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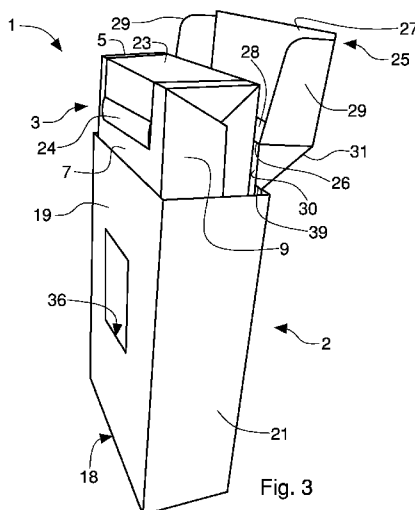
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(54) Title: SLIDE-OPEN PACKET OF SMOKE ARTICLES



(57) Abstract: Packet (1) of smoke articles having: a group (4) of smoke articles; a soft inner package (3) that encloses the group (4) of smoke articles and has at least one extraction opening (11) arranged at at least a top wall (5) of the inner package (3); a reclosable adhesive panel (23), which covers the extraction opening (11) and is superimposed on the top wall (5) of the inner package (3); a rigid outer package (2), which surrounds the inner package (3) on five sides leaving a wall of the inner package (3) free; wherein the inner package (3) is slidable in relation to the outer package (2) in order to be able to slide between a retracted position wherein the inner package (3) is completely inserted inside the outer package (2) and an extracted position wherein the inner package (3) is partially extracted and protrudes from the outer package (2), and wherein the packet (1) comprises a lid (25) which is integral with the inner package (3) and is rotatable around a hinge (26) to rotate between an open position and a closed position of an open top end of the outer package (2).



“SLIDE-OPEN PACKET OF SMOKE ARTICLES.”**TECHNICAL FIELD**

The present invention relates to a slide-open packet of smoke articles, namely having a sliding opening.

5 In the following description reference is made for the sake of brevity to a slide-open packet of cigarettes without the present invention being thereby narrowed in scope.

BACKGROUND ART

10 Rigid packets of cigarettes with hinged lid of traditional type comprise an inner package of metal foil that completely wraps a group di cigarettes and an outer package that encloses the inner package and is provided with a hinged lid. Such packets are easy and practical to use and offer good mechanical protection to the cigarettes contained therein.

In addition to the rigid packets of cigarettes with hinged lids disclosed above, slide-open rigid packets of cigarettes have been proposed comprising an outer package and an inner package inserted into the outer package in a partially separable manner. In other words, a
15 slide-open rigid packet of cigarettes with hinged lids comprises an inner package, which is suitable for receiving a group di cigarettes that is completely wrapped in an inner package of metal foil, housed inside an outer package so as to be able to slide with respect to the outer package between a closed configuration, wherein the inner package is inserted inside the outer package, and an open configuration, wherein the inner package is partially
20 extracted from the outer package.

Also rigid packets of cigarettes that are slidable and with hinged lids have been proposed, in which the outer package is provided with a hinged lid that is suitable for rotating between a closed position and an open position of an open top end of the outer package. The lid of the outer package has a connecting tab that at one end is integral with the lid and
25 at the opposite end is integral with the inner package to control ‘automatically’, i.e. without the user having to touch the lid, the rotation of the lid by sliding of the inner package, which receives a group di cigarettes completely wound in an inner package of metal foil, with respect to the outer package.

One embodiment of rigid packets of cigarettes that are slidable and have hinged lids is
30 disclosed in patent document EP2325093A1.

Rigid packets of cigarettes that are slidable and with hinged lids nevertheless have some drawbacks.

Firstly, rigid packets of cigarettes that are slidable and with hinged lids are not particularly

cheap because they require a significant quantity of packaging material to make the inner package and the outer package.

Further, rigid packets of cigarettes that are slidable and with hinged lids are not easy to produce because in order to be made they require a cigarette packaging machine of non-standard type, i.e. which is greatly modified with respect to the cigarette packaging machines that are normally used.

Slide-open rigid packets of cigarettes have also been proposed wherein the inner package is provided with a lid that is suitable for rotating between a closed position and an open position of an open top end of the inner package. Embodiments of such slide-open rigid packets of cigarettes are disclosed in patent documents WO98/49072A1 and US4586605A.

DESCRIPTION OF THE INVENTION

The object of the present invention is to provide a slide-open packet of smoke articles that is free of the drawbacks disclosed above, i.e. that is at the same time easy and cheap to make.

According to the present invention a slide-open packet of smoke articles is provided according to what is claimed in the attached claims.

BRIEF DESCRIPTION OF THE DRAWINGS

The present invention will now be disclosed with reference to the attached drawings, which illustrate some embodiments thereof by way of non-limiting examples, in which:

- figure 1 is a front perspective view and in a closed configuration of a slide-open packet of cigarettes made according to the present invention;
- figure 2 is a rear perspective view of the packet of cigarettes of figure 1 in a closed configuration;
- figure 3 is a front perspective view of the packet of cigarettes of figure 1 in a partially open configuration;
- figure 4 is a front perspective view of the inner package in an open configuration;
- figure 5 is a rear perspective view of the lid associated with the inner package in a closed position;
- figure 6 is a cross section of the lid associated with the inner package in a closed position;
- figure 7 is a rear perspective view of the lid associated with the inner package in an open position;
- figure 8 is a cross section of the lid associated with the inner package in an open position;
- figure 9 is a front perspective view of the outer package;

- figure 10 is a cross section of the outer package;
- figures 11 to 13 are cross sections of the packet of cigarettes of figure 1 in three different positions of the inner package;
- figures 14 to 16 are enlarged details of figures 11 to 13;
- 5 - figure 17 is a view of a wrapper sheet used for making an inner package of the packet of cigarettes of figure 1 provided with a reclosable adhesive panel;
- figure 18 is a perspective view of a group of cigarettes contained in an inner package of the packet of cigarettes of figure 1;
- figure 19 is a perspective view of an inner stiffener contained in an inner package of the
10 packet of cigarettes of figure 1;
- figure 20 is a view of a blank used for making the inner stiffener of figure 19;
- figure 21 is a view of a blank used for making an outer package of the packet of cigarettes of figure 1;
- figure 22 is a view of a blank used for making a lid of the packet of cigarettes of figure 1;
- 15 - figure 23 is a front perspective view of a version of the packet of cigarettes of figure 1 in a closed configuration;
- figure 24 is a perspective view of an inner stiffener contained in an inner package of the packet of cigarettes of figure 23;
- figure 25 is a view of a blank used for making an outer package of the packet of
20 cigarettes of figure 23;
- figure 26 is a view of a blank used for making the inner stiffener of figure 24;
- figure 27 is a front perspective view of a further version of the packet of cigarettes of figure 1 in a closed configuration;
- figure 28 is a perspective view of an inner stiffener contained in an inner package of the
25 packet of cigarettes of figure 27;
- figure 29 is a view of a blank used for making an outer package of the packet of cigarettes of figure 27;
- figure 30 is a view of a blank used for making the inner stiffener of figure 28.

PREFERRED EMBODIMENTS OF THE INVENTION

30 In this description, similar elements that are common to the illustrated embodiments are indicated by the same numbering.

In figures 1 to 3, with number 1 overall a slide-open packet of cigarettes is indicated, i.e. with a sliding opening extending along a prevalent extent longitudinal axis A. The packet 1

of cigarettes comprises a rigid outer package 2, i.e. consisting of a rigid packaging material, and a soft inner package 3, visible in figure 4, which is housed inside the outer package 2 and wraps a group 4 of cigarettes, which is visible in figure 18, of parallelepipedon shape.

5 According to what has been illustrated in figures 3 to 8, the inner package 3, in particular of the so-called sealed type, has a parallelepipedon shape and has a top wall 5 and a bottom wall 6 that are parallel to and opposite one another, a front wall 7 and a rear wall 8 that are parallel to and opposite one another, and two side walls 9 that are parallel to and opposite one another.

10 The inner package 3 is made by folding a wrapper sheet 10, illustrated in figure 17, of metal foil, i.e. of soft wrapping material without rigidity, around the group 4 of cigarettes.

The inner package 3 comprises an extraction opening 11 of the cigarettes, visible in figure 4, which is arranged at the top wall 5 and the front wall 7 and is bounded by a separating line 12. The separating line 12 can be separated from the start of the rest of the inner
15 package 3 or can be tearable, typically along a perforated line, for being completely torn at the first opening of the packet 1 of cigarettes. Generally, it is preferable for the separating line 12 to be tearable to simplify handling of the wrapper sheet 10 used to form the inner package 3.

20 According to what has been illustrated in figure 19, the inner package 3 comprises a rigid inner stiffener 13, which consists of rigid cardboard or rigid thin cardboard, is U-shaped and is arranged inside the inner package 3 in direct contact with the group 4 of cigarettes.

The rigid inner stiffener 13 comprises a front wall 14 of rectangular shape and a pair of lateral walls 15 arranged on opposite sides of the front wall 14. The front wall 14 of the rigid inner stiffener 13 consists of three panels 14' folded into a "Z" and which are glued
25 together and has a recess 17 that is U-shaped and is arranged above at the extraction opening 11 of the inner package 3. According to a different embodiment that is not illustrated, the front wall 14 of the rigid inner stiffener 13 consists of two panels which are glued together and has a recess that is U-shaped and is arranged above at the extraction opening of the inner package.

30 The function of the rigid inner stiffener 13 is to confer greater stiffness and greater shape stability to the inner package 3 so as to prevent the inner package 3 collapsing on itself after extracting part of the cigarettes contained in the inner package 3, making the extraction complicated of the remaining cigarettes and in particular making the opening

and subsequent reclosing extremely complicated of an adhesive panel (as will be disclosed better below).

The rigid inner stiffener 13 is made by folding a blank 42, illustrated in figure 20, around the group 4 of cigarettes; the blank 42 consists of cardboard or thin cardboard, i.e. of rigid inner wrapper material that has to be previously weakened at the folding lines. According to what has been illustrated in figure 20, the blank 42 comprises a plurality of elements that have been marked, where possible, with accented reference numbers that are the same as the reference numbers that distinguish the corresponding elements of the rigid inner stiffener 13.

According to what has been illustrated in figures 9 and 10, the outer package 2 has a parallelepipedon shape and has an open top end and a bottom wall 18 that are parallel to and opposite one another, a front wall 19 and a rear wall 20 that are parallel to and opposite one another, and two lateral walls 21 that are parallel to and opposite one another. The front 19, rear 20 and lateral 21 walls of the outer package 2 define together four longitudinal ridges, parallel to the longitudinal axis A, and define with the bottom wall 18 four transverse ridges, perpendicular to the axis A; the longitudinal ridges have a greater dimension than the dimension of the transverse ridges. In substance, the outer package 2 surrounds the inner package 3 on five sides, leaving the top wall 5 of the inner package 3 free.

The outer package 2 is made by folding a blank 22, illustrated in figure 21, around the inner package 3; the blank 22 consists of cardboard or thin cardboard, i.e. of rigid inner wrapper material that has to be previously weakened at the folding lines. According to what has been illustrated in figure 21, the blank 22 comprises a plurality of elements that have been marked, where possible, with accented reference numbers that are the same as the reference numbers that distinguish the corresponding elements of the outer package 2.

According to what has been illustrated in figures 3 and 4, the packet 1 of cigarettes comprises a reclosable adhesive panel 23, i.e. of the "open & close" type, which covers the extraction opening 11 of the inner package 3 and is thus superimposed on the rear wall 8, on the top wall 5 and on the front wall 7 of the inner package 3. The adhesive panel 23 comprises a repositionable adhesive that does not dry (i.e. always remains sticky), i.e. of the adhesive that enables the parts to be separated and rejoined even after a long time, the adhesive panel 23 normally adheres to the inner package 3 to close (seal) the extraction opening 11 and can be temporarily lifted from the inner package 3 to free the extraction

opening 11 and thus enable a cigarette to be extracted through the extraction opening 11.

The adhesive panel 23 further comprises a permanent adhesive that determines permanent gluing, i.e. that is never separated even in use, of the portion of the inner package 3 enclosed inside the separating line 12, i.e. at the extraction opening 11, at the adhesive panel 23; thus, when the adhesive panel 23 is lifted from the inner package 3 the portion of the inner package 3 enclosed inside the separating line 12, i.e. at the extraction opening 11, is lifted together with the adhesive panel 23, liberating the extraction opening 11. Further, the presence of the repositionable adhesive that does not dry between the adhesive panel 23 and the inner package 3 causes temporary gluing (i.e. that is separated in use) between the portion of the inner package 3 that surrounds the separating line 12, i.e. that surrounds the extraction opening 11, and the adhesive panel 23 so as to maintain normally the adhesive panel 23 in contact with the inner package 3 to close (seal) the extraction opening 11.

The adhesive panel 23 is provided with a grip tab 24, which is devoid of adhesive. The tab 24 is located, when the adhesive panel 23 is in a closed position of the extraction opening 11 (figure 3), below an edge 44 of the extraction opening 11, which edge 44 is transverse to the longitudinal axis A of the packet 1 and is obtained on the front wall 7 of the inner package 3. Also, the tab 24 is folded 180° against the reclosable adhesive panel 23.

The grip tab 24 is suitable for facilitating the grip of the adhesive panel 23 at the moment of lifting the adhesive panel 23; in other words, in order to lift the adhesive panel 23 a user can easily grasp a grip tab 24, which is not fixed in any way to the inner package 3, unlike the rest of the adhesive panel 23.

According to an embodiment that is not illustrated, the packet 1 of cigarettes comprises an inner package 3 provided with two extraction openings 11 of the cigarettes, which are arranged at the top wall 5 and at the front wall 7 and bounded by respective separating lines 12 of the type disclosed above. According to this embodiment, the packet 1 of cigarettes comprises two closable adhesive panels 23 of the type disclosed above, i.e. of the "open & close" type, each arranged for covering a respective extraction opening 11 of the inner package 3.

According to what has been illustrated in figures 11 to 13, the inner package 3 is slidable with respect to the outer package 2 to be able to slide between a retracted position, illustrated in figure 11, in which the inner package 3 is completely inserted inside the outer package 2, and an extracted position, illustrated in figure 13, in which the inner package 3 is partially extracted and protrudes from the outer package 2. This result, i.e. enabling

reciprocal sliding between the inner package 3 and the outer package 2, is obtained by avoiding any type of rigid mechanical link being formed, in particular glue points, between the inner package 3 and the outer package 2.

In order to enable the inner package 3 to slide without jerks with respect to the outer package 2, the grip tab 24 devoid of adhesive is folded 180° along a weakened folding line that is transverse to the axis A against the adhesive panel 23 when the inner package 3 is in the retracted position, illustrated in figure 11, i.e. when the inner package 3 is inserted inside the outer package 2. In particular, when the inner package 3 is in the retracted position, illustrated in figure 11, the grip tab 24 is folded 180° against the adhesive panel 23, (i.e. is in contact with the adhesive panel 23, is superimposed on the adhesive panel 23), whereas when the inner package 3 is in the extracted position, illustrated in figure 13, the grip tab 24 could move away slightly from the adhesive panel 23 (i.e. could be folded with respect to the adhesive panel 23 by a little less than 180°) through an elastic return; the elastic return that slightly moves the grip tab 24 from the adhesive panel 23 when the inner package 3 is in the extracted position, illustrated in figure 13, is positive inasmuch as it facilitates the grip of the grip tab 24.

It should be noted that in the extracted position of the inner package 3 (figure 3) the grip tab 24 has a height, measured in the direction of the longitudinal axis A, greater than the distance between the weakened folding line of the tab 24 and an upper free edge of the outer package 2. In this manner, in the extracted position of the inner package 3, the grip tab 24 even if it is folded by 180° in a direction that is opposite on a coplanar and opposite plane, with respect to the weakened folding line, to the adhesive panel 23 it cannot rest completely against the front wall 7 of the inner package 3, in order to avoid the grip tab 24 being able to infiltrate between the outer package 2 and the inner package 3 during sliding of the inner package 3 to the retracted position of the package 3. The grip tab 24 is thus always folded from the side of the adhesive panel 23, to be easily grasped by the user and to be able to lift the adhesive panel 23 with a rotation movement that first frees the extraction opening 11 in front and then above to permit access to the group 4 of cigarettes.

According to what has been illustrated in figures 1 to 3, 5 to 8 and 11 to 13, the packet 1 of cigarettes comprises a lid 25, shaped as a cup, which is made integral, by gluing, with the inner package 3 and is rotatable around a hinge 26 to rotate between an open position, illustrated in figures 3, 7, 8 and 13, and a closed position, illustrated in figures 5, 6 and 11, of the open top end of the outer package 2.

The lid 25 is shaped as a cup and has a top wall 27 (which, when the lid 25 is in the closed position, is parallel to and opposite the bottom wall 18 of the outer package 2), a rear wall 28 and two lateral walls 29 that are parallel to one another. It is important to note that in the closed position the lateral walls 29 of the lid 25 are preferably arranged inside the lateral walls 21 of the outer package 2.

The lid 25 further has an extension wall 30 of the rear wall 28 of the lid 25 that is glued to the rear wall 8 of the inner package 3. The hinge 26, around which the lid 25 is rotatable is positioned between the rear wall 28 of the lid 25 and the extension wall 30 of the rear wall 28 of the lid 25.

Also, the lid 25 has an extension wall 31 of the top wall 27 of the lid 25 which, when the lid 25 is in the closed position, is arranged between the rear wall 20 of the outer package 2 and the rear walls 28, 30 of the lid 25. In particular, the extension wall 31 of the top wall 27 of the lid 25 comprises a first wall 32, connected to a top edge of the rear wall 28 of the lid 25, and a second wall 33 hinged on the first wall 32.

The lid 25 is made by folding a blank 43, illustrated in figure 22, around the inner package 3; the blank 43 consists of cardboard or thin cardboard, i.e. of rigid inner wrapper material that has to be previously weakened at the folding lines. According to what has been illustrated in figure 22, the blank 43 comprises a plurality of elements that have been marked, where possible, with accented reference numbers that are the same as the reference numbers that distinguish the corresponding elements of the lid 25.

According to a preferred embodiment illustrated in figures 5 to 16, a rotation device for rotating the lid 25 between the open position and the closed position is provided. According to the embodiment illustrated in figures 5 to 16, the rotation device comprises the extension wall 31 of the top wall 27 of the lid 25; a first driving tab 34 (obtained in the second wall 33 of the extension wall 31 of the top wall 27 of the lid 25) that is integral with the extension wall 31 of the top wall 27 of the lid 25 and protrudes towards the rear wall 20 of the outer package 2; and a second driving tab 35, or reinforcing flap, hinged on a top edge of the rear wall 20 of the outer package 2 and protrudes towards the extension wall 31 of the top wall 27 of the lid 25.

In use, the first driving tab 34 is arranged for engaging the second driving tab 35 when the inner package 3 moves, with respect to the outer package 2, to the extracted position, so as to rotate the lid 25 in the open position exploiting the movement, in particular the sliding, of the inner package 3 with respect to the outer package 2.

In other words, the mechanical link that is made between the first driving tab 34 and the second driving tab 35 when the first driving tab 34 hooks onto the second driving tab 35, enables the rotation of the lid 25 to be commanded “automatically”, i.e. without the user having to touch the lid 25, by means of sliding of the inner package 3 with respect to the outer package 2. In this manner, the user has only to apply the thrust necessary to slide the inner package 3 with respect to the outer package 2 without having to touch the lid 25.

According to what has been illustrated in figures 1 and 3, the front wall 19 of the outer package 2 has a through window 36 through which the underlying front wall 7 of the inner package 3 is accessible to enable a thrust to be applied to the inner package 3 in order to move the inner package 3 between the retracted position and the extracted position. In other words, through the through window 36 a user can apply a thrust to the inner package 3 to move the inner package 3 between the retracted position and the extracted position.

The through window 36 preferably has a rectangular shape that is elongated in the direction of the longitudinal axis A, and can be arranged in a central position of the front wall 19 of the outer package 2 and equidistant from the longitudinal ridges, or can be arranged in the front wall 19 in a position that is asymmetrical to the longitudinal axis A.

It should be noted that in the retracted position of the inner package 3 the top wall 5 of the inner package 3 can be arranged completely inside the outer package 2 and at a certain distance from the open top end of the outer package 2. Also in this retracted position the front portion of the adhesive panel 23 is located entirely between the front wall 19 of the outer package 2 and the front wall 7 of the inner package 3 and is never visible through the through window 36 (i.e. in the retracted position the weakened folding line of the grip tab 24 is arranged, with reference to the direction of the longitudinal axis A, above a top edge of the through window 36).

According to a possible embodiment, the outer surface of the inner package 3 has embossing, which can be differentiated; i.e. the outer surface of the inner package 3 has a first type of embossing that increases the longitudinal friction (i.e. in the longitudinal sliding direction) at the through window 36 and has a second type of embossing that decreases the longitudinal friction (i.e. in the longitudinal sliding direction) outside the through window 36. For example, the first type of embossing could have a prevalence of embossing lines arranged transversely (thus perpendicularly to the longitudinal sliding direction); in this manner the first type of embossing has great longitudinal friction (i.e. in the longitudinal sliding direction), i.e. has longitudinal friction that is greater than the

surface devoid of embossing. On the other hand, the second type of embossing could have a prevalence of embossing lines arranged longitudinally (thus parallel to the longitudinal sliding direction); in this manner the second type of embossing has low longitudinal friction (i.e. in the longitudinal sliding direction), i.e. has longitudinal friction that is less than the surface devoid of embossing. The first type of embossing arranged at the through window 36 facilitates the application of the thrust on the inner package 3 and does not interfere with sliding of the inner package 3 with respect to the outer package 2 inasmuch as at the through window 36 no mechanical interaction exists between the inner package 3 and the outer package 2. The second type of embossing arranged outside the through window 36 facilitates sliding of the inner package 3 with respect to the outer package 2.

According to a preferred embodiment illustrated in figures 5-8, 11-13, 15 and 16, a stop device is provided that stops the sliding of the inner package 3 with respect to the outer package 2, determining a maximum extraction position, illustrated in figure 13, of the inner package 3 from the outer package 2. According to the embodiment illustrated in figures 5-8, 11-13, 15 and 16, the stop device comprises a free edge 37 of the extension wall 31 of the top wall 27 of the lid 25 and a stop tab 38 hinged on a lower edge of the extension wall 30 of the rear wall 28 of the lid 25 and protrudes towards the rear wall 20 of the outer package 2. The free edge 37 of the extension wall 31 of the top wall 27 of the lid 25 is arranged for engaging with the stop tab 38 until it abuts on a hinge line 39 defined between the lower edge of the extension wall 30 of the rear wall 28 of the lid 25 and the stop tab 38 when the inner package 3 moves to the extracted position so as to determine the maximum extraction position of the inner package 3 from the outer package 2. In other words, with the lid 25 in the closed position, a distance measured parallel to the prevalent extent longitudinal axis A of the packet 1 between the free edge 37 of the extension wall 31 of the top wall 27 of the lid 25 and the hinge line 39 defines the maximum stroke of the inner package 3 with respect to the outer package 2.

According to an embodiment that is not illustrated, the grip tab 24 faces, when the lid 25 is in the closed position, an inner surface of the top wall 27 of the lid 25. The grip tab 24 is folded and superimposed on the adhesive panel 23 to be easily grasped by the user and to be able to lift the adhesive panel 23 with a rotation movement that frees the extraction opening 11 first above and then in front, enabling access to the group 4 of cigarettes. According to this embodiment, preferably the adhesive panel 23 comprises a front wall glued to the front wall 7 of the inner package 3 having a length, measured parallel to the

prevalent extent longitudinal axis A of the packet 1, which is substantially equal to a length of the front wall 7 of the inner package 3. In the extracted position of the inner package 3, consequently, the adhesive panel 23 is always visible through the through window 36 and a lower free edge of the adhesive panel 23 is arranged, with reference to the direction of the longitudinal axis A, below a lower edge of the through window 36. The inner package 3 is never visible through the through window 36 and thus the adhesive panel 23 can have embossing that increases the longitudinal friction and can further have graphic symbols (impressed mechanically or printed) indicating the movement direction of the inner package 3 to open or close the slide-open packet 1 of cigarettes.

According to a different embodiment that is not illustrated, the through window 36 is obtained astride an edge that separates the front wall 19 and a lateral wall 21 of the outer package 2.

According to another embodiment illustrated in figure 23, the through window 36 is obtained in the bottom wall 18 of the outer package 2. According to this embodiment the rigid inner stiffener 13, illustrated in figure 24, is shaped as a cup and comprises a front wall 14 and a rear wall 40 that are of rectangular shape and are parallel to and opposite one another, a bottom wall 41 and two lateral walls 15. The front wall 14 of the rigid inner stiffener 13 has a recess 17 that is U-shaped and is arranged above the extraction opening 11 of the inner package 3.

In figure 25, a version is illustrated of the blank 22 illustrated in figure 21 and intended for making the outer package 2 illustrated in figure 23.

In figure 26 a version is illustrated of the blank 42 illustrated in figure 20 and intended for making the rigid inner stiffener 13 illustrated in figure 24.

According to a different embodiment illustrated in figure 27, the through window 36 is obtained on a lateral wall 21 of the outer package 2. According to this embodiment the rigid inner stiffener 13, illustrated in figure 28, has a tubular shape and comprises a front wall 14 and a rear wall 40 of rectangular shape and that are parallel to and opposite one another, and a pair of lateral walls 15 connecting the front wall 14 to the rear wall 40. The front wall 14 of the rigid inner stiffener 13 has a recess 17 that is U-shaped and is arranged above the extraction opening 11 of the inner package 3. The lateral wall 15 positioned at the window 36 consists of at least one pair of panels 15' that are superimposed and glued on one another.

In the embodiments illustrated in the attached figures, all the longitudinal ridges are

straight; according to alternative embodiments that are not illustrated, certain edges could be chamfered or rounded.

In figure 29, a version is illustrated of the blank 22 illustrated in figure 21 and intended for making the outer package 2 illustrated in figure 27.

5 In figure 30 a version is illustrated of the blank 42 illustrated in figure 20 and intended for making the rigid inner stiffener 13 illustrated in figure 28.

The packet 1 of cigarettes disclosed above has numerous advantages.

10 Firstly, the packet 1 of cigarettes disclosed above is particularly cheap inasmuch as a quantity of package material is required that is significantly less than a slide-open rigid packet of cigarettes of the type disclosed in EP2325093A1, i.e. than a packet having an inner package and an outer package with hinged lids.

Further, the packet 1 of cigarettes disclosed above is (relatively) easy to make as it can be made in a substantially standard cigarette packaging machine; i.e. the modifications to be made to a standard cigarette packaging machine to produce the packet 1 of cigarettes
15 disclosed above are small and not particularly complex.

CLAIMS

1. Packet (1) of smoke articles comprising:

a group (4) of smoke articles;

a soft inner package (3) that encloses the group (4) of smoke articles and has at least one
5 extraction opening (11) arranged at at least a top wall (5) of the inner package (3);

a reclosable adhesive panel (23), which covers the extraction opening (11) and is
superimposed on the top wall (5) of the inner package (3);

a rigid outer package (2), which surrounds the inner package (3) on five sides leaving a
wall of the inner package (3) free;

10 wherein the inner package (3):

is slidable in relation to the outer package (2) in order to be able to slide between a
retracted position wherein the inner package (3) is completely inserted inside the outer
package (2) and an extracted position wherein the inner package (3) is partially extracted
and protrudes from the outer package (2); and

15 comprises a lid (25) which is integral with the inner package (3) and is rotatable around a
hinge (26) to rotate between an open position and a closed position of an open top end of
the outer package (2);

the packet (1) is **characterized in that** it comprises a rotation device for rotating the lid
(25) between the open position and the closed position, and a stop device for stopping
20 sliding of the inner package (3) with respect to the outer package (2) determining a
maximum extraction position of the inner package (3) from the outer package (2);

wherein the rotation device includes:

an extension wall (31) of a top wall (27) of the lid (25) arranged between a rear wall (28)
of the lid (25) and a rear wall (20) of the outer package (2);

25 a first driving tab (34) that is integral with the extension wall (31) of the top wall (27) of
the lid (25) and protrudes towards the rear wall (20) of the outer package (2); and

a second driving tab (35) hinged to a top edge of the rear wall (20) of the outer package (2)
and protrudes towards the extension wall (31) of the top wall (27) of the lid (25);

in which the first driving tab (34) is arranged for engaging, in use, with the second driving
30 tab (35) when the inner package (3) moves to the extracted position so as to rotate the lid
(25) in the open position by exploiting sliding of the inner package (3);

and wherein the stop device includes:

a free edge (37) of the extension wall (31) of the top wall (27) of the lid (25); and

a stop tab (38) hinged to a lower edge of an extension wall (30) of the rear wall (28) of the lid (25) and protrudes towards the rear wall (20) of the outer package (2);

wherein the free edge (37) of the extension wall (31) of the top wall (27) of the lid (25) is arranged for engaging in use with the stop tab (38) until abutting on a hinge line (39) defined between the lower edge of the extension wall (30) of the rear wall (28) of the lid (25) and the stop tab (38) when the inner package (3) moves to the extracted position so as to determine the maximum extraction position of the inner package (3) from the outer package (2).

2. Packet (1) of smoke articles according to claim 1, wherein the hinge (26) is positioned between the rear wall (28) of the lid (25) and the extension wall (30) of the rear wall (28) of the lid (25), wherein the extension wall (30) of the rear wall (28) of the lid (25) is glued to a rear wall (8) of the inner package (3).

3. Packet (1) of smoke articles according to claim 1, or 2, wherein the extension wall (31) of the top wall (27) of the lid (25) comprises a first wall (32) connected to a top edge of the rear wall (28) of the lid (25), and a second wall (33) in which the first driving tab (34) is obtained, wherein the first wall (32) is hinged to the second wall (33).

4. Packet (1) of smoke articles according to any preceding claim, wherein the outer package (2) comprises at least one through window (36) which leaves exposed an underlying part of the inner package (3) to enable a user, in use, to push the inner package (3) to slide the inner package (3) with respect to the outer package (2).

5. Packet (1) of smoke articles according to claim 4, wherein the through window (36) of the outer package (2) is obtained on a front wall (19) of the outer package (2), or on a bottom wall (18) of the outer package (2), or astride an edge that separates the front wall (19) and a lateral wall (21) of the outer package (2), or on a lateral wall (21) of the outer package (2).

6. Packet (1) of smoke articles according to claim 4, or 5, wherein an outer surface of the inner package (3) has a first type of embossing which increases the longitudinal friction at the through window (36) and has a second type of embossing which reduces longitudinal friction outside the through window (36).

7. Packet (1) of smoke articles according to any preceding claim, and comprising a rigid inner stiffener (13), which is U-shaped, is arranged inside the inner package (3) in direct contact with the group (4) of smoke articles and comprises a front wall (14) and a pair of lateral walls (15) arranged on opposite sides of the front wall (14), wherein the front wall

(14) consists of at least two panels (14') which are glued together.

8. Packet (1) of smoke articles according to any one of claims 1 to 6, and comprising a rigid inner stiffener (13), which has a tubular shape, is arranged inside the inner package (3) in direct contact with the group (4) of smoke articles and comprises a front wall (14), a rear wall (40) and a pair of lateral walls (15) connecting the front wall (14) to the rear wall (40), wherein one of the lateral walls (15) consists of at least two panels (15') which are glued together.

9. Packet (1) of smoke articles according to any one of claims 1 to 6, and comprising a rigid inner stiffener (13), which is cup-shaped, is arranged inside the inner package (3) in direct contact with the group (4) of smoke articles and comprises a front wall (14), a rear wall (40), a bottom wall (41) and a pair of lateral walls (15) connecting the front wall (14) to the rear wall (40).

10. Packet (1) of smoke articles according to any one of claims 1 to 9, wherein to the reclosable adhesive panel (23) a grip tab (24) is connected, wherein the tab (24):

is devoid of adhesive;

is located, when the panel (23) is in a closed position of the extraction opening (11), below an edge (44) of the extraction opening (11), which edge (44) is transverse to a longitudinal axis (A) of the packet (1) and is obtained on a front wall (7) of the inner package (3); and is folded 180° onto the reclosable adhesive panel (23).

11. Packet (1) of smoke articles according to claim 10, wherein the grip tab (24) faces an inner surface of the front wall (19) of the outer package (2) when the lid (25) is in the closed position.

12. Packet (1) of smoke articles according to any one of claims 1 to 9, wherein to the reclosable adhesive panel (23) a grip tab (24) is connected, wherein the tab (24):

is devoid of adhesive; and

faces, when the lid (25) is in a closed position, an inner surface of the top wall (27) of the lid (25).

13. Packet (1) of smoke articles according to claim 12, the reclosable adhesive panel (23) comprises a wall glued to a front wall (7) of the inner package (3), having a length, measured along a prevalent extent longitudinal axis (A) of the packet (1), which is substantially equal to a length of the front wall (7) of the inner package (3).

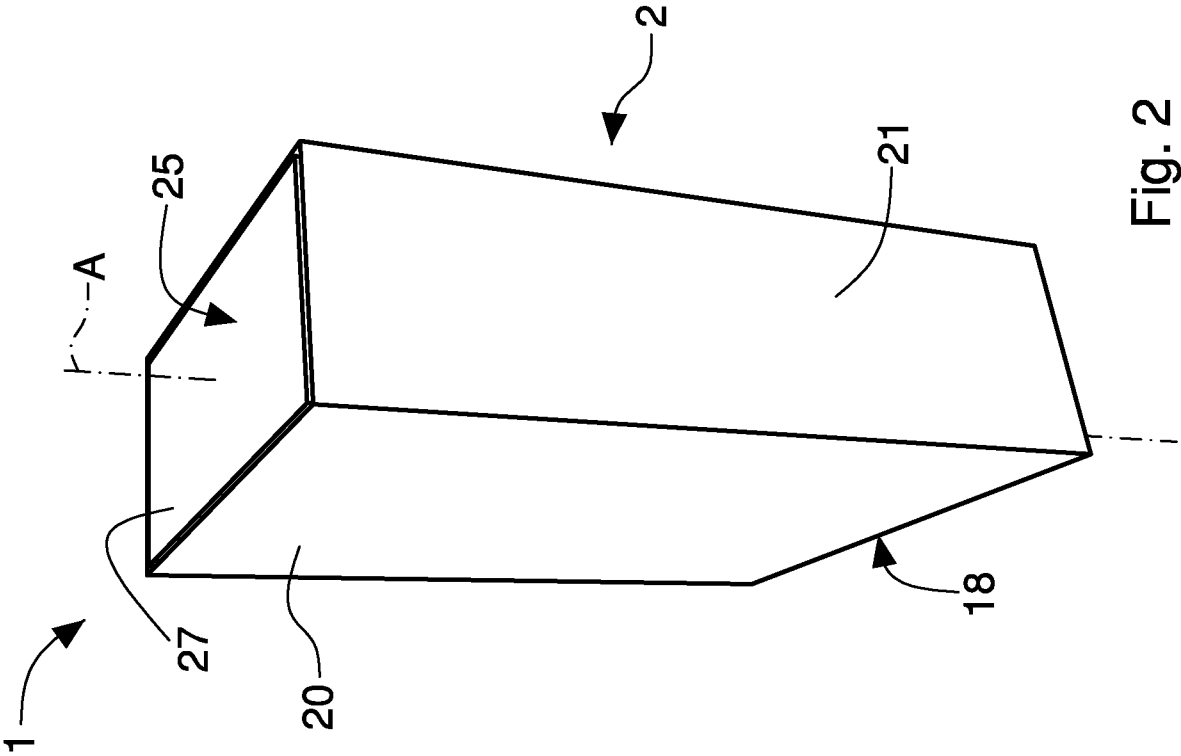


Fig. 2

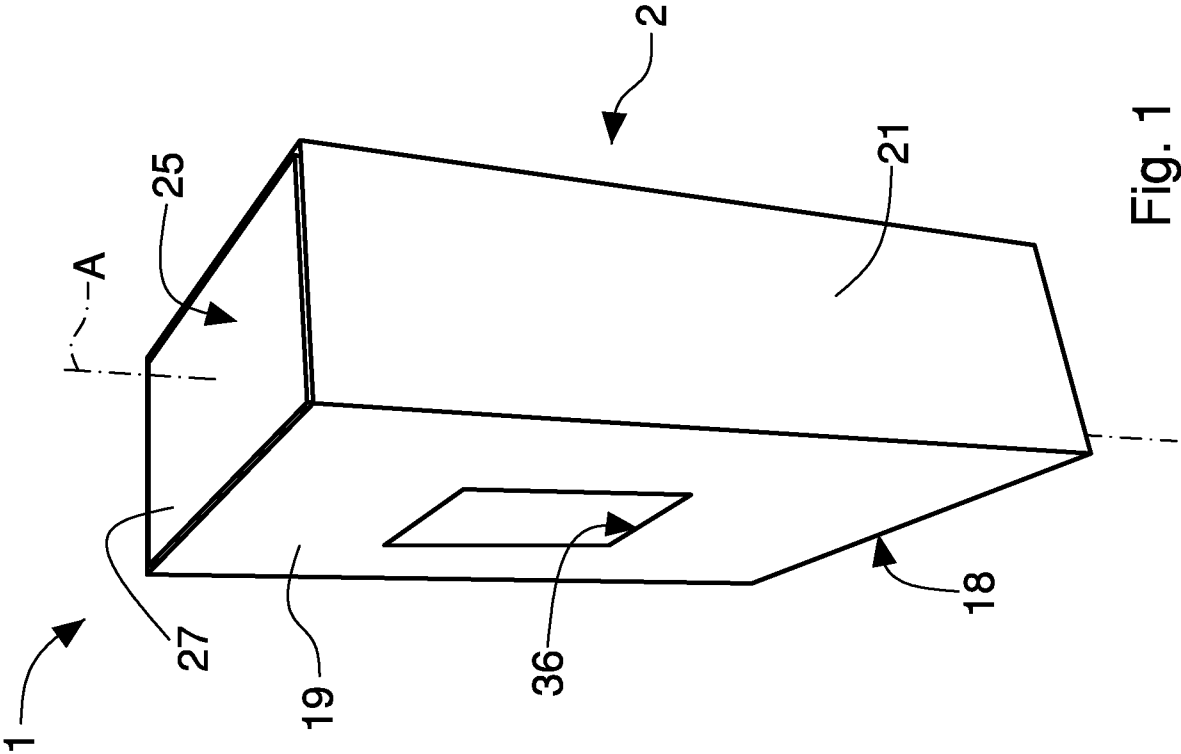
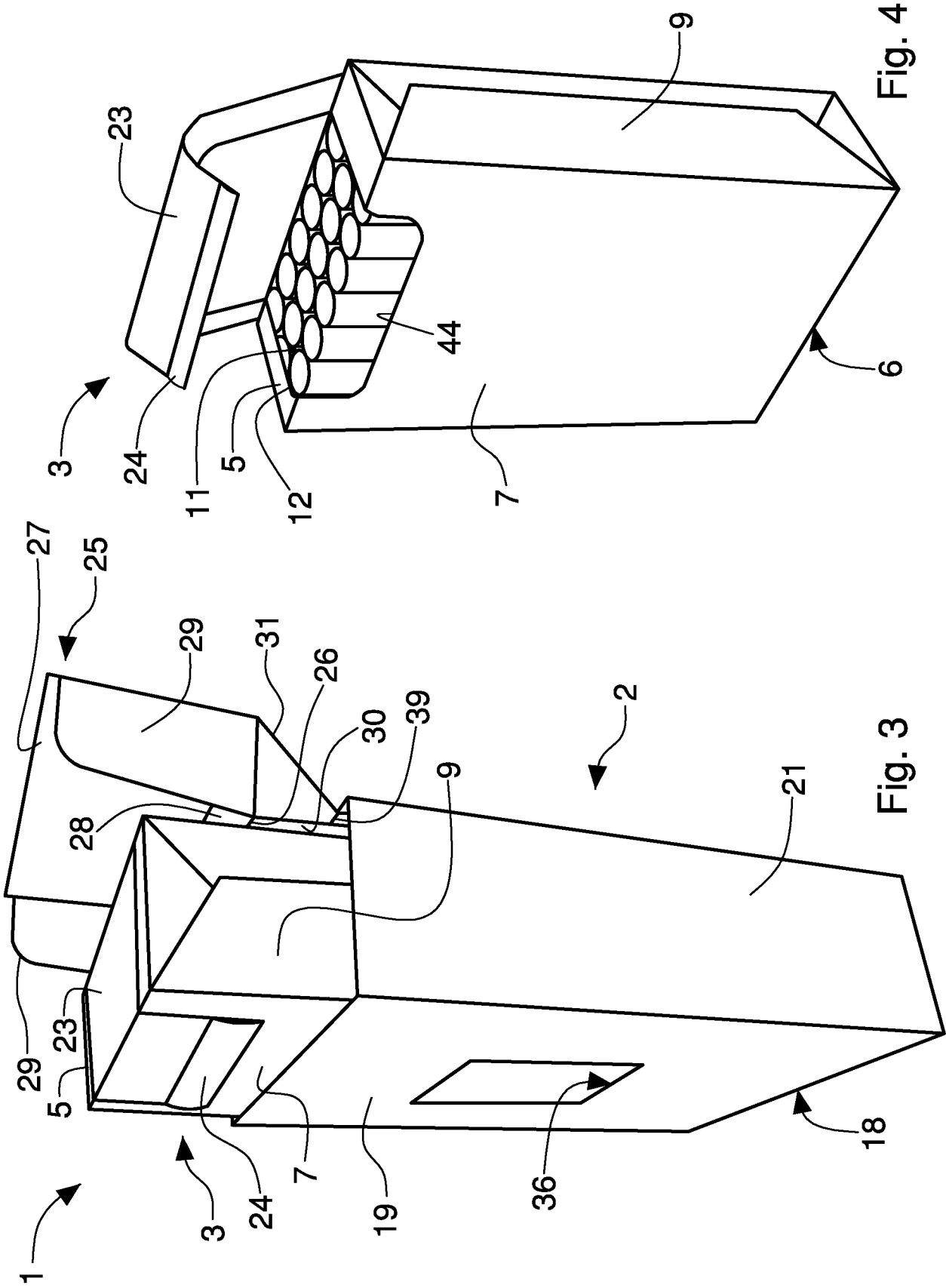


Fig. 1



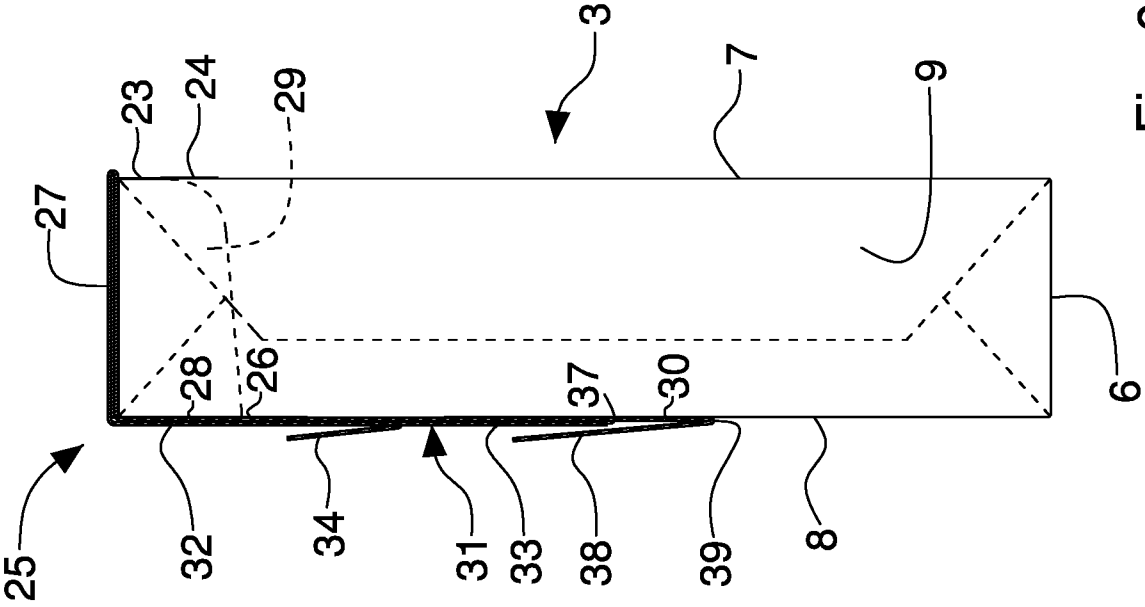


Fig. 6

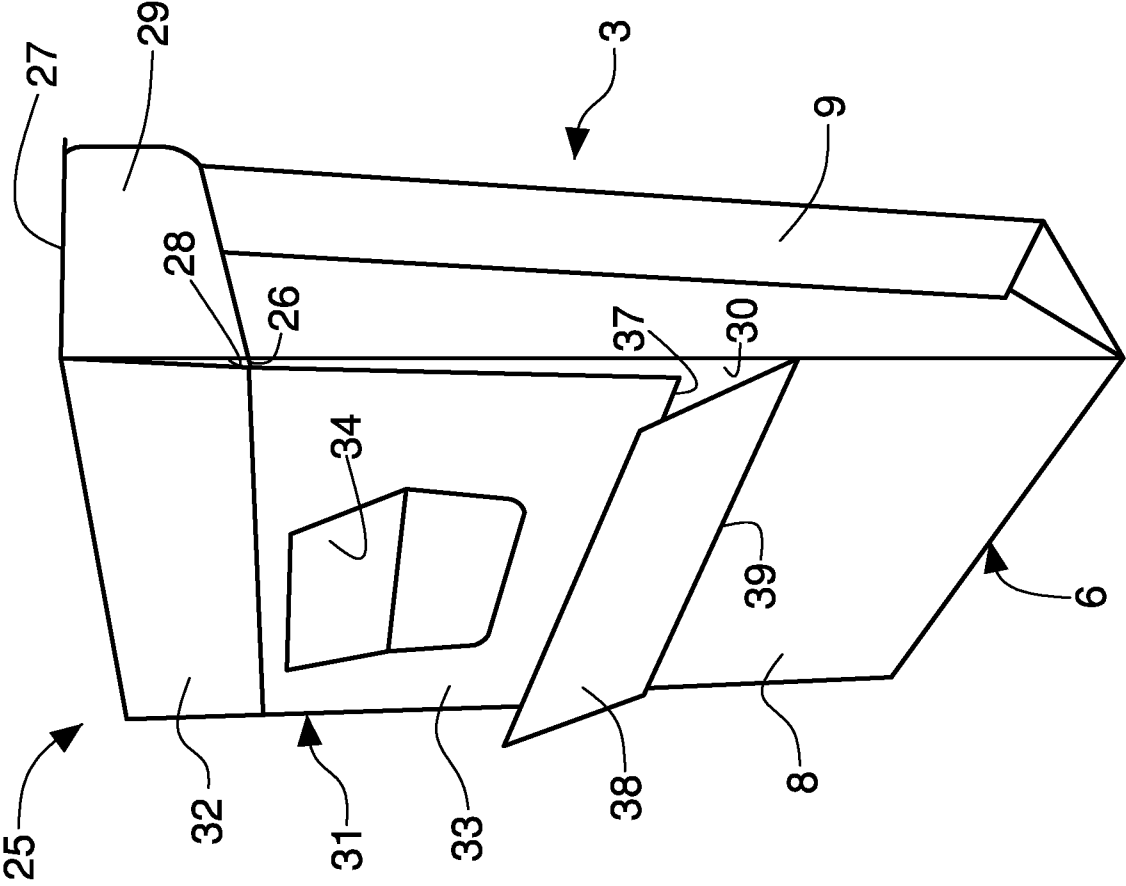
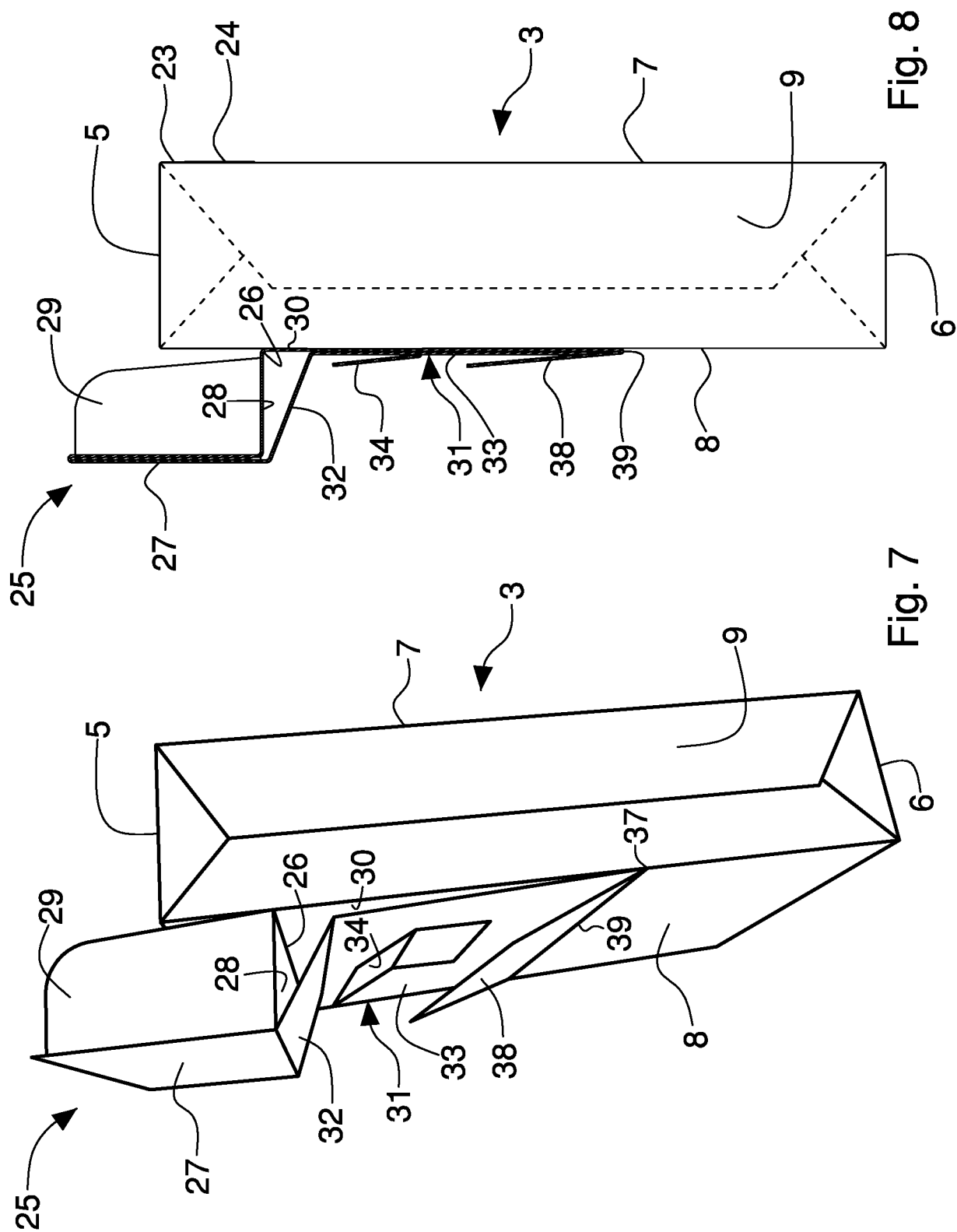


Fig. 5

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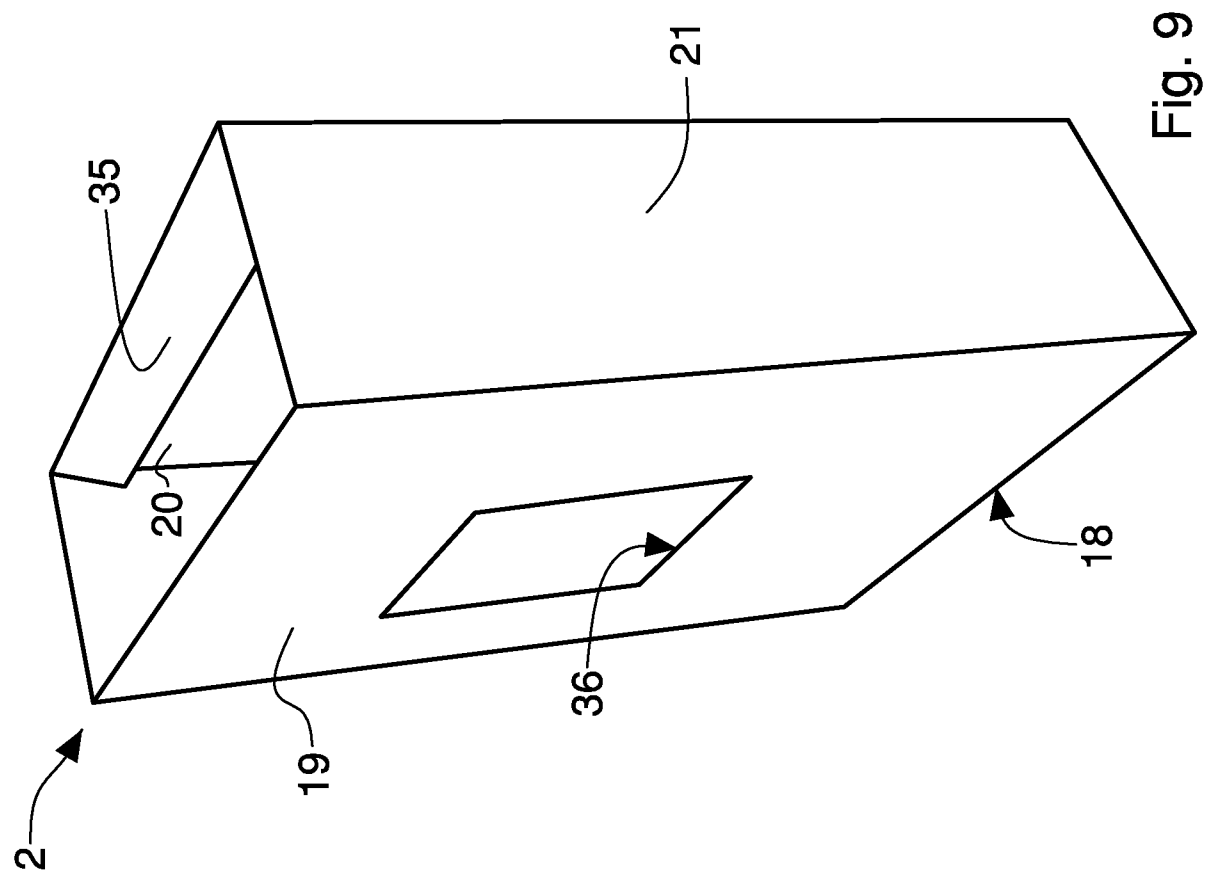


Fig. 9

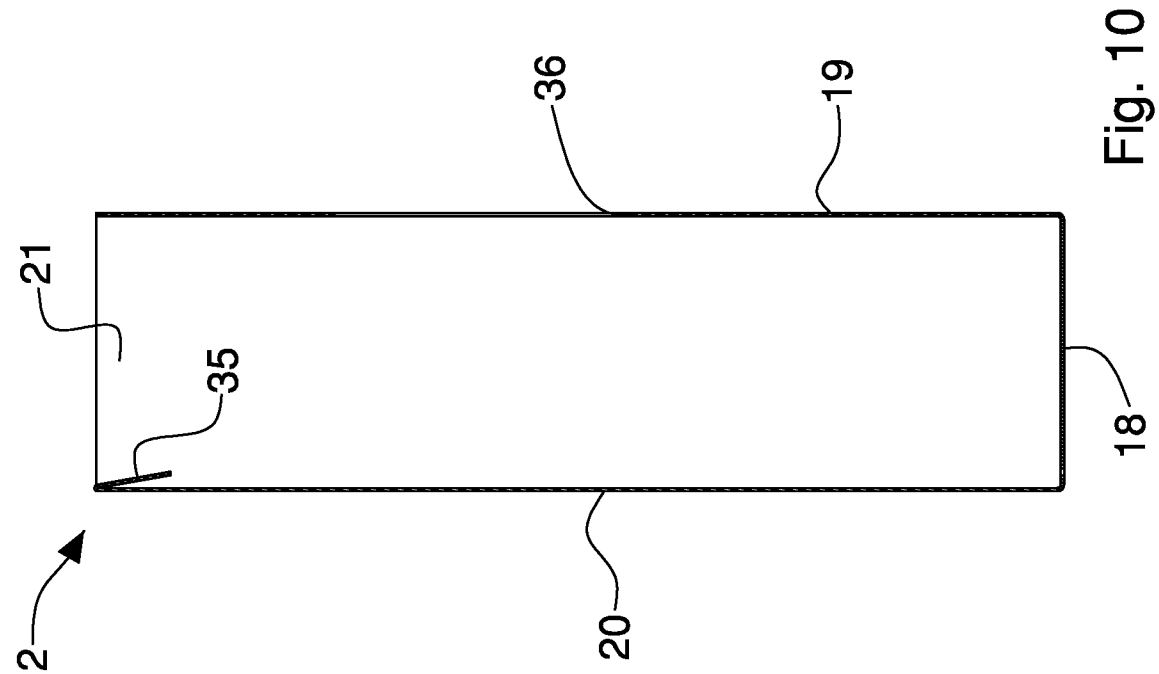
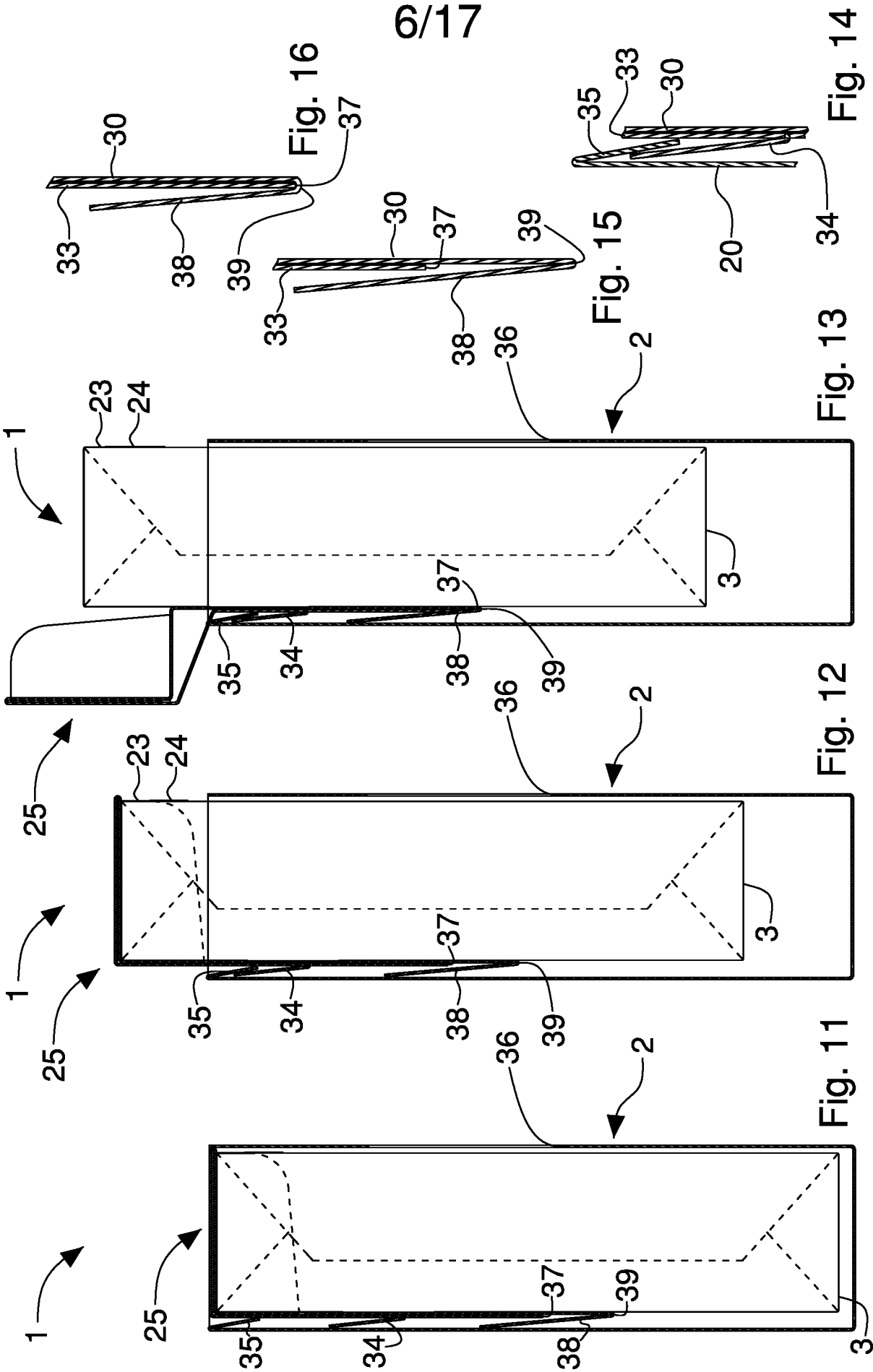


Fig. 10



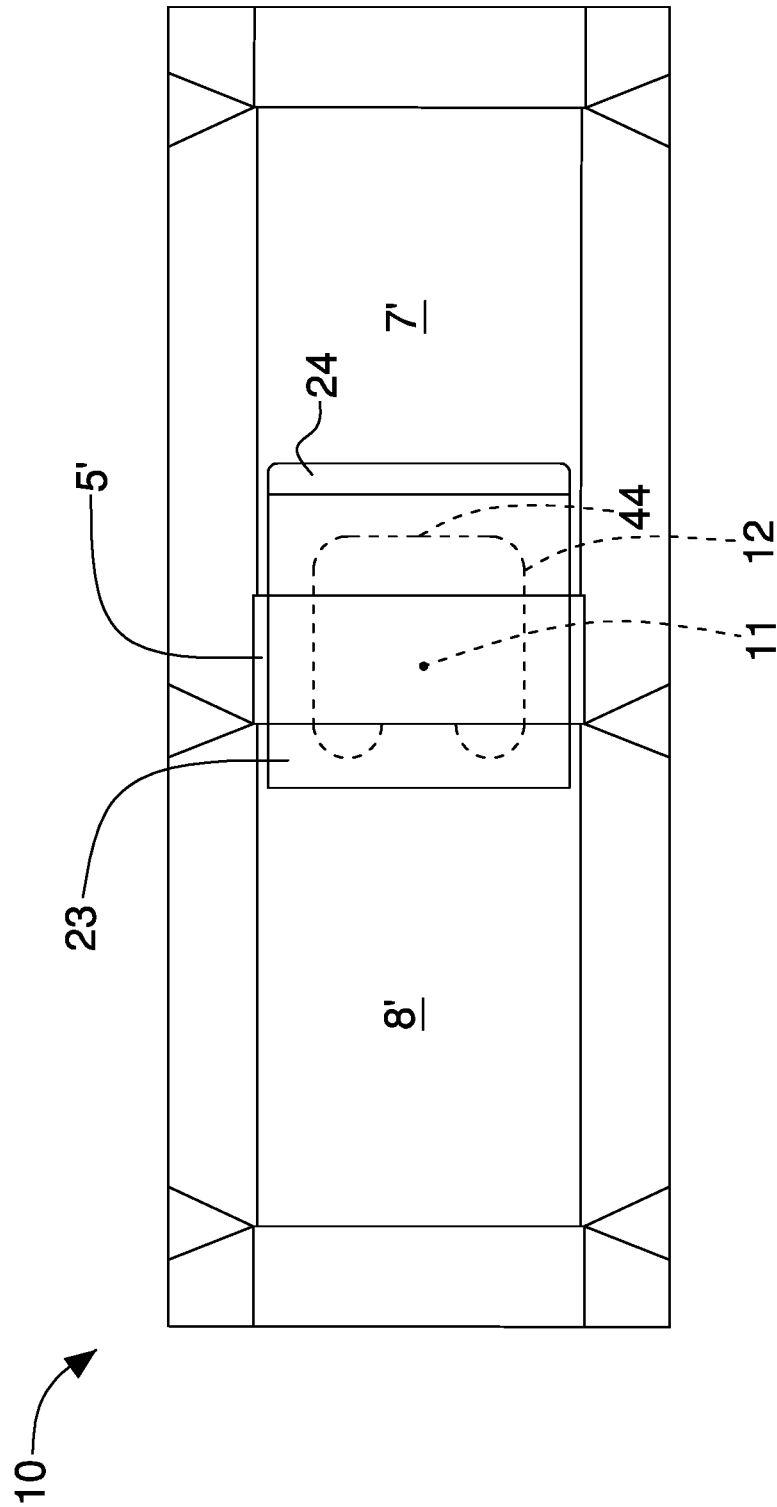


Fig. 17

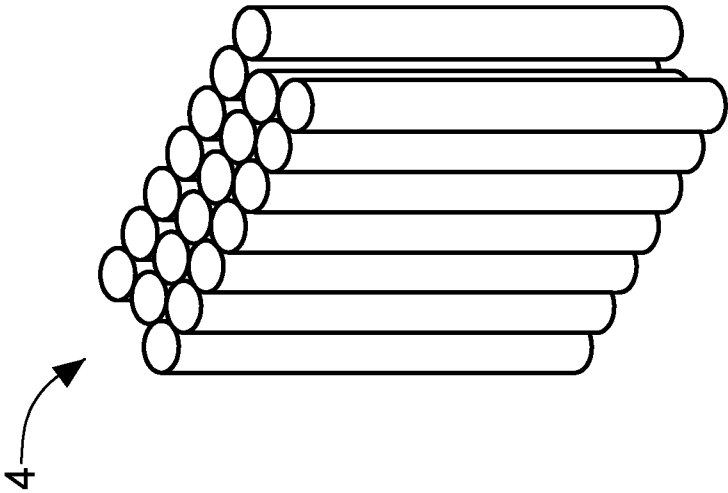
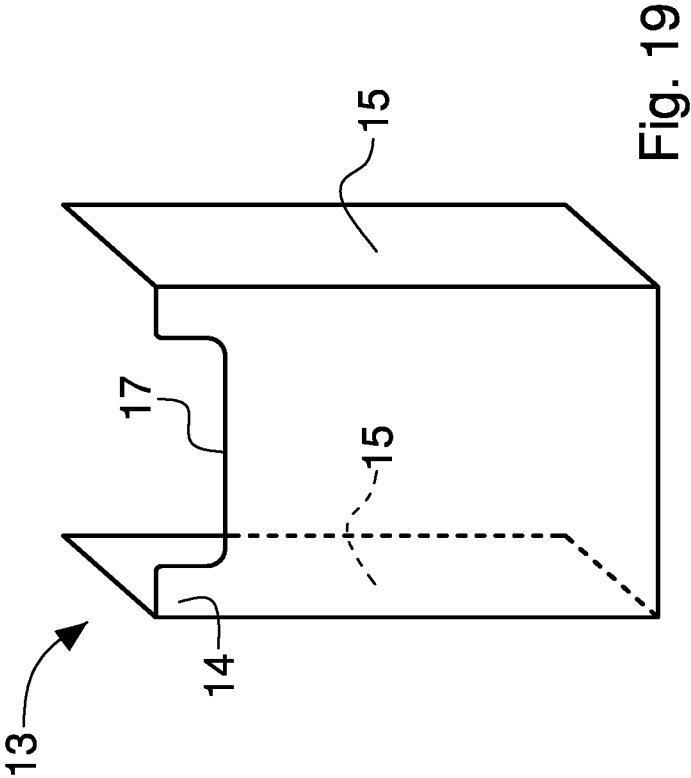


Fig. 18

Fig. 19

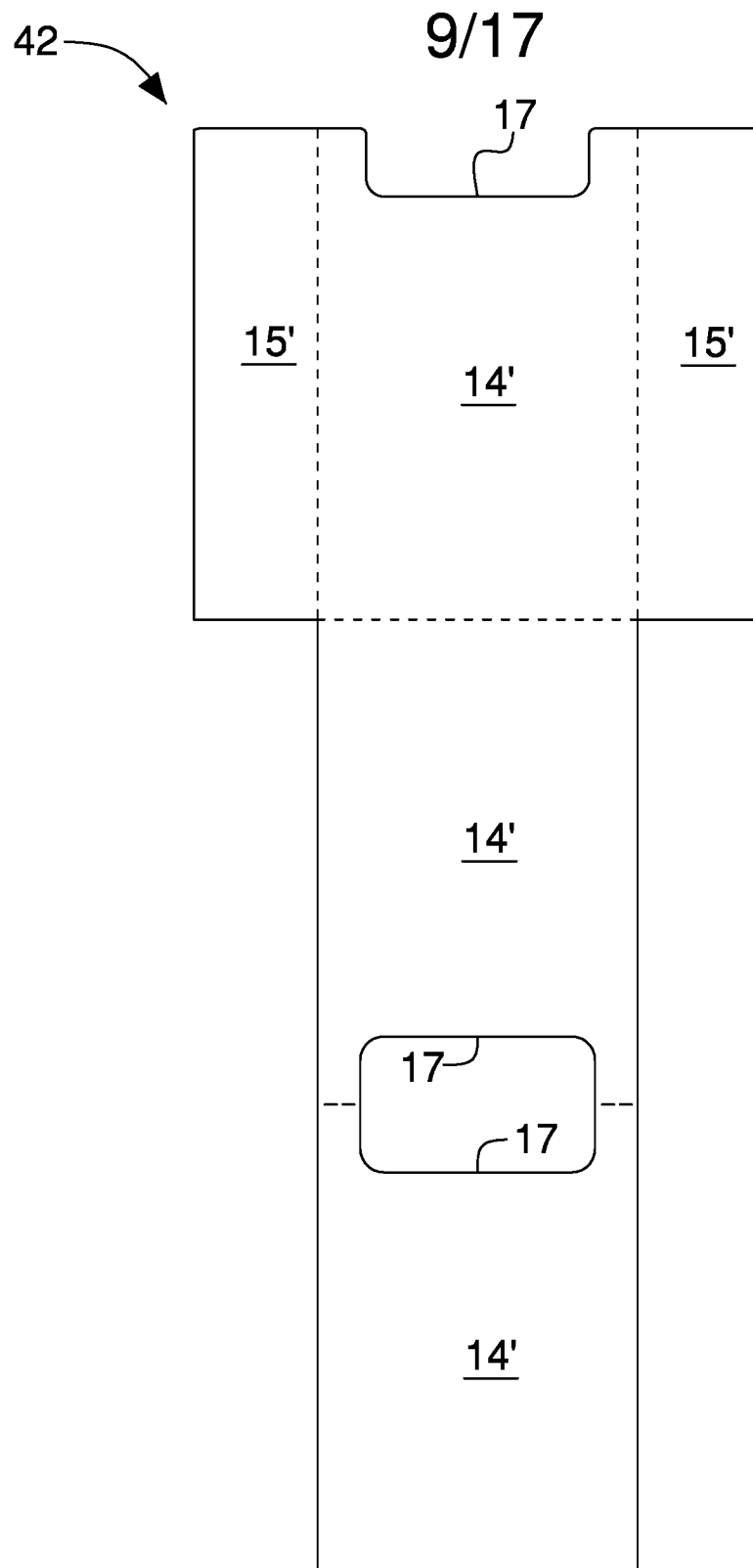


Fig. 20

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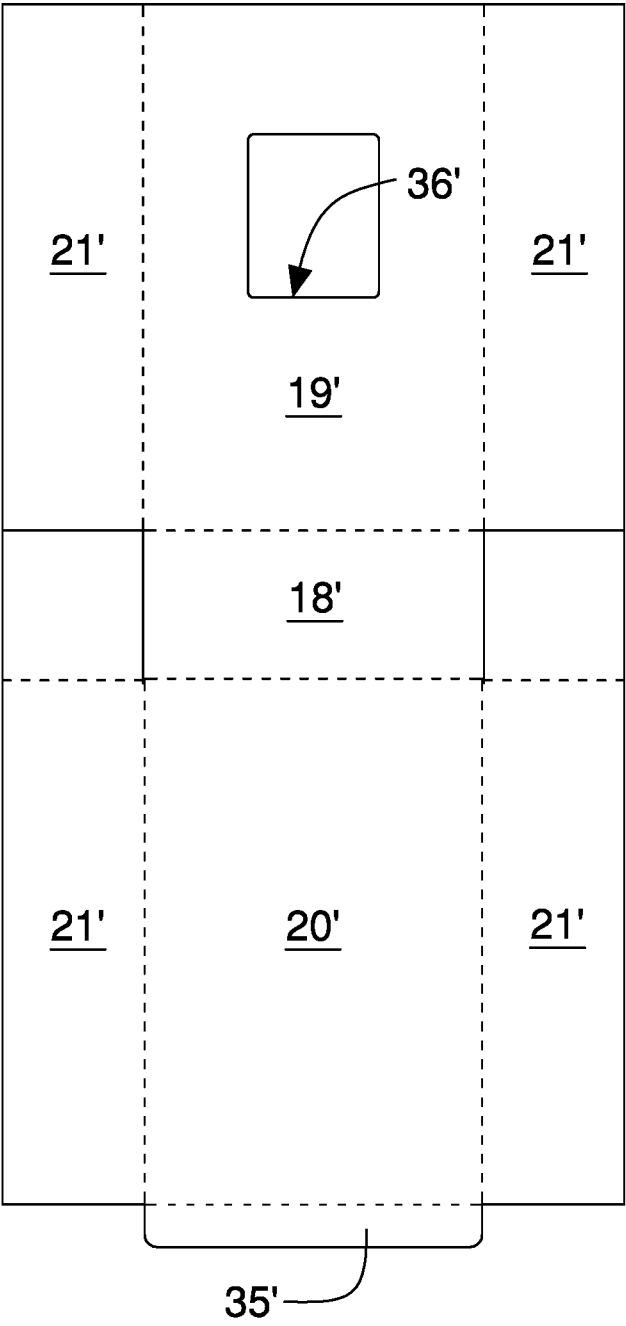


Fig. 21

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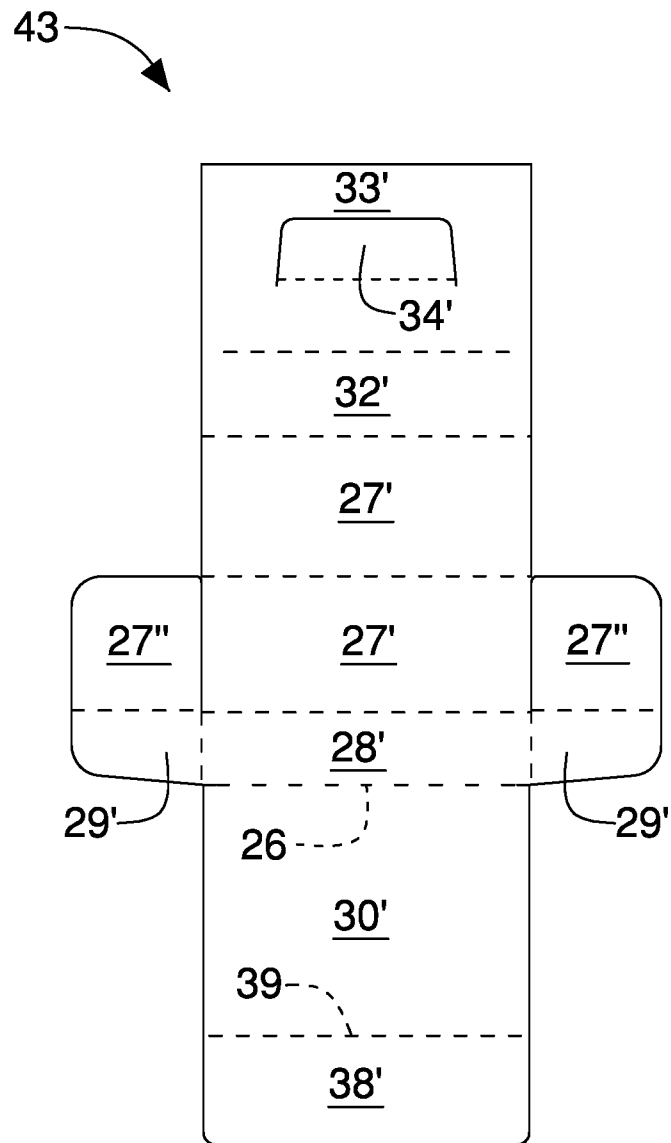
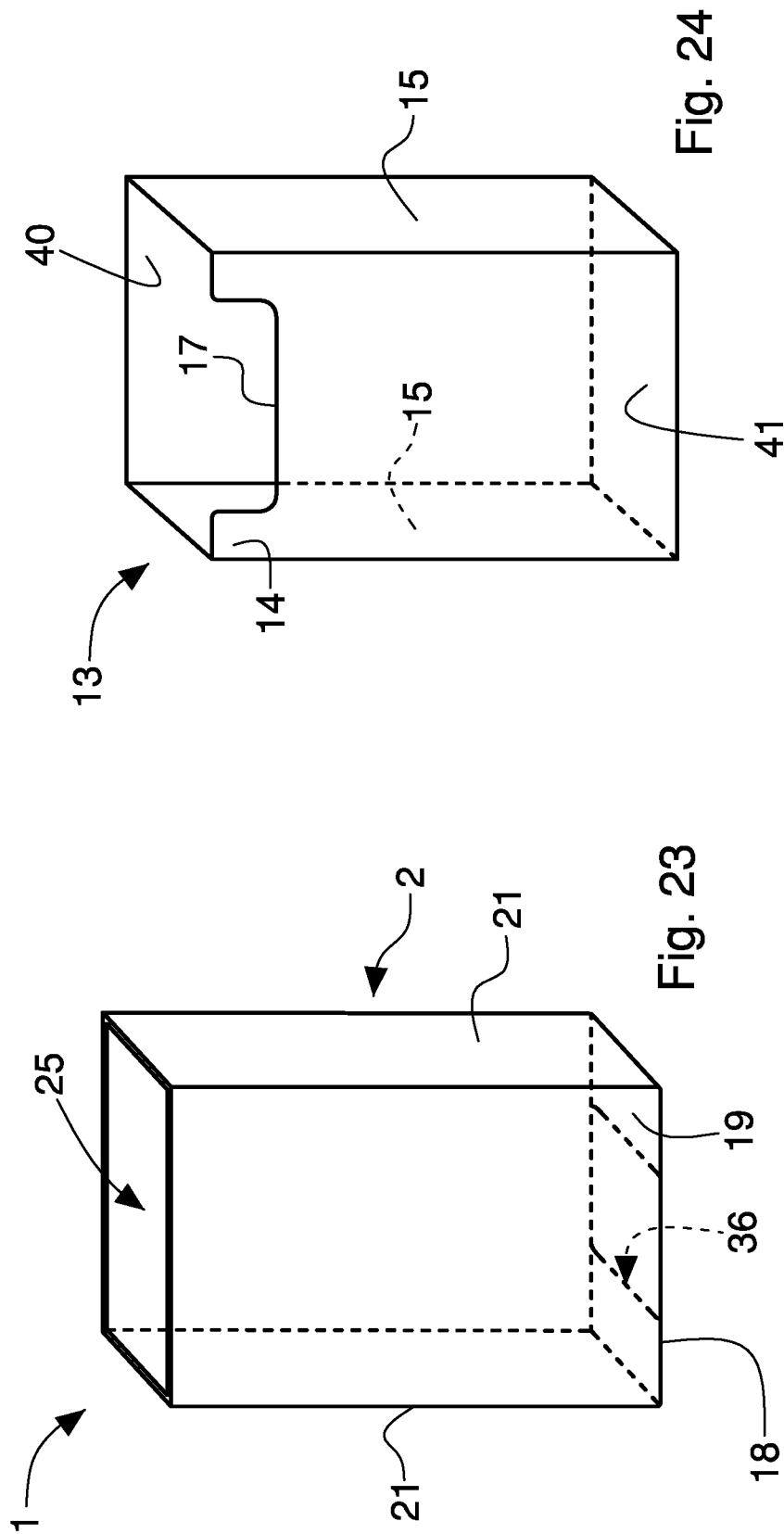


Fig. 22

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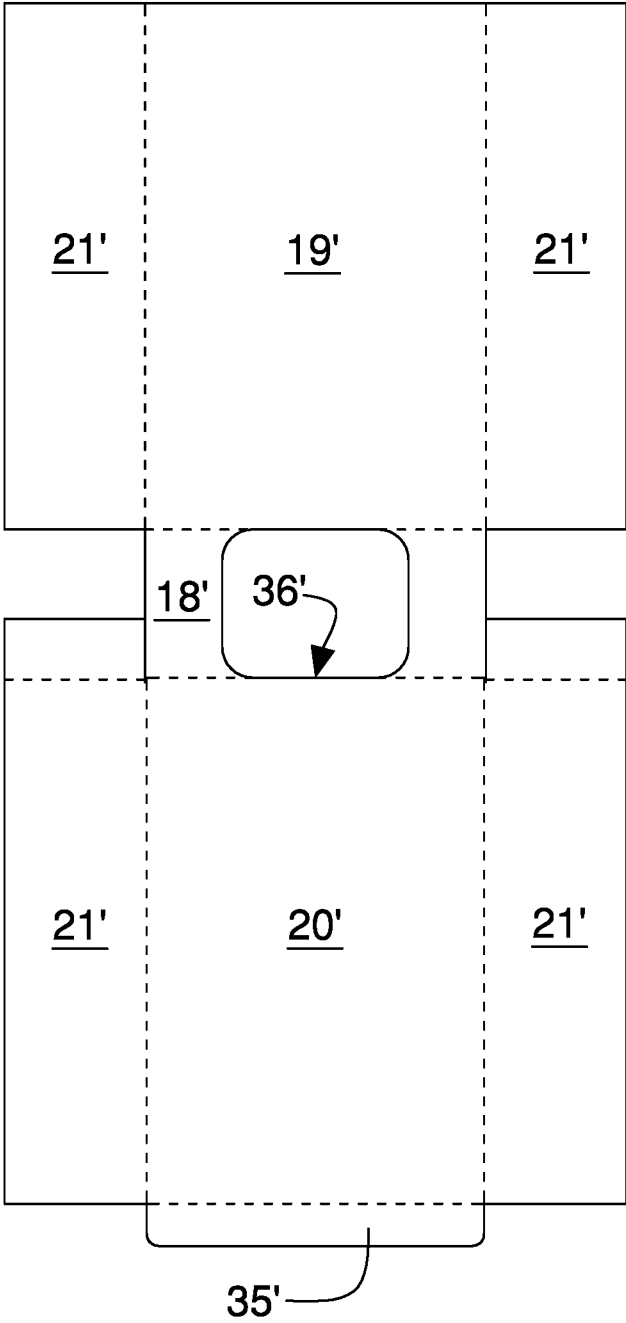


Fig. 25

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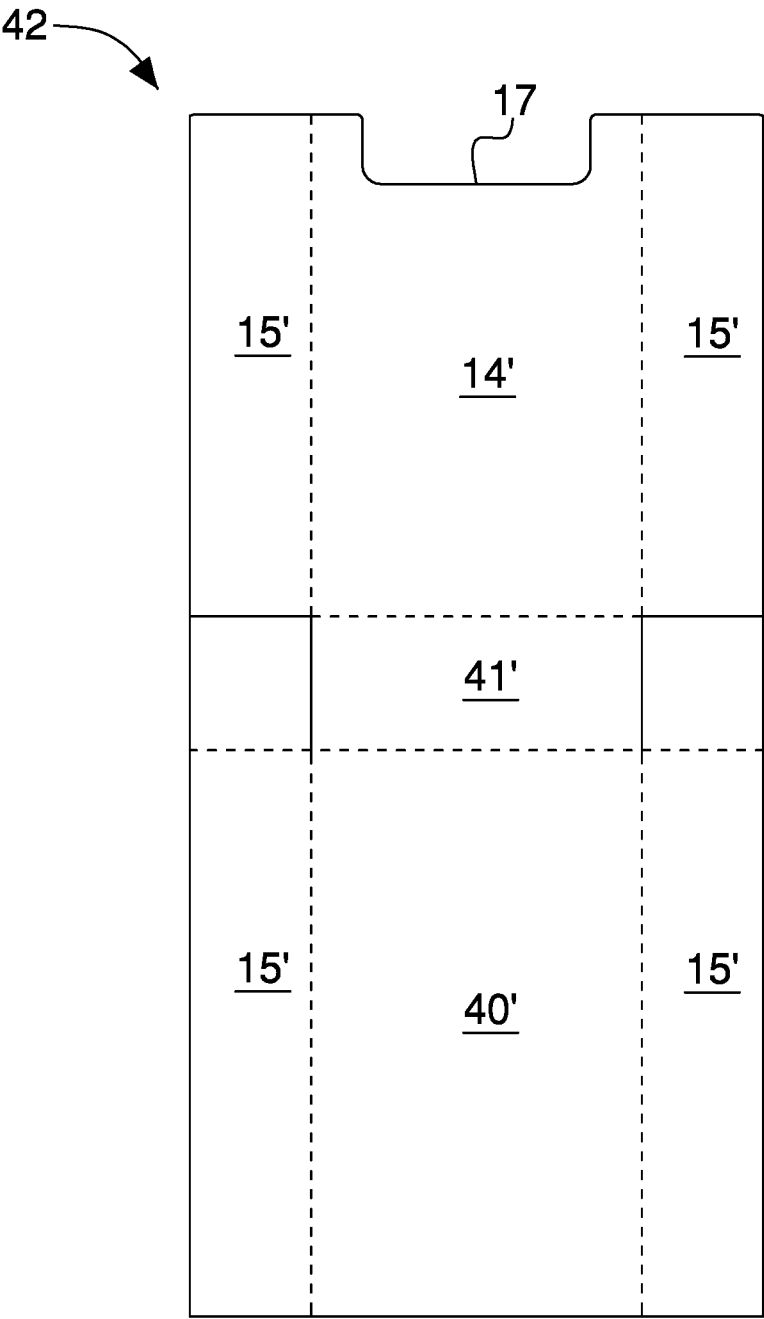


Fig. 26

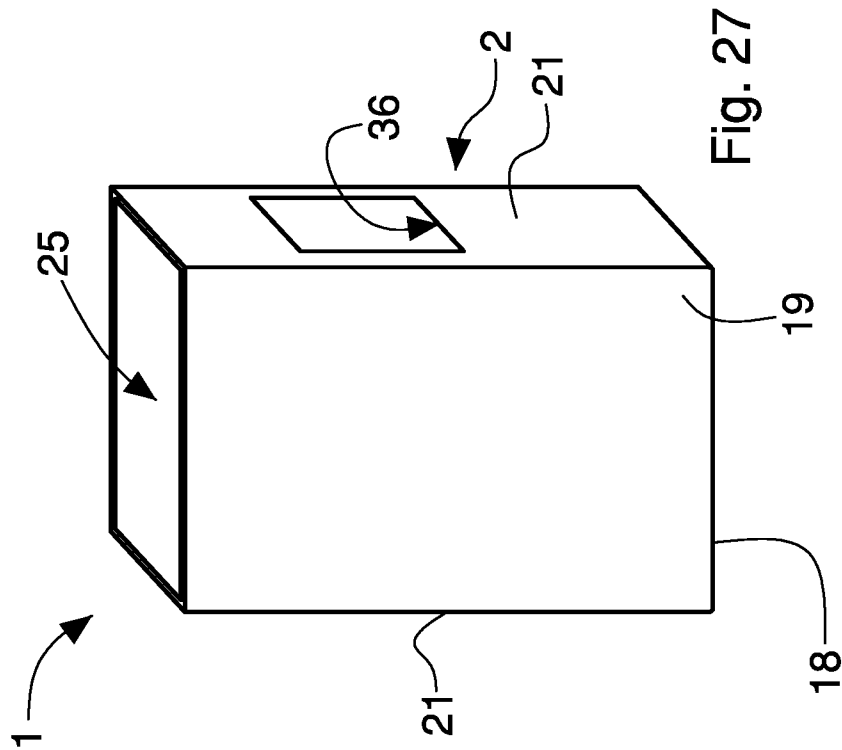


Fig. 27

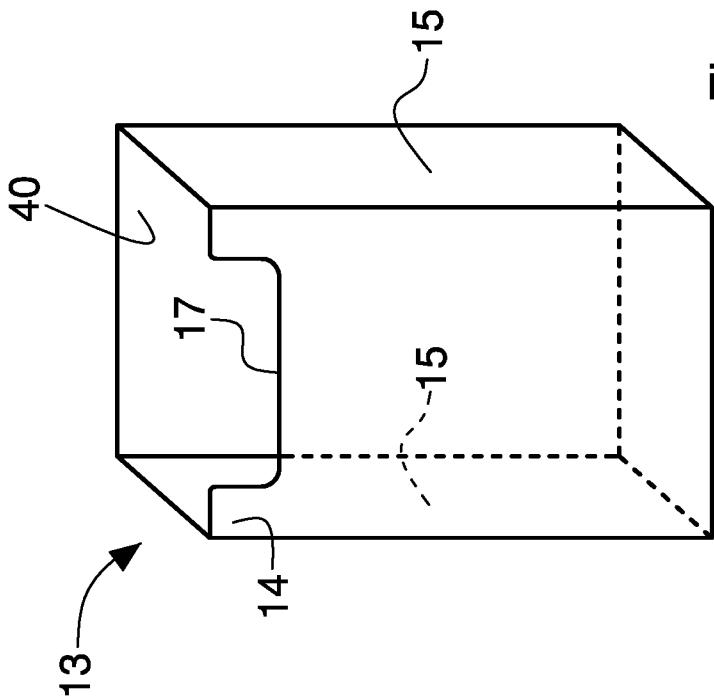


Fig. 28

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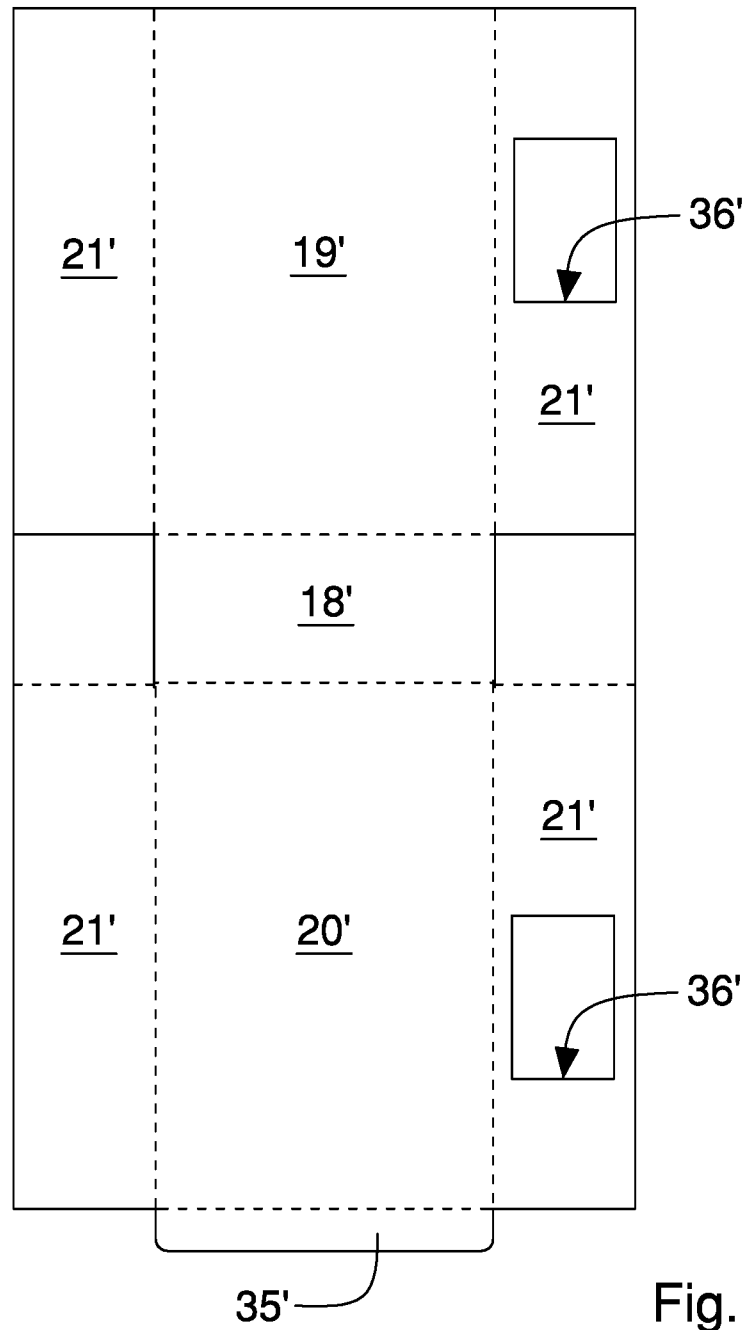



Fig. 29

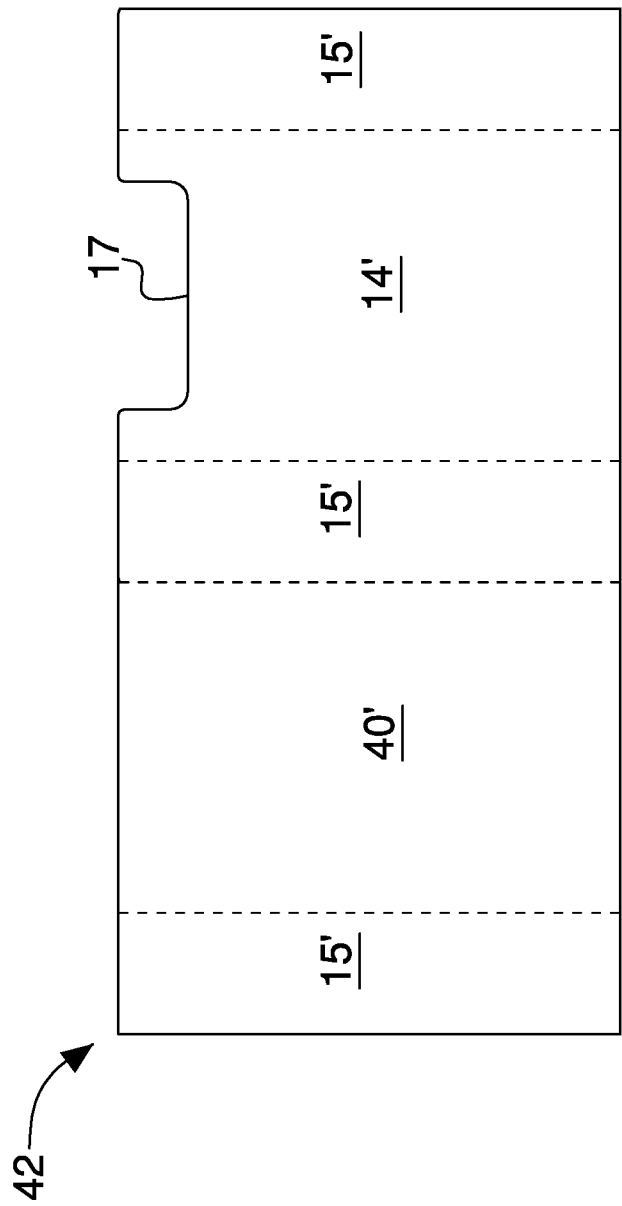


Fig. 30

INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2016/050371

A. CLASSIFICATION OF SUBJECT MATTER
INV. B65D85/10
ADD.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
B65D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EP0-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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A	WO 98/49072 A1 (ROTHMANS BENSON & HEDGES [CA]; KEAVENEY BENEDICT [CA]; DAVIDSON KENNET) 5 November 1998 (1998-11-05) page 8, line 21 - page 9, line 13; figures 8, 9	1,2,8
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A	----- WO 2011/058414 A1 (GIMA SPA [IT]; VECCHI MARCO [IT]) 19 May 2011 (2011-05-19) the whole document ----- -/--	1

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

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"&" document member of the same patent family

Date of the actual completion of the international search

11 April 2016

Date of mailing of the international search report

21/04/2016

Name and mailing address of the ISA/

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Authorized officer

Balz, Oliver

INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2016/050371

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

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Information on patent family members

International application No

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