

(19)



(11)

EP 2 641 849 A1

(12)

EUROPEAN PATENT APPLICATION

(43) Date of publication:
25.09.2013 Bulletin 2013/39

(51) Int Cl.:
B65D 85/10 (2006.01) **B65B 61/02** (2006.01)
B65B 61/06 (2006.01)

(21) Application number: **12160151.2**

(22) Date of filing: **19.03.2012**

(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
Designated Extension States:
BA ME

(72) Inventors:
• **Festi, Fabio**
38060 Villalagarina, Trento (IT)
• **Pacquola, Denis**
31056 Roncade, Treviso (IT)

(71) Applicants:
• **Ati Packaging S.r.l.**
38068 Rovereto, Trento (IT)
• **EuroPoliGrafico S.p.A.**
37132 Verona (IT)

(74) Representative: **Manfrin, Marta et al**
Società Italiana Brevetti S.p.A.
Stradone San Fermo 21 sc. B
37121 Verona (VR) (IT)

(54) **Blank for making a packet**

(57) The present disclosure relates to a blank (1, 101) for making a case or packet for containing articles. The blank (1, 101) comprises a first portion (2) intended to form a containing body of the case or packet having a mouth (3), a second portion (4) intended to define a clos-

ing lid or cap for the mouth (3) of the containing body and a collar (5) associated to the first portion (3) and intended to define an abutment and/or a guide for the second portion (4). The collar (5) is a single piece with the first portion (3).

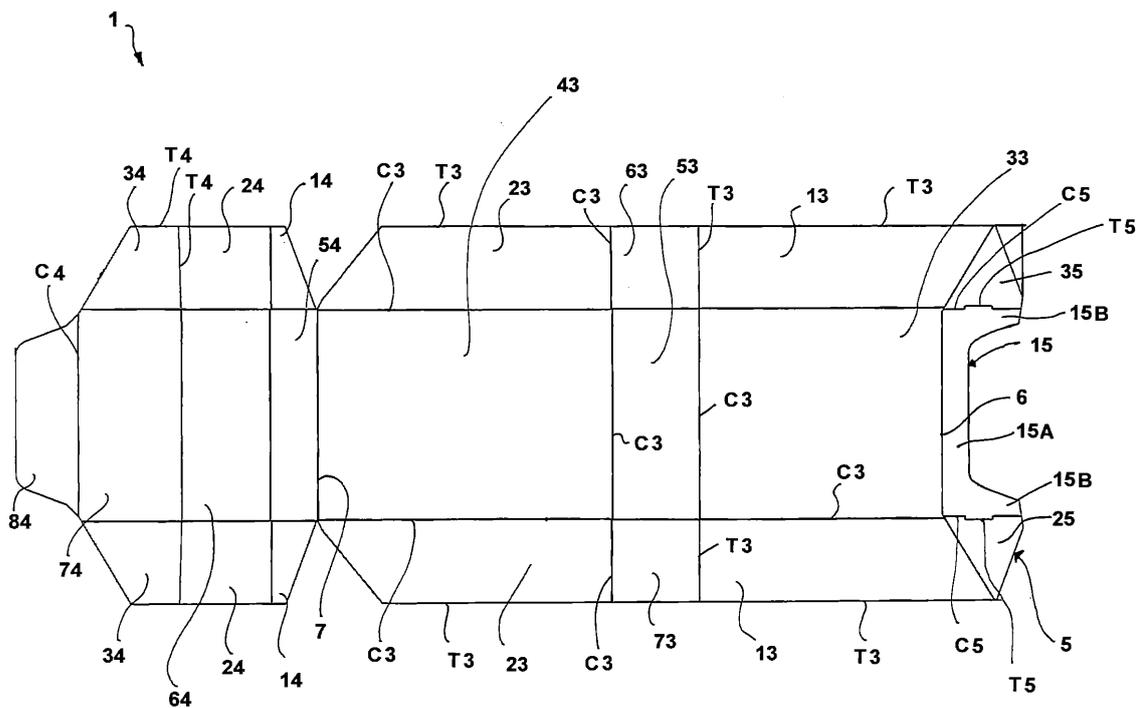


FIG. 1

EP 2 641 849 A1

Description

[0001] The present disclosure relates generally to a packet or case for containing articles, such as for example smoke articles, like cigars or cigarettes. More particularly, the present disclosure relates to a blank, that is a sheet or panel duly provided with creasing or folding lines and cuts, intended to be folded for making said case/packet. The present disclosure also relates to a case including said blank, a method and a relative equipment for making the blank.

[0002] It is known a packet for cigarettes formed by a die-cut sheet including a first portion, or main containing portion, which is intended to be hold with one hand by a user, and a second portion, or lid portion, which is hinged, in a rear area to the main containing portion, and is intended to be lifted with the other hand by the user to gain access inside the case.

[0003] Between the main containing portion and the lid portion, at the mouth of the packet in a frontal zone, the packet includes a so-called collar, which has the function of guiding the closing of the lid portion and of maintaining in a stable closed position the lid portion. In particular, in the frontal zone at the mouth of the packet, the collar has a substantially U-shaped profile to facilitate the access inside the packet and the taking out, by the user, of the articles contained therein, such as the cigarettes. The lid portion in a closed position overcomes the collar up to hide it completely.

[0004] Even more particularly, the collar is formed by a sheet, structurally independent from the die-cut sheet mentioned above, which is subsequently glued inside the main containing portion, during a step of packaging of the case.

[0005] At the basis of the present disclosure there is a recognition by the Inventors of the present patent application that a packet or case made according to the known art, does not allow to make use in an optimum manner of the entire visible surface of the blank to customize the packet with writings, drawings or more generally promotional messages printed on the visible surfaces of the packet. In other words, the case of the known art does not allow to print writings, logos or other indications exploiting at the most the surface of the case. In fact, the Inventors of the present disclosure have recognized that writings and drawings have to be printed in an independent manner on the main containing body of the die-cut sheet, and on the collar. In particular, a writing or drawing can be printed on the containing portion and another writing or drawing can be printed on the collar, inevitably leaving unprinted or empty spaces. In fact, it is not possible to print a part of the writing or drawing partially on the containing portion and the remaining part of the writing or drawing on the collar, as there would be the risk of staggers or misalignments of the two parts when the collar and the containing portion are fixed the one to the other during the gluing step. Such a print would have an unacceptable aesthetic appearance.

[0006] A technical problem at the basis of the present disclosure resides in providing a blank for making a case or packet being able to overcome said drawback of the known art and/or being able to achieve further advantages and/or to have additional features.

[0007] Starting from said recognition by the Inventors, and to solve said technical problem, a blank according to independent claim 1, a case or packet according to claim 11, a die cutter according to claim 12 and a method according to claim 14 are provided. Specific embodiments of the subject-matter of the present disclosure are set forth in the corresponding dependent claims.

[0008] In practice, according to an aspect of the present disclosure, the blank includes a collar which is a single piece with the first portion, i.e. with the main portion intended to form the containing body of the case. In other words, the collar stems from a same sheet or starting panel from which the first portion stems. The collar is therefore part of a same sheet with the first portion and with the second portion which define the containing body and the cap body of the packet. It follows, from a structural point of view, that the collar represents an integral extension of the first portion.

[0009] This technical solution allows to make prints, in the form of messages, drawings, and similar forms of communication on said sheet, on the first portion and on the collar at the same time, so that such prints can be either extended on the first portion, on the second portion and on the collar, without the risk of misalignments or staggers between the prints of the collar and those of the first portion. It follows that, even with a single print, it is possible to exploit the entire surface of the blank, without having to confine a print on the first portion and a print on the collar. According to another aspect of the present disclosure, packets or cases can be made with simplified equipments, since it is not necessary to provide an equipment for the collar which is separated from the one for the first portion and for the second portion, nor it is necessary the gluing of the collar to the first portion.

[0010] In practice, the packet or case can be made by means of single equipment that bends the blank in an appropriate way, to obtain both the first portion and the collar. In an embodiment according to the present disclosure, the collar defines a plane or different level relative to a plane defined by the first portion, and relative to a plane of the second portion. This plane of the collar is a plane that, when the blank is folded and shaped to a packet, is located innermost relative to the plane of the first portion and of the second portion. In other words, the collar is a recessed area relative to the first portion and the second portion.

[0011] To obtain such result, in an exemplary and non-limiting embodiment, the sheet is positioned in a die cutter comprising a matrix and a plate intended to be pressed against the matrix, and having the function of counter-matrix. At the area intended for making the collar, the one between the matrix and the plate have a male or raised portion relative to the adjacent zone intended to

form the first portion.

[0012] The male or raised portion is adapted to be coupled with a complementary female area, which is a recessed area, of the other between the matrix and the counter-matrix.

[0013] In this way, when the sheet is pressed, the area of the sheet interposed between the raised area and the recessed area, intended to define the collar, can be positioned on a different plane relative to the remaining part of the sheet. In the paper-transformation industry this technique is called debossing.

[0014] It follows that, in an embodiment of the present disclosure, the collar is connected to the first portion by a fold which is determined by the coupling relief/recess of the matrix and of the counter-matrix.

[0015] In some exemplary and non-limiting embodiments, to make the said relief (male portion), the die cutter includes a plate body in a region of the collar. The plate body is positioned on a plane or level protruding relative to the adjacent area of the die cutter intended to form the first portion.

[0016] Furthermore, in some embodiments, the plate body includes a plate central portion, a first plate side portion and a second plate side portion. Further ribs are provided between the central plate portion and the first plate side portion and between the plate central portion and the second plate side portion. These ribs permit the making of bending areas in the collar.

[0017] In some embodiments, the plate body also comprises two slots in which some blades are housed. The blades are intended to define cutting lines of limited extension in the collar.

[0018] In some embodiments, the matrix further comprises a blade which surrounds and follows the profile of the plate body (male portion) on the outer side and serves to make the outer profile of the collar.

[0019] As for the plate or counter-matrix, in some exemplary and non-limiting embodiments, the plate comprises, as a recessed area, a depression, or hollow, obtained by milling and having shape and profile complementary to the above-mentioned plate body. In particular, in some exemplary and non-limiting embodiments, the depression comprises a recessed central portion, a first recessed side portion and a second recessed side portion, and two grooves positioned one between the recessed central portion and the first recessed side portion and the other between the recessed central portion and the second recessed side portion. Further features and the operation modes of the subject-matter of the present disclosure will be made evident from the following detailed description of preferred embodiments thereof, given by way of a non-limiting example.

[0020] It is also to be understood that all possible combinations of embodiments described with reference to the following detailed description fall within the scope of the present disclosure.

[0021] Reference will be made to the figures of the annexed drawings, wherein:

- Figure 1 shows a plan view in an extended condition of a blank according to an embodiment of the present disclosure;
- Figures 2-10 show respective axonometric views of a blank, from an open condition to a closed packet-shaped condition, according to an embodiment of the present disclosure;
- Figure 11 shows a view of a die cutter matrix for making a blank according to an embodiment of the present disclosure;
- Figure 12 shows a view of a die cutter plate or counter-matrix for making a blank according to an embodiment of the present disclosure;
- Figure 13 shows an enlarged detail of Figure 11;
- Figure 14 shows an enlarged detail of Figure 12;
- Figure 15 shows a detail of Figure 1 in enlarged scale;
- Figure 16 show a sectional view along line XVI-XVI of Figure 15;
- Figure 17 shows a sectional view of a detail of a die cutter in an operational phase according to an embodiment of the present disclosure.

[0022] With reference to the annexed figures, a blank according to respective embodiments of the present disclosure, is denoted by reference numbers 1, 101. The blank 1, 101 is a sheet or panel or wall, suitably cut and provided with areas intended for a folding or a crease.

[0023] The blank 1, 101 when folded and closed takes the shape of a parallelepiped. The blank 1, 101 is made of a material suitably workable and mouldable, such as card, cardboard, paper, a material based on fibres, like wood-fibres or similar.

[0024] The blank 1, 101 can be provided with appropriate prints on a visible surface and a metalized envelope containing articles inside, such as cigarettes, for making a packet or case of cigarettes.

[0025] In particular the blank 1, 101 comprises a first portion 2 intended to form a containing body of the cigarettes and intended to be hold with one hand by a user. In a folded condition, the first portion defines a mouth 3 from which it is possible to gain access inside the containing body for taking out the cigarettes.

[0026] The blank 1, 101 comprises a second portion 4 intended to define a closing lid or cap for the mouth 3.

[0027] The first portion 2 and the second portion 4 are made according to shape and technology settled in the field and know to a person skilled in, the art. In particular, it can be noted that the first portion 2 comprises side walls or wings 13, 23, a front wall 33 and a rear wall 43, as well as bottom walls 53, 63, 73.

[0028] Creasing lines of the first portion 2 between the side walls or wings 13, 23, the front wall 33, the rear wall 43, and the bottom wall 53, 63, 73, are denoted with C3. Cutting lines of the first portion 2 are denoted with T3.

[0029] In addition, it can be noted that the second portion 4 comprises side walls or wings 14, 24, 34, a rear wall 54, a top wall 64 and a front wall 74, and a front/

frontal flap 84.

[0030] Creasing lines of the second portion 4 between side walls or wings 14, 24, 34, the rear wall 54, the top wall 64, the front wall 74, and the front/frontal flap 84, are denoted with C4. Cutting lines of the second portion 4 are denoted with T4.

[0031] A creasing line 7 connects the first portion 2 to the second portion 4.

[0032] The blank 1, 101 further comprises a collar 5 associated to the first portion 2. The collar 5, when the blank 1, 101 is folded and closed, is intended to define an abutment and/or a guide for a closing of the second portion 4 defining the lid or cap. Making the packet starting from the blank 1, 101 in an extended or open position is a process shown in Figures 2-10 and can be performed following the sequence shown in Figures 2-10. It is to be understood that the above-mentioned disposition of cuts and creases and the process for closing the blank to a packet are an exemplary embodiment of the subject-matter of the present disclosure, and that many other configurations of cuts and creases can be provided for making the blank according to the present disclosure.

[0033] According to an aspect of the present disclosure, the collar 5 is a single piece with the first portion 2. In other words, the collar 5 and the first portion 2 are parts of a same sheet, or body, from which the blank 1, 101 is obtained.

[0034] It follows that, thanks to this aspect of the present disclosure, it is possible to perform a print of logos, writings or drawings extending both on the first portion 2 and on the collar 5, hence exploiting at the most the available visible surface of the blank 1, 101.

[0035] Even more specifically, in the embodiment illustrated in the Figures, the collar 5 defines a plane which is different relative to the plane of the first portion 2 and the second portion 4. In particular, when the blank 1, 101 is folded and closed in the parallelepiped configuration, this plane is more internal relative to the plane of the first portion 2 and of the second portion 4, so that, when the second portion 4 is positioned on the collar, the second portion 4 is flush or at the same level with the first portion 2, and at the same time overcomes the collar 5, as shown in Figure 10.

[0036] It follows that the collar 5 is a recessed area, or debossing, relative to the first portion 2 and to the second portion 4. In this way, when the case is shaped to define the parallelepiped packet and the second portion 4 is closed on the first portion 2, the second portion 4 is flush or at the same level with the first portion 2.

[0037] The collar 5 is separated from the first portion 2 by a folding area 6 determined by the level difference between the first portion 2 and the collar 5.

[0038] It is moreover noted that the collar 5 comprises a collar front wall 15, 115, a first collar side wall 25 and a second collar side wall 35. In particular, each side wall 13, 23 of the first portion 2 is respectively joined in a single piece with the first collar side wall 25 and the second collar side wall 35.

[0039] In the non-limiting example shown in the Figures, creasing lines of the collar 5 between the collar front wall 15, 115 and the first collar side wall 25 and between the collar front wall 15, 115 and the second collar side wall 35 are denoted with C5. Cutting lines of the collar 5 are denoted with T5.

[0040] In particular, two cutting lines T5 of limited extension are made in the creasing lines C5 between the collar front wall 15, 115 and the first collar side wall 25 and between the collar front wall 15, 115 and the second collar side wall 35. These cutting lines T5 have a limited and shorter extension relative to the extension of the crease C5. These cutting lines T5 serve, when the blank 1, 101 is folded and closed, to create a ledge in the collar 5 which makes adhesion or gripping action with the second portion 4 and favours a stable closing of the second portion 4 on the collar.

[0041] The collar front wall 15, 115 is U-shaped and has a base region 15A, 15B and two wings 15B, 115B extending towards the second portion 4, when the blank 1, 101 is folded and closed.

[0042] In particular, it is noted that the blank 101 of Figures 2-10 and the blank 1 of Figure 1 differ for the shape of the collar front wall 15, 115. In particular, in the blank 101 of Figures 2-10 the wings 115B extend in length beyond the footprint of the collar first side wall 25 and of the collar second side wall 35, while in the blank 1 of Figure 1 the wings 15B have the same extension in length of the collar first side wall 25 and of the collar second side wall 35.

[0043] It follows that in the blank 101 of Figures 2-10, when the blank 101 is folded and closed, the wings 115B interfere with the second portion 4 and allow to create further adhesion or gripping action with the second portion 4 e to further foster a stable closing of the second portion 4 on the collar.

[0044] According to another aspect of the present disclosure, with reference to Figures 13-18, a die cutter 20 for making the blank 1, 101 is illustrated.

[0045] The die cutter 20 comprises a matrix 21 and a plate 22, having the function of counter-matrix. The matrix 21 is fixedly mounted on a frame (not illustrated in the Figures), while the plate 22 is hinged mounted to the frame to move between an open position in which it is in spaced relation from the matrix 21 and a closed position in which the plate 22 is adherent overlapped and presses on the matrix 21.

[0046] In particular, the matrix 21 comprises a support panel 21a on which are fixed a plurality of blades 26 having a cutting profile positioned with arrangement corresponding to the disposition of the cutting lines T3, T4 and T5 and a plurality of bars 27 having rounded profile, positioned with arrangement corresponding to the disposition of the creasing lines 7, C3, C4 and C5 of the blank 1, 101. Protection curbs 28, for example made of foam rubber are positioned at the sides of the blades 26, to protect the starting sheet during the cutting step.

[0047] Consistently with the disposition of the blades

26 and of the bars 27, the plate 22 has a plurality of grooves 29 having sectional rounded profile, intended for housing the corresponding bars 27. Lines 30 are further marked at of the blades 26 on the plate 22. The lines 30 are due to the milling action determined by the blades 30 when the plate 22 is pressed against the matrix 21. It is to be understood that the above-mentioned disposition of blades and bars are an exemplary embodiment of the subject matter of the present disclosure, and that many other configurations of blades and bars can be provided for making the blank according to the present disclosure.

[0048] According to an aspect of the present disclosure, at an area intended for making the collar 5, the die cutter 20 comprises a relief defined by a plate body 31 in the exemplary embodiment. The plate body 31 is in particular intended for shaping the sheet for making the collar 5.

[0049] In particular, the plate body 31 defines a different plane or level relative to a plane defined from the remaining part of the matrix 21 intended for the shaping and cutting of the first portion 2 and for the shaping and cutting of the second portion 4.

[0050] In addition, in the illustrated exemplary and non-limiting embodiment, the plate body 31 is shaped so as to include a plate central portion 37, a first plate side portion 36 and a second plate side portion 38. Further ribs 40 are provided between the plate central portion 37 and the first plate side portion 36 and between the plate central portion 37 and the second plate side portion 38.

[0051] The plate body 31 further comprises two slots 41 wherein as many blades 46 are housed. The blades 46 are intended to form the two cutting lines T5 of limited extension of the collar 5.

[0052] The matrix 21 further comprises a blade 47, which surrounds and follows the profile of the plate body 31 on the outer side, and serves for making the outer profile of the collar 5.

[0053] Consistently with the matrix 21, for making the collar 5 and the relative connection with the first portion 2 of the blank 1, the plate 22 comprises a recessed area, defined in the example by a depression 48, or hollow, obtained by milling and having shape and profile complementary to the above-indicated plate body 31.

[0054] The coupling between the recessed portion of the plate 22 and the relief portion of the matrix 21 is shown in Figure 17. It is to be understood that the plate body 31 and the depression 48 can be replaced with other equivalent elements for making the debossing or recessed area according to the present disclosure.

[0055] In particular, the hollow 48 comprises a recessed central portion 49, a first recessed side portion 51 and a second recessed side portion 52. The plate 22 further comprises two grooves 56 interposed between the recessed central portion 49 and the first recessed side portion 51 and between the recessed central portion 49 and the second recessed side portion 52 and are intended to house the ribs 40. In each of the two grooves 56 are further provided respective reliefs 58 intended to

interact with the slots 41 and the blades 46, to work the sheet and obtain the two cuts T5 of the collar 5.

[0056] For making the blank 1, 101 according to the present disclosure, a sheet 61 is inserted between the matrix and the plate. The plate 22 is pressed against the matrix to obtain the cuts T3, T4 and T5 and the creases 7, C3, C4 and C5.

[0057] At the collar 5, thanks to the coupling between the plate body 31 and the depression /hollow 48 it is possible to obtain a collar 5 positioned on a different plane relative to the first portion 2 and to the second portion 4, and forming a bend 6 due to the level difference.

[0058] It is further possible to note that the die cutter 20 can be part of a larger equipment comprising a plurality of die cutters 20 arranged by rows and columns and operating simultaneously. It is therefore possible obtaining at the same time a plurality of blanks 1, 101.

[0059] It is to be noted, with reference to Figure 14, that the plate 22 comprises a further recessed area, denoted in Figure 14 with reference number 59, and which is functional to the making of the second portion of another blank that is positioned adjacent along the column in the above-mentioned disposition of the equipment by rows and columns. This further recessed area is not the subject-matter of the present disclosure and therefore it will not be further described.

[0060] The subject-matter of the present disclosure has hereto been described with reference to preferred embodiments thereof. It is understood that there may be other embodiments referable to the same inventive concept, all falling within the protective scope of the claims set forth hereinafter.

35 Claims

1. A blank (1, 101) for making a case or packet for containing articles, wherein said blank (1, 101) comprises a first portion (2) having a mouth (3) and intended to form a containing body of the case or packet, a second portion (4) intended to define a closing lid or cap for the mouth (3) of the containing body and a collar (5) associated to the first portion (3) and intended to define an abutment and/or a guide for the second portion (4), wherein said collar (5) is a single piece with the first portion (2), or wherein said collar (5) and the first portion (2) are parts of a same sheet.
2. The blank (1, 101) according to claim 1, wherein the collar (5) defines a different plane relative to a plane defined by the first portion (2) and to a plane defined by the second portion (4).
3. The blank (1, 101) according to claim 1 or 2, wherein the collar (5) is a recessed area relative to the first portion (2) and the second portion (4).
4. The blank (1, 101) according to claim 1 or 2, wherein

the collar (5) is obtained by debossing

5. The blank (1, 101) according to any one of the preceding claims 3 or 4, wherein the collar (5) includes a collar front wall (15, 115), a first collar side wall (25) and a second collar side wall (35), wherein a folding line (6) connects respectively side walls (13, 23) of the first portion (2) with the first collar side wall (25) and the second collar side wall (35), and the collar front wall (15, 115) with a front wall (33) of the first portion (2). 5

6. The blank (1, 101) according to claim 5, wherein creasing lines (C5) or folding lines of the collar (5) are present between the collar front wall (15, 115) and the first collar side wall (25) and between the collar front wall (15, 115) and the second collar lateral wall (35) and wherein a cutting line (T5) is present in each creasing line (C5) or folding line of the collar (5), wherein said cutting line (T5) has a limited and shorter extension than an extension of the respective creasing line (C5) or folding line of the collar (5). 15

7. The blank (1, 101) according to any one of the preceding claims 5 to 6, wherein the collar front wall (15, 115) is U-shaped and has a base region (15A, 15B) and two wings (15B, 115B) laterally positioned with respect to the base region (15A, 15B). 20

8. The blank (1, 101) according to any one of the preceding claims, including a print, a drawing, a logo, or a writing which extends from said first portion (2) to said collar (5). 25

9. The blank (1, 101) according to any one of the preceding claims, intended to form a parallelepiped-shaped packet. 30

10. The blank according to any one of the preceding claims, wherein said articles are smoke articles, such as cigars or cigarettes. 35

11. Packet for containing articles including a blank according to any one of the preceding claims 1 to 10. 40

12. Die cutter (22) for manufacturing a blank (1, 101) according to any one of the preceding claims 1 to 10. 45

13. Die cutter (20) according to claim 12, including a matrix (21) and a counter-matrix (22) adapted to be pressed against said matrix (21), wherein, in a region intended for making said collar (5), one between said matrix (21) and said counter-matrix (22) includes a protruding relief (31) defining a level or plane which is different with respect to a region of said matrix (21) or counter-matrix (22) intended for making said first portion (2) and wherein the other between said matrix (21) and said counter-matrix (22) includes a recessed area (48) defining a level or plane which is different with respect to a region of said matrix (21) or counter-matrix (22) intended for making said first portion (2), said recessed area being complementary to said protruding relief (31), wherein said protruding relief (31) and said recessed area (48) are intended to be coupled to define said collar (5). 50

14. A method for making a blank (1, 101) intended for the making a case or packet for containing articles, wherein said method provides the steps of
 - providing a sheet;
 - die cutting the sheet to define a first portion (2) intended to form a containing body of the case or packet having a mouth (3), a second portion (4) intended to define a lid or cap to close the mouth (3) of the containing body and a collar (5) associated to the first portion (2) intended to define an abutment and/or a guide for the second portion (4), wherein said collar (5) is obtained from said sheet to define a single piece with the first portion (2).55

15. The method according to claim 14, wherein said collar (5) is pressed on a plane which is different with respect to a plane of the first portion (2) and with respect to a plane of the second portion (4).

16. The method according to claim 14 or 15, wherein said collar (5) is made by debossing.

17. The method according to any one of the claims 14 to 16, wherein a single printing phase is performed simultaneously on said first portion (2) and on said collar (5) to obtain a print extending from said first portion (2) to said collar (5).

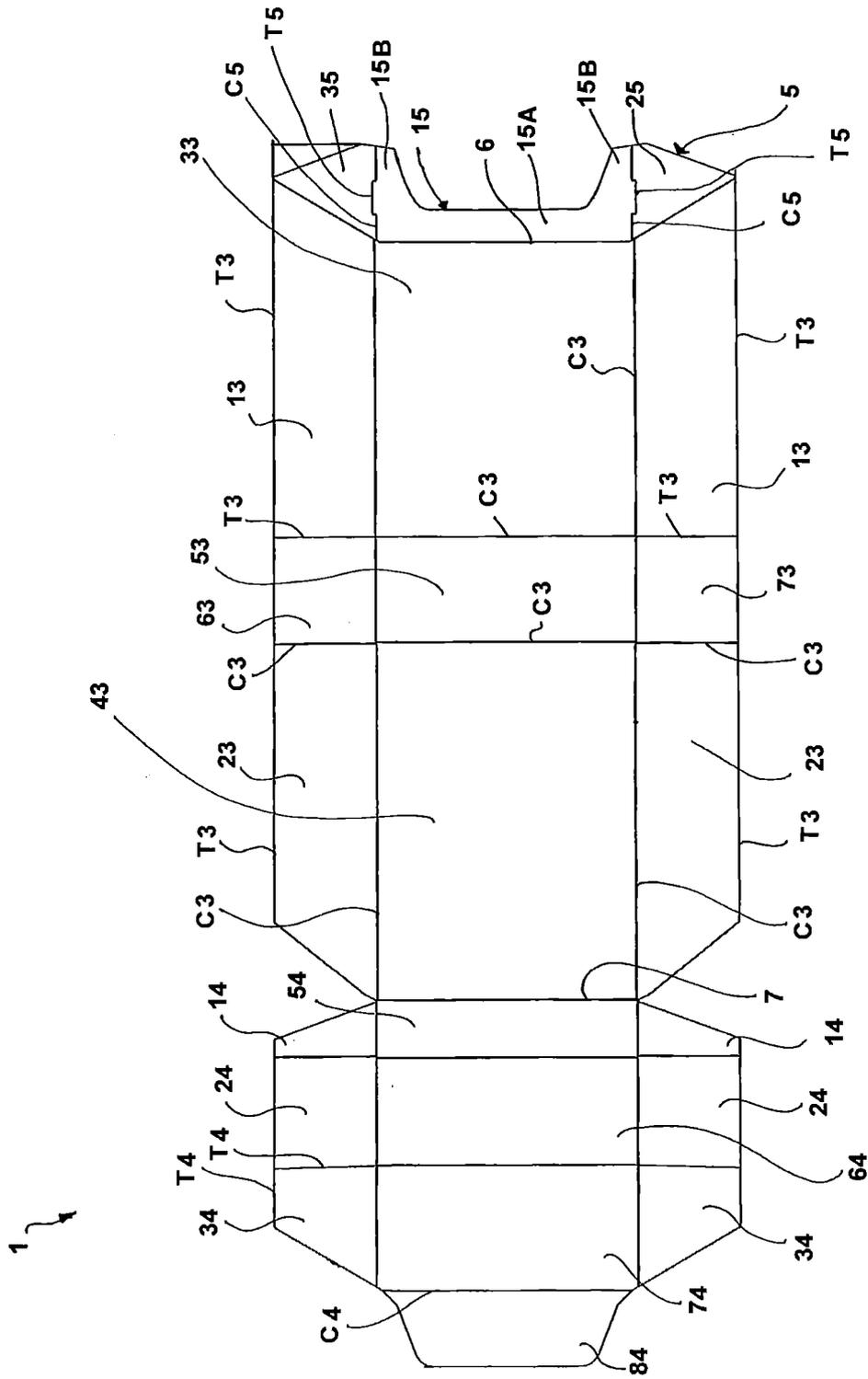


FIG. 1

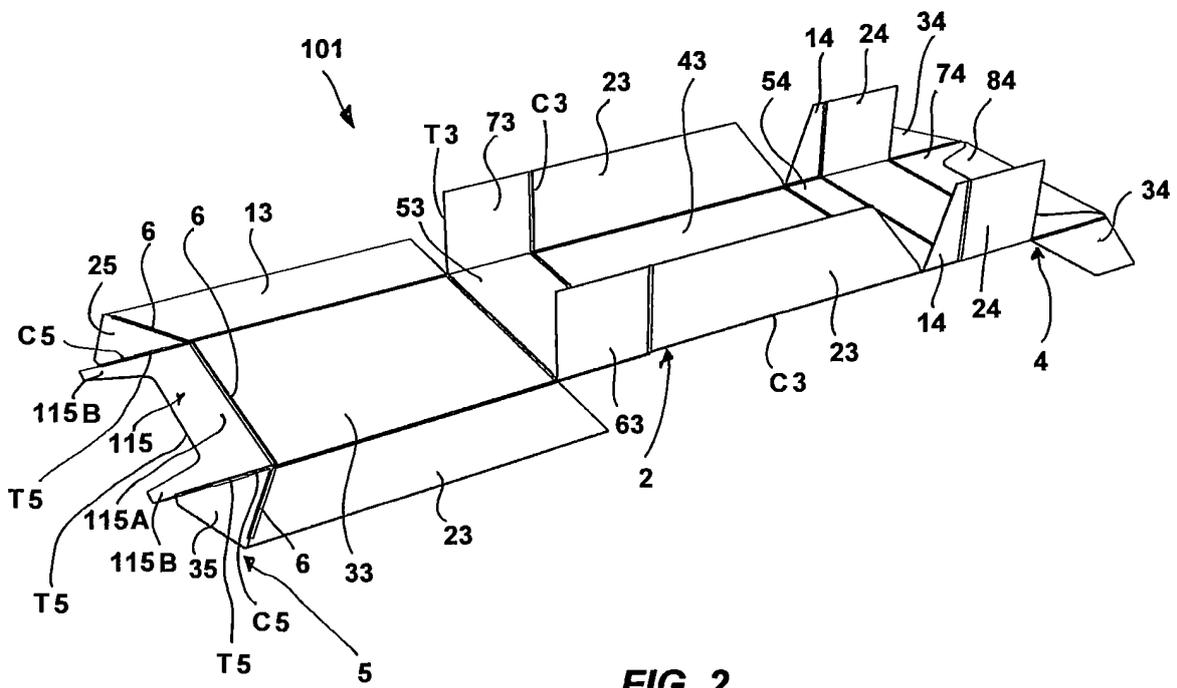


FIG. 2

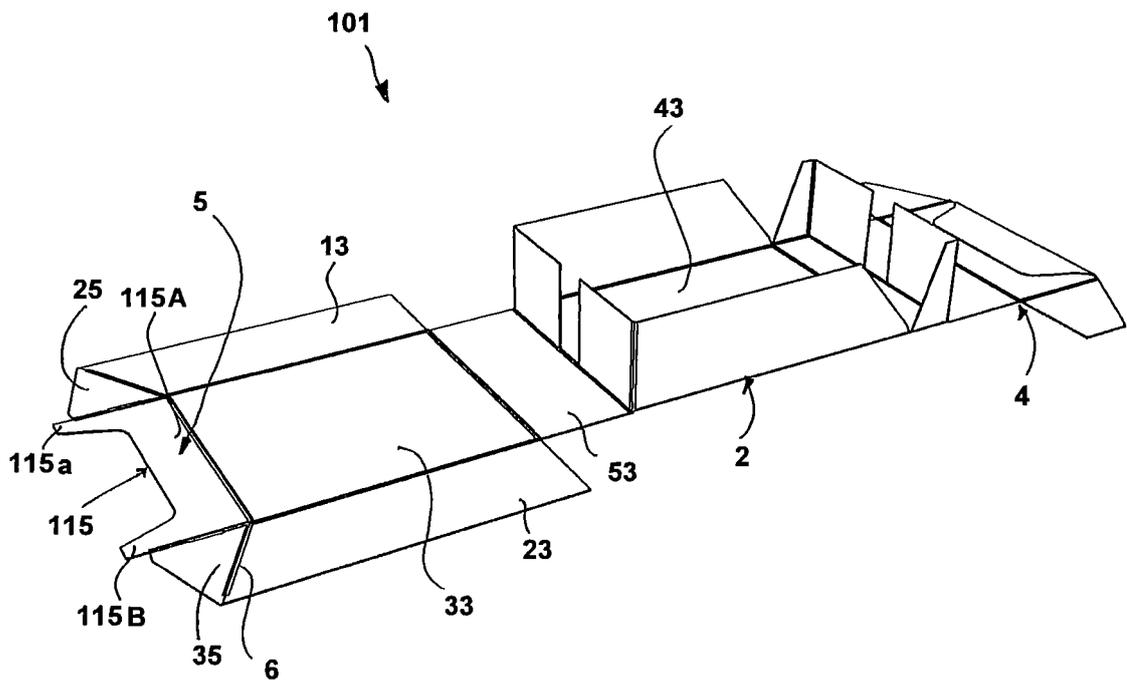


FIG. 3

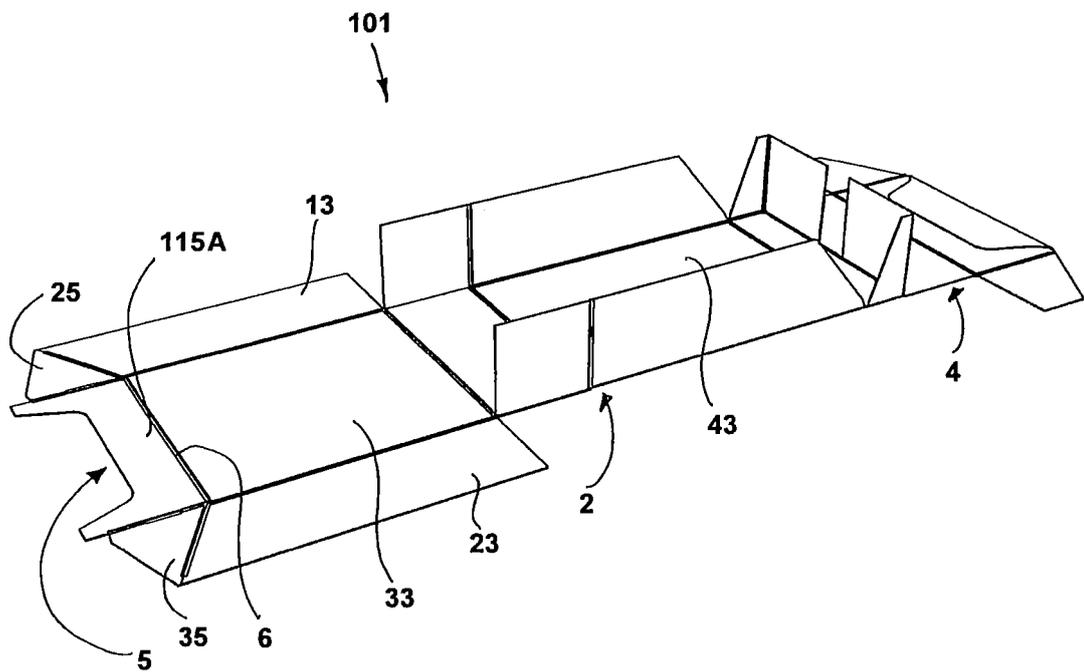


FIG. 4

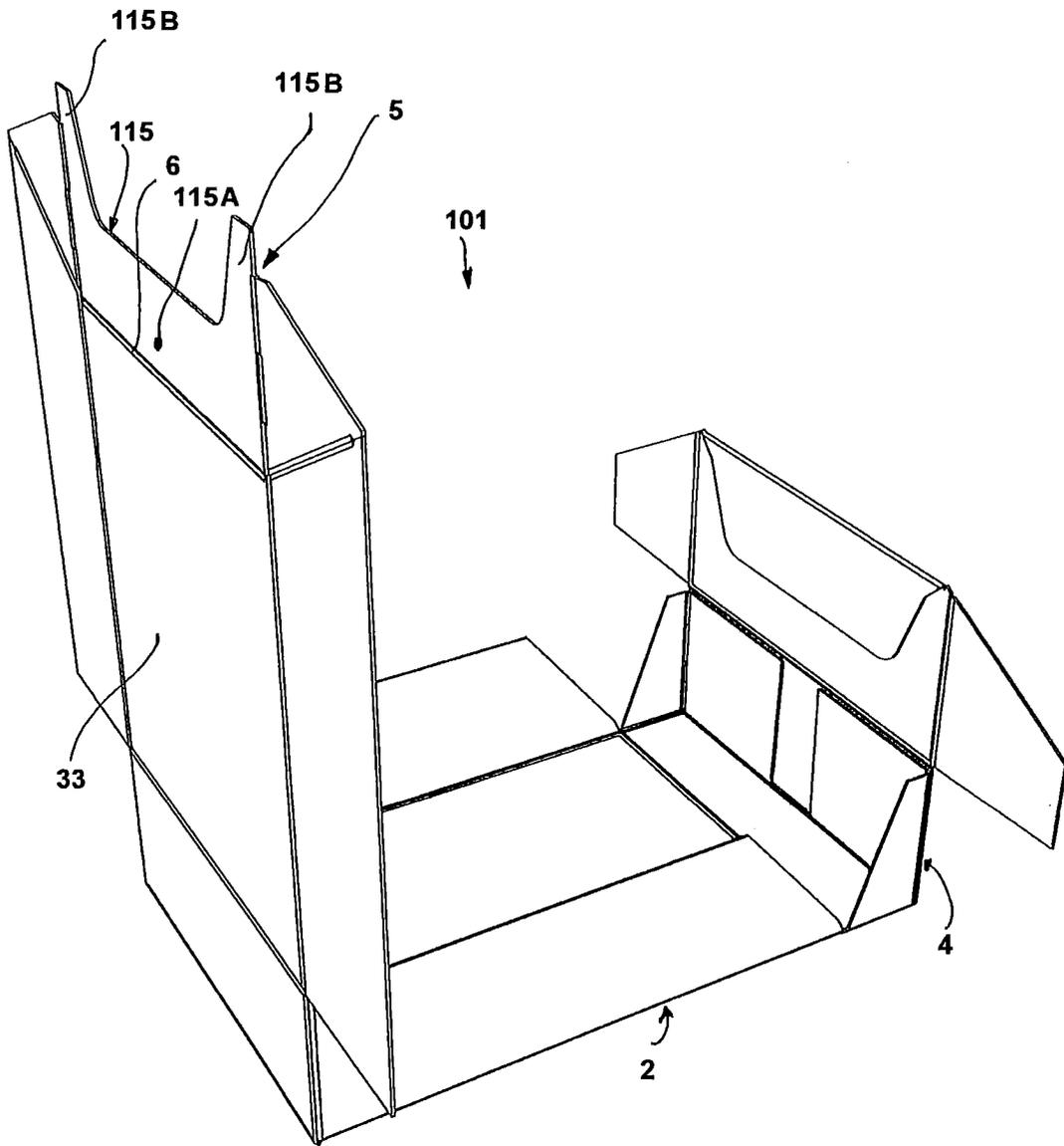


FIG. 5

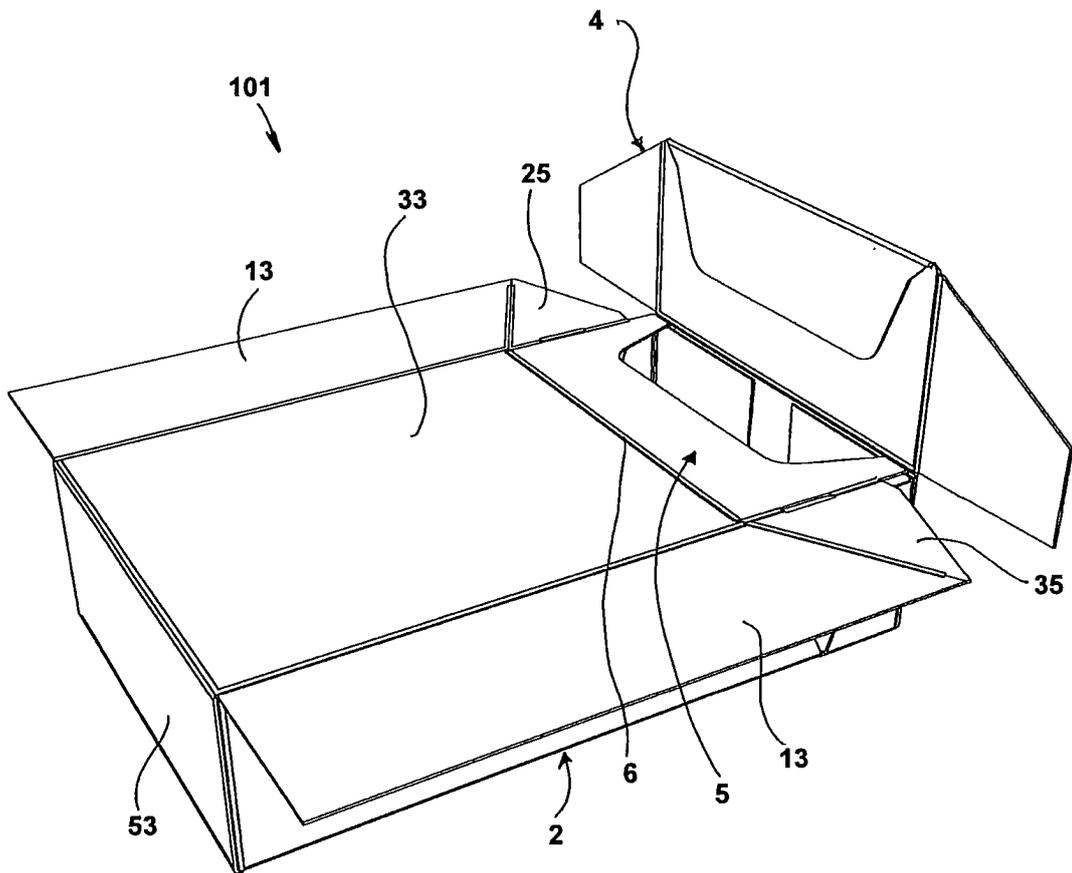


FIG. 6

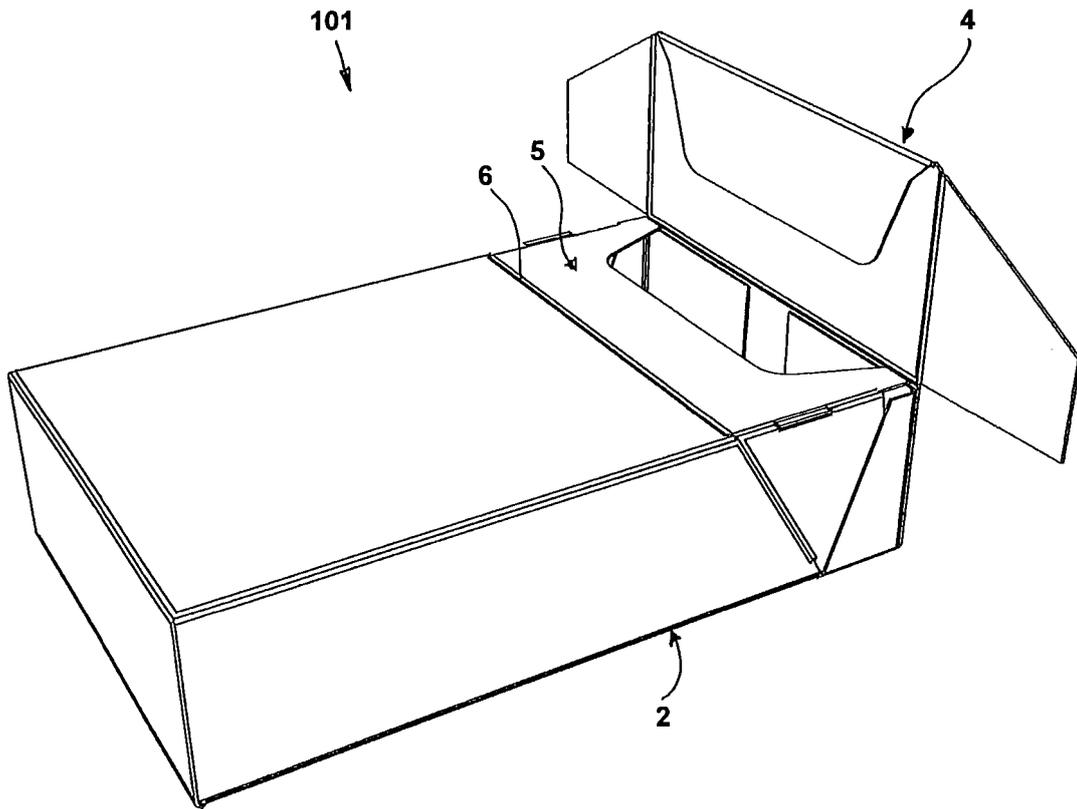


FIG. 7

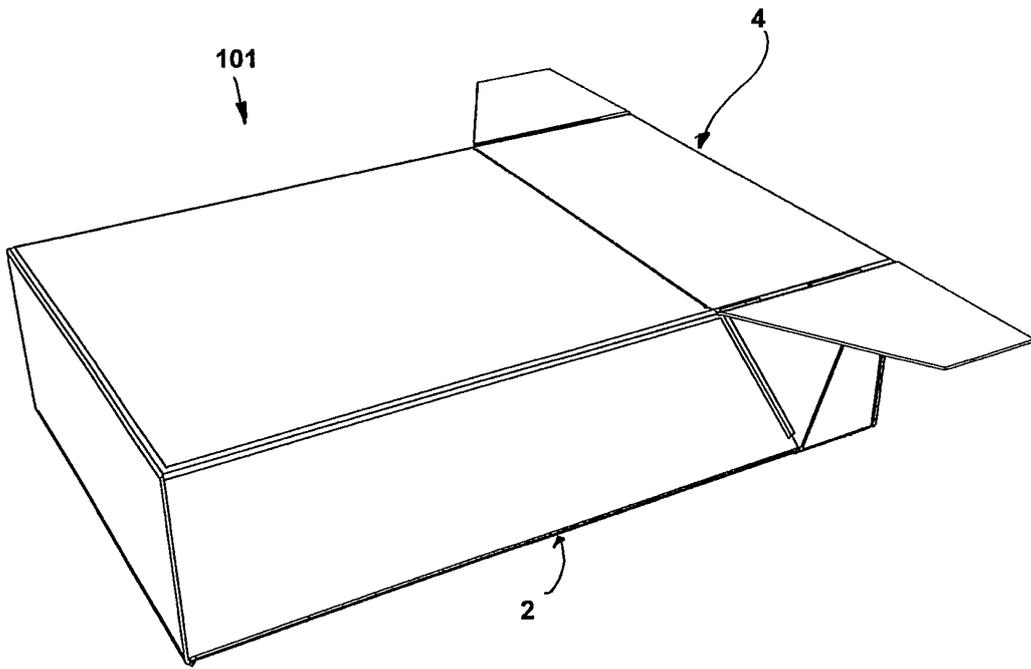


FIG. 8

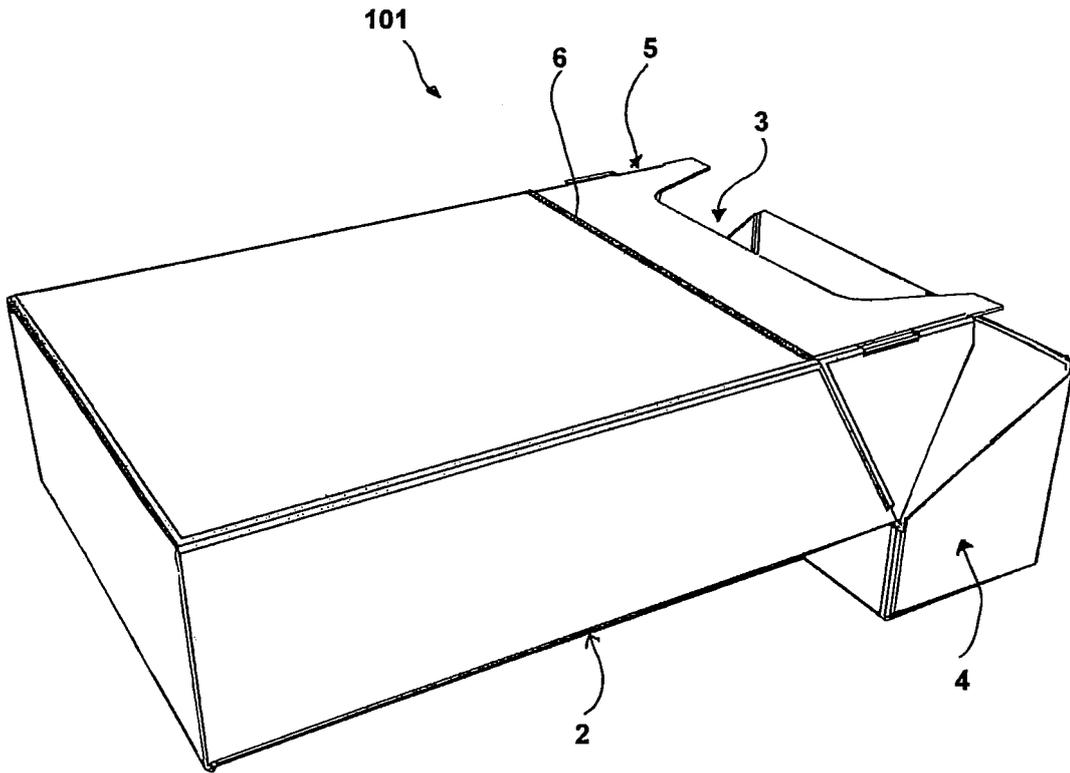


FIG. 9

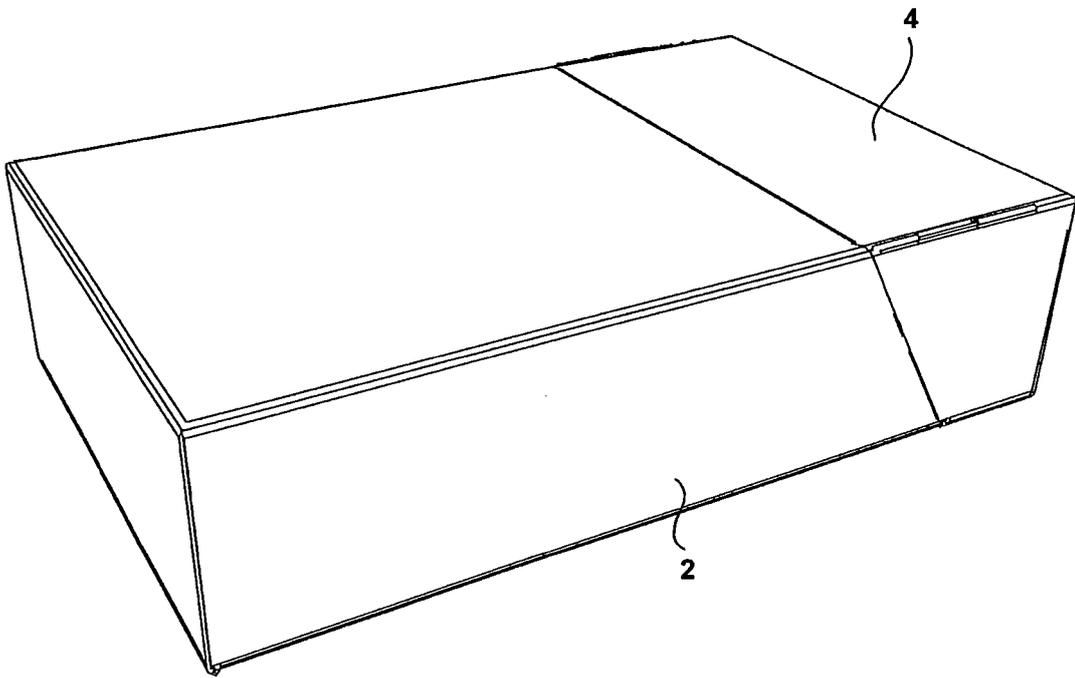


FIG. 10

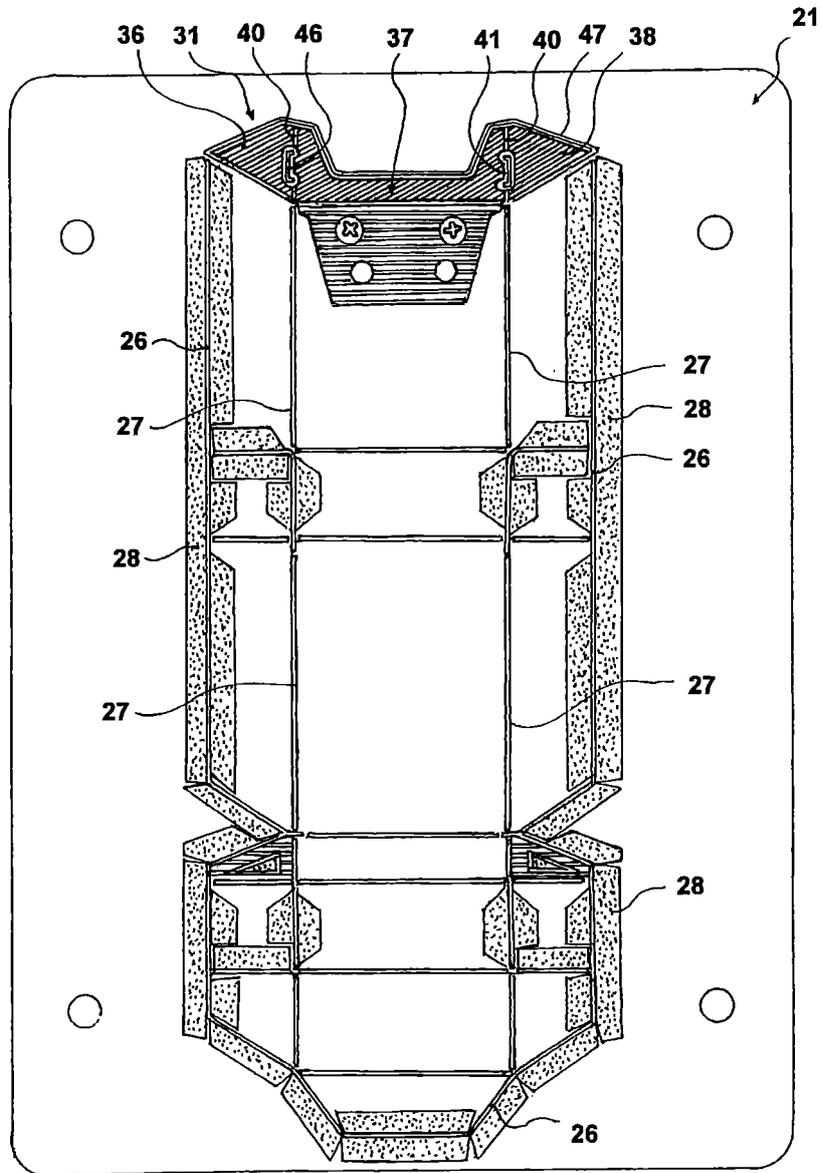


FIG. 11

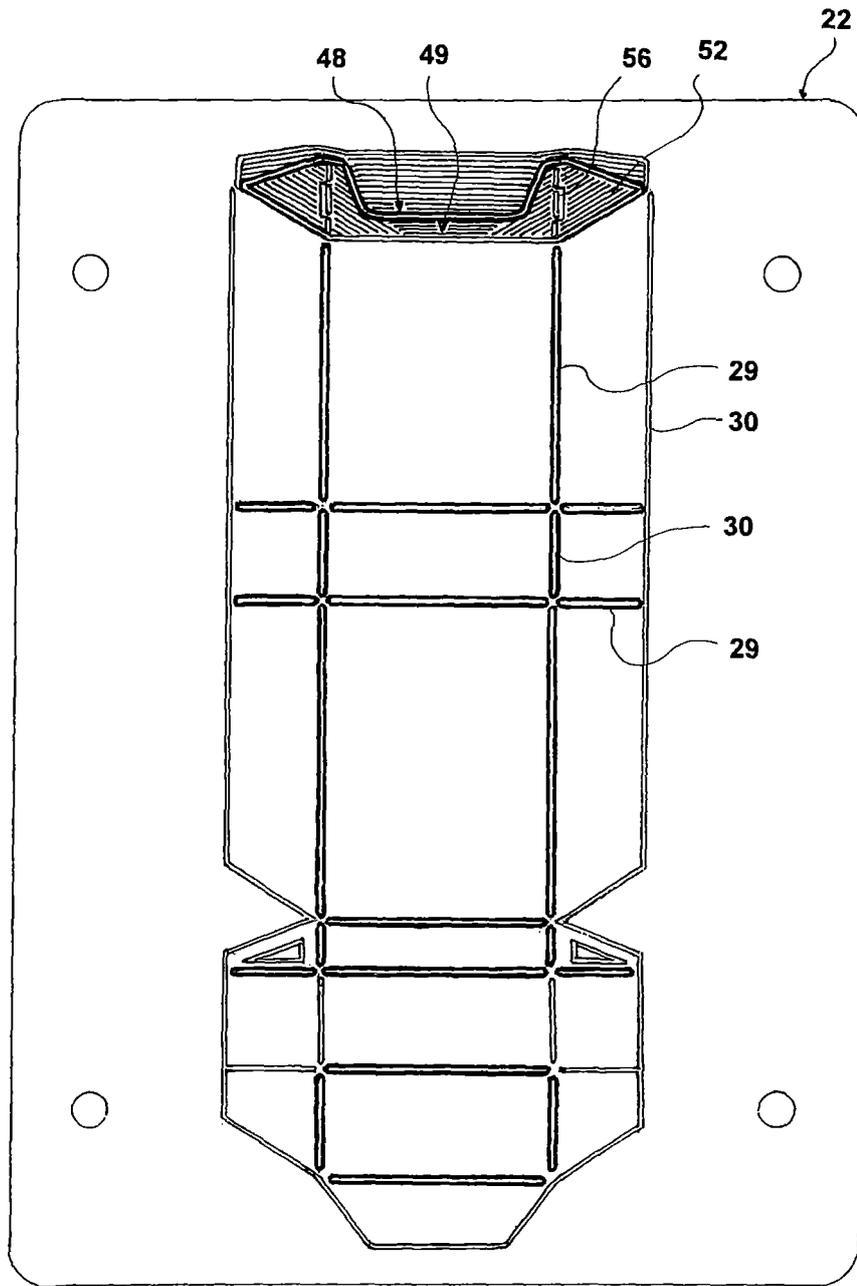


FIG. 12

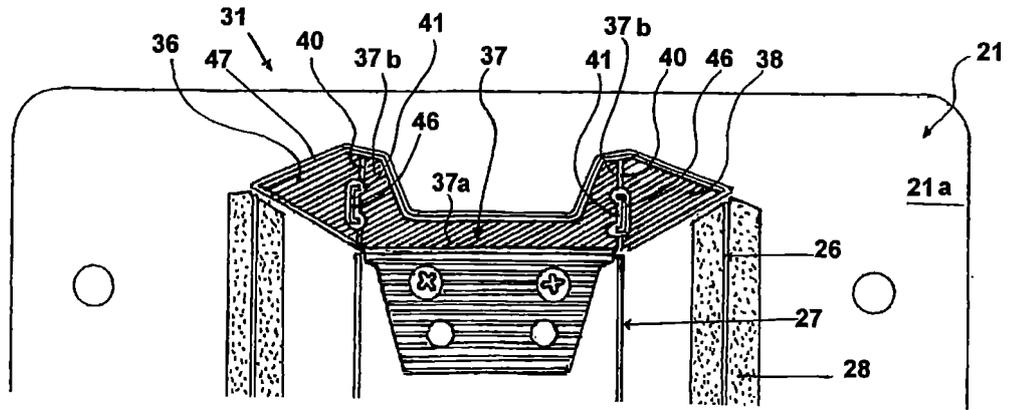


FIG. 13

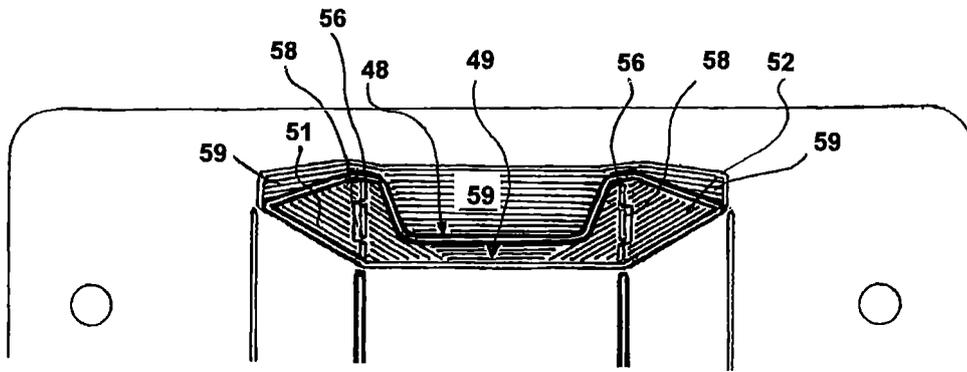


FIG. 14

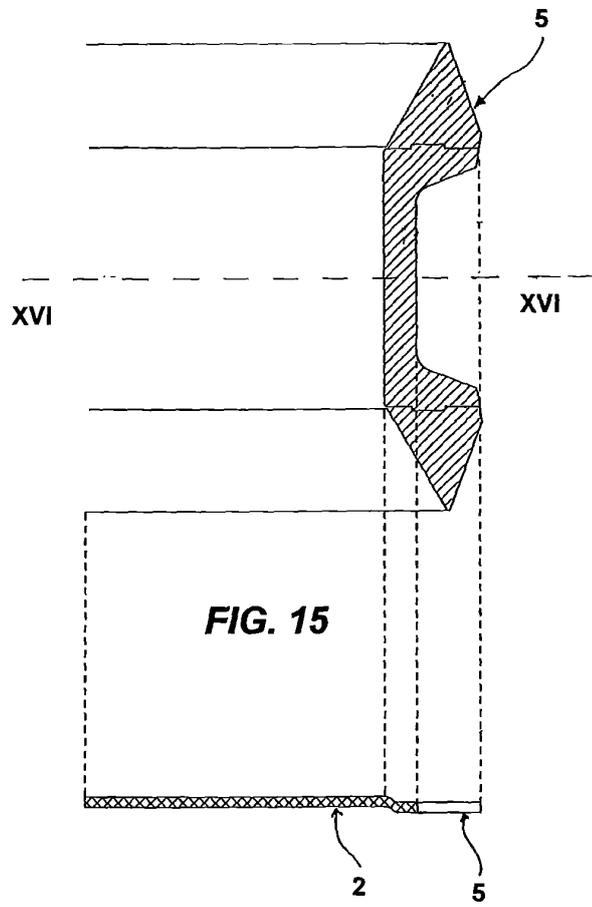
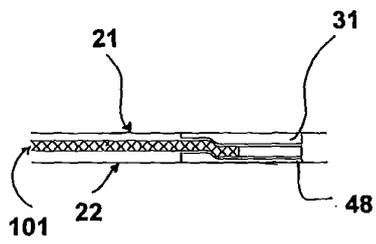


FIG. 16





EUROPEAN SEARCH REPORT

Application Number
EP 12 16 0151

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 4 392 338 A (FOX AUSTIN L [GB]) 12 July 1983 (1983-07-12) * column 2, line 44 - column 5, line 28; figures 1-14 *	1-17	INV. B65D85/10 B65B61/02 B65B61/06
X	WO 00/05151 A1 (IMP TOBACCO CO LTD [GB]; LUTON COLIN DENNIS [GB]; TAYLOR RODNEY GEORGE) 3 February 2000 (2000-02-03) * page 4, line 4 - page 5, line 14; figures 1-10 *	1-3, 5-11,14, 15,17	
X	US 6 199 688 B1 (FOCKE HEINZ [DE]) 13 March 2001 (2001-03-13) * column 3, line 19 - column 4, line 45; figures 1-10 *	1-3,5, 8-11,14, 15,17	
X	WO 2008/029286 A2 (PHILIP MORRIS PROD [CH]) 13 March 2008 (2008-03-13) * page 3, line 35 - page 4, line 20; figures 1-6 *	1-11, 14-17	
			TECHNICAL FIELDS SEARCHED (IPC)
			B65D B65B
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 16 August 2012	Examiner Grondin, David
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	

1
EPO FORM 1503 03/82 (P04/C01)

ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.

EP 12 16 0151

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.

16-08-2012

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 4392338	A	12-07-1983	NONE	

WO 0005151	A1	03-02-2000	AT 228090 T	15-12-2002
			AT 375313 T	15-10-2007
			AU 759512 B2	17-04-2003
			AU 4634099 A	14-02-2000
			BR 9912287 A	17-04-2001
			CA 2338135 A1	03-02-2000
			CN 1311747 A	05-09-2001
			CN 1429750 A	16-07-2003
			DE 69904052 D1	02-01-2003
			DE 69904052 T2	09-10-2003
			DE 69937312 T2	10-07-2008
			DK 1098825 T3	17-03-2003
			EP 1098825 A1	16-05-2001
			EP 1174364 A1	23-01-2002
			ES 2186372 T3	01-05-2003
			ES 2292517 T3	16-03-2008
			HK 1038726 A1	05-03-2004
			HU 0103391 A2	28-02-2002
			IL 140985 A	25-07-2004
			JP 3602444 B2	15-12-2004
			JP 2002521280 A	16-07-2002
			MX PA01000686 A	17-04-2002
			NO 20010325 A	19-01-2001
			NZ 509443 A	31-10-2003
			PL 345595 A1	17-12-2001
			PT 1098825 E	31-03-2003
			PT 1174364 E	29-11-2007
			RU 2218295 C2	10-12-2003
			RU 2003111215 A	10-01-2005
			SG 103909 A1	26-05-2004
			SI 1098825 T1	30-04-2003
			TR 200100170 T2	21-06-2001
			TR 200202613 T2	21-01-2003
			UA 78494 C2	10-04-2007
			US 6474469 B1	05-11-2002
			US 2003034255 A1	20-02-2003
			WO 0005151 A1	03-02-2000
			ZA 200100562 A	25-09-2002
			ZA 200204146 A	23-09-2003

US 6199688	B1	13-03-2001	BR 9712810 A	23-11-1999
			CN 1229391 A	22-09-1999
			DE 19636365 A1	09-04-1998
			EP 0925228 A1	30-06-1999

EPO FORM P0459

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

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 12 16 0151

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.

16-08-2012

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
		ES 2168626 T3	16-06-2002
		ID 21511 A	17-06-1999
		JP 4101296 B2	18-06-2008
		JP 2000517275 A	26-12-2000
		RU 2218297 C2	10-12-2003
		US 6199688 B1	13-03-2001
		WO 9809875 A1	12-03-1998

WO 2008029286 A2	13-03-2008	US 2008060954 A1	13-03-2008
		WO 2008029286 A2	13-03-2008
