(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) EP 3 566 974 A1

(12) EUROPEAN PATENT APPLICATION

(43) Date of publication:
13.11.2019 Bulletin 2019/46

(51) Int Cl.:
B65D 85/10 *(2006.01)*

(21) Application number: **19172486.3**

(22) Date of filing: **10.03.2016**

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

(30) Priority: **18.03.2015 EP 15159650**

(62) Document number(s) of the earlier application(s) in accordance with Art. 76 EPC:
16709092.7 / 3 271 267

(71) Applicant: **JT International SA**
1202 Geneva (CH)

(72) Inventors:
- **WOLTER, Martina Franziska**
  54290 Trier (DE)
- **COLLINS, Tim**
  Leatherhead, Surrey KT24 6PA (GB)

(74) Representative: **Gill Jennings & Every LLP**
The Broadgate Tower
20 Primrose Street
London EC2A 2ES (GB)

Remarks:
This application was filed on 03-05-2019 as a divisional application to the application mentioned under INID code 62.

(54) A PACKAGING FOR SMOKING ARTICLES

(57) A package for smoking articles, a blank for forming a collar part and a lid part of the package and a method of forming the package from such a blank is provided. The package comprises: a packet part for storing smoking articles; a collar part; and a lid part; wherein: the packet part is made of a substantially flexible material; the collar part and the lid part are made of a substantially rigid material; the collar part is attached to the packet part and partially overwraps the packet part; and the lid part is arranged such that it may move relative to the collar part and the packet part between a closed position, in which the lid part restricts access to any smoking articles contained in the packet part, and an open position, in which the lid part does not restrict access to any smoking articles contained in the packet part.

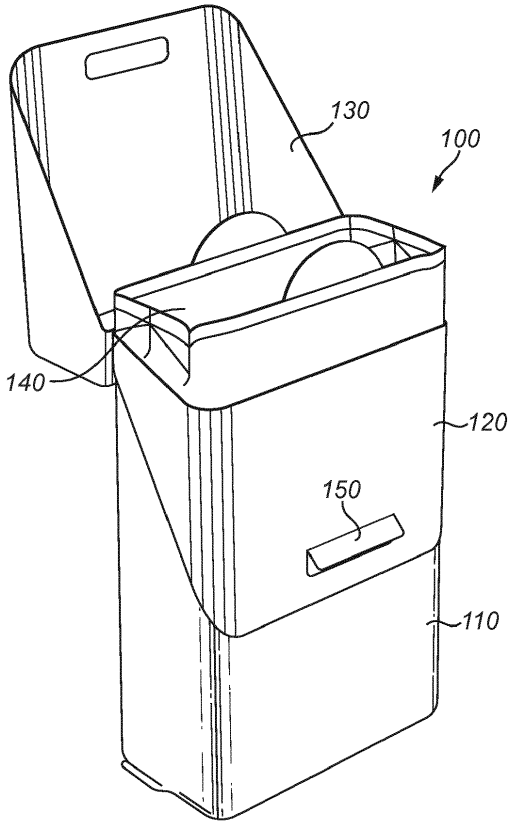

FIG. 1C

EP 3 566 974 A1

Description

Field of the invention

[0001] The present invention relates to a package for smoking articles.

Background of the invention

[0002] Box-shaped packages having a hinged lid for storing smoking articles, such as cigarettes, are well known in the art and numerous different examples have been proposed in the past. These are often folded from cardboard blanks to form a cardboard pack having a hinged lid which may be opened to allow access to the contents and closed again to protect the contents during transport, such as when in the pocket of a user's garment, for example. In such designs, a cardboard pack is typically provided with a hinged lid integrally formed at an upper end. The cigarettes are disposed longitudinally such that a user may remove the cigarettes by the end when the lid is open.

[0003] Flexible packages for storing smoking articles, such as cigarettes, are also known in the art. These are formed from a flexible material, which is wrapped around the smoking articles to be stored and then sealed at both ends. The user may break the seal at one end of the package (or unwrap the package) in order to gain access to remove a smoking article from the soft flexible package.

Summary of the invention

[0004] Packaging for smoking articles, such as cigarettes must meet a range of challenging requirements. In particular, not only should the packaging be cheap and capable of mass production, but it should be sufficiently robust and secure so as to keep the smoking articles safely contained in the packaging to prevent their accidental loss or spillage, as well as to maintain their freshness. It is also desirable to improve the ergonomic and practical design of such packaging.

[0005] According to a first aspect of the invention, there is provided a package for smoking articles, the package comprising: a packet part for storing smoking articles; a collar part; and a lid part; wherein: the packet part is made of a substantially flexible material; the collar part and the lid part are made of a substantially rigid material; the collar part is attached to the packet part and partially overwraps the packet part; and the lid part is arranged such that it may move relative to the collar part and the packet part between a closed position, in which the lid part restricts access to any smoking articles contained in the packet part, and an open position, in which the lid part does not restrict access to any smoking articles contained in the packet part. The combination of the substantially flexible material from which the packet part is made with the substantially rigid material from which the collar part and the lid part is made provides a particularly suitable package for smoking articles, which is both secure and easy to use. The use of the substantially flexible material in the packet part means that the package is partially able to be deformed, thereby allowing the package to be reconfigured so as to reduce the volume occupied by the package to suit the contents of the package (for example, after removal of a smoking article from the package, the package may be compressed slightly). Additionally, the flexible nature of the packet part allows the contents of the package to be manipulated through the packet part, aiding their removal from the packet. Meanwhile, the use of the substantially rigid material for the collar part and the lid part means that the package is partially rigid in form and therefore easier to handle and better able to protect the contents of the package. Furthermore, the rigidity of the lid part helps prevent the lid part from becoming deformed, thereby helping proper opening and closing of the lid and to retain the contents of the package when in the closed position.

[0006] In some embodiments of the invention, the packet part comprises an opening at a longitudinal end of the packet part for allowing access to any smoking articles contained in the packet part wherein, when the lid part is in the closed position, the lid part at least partly overlies the opening. The positioning of the opening at a longitudinal end of the packet part together with the overlying of the opening by the lid part when the lid part is in the closed position helps prevent accidental loss or spillage of the smoking articles from the package.

[0007] In some embodiments of the invention, the opening is delimited by a pre-cut openable portion in the packet part. The delimiting of the opening by a pre-cut openable portion is a particularly suitable means of delimiting the opening, making it easier for the user to tear the packet part to form an opening

[0008] In some embodiments of the invention, the substantially flexible material comprises a heat-sealable foil. Heat-sealable foil is a particularly suitable material for forming the package part as it makes the manufacturing process simpler by allowing seals to be formed in the packet part in a straightforward manner, as well as being a particularly suitable material for preventing moisture ingress into the packet part and maintain the freshness of the smoking articles.

[0009] In some embodiments of the invention, the lid part is hingeably connected to the collar part. A lid part which is hingeably connected to the collar part is more secure and is easier to open (particularly single handed) as the lid part will not become detached from the package. Therefore, the user need only be concerned with holding the package and opening the lid part without having to concern themselves about holding on to the lid part.

[0010] According to an embodiment of the invention, the lid part comprises a front panel which overlies a panel of the packet part and extends to cover the panel of the packet part by more than either: (a) 20%; or (b) 40%; or (c) 50%; in a longitudinal direction. A lid part comprising

a front panel which overlies the panel, for example a front panel, of the packet part by more than 20%, preferable more than 40%, even more preferable more than 50% in a longitudinal direction can be closed securely (i.e. it is less likely to accidentally open due to its size) and provides the user with greater control and leverage when opening the lid part.

[0011] In some embodiments of the invention, the lid part and/or the collar part comprises cardboard. Cardboard is a particularly suitable material for forming the collar part and/or the lid part as it is a particularly easy material from which to manufacture the package part, as well as being low cost and environmentally friendly.

[0012] In some embodiments of the invention, the collar part forms a sleeve encircling at least part of the packet part in a plane perpendicular to a longitudinal axis, wherein preferably the collar part is formed towards a longitudinal end of the packet part in which an opening may be formed. The collar part forming a sleeve encircling at least part of the packet part in a plane perpendicular to a longitudinal axis helps to provide form (or structure) to the entire cross section in the plane in which the sleeve is formed, helping to protect the contents of the packet part and making handling of the package easier. Forming the collar part as a sleeve towards the longitudinal end of the packet part in which an opening may be formed helps provide form to the part of the packet part in which an opening may be formed, giving better shape to the opening and allowing easier access to the contents of the packet part through the opening.

[0013] According to a second aspect of the invention, there is provided a blank for forming the collar part and the lid part of the package according to the first aspect, wherein the blank comprises: a plurality of panels; a plurality of construction tabs; and a plurality of fold lines; wherein: each panel is connected at least one other panel and/or to at least one construction tab along a fold line; each construction tab is connected to at least one other construction tab and/or to at least one panel, along a fold line; and each construction tab is positioned such that when the blank is folded along the fold lines, said construction tab will be aligned with a face one of the panels and/or with a face of one of the construction tabs to which said construction tab is to be attached, wherein the plurality of panels comprises a plurality of panels which forms the collar part and a plurality of panels which forms the lid part, and wherein one of the panels which forms the collar part is connected to one of the panels which forms the lid part by a crease line.

[0014] In some embodiments of the invention, the plurality of panels for forming the lid part comprises: a front lid panel; a top lid panel connected to the front lid panel by a fold line; a back lid panel connected to the top lid panel by a fold line on a side of the top lid panel which opposes the fold line connecting the top lid panel to the front lid panel; a side lid panel connected to the front lid panel by a fold line; and another side lid panel connected to the front lid panel by a fold line located on a side of the front lid panel which opposes the fold line connecting the side lid panel to the front lid panel; and the plurality of construction tabs for forming the lid part comprises: a side lid construction tab connected to the back lid panel by a fold line; another side lid construction tab connected to the back lid panel by a fold line located on a side of the back lid panel which opposes the fold line connecting the side lid construction tab to the back lid panel; a lid top construction tab connected to the side lid construction tab by a fold line; and another lid top construction tab connected to another side lid construction tab by a fold line.

[0015] Further, in some embodiments, the plurality of panels for forming the collar part comprises: a front collar panel; a side collar panel connected to the front collar panel by a fold line; a back collar panel connected to the side collar panel by a fold line located on a side of the side collar panel which opposes the fold line connecting the side collar panel to the front collar panel; and another side collar panel connected to the back collar panel by a fold line located on a side of the back collar panel which opposes the fold line connecting the back collar panel to the side collar panel; and the plurality of construction tabs comprises a collar construction tab connected to the front collar panel by a fold line of the plurality of fold lines. This particular arrangement of panels, construction tabs and fold lines provides a suitable blank from which to form a lid part and a collar part for a package according to the invention.

[0016] According to a third aspect of the invention, there is provided a method of forming a package according to the first aspect comprising: forming a packet part containing articles; forming a collar part and a lid part by folding a blank according to the second aspect; and attaching the collar part to the packet part. This method provides a simple and suitable way of forming a package according to the invention.

[0017] According to an embodiment of the invention, the method further comprises forming the packet part by forming the substantially flexible material of the packet part over a plurality of smoking articles and sealing and trimming a top end, a bottom end and a longitudinal seam of the substantially flexible material thereby sealing the smoking articles in the packet part. This is a particularly suitable way of forming the packet part to be used in a package according to the invention.

[0018] In some embodiments of the invention, the collar part is formed around the packet part. Forming the collar part around the packet part is a particularly convenient method of forming the package as it removes the step of placing the packet part in the collar part once the collar part has been formed.

[0019] Preferably, the blank is made of cardboard and the packet part is made of heat-sealable foil.

Brief description of the drawings

[0020] Embodiments of the invention will now be de-

scribed, by way of example only, with reference to the accompanying drawings, in which:

Figure 1a schematically illustrates an exemplary package in a *"closed'* configuration according to an embodiment of the invention.

Figure 1b schematically illustrates an exemplary package in an *"open"* configuration in which a packet part of the exemplary package is still sealed according to an embodiment of the invention.

Figure 1c schematically illustrates an exemplary package in an *"open"* configuration according to an embodiment of the invention.

Figure 2 schematically illustrates an exemplary blank which may be folded into an exemplary collar part and lid part of the exemplary package illustrated in figures 1a, 1b and 1c.

Detailed description of embodiments of the invention

[0021] In the description that follows and in the figures, certain embodiments of the invention are described. However, it will be appreciated that the invention is not limited to the embodiments that are described and that some embodiments may not include all of the features that are described below. It will be evident, however, that various modifications and changes may be made herein without departing from the broader spirit and scope of the invention as set forth in the appended claims.

[0022] Figures 1a, 1b and 1c schematically illustrate an exemplary package 100 (which may also be referred to as a pack, container, box or carton) in various configurations or stages of use. The package 100 comprises a packet part 110, a collar part 120 and a lid part 130.

[0023] The packet part 110 may store (or contain or hold) smoking articles, such as cigarettes. In other words, the packet part 110 defines a volume in which smoking articles may be stored. The smoking articles may normally be stored longitudinally in the packet part 110. In other words, an axis parallel to the longest side of the packet part 110, runs in the same direction as the longitudinal axis of the smoking articles. References to the longitudinal direction (or axis) are therefore intended to refer to an axis which is parallel to the longitudinal axis of any smoking articles when stored in the packet part 110, which will generally (but not necessarily always) be the same as the longitudinal axis of the packet part 110. The longitudinal axis may therefore also be thought of as being the direction in which the height of the package may be measured. The packet part 110 may comprise an opening 140 through which any smoking articles contained in the packet part 110 may be accessed, allowing the smoking articles to be removed from or inserted into the packet part 110. The packet part 110 may be sealed without an opening 140, in which case the packet part 110 may need to be unsealed in order to form an opening 140 through which to access the smoking articles. For example, the packet part 110 may be sealed before a first use by a user, requiring the user to tear the seal to create an opening 140 before the user can access any smoking articles contained therein. The opening 140 may be delimited by a pre-cut openable portion in the packet part 110. That is to say, the sealed packet part 110 may comprise a pre-cut portion which can be expanded by the user through the act of tearing or further cutting to form an opening 140 in the packet part 110. After the first use by the user, the opening 140 may remain in the packet part 110 allowing the user future access to the smoking articles contained in the packet part 110 without requiring him to unseal the packet part 110 again. Alternatively, the packet part 110 may comprise a resealable seal, such as a resealable flap or tab, which allows the user to unseal the resealable seal to create an opening 140, access the smoking articles contained in the packet part 110, and then reseal the resealable seal thereby closing opening 140 and preventing further access to the smoking articles until the resealable seal is unsealed again. The opening may be formed in an end of the packet part 110, such as at a longitudinal end of the packet part 110, for example at the top of the packet part 110.

[0024] The collar part 120 is attached (or bonded, connected, fixed or joined) to the packet part 110. This means that the collar part 120 may not substantially move relative to the packet part 110. In other words, the position of collar part 120 is relatively fixed to the position of the packet part 110. The collar part 120 partially overwraps (or overlies or covers) the packet part 110. The collar part 120 may form a sleeve around the packet part 110. This means that when viewed as a cross-sectional plane through at least part of the packet part 110, the collar part 120 is a continuous sleeve of material which surrounds (or encompasses) the packet part 110. It will be appreciated that the use of the word sleeve implies a continuous run of material surrounding the packet part 110 in the plane of a particular cross-section. Therefore, as viewed from that particular cross-section, the collar part 120 completely overwraps the part of the packet part 110 through which the cross-section is made, even though, as mentioned above, the collar part 120 does not completely overwrap the packet part 110 when viewed as a whole. However, the collar part 120 need not form a sleeve and instead may only overwrap part or the whole of a single panel (or side) of the packet part 110. The collar part 120 may be attached to the packet part 110 substantially across the entirety of the overwrapping portion of the collar part 120. As an example, an adhesive (or glue) may be spread across the entirety of the adjoining surfaces of the collar part 120 and/or the packet part 110 in order to bond them together. Alternatively, the collar part 120 may only be attached to the packet part 110 at particular points or sub-areas of the overwrapping portion. For example, the adhesive of the

earlier example might only be spread across part or parts of the adjoining surfaces of the collar part 120 and/or the packet part 110.

[0025] The packet part 110 is made (or constructed, formed or built from) of a substantially flexible material, whilst the collar part 120 and the lid part 130 are made of a substantially rigid material. Since the packet part 110 is made of a substantially flexible material, the packet part 110 has a relatively low stiffness, particularly compared to the collar part 120 and the lid part 130, which are made of a substantially rigid material, i.e. a material having a higher stiffness than that of the packet part 110. The substantially flexible material in the form used to make the packet part 110 may have a smaller (or thinner) cross-section than the substantially rigid material in the form used to make the collar part 120 and the lid part 130. Indeed, the material used to make the packet part 110, the collar part 120 and the lid part 130, could have the same Young's modulus, or indeed even be the same material, with the differing stiffness of the material in the parts being provided by the material having a differing thickness of cross-section in the form in which it is used in each of the parts. Although, of course, the cross section of the material used in each of the parts could equally be the same for each of the parts, with the differing stiffness of the material in each part being provided by using materials having different Young's moduli. Alternatively, the differing stiffness of the material used in each of the packet part 110, the collar part 120 and the lid part 130 may be due to a combination of both differing Young's moduli of the material used in each respective part, together with a differing cross-sectional thickness of the material in the form used to make each respective part. The substantially flexible material from which the packet part 110 is made may be a single ply or multi-ply material, preferably a laminated foil material having a thickness of about 30 to 60 microns, more preferably a laminated foil having a thickness of about 40 to 50 microns. Preferably the foil material is a heat-sealable foil. The substantially rigid material from which the collar part 120 and/or the lid part 130 are made is preferably a paper or card based material having a grammage (or paper density) of between about 180 g/cm^2 and about 240 g/cm^2, more preferably between about 200 g/cm^2 and 220 g/cm^2. Alternatively, the substantially rigid material from which the collar part 120 and/or the lid part 130 are made may be a foldable plastic material. As mentioned above, the collar part 120 is attached to the packet part 110. It will be appreciated that this attachment of the collar part 120 to the packet part 110 will have an effect on the stiffness of the packet part 110 across the portion of the packet part 110 that is attached to the collar part 120. That portion of the packet part 110 that is attached to the collar part 120 is effectively reinforced by the collar part 120 giving it a greater stiffness than the rest of the packet part 110 which is not attached to the collar part 120.

[0026] The lid part 130 is arranged (or configured) such that it may move relative to the collar part 120 and the packet part 110 between a closed position and an open position.

[0027] In the closed position, the lid part 130 restricts access to the packet part 110, preventing access to any smoking articles contained in the packet part 110. In other words, in the closed position, the lid part restricts access of at least a portion of the packet part which includes a portion of the packet part through which the interior of the packet part may be accessed. In the open position, the lid part 130 does not restrict access to the packet part 110 and does not therefore prevent access to any smoking articles contained in the packet part 110. As an example, the lid part 130 may, overlie an opening 140 in the packet part 110 when the lid part 130 is in the closed position, thereby preventing access to any smoking articles in the packet part 110 via (or through) the opening 140. When the lid part 130 is in the open position, the lid part 130 may be clear of the opening, or at least sufficiently clear to allow access to any smoking articles contained in the packet part 110 via the opening. As an alternative example, the lid part 130 may, at least partially, overlie a resealable closure element such as a flap or tab in the packet part 110 when the lid part 130 is in the closed position, such that it is not possible to unseal the resealable seal, thereby preventing access to any smoking articles contained in the packet part 110. When the lid part 130 is in the open position, the lid part 130 may be clear of the resealable seal, or at least sufficiently clear to allow the resealable seal to be unsealed to form an opening 140 and to allow access to any smoking articles contained in the packet part 110 through that opening 140.

[0028] The lid part 130 may be hingeably connected (or attached) to the collar part 120. This means that the lid part 130 may rotate relative to collar part 120 and packet part 110. Such a hinge 280 may be created by a fold in a continuous section of material whereby the material on one side of the fold forms part of the collar part 120 and the material on the other side of the fold forms part of the lid part 130, allowing the lid part 130 to be hinged about the crease line. However, any form of hinging connection may be used to hingeably connect the lid part 130 to the collar part 120.

[0029] The lid part 130 may preferably be arranged such that a front panel 160 of the lid (or front lid panel) part 130 overlies (or covers) more than 20%, in a longitudinal direction, of a front panel 170 of the packet part 110. In other words, the length of the front panel 160 of the lid part 130 may be at least 20% the longitudinal length of the front panel 170 of the packet part 110. Even more preferably, the front lid panel 160 may overlie more than 40% of the front panel 170 of the packet part 110 in the longitudinal direction when the lid part 130 is in the closed position. More preferably still, the front lid panel 160 may overlie more than 50% of the front panel 170 of the packet part 110 in the longitudinal direction when the lid part 130 is in the closed position.

[0030] A retaining mechanism 150 (or means or de-

vice) may be employed between the collar part 120 and the lid part 130 to provide resistance to the movement of the lid part 130 from the closed position to the open position (i.e. to provide resistance to the opening of the lid part 130 helping to keep the lid part 130 in the closed position, thereby preventing accidental opening of the package 100). In its simplest form, the retaining mechanism may simply be provided by friction between the one or more engaging surfaces or edges of the lid part 130 which are engaged with parts of the collar part 120 and/or the packet part 110. Other, or additional, retaining mechanisms may be used. As an example, the collar part 120 may comprise a retaining tab 150, which slightly protrudes from the collar part and engages with the lid part 130, in particular with a recess or a notch formed in the lid part 130, when the lid part 130 is in the closed position, requiring additional force to be applied when opening the lid part 130 in order to overcome the engagement of the retaining tab 150 with the lid part 130. As a further example, respective magnets on the collar part 120 and the lid part 130 may be used to provide an attractive force biasing the lid part 130 towards the collar part 120, requiring additional force to be applied when opening the lid part 130 in order to overcome the attractive force of the magnets. It will be appreciated that any retaining mechanism may be used to provide resistance to the movement of the lid part 130 from the closed position to the open position.

[0031] In use, the packet part 110 of the package 100 may store smoking articles, such as cigarettes. A user may receive the package 100 with the smoking articles already placed (or stored) in the packet part 110 of the package 100. As initially received by the user, the packet part 110 may be sealed to help prevent ingress of moisture, maintain the freshness of the smoking articles and prevent tampering with the smoking articles. The seal may be resealable, meaning that the seal can be resealed after it has been unsealed, or may be a single-use (or one-time use) seal, meaning that the seal cannot be resealed after it has been unsealed. Typically, the package 100 as received by the user will be received in a *"closed'* configuration, as illustrated by figure 1a. In this *"closed'* configuration, the lid part 130 is in the closed position, preventing (or restricting) access to the smoking articles in the packet part 110 by covering the top of the packet part 110 where the seal or opening 140 is formed. In order to access the packet part 110 and the smoking articles that may be contained therein, the user moves the lid part 130 from the closed position to the open position, thereby transitioning the package 100 from the *"closed'* configuration to the *"open"* configuration, as illustrated by figure 1b and figure 1c.

[0032] In the configuration illustrated by figure 1b, the lid part 130 is in the open position and the packet part 110 is still sealed and therefore, the user is not able to access any smoking articles contained in the packet part 110. In order to access the smoking articles contained in the packet part 110, the user must undo (or break) the seal in the packet part 110 to create an opening 140 through which the smoking articles may be accessed by a user to remove a smoking article for use, as illustrated by figure 1c. The opening 140 may have initially been present in the packet part 110 or may have been formed by the user unsealing a seal in the packet part 110 when the package 100 was in the "open and sealed" configuration. After removal of a smoking article, the user may want to close the package 100 again (i.e. return the package 100 to the *"closed'* configuration) in order to maintain the freshness of the smoking articles and prevent the accidental loss or spillage of smoking articles from the package 100. Where the packet part 110 comprises a resealable seal, the user may optionally reseal the seal, thereby closing off the opening 140. The resealing of the seal helps prevent moisture ingress into the packet part and helps maintain the freshness of the smoking articles, as well as helping to retain the smoking articles in the package part 110. The user may then move the lid part 130 from the open position back to the closed position, thereby transitioning the package back to the *"closed'* configuration, in which the smoking articles are securely held (or contained) by the package 100. Where the packet part 110 does not comprise a resealable seal, for example, where the package comprises a single-use seal or simply comprises an opening 140 (or, indeed, where the packet part 110 comprises a resealable seal but the user does not wish to reseal the seal before closing the package 100), the user may simply move the lid part 130 from the open position back to the closed position, thereby transitioning the package 100 from the *"open"* configuration back to the *"closed'* configuration, in which the smoking articles are securely held by the package 100.

[0033] It will be appreciated that although the use of the package 100 has been described with respect to the more usual action of removing a smoking article from the packet part 110 of the package 100, similar steps may be followed by the user to perform the less usual action of inserting (or re-inserting) their own smoking articles into the packet part 110 of the package 100 for storage. Furthermore, it will be appreciated that the above steps relate to the use of an exemplary package 100 and that the user may perform additional steps to those described above depending on the nature of the embodiment of the package 100. For example, the user may have to carry out an unlocking action in order to unlock the lid part 130 before it may be opened or the user may have to remove an outer layer of packaging, such as cellophane, before the lid part 130 may be opened.

[0034] Figure 2 schematically illustrates an exemplary blank 200 which may be folded into an exemplary collar part 120 and lid part 130 of the exemplary package 100 illustrated in figures 1a, 1b and 1c. The exemplary blank 200 comprises a plurality of panels (or walls), including: front lid panel 160, a top lid panel 205, a back (or rear) lid panel 210, a side lid panel 215 and another side lid panel 220, as well as a front collar panel 250, a back (or rear) collar panel 255, a side collar panel 260 and another

side collar panel 265. The exemplary blank 200 also comprises a plurality of construction tabs (or flaps or strips), including: a lid top construction tab 225, another lid top construction tab 230, a side lid construction tab 235, another side lid construction tab 240 and a collar construction tab 270. The exemplary blank 200 may also comprise a counter panel (or reinforcement or strengthening tab) 245.

[0035] Generally, it will be appreciated that a blank for creating (or making) a collar part 120 and a lid part 130 as described below will comprise a plurality of panels 160, 205, 210, 215, 220, 250, 255, 260 and 265, a plurality of construction tabs 225, 230, 235, 250, 270 and a plurality of fold lines. The outline of the blank 200 may require cutting from a material on which the outline of the blank 200 is drawn, or the blank 200 may come ready cut, only requiring assembly by folding and attachment of construction tabs, as described in more detail below. In general, each of the panels and construction tabs in the blank 200 is connected to at least one other panel or construction tab in the blank 200, such that each panel and construction tab in the blank 200 is connected to every other panel and construction tab in the blank 200, albeit indirectly (i.e. through one or more intermediate panels and/or construction tabs). Each connection between a panel or a construction tab and another panel or construction tab is demarcated by a respective one of the plurality of fold lines. The construction tabs are positioned on the blank 200 such that when the blank 20 is folded along each of the plurality of fold lines, said construction tab will be aligned with (or coincide with, be covered by or superimposed on) the inner face (or rear of) of a respective one or more of the plurality of panels or construction tabs, or both, to which said construction tab is to be attached. In general, the attachment of the construction tabs to the inner face of the panels, or other construction tabs, or both, serves to reduce the degrees of freedom in the folded blank 200, thereby giving form (or shape) to a part. The construction tabs may be positioned such that when they are attached to the inner faces of the panels and/or construction tabs with which they align they serve to reduce the degrees of freedom of the assembled part to zero. However, the degrees of freedom of the assembled part may be higher than zero, for example, where the collar part 120 and the lid part 130 are formed as a single part from the same blank with a crease 280 forming a hingeable connection between the two, as discussed in more detail below.

[0036] The front collar panel 250, the back collar panel 255, the side collar panel 260 and the other side collar panel 265, as well as the collar construction tab 270 form a part of the blank 200 for making the collar part 120.

[0037] The front lid panel 160, the top lid panel 205, the back lid panel 210, the side lid panel 215 and the other side lid panel 220, as well as the lid top construction tab 225, the other lid top construction tab 230, the side construction tab 235 and the other side construction tab 240 and counter panel 245 form part of the blank 200 for making the lid part 130.

[0038] The part of the blank 200 for making the collar part 120 (i.e. panels 250, 255, 260 and 265 and tab 270) may be connected to the part of the blank 200 for making the lid part 130 by a crease (or fold) line 280. This means that the collar part 120 and the lid part 130 may be assembled as a single item. As an example, the back collar panel 255 may be connected to back lid panel 210 by a crease line 280, with the crease line 280 demarcating the back collar panel 255 on one side from the back lid panel 210 on the other side. The crease line 280 may be folded to form a hingeable connection between the collar part 120 and the lid part 130 when the blank 200 is assembled. Of course, although not shown in figure 2, the part of the blank 200 for making the collar part 120 and the part of the blank 200 for making the lid part 130 may be separate (or disconnected or isolated) from one another such that the collar part 120 and the lid part 130 may be assembled as a separate items, as discussed further below. Indeed, separate blanks may be provided for the collar part 120 and the lid part 130.

[0039] To assemble the exemplary blank 200 to form the collar part 120 and the lid part 130, the shape of the blank is cut out of a suitable material such as cardboard and folded (or creased) along the fold lines. The construction tabs 225, 230, 235, 240 and 270 are each fastened (or attached or connected) to the inner face of a respective panel of the exemplary blank 200. For example, the construction tabs 225 and 230 are attached to the top lid panel 205, whilst the side lid panels 215 and 220 are attached to the construction tabs 235 and 240 respectively, thereby giving shape to the lid part 130. Similarly, construction tab 270 is attached to side collar panel 265, thereby giving shape to the collar part 120. Counter panel 245 is folded back on itself and is attached to the inner face of the front lid panel 160. The construction tabs 225, 230, 235, 240 and 270 may be fastened to their respective panels using any suitable fastening means, preferably glue. The fastening of the construction tabs 225, 230, 235, 240 and 270 to the respective panels serves to form the geometry of the assembled collar part 120 and lid part 130 by fixing the positions of the panels relative to other panels. Conversely the fastening of the counter panel 245 to the inner face of a panel serves to provide additional rigidity (or reinforcement or strength) to that panel. It will of course be appreciated that construction tabs 225, 230, 235, 240 and 270 may also serve to provide additional rigidity to a panel of either the collar part 120 or the lid part 130 in addition to their function of forming the geometry of the parts. It will be appreciated that blank 200 may include additional counter panels, or may not include any counter panels at all. Furthermore, it will be appreciated that other reinforcement means may be used instead of or in addition to the counter panel 245. As an example, strips of rigid material which are separate from the blank 200 may be fastened to the inner face of any of the panels to provide additional rigidity to the structure. It will be appreciated that where reference is made

in this description to the inner face (or side) of a panel, it is intended to refer to the face of the panel which is not normally visible from outside of the part once the part has been assembled into a complete package which is in the closed position.

[0040] Where the blank 200 comprises a crease line 280 connecting the part of the blank 200 for making the collar part 120 to the part of the blank 200 for making the lid part 130, that crease line may be folded (or creased or scored), forming a hingeable connection between the collar part 120 and the lid part 130 about which the lid part 130 may rotate relative to the collar part 120. Alternatively, if the collar part 120 and the lid part 130 have been formed separately an alternative hinging mechanism may be attached to the collar part 120 and the lid part 130 to hingeably connect them together. However, if no hingeable connection is to be formed between the collar part 120 and the lid part 130, for example if the lid part 130 is to form a cap which may be physically separated from the assembled package, the collar part 120 and the lid part 130 may simply be placed together.

[0041] The packet part 110 may be made by forming the substantially flexible material from which the packet part 110 is to be made around a plurality of smoking articles which are to be contained in the packet part 110. For example, the substantially flexible material from which the packet part 110 is to be made may be laid flat, the smoking articles may be placed on top of the substantially flexible material, the substantially flexible material may be drawn around the smoking articles to form an overlapping seam and finally the seam and the top and bottom of the flexible material may be sealed and cut around the smoking articles, forming a packet part 110 containing the plurality of smoking articles. Of course, other methods of forming the packet part 110 may be used instead.

[0042] In order to form the complete package 100, the packet part 110, the collar part 120 and the lid part 130 are formed as discussed above, with the collar part 120 being hingeably connected to the lid part 130 if such a connection is to be made. Preferably, the collar part 120 is formed over the assembled packet part 110, such that the collar part 120 is already in the correct position relative to the packet part 110 on assembly - i.e. the assembled packet part 110 may be placed on one of the panels 250, 255, 260, 265 of the collar part 120 on the blank, which may then be folded around the packet part 110 to form the collar part 120 such that it contains the packet part 110 and is already in the correct position to be attached to the packet part 110. However, the collar part 120 may be formed separately from the packet part 110 and then placed in the correct position relative to the packet part 110 once the collar part 120 has been assembled. Finally, with the collar part 120 in the correct position relative to the packet part 110, the collar part 120 is attached to the packet 110, fixing it in place.

[0043] Although an exemplary blank 200 has been provided which may be folded to form both the collar part 120 and the lid part 130, it will be appreciated that separate blanks could be used to form the collar part 120 and the lid part 130 independently from each other. As an example, a blank for a collar part 110 could be created from the exemplary blank 200 by only including those features of the exemplary blank 200 which contribute to forming the collar part 120, namely the front collar panel 250, the back collar panel 255, the side collar panel 260 and the other side collar panel 265, as well as construction tab 270. Similarly, a blank for a lid part 130 could be formed from the exemplary blank 200 by only including those features of the exemplary blank 200 which contribute to forming the lid part 130, namely the front lid panel 160, the top lid panel 205, the back lid panel 210, the side lid panel 215 and the other side lid panel 220, as well as construction tabs 225, 230, 235 and 240, and counter panel 245.

[0044] The above description relates to exemplary embodiments of the invention; however it will be appreciated that other implementations are possible. In particular, the skilled person may modify or alter the particular geometry and arrangements of the particular features of the packaging. Particularly, the respective positions and sizes of the construction tabs and counter panel elements on the collar part 120 and the lid part 130 can easily be modified or inverted by the skilled person without affecting the functional behaviour of the packaging of the invention. Other variations and modifications will also be apparent to the skilled person. Such variations and modifications may involve equivalent and other features which are already known and which may be used instead of, or in addition to, features described herein. Features that are described in the context of separate embodiments may be provided in combination in a single embodiment. Conversely, features which are described in the context of a single embodiment may also be provided separately or in any suitable sub-combination.

[0045] Other aspects and features of the present disclosure may be appreciated by the following numbered clauses:

Numbered clause 1. A package (100) for smoking articles, the package comprising: a packet part (110) for storing smoking articles; a collar part (120); and a lid part (130); wherein: the packet part is made of a substantially flexible material; the collar part and the lid part are made of a substantially rigid material; the collar part is attached to the packet part and partially overwraps the packet part; and the lid part is arranged such that it may move relative to the collar part and the packet part between a closed position, in which the lid part restricts access to any smoking articles contained in the packet part, and an open position, in which the lid part does not restrict access to any smoking articles contained in the packet part.

Numbered clause 2. A package according to numbered clause 1, wherein the packet part comprises

an opening (140) at a longitudinal end of the packet part for allowing access to any smoking articles contained in the packet part wherein, when the lid part is in the closed position, the lid part at least partly overlies the opening.

Numbered clause 3. A package according to numbered clause 2, wherein the opening is delimited by a pre-cut openable portion in the packet part.

Numbered clause 4. A package according to any one of the preceding numbered clauses, wherein the substantially flexible material comprises a heat-sealable foil.

Numbered clause 5. A package according to any one of numbered clauses 1 to 4, wherein the lid part is hingeably connected to the collar part.

Numbered clause 6. A package according to numbered clause 5, wherein the lid part comprises a front panel which overlies a panel of the packet part and extends to cover the panel of the packet part by more than either: (a) 20%; or (b) 40%; or (c) 50%; in a longitudinal direction.

Numbered clause 7. A package according to any one of the preceding numbered clauses, wherein the lid part and/or the collar part comprises cardboard.

Numbered clause 8. A package according to any one of the preceding numbered clauses, wherein the collar part forms a sleeve encircling at least part of the packet part in a plane perpendicular to a longitudinal axis, wherein preferably the collar part is formed towards a longitudinal end of the packet part in which an opening may be formed.

Numbered clause 9. A blank (200) for forming the collar part and the lid part of the package according to any one of numbered clauses 1 to 8, wherein the blank comprises: a plurality of panels (160, 205, 210, 215, 220, 250, 255, 260, 265); a plurality of construction tabs (225, 230, 235, 240, 270); and a plurality of fold lines; wherein: each panel is connected at least one other panel and/or to at least one construction tab along a fold line; each construction tab is connected to at least one other construction tab and/or to at least one panel, along a fold line; and each construction tab is positioned such that when the blank is folded along the fold lines, said construction tab will be aligned with a face one of the panels and/or with a face of one of the construction tabs to which said construction tab is to be attached, wherein the plurality of panels comprises a plurality of panels which forms the collar part and a plurality of panels which forms the lid part, and wherein one of the panels which forms the collar part is connected to one of the panels which forms the lid part by a crease line (280).

Numbered clause 10. The blank according to numbered clause 9, wherein: the plurality of panels for forming the lid part comprises: a front lid panel (160) a top lid panel (205) connected to the front lid panel by a fold line; a back lid panel (210) connected to the top lid panel by a fold line on a side of the top lid panel which opposes the fold line connecting the top lid panel to the front lid panel; a side lid panel (215) connected to the front lid panel by a fold line; and another side lid panel (220) connected to the front lid panel by a fold line located on a side of the front lid panel which opposes the fold line connecting the side lid panel to the front lid panel; and the plurality of construction tabs for forming the lid part comprises: a side lid construction tab (235) connected to the back lid panel by a fold line; another side lid construction tab (240) connected to the back lid panel by a fold line located on a side of the back lid panel which opposes the fold line connecting the side lid construction tab to the back lid panel; a lid top construction tab (225) connected to the side lid construction tab by a fold line; and another lid top construction tab (230) connected to the another side lid construction tab by a fold line;

Numbered clause 11. The blank according to numbered clause 10, wherein the plurality of panels for forming the collar part comprises: a front collar panel (250); a side collar panel (260) connected to the front collar panel by a fold line; a back collar panel (255) connected to the side collar panel by a fold line located on a side of the side collar panel which opposes the fold line connecting the side collar panel to the front collar panel; and another side collar panel (265) connected to the back collar panel by a fold line located on a side of the back collar panel which opposes the fold line connecting the back collar panel to the side collar panel; and the plurality of construction tabs comprises: a collar construction tab (270) connected to the front collar panel by a fold line of the plurality of fold lines.

Numbered clause 12. A method of forming a package (100) according to any one of numbered clauses 1 to 8 comprising: forming a packet part (110) containing articles; forming a collar part (120) and a lid part (130) by folding a blank (200) according to either one of numbered clauses 9 to 11; and attaching the collar part to the packet part.

Numbered clause 13. The method of numbered clause 13, wherein the method further comprises forming the packet part by forming the substantially flexible material of the packet part over a plurality of smoking articles and sealing and trimming a top end,

a bottom end and a longitudinal seam of the substantially flexible material thereby sealing the smoking articles in the packet part.

Numbered clause 14. The method of either one of numbered clauses 12 or 13, wherein the collar part is formed around the packet part.

Numbered clause 15. The method of any of numbered clause 12 to 14, wherein the blank is made of cardboard and the packet part is made of heat-sealable foil.

Claims

1. A blank forming a lid part of a packet for storing smoking articles, the blank comprising:

a plurality of panels for forming the lid part;
a plurality of construction tabs; and
a plurality of fold lines, wherein
each panel is connected to at least one other panel and/or to at least one construction tab along a fold line;
each construction tab is connected to at least one other construction tab and/or to at least one panel, along a fold line; and
each construction tab is positioned such that when the blank is folded along the fold lines, said construction tab will be aligned with a face of one of the panels and/or with a face of one of the construction tabs to which said construction tab is to be attached, wherein
the plurality of panels for forming the lid part comprises:

a front lid panel (160);
a top lid panel connected to the front lid panel by a fold line (205);
a back lid panel (210) connected to the top lid panel by a fold line on a side of the top lid panel which opposes the fold line connecting the top lid panel to the front lid panel, the back lid panel hingeably connectable to the packet by a crease line (280);
a side lid panel (215) connected to the front lid panel by a fold line; and
another side lid panel (220) connected to the front lid panel by a fold line located on a side of the front lid panel which opposes the fold line connecting the side lid panel to the front lid panel; and
the plurality of construction tabs comprises:

a side lid construction tab connected to the back lid panel by a fold line;
another side lid construction tab connected to the back lid panel by a fold line located on a side of the back lid panel which opposes the fold line connecting the side lid construction tab to the back lid panel;
a lid top construction tab connected to the side lid construction tab by a fold line; and
another lid top construction tab connected to the another side lid construction tab by a fold line, wherein
the front lid panel (160) has a length extending at least 50% of the length of a front panel of the packet in a longitudinal direction.

2. A blank according to claim 1, further comprising a reinforcement means to provide additional rigidity to one or more of the plurality of panels forming the lid part.

3. A blank according to claim 2, wherein the reinforcement means comprises a counter panel (245).

4. A blank according to claim 3, wherein the counter panel (245) is connected to the front lid panel (160) by a fold line.

5. A packet for storing smoking articles comprising a lid part, the lid part being formed from the blank according to any of claims 1 to 4.

6. A packet according to claim 5 when dependent on claim 4, wherein the counter panel (245) is folded against the front panel (160) to provide additional rigidity to the front panel (160).

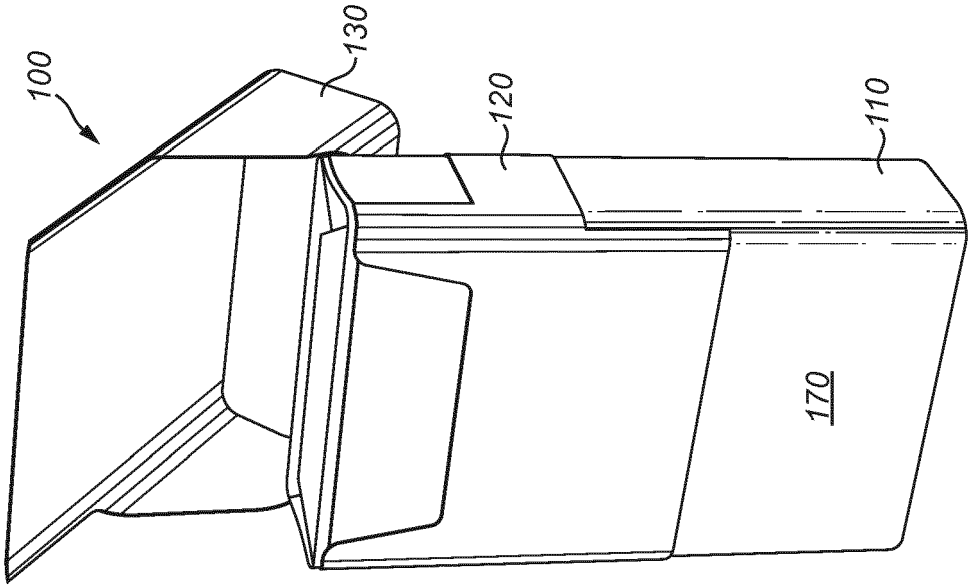

FIG. 1B

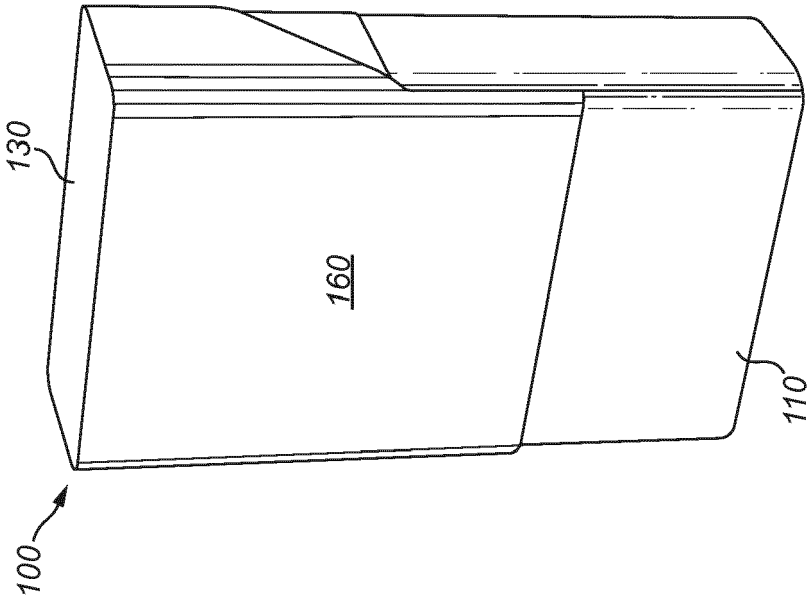

FIG. 1A

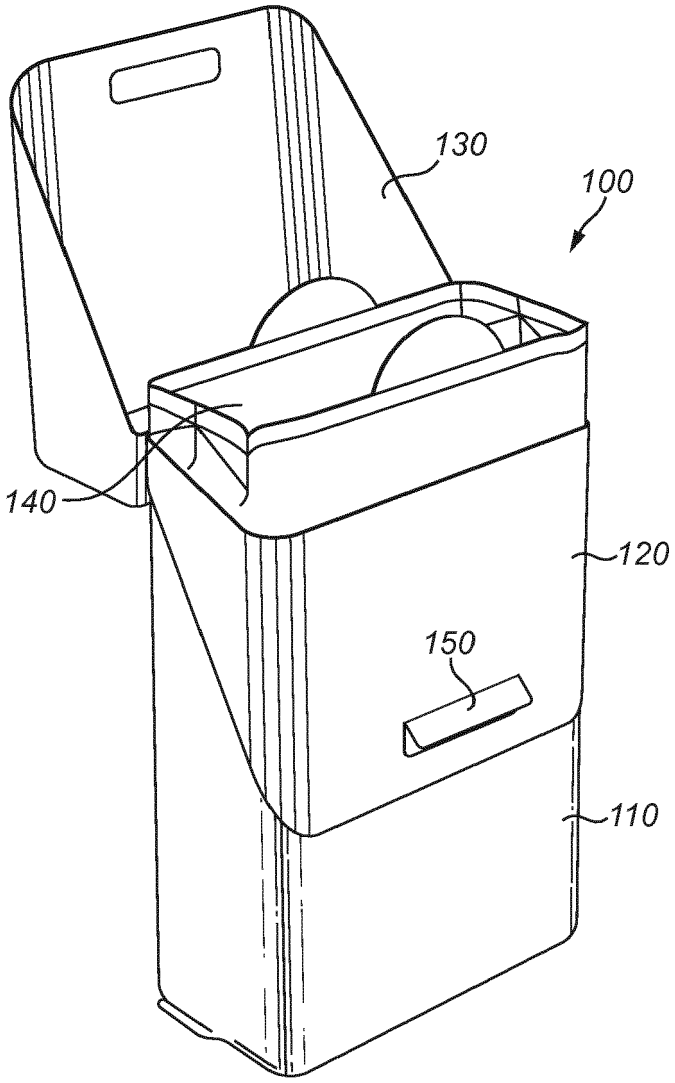

FIG. 1C

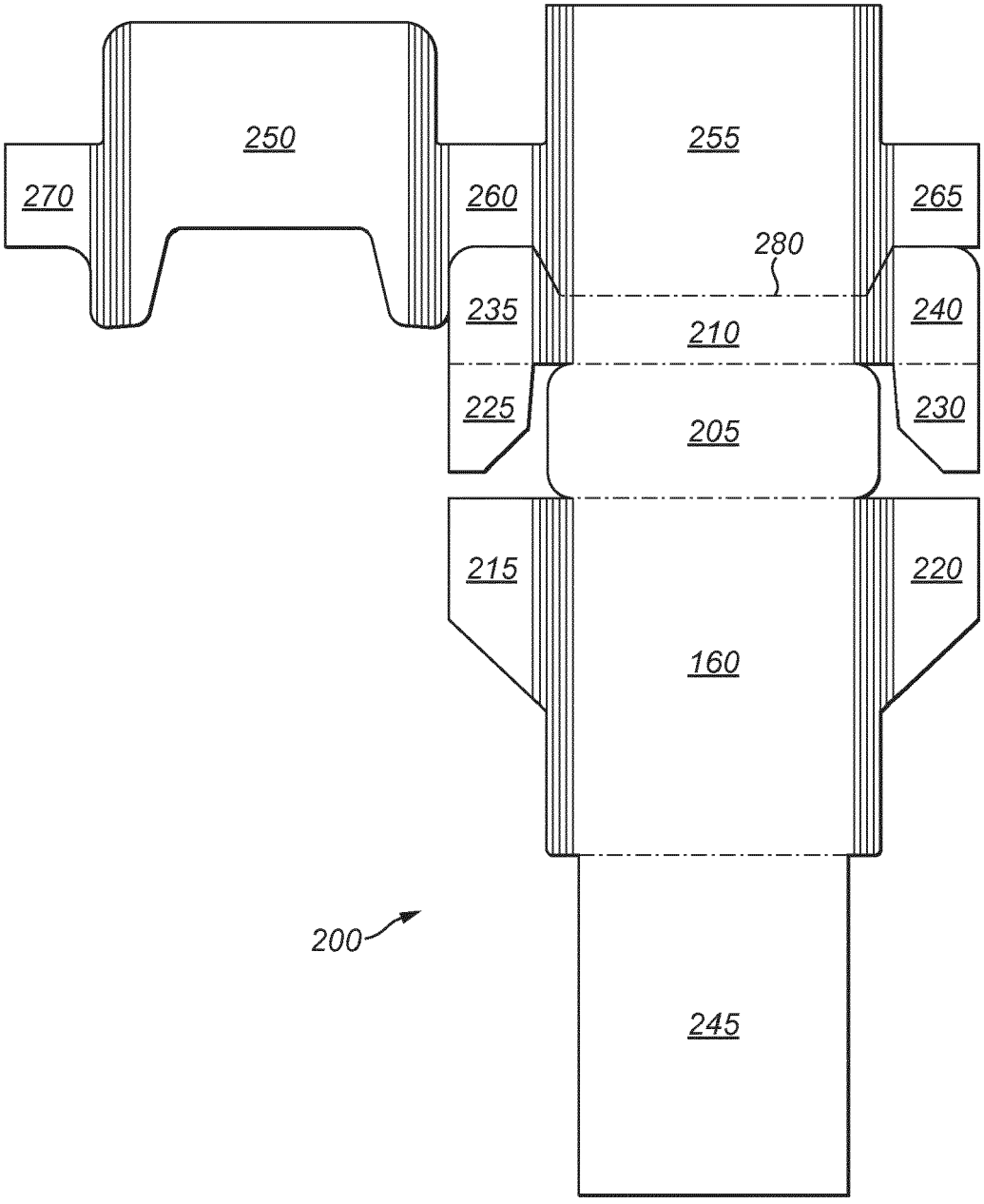
250
255
270
260
265
280
235
210
240
225
205
230
215
220
160
200
245

FIG. 2

Europäisches Patentamt
European Patent Office
Office européen des brevets

EUROPEAN SEARCH REPORT

Application Number
EP 19 17 2486

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	US 5 325 963 A (FOCKE HEINZ [DE] ET AL) 5 July 1994 (1994-07-05) * column 5, lines 17-25; figures 4,8 *	1-6	INV. B65D85/10
X	WO 2014/190122 A1 (MEADWESTVACO CORP [US]) 27 November 2014 (2014-11-27) * figure 2A *	1-6	
X	WO 2014/203162 A1 (GD SPA [IT]) 24 December 2014 (2014-12-24) * figures 1-3 *	1-6	
X	EP 2 433 881 A1 (PHILIP MORRIS PROD [CH]) 28 March 2012 (2012-03-28) * figures 1-5 *	1,5	
A	US 6 193 060 B1 (ROBERTS DAVID L [US] ET AL) 27 February 2001 (2001-02-27) * figures 1-10 *	1-6	

TECHNICAL FIELDS SEARCHED (IPC)

B65D

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	13 September 2019	Dick, Birgit

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
Y : particularly relevant if combined with another document of the same category
A : technological background
O : non-written disclosure
P : intermediate document

T : theory or principle underlying the invention
E : earlier patent document, but published on, or after the filing date
D : document cited in the application
L : document cited for other reasons

& : member of the same patent family, corresponding document

EPO FORM 1503 03.82 (P04C01)

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 19 17 2486

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

13-09-2019

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5325963 A	05-07-1994	BR 9203468 A	13-04-1993
		CA 2076928 A1	07-03-1993
		DE 4129609 A1	11-03-1993
		EP 0530651 A1	10-03-1993
		EP 0628497 A1	14-12-1994
		ES 2072069 T3	01-07-1995
		ES 2096977 T3	16-03-1997
		JP 2898825 B2	02-06-1999
		JP H0664673 A	08-03-1994
		US 5325963 A	05-07-1994
WO 2014190122 A1	27-11-2014	NONE	
WO 2014203162 A1	24-12-2014	EP 3010834 A1	27-04-2016
		WO 2014203162 A1	24-12-2014
EP 2433881 A1	28-03-2012	CN 103118960 A	22-05-2013
		EP 2433881 A1	28-03-2012
		EP 2619112 A1	31-07-2013
		JP 2013541473 A	14-11-2013
		KR 20130100147 A	09-09-2013
		RU 2013118577 A	27-10-2014
		SG 188960 A1	31-05-2013
		UA 107853 C2	25-02-2015
		US 2015034508 A1	05-02-2015
		WO 2012038085 A1	29-03-2012
US 6193060 B1	27-02-2001	AT 452081 T	15-01-2010
		AU 3841801 A	27-08-2001
		DK 1263664 T3	01-03-2010
		EP 1263664 A1	11-12-2002
		ES 2334884 T3	17-03-2010
		JP 4689928 B2	01-06-2011
		JP 2003522695 A	29-07-2003
		PT 1263664 E	26-01-2010
		US 6193060 B1	27-02-2001
		WO 0160716 A1	23-08-2001

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82