extend from a respective end of fold line 40b and are substantially perpendicular thereto.

An access device D is provided for removal of a corner portion D of the carton 90 (see Figures 2 to 5), the corner portion separates a portion of the first and second top panels 12a, 12b from the carton 90.

The access device D comprises a first weakened line of severance 29a which extends across the second end closure panel 22a and into the first side wall 14. The first weakened line of severance 29a extends through the first side wall 14 to meet the fold line 11 between the first side wall 14 and the second top panel 12a.

The access device D further comprises a second weakened line of severance 29b which extends across the fourth end closure panel 26a and into the second side wall 18. The second weakened line of severance 29b extends through the second side wall 18 to meet the fold line 17 between the second side wall 18 and the first top panel 12b. The access device D comprises a third weakened line of severance 51 which extends transversely across the first top panel 12b. The third weakened line of severance 51 is arranged to be contiguous with the second weakened line of severance 29b. The access device D comprises a fourth weakened line of severance...
62 which extends transversely across the second top panel 12a. The fourth weakened line of severance 62 is arranged to be contiguous with the first weakened line of severance 29a. The third and fourth weakened lines of severance 51, 62 are arranged to be in overlying registry in the set-up up carton 90. In an assembled carton 90 the first, second and third weakened lines of severance 29a, 29b, 51 form a continuous loop which defines a removable corner portion D of the carton 90.

The access device D also comprises an optional finger engagement or tear initiation means. The tear initiation means comprises a tab 50 defined in the first top panel 12a. The tab 50 is defined part by a fold line 52. Fold line 52 interrupts the third weakened line of severance 51 so as to be contiguous therewith. The tab 50 is defined in part by a cut line or fifth weakened line of severance 56. Fifth weakened line of severance 56 comprises a first and a second end each of which is adjacent to or contiguous with a respective one of the ends of the fold line 52. A further optional fold line 54 is provided across the tab 50 and extends transversely with respect to a tubular axis of the set-up carton 90. An aperture 64 is struck from the second top panel 12a. Aperture 64 is contiguous with or interrupts the fourth weakened line of severance 62. The aperture 64 is arranged to be in underlying registry with the tab 50 in a set-up carton 90. Aperture 64 is defined part by a cut line 66, a portion of which interrupts fourth weakened line of severance 62, which portion is co-linear with the fourth weakened line of severance 62.

Turning to the construction of the carton 90 as illustrated in Figures 2, 3, 4 and 5 it is envisaged that the carton 90 can be formed by a series of sequential folding operations in a straight line machine so that the carton 90 is not required to be rotated or inverted to complete its construction. The folding process is not limited to that described below and may be altered according to particular manufacturing requirements.

The carton 90 is formed by folding the reinforcing strap 34 about the fold line 40b to underlie the inner strap 32. In alternative embodiments the reinforcing strap 34 may be folded about the fold line 40b to overlie the inner strap 32. The second top panel 12a and the first side wall 14 are folded about the fold line 13 such that the second top panel 12a overlies the side wall 18 and the first side wall 14 overlies the bottom wall 16. Glue or other adhesive treatment is applied to the second top panel 12a and/or to a corresponding area of the first top panel 12b to secure the second top panel 12a to the first top panel 12b. The first top panel 12b is folded about fold line 17 such that it overlies the second top panel 12a, thus forming a flat collapsed tubular structure. The first top panel 12b and the second top panel 12a which have been secured together form a composite top wall 12a/12b of the tubular structure.

The portion of the second top panel 12a adjacent to the fifth end closure panel 20b which overlies the inner strap 32 is free from adhesive such that the inner strap 32 may move with respect to the first and second top panels 12b, 12a when the handle structure H is deployed. The outer strap 30 is secured with adhesive or other suitable means to a corresponding section of the inner strap 32 which it overlies.

The flat collapsed tubular structure can be shipped or transported to a converter plant. At the converter plant the flat collapsed tubular structure is opened and erected to form a tubular structure having a substantially square or rectangular cross-sectional shape.

The erected tubular structure is loaded with articles A through one or both open ends. One or more of the end closure panels 20a, 22a, 24a, 26a, 20b, 22b, 24b, 26b may be folded outwardly to act as funnel to facilitate insertion of the articles A into the carton 90.

The erected articles A are loaded into the tubular structure the ends of the tubular structure are closed. A first end of the tubular structure is closed by folding the first end closure panel 20a about fold line 21a and folding third end closure panel 24a about fold line 25a. Glue or other adhesive treatment is applied to an outer surface of the first and third end closure panels 20a, 24a. In alternative embodiments the glue or adhesive treatment is applied to an inner surface of corresponding region of the second and fourth end closure panels 22a, 26a. The fourth end closure panel 26a is then folded about the fold line 27a and secured to the first and third end closure panels 20a, 24a. Glue or adhesive treatment is applied to an outer surface of the fourth end closure panel 26a or to an inner surface of the second end closure panel 22a. The second end closure panel 22a is then folded about fold line 23a and brought into contact with the fourth end closure panel 26a such that second end closure panel 22a is in overlapping relationship with fourth end closure panel 26a and is secured thereto.

A second end of the tubular structure is closed by folding the fifth end closure panel 20b about fold line 21b and folding seventh end closure panel 24b about fold line 25b. Glue or other adhesive treatment is applied to an outer surface of the fifth and seventh end closure panels 20b, 24b. In alternative embodiments the glue or adhesive treatment is applied to an inner surface of a corresponding region of the sixth and eighth end closure panels 22b, 26b. The eighth end closure panel 26b is folded about the fold line 27b and secured to the fifth and seventh end closure panels 20b, 24b. Glue or adhesive treatment is applied to an outer surface of the eighth end closure panel 26b or to an inner surface of the sixth end closure panel 22b. The sixth end closure panel 22b is folded about fold line 23b and brought into contact with the eighth end closure panel 26b such that a portion of the sixth end closure panel 22b is in overlapping relationship with a portion of the eighth end closure panel 26b and is secured thereto.

In some embodiments one end of the tubular structure may be closed before loading articles thorough a remaining open end of the tubular structure.

The assembled carton 90 is shown in Figures
[0047] A user can engage the handle structure H to carry the carton 90 as shown in Figure 4. The handle structure H is displaced out of the plane of the first and second top panels 12b, 12a. The region of the first top panel 12b between the fifth end closure panel and the weakened line of severance 46 is disposed over the inner strap 32.

[0048] The handle H structure is arranged to be orientated perpendicularly to a tubular axis of the articles A disposed within the carton 90. The handle structure H extends longitudinally along the carton 90, the articles A are arranged so as to be in rolling contact with the bottom wall 16, that is to say the tubular axis of the articles A is arranged to extend transversely within the carton 90. The tubular axis of the articles A is perpendicular to the first and second side panels 14, 18. Preferably, the articles A are substantially cylindrical in shape, at least in part; this provides voids in the corners or the carton 90 defined by the fold lines 21 a, 21 b, 25a, 25b. The void in the corner defined by fold line 21 b allows the end of the handle provided in the fifth end closure panel 20b to be displaced inwardly of the carton 90 this allows that the central portion (which includes the outer strap 30) of the handle structure H to be displaced upwardly and outwardly of the plane of the first and second top panels 12b, 12a.

[0049] Referring again to Figure 1 the sixth end closure panel 22b comprises a recessed, rebated or cut away portion 60a. The cut away portion 60a is disposed in a corner of the sixth end closure panel 22b adjacent to the fifth end closure panel 20b. The eighth end closure panel 26b also comprises a recessed, rebated or cut away portion 60a that is disposed in a corner thereof. The cutaway portions 60a are arranged so as to coincide when the carton 90 is assembled and the sixth end closure panel 22b is disposed within overlapping relationship with the eighth end closure panel 26b. Figure 3 illustrates the cutaway portions 60a, 60b forming a recess R in the sixth and eighth end closure panels 22b, 26b. This provides that the sixth and eighth end closure panels 22b, 26b do not interfere with the end of the inner strap 32 that is disposed in the fifth end closure panel 20b.

[0050] Figure 5 illustrates use of the access means D, wherein an upper corner portion of the carton 90 has been removed. In detaching the removable portion a portion of the first and second top panels 12b, 12a; a portion of the first and second side panels 14, 18; and a portion of the second and fourth end closure panels 22a, 26a; and the first end closure panel 20a have been removed from the carton 90. The removable portion is dimensioned sufficiently to allow removal of an article A through the aperture created by its removal. It will be appreciated that the tab 50 has been removed from the first top panel 12b and this creates a recess R1 in the first top panel 12b. The aperture 64 in the first top panel 12b creates a recess in the second top panel 12a when the corner portion is removed. The recess in the first top panel 12b and the recess in the second top panel 12a together provide a user access to the void or gap between a pair of adjacent articles A in an uppermost row of the articles A to enable removal of the uppermost and endmost article A that is exposed by the removal of the corner portion. A similar recess R2 is defined in the second and fourth end closure panels 22a, 26a upon removal of the corner portion. This recess R2 allows access to the void or gap between a pair of adjacent articles A in an endmost column of the articles A to enable removal of the uppermost and endmost article A exposed by the removal of the corner portion.

[0051] It will be appreciated that the arrangement of the access means D and the handle structure H provide that the carton 90 may be carried by the handle even after removal of the corner portion, since removal of the corner portion does not affect the integrity of the handle structure H.

[0052] Referring now to Figure 6, there is shown a second alternative embodiment of the present invention. In the second illustrated embodiment, like numerals have, where possible, been used to denote like parts, albeit with the addition of the prefix "100" to indicate that these features belong to the second embodiment respectively. The alternative embodiment shares many common features with the first embodiment and therefore only the differences from the embodiment illustrated in Figures 1 to 5 will be described in any greater detail.

[0053] Figure 6 illustrates a blank 110 for forming a carton (not shown). The blank 110 comprises a plurality of main panels 112a, 112b, 114, 116, 118 forming; a second top panel 112a, a first side panel 114, a bottom panel 116 and a second side panel 118 and a first top panel 112b in set-up carton. A glue panel 120 is provided along a side edge of the second top panel 112a second top panel 112a. The second top panel 112a is hinged to the first side panel 114 by a fold line 111. The first side panel 114 is hinged to the bottom panel 116 by a fold line 113. The bottom panel 116 is hinged to the second side panel 118 by a fold line 115. The first top panel 112b is hinged to the second side panel 118 by a fold line 117.

[0054] The plurality of main panels 112a, 112b, 114, 116, 118 form a tubular structure in a set-up condition. Each of the ends of the tubular structure are at least partially closed by end closure panels 120a, 122a, 124a, 126a and 120b, 122b, 124b, 126b. End closure panels 120a, 122a, 124a, 126a are configured to close a first end of the tubular structure and end panels 120b, 122b, 124b, 126b are configured to close a second end of the tubular structure. A first end closure panel 120a is hinged to a first end of the second top panel 112a by a fold line 121a. A second end closure panel 122a is hinged to a first end of the first side panel 114 by a fold line 123a. A third end closure panel 124a is hinged to a first end of the bottom panel 116 by a fold line 125a. A fourth end closure panel 126a is hinged to a first end of the second side panel 118 by a fold line 127a.

[0055] A fifth end closure panel 120b is hinged to a
second end of the second top panel 112a by a fold line 121 b. A sixth end closure panel 122b is hinged to a second end of the first side panel 114 by a fold line 123b. A seventh end closure panel 124b is hinged to a second end of the bottom panel 116 by a fold line 125b. An eighth end closure panel 126b is hinged to a second end of the second side panel 118 by a fold line 127b.

[0056] In a set-up carton the second top panel 112a and the first top panel 112b form a composite top panel 112a/112b.

[0057] The second top panel 112a and the first top panel 112b each comprise an optional aperture 164, 167 respectively. First aperture 164 is defined by cut line 166 and second aperture 167 is defined by cut line 165. The first aperture 164 is disposed in a portion of the second top panel 112a between the fold line 121a, along which the first end closure panel 120a is hinged, and an end of the first inner strap 132 adjacent or closest to the first end closure panel 120a. The second aperture 167 is stricken from a portion of the first top panel 112b and is configured to be disposed in registry with the first aperture 164 when the first and second top panels 112a, 112b are disposed in overlapping relationship with one another. The first and second apertures 164, 167 provide a display window through which the carton's contents are visible. The display window provides access to the article disposed therebeneath. The display window can be provided in the composite top panel 112a/112b without affecting the integrity of the handle structure H.

[0058] The blank 110 further comprises a first weakened line of severance 129a and a second weakened line of severance 129b which together form an access means D or dispenser in a set-up carton for facilitating access to the articles being packaged. The first weakened line of severance 129a and the second weakened line of severance 129b which together form a continuous loop in a set-up carton.

[0059] The first weakened line of severance 129a is provided in part in the first side panel 114 and in part in the second end closure panel 122a. First weakened line of severance 129a commences from a free end edge of the second end closure panel 122a extends across the second end closure panel 122a into the first side panel 114. The first weakened line of severance 129a is substantially "U" shaped. The first weakened line of severance 129a returns into the second end closure panel 122a extends across the second end closure panel 122a and terminates at the free end edge of the second end closure panel 122a.

[0060] The second weakened line of severance 129b is provided in part in the second side panel 118 and in part in the fourth end closure panel 126a. Second weakened line of severance 129b commences from a free end edge of the fourth end closure panel 126a extends across the fourth end closure panel 126a into the second side panel 118. The second weakened line of severance 129b is substantially "V" shaped in the second side panel 118. The second weakened line of severance 129b returns into the fourth end closure panel 128a extends across the fourth end closure panel 126a and terminates at the free end edge of the fourth end closure panel 126a. The second side panel 118 comprises an optional first arcuate fold line which arcuate fold line is substantially "C" shaped. Each end of the arcuate fold line intersects or meets with the second weakened line of severance 129b. Second side panel 118 comprises an optional linear fold line spaced from the "C" shaped fold line. Each end of the linear fold line intersects or meets with the second weakened line of severance 129b.

[0061] The access means D defined by the first and second weakened lines of severance 129a, 129b, is arranged to be in closer proximity to the bottom panel 116 than to the composite top panel 112a/112b. In alternative embodiments the access means D may be arranged to be in closer proximity to the composite top panel 112a/112b or evenly spaced. It will be appreciated that the access means D can be arranged to be in closer proximity to the composite top panel 112a/112b without affecting the integrity of the handle structure H.

[0062] It will also be appreciated that in the foregoing embodiments the handle structure H can be employed irrespective of the condition of the access means D. That is to say the handle structure H can be employed when the access means D is in an intact or inactive condition (that is to say the handle structure H can be employed prior to detachment of the corner portion) and when the access means D is in a severed or active condition (the handle structure H can be employed when the corner portion D has been detached). Deployment of the handle structure H does not affect the access means whether in the active or inactive condition. Similarly the access means D can be employed irrespective of the condition of the handle structure H. The access means D can be activated without affecting the integrity of the handle structure H. Deployment of the handle structure does not affect the access means D, the corner portion D of the carton 90 can be detached when the handle structure H is in an operative position and when in a stowed position; the corner portion D of the carton 90 can be detached prior to activation of the handle structure, that is to say before the weakened line of severance 46, 146 is severed.

[0063] Referring now to Figures 7 to 10, there is shown a third embodiment of the present invention. In the third illustrated embodiment, like numerals have, where possible, been used to denote like parts, albeit with the addition of the prefix "300" to indicate that these features belong to the third embodiment respectively. The third embodiment shares many common features with the first embodiment and therefore only the differences from the first embodiment illustrated in Figures 1 to 5 will be described in any greater detail.

[0064] Referring to Figure 7, the blank 210 is configured to form a carton or carrier 290 (Figures 9 and 10) for packaging an exemplary arrangement of exemplary articles. In the carton of Figures 9 and 10, twelve cans
of the arrangement of a 2 x 6 matrix are packaged. The blank 210 of Figure 7 can be alternatively configured to form a carrier for packaging other types, number and size of article and/or for packaging articles in a different arrangement or configuration.

[0065] Referring further to Figure 7, the blank 210 comprises a plurality of main panels 212a, 212b, 214, 216, 218 for forming: a second top panel 212a, a first side wall 214, a bottom wall 216, a second side wall 218 and a first top panel 212b in set-up carton 290. The main panels 212a, 212b, 214, 216, 218 form a tubular structure in a set-up condition. Each of the ends of the tubular structure are at least partially closed by end closure panels 222a, 224a, 226a, 220c and 220b, 222b, 224b, 226b, 220d. End closure panels 222a, 224a, 226a, 220c are configured to form a first end wall to close, at least in part, a first end of the tubular structure and end closure panels 220b, 222b, 224b, 226b, 220d are configured to form a second end wall to close, at least in part, a second end of the tubular structure. The first end wall, however, differs from that of the first embodiment in that the first end wall of the carton 290 is associated with a rounded upper-end corner provided by the warped end closure panel 220c which is convexly curved as viewed from the outside of the carton 290 (Figure 10). The top end closure panel 220c is hinged to the first end of the outer top panel 212b by a curved fold line 221 c. One of the four corners of each of the side panels 214, 218 is also rounded to cooperate with the top end closure panel 220c to form the rounded upper-end corner of the carton 290. The access device or dispensing feature D of the carton 290 is formed in the rounded corner as bets shown in Figure 10.

[0066] Returning to Figure 7, an inner end closure panel 220b is hinged to the second end of the inner top panel 212a by a fold line 221 b. However, no end closure panel is hinged to the first end of the inner top panel 212a. Instead, the outer end closure panel 220c serves to provide part of the first end wall. Since the inner end closure panel 220b is a half-size panel or a partial end closure flap, the outer top panel 212b is provided with a full-size, outer end closure panel 220d at its second end. The outer top end closure panel 220d is hingedly connected to the second end of the outer top closure panel 212b along a fold line 221 d. The outer top end closure panel 220d is provided with a generally U-shaped severance line 241 for defining a displaceable tab 245 in the outer top end closure panel 220d. The displaceable tab 245 is attached to the end of the inner handle strap 232 adjacent to the fold line 246d, when the carton 290 is set up, to reinforce the joint at that end between the handle H and the second end wall of the carton 290. The displaceable tab 245 is swingable inwardly of the carton when attached to the handle end and when the handle H is pulled upwards. By that means the displaceable tab 245 allow the handle H to be somewhat slack to provide a hand room under its gripping area corresponding to the outer strap 230.

[0067] Referring further to Figure 7, the handle or hand structure H is provided in part by respective portions of the inner top panel 212a and the outer top panel 212b. Those respective portions are the inner and outer handle straps 232, 230. The outer handle strap 230 is defined at least in part by the first and second outer apertures 244a, 244b in the outer top panel 212b such that it is provided by that portion of the outer top panel 212b between the outer apertures 244a, 244b. The outer handle strap 230 is provided with a pair of hingedly connected cushioning flaps 242a, 242b and connected at its one end to the outer top panel 212b by a fold line 246a and at the other end by a frangible connection such as a severance line 246b. The inner handle strap 232 is formed in part from the inner top panel 212a and in part from the inner end closure panel 220b. The inner strap 232 is defined in part by an inner aperture 236 in the inner top panel 212a and in part by a severance line such as a cut line 240a. The cut line 240a extends from the aperture 236 across the inner top panel 212a. It continuously extends into the inner top end closure panel 220b and turns into the cut line 240c. The inner handle strap 232 is connected at its one end to the inner top panel 212a by a fold line 246c and at its other end to the inner top end closure panel 220b by a fold line 246d.

[0068] Referring again to Figure 7, the portion of the inner top panel 212a adjacent to the one end of the inner handle strap 232 is provided with a reinforcing tab "T" which extends away from the fold line 211 between the inner top panel 212a and the side panel 214. With respect to the length, or a notional longitudinal line, of the inner handle strap 232, the reinforcing tab "T" extends transversely outward from the proximity of the one end of the inner strap 232 such that a reinforcing edge 239 is provided by the tab "T". The tab "T" is shaped and dimensioned such that the reinforcing edge 239 is positioned in general alignment with one end 247 of the outer aperture 244a when the blank 210 is erected into the carton 290. The reinforcing edge placed in general alignment with the one end is best shown in Figure 8. In the position shown in Figure 8, tab "T" effectively reinforce the one end area of the outer top panel 212b so that the chance of a tear to develop from the one end 247 toward the access device D is substantially reduced. A recess "N" is defined in the outer top panel 212b along the free side edge 261 of the outer top panel 212b as a result of forming a like reinforcing tab of a like blank from the outer top panel 212b. The like blank may be nested with the blank 210 when those blanks are cut from the same sheet of foldable material. The recess "N" is complementary in terms of shape and size to the reinforcing tab "T".

[0069] The inner top panel 212a is further provided with an end recess or cutout 248 at its one end next to the reinforcing tab "T". The end recess 248 generally registers with the tear initiation tab 250 in the outer top panel 212b so as to facilitate breaking of the tear initiation tab 250 along the severance line 256. The shape and dimension of the recess 248 may be such that the edge of the recess extends at least in part along the outline of the
tack initiation tab 250 when the carton is erected, which is best shown in Figure 8. In the arrangement shown in Figure 8, part of the edge of the recess 248 serves as a cutting guide for the severance line 256.

[0070] Reference numeral "249" denotes an opening that may be used as a finger aperture for a consumer to engage his/her finger in order to pull the carton 290 from a store shelf or a stack of like cartons. Reference numeral "266" denotes a severance line which defines a detachable portion 268 of the inner top panel 212a. The detachable portion 268 forms a part of the access device D (Figure 10) when the blank is erected into the carton 290.

[0071] Figures 9 and 10 illustrate the carton 290 formed from the blank 210. How to assemble and use the carton 290 and handle H is similar, if not identical, to the first embodiment.

[0072] It can be appreciated that various changes may be made within the scope of the present invention, for example, the size and shape of the panels and apertures may be adjusted to accommodate articles of differing size or shape. In particular it is envisaged that the handle structure and access device may be employed in variety carton styles including but not limited to fully enclosed cartons, wrap around cartons, basket carrier style carton, top gripping cartons.

[0073] It will be recognised that as used herein, directional references such as "top", "bottom", "front", "back", "end", "side", "inner", "outer", "upper" and "lower" do not necessarily limit the respective panels to such orientations, but may merely serve to distinguish these panels from one another.

[0074] As used herein, the terms "hinged connection" and "fold line" refer to all manner of lines that define hinge features of the blank, facilitate folding portions of the blank with respect to one another, or otherwise indicate optimal panel folding locations for the blank. A fold line is typically a scored line, an embossed line, or a debossed line. Any reference to hinged connection or fold line should not be construed as necessarily referring to a single fold line only; indeed it is envisaged that hinged connection can be formed from any one or more of the following, a short slit, a frangible line or a fold line without departing from the scope of the invention.

[0075] As used herein, the terms "severance line" and "weakened line of severance" refer to all manner of lines that facilitate separating portions of the substrate from one another or that indicate optimal separation locations. Severance lines may be frangible or otherwise weakened lines, tear lines, cut lines, or slits.

[0076] It should be understood that hinged connection, severance lines, and fold lines can each include elements that are formed in the substrate of the blank including perforations, a line of perforations, a line of short slits, a line of half-cuts, a single half-cut, a cut line, an interrupted cut line, slits, scores, any combination thereof, and the like. The elements can be dimensioned and arranged to provide the desired functionality. For example, a line of perforations can be dimensioned or designed with degrees of weakness to define a fold line and/or a severance line. The line of perforations can be designed to facilitate folding and resist breaking, to facilitate folding and facilitate breaking with more effort, or to facilitate breaking with little effort.

Claims

1. A carton for packaging one or more articles, the carton comprising a plurality of walls including a top wall, a first side wall (14), a second side wall (18), a first end wall, a second end wall and a bottom wall, the carton further comprising a handle structure (H) defined at least in part in an outer panel (12b) of the top wall and at least in part in an inner panel (12a) of the top wall, the outer panel being disposed in at least partially overlapping relationship with the inner panel to form the top wall, the outer panel comprising an outer handle strap (30), the inner panel comprising an inner handle strap (32), the outer handle strap being secured to the inner handle strap, the handle structure comprising a central portion defined by the outer handle strap, the carton further comprising an access device (D) formed at least in part from the top wall, characterised in that the outer handle strap (30) has first and second opposed ends and is continuously formed with the outer panel (12b) at the first end and severably attached by a frangible connection (46) to the outer panel (12b) at the second end, the access device being disposed adjacent to the first end of the outer handle strap, in that the inner handle strap (32) comprises a first end disposed in the inner panel (12a) and continuously formed with the inner panel, the inner handle strap comprising a second end disposed in a third panel (20b) of another one of the plurality of walls, and in that the central portion is displaceable out of the plane of the top wall upon severance of the frangible connection (46).

2. The carton according to claim 1 wherein the handle structure further comprises a reinforcing strap.

3. The carton according to claim 2 wherein the reinforcing strap is hinged to the inner handle strap and is secured to the inner handle strap in face contacting relationship.

4. The carton according to claim 2 or 3 wherein the reinforcing strap is struck at least in part from the inner panel.

5. The carton according to claim 1 wherein the third panel forms a top end closure panel of the first end wall and wherein the first end wall further comprises a first side end closure panel, having a first cutaway portion configured and arranged to expose an end.
6. The carton according to claim 5 wherein the first end wall further comprises a second side end closure panel, the second side end closure panel having a second cutaway portion configured and arranged to expose the end portion of the handle structure.

7. The carton according to claim 6 wherein the first cutaway portion and the second cutaway portion define a recess which exposes the end portion of the handle structure.

8. The carton according to claim 1 wherein the access device comprises a detachable portion of the top wall.

9. The carton according to claim 8 wherein the access device further comprises a detachable portion of the first side wall, a detachable portion of the second side wall and a detachable portion of the second end wall so as to form a removable corner portion.

10. The carton according to claim 1 wherein the outer handle strap is defined in the outer panel by at least one outer handle apertures having one end, wherein a portion of the inner panel adjacent to the first end of the inner handle strap comprises a reinforcing tab extending transversely of the length of the inner handle strap, the reinforcing tab being shaped and dimensioned such that a reinforcing edge of the reinforcing tab is positioned in general alignment with the one end of the at least one outer handle aperture.

11. The carton according to claim 10 wherein the reinforcing tab extends away from a fold line connecting between the inner panel and one of the side walls.

12. The carton according to claim 10 wherein the outer panel comprises a recess defined therein along a free side edge thereof, the recess being complementary in shape and size to the reinforcing tab.

13. The carton according to claim 12 wherein the recess is provided by forming a reinforcing tab of a carton blank from the outer panel.

14. The carton according to claim 13 wherein the inner panel comprises an end recess at one end thereof adjacent to the reinforcing tab, the end recess generally registering with part of the access device in the outer panel so as to facilitate separation of the access device from the carton.

15. The carton according to claim 14 wherein the shape and dimension of the end recess is such that an edge of the end recess extends at least in part along an outline of the access device.

16. A blank for forming a carton, the blank comprising a plurality of panels for forming a top wall, a first side wall (14), a second side wall (18), a first end wall, a second end wall and a bottom wall when the blank is erected into a carton, the plurality of panels of the blank include inner and outer panels (12a,12b) and a third panel (20b), the inner and outer panels being disposed in at least partially overlapping relationship to form the top wall when the blank is erected into a carton, the third panel providing at least a part of the first end wall when the blank is erected into a carton, the blank further comprising a handle structure (H) defined at least in part in the outer panel and at least in part in the inner panel, the outer panel comprising an outer handle strap (30), the inner panel comprising an inner handle strap (32), the outer handle strap being arranged to be securable to the inner handle strap, the handle structure having a central portion defined by the outer handle strap, the blank comprising an access device defined at least in part in the outer panel and at least in part in the inner panels, characterised in that the outer handle strap (30) has first and second opposed ends and is continuously formed with the outer panel (12b) at the first end and severably attached by a frangible connection (46) to the outer panel at the second end, the access device (D) being disposed adjacent to the first end of the outer handle strap, in that the inner handle strap (32) comprises a first end disposed in the inner panel (12a) and continuously formed with the inner panel, the inner handle strap comprising a second end disposed in the third panel (20b), and in that the central portion, in a set-up carton, is displaceable out of the plane of the top wall upon severance of the frangible connection (46).

17. The blank according to claim 16 wherein the access device comprises a detachable portion of the top wall.

18. The blank according to claim 17 wherein the access device further comprises a detachable portion of the first side wall, a detachable portion of the second side wall and a detachable portion of the second end wall so as to form a removable corner portion.

19. The blank according to claim 16 wherein the outer handle strap is defined in the outer panel by at least one outer handle apertures having one end, wherein a portion of the inner panel adjacent to the first end of the inner handle strap comprises a reinforcing tab extending transversely of the length of the inner handle strap, the reinforcing tab being shaped and dimensioned such that a reinforcing edge of the reinforcing tab is positioned in general alignment with the one end of the at least one outer handle aperture.

20. The blank according to claim 19 wherein the outer
panel comprises a recess defined therein along a free side edge thereof, the recess being complementary in shape and size to the reinforcing tab.

21. The blank according to claim 19 wherein the inner panel comprises an end recess at one end thereof adjacent to the reinforcing tab, the end recess generally registering with part of the access device in the outer panel so as to facilitate separation of the access device from the carton.

22. The blank according to claim 21 wherein the shape and dimension of the end recess is such that an edge of the end recess extends at least in part along an outline of the access device.

Patentansprüche

1. Schachtel zur Verpackung eines oder mehrerer Gegenstände, wobei die Schachtel eine Vielzahl von Wänden umfasst einschließlich einer Deckenwand, einer ersten Seitenwand (14), einer zweiten Seitenwand (18), einer ersten Endwand, einer zweiten Endwand und einer Bodenwand, wobei die Schachtel weiter eine Griffstruktur (H) umfasst, die wenigstens zum Teil in einer Außenwandfläche (12b) der Deckenwand und wenigstens zum Teil in einer Innwandfläche (12a) der Deckenwand definiert ist, wobei die Außenwandfläche wenigstens teilweise überlappend mit der Innwandfläche angeordnet ist, um die Deckenwand auszubilden, wobei die Außenwandfläche einen äußeren Griffstreifen (30) und die Innwandfläche einen inneren Griffstreifen (32) umfasst, wobei der äußere Griffstreifen an dem inneren Griffstreifen befestigt ist, wobei die Griffstruktur einen mittleren Abschnitt umfasst, der durch den äußeren Griffstreifen definiert ist, und wobei die Schachtel weiter eine Zugriffseinrichtung (D) umfasst, die wenigstens zum Teil aus der Deckenwand ausgebildet ist, dadurch gekennzeichnet, dass der äußere Griffstreifen (30) erste und zweite gegenüberliegende Enden aufweist und durchgängig mit der Außenwandfläche (12b) an dem ersten Ende ausgebildet ist und durch eine zerbrechliche Verbindung (46) abtrennbar an der Außenwandfläche (12b) an dem zweiten Ende angebracht ist, wobei die Zugriffseinrichtung angrenzend an das erste Ende des äußeren Griffstreifens angeordnet ist, derart, dass der innere Griffstreifen (32) ein erstes Ende aufweist, das in der Innwandfläche (12a) angeordnet und durchgängig mit der Innwandfläche ausgebildet ist, wobei der innere Griffstreifen ein zweites Ende umfasst, das in einer dritten Wandfläche (20b) von der Vielzahl von Wänden angeordnet ist, und dass der mittlere Abschnitt nach Abtrennung der zerbrechlichen Verbindung (46) aus der Ebene der Deckenwandfläche heraus verschiebbar ist.

2. Schachtel nach Anspruch 1, wobei die Griffstruktur ferner einen Verstärkungsstreifen umfasst.


4. Schachtel nach Anspruch 2 oder 3, wobei der Verstärkungsstreifen wenigstens zum Teil aus der Innwandfläche ausgestanzt ist.

5. Schachtel nach Anspruch 1, wobei die dritte Wändeschachtel nach Anspruch 1, wobei die erste Endwand ferner eine erste Seitenenverschlusswandfläche mit einem ersten Ausschnittsabschnitt umfasst, wobei der erste Ausschnittsabschnitt derart hergerichtet und angeordnet ist, um einen Endabschnitt der Griffstruktur freizulegen.

6. Schachtel nach Anspruch 1, wobei die erste Endwand ferner eine zweite Seitenenverschlusswandfläche umfasst, wobei die zweite Seitenenverschlusswandfläche einen zweiten Ausschnittsabschnitt umfasst, wobei der zweite Ausschnittsabschnitt derart hergerichtet und angeordnet ist, um den Endabschnitt der Griffstruktur freizulegen.

7. Schachtel nach Anspruch 6, wobei der erste Ausschnittsabschnitt und der zweite Ausschnittsabschnitt eine Ausnehmung definieren, die den Endabschnitt der Griffstruktur freilegt.

8. Schachtel nach Anspruch 1, wobei die Zugriffseinrichtung einen abtrennbaren Abschnitt der Deckenwand umfasst.


10. Schachtel nach Anspruch 1, wobei die äußere Griffstreifen in der Außenwandfläche durch wenigstens eine äußere Handgrifföffnung definiert ist, die ein Ende aufweist, wobei ein Abschnitt der Innwandfläche, der an das erste Ende des inneren Griffstreifens angrenzt, einen Verstärkungsstreifen umfasst, der sich quer verlaufend zu der Länge des inneren Griffstreifens erstreckt, wobei der Verstärkungsstreifen derart geformt und bemessen ist, dass eine Verstärkungskante des Verstärkungsstreifens im Wesentlichen mit dem einen Ende der wenigstens
Zuschnitt zur Ausbildung einer Schachtel, wobei der
Schachtel nach Anspruch 14, wobei die Form und
Größe komplementär zu dem Verstärkungsstreifen ist.

12. Schachtel nach Anspruch 10, wobei die Außenwandfläche entlang einer freien Seitenkante eine in
ihr definierte Ausnehmung umfasst, wobei die Aus-
nehmung in Form und Größe komplementär zu dem
Verstärkungsstreifen ist.

13. Schachtel nach Anspruch 12, wobei die Ausneh-
mung durch Ausbildung eines Verstärkungsstreifs
fens eines Schachtelzuschnitts bereitgestellt ist, und
zwar aus der Außenwandfläche.

14. Schachtel nach Anspruch 13, wobei die Innenwand-
fläche angrenzend an den Verstärkungsstreifen eine
Endausnehmung an ihrem einen Ende umfasst, wo-
bei die Endausnehmung im Wesentlichen passge-
nau mit einem Teil der Zugriffseinrichtung in der Au-
ßenwandfläche ist, um so die Trennung der Zugriffs-
einrichtung von der Schachtel zu erleichtern.

15. Schachtel nach Anspruch 14, wobei die Form und
Abmessung der Endausnehmung derart ist, dass
sich eine Kante der Endausnehmung wenigstens
zum Teil entlang eines Umrisses der Zugriffseinrich-
tung erstreckt.

16. Zuschnitt zur Ausbildung einer Schachtel, wobei der
Zuschnitt eine Vielzahl von Wandflächen umfasst,
und zwar zur Ausbildung einer Deckenwand, einer
ersten Seitenwand (14), einer zweiten Seitenwand
(18), einer ersten Endwand, einer zweiten Endwand
und einer Bodenwand, wobei, wenn der Zuschnitt
ter einer Schachtel aufgerichtet ist, die Vielzahl von
Wandflächen des Zuschnitts Innen- und Außen-
wandflächen (12a, 12b) und eine dritte Wandfläche
(20b) einschließen, wobei die Innen- und Außen-
wandflächen wenigstens teilweise in einer überlap-
penden Beziehung angeordnet sind, um eine De-
ckenwand auszubilden, wenn der Zuschnitt zu einer
Schachtel aufgerichtet ist, wobei die dritte Wandflä-
che wenigstens einen Teil der ersten Endwand be-
reitzt, wenn der Zuschnitt zu einer Schachtel auf-
gerichtet ist, wobei der Zuschnitt ferner eine Griffstruktur (H) aufweist, die wenigstens zum Teil
in der Außenwandfläche und wenigstens zum Teil
in der Innenwandfläche definiert ist, wobei die Au-
ßenwandfläche einen äußeren Griffstreifen (30)
die Innenwandfläche einen inneren Griffstreifen (32)
umfasst, wobei der äußere Griffstreifen derart ange-
ordnet ist, um an den inneren Griffstreifen befestigt
zu werden, wobei die Griffstruktur einen mittleren
Abschnitt aufweist, der durch den äußeren Griffstrei-
fen definiert ist, wobei der Zuschnitt eine Zugriffsein-
richtung umfasst, die wenigstens zum Teil in der Au-
ßenwandfläche und wenigstens zum Teil in der In-
nenwandfläche definiert ist, dadurch gekennzeich-
net, dass der äußere Griffstreifen (30) erste und
zweite gegenüberliegende Enden aufweist und
durchgängig mit der Außenwandfläche (12b) an dem
ersten Ende ausgebildet ist und durch eine zurbrech-
liche Verbindung (46) abtrennbar an der Außen-
wandfläche (12b) an dem zweiten Ende angebracht
ist, wobei die Zugriffseinrichtung (D) angrenzend an
das erste Ende des äußeren Griffstreifens angeord-
net ist, derart, dass der innere Griffstreifen (32) ein
erstes Ende umfasst, das in der Innenwandfläche
(12a) angeordnet ist und durchgängig mit der Innen-
wandfläche ausgebildet ist, wobei der innere
Griffstreifen ein zweites Ende umfasst, das in einer
dritten Wandfläche (20b) angeordnet ist, und dass
der mittlere Abschnitt, in einer aufgerichteten
Schachtel, nach Abtrennung der zurbrechlichen Ver-
bindung (46) aus der Ebene der Deckenwandfläche
heraus verschiebbar ist.

17. Zuschnitt nach Anspruch 16, wobei die Zugriffsein-
richtung einen entfernbaren Abschnitt der Decken-
wand umfasst.

18. Zuschnitt nach Anspruch 17, wobei die Zugriffsein-
richtung ferner einen entfernbaren Abschnitt der ers-
ten Seitenwand, einen entfernbaren Abschnitt der
zweiten Seitenwand und einen entfernbaren Abs-
schnitt der zweiten Endwand umfasst, um so einen
entfernbaren Eckenauschnitt auszubilden.

19. Zuschnitt nach Anspruch 16, wobei der äußere
Griffstreifen in der Außenwandfläche durch wenig-
tens eine äußere Grifföffnung definiert ist, die ein
Ende aufweist, wobei ein Abschnitt der Innenwandflä-
che angrenzend an das erste Ende des inneren
Griffstreifens einen Verstärkungsstreifen umfasst,
der sich quererlaufend zur Länge des inneren
Griffstreifens erstreckt, wobei der Verstärkungsstreif-
en derart geformt und bemessen ist, dass eine Ver-
stärkungskante des Verstärkungsstreifens im We-
sentlichen mit dem einen Ende der wenigstens einen
äußeren Grifföffnung ausgerichtet ist.

20. Zuschnitt nach Anspruch 19, wobei die Außenwand-
fläche entlang einer freien Seitenkante eine in ihr
definierte Ausnehmung umfasst, wobei die Ausneh-
mung in Form und Größe komplementär zu dem Ver-
stärkungsstreifen ist.

21. Zuschnitt nach Anspruch 19, wobei die Innenwand-
fläche an einem ihrer Enden und angrenzend an den
Verstärkungsstreifen eine Endausnehmung um-
fasst, wobei die Endausnehmung im Wesentlichen
passgenau mit einem Teil der Zugriffseinrichtung in

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der Außenwandfläche ist, um so die Trennung der Zugriffseinrichtung von der Schachtel zu erleichtern.

22. Zuschnitt nach Anspruch 21, wobei die Form und Abmessung der Endausnehmung derart ist, dass sich eine Kante der Endausnehmung wenigstens zum Teil entlang eines Umrisses der Zugriffseinrichtung erstreckt.

Revendications

1. Carton pour emballer un ou plusieurs articles, le carton comportant une pluralité de parois comprenant une paroi supérieure, une première paroi latérale (14), une seconde paroi latérale (18), une première paroi d’extrémité, une seconde paroi d’extrémité et une paroi de fond, le carton comportant en outre une structure formant poignée (H) définie au moins partiellement dans un panneau extérieur (12b) de la paroi supérieure et au moins partiellement dans un panneau intérieur (12a) de la paroi supérieure, le panneau extérieur étant disposé de manière à chevaucher au moins partiellement le panneau intérieur pour former la paroi supérieure, le panneau extérieur comprenant une lanière extérieure (30) de poignée, le panneau intérieur comprenant une lanière intérieure (32) de poignée, la lanière extérieure de poignée étant fixée à la lanière intérieure de poignée, la structure formant poignée comprenant une partie centrale définie par la paroi latérale extérieure (12b) et, à la seconde extrémité, est fixée d’une manière continue avec le panneau extérieur par au moins une ouverture extérieure de poignée. le carton comportant en outre un dispositif d’accès (D) formé au moins partiellement à partir de la paroi supérieure, caractérisé en ce que la lanière extérieure (30) de poignée a une première et une seconde extrémités opposées et, à la première extrémité, est formée d’une manière continue avec le panneau extérieur (12b) et, à la seconde extrémité, est fixée d’une manière détachable par une liaison frangible (46) au panneau extérieur (12b), le dispositif d’accès étant disposé au voisinage immédiat de la première extrémité de la lanière extérieure de poignée, en ce que la lanière intérieure (32) de poignée comprend une première extrémité disposée dans le panneau intérieur (12a) et formée d’une manière continue avec le panneau intérieur, la lanière intérieure de poignée comprenant une seconde extrémité disposée dans un troisième panneau (20b) d’une autre paroi parmi la pluralité de parois, et en ce que la partie centrale peut être sortie du plan de la paroi supérieure au moment où la liaison frangible (46) est détachée.

2. Carton selon la revendication 1, dans lequel la structure formant poignée comprend en outre une lanière de renforcement.

3. Carton selon la revendication 2, dans lequel la lanière de renforcement est articulée avec la lanière intérieure de poignée et est fixée à la lanière intérieure de poignée, des faces de celles-ci étant au contact l’une de l’autre.

4. Carton selon la revendication 2 ou 3, dans lequel la lanière de renforcement est séparée au moins partiellement du panneau intérieur.

5. Carton selon la revendication 1, dans lequel le troisième panneau forme un panneau de fermeture d’extrémité supérieure de la première paroi d’extrémité et dans lequel la première paroi d’extrémité comprend en outre un premier panneau de fermeture d’extrémité latérale, ayant une première découpe pure conçue et agencée pour découvrir une partie terminale de la structure formant poignée.

6. Carton selon la revendication 5, dans lequel la première paroi d’extrémité comprend en outre un second panneau latéral de fermeture d’extrémité, le second panneau latéral de fermeture d’extrémité ayant une seconde découpe conçue et agencée pour découvrir la partie terminale de la structure formant poignée.

7. Carton selon la revendication 6, dans lequel la première découpe et la seconde découpe définissent un évidement qui laisse voir la partie terminale de la structure formant poignée.

8. Carton selon la revendication 1, dans lequel le dispositif d’accès comprend une partie, détachable, de la paroi supérieure.

9. Carton selon la revendication 8, dans lequel le dispositif d’accès comprend en outre une partie, détachable, de la première paroi latérale, une partie, détachable, de la seconde paroi latérale et une partie, détachable, de la seconde paroi d’extrémité avec de former une partie angulaire amovible.

10. Carton selon la revendication 1, dans lequel la lanière extérieure de poignée est définie dans le panneau extérieur par au moins une ouverture extérieure de poignée ayant une extrémité, une partie du panneau intérieur adjacente à la première extrémité de la lanière intérieure de poignée comprenant une languette de renforcement s’étendant transversalement par rapport à la longueur de la lanière intérieure de poignée, la languette de renforcement ayant une forme et des dimensions telles qu’une arête de renforcement de la languette de renforcement se trouve globalement alignée avec l’extrémité de la/des ouverture(s) extérieure(s) de poignée.

11. Carton selon la revendication 10, dans lequel la lan-
guette de renforcement s’étend à l’écart d’une ligne de piagne reliant le panneau intérieur et l’une des parois latérales.

12. Carton selon la revendication 10, dans lequel le panneau extérieur comprend un évidement défini dans celui-ci le long d’un bord latéral libre de celui-ci, l’évidement ayant une forme et des dimensions complémentaires de celles de la languette de renforcement.

13. Carton selon la revendication 12, dans lequel l’évidement est créé en formant une languette de renforcement d’un flan de carton à partir du panneau extérieur.

14. Carton selon la revendication 13, dans lequel le panneau intérieur comprend un évidement terminal à une extrémité de celui-ci adjacente à la languette de renforcement, l’évidement terminal coinçant globalement avec une partie du dispositif d’accès dans le panneau extérieur afin de faciliter la séparation du dispositif d’accès d’avec le carton.

15. Carton selon la revendication 14, dans lequel la forme et les dimensions de l’évidement terminal sont telles qu’un bord de l’évidement terminal s’étend au moins partiellement le long d’un contour du dispositif d’accès.

16. Flan pour former un carton, le flan comportant une pluralité de panneaux pour former une paroi supérieure, une première paroi latérale (14), une seconde paroi latérale (18), une première paroi d’extrémité, une seconde paroi d’extrémité et une paroi de fond lorsque le flan est déployé sous la forme d’un carton d’emballage, la pluralité de panneaux du flan comprenant des panneaux intérieur et extérieur (12a, 12b) et un troisième panneau (20b), les panneaux intérieur et extérieur étant disposés de manière à se chevaucher au moins partiellement pour former la paroi supérieure lorsque le flan est déployé sous la forme d’un carton d’emballage, le flan comportant en outre une structure formant poignée (H) définie au moins partiellement dans le panneau extérieur et au moins partiellement dans le panneau intérieur, le panneau extérieur comprenant une lanière intérieure (30) de poignée, le panneau intérieur comprenant une lanière intérieure (32) de poignée, la lanière extérieure de poignée étant agencée pour pouvoir être fixée à la lanière intérieure de poignée, la structure formant poignée comprenant une partie centrale définie par la lanière extérieure de poignée, le flan comportant un dispositif d’accès défini au moins partiellement dans le panneau extérieur et au moins partiellement dans le panneau intérieur, caractérisé en ce que la lanière extérieure (30) de poignée a une première et une seconde extrémités opposées et, à la première extrémité, est formée d’une manière continue avec le panneau extérieur (12b) et, à la seconde extrémité, est fixée d’une manière détachable par une liaison frangible (46) au panneau extérieur, le dispositif d’accès (D) étant disposé au voisinage immédiat de la première extrémité de la lanière extérieure de poignée, en ce que la lanière intérieure (32) de poignée comprend une première extrémité disposée dans le panneau intérieur (12a) et formée d’une manière continue avec le panneau intérieur, la lanière intérieure de poignée comprenant une seconde extrémité disposée dans le troisième panneau (20b), et en ce que la partie centrale, dans un carton mis en forme, peut être sortie du plan de la paroi supérieure au moment où la liaison frangible (46) est détachée.

17. Flan selon la revendication 16, dans lequel le dispositif d’accès comprend une partie, détachable, de la paroi supérieure.

18. Flan selon la revendication 17, dans lequel le dispositif d’accès comprend en outre une partie, détachable, de la première paroi latérale, une partie, détachable, de la seconde paroi latérale et une partie, détachable, de la seconde paroi d’extrémité avec de former une partie angulaire amovible.

19. Flan selon la revendication 16, dans lequel la lanière extérieure de poignée est définie dans le panneau extérieur par au moins une ouverture extérieure de poignée ayant une extrémité, une partie du panneau intérieur adjacente à la première extrémité de la lanière intérieure de poignée comprenant un évidement qui est formé en ce que la longueur de la lanière intérieure de poignée, la languette de renforcement ayant une forme et des dimensions telles qu’une arête de renforcement de la languette de renforcement se trouve globalement alignée avec l’extrémité de la/des ouverture(s) extérieure(s) de poignée.

20. Flan selon la revendication 19, dans lequel le panneau extérieur comprend un évidement défini dans celui-ci le long d’un bord latéral libre de celui-ci, l’évidement ayant une forme et des dimensions complémentaires de celles de la languette de renforcement.

21. Flan selon la revendication 19, dans lequel le panneau extérieur comprend un évidement terminal à une extrémité de celui-ci adjacente à la languette de renforcement, l’évidement terminal coinçant globalement avec une partie du dispositif d’accès dans le panneau extérieur afin de faciliter la séparation du dispositif d’accès d’avec le carton.

22. Flan selon la revendication 21, dans lequel la forme et les dimensions de l’évidement terminal sont telles qu’un bord de l’évidement terminal s’étend au moins
partiellement le long d'un contour du dispositif d'accès.
REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

