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(54) Container for smoking articles

(57) A container (41) for smoking articles comprises a continuous fold line (105) extending around a housing, wherein said container is foldable about said fold line (105) so as to reduce the footprint of the folded container. A blank and a folded blank for forming the container is also provided, as well as a method for folding the folded blank and a method for forming the container. A tobacco container with a folded blank is also described.

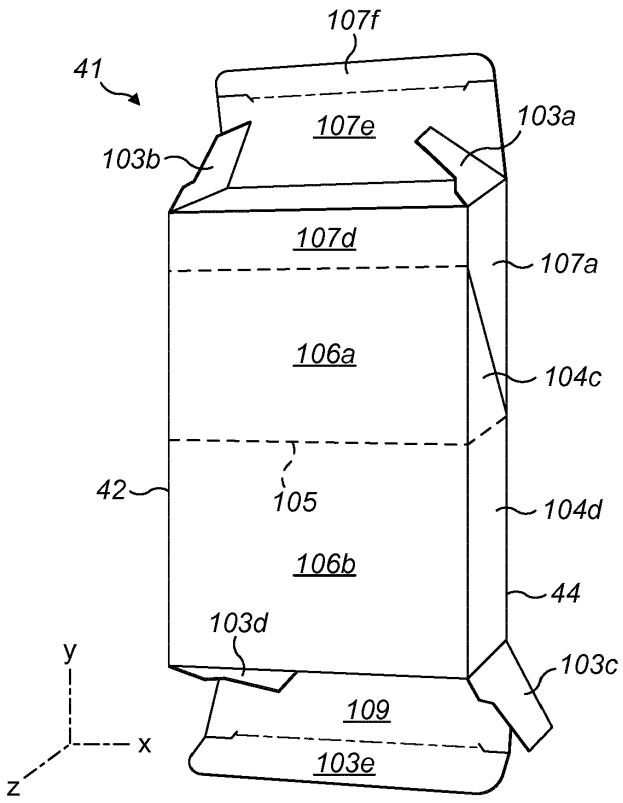

FIG. 10

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Description

[0001] The present invention relates to the field of packaging, for example for tobacco products. In particular, the present invention relates to a new type of cigarette container, and blank therefor.

[0002] Users are often drawn to purchasing Roll-Your-Own (RYO) or Make-Your-Own (MYO) cigarettes, as opposed to conventional pre-rolled cigarettes, due to their relative affordability. Rolling RYO/MYO cigarettes is a time consuming process however and so some users have taken to pre-rolling a plurality of cigarettes at a convenient time and then carrying these on their person until they later wish to use them. These cigarettes are fragile however and so need to be stored in a rigid container for protection if not smoked immediately. It would be desirable therefore to provide users with an empty container for storing their cigarettes at the point of purchasing loose tobacco however this is generally not done due the increased volume of packaging required to fit this container. The present invention attempts to resolve this problem by providing a new and improved container which can be easily constructed from a folded blank that fits into a standard container of loose tobacco.

[0003] In accordance with the first aspect of the invention there is provided a container for smoking articles comprising: a housing comprising a front face, a back face, two side faces and a bottom face, wherein said housing further comprises a continuous fold line extending along the two side faces, the front face and the back face, wherein said container is foldable about said fold line so as to reduce the footprint of the folded container. A container is thus provided which can be folded about a fold line into a smaller, more convenient configuration which may be conveniently packaged, for example into a container of loose tobacco or stowed in the pocket of a user. The container has a fold line which enables it to be folded and unfolded without compromising the structural integrity of the container.

[0004] Preferably said container is formed of a material having one of more cuts, creases, scores, or gaps, or any combination thereof along said continuous fold line. The 'continuous' aspect of the fold line refers to the fact that the fold line extends all of the way around the container back to a starting point. The material of the container that underlies this continuous fold line is not necessarily continually creased or cut, for example, and may have interrupted creased and/or cut segments there along, however the container itself is foldable about said continuous fold line.

[0005] In order to optimally reduce the footprint of the folded container (i.e. the area it occupies, as viewed in a single plane), it is preferable that said continuous fold line is substantially perpendicular to a longitudinal-axis of the container. The container may have the shape of a common cigarette packet, for example a generally cuboidal cardboard packet with a hinged lid integrally formed at an upper end. The cigarettes may be disposed along the longitudinal-axis such that a user can remove the cigarettes by their ends when the container is open. Furthermore, said continuous fold line preferably bisects the housing substantially half way along the length of the container, as defined in the longitudinal-axis of the container. The term 'substantially halfway' allows for some leeway from the exact midpoint, for example plus or minus ten per cent.

[0006] A further benefit is provided wherein said container is simultaneously collapsible about a second fold line and a third fold line, wherein said second fold line extends along a joining edge between the front face and a first side face; and wherein said third fold line extends along a joining edge between the back face and a second side face, said second side face being different from the first side face. This step reduces the three dimensional container into a two dimensional object, or 'collapsed container', which can then be folded about the continuous fold line so as to reduce its footprint. Preferably, in the collapsed configuration, the continuous fold line extending across the front face and the first side face overlies the continuous fold line extending across the back face and the second side face.

[0007] In order for the housing to securely store smoking articles (such as RYO/MYO cigarettes, conventional cigarettes or cigars) the container preferably further comprises a lid. Said lid may be formed of a separate body from the housing which is then glued to said housing. For example, one side of the lid may be glued to the back face of the housing and a crease further provided to the lid in order to enable it to pivot between an open and a closed position. In another preferable example, said container forms a flip top lid configuration, wherein the longest part of the lid extends substantially half way along the length of the container as defined in the longitudinal-axis of the container. Smoking articles may be disposed longitudinally within the container such that a user can remove the smoking articles by their ends from an open top surface of the container when the lid is open. The lid is not necessarily formed of a separate body from the housing and may alternatively be integral with the material forming the housing.

[0008] Said housing preferably defines an inner space for storing smoking articles. Preferably still, the inner space is an empty substantially cuboidal volume. The dimensions of the inner space (and indeed the container and housing) may be different depending on the number and type of smoking articles which it is designed to hold. Preferably, the housing preferably accommodates twenty smoking articles.

[0009] Further aspects of the invention will now be briefly discussed. These aspects share similar advantages and features as previously mentioned with regard to the first aspect.

[0010] In accordance with a second aspect of the invention there is provided a blank for forming the container according to the first aspect of the present invention comprising: a back panel, a front panel and two side panels

for forming a housing, wherein said back panel is connected to said front panel by one of the side panels and wherein a continuous fold line extends along the two side panels, the front panel and the back panel to enable the blank to be folded about said continuous fold line.

[0011] The blank preferably further comprises additional panels that form an inner frame, wherein the continuous fold line also extends along the inner frame. The inner frame provides enhances the rigidity of the container, which is advantageous because contents of the container are generally fragile. Inner frames are typically not provided in cartons, for example.

[0012] In accordance with a third aspect of the invention there is provided a folded blank for forming the container according to the first aspect of the invention comprising: a back panel, a front panel and two side panels, wherein said back front and side panels have been folded to create a collapsed housing; and wherein said collapsed housing is folded about a continuous fold line extending along the two side panels, the front face and the back face.

[0013] The blank of the second aspect of the invention may hence be preassembled into a flat partially formed container in the form of a folded blank. This folded blank has a small footprint and may be packaged and sold inside existing packaging, such as tins or pouches of loose tobacco, without increasing (or substantially increasing) the volume of packaging required. Said folded blank is preferably enclosed in a sealed wrapper or paper sleeve. This protects the folded blank and helps to retain it in its folded state. The sealed wrapper may typically be formed of a common plastic material that may be opened by a user tearing or cutting said wrapper.

[0014] In accordance with a fourth aspect of the invention there is provided a method for forming a folded blank according to the third aspect of the invention comprising, folding the blank according to the second aspect of the invention along joining edges between the front panel, the back panel, the side panels so as to form a collapsed housing and folding said collapsed housing about the continuous fold line.

[0015] The method of the fourth aspect would preferably be performed by a manufacturer following the mass production of the blank and not by an end user. By forming the folded blank as such, the most complex steps of assembling the container (for example including applying cuts, creases, folds or glue to areas of the blank) are already performed before an end user receives the folded blank. The remaining steps of unfolding the folded blank so as to form a container in accordance with the first aspect of the invention are relatively straight forward and intuitive for an end user to perform.

[0016] In accordance with a fifth aspect of the invention there is provided a method for forming the container according to the first aspect of the invention comprising unfolding the folded blank according to the third aspect of the invention.

[0017] It is envisaged that the folded blank may be sold in combination with a container of loose tobacco so that a user, having purchased a quantity of loose tobacco, may have somewhere to store their pre-rolled RYO/MYO cigarettes. Preferably said container of loose tobacco is provided in the form of a tin. Thus, in accordance with a sixth aspect of the present invention there is provided a tobacco container comprising tobacco and a folded blank according to the third aspect of the invention.

[0018] Examples of the invention will now be discussed with reference to the accompanying drawings, in which:-

Figure 1 is an illustration of a front view of a container according to the invention;
Figure 2 is an illustration of a left side view of a container according to the invention;
Figure 3 is an illustration of a back view of a container according to the invention;
Figure 4 is an illustration of a right side view of a container according to the invention;
Figure 5 is an illustration of a blank according to the invention;
Figure 6 is an illustration of a front view of a folded blank according to the invention;
Figure 7 is an illustration of a back view of a folded blank according to the invention;
Figure 8 is an illustration of a side view of a folded blank according to the invention;
Figure 9 is an illustration of a tobacco container according to the invention; and
Figure 10 is an illustration of a partially formed container according to the invention.

[0019] Where the terms 'upper', 'lower', 'left', 'right', 'front', 'back', 'top', 'bottom', 'side' etc. are used in the following description and claims, they are used merely to designate particular locations corresponding to those in the drawings as presented and are not intended to tie interpretation of the claims to any particular orientation.

[0020] Figures 1 to 4 show a front, left, back and right perspective views respectively of an example of a container 1. The container 1 is formed of a housing 10 and a lid 7 that are formed from cutable and creaseable material. In this example the lid 7 and housing 10 are formed from a single sheet of card in the form of a blank 20 (later discussed with reference to Figure 5) which is cut, glued, creased / folded and unfolded so as to form the container 1. The lid 7 is therefore integral with the housing 10 and is configured to open and close the container 1 by movement about a horizontal pivot line 13 provided on a back surface of the container 1 (shown in Figure 3). The lid 7 is shown at its open position in Figures 1 and 2 and at its closed position in Figures 3 and 4.

[0021] Coordinate axes are further provided in Figures 1 and 2 for reference. The ordinate y-axis is aligned with the vertical-axis and the abscissa x-axis is aligned with horizontal-axis of the container 1. A z-axis, which is perpendicular to the x and y axes is also shown. The housing 10 comprises a front face 2 and a back face 6, which are

each aligned in the xy plane, as well as a left side face 4 and a right side face 8, which are each aligned in the yz plane. The housing 10 further comprises a bottom face 9, which is aligned in the xz plane. The lid 7 has a top surface 11 which is aligned in the xz plane when the lid 7 is closed.

[0022] The interior of the housing 10 defines an inner space for storing smoking articles, such as cigarettes. Figure 1 shows a plurality of vertically orientated cigarettes 3 which are disposed within the housing 10 and may be removed from a top surface of the container 1, where they are visible through an open window shown in Figure 1.

[0023] A continuous fold line 5, in the form of crease or cut material forming the housing 10 extends along the two side faces 4, 8, the front face 2 and the back face 6 such that it entirely encircles the housing 10 in a straight line through the horizontal / transverse xz plane. The container (or cigarette pack / packet) 10 has a flip top lid wherein the longest part of the lid 7 extends to the midpoint of the container 1 wherein it meets the continuous fold line 5. The continuous fold line 5 is horizontal and bisects the housing 10 at its midpoint in the vertical direction. The housing 10 may be collapsed and then folded in half about the fold line 5. The continuous fold line 5 is continuous in the sense that it extends from a starting point all of the way around the housing 10 and back to the starting point. The material that underlies the fold line 5 is not itself necessarily entirely creased or cut along this line 5, so long as there is a line 5 comprising creased and/or cut segments which extends around the housing 10 about which the container 1 may be folded. The front, back and side faces may comprise one or more layers of material, as will later become evident (due to the provision of an inner frame). For example, in Figure 1 to 4 a dashed line indicates where a crease has been made in a layer of material, whereas a solid line extending across a face of the container 1 indicates a boundary between two layers of material (i.e. where a cut has been made). A crease may be provided in a material underlying this cut however to enable the container 1 to be folded about the continuous fold line 5.

[0024] Figure 5 shows an illustration of a blank 20 for forming the container 1. The blank 20 is formed from a single sheet of card that has been cut around a perimeter so as to form the two dimensional shape shown. The lines in the image that extend across the surface of the blank 20 illustrate where cuts, folds or creases need to be made in order to form the container 1 from the blank 20. These lines also divide the blank 20 into a plurality of segments referred to as panels and flaps. When the blank 20 is assembled, the panels form the eventual faces of the container 1. The labelling of each panel (i.e. "front", "back", "left", "right", "top" or "bottom") correspond to the eventual position that each panel will occupy on the container 1 in its normal orientation and correspond to the faces and sides of Figures 1 to 4. The flaps are designed to be folded or 'tucked' into the housing by the lid 7 and the base 9 to entirely enclose the interior of the housing 10 when the container 1 is closed.

[0025] For simplicity, the various panels and flaps of the blank 20 are listed below:-

- 102a - upper front panel;
- 102b - hidden lower front panel;
- 102c - lower front panel;
- 103a-e - flaps;
- 104a - hidden upper left panel;
- 104b - hidden lower left panel;
- 104c - upper left panel;
- 104d - lower left panel;
- 105 - continuous fold line;
- 106a - upper back panel;
- 106b - lower back panel;
- 107a - left lid panel;
- 107b - front lid panel;
- 107c - right lid panel;
- 107d - back lid panel;
- 107e - top lid panel;
- 107f - hidden back lid panel;
- 108a - hidden upper right panel;
- 108b - hidden lower right panel;
- 108c - upper right panel;
- 108d - lower left panel; and
- 109 - bottom panel.

[0026] The panels referred to as 'hidden' are hidden in the sense that they are fully or partially obscured from an outside view when the container 1 has been assembled from the blank 20. For example, the hidden upper left panel 104a is partially obscured by the upper left panel 104c. Furthermore, the lower front panel 102c is wrapped on top of the hidden lower front panel 102b so as to fully obscure it. An inner frame, formed from panels 102a, 102b, 104a, 104b, 108a and 108b is provided which adds additional rigidity to the container 1. The front face 2 is multi-layered in that it comprises a part of the inner frame (in particular front panels 102a and 102b) and the lower front panel 102c that overlays the panel 102b.

[0027] A dashed back pivot line 113 indicates where a crease in the back face 6 is made so as to form the pivot line 13 of Figure 3 about which the lid 7 rotates. A dashed continuous fold line 105 extends entirely across the midpoint of the blank 20 such that the blank 20 is substantially symmetrically foldable about said fold line 105. The material underlining the continuous fold line 105 comprises a plurality of cut sections 22 which are primarily connected by creases in the card along a straight line. The cut sections 22 improve the ease with which the container 1 may eventually be collapsed and then folded about the continuous fold line 105. Panels 102c and 107b are however separated by a cut line that partially extends along the continuous fold line 105 so as to define the boundary between these panels. The blank 20 is also cut at the boundary between panels 107a and 104c; 107c and

108c; 103a and 107e; 103b and 107e; 103c and 109; 103d and 109 so as to separate these panels and flaps, and partially cut between the edges of 107f and 107e, as well as 103e and 109.

[0028] Once the various cuts and creases have been applied to the blank 20 it is folded about the edges of each panel so as to form a folded blank 30. It will also generally be useful to apply an adhesive to one or more surfaces of the blank 20 when forming the folded blank 30 in order to improve the structural integrity of the eventual container 1. A front view and a back view of the folded blank 30 are shown by Figures 6 and 7 respectively. As shown, the outside material that overlies the front side of the folded blank 30 corresponds to the lower front panel 102c and the lower left panel 104d. The material that overlies the back surface of the folded blank 30 corresponds to the front lid panel 107b, the left lid panel 107a and the upper left panel 104c. The final fold that is made to the blank 20 to produce the folded blank 30 is made about the continuous fold line 105, which now extends along an outer edge of the folded blank 30. A side view of the folded blank 30 is shown in Figure 8, wherein the front lid panel 107b, the left lid panel 107a and the upper left panel 104c are shown, however the continuous fold line 105 on the opposing side is not.

[0029] In Figure 9 the folded blank 30 has been wrapped in a plastic wrapper and inserted into a tobacco container 34 comprising loose tobacco (commonly referred to as rolling tobacco). The plastic wrapper 32 tightly seals the folded blank 30 and helps to maintain it in its folded configuration. Instead of a plastic wrapper, the folded blank 30 may be retained in a paper sleeve. In this example the tobacco container 34 is a cylindrical tin, however the footprint of the folded blank 30 is suitably small so as to fit inside most tobacco containers, including pouches, or potentially boxes. The folded blank 30 fits neatly within the tin 34 and is presented to the user upon opening the tin 34.

[0030] It is particularly advantageous to provide the folded blank 30 with a tobacco container 34 as a user is most likely to have need of an empty container 1 at the point at which he or she is accessing the tobacco container so as to assemble a RYO/MYO cigarette. By providing a container 1 with the loose tobacco the user is encouraged to assemble a plurality of cigarettes at a convenient time and store these cigarettes in the container 1, which can then be carried on their person, for use at a later time.

[0031] In order to form the container 1 from the folded blank 30, the user must tear the plastic wrapper 32 (or paper sleeve), remove the folded blank 30 and unfold it about the continuous fold line 105 so as to form a flat collapsed housing or 'collapsed container'. In this collapsed configuration, the continuous fold line 105 extending across the front face (panels 102a-c) and the right face (panels 108a-d) overlie the continuous fold line 105 extending across the back face (panels 106a, 106b and 107d) and the left face (panels 104a-d) in that the lines are parallel and lie on top of one another. The collapsed housing is then simultaneously unfolded about a second fold line 42 adjoining the back and right faces and a third fold line 44 adjoining the front and left faces so as to produce the partially formed container 41 shown in Figure 10. The user then has to fold the flaps 103a-e, the top lid panel 107e, the hidden back lid panel 107f and the bottom panel 109 into the interior of the housing 10 in order to form the container 1. The user may then open or close the container 1 at will, or perform the reverse steps of 'un-tucking' the flaps 103a-e and panels 107e, 107f and 109, collapse the housing and fold the collapsed container about the continuous fold line 5 so as to produce the folded blank 30 e.g. for storage.

Claims

1. A container for smoking articles comprising:

   a housing comprising a front face, a back face, two side faces and a bottom face;
   wherein said housing further comprises a continuous fold line extending along the two side faces, the front face and the back face, wherein said container is foldable about said fold line so as to reduce the footprint of the folded container.

2. A container according to 1, wherein said container is formed of a material having one or more cuts, creases, scores, or gaps, or any combination thereof along said continuous fold line.

3. A container according to claims 1 or 2, wherein said continuous fold line is substantially perpendicular to a longitudinal-axis of the container.

4. A container according to claim 3, wherein said continuous fold line bisects the housing substantially half way along the length of the container, as defined in the longitudinal-axis of the container.

5. A container according to any of the preceding claims, wherein said container is simultaneously collapsible about a second fold line and a third fold line;
   wherein said second fold line extends along a joining edge between the front face and a first side face; and
   wherein said third fold line extends along a joining edge between the back face and a second side face, said second side face being different from the first side face.

6. A container according to claim 5, wherein in the collapsed configuration, the continuous fold line extending across the front face and the first side face overlies the continuous fold line extending across the back face and the second side face.

7. A container according to any of the preceding claims, further comprising a lid; preferably wherein said lid is formed of a separate body from the housing which is glued to the housing.

8. A container according to claims 6 or 7, wherein said container forms a flip top lid configuration and wherein the longest part of the lid extends substantially half way along the length of the container, as defined in the longitudinal-axis of the container.

9. A blank for forming the container according to any of the preceding claims comprising:

a back panel, a front panel and two side panels for forming a housing;
wherein said back panel is connected to said front panel by one of the side panels and wherein a continuous fold line extends along the two side panels, the front panel and the back panel to enable the blank to be folded about said continuous fold line.

10. A blank according to claim 9, further comprising additional panels that form an inner frame, wherein the continuous fold line also extends along the inner frame.

11. A folded blank for forming the container according to any of claims 1 to 8, comprising:

a back panel, a front panel and two side panels;
wherein said back front and side panels have been folded to create a collapsed housing; and
wherein said collapsed housing is folded about a continuous fold line extending along the two side panels, the front face and the back face.

12. A folded blank according to claim 11, wherein said folded blank is enclosed in a sealed wrapper.

13. A method for forming a folded blank according to claims 11 or 12 comprising:

folding the blank according to claims 9 or 10 along joining edges between the front panel, the back panel, the side panels so as to form a collapsed housing; and
folding said collapsed housing about the continuous fold line.

14. A method for forming the container according to any of claims 1 to 8 comprising unfolding the folded blank according to claim 11.

15. A tobacco container comprising tobacco and a folded blank according to claims 11 or 12.

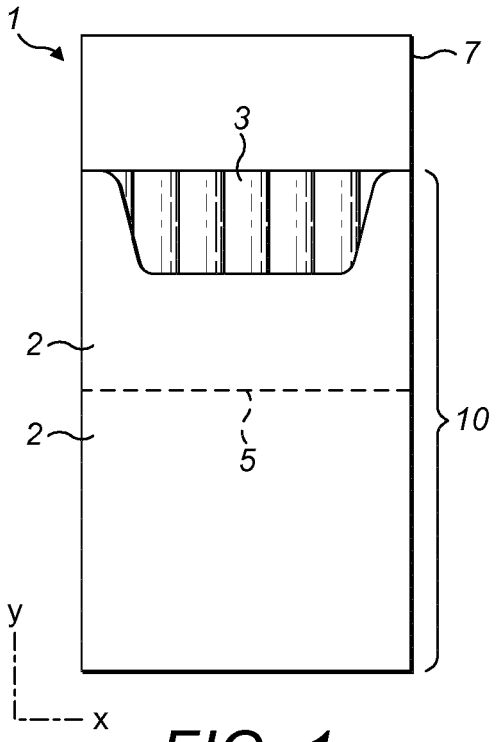

FIG. 1

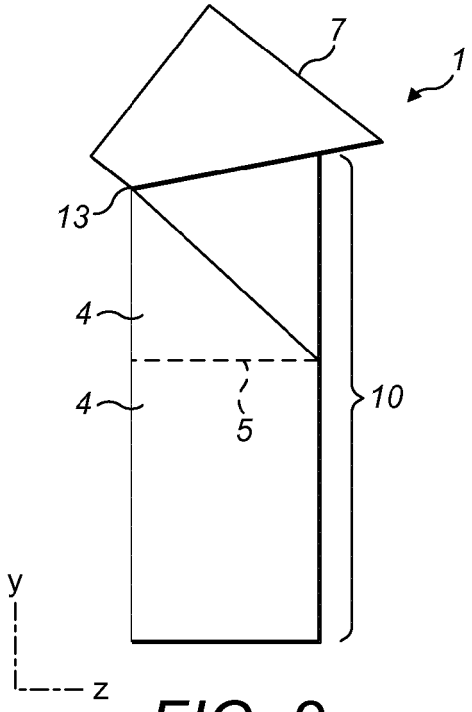

FIG. 2

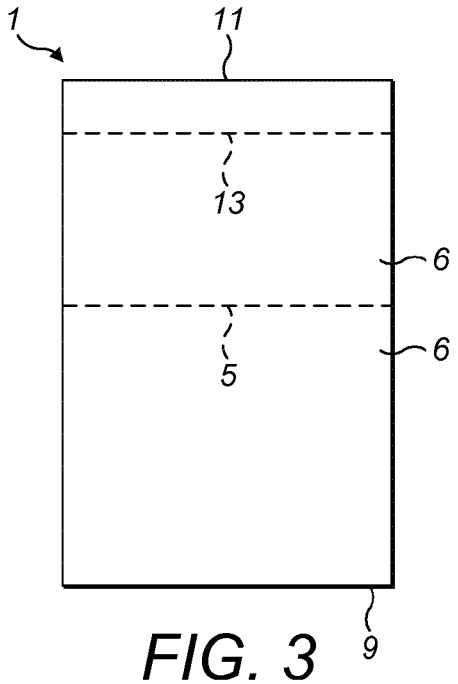

FIG. 3

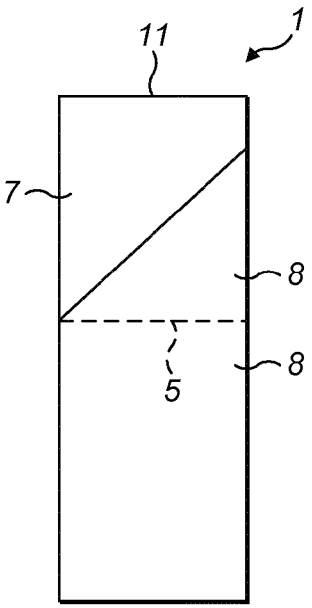

FIG. 4

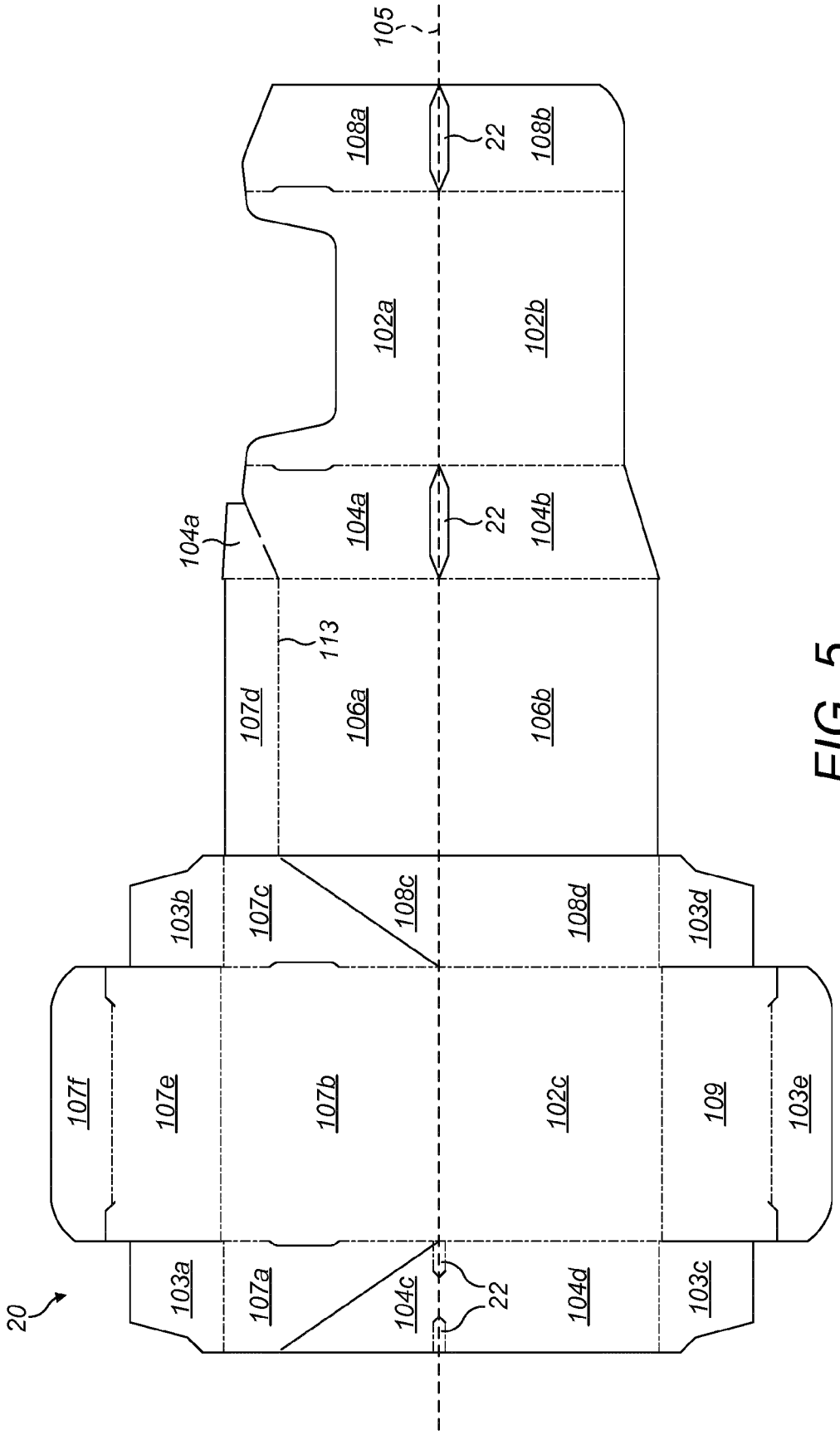
105
108a
22
108b
102a
102b
104a
22
104b
104a
113
107d
106a
106b
103b
107c
108c
108d
103d
107f
107e
107b
102c
109
103e
20
103a
107a
104c
22
104d
103c

FIG. 5

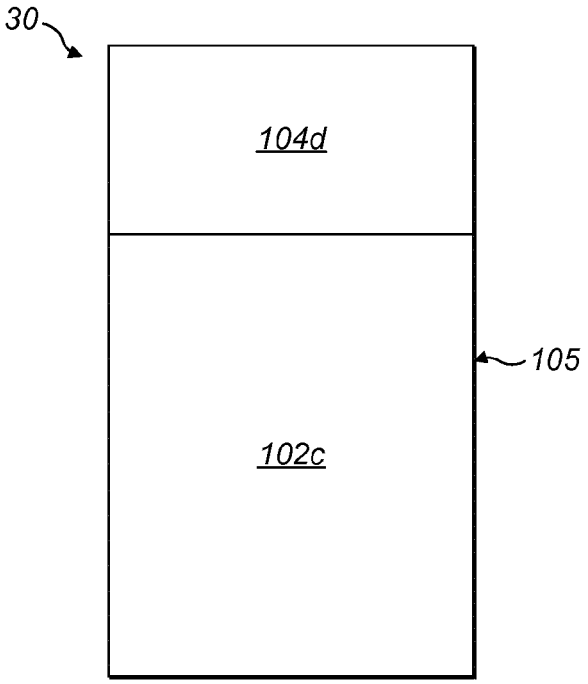

FIG. 6

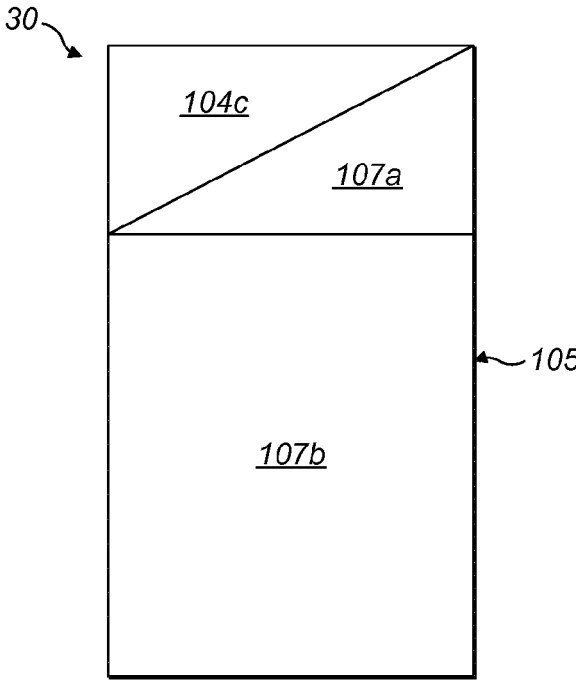

FIG. 7

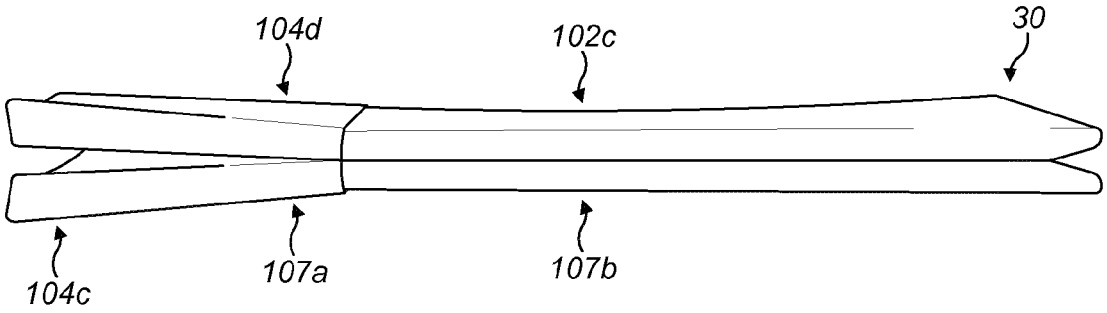

FIG. 8

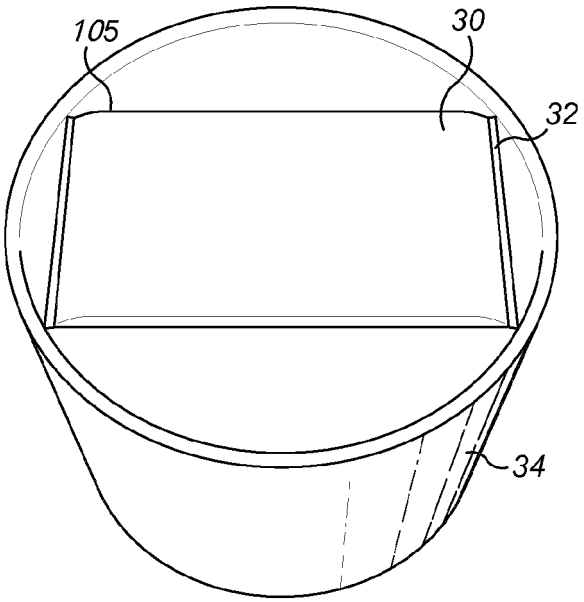
105
30
32
34

FIG. 9

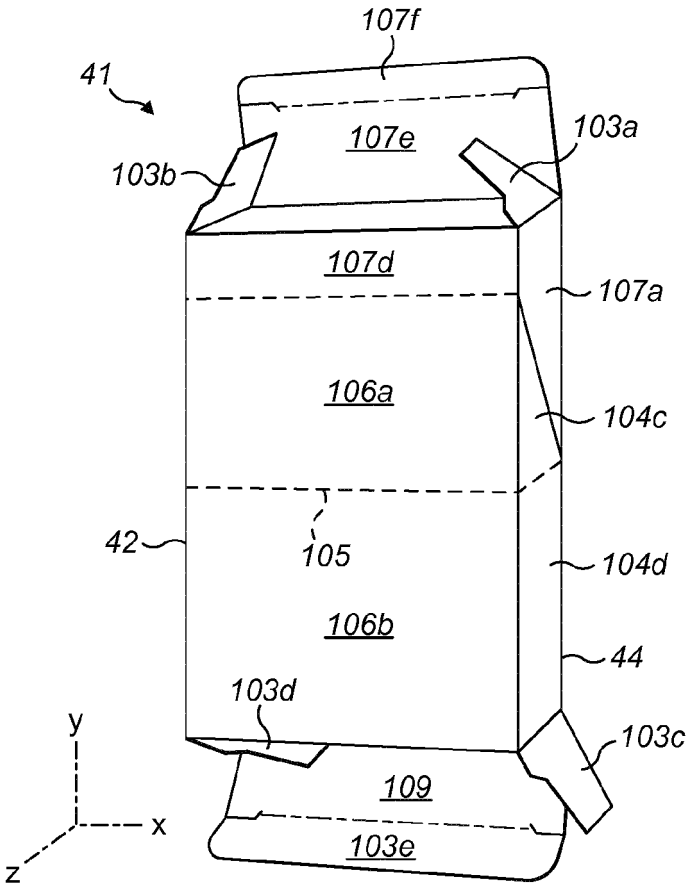
107f
41
107e
103a
103b
107d
107a
106a
104c
42
105
104d
106b
44
103d
103c
109
103e
y
x
z

FIG. 10

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EUROPEAN SEARCH REPORT

Application Number
EP 14 19 5128

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	GB 2 510 914 A (DENNIS CONSTANT LTD [GB]) 20 August 2014 (2014-08-20) * page 7, line 30 - page 8, line 9 * * figures 1-3 *	1-3,5,6, 9,11,13, 14	INV. B65D85/10 A24F23/04 ADD. B65D5/36
X	WO 2010/143036 A1 (QUINLAN STEPHEN JOHN [ZA]) 16 December 2010 (2010-12-16) * page 14, line 18 - line 24 * * figure 10 *	1-8	
X	US 2 950 043 A (RINGLER WILLIAM A) 23 August 1960 (1960-08-23) * column 2, line 16 - column 4, line 45; figures 1-9 *	1-3,5-7, 9	
X	DE 27 02 234 A1 (SCHEIDT JULIUS VOM) 27 July 1978 (1978-07-27) * page 15, paragraph 4 - page 17, paragraph 1; figures 7-9 *	1-7	
X	WO 00/07887 A1 (BELL MATTHEW COLIN [AU]) 17 February 2000 (2000-02-17) * page 6 - page 11 * * figures 1-27 *	1-6	TECHNICAL FIELDS SEARCHED (IPC) B65D A24F
A	US 2 026 307 A (ADOLPH FRIEDMANN) 31 December 1935 (1935-12-31) * column 1, line 13 - line 39 * * figures 1,2 *	1-15	
A	US 1 621 451 A (LINCOLN BEACH HENRY) 15 March 1927 (1927-03-15) * page 1, line 36 - line 107 * * figures 1-7 *	1-15	

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	7 May 2015	Fitterer, Johann

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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