



- (51) International Patent Classification:
B65D 85/10 (2006.01) *B65D 5/02* (2006.01)
- (21) International Application Number:
PCT/EP2012/072803
- (22) International Filing Date:
15 November 2012 (15.11.2012)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
11250908.8 21 November 2011 (21.11.2011) EP
- (71) Applicant: PHILIP MORRIS PRODUCTS S.A.
[CH/CH]; Quai Jeanrenaud 3, CH-2000 Neuchatel (CH).
- (72) Inventor: CHATELAIN, Lucas; Route du Jorat 134, CH-1000 Lausanne 26 (CH).
- (74) Agent: LOUSTALAN, Paul; Reddie & Grose LLP, 16 Theobalds Road, London, Greater London WC1X 8PL (GB).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))

- (54) Title: CONTAINER WITH HINGED LID FORMED OF A SINGLE LAMINAR BLANK

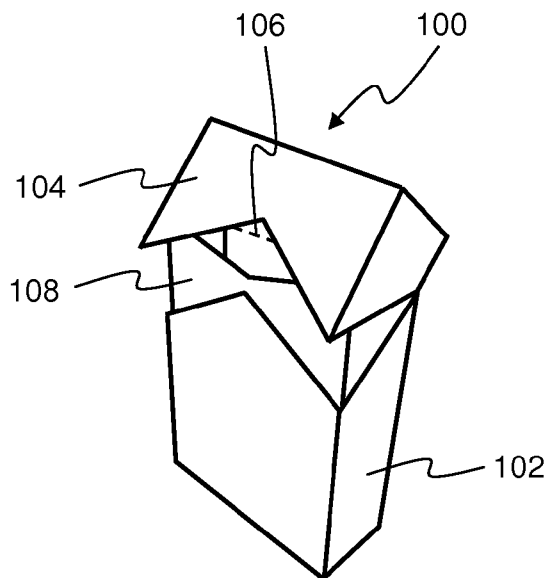


Figure 1(b)

(57) Abstract: The present invention relates to a container (100) for consumer goods comprising an outer housing (102) having an opening, an inner housing comprising a lid (104) pivotable, about a hinge line (106) extending across a back wall of the container, between a closed position and an open position, and an inner frame (108) having an opening. The inner frame is mounted within the inner housing which is mounted within the outer housing such that the lid coincides with the opening of the inner frame whereby, in the open position of the lid, the opening in the inner frame is accessible. The outer housing, the inner housing and the inner frame are integrally formed from a single laminar blank. There is also provided a single laminar blank (200) for forming the aforementioned container.



CONTAINER WITH HINGED LID FORMED OF A SINGLE LAMINAR BLANK

The present invention relates to a novel container for consumer goods. The present invention also relates to single laminar blanks used to manufacture containers for consumer goods. The container finds particular application as a container for
5 elongate smoking articles, such as cigarettes.

It is known to package elongate smoking articles and other consumer goods in containers formed from folded laminar blanks. The containers generally comprise a housing and a lid. For example, elongate smoking articles, such as cigarettes and
10 cigars, are commonly sold in lid packs having a box for housing the smoking articles and a lid connected to the box about a hinge line extending across the back wall of the container. The lid is generally positioned at the top of the housing and hinged along the back wall of the container. Such packs are typically constructed from one-piece laminar cardboard blanks. In use, the lid is pivoted about the hinge line to open the pack and so
15 gain access to the smoking articles held in the box. It is known that such containers may sometimes suffer from problems such as the lid and the housing not aligning correctly due to distortion of the lid and a gap is visible on the front of the container between the lid and the box part. This is sometimes referred to as "smiling" effect.

It would be desirable to provide a novel container. It would be particularly
20 desirable if such a container could be assembled and filled efficiently using conventional methods and apparatus. It would also be desirable if the container was provided with a more rigid lid, and greater design versatility.

According to a first aspect of the present invention, there is provided a container for consumer goods. The container comprises an outer housing having an opening, an
25 inner housing comprising a lid pivotable, about a hinge line extending across a back wall of the container, between a closed position and an open position, and an inner frame having an opening. The inner frame is mounted within the inner housing which is mounted within the outer housing such that the lid coincides with the opening of the inner frame whereby, in the open position of the lid, the opening in the inner frame is
30 accessible. The outer housing, the inner housing and the inner frame are integrally formed from a single laminar blank.

By providing a single laminar blank with three such portions a large variety of container designs may be produced more easily.

The outer and inner housings, and the inner frame may each comprise a front
35 wall, a back wall, a bottom wall, a top wall, a first side wall and a second side wall.

Preferably, at least one of the outer housing and inner housing comprises a top wall and a bottom wall. More preferably, the inner frame comprise a front wall, a first side wall and a second side wall.

5 The terms "front", "back", "upper", "lower", "side", "top", "bottom", "left", "right" and other terms used to describe relative positions of the components of containers according to the invention refer to the container in an upright position with the opening through which the consumer goods are removed at the top end and the hinge in the back. The back wall of the container is the wall comprising the hinge line.

10 The term "longitudinal" refers to a direction from bottom to top or vice versa. The term "transverse" refers to a direction perpendicular to the longitudinal direction.

The container is preferably a rectangular parallelepiped comprising two wider walls spaced apart by two narrower walls.

15 The term "hinge line" refers to a line about which the lid may be pivoted in order to open the container. A hinge line may be, for example, a fold line or a score line in the panel forming the back wall of the container.

20 Preferably, the lid has at least one flap depending from a free edge and folded towards the interior of the container. Advantageously, providing such a flap, or flaps, may increase the strength of the lid front wall. Increasing the strength of the front wall may reduce the effects of the so-called "smiling" effect. By utilising a single laminar blank with three portions, each portion adapted to form a distinct structure within the formed container, flaps as described above can be provided without exposing the contents of the container to the environment. Furthermore, advantageously, providing such a flap, or flaps, may improve the aesthetics of the container since a so-called "blunt edge", or "printed edge", is formed. The term "blunt edge", and "printed edge" as used in
25 this description refers to an edge that is created by folding rather than cutting, thus a rounded edge is formed.

Alternatively, the lid has two flaps depending from a free edge. In this case, the flaps are arranged such that a triangular shaped notch is formed centrally in the lid front wall when the flaps are folded towards the interior of the container.

30 As will be appreciated, a large number of configurations of the flaps can be provided to result in a large variety of shapes forming the lid front wall panel. For example, a trapezoidal notch can be provided, a triangular shape that is offset from the centre may be provided, and a linear edge that is not perpendicular to the side wall of the lid may be provided among other configurations.

Preferably, the at least one lid flap is attached to an interior wall of the lid. By attaching the flaps to the interior wall of the lid, the strength of the lid may be increased.

The free edges of the lid may abut the free edges of the outer housing. Preferably, the blunt edges of the lid abut the free edges of the outer housing. More preferably, the front wall of the outer housing and the front wall of the lid lie in the same plane.

Alternatively, the outer housing may comprise a cut-out in at least one free edge. By providing such a cut-out in the outer housing, the container may be opened more easily because a gap is provided between the free edge of the lid and the free edge of the outer housing. In this case, preferably, the cut-out is adapted to expose at least a portion of the inner frame. Preferably, the cut-out is in the form of a triangular shaped notch. Alternatively, the cut-out may be in the form of a square shaped notch, a trapezoidal shaped notch, or any other such shape.

Preferably, the outer housing comprises at least one flap depending from a free edge and folded towards the interior of the container. Advantageously, providing such a flap, or flaps, may increase the strength of the outer housing front wall. By utilising a single laminar blank with three portions, each portion adapted to form a distinct structure within the formed container, flaps as described above can be provided without exposing the contents of the container to the environment. Furthermore, advantageously, providing such a flap, or flaps, may improve the aesthetics of the container by providing a blunt free edge. The at least one outer housing flap may be attached to an interior wall of the outer housing. More preferably, the at least one flap is arranged such that the free edge of the outer housing abuts the free edge of the free edge of the lid.

Alternatively, the lid and the outer housing are adapted such that there is a gap between the free edges of the outer housing and the free edges of the lid. Preferably, the gap exposes a portion of the inner frame. The gap may be formed by at least one cut-out in the inner housing portion. Preferably, the cut-out is positioned between the lid front wall panel, and the inner housing front wall panel. Advantageously, by providing an inner frame portion of the single laminar blank, such a gap can be formed without exposing the consumer goods within the container. Thus, the aesthetics of the container may be improved. The gap between the free edges of the outer housing and the free edges of the lid may have substantially parallel sides, or converging and diverging sides, or any other such arrangement.

Preferably, the lid is adapted to be wider than the inner housing from which it depends. More preferably, the front wall panel of the lid is wider than the front wall

panel of the inner housing. By arranging the front wall panels of the lid and the inner housing in this way, the inner housing portion of the container may nest within the outer housing portion more easily, while the lid front wall and side walls lie in the same plane as the side walls and front wall of the outer housing. That is, the width of the lid may be substantially equal to the width of the outer housing. Thus a more aesthetically pleasing container may be formed.

Preferably, the at least one wall of the lid is integral to the inner housing and the outer housing. More preferably, the back wall of the lid is integral to the inner housing and the outer housing. Thus, the hinge line of the container is formed in the back wall panel of the outer housing and the back wall panel of the inner housing, and therefore advantageously the strength of the hinge may be improved.

The container may be formed from any suitable materials including, but not limited to, cardboard, paperboard, plastic, metal, or combinations thereof. Preferably, the first housing and the second housing are each formed from one or more folded laminar cardboard blanks and preferably, the cardboard has a weight of between about 100 grams per square metre and about 350 grams per square metre.

As described above, containers according to the invention may be in the shape of a rectangular parallelepiped, with right-angled longitudinal and right-angled transverse edges. Alternatively, the container may comprise one or more rounded longitudinal edges, rounded transverse edges, bevelled longitudinal edges or bevelled transverse edges, or combinations thereof. For example, the container according to the invention may comprise, without limitation:

- One or two longitudinal rounded or bevelled edges on the front wall, and/or one or two longitudinal rounded or bevelled edges on the back wall.
- One or two transverse rounded or bevelled edges on the front wall, and/or one or two transverse rounded or bevelled edges on the back wall.
- One longitudinal rounded edge and one longitudinal bevelled edge on the front wall, and/or one transverse rounded edge and one transverse bevelled edge on the back wall.
- One or two transverse rounded or bevelled edges on the front wall and one or two longitudinal rounded or bevelled edges on the front wall.
- Two longitudinal rounded or bevelled edges on a first side wall or two transverse rounded or bevelled edges on the second side wall.

Where the container comprises one or more rounded edges and is made from one laminar blank, preferably the blank comprises three, four, five, six or seven scoring

lines or creasing lines to form each rounded edge in the assembled container. The scoring lines or creasing lines may be either on the inside of the container or on the outside of the container. Preferably, the scoring lines or creasing lines are spaced from each other by between about 0.3 mm and 4 mm.

5 Preferably, the spacing of the creasing lines or scoring lines is a function of the thickness of the laminar blank. Preferably, the spacing between the creasing lines or scoring lines is between about 0.5 and about 4 times larger than the thickness of the laminar blank.

10 Where the container comprises one or more bevelled edge, preferably the bevelled edge has a width of between about 1 mm and about 10 mm, preferably between about 2 and about 6 mm. Alternatively, the container may comprise a double bevel formed by three parallel creasing or scoring lines that are spaced such that two distinct bevels are formed on the edge of the container.

15 Where the container comprises a bevelled edge and is made one laminar blank, the bevel may be formed by two parallel creasing lines or scoring lines in the laminar blank. The creasing lines or scoring lines may be arranged symmetrically to the edge between a first wall and a second wall. Alternatively, the creasing lines or scoring lines may be arranged asymmetrically to the edge between the first wall and the second wall, such that the bevel reaches further into the first wall of the container than into the
20 second wall of the container.

Alternatively, the container may have a non-rectangular transversal cross section, for example polygonal such as triangular or hexagonal, semi-oval or semi-circular.

25 Containers according to the invention find particular application as packs for elongate smoking articles such as, for example, cigarettes, cigars or cigarillos. It will be appreciated that through appropriate choices of the dimensions thereof, containers according to the invention may be designed for different numbers of conventional size, king size, super-king size, slim or super-slim cigarettes. Alternatively, other consumer goods may be housed inside the container.

30 Through an appropriate choice of the dimensions thereof, containers according to the invention may be designed to hold different total numbers of smoking articles, or different arrangements of smoking articles. For example, through an appropriate choice of the dimensions thereof, containers according to the invention may be designed to hold a total of between ten and thirty smoking articles.

35 The smoking articles may be arranged in different collations, depending on the total number of smoking articles. For example, the smoking articles may be arranged in

a single row of six, seven, eight, nine or ten. Alternatively, the smoking articles may be arranged in two or more rows. The two or more rows may contain the same number of smoking articles. For example, the smoking articles may be arranged in: two rows of five, six, seven, eight, nine or ten; three rows of five or seven; or four rows of four, five or six. Alternatively, the two or more rows may include at least two rows containing different number of smoking articles to each other. For example, the smoking articles may be arranged in: a row of five and a row of six (5-6); a row of six and a row of seven (6-7); a row of seven and a row of eight (7-8); a middle row of five and two outer rows of six (6-5-6); a middle row of five and two outer rows of seven (7-5-7); a middle row of six and two outer rows of five (5-6-5); a middle row of six and two outer rows of seven (7-6-7); a middle row of seven and two outer rows of six (6-7-6); a middle row of nine and two outer rows of eight (8-9-8); or a middle row of six with one outer row of five and one outer row of seven (5-6-7).

Containers according to the present invention may hold smoking articles of the same type or brand, or of different types or brands. In addition, both filterless smoking articles and smoking articles with various filter tips may be contained, as well as smoking articles of differing length (for example, between about 40 mm and about 180 mm), diameter (for example, between about 4 mm and about 9 mm). In addition, the smoking articles may differ in strength of taste, resistance to draw and total particulate matter delivery. Preferably, the dimensions of the container are adapted to the length of the smoking articles, and the collation of the smoking articles. Typically, the outer dimensions of the container are between about 0.5 mm to about 5 mm larger than the dimensions of the bundle or bundles of smoking articles housed inside the container.

The length, width and depth of containers according to the invention may be such that, in the closed lid position, the resultant overall dimensions of the container are similar to the dimensions of a typical disposable hinge-lid pack of twenty cigarettes.

Preferably, containers according to the invention have a height of between about 60 mm and about 150 mm, more preferably a height of between about 70 mm and about 125 mm, wherein the height is measured from the bottom wall to the top wall of the container.

Preferably, containers according to the invention have a width of between about 12 mm and about 150 mm, more preferably a width of between about 70 mm and about 125 mm, wherein the width is measured from one side wall to the other side wall of the container.

Preferably, containers according to the invention have a depth of between about 6 mm and about 150 mm, more preferably a depth of between about 12 mm and about 25 mm wherein the depth is measured from the front wall to the back wall of the container (comprising the hinge between box and lid).

5 Preferably, the ratio of the height of the container to the depth of the container is in between about 0.3 to 1 and about 10 to 1, more preferably between about 2 to 1 and about 8 to 1, most preferably between about 3 to 1 and 5 to 1

Preferably, the ratio of the width of the container to the depth of the container is in between about 0.3 to 1 and about 10 to 1, more preferably between about 2 to 1 and about 8 to 1, most preferably between about 2 to 1 and 3 to 1.

Preferably, the ratio of the height of the lid back wall to the height of the box back wall of the outer sleeve is between about 0 to 1 (lid located at the top edge of the container) to about 1 to 1, more preferably, between about 1 to 5 and about 1 to 10, most preferably, between about 1 to 6 to about 1 to 8.

15 Preferably, the ratio of the height of the lid front wall of the outer sleeve to the height of the box front wall of the outer sleeve is between about 1 to 0 (lid covering the entire front wall) to about 1 to 10, more preferably, between about 1 to 1 and about 1 to 5, most preferably, between about 1 to 2 and about 1 to 3.

Where the container comprises smoking articles, the container may further comprise waste-compartments (for example for ash or butts) or other consumer goods, for example matches, lighters, extinguishing means, breath-fresheners or electronics. The other consumer goods may be attached to the outside of the container, contained within the container along with the smoking articles, in a separate compartment of the container or combinations thereof.

25 The exterior surfaces of containers according to the invention may be printed, embossed, debossed or otherwise embellished with manufacturer or brand logos, trade marks, slogans and other consumer information, indicia and optical elements, such as for example, a Fresnel lens..

Where the container according to the present invention contains a bundle of cigarettes or other elongate smoking articles, the smoking articles are preferably wrapped in an inner liner of, for example, metal foil or metallised paper.

Once filled, containers according to the invention may be shrink wrapped or otherwise over wrapped with a transparent polymeric film of, for example, high or low density polyethylene, polypropylene, oriented polypropylene, polyvinylidene chloride, cellulose film, or combinations thereof in a conventional manner. Where containers

according to the invention are over wrapped, the over wrapper may include one or more a tear tapes. In addition, the over wrapper may be printed with images, consumer information or other data.

5 According to a further aspect of the present invention, there is provided a single laminar blank for forming a container as described herein. The blank comprises a first portion for forming the outer housing, and the first portion includes one or more cut outs for forming the opening in the outer housing. The blank also comprises a second portion for forming the inner housing, and the second portion includes one or more cuts and a hinge line extending across a back wall panel of the inner housing to define the lid.
10 Furthermore, the blank also comprises a third portion for forming the inner frame, and the third portion includes one or more cut outs for forming the opening in the inner frame.

15 Preferably, the second portion is connected to the first portion along an edge of a side wall panel of the first portion, and the third portion is connected to the first portion along an edge of a back wall panel of the first portion.

20 Preferably, the outer housing and the inner housing are connected along a longitudinal edge of a panel of the outer housing and a panel of the inner housing. More preferably, the outer and inner housings are connected along a longitudinal edge of a side panel of the inner housing.

25 Preferably, the inner housing and the inner frame are connected along a longitudinal edge of a panel of the inner housing and a panel of the inner frame. More preferably, the inner housing and inner frame are connected along a longitudinal edge of a side panel of the inner frame.

30 The containers of the present invention are adapted to be assembled from the single laminar blank using conventional assembly methods and apparatus, as described in more detail below. For example, the containers can be automatically assembled on a Bergami® type machine, of the type used to assemble packs of smoking articles.

According to the present invention there is also provided a method for assembling a container according to the invention from a single laminar blank, as described below.

35 The laminar blank is first partially assembled by folding it along the longitudinal fold lines and gluing the outer housing portion, inner housing portion and inner frame at their respective side walls, so as to form an open ended sleeve with the inner housing within the outer housing. The resultant open ended sleeve can advantageously be flattened at this stage for efficient storage or transport.

In the same or a separate process to the partial assembly described above, the consumer goods are then inserted into the inner housing through one of the open ends. Preferably, the consumer goods are inserted in to the bottom of the container. As the filled pack progresses through an automatic packing machine, the bottom panels are folded inward towards the consumer goods, preferably by approximately 90 degrees. Glue is applied to the outer surface of the inner bottom panel.

Following the application of the glue, the outer bottom panel is folded inwards towards the inner bottom panel so that the outer bottom panel is adhered to the inner bottom panel.

During assembly of the container, the panels of the blank forming the lid are also folded and glued.

The invention will be further described, by way of example only, with reference to the accompanying drawings in which:

Figures 1(a) and 1(b) show perspective views of a container according to one embodiment of the invention;

Figure 2 shows a laminar blank suitable for forming the container shown in Figures 1;

Figures 3(a) and 3(b) show perspective views of a container according to a further embodiment of the invention;

Figure 4 shows a laminar blank suitable for forming the container shown in Figures 3;

Figures 5(a) and 5(b) show perspective views of a container according to a yet further embodiment of the invention; and

Figure 6 shows a laminar blank suitable for forming the container shown in Figures 5.

The container 100 shown in Figure 1(a) is a rectangular parallelepiped and comprises an outer housing 102, an inner housing (not shown) mounted within the outer housing 102, and an inner frame (not shown) mounted within the inner housing. The container also comprises a lid 104, shown in the closed position. The lid is attached to the outer housing 102 at a hinge line on the back wall of the container. A bundle of smoking articles (not shown) is housed in the inner frame of the container 100. The free edge of the lid 104 abuts the free edge of the outer housing 102, and the front walls of the lid and the outer housing are adapted to lie in the same plane. The free edges of the lid and the outer housing are formed by folding flaps to the interior of the container, and thus aesthetically pleasing, and strengthened, blunt edges are formed.

Figure 1(b) shows the container 100 of Figure 1(a) with the lid 104 in the open position. As described above, the lid 104 is joined to the housing 102 at the hinge line 106. The outer housing 102 contains the inner frame 108, and the inner housing (not shown). As can be seen the hinge line extends substantially horizontally across a back wall of the inner housing at a small distance from the top of the inner housing. In addition, the hinge line also extends across a back wall of the outer housing, such that the back wall of the lid comprises a wall panel from both the inner housing and the outer housing.

The single laminar blank 200, as shown in Figure 2, comprises an outer portion 202, an inner portion 204 and an inner frame 206. The blank 200 is adapted to form the container 100 shown in Figures 1. The outer portion 202 forms the outer housing 102, and comprises a front wall panel 208, two side wall panels 210 and 212, and a back wall panel 214. The front wall panel 208 comprises a bottom wall panel 216 depending from the bottom edge of the front wall panel, and two flaps 218 depending from the top edge of the front wall panel. The flaps 218 are adapted to be folded towards the interior of the container to form a front wall that has a strengthened free edge. The back wall panel 214 comprises a bottom wall panel 220. The bottom wall panel is provided with an area to accept glue to enable the bottom wall panel 220 to be glued to the interior of the bottom wall panel 216 during manufacture of the container. The back wall panel also comprises a portion of the lid 104. The lid back wall panel 222 depends from the top edge of the back wall panel, and the lid top wall panel 224 depends from the lid back wall panel 222.

The inner portion 204 forms the inner housing of the container 100, and comprises an inner front wall panel 226, an inner back wall panel 228, and two side wall panels 230 and 232. The front wall panel comprises a portion of the lid 104. The lid front wall panel 234 is formed by cuts in the inner front wall panel 226. An additional cut in the lid front wall panel 234 forms the flaps 236. The flaps 236 are adapted to be folded towards the interior of the container to strengthen the lid front wall. The flaps 236 and the flaps 218 are arranged such that the front wall of the container and the front wall of the lid fit together as can be seen in Figure 1(a). In addition, the free edge of the lid is adapted to abut the free edge of the outer housing front panel. The lid top wall panel 238 depends from the lid back wall panel 234. The lid side wall panels 240 and 242 are formed by a cut in the respective side wall panels 230 and 232. The lid back wall panel 244 depends from the inner back wall panel 228 via the hinge line 106.

The inner frame portion 206 forms the inner frame 108 of the container 100, and comprises an inner frame front wall panel 246 and two side wall panels 248 and 250. The inner frame front wall panel 246 has an angled notch cut in its top edge. The two angled notches that extend from the side wall panels 248 and 250 towards the inner frame front wall panel enable the lid to open and close once the blank is formed into the container 100. The notches are arranged such that upon opening and closing of the lid, the interior of the lid does not interact with the side walls 248 and 250 thus impeding the opening or closing process.

The outer portion 202 is connected to the inner portion 204 along an edge defined by the front wall panel 214 of the outer portion and a side wall panel 230 of the inner portion. The inner portion 204 is connected to the inner frame portion 206 along an edge defined by the inner back wall panel 228 of the inner portion and a side wall panel 248 of the inner frame.

As can be seen in Figure 2, the lid front wall panel 234 is wider than the inner front wall panel 226, and consequently the lid side wall panels 240 and 242 are narrower than the side wall panels 230 and 232. The wider front wall panel enables the width of the lid to be the same as the width of the front wall panel of the outer housing. Therefore, the inner front wall panel 226 is narrower than the lid front wall panel 234 by approximately two times the thickness of the material used to construct the container.

The single laminar blank 200 is formed into the container 100 by first folding the side wall panels 248 and 250 by approximately 90 degrees to the inner frame front wall panel 246, and towards the interior of the container. The side wall 248 is then folded by approximately 90 degrees to the inner back wall panel 228, and towards the interior of the container. The side wall 232 of the inner portion is folded by approximately 90 degrees to the inner back wall 228, and then the side wall 250 is glued to the interior of the side wall 232. The flaps 236 are folded by approximately 180 degrees towards the interior of the container, and then attached to the interior of the lid front panel 234.

The inner front wall panel 226 is folded by approximately 90 degrees to the side wall 232, and the side wall 230 is folded by approximately 90 degrees to the inner front wall panel 226. At the same time, the lid front wall panel 234 is folded by approximately 90 degrees to the lid side wall panels 240 and 242.

The outer back wall panel 214 is folded by approximately 90 degrees to the side wall panel 230, and towards the interior of the container. The side wall panel 212 is then folded by approximately 90 degrees to the outer front wall panel 214. The flaps 218 are folded by 180 degrees towards the interior of the container, and then attached to the

interior of the outer front wall panel 208. The outer front wall panel is folded by approximately 90 degrees to the side wall panel 212, and the side wall panel 210 is folded by approximately 90 degrees to the outer front wall panel. The side wall panel 210 is then attached to exterior surface of the side wall panel 230.

5 This forms the housing, in the form of an open ended tube, for accepting the consumer goods. A BergamiTM type machine is then used to insert the consumer goods into the housing, and fold the top and bottom panels towards the interior of the container, and attach them together to form the completed container 100.

10 Where appropriate, the order in which the above forming procedures are undertaken can be changed.

Alternative examples of container 100 will now be described in detail with reference to Figures 3, 4, 5 and 6.

The container 300 shown in Figure 3(a) is also a rectangular parallelepiped and comprises an outer housing 302, an inner housing (not shown) mounted within the outer housing 302, and an inner frame 304 mounted within the inner housing. The container also comprises a lid 306, shown in the closed position. The lid is attached to the outer housing 302 at a hinge line on the back wall of the container. A bundle of smoking articles (not shown) is housed in the inner frame of the container 300. The free edge of the lid 306 is spaced apart from the free edge of the outer housing 302, and the front walls of the lid and the outer housing are adapted to lie in the same plane. The free edges of the lid and the outer housing are formed by folding flaps to the interior of the container, and thus aesthetically pleasing, and strengthened, blunt edges are formed.

Figure 3(b) shows the container 300 of Figure 3(a) with the lid 306 in the open position. As described above, the lid 306 is joined to the housing 302 at the hinge line (not shown). The outer housing 302 contains the inner frame 304, and the inner housing (not shown). Similarly to the container shown in Figures 1, the hinge line extends substantially horizontally across a back wall of the inner housing at a small distance from the top of the inner housing. In addition, the hinge line also extends across a back wall of the outer housing, such that the back wall of the lid comprises a wall panel from both the inner housing and the outer housing.

Figure 4 shows an alternative single laminar blank in which like reference numerals refer to like parts. The laminar blank 400 is similar to the laminar blank shown in Figure 2, except for the inner housing portion 402, and the outer housing portion 404. The outer housing portion 404 comprises the same wall panels as described above in relation to the single laminar blank 200 shown in Figure 2. However, to affect the gap

between the lid free edge and the front wall free edge, the height of the front wall panel 406 in the longitudinal direction of the container is less than the height of the front wall panel 208.

The inner housing portion also comprises the same wall panels as described above in relation to the single laminar blank 200 shown in Figure 2. However, a cut out 408 is provided between the lid and the inner housing front wall panel. The cut out is provided to affect the gap between the lid free edge and the front wall free edge. The gap size can be varied by changing the height of the front wall panel 406 and the dimensions of the cut out 408.

The container 500 shown in Figure 5(a) is also a rectangular parallelepiped and comprises an outer housing 502, an inner housing (not shown) mounted within the outer housing 502, and an inner frame 504 mounted within the inner housing. The container also comprises a lid 506, shown in the closed position. The lid is attached to the outer housing 502 at a hinge line on the back wall of the container. A bundle of smoking articles (not shown) is housed in the inner frame of the container 500. The free edge of the lid 506 abuts the free edge of the outer housing 502, and the front walls of the lid and the outer housing are adapted to lie in the same plane. A notch is formed in the free edge of the outer housing 502 to enable the user to have easier access to the interior of the container. The notch is located at the apex of the free edge. The free edge of the lid is formed by folding flaps to the interior of the container, and thus an aesthetically pleasing, and strengthened, blunt edge is formed. In this embodiment, the free edge of the outer housing is formed by cuts made to the front wall panel of the laminar blank.

Figure 5(b) shows the container 500 of Figure 5(a) with the lid 506 in the open position. As described above, the lid 506 is joined to the housing 502 at the hinge line 508. The outer housing 502 contains the inner frame 504, and the inner housing (not shown). Similarly to the container shown in Figures 1, the hinge line extends substantially horizontally across a back wall of the inner housing at a small distance from the top of the inner housing. In addition, the hinge line also extends across a back wall of the outer housing, such that the back wall of the lid comprises a wall panel from both the inner housing and the outer housing.

Figure 6 shows an alternative single laminar blank in which like reference numerals refer to like parts. The laminar blank 600 is similar to the laminar blank shown in Figure 2, except for the outer housing portion 602. As can be seen the outer housing portion 602 comprises the notch 604 as described above. The inner housing portion

204, and the inner frame portion 206 are the same as the laminar blank 200 shown in Figure 2.

In all figures, the dashed lines represent “fold” lines, and the solid lines represent “cut” lines.

CLAIMS

1. A container for consumer goods comprising:
an outer housing having an opening;
5 an inner housing comprising a lid pivotable, about a hinge line extending across a back wall of the container, between a closed position and an open position; and
an inner frame having an opening;
wherein, the inner frame is mounted within the inner housing which is mounted
within the outer housing such that the lid coincides with the opening of the inner frame
10 whereby, in the open position of the lid, the opening in the inner frame is accessible, and
wherein the outer housing, the inner housing and the inner frame are integrally
formed from a single laminar blank.
2. A container according to Claim 1, wherein the lid has at least one flap depending
15 from a free edge and folded towards the interior of the container.
3. A container according to Claim 2, wherein the at least one lid flap is attached to
an interior wall of the lid.
- 20 4. A container according to Claim 1, 2 or 3, wherein the free edges of the lid abut
the free edges of the outer housing.
5. A container according to any of Claims 1 to 4, wherein the outer housing
comprises a cut-out in at least one free edge.
- 25 6. A container according to Claim 5, wherein the cut-out is adapted to expose at
least a portion of the inner frame.
7. A container according to any of the preceding claims, wherein the outer housing
30 comprises at least one flap depending from a free edge and folded towards the interior
of the container.
8. A container according to Claim 7, wherein the at least one outer housing flap is
attached to an interior wall of the outer housing.

9. A container according to any of the preceding claims, wherein the lid and the outer housing are adapted such that there is a gap between the free edges of the outer housing and the free edges of the lid.

5 10. A container according to any of the preceding claims, wherein the lid is adapted to be wider than the inner housing from which it depends.

11. A container according to Claim 10, wherein the width of the lid is substantially equal to the width of the outer housing.

10

12. A container according to any of the preceding claims, wherein at least one wall of the lid is integral to the inner housing and the outer housing.

13. A container according to any of the preceding claims, wherein the inner frame
15 comprises a plurality of smoking articles.

14. A single laminar blank for forming a container according to any preceding claim, the blank comprising:

20 a first portion for forming the outer housing, wherein the first portion includes one or more cut outs for forming the opening in the outer housing;

a second portion for forming the inner housing, wherein the second portion includes one or more cuts and a hinge line extending across a back wall panel of the inner housing to define the lid; and

25 a third portion for forming the inner frame, wherein the third portion includes one or more cut outs for forming the opening in the inner frame.

15. A single laminar blank according to Claim 14, wherein the second portion is connected to the first portion along an edge of a side wall panel of the first portion, and the third portion is connected to the first portion along an edge of a back wall panel of
30 the first portion.

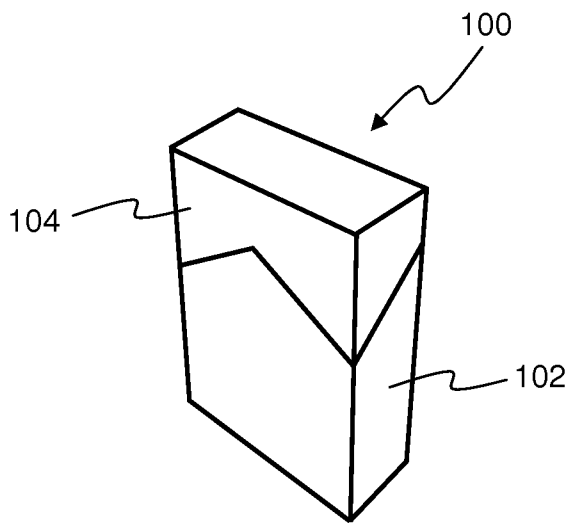


Figure 1(a)

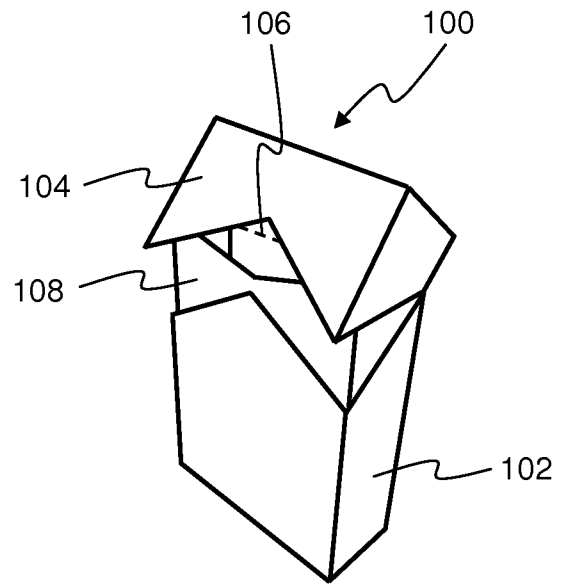


Figure 1(b)

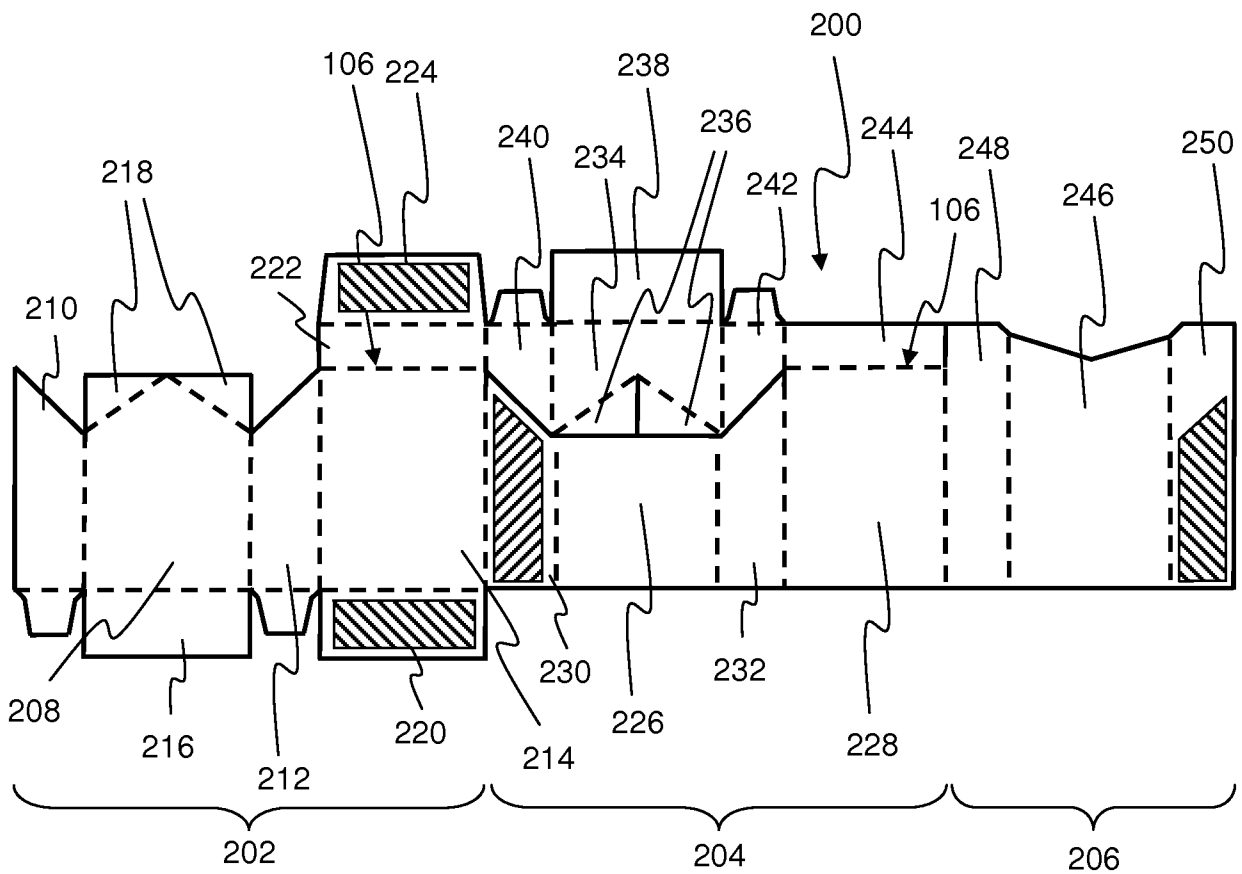


Figure 2

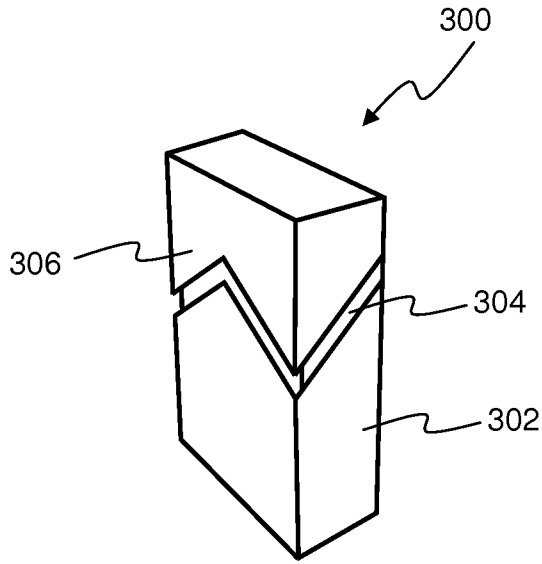


Figure 3(a)

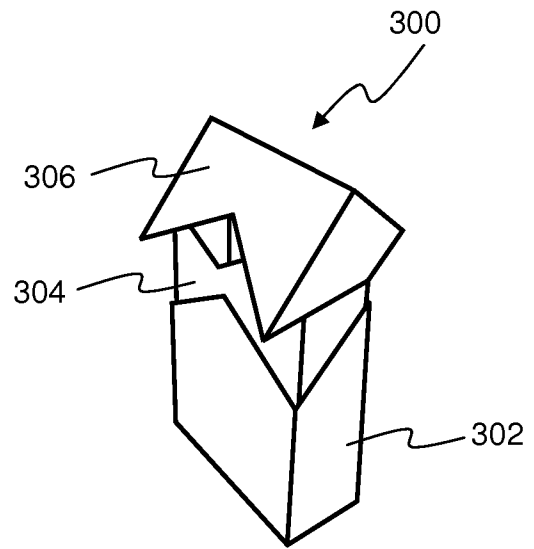


Figure 3(b)

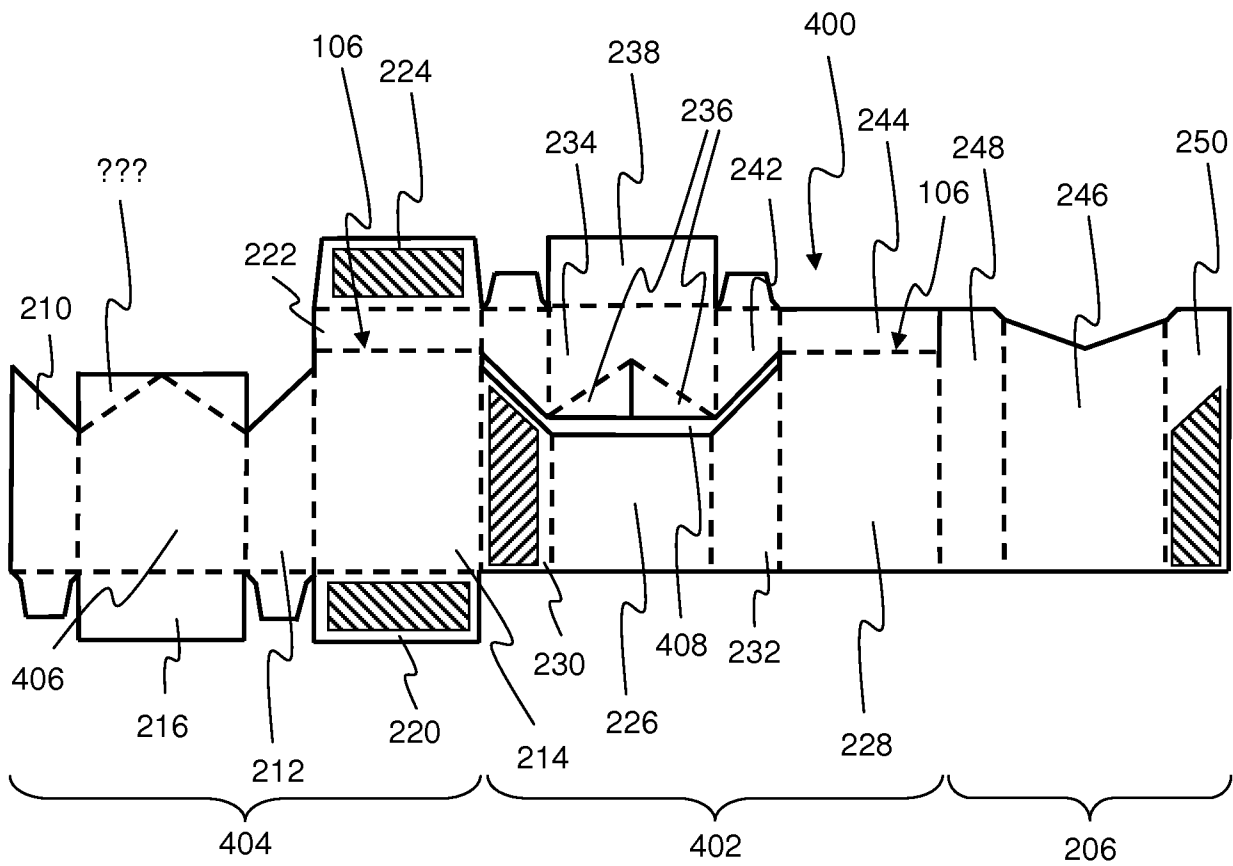


Figure 4

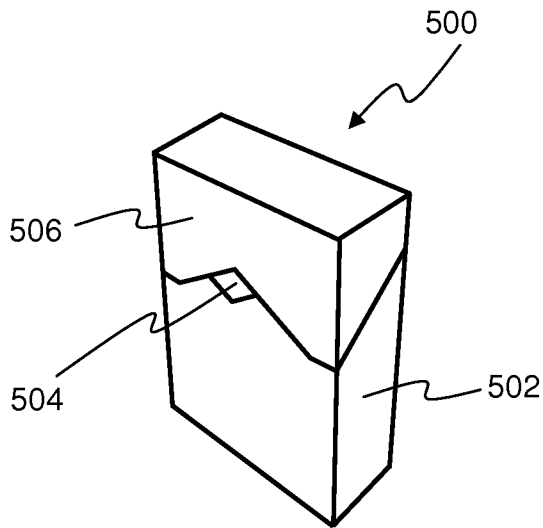


Figure 5(a)

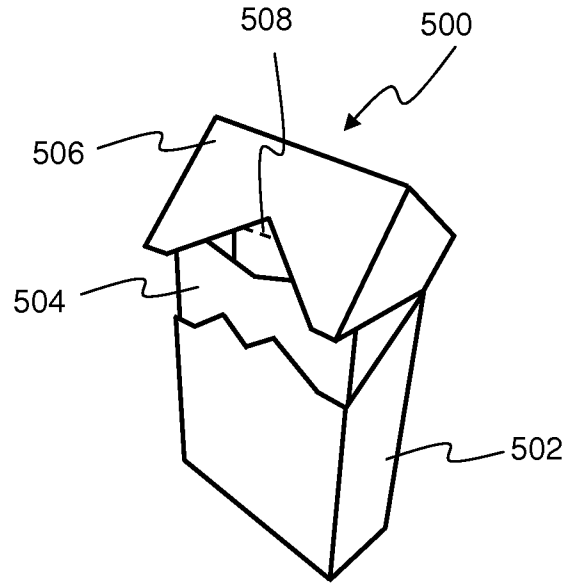


Figure 5(b)

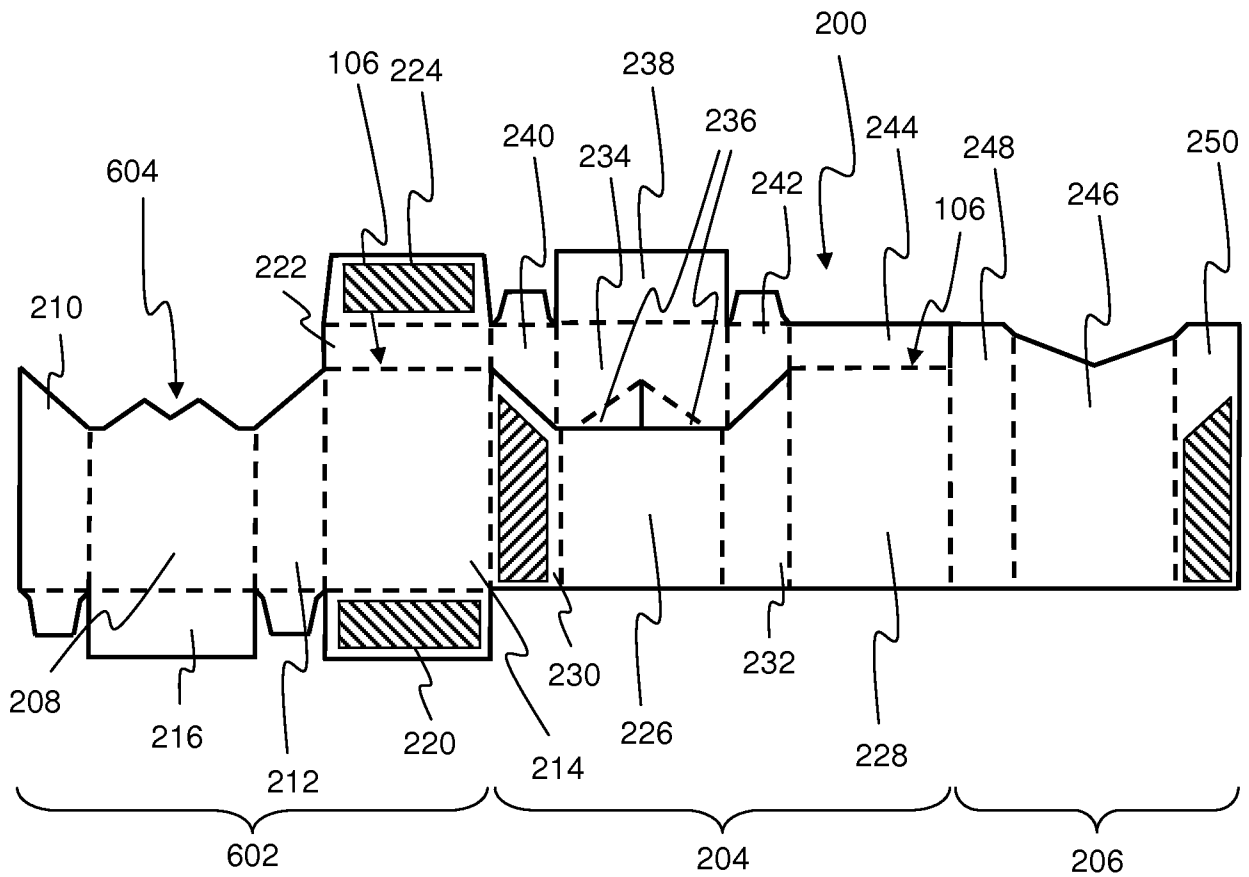


Figure 6

INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2012/072803

A. CLASSIFICATION OF SUBJECT MATTER INV. B65D85/10 B65D5/02 ADD.		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols) B65D		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) EPO-Internal		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2011/053176 A2 (MAZUR WOJCIECH [PL]) 5 May 2011 (2011-05-05)	1-4, 13, 14
Y	claim 3; figures 1-4	5-9
Y	----- US 6 527 166 B1 (FOCKE HEINZ [DE] ET AL) 4 March 2003 (2003-03-04) figures 1-21	5,6,9
Y	----- US 4 729 508 A (ERDMANN OTTO [DE] ET AL) 8 March 1988 (1988-03-08) column 4, line 43 - line 45 column 6, line 15 - line 27 figures 1,2	7,8
A	----- WO 2004/080798 A2 (SCHUR PACK SCANDINAVIA AS [DK]; HANSEN HENNING [DK]; CHRISTENSEN JAN []) 23 September 2004 (2004-09-23) figures 1-5	1-15
	----- -/--	
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.		
* Special categories of cited documents :		
"A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed		"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family
Date of the actual completion of the international search 5 March 2013		Date of mailing of the international search report 14/03/2013
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016		Authorized officer Fitterer, Johann

INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2012/072803

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 3 708 108 A (ROSENBERG C) 2 January 1973 (1973-01-02) figures 1-7 -----	1-15

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/EP2012/072803

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2011053176	A2	05-05-2011	NONE

US 6527166	B1	04-03-2003	AT 260836 T 15-03-2004
			AT 287841 T 15-02-2005
			AU 772495 B2 29-04-2004
			AU 1558000 A 26-06-2000
			BG 64790 B1 28-04-2006
			BG 105594 A 31-01-2002
			BR 9916072 A 04-09-2001
			CA 2358414 A1 15-06-2000
			CN 1329567 A 02-01-2002
			EP 1140661 A1 10-10-2001
			ES 2216594 T3 16-10-2004
			ES 2236412 T3 16-07-2005
			ID 29808 A 11-10-2001
			JP 4503850 B2 14-07-2010
			JP 2002531349 A 24-09-2002
			MX PA01005788 A 27-03-2002
			PL 349342 A1 15-07-2002
			PT 1140661 E 30-07-2004
			PT 1281636 E 30-06-2005
			RU 2223903 C2 20-02-2004
			TR 200101662 T2 22-10-2001
			US 6527166 B1 04-03-2003
			WO 0034150 A1 15-06-2000

US 4729508	A	08-03-1988	DE 3601470 A1 23-07-1987
			GB 2185462 A 22-07-1987
			IT 1199816 B 05-01-1989
			JP 62168851 A 25-07-1987
			US 4729508 A 08-03-1988

WO 2004080798	A2	23-09-2004	NONE

US 3708108	A	02-01-1973	NONE
