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(54) **A pack for tobacco products**

Verpackung für Tabakprodukte

Emballage pour produits de tabac

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Description

[0001] The present invention relates to a pack for tobacco products.

[0002] More particularly, the present invention relates to a cigarette packet consisting in two or more layers or skins of wrapping material.

[0003] The prior art embraces packets, generally of parallelepiped appearance, comprising a box body designed to contain tobacco products, and a lid that can be distanced from the body, for example by turning on a hinge, in such a way as will allow the tobacco products to be taken from inside the body.

[0004] Such packets generally include an additional wrapping element, commonly referred to as a frame, located inside the box body and projecting beyond the open top of the box body toward the lid.

[0005] The frame serves as a guiding and a locating element for the lid in its movements, that is to say, enabling correct alignment of the lid with the box body when the packet is in the closed configuration, and at the same time presenting a slight resistance to the free movement of the lid so as to preclude the possibility of its opening accidentally.

[0006] The frame is in general rigidly attached (glued, for example) to one or more inside walls of the box body.

[0007] Packs of this type used for tobacco products, and indeed almost all of the various types of packs in which manufacturers market their tobacco products, are fashioned from one or more blanks or leaves of paper material subjected to a succession of folding steps by a packaging machine.

[0008] Owing to requirements dictated by the design of the blanks or linked to the operations performed by the packaging machine, it can happen that the packet fashioned by bending and folding the blanks has to be completed by cutting or scoring the paper material.

[0009] Depending on the type of lid to be created, in effect, it can happen that a packet made from one or more diecut blanks will require one or more cuts to separate the lid from the box body, in order that the selfsame lid can open and close correctly.

[0010] By way of example, one pack designed to contain tobacco products that requires a cutting operation of the type outlined above, is the style of packet known as a shoulder box. A shoulder box is a packet presenting a squat parallelepiped appearance defined by two larger rectangular walls, providing the top and bottom, and four side walls arranged in two parallel pairs by which the two larger walls are interconnected.

[0011] The box body, designed to contain two layers of cigarettes arranged side by side with axes disposed transversely to the longitudinal axis of the packet, is delimited by the bottom wall and, laterally, by a first portion of the four side walls.

[0012] The lid, connected to the box body along a hinge line, is delimited by the top wall and laterally by a second portion of the four side walls.

[0013] Consequently, each side wall of the packet is divided into two portions permanently associated with the bottom and with the top of the packet, respectively.

[0014] Located internally of the box body, and fixed to its four side walls, is a stiffening frame that projects above the top edges of these same walls, providing a connection between the box body and the lid and serving to retain the lid in the closed position.

[0015] Following the completion of the folding steps performed on the blank, and often also on a printed adhesive label wrap affixed to the entire outer surface of the packet after the blank has been folded, the packet appears with the four side walls not yet divided into the aforementioned first and second portions, and therefore cannot be opened. Accordingly, a final cutting operation must be performed on the side walls, or at least on the printed adhesive label.

[0016] This final operation serves to separate the lid from the box body, so that the packet can be opened.

[0017] Self-evidently, the cutting operation has to be performed with extreme delicacy as only the outermost wrapping layer of the packet must be penetrated, leaving the frame inside completely untouched (the frame, as mentioned previously, is glued to one or more internal surfaces of the box body).

[0018] Accordingly, the object of the present invention is to provide a pack for tobacco products that will be unaffected by the drawback associated with the prior art mentioned above.

[0019] One object of the invention, in particular, is to provide a pack for tobacco products embodied in such a way that the cutting operation can be accomplished with ease.

[0020] The stated objects are substantially realized in a pack for tobacco products according to the present invention, of which the characteristics are as recited in one or more of the appended claims.

[0021] The invention will now be described in detail, by way of example, with the aid of the accompanying drawings, in which:

- figure 1 shows a perspective view of a pack for tobacco products embodied in accordance with the present invention;
- figure 2 shows a sectional view of the pack, taken on II-II in figure 1;
- figure 3 illustrates a step in the manufacture of a pack as in figure 1;
- figure 4 is a sectional view as in figure 2, illustrating the step of figure 3.

[0022] Referring to figure 1, numeral 1 denotes a pack for tobacco products, in its entirety, embodied according to the present invention; in particular, the pack illustrated is of the shoulder box type.

[0023] Importantly, the shoulder box explicitly described hereinafter and illustrated in the accompanying drawings is just one of many packs for tobacco products,

manufactured in an infinite variety of styles, to which the present invention is similarly applicable.

[0024] In practice, the invention is applicable to any kind of pack for tobacco products that comprises a box body containing a plurality of the tobacco products, a lid rotatable relative to the box body between a position in which the pack is closed and a position in which the pack is open, and a stiffening frame, anchored internally to at least one wall of the box body and projecting toward the lid (as will be made clear in the course of the description).

[0025] In the context of the present invention, the frame consists in a panel or a surround preferably of paper material, which projects beyond the open top of the box body toward the lid.

[0026] The frame serves as a guiding and a locating element for the movable hinged lid, designed to maintain a correct alignment of the lid with the box body when the packet is in the closed configuration, and at the same time presenting a slight impediment to the free movement of the lid so as to preclude the possibility of its opening accidentally.

[0027] Referring to the particular example illustrated in the accompanying drawings, the pack disclosed comprises (as already outlined above) a box body 2 containing a plurality of tobacco products (not illustrated), a lid 3 rotatable relative to the box body 2 between a position in which the pack is closed and a position in which the pack is open (shown in figure 1), also a stiffening frame 4, anchored internally to at least one wall 5 of the box body 2 and projecting toward the lid 3.

[0028] The frame 4 is fashioned with a groove 6 having a convex profile directed toward the inside of the box body 2. The groove 6 is positioned to coincide with a line 7 of separation between the lid 3 and the box body 2.

[0029] Adopting this solution, the cut by which the lid 3 is separated from the box body 2, that is to say the creation of a line 7 of separation between the lid 3 and the box body 2, can be accomplished simply and swiftly.

[0030] In effect, the knife or rotating blade employed to make the cut can penetrate even deeper than the thickness of the wall that needs to be divided, given that with a groove 6 formed in the frame 4, the portion of the frame 4 placed in alignment with the line 7 of separation is distanced from the wall that needs to be cut in order to separate the lid 3 from the box body 2 (see figure 4).

[0031] In other words, the groove 6 establishes a space between the frame 4 and the wall 5, in such a way that the knife or rotating blade is able to cut through the wall 5 without touching the frame 4.

[0032] The groove 6 is fashioned on the walls of the frame associated with those walls of the box body 2 that will need ultimately to be cut for the purpose of creating the line 7 of separation.

[0033] The groove is produced preferably by embossing a portion of a blank (not illustrated) destined to provide the frame 4, in such a way as to induce plastic deformation; likewise preferably, the embossing step will be performed by the packaging machine on which the box 1 is manufactured.

[0034] In particular (see figure 2), the groove 6 presents a first portion 6a extending from a first portion 4a of the frame 4 occupying the same plane as the wall 5 of the box body 2. This first portion 6a of the groove 6 is angled toward the inside of the body 2, relative to the first portion 4a of the frame 4.

[0035] The groove 6 also comprises a second portion 6b extending away from the first portion 6a (on the side farthest from the first portion 4a of the frame 4) and lying at a given distance from the wall 5 of the box body 2. The second portion 6b of the groove 6 extends preferably parallel to the first portion 4a of the frame 4.

[0036] It will be observed that the second portion 6b of the groove 6 occupies a position straddling the box body 2 and the lid 3.

[0037] In other words, when the box 1 presents the closed configuration, the second portion 6b of the groove 6 is positioned facing both the body 2 and the lid 3.

[0038] The groove 6 further comprises a third portion, denoted 6c, extending from the second portion 6b and inclined relative to the first portion 4a of the frame 4, in such a manner that the groove 6 presents a cross section substantially of "C" outline.(as illustrated in Figures 2 and 4).

[0039] The concave face of the "C" section, that is to say the reverse side of the aforementioned convex profile, is positioned facing the wall 5 of the box body 2.

[0040] The first portion 4a of the frame 4 is coplanar with the relative wall 5 and anchored, preferably glued, to the face of the wall directed toward the inside of the box body 2.

[0041] The frame 4 presents a second portion 4b extending from the groove 6. More exactly, the second portion 4b of the frame 4 extends from the third portion 6c of the groove 6, occupying the same plane as the first portion 4a, and is placed in such a way as to engage the lid 3.

[0042] In the event that the groove 6 is incorporated into more than one wall of the frame 4 (as in the example of the accompanying drawings), the three portions 6a, 6b and 6c described above will be presented by each individual wall of the frame 4 in which the groove 6 is embossed.

[0043] The walls of the frame 4 provided with the groove 6 are the walls anchored respectively to the walls 5 of the box body 2 that will undergo the cut serving to separate the selfsame box body from the lid.

[0044] Accordingly, if the cut is required only on one wall of the box body, the groove 6 will be incorporated into only one wall of the frame, irrespective of the number of walls effectively making up the frame 4.

[0045] With reference in particular to the embodiment illustrated in the drawings attached, the groove 6 is formed on three adjoining walls of the frame 4, given that the cut needs to be made on three walls of the box body 2.

[0046] In the example illustrated, the box 1 is of shallow parallelepiped appearance, presenting two larger rectan-

gular walls 10 and 11 providing a bottom 10 and a top 11, and four side walls 5, 8, 9 and 12 arranged in two parallel pairs, by which the two larger walls 10 and 11 are interconnected.

[0047] The box body 2, designed to contain two layers of cigarettes (not illustrated) arranged side by side with axes disposed transversely to the longitudinal axis of the pack, is delimited by the bottom wall 10 and, laterally, by a first portion of the four side walls 5, 8, 9 and 12 .

[0048] The lid 3, connected to the box body 2 along a hinge line, is delimited by the top wall 11 and laterally by a second portion of the selfsame four side walls 5, 8, 9 and 12.

[0049] Each side wall 5, 8, 9 and 12 of the box 1 is divided into two portions permanently associated with the bottom 10 and with the top 11, respectively.

[0050] The two portions of the side walls are created by cutting the erected walls 5, 8, 9 and 12 along the aforementioned line 7 of separation.

[0051] In particular, a pack for tobacco products in accordance with the present invention is fashioned by a series of steps that include preparing at least one first and one second blank, then folding the first blank and the second blank in such a way as to generate the frame 4, and the body 2 with the lid 3, respectively.

[0052] It will be seen that the box body 2 and the lid 3 are fashioned in one piece, that is to say, the box body 2 and the lid 3 are folded initially from a single blank.

[0053] Having folded the blanks into a box, presenting the box body 2 and the lid 3 in a single piece with the frame 4 positioned inside, a cut is made along a line at which the lid 3 and the box body 2 are joined, to create the line 7 of separation between the two components (figure 4). The frame 4 is secured to the inside of the box body 2 during the steps by which the blanks are folded, in other words before the cut is made.

[0054] To advantage, the first blank (that of the frame 4) undergoes an embossing step to produce the groove 6 in the frame 4, positioned in such a way as to coincide with the line 7 of separation between the lid 3 and the box body 2.

[0055] The stated objects are realized in a pack according to the present invention.

[0056] In effect, the knife or rotating blade used to make the cut on the line along which the box body and the lid are joined is able to penetrate beyond the thickness of the wall connecting the two components, given that by fashioning the frame 4 with a groove 6, the portion of the frame 4 lying in alignment with the joint line (hence the line 7 of separation) is distanced from the wall in which the cut has to be made.

Claims

1. A pack for tobacco products comprising:

- a box body (2) containing a plurality of tobacco products;
- a lid (3) rotatable relative to the box body (2) between a position in which the pack is closed and a position in which the pack is open;
- a frame (4) anchored internally to at least one wall (5) of the box body (2) and extending toward the lid (3),

characterized
in that the frame (4) presents a groove (6) generating a convex profile directed toward the inside of the box body (2);
in that the groove (6) is positioned to coincide with a line (7) of separation between the lid (3) and the box body (2).

2. A pack as in claim 1, wherein the groove (6) is formed in at least one wall of the frame (4).

3. A pack as in claim 1 or 2, wherein the groove (6) is created by plastically deforming a portion of a blank destined to provide the frame (4).

4. A pack as in claims 1 to 3, wherein the groove (6) presents:

- a first portion (6a) extending from a first portion (4a) of the frame (4) coplanar with a wall (5) of the box body (2), the selfsame first portion (6a) of the groove (6) being angled toward the inside of the box body (2), relative to the first portion (4a) of the frame (4);
- a second portion (6b) extending from the first portion (6a) of the groove (6) and distanced from the wall (5) of the box body (2).

5. A pack as in claim 4, wherein the groove (6) further comprises a third portion (6c) extending from the second portion (6b) and inclined relative to the first portion (4a) of the frame (4), in such a manner that the groove (6) presents a cross-section substantially of "C" outline.

6. A pack as in claim 5, wherein the frame (4) presents a second portion (4b), extending from the third portion (6c) of the groove (6) and occupying the same plane as the first portion (4a) of the frame (4).

7. A pack as in claim 5 or 6, wherein the second portion (6b) of the groove (6) is disposed parallel to the first portion (4a) of the frame (4).

8. A pack as in claims 5 to 7, wherein the second portion (6b) of the groove (6) straddles the box body (2) and the lid (3) when the pack is in the closed configuration.

9. A pack as in claim 3, wherein the groove (6) is formed

by embossing a portion of a blank destined to provide the frame (4).

10. A method of manufacturing a pack for tobacco products including the steps of:

- preparing at least a first and a second blank;
- folding the first blank and the second blank to establish, respectively, a frame (4) and a box body (2) furnished with a lid (3);
- effecting a cut along a joint line between the lid (3) and the box body (2) to create a line (7) of separation between the lid (3) and the box body (2) and render the lid (3) capable of movement relative to the box body (2),

characterized
in that it includes the step of embossing the first blank to create a groove (6) in the frame (4) positioned to coincide with the line (7) of separation between the lid (3) and the box body (2),
the groove generating a convex profile directed towards the inside of the box body.

Patentansprüche

1. Verpackung für Tabakprodukte, umfassend:

- einen Schachtelkörper (2), enthaltend eine Vielzahl von Tabakprodukten;
- einen Deckel (3), der in Bezug auf den Schachtelkörper (2) zwischen einer Position, in der die Verpackung geschlossen ist und einer Position, in der die Verpackung geöffnet ist, schwenkbar ist;
- einen Rahmen (4), der innen mit mindestens einer Wand (5) des Schachtelkörpers (2) verbunden ist und sich in Richtung des Deckels (3) erstreckt,

dadurch gekennzeichnet, dass
der Rahmen (4) eine Rille (6) aufweist, die ein konvexes Profil entstehen lässt, das in Richtung der Innenseite des Schachtelkörpers (2) gerichtet ist;
die Rille (6) so positioniert ist, dass sie mit einer Linie (7) der Trennung zwischen dem Deckel (3) und dem Schachtelkörper (2) zusammenfällt.

2. Verpackung nach Anspruch 1, wobei die Rille (6) in mindestens einer Wand des Rahmens (4) gebildet ist.

3. Verpackung nach Anspruch 1 oder 2, wobei die Rille (6) durch plastisches Verformen eines Abschnitts eines Rohlings geschaffen wird, der zur Bereitstellung des Rahmens (4) bestimmt ist.

4. Verpackung nach den Ansprüchen 1 bis 3, wobei die Rille (6) Folgendes aufweist:

- einen ersten Abschnitt (6a), der sich von einem ersten Abschnitt (4a) des Rahmens (4) erstreckt, der koplanar mit einer Wand (5) des Schachtelkörpers (2) ist, wobei dieser erste Abschnitt (6a) der Rille (6) in Bezug auf den ersten Abschnitt (4a) des Rahmens (4) in Richtung der Innenseite des Schachtelkörpers (2) abgewinkelt ist;
- einen zweiten Abschnitt (6b), der sich vom ersten Abschnitt (6a) der Rille (6) erstreckt und von der Wand (5) des Schachtelkörpers (2) beabstandet ist.

5. Verpackung nach Anspruch 4, wobei die Rille (6) ferner einen dritten Abschnitt (6c) umfasst, der sich vom zweiten Abschnitt (6b) erstreckt und in Bezug auf den ersten Abschnitt (4a) des Rahmens (4) derart geneigt ist, dass die Rille (6) einen Querschnitt aufweist, der im Wesentlichen "C"-förmig ist.

6. Verpackung nach Anspruch 5, wobei der Rahmen (4) einen zweiten Abschnitt (4b) aufweist, der sich vom dritten Abschnitt (6c) der Rille (6) erstreckt und auf derselben Ebene wie der erste Abschnitt (4a) des Rahmens (4) liegt.

7. Verpackung nach Anspruch 5 oder 6, wobei der zweite Abschnitt (6b) der Rille (6) parallel zum ersten Abschnitt (4a) des Rahmens (4) angeordnet ist.

8. Verpackung nach den Ansprüchen 5 bis 7, wobei sich der zweite Abschnitt (6b) der Rille (6) zwischen dem Schachtelkörper (2) und dem Deckel (3) erstreckt, wenn die Verpackung in der geschlossenen Konfiguration ist.

9. Verpackung nach Anspruch 3, wobei die Rille (6) durch Prägen eines Abschnitts eines Rohlings gebildet wird, der zur Bereitstellung des Rahmens (4) bestimmt ist.

10. Verfahren zur Herstellung einer Verpackung für Tabakprodukte, einschließend die folgenden Schritte:

- Anfertigung mindestens eines ersten und eines zweiten Rohlings;
- Falten des ersten Rohlings und des zweiten Rohlings, um jeweils einen Rahmen (4) und einen mit einem Deckel (3) ausgestatteten Schachtelkörper (2) zu erzeugen;
- Ausführen eines Schnitts entlang einer Stoßlinie zwischen dem Deckel (3) und dem Schachtelkörper (2), um eine Linie (7) der Trennung zwischen dem Deckel (3) und dem Schachtelkörper (2) zu schaffen und den Deckel

(3) in Bezug auf den Schachtelkörper (2) beweglich zu machen,

dadurch gekennzeichnet, dass
es den Schritt des Prägens des ersten Rohlings einschließt, um eine Rille (6) im Rahmen (4) zu schaffen, die so positioniert ist, dass sie mit der Linie (7) der Trennung zwischen dem Deckel (3) und dem Schachtelkörper (2) zusammenfällt, wobei die Rille ein konvexes Profil entstehen lässt, das in Richtung der Innenseite des Schachtelkörpers gerichtet ist.

Revendications

1. Emballage pour produits de tabac comprenant:

- un corps en forme de boîte (2) contenant une pluralité de produits de tabac ;
- un couvercle (3) pouvant pivoter par rapport au corps en forme de boîte (2) entre une position dans laquelle l'emballage est fermé, et une position dans laquelle l'emballage est ouvert ;
- un cadre (4) fixé à l'intérieur à au moins une paroi (5) du corps en forme de boîte (2) et se développant en direction du couvercle (3),

caractérisé
en ce que le cadre (4) comporte une rainure (6) formant un profil convexe orienté vers l'intérieur du corps en forme de boîte (2) ;
en ce que la rainure (6) est placée de sorte à coïncider avec une ligne (7) de séparation entre le couvercle (3) et le corps en forme de boîte (2).

2. Emballage selon la revendication 1, dans lequel la rainure (6) est faite dans au moins une paroi du cadre (4).

3. Emballage selon les revendications 1 ou 2, dans lequel la rainure (6) est créée en déformant plastiquement une section d'une ébauche destinée à la fabrication du cadre (4).

4. Emballage selon les revendications 1 à 3, dans lequel la rainure (6) présente :

- une première section (6a) se développant à partir d'une première section (4a) du cadre (4) coplanaire avec une paroi (5) du corps en forme de boîte (2), ladite première section (6a) de la rainure (6) étant dirigée vers l'intérieur du corps en forme de boîte (2), par rapport à la première section (4a) du cadre (4) ;
- une deuxième section (6b) se développant à partir de la première section (6a) de la rainure (6) et espacée de la paroi (5) du corps en forme de boîte (2).

5. Emballage selon la revendication 4, dans lequel la rainure (6) comprend également une troisième section (6c) se développant à partir de la deuxième section (6b) et inclinée par rapport à la première section (4a) du cadre (4), de sorte à donner à la rainure (6) une section transversale essentiellement en forme de « C ».

6. Emballage selon la revendication 5, dans lequel le cadre (4) présente une deuxième section (4b), se développant à partir de la troisième section (6c) de la rainure (6) et occupant le même plan que la première section (4a) du cadre (4).

7. Emballage selon les revendications 5 ou 6, dans lequel la deuxième section (6b) de la rainure (6) est parallèle à la première section (4a) du cadre (4).

8. Emballage selon les revendications 5 à 7, dans lequel la deuxième section (6b) de la rainure (6) se développe entre le corps en forme de boîte (2) et le couvercle (3), quand l'emballage est en configuration fermée.

9. Emballage selon la revendication 3, dans lequel la rainure (6) est formée en repoussant une section d'une ébauche destinée à la fabrication du cadre (4).

10. Méthode de fabrication d'un emballage pour produits de tabac comprenant les étapes de :

- préparation d'au moins une première ébauche et une seconde ébauche ;
- pliage de la première ébauche et de la seconde ébauche pour former, respectivement, un cadre (4) et un corps en forme de boîte (2) muni d'un couvercle (3) ;
- découpage le long d'une ligne de raccord entre le couvercle (3) et le corps en forme de boîte (2) pour créer une ligne (7) de séparation entre le couvercle (3) et le corps en forme de boîte (2) et pour rendre le couvercle (3) mobile par rapport au corps en forme de boîte (2),

caractérisée
en ce qu'elle comprend l'étape de repousser la première ébauche pour former une rainure (6) dans le cadre (4), placée de sorte à coïncider avec la ligne (7) de séparation entre le couvercle (3) et le corps en forme de boîte (2), la rainure formant un profil convexe orienté vers l'intérieur du corps en forme de boîte.

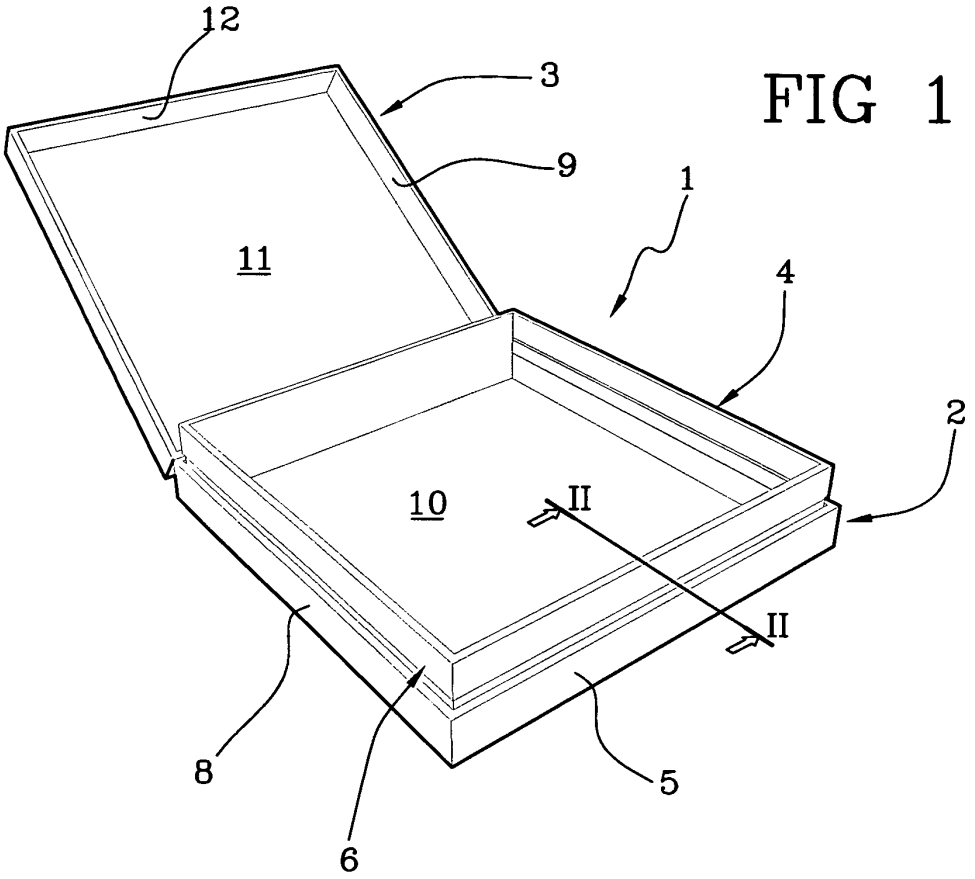


FIG 1

FIG 2

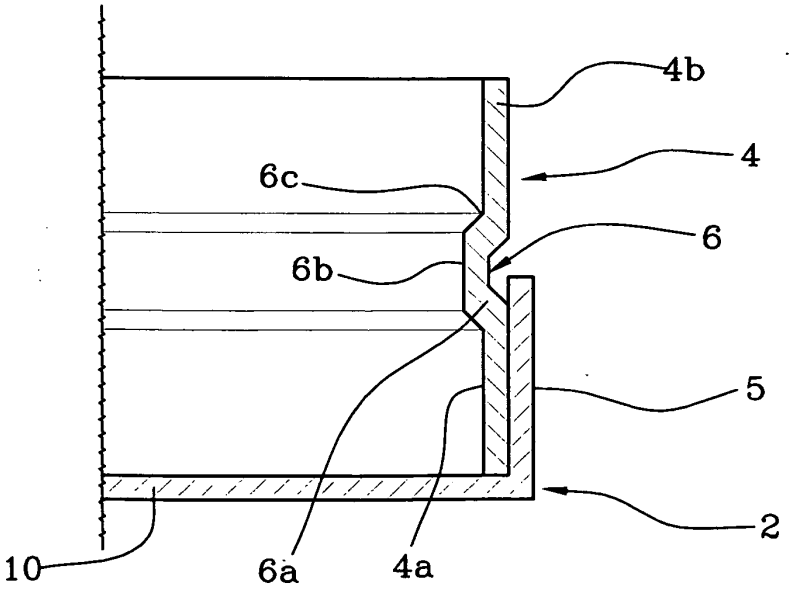


FIG 3

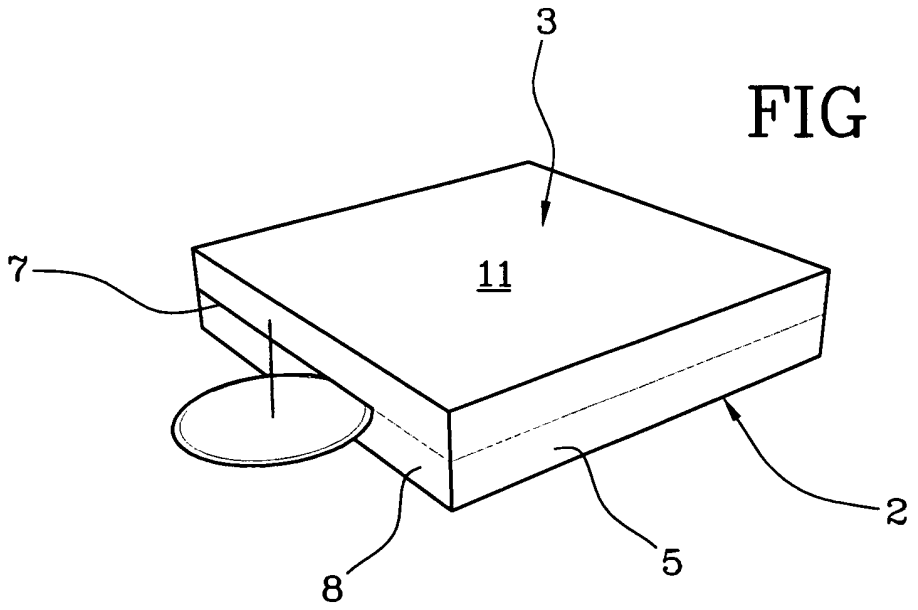


FIG 4

