



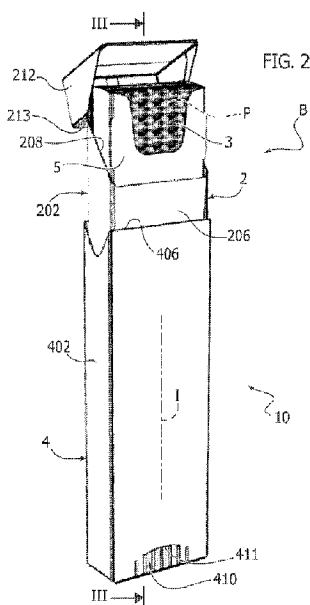
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(54) **Titre : PAQUET POUR ARTICLES A FUMER**
(54) **Title: A PACKET FOR SMOKING ARTICLES**



(57) **Abrégé/Abstract:**

A packet (10) for smoking articles is described comprising: - a group of smoking articles (P); - a container (2) comprising a containing portion (202) wherein the group of smoking articles (P) is received, wherein an empty space (214), devoid of smoking articles, is defined in the containing portion (202); - a covering body (4) of said container (2), comprising a tubular wall (402) extending along a reference axis (I), within which the container is inserted, with the possibility of moving along the reference axis (I), between a safety position (A), wherein the container (2) is in a retracted condition within the covering body (4) and access to the group of smoking articles (P) is thus impeded; and a position of use (B), wherein the container (2) is in an extracted condition with respect to the covering body (4), and it is possible to access the group of smoking articles (P). The packet also comprises a blocking system arranged to prevent movement of the container (2) from the safety position to the position of use (B) and to only enable this movement following an action exerted by the consumer on an unlocking element (410) formed on the tubular wall (402) of the covering body (4) and facing the empty space (414) devoid of smoking articles of the containing portion (202).



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Abstract:

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A packet for smoking articles

TEXT OF THE DESCRIPTION

5 The present invention relates to a packet for smoking articles. In particular, the present invention refers to a packet for smoking articles that provides a system to block accidental opening by children (called “child resistant”).

The document WO2020165764 discloses a packet for smoking articles that comprises:

- 10 - a group of smoking articles;
- a container comprising a containing portion wherein the group of smoking articles is housed;
- a covering body of the container, inside which the container is inserted with the possibility of moving between a safety position, in which access to the group of smoking articles is prevented, and a position of use, in
15 which it is instead possible to access the group of smoking articles.

Furthermore, this packet comprises a blocking system to prevent a movement of the container from the safety position to the position of use, and, conversely, to allow such movement only after the user has deactivated
20 the blocking system. This packet is also called “child resistant” due to the fact that it provides security against the possibility of children opening the packet.

In detail, the packet described in the document WO2020165764, as a blocking system, provides one or more hooking flaps which protrude from
25 the container and which engage in windows formed in the covering body. To open the packet, the smoker must press the hooking flaps of the container so as to disengage them from the windows of the covering body and to allow the container to slide with respect to the covering body. It is evident that the hooking flaps are clearly visible with respect to the shape of the packet.

30 This makes the packet blocking system less effective (i.e., the release mechanism is easier to understand even for a child) and the aesthetic appearance of the packet is altered by the presence of the aforesaid hooking flaps.

In order to overcome the aforesaid drawbacks, the document
35 EP2580134 discloses a packet that provides hooking flaps of the container

completely hidden by the covering body. In this packet, the covering body comprises a cut at the hooking flap that defines an unlocking element at the covering body. In order to open the packet, the smoker must press on the unlocking element of the covering body in order to act on the hooking flaps and allow the container to slide with respect to the covering body. Therefore, in order to open the packet, these hooking flaps require that pressure be exerted against the packet (and, therefore, against the group of smoking articles). Such pressure may damage the smoking articles contained in the packet.

10 In this context, the object of the present invention is to provide a packet for smoking articles that is improved with respect to the prior art, in particular that is capable of overcoming the drawbacks discussed above.

In particular, the packet of the "child resistant" type, subject of the present invention has the object of a blocking system which is effective, which does not affect the aesthetic characteristics of the packet and which, at the same time, ensures that the smoking articles are not damaged while releasing the "child resistant" system.

This object is achieved by means of a packet having the characteristics subject of claim 1.

20 The claims form an integral part of the disclosure provided here.

Further characteristics and advantages of the invention will become evident from the description that follows with reference to the attached drawings, provided purely by way of non-limiting example, wherein:

- Figure 1 represents an example of the packet subject of the present invention according to an axonometric view, wherein the packet is in a safety position;

- Figure 2 represents the packet of Figure 1 in a position of use;

- Figures from 3A to 3C show, in a cross-sectional view along the plane III of Figure 1, respective successive steps of the operation of the packet of Figure 1;

- Figure 4 represents a cross-sectional view along the plane III of Figure 1, wherein the blocking element engages the abutment;

- Figure 5 represents a blank for making the container of the packet of Figure 1;

35 - Figure 6 represents a blank for making the covering body of the

packet of Figure 1;

- Figure 7 represents a blank for making the container of a packet subject of the present invention, in an alternative embodiment to that of Figure 1;

5 - Figure 8 represents a blank for making the covering body of a packet subject of the present invention, in an alternative embodiment to that of Figure 1;

- Figure 9 represents a blank for making the collar of the packet of Figure 1.

10 In the following description various specific details are illustrated aimed at a thorough understanding of the embodiments. The embodiments may be implemented without one or more of the specific details, or with other methods, components, materials, etc. In other cases, known structures, materials or operations are not shown or described in detail to avoid
15 obscuring various aspects of the embodiments.

The references used here are only for convenience and do not, therefore, define the field of protection or the scope of the embodiments.

With reference to Figures 1 to 4, a packet is illustrated - indicated overall with the reference number 10 - which comprises a container 2, containing therein a group of smoking articles P, and a covering body 4,
20 within which the container 2 is inserted with the possibility of moving between a safety position A (illustrated in Figure 1) and a position of use B (illustrated in Figure 2).

In accordance with a particular embodiment, the group of smoking
25 articles P may be wrapped in a wrapper 3. This wrapper 3 may be made starting from a sheet of wrapping material (for example, foil), which is folded around the group of smoking articles, for example, in a so-called "bar of soap" configuration. Alternatively, the wrapper 3 may be made starting from a sheet of heat-sealable material (for example, a plastic material or a paper
30 material covered with a plastic material), which is wrapped around the group of smoking articles P (possibly according to the flow-pack method) and welded. In this embodiment, the wrapper 3 may comprise a closing label removably fixed to the sheet of heat-sealable material to open and close the wrapper 3 and allow/prevent access to the group of smoking articles P. This
35 closing label can be manually opened, for example, by means of a grip flap,

or automatically opened (that is, it opens by moving a possible lid hinged to the container).

In one or more preferred embodiments, such as the one illustrated, the container 2 comprises a containing portion 202, in turn comprising a
5 bottom 204 and a tubular side wall 206, raising from the bottom 204.

The group of smoking articles P are housed inside the containing portion 202 and are accessible from the outside through an opening 208 delimited by the upper edge of the side wall 206.

The packet 10 may also comprise a collar 5 raising from the opening
10 208 of the side wall 206 of the containing portion 202, and which is fixed to the containing portion 202. This collar 5 partially covers the lateral part of the group of smoking articles P which protrudes from the opening 208. With reference to Figure 9, a blank is illustrated (in paper material) from which the collar 5 is obtained by folding.

15 The smoking articles P may be extracted from the containing portion 202 through the opening 208.

The container 2 also comprises a lid 212 which is connected to the containing portion 202 along a hinge line 213, and is movable, in rotation, with respect to the containing portion 202, between a closed position, in
20 which the lid 212 closes the opening 208, preventing access to the smoking articles, and an open position (visible in Figure 2), in which access to the group of smoking articles P is allowed through the opening 208.

With reference in particular to Figures 3A-3C and 4, the container 2 comprises the containing portion (wherein the group of smoking articles P is
25 housed), in which an empty space 214 devoid of smoking articles is defined. In other words, the group of smoking articles P is arranged at a given distance from the bottom 204 of the containing portion 202 so as to define said empty space 214 devoid of smoking articles, in a position below the group of smoking articles P.

30 The advantage of the presence of said empty space 214 will become clearer later when the “child resistant” blocking system of the packet 10 is described.

In one or more preferred embodiments, the container 2 may comprise a support wall (not illustrated) to support the group of smoking articles P at
35 the aforesaid distance from the bottom 204. This support wall is parallel to

the bottom 204 of the containing portion 202, and is positioned to support the group of smoking articles P at said distance from the bottom 204. In this case, the empty space 214 is obtained between the bottom 204 and the aforesaid support wall.

5 In one or more alternative embodiments, between the wrapper 3 that wraps the group of smoking articles P and the side wall 206 of the containing portion 202 and/or the bottom wall 204, it is possible to provide a fastening by means of glue capable of supporting the group of smoking articles P at the aforesaid distance from the bottom 204 (in this case, for example, the support
10 wall is not essential).

In one or more preferred embodiments, such as the one illustrated, the covering body 4 comprises a tubular wall 402 extending along a reference axis I, which is closed below by a bottom 404, while above it instead an opening 406 is defined, through which the container 2 is received inside the
15 covering body 4.

The container 2 is received inside the covering body 4 (in particular according to a telescopic coupling) so as to be movable along the reference axis I, between the aforesaid safety position A (illustrated in Figure 1), in which the container 2 is in a retracted condition in the covering body 4, and
20 the aforesaid position of use B (illustrated in Figure 2), in which the container 2 is in an extracted condition with respect to the covering body 4.

In one or more preferred embodiments, such as the one illustrated, the cross-section of the tubular wall 402 has a shape corresponding to the cross-section of the side wall 206, and slightly smaller dimensions, so that
25 the tubular wall 402 can operate as a sliding guide for the movement of the container 2 along the reference axis I.

In the safety position A, the container 2 is covered by the covering body 4 so that this constitutes an impediment to moving the lid 212 of the container 2 from the closed position to the open position.

30 In one or more preferred embodiments, such as the one illustrated, the tubular wall 402 of the covering body 4 has a height greater than or equal to the height of the container 2 so that, in the safety position A, the container 2 is completely contained within the covering body 4 or, in any case, the upper surface of the cover 212 is substantially flush with the upper edge of
35 the tubular wall 402.

In accordance with a variant embodiment, the height of the tubular wall 402 may also be lower than the height of the container 2 provided that said tubular wall 402 covers, in the safety position A, the hinge line 213 so as to prevent movement from the closed position to the open position of the lid.

The packet 10 subject of the present invention also comprises a blocking system arranged to prevent a movement of the container 2 from the safety position A to the position of use B, and to only enable this movement following an action exerted by the consumer on an unlocking element 410 formed on the tubular wall 402 of the covering body 4.

In one or more preferred embodiments, such as the one illustrated (see Figures 3A to 3C), the containing portion 202 of the container 2 comprises a blocking element 220, which is positioned at the empty space 214 of the containing portion 202. In particular, a cut is made on the side wall 206 of the containing portion 202 which defines a protruding edge 220 (outwards) of the containing portion 202, and which defines said blocking element 220. In one or more preferred embodiments, such as the one illustrated, the protruding edge 220 is formed on a front or rear side of the side wall 206 and preferably close to the bottom 204.

Furthermore, the blocking element 220 is positioned at the empty space 214 and laterally delimits it at least partially.

In one or more preferred embodiments, such as the one illustrated, the side wall 206 comprises a slot 218 (or rather, a missing portion), which partially surrounds the blocking element 220 to allow greater freedom of movement to the blocking element 220 for the reasons which will become apparent hereinafter.

Furthermore, the packet 10 comprises an abutment 412 arranged on an inner side of the tubular wall 402 of the covering body 4.

With particular reference to Figure 4, if the smoker tries to lift the container 2 without moving the blocking element 220 away from the abutment 412 (i.e., without deactivating the "child resistant" blocking mechanism), the blocking element 220 engages the abutment 412 and the movement of the container 2 from the safety position A to the use position B is prevented.

In detail, the abutment 412 is arranged on an inner side of the tubular

wall 402 of the covering body 4 in a position facing the protruding edge 220 when the container 2 is in the safety position A. This abutment 412 is engaged by the blocking element 220 to prevent the container 2 from moving from the safety position A to the position of use B (Figure 4).

5 With reference to the figures, the unlocking element 410 is in a position facing the blocking element 220 when the container 2 is in the safety position A. Furthermore, the unlocking element 410 is movable to push the blocking element 220 inside the empty space 214 so as to disengage the blocking element 220 from the abutment 412, and to allow the container 2 to
10 move from the safety position A to the position of use B.

 Advantageously, when the smoker presses the unlocking element 410 (and, therefore, moves the blocking element 220 accordingly) he presses at the empty space 214, thus avoiding the possibility of damaging the group of smoking articles P due to the pressure exercised. Furthermore, the fact that
15 the blocking element 220 is not visible from the outside makes the blocking system effective (since the operation is difficult to understand by a child) and of minimal aesthetic impact.

 The unlocking element 410 is positioned on the covering body 4 to find itself directly facing the blocking element 220 in engagement with the
20 abutment 412.

 In one or more preferred embodiments, such as the one illustrated, the covering body 4 comprises an inner wall 414 positioned against the tubular wall 402, which defines an edge 412 transversal to the reference axis I defining the aforesaid abutment.

25 In the safety position A, the blocking element 220 is arranged aligned (possibly arranged in contact) with the edge 412 of the blocking element 410: therefore, the movement is prevented of the container 2 along the reference axis I from the safety position A to the position of use B (Figure 4).

 Through a pressure action exerted on the unlocking element 410 (see
30 Figures 3B and 3C), it is possible to make the blocking element 220 re-enter inside the empty space 214 and, therefore, disengage the blocking element 220 from the edge 412 of the unlocking element 410 (i.e., the locking element 220 is no longer aligned with the edge 412). In this way, the movement of the container 2 from the safety position A to the position of use B is allowed.
35 Due to the effect of the pressure exerted by the smoker, the blocking element

220 is pushed inside the empty space 214, thus without damaging the smoking articles housed in the container 2.

In one or more preferred embodiments, the unlocking element 410 is defined by a region yielding towards the inside of the tubular wall 402, identified by one or more cuts 411 (said one or more cuts 411 may have different profiles such as, for example, those illustrated in 2 or 8) made on the same tubular wall 402. The unlocking element 410 thus created is perfectly integrated with the containing body 4. Advantageously, the blocking element 220 is not visible from the outside of the packet 10, and the overall aesthetics of the packet 10 is not altered.

In one or more preferred embodiments, such as the one illustrated (see Figure 3D), on the aforesaid inner side of the tubular wall 402 of the covering body 4, a stroke-end element 416 is obtained, arranged to engage the blocking element 220 of the container 2 when this reaches the position of use B, so as to stop the movement of the container 2 in this position of use B.

In particular, in one or more preferred embodiments, such as the one illustrated, the same inner wall 414 (which provides the abutment 412) comprises an opening 418 delimited by an edge 416, transversal to the reference axis I and spaced apart from the abutment 412. The edge 416 defines the aforesaid stroke-end element.

In accordance with a particular embodiment, the packet 10 may comprise a print and/or a sticker at the unlocking element 410 to indicate to the smoker where to press in order to allow the sliding of the container 2.

Figures 5 and 6 represent, respectively, a blank 100 for making the container 2 and a blank 110 for making the covering body 4.

With reference to Figure 5, the blank 100 comprises a perimeter edge 102 and folding lines 104 to form the container 2 through a packaging process in which the blank is folded along the folding lines 104 and respective parts placed in mutual contact are fixed by means of glue. The general configuration of the blank 100 may correspond to that of a blank for making a normal packet of cigarettes except that the panels 100a and 100b intended to form the rear wall of the container 2 and the front wall of the container 2, respectively, are longer compared to the height of the group of smoking articles P that they will have to contain as they must also define the empty space 214.

In accordance with Figure 5, the panel 100b intended to form the front wall of the container 2 has the cut configured for defining the blocking element 220 and the opening 218. Alternatively, the cut configured for defining the blocking element 220 and the opening 218 could be obtained on the panel 100a intended to form the front wall of the container 2 (Figure 7). As another alternative, both the panel 100a and the panel 100b could have the cut configured for defining the locking element 220 and the opening 218; in this case, the smoker would have to unlock the two unlocking elements 220 at the same time to allow movement of the container 2 (embodiment not shown).

With reference to Figure 6, the blank 110 comprises a perimeter edge 112 and folding lines 114 to form the covering body 4 through a packaging process in which the blank 110 is folded along the folding lines 114 and respective parts placed in mutual contact are fixed by means of glue. In particular, the blank 110 has four panels 110^I, 110^{II}, 110^{III} and 110^{IV}, which are intended to form the tubular wall 402, and the flaps 110^V, 110^{VI}, 110^{VII}, 110^{VIII}, protruding from the panels 110^I – 110^{IV}, which are intended to create the bottom 404. Furthermore, the blank 110 has another panel 110^{IX} which is intended to define the inner wall 414 and is connected to the panels 110^I - 110^{IV} through a further panel 110^X. The panel 110^X is intended to define an intermediate wall - indicated with the reference number 421 (see Figures 3A - 3C) - interposed between the tubular wall 402 and the inner wall 414, in the assembled condition of the covering body 4. The wall 421 has the function of increasing the protrusion of the abutment 412 with respect to the tubular wall 402.

In accordance with Figure 8, a blank is illustrated intended to form the covering element 4 in the event that the unlocking element 220 is formed in the rear wall of the container 2. In this case, the cut 411 will be on the rear wall of the covering element 4.

Of course, without prejudice to the principle of the invention, the details of construction and the embodiments may vary, even significantly, with respect to those illustrated here, purely by way of non-limiting example, without departing from the scope of the invention as defined by the attached claims.

CLAIMS

1. A packet (10) for smoking articles, comprising:
- a group of smoking articles (P);
 - a container (2) comprising a containing portion (202) inside which
- 5 the group of smoking articles (P) is received, wherein an empty space (202), devoid of smoking articles, is defined in the containing portion;
- a covering body (4) of said container (2), comprising a tubular wall (402) extending along a reference axis (I), within which the container is inserted, with the possibility of moving along the reference axis (I), between
- 10 a safety position (A), in which the container (2) is in a retracted condition within the covering body (4) and access to the group of smoking articles (P) is thus impeded, and a position of use (B), in which the container (2) is in an extracted condition with respect to the covering body (4) and it is possible to access the group of smoking articles (P);
- 15 - wherein the containing portion (202) of the container (2) comprises a blocking element (220), which is positioned by the empty space (214) of the containing portion (202);
- an abutment (412) arranged on an inner side of the tubular wall (402) of the covering body (4), wherein the blocking element (220) engages
- 20 the abutment (412) for impeding a movement of the container (2) from the safety position (A) to the position of use (B);
- wherein an unlocking element (410) is defined on the tubular wall (402) of the covering body (4), which is in a position facing the blocking element (220) when the container (2) is in the safety position (A) and is
- 25 mobile for pushing the blocking element (220) into the empty space (214) so as to disengage the blocking element (220) from the abutment (412) and to allow the container (2) to move from the safety position (A) to the position of use (B).
2. A packet (10) according to claim 1, wherein:
- 30 the containing portion (202) of the container comprises an opening (208) for extracting the smoking articles;
- the container (2) comprises a lid (212), which is connected to the containing portion (202), and is mobile with respect to the latter between a closed position, in which the lid (212) closes the extraction opening (208) of
- 35 the containing portion (202), thus impeding access to the smoking articles,

and an open position, in which the access to the group of smoking articles (P) through the extraction opening (208) of the containing portion (202) is allowed;

5 in the safety position (A), the tubular wall (402) of the covering body (4) impedes the movement of the lid (212) from the closed position to the open position.

3. A packet (10) according to claim 2, wherein the lid (212) is connected to the containing portion (202) along a hinge line (213).

10 4. A packet (10) according to any one of the preceding claims, wherein the containing portion (202) comprises a bottom (204) and a tubular side wall (206) raising from the bottom (204); wherein the empty space (214) devoid of smoking articles of the container (2) is formed between the bottom (204) and the group of smoking articles (P).

15 5. A packet (10) according to claim 4, comprising a support wall which is parallel to the bottom (204) of the containing portion (202) and receives the group of smoking articles resting thereon; the empty space (214) devoid of smoking articles of the container (2) being formed between the bottom (204) of the containing portion (202) and the support wall.

20 6. A packet according to claims 4 or 5, wherein the blocking element (220) is defined on the side wall (206) of the containing portion (202), and is made by a cut defining an edge (220) protruding towards the outside of the containing portion itself (202).

25 7. A packet (10) according to claim 6, wherein the side wall (206) of the containing portion (202) comprises a missing portion (218) that partially surrounds the protruding edge (220).

8. A packet (10) according to any one of the preceding claims, wherein the blocking element (220) laterally delimits, at least partially, the empty space (214) devoid of smoking articles.

30 9. A packet (10) according to any one of the preceding claims, wherein the unlocking element (410) is defined by one or more cuts (411) that define a yielding region towards the inside of the tubular wall (402) of the covering body (4).

35 10. A packet (10) according to any one of the preceding claims, wherein on an inner side of the tubular wall (402) of the covering body (4) a stroke-end element is made (416), which is configured to engage the blocking

element (220) of the container (2) when this reaches the position of use (B), and to arrest in this position of use (B) the movement of the container (2) when this is moved from the safety position (A) to the position of use (B).

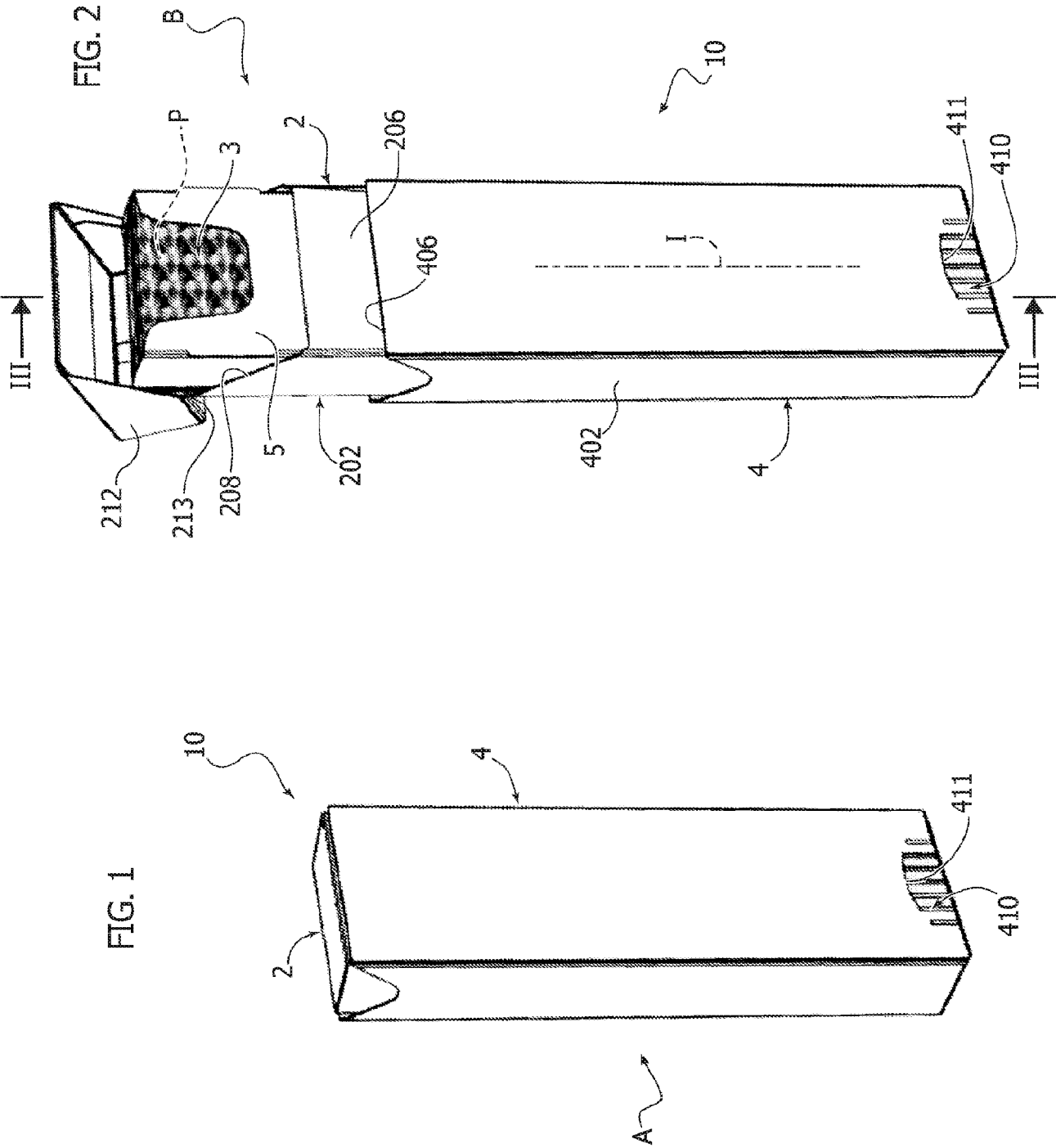
5 **11.** A packet (10) according to any one of the preceding claims, wherein the covering body (4) comprises an inner wall (414), which is positioned against the tubular wall (402) of the covering body (4), and defines at least one edge (412) transversal to the reference axis (I), said first edge defining the abutment (412).

10 **12.** A packet (10) according to claim 11 depending on claim 10, wherein the inner wall (414) comprises an opening (418) defining a second edge (416) transversal to the reference axis (I) and spaced apart from the first transversal edge (412), wherein the second transversal edge (416) defines the stroke-end element (416).

15 **13.** A packet (10) according to claim 11 or 12, wherein an intermediate wall (421) sets itself between the tubular wall (402) and the inner wall (414).

14. A blank (100) comprising a perimetral edge (102) and folding lines (104) for making a container of a packet according to any one of the preceding claims.

20 **15.** A blank (110) comprising a perimetral edge (112) and folding lines (114) for making a covering body (4) of a packet according to any one of the preceding claims.



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FIG. 4

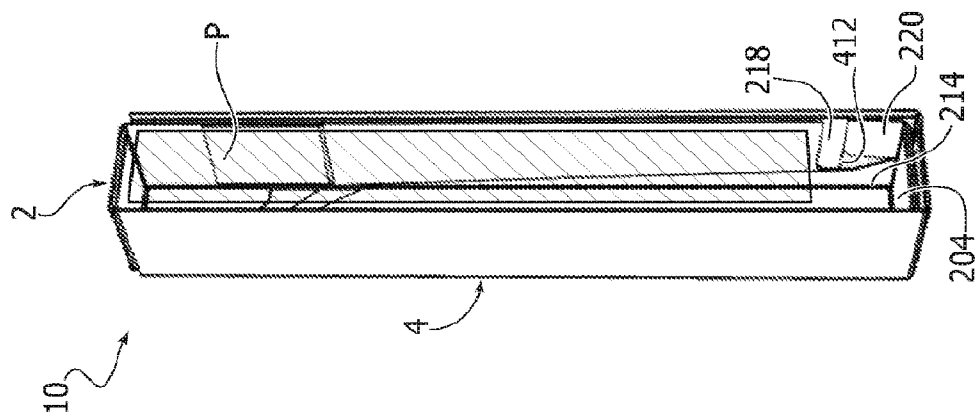


FIG. 3C

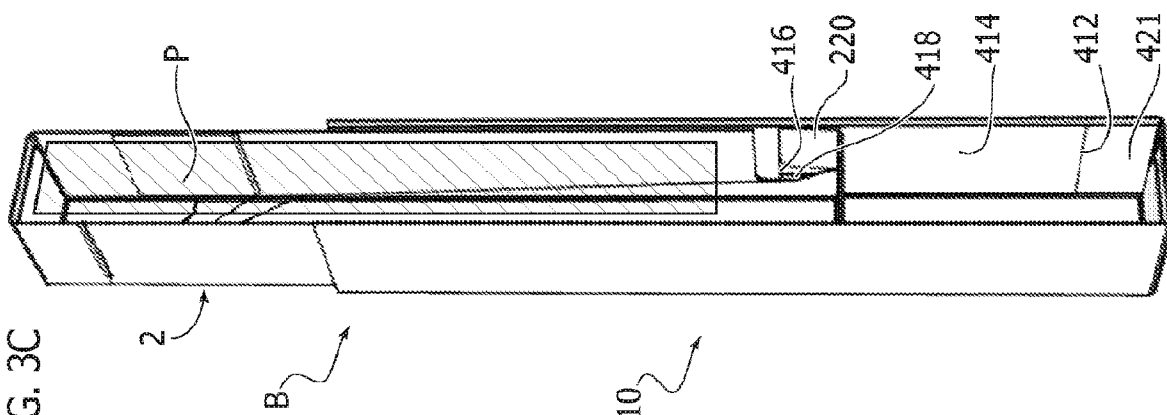


FIG. 3B

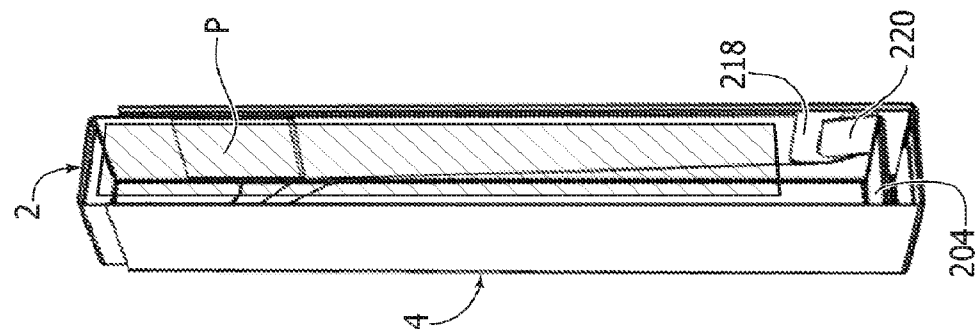
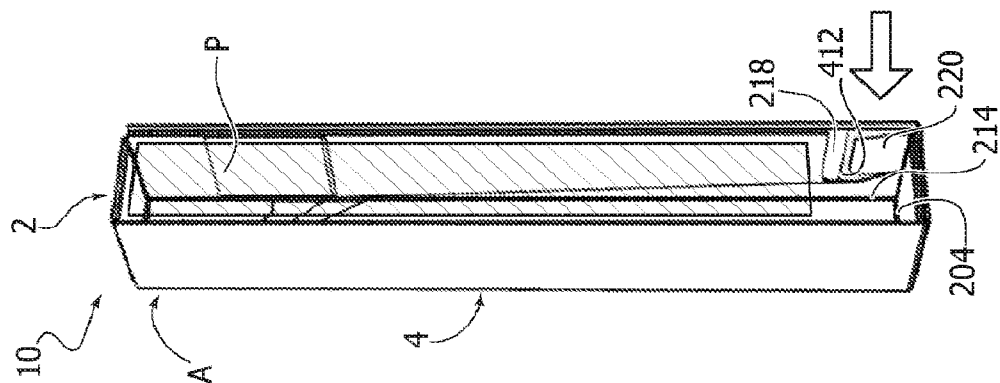


FIG. 3A



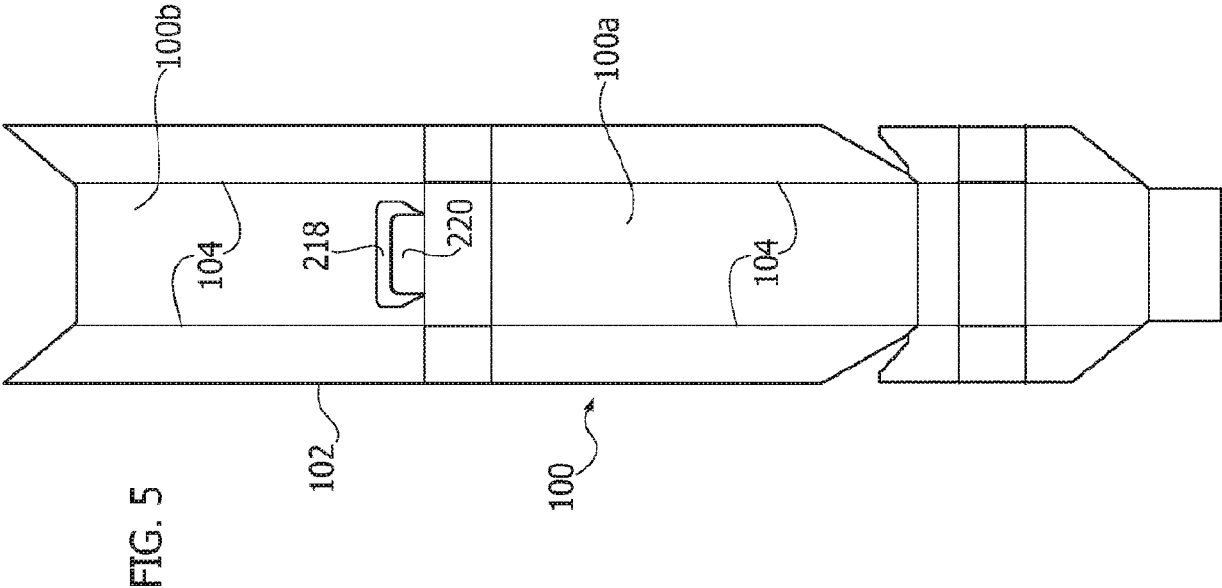


FIG. 6

