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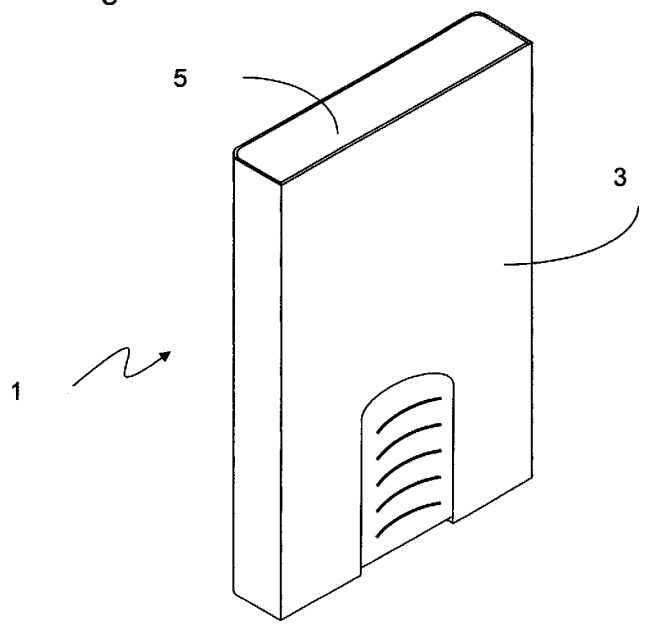
Fig. 1



(57) Abstract: A pack for smoking articles comprises an outer shell comprising opposing front and back major panels, two opposing minor side panels, and opposing first and second ends; and an inner tray located within the outer shell and slidable along an axis directed between the first and second ends. The inner tray includes a base adjacent and parallel to the back major panel of the outer shell and a bottom edge adjacent to the first end of the outer shell when the pack is fully closed. The first end of the outer shell is configured to prevent the inner tray emerging from the outer shell at the first end, and the second end is open to permit the inner tray to emerge from the outer shell at the second end. The pack includes a stop mechanism to prevent withdrawal of the inner tray from the second end of the outer shell past a predetermined limit. The outer shell includes an aperture which allows a user to push the inner tray out of the outer shell through the second end.

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PACKET

Field of the invention

The invention relates to packaging for smoking articles, such as cigarettes. In particular the invention relates to packaging smoking articles in a shell and slider type packet.

Background to the invention

Cigarette packs having an outer shell and inner tray or slider are well-known, see for example the following patent applications: UK patent GB 166861, UK patent GB 2115386, US patent US 5,080,227, PCT patent application WO 2004/024595, PCT patent application WO 2005/090172, PCT patent application WO 2004/063032 and PCT patent application WO 2007/065514.

In some existing packs, the outer shell is open at one end. The contents of the inner slider, usually cigarettes, may be accessed by inserting a finger through an aperture in the outer shell and pushing the inner slider to emerge through the open end of the outer shell. When the inner slider emerges from the outer shell, the cigarettes can then be removed from the inner slider.

Many existing packs also include some form of mechanism to restrict movement of the inner slider within the outer shell. Such a mechanism prevents the inner slider from being completely removed from the outer shell.

It is desirable to provide a shell and slider combination that is easier to use and/or more robust than existing configurations.

Summary of the invention

One embodiment of the invention provides a pack for smoking articles comprising an outer shell comprising opposing front and back major panels, two opposing minor

side panels, and opposing first and second ends; and an inner tray located within the outer shell and slidable along an axis directed between the first and second ends. The inner tray includes a base adjacent and parallel to the back major panel of the outer shell and a bottom edge adjacent to the first end of the outer shell when the pack is fully closed. The first end of the outer shell is closed to prevent the inner tray emerging from the outer shell at the first end, and the second end is open to permit the inner tray to emerge from the outer shell at the second end. The pack includes a stop mechanism to prevent withdrawal of the inner tray from the second end of the outer shell past a predetermined limit. The outer shell includes an aperture that may be disposed at the closed first end and extending round to an edge partway up the back major panel. The aperture allows a user to push the inner tray out of the outer shell through the second end. The bottom edge of the inner tray may be configured to substantially coincide with the edge of the aperture partway up the back major panel when the inner tray has been withdrawn from the outer shell to said predetermined limit. The aperture generally exposes the bottom edge (and at least part of the bottom face) of the inner tray when the pack is closed. This then allows a user to push on the bottom edge (and/or bottom face) to remove the inner tray from the outer shell. This is generally easier than opening the pack by pushing on the base of the inner tray itself (since the base is parallel to direction of motion of the inner tray).

Furthermore, because the aperture extends up the rear major panel of the outer shell, the bottom edge and face of the inner tray remain directly accessible for pushing (until the predetermined limit is reached). In other words, there is no need to extend a finger increasingly deeply into the cigarette pack in order to move the inner slider.

The length of the aperture along the back major panel of the outer tray can bebe approximately the same (or slightly less than) the distance that the inner tray can slide within the outer tray prior to reaching the predetermined limit. This helps to ensure that the user action to open the pack terminates at or just before the predetermined limit, and so reduces stress on the stop mechanism.

In one embodiment, the stop mechanism comprises an inwardly turned lip attached to the front major panel of the outer shell, and a cover panel that extends over the base

of the inner tray. The cover panel is attached to the base of the inner tray by opposing side walls and an end wall to form a pocket for receiving smoking articles. The cover panel abuts against the inwardly turned lip when the inner tray has reached the predetermined limit of withdrawal from the outer shell. This arrangement for the stop mechanism is relatively easy to manufacture and involves very little (if any) modification to the basic design of the pack – e.g. even the inwardly turned lip on the front major panel might be provided anyway for aesthetic and wear reasons.

In one embodiment, the surface of the base of the inner tray which is exposed by the aperture when the pack is closed is textured. This texturing makes it easier for a user to slide the inner tray out of the outer shell by pushing on the base. The texturing may be formed by embossing, debossing, roughening, or any other suitable mechanism.

In one embodiment, the inner tray further comprises a top cover portion comprising first and second panels. The first panel extends from the base at the opposite end to said bottom edge, and the second panel extends from the first panel. The top cover portion encloses the smoking articles within the pack when the pack is closed. The first panel acts as the top end of the pack, while the second panel folds back inside the outer shell towards the bottom edge when the pack is closed. The second panel is larger than the first panel, so that the second panel can only be unfolded from the closed position by sliding the inner tray out of the outer shell. This helps to prevent the pack opening accidentally. In one embodiment, the inner tray is withdrawn from the outer shell substantially to the predetermined limit before the top cover portion can be moved away to allow access to the smoking articles held in the inner tray.

In one embodiment, the pack is relatively thin (regarding depth from front to back) compared to a conventional hinged-lid pack. Note that the combination of outer shell and inner tray for such a thin pack is helpful, since in contrast, a very thin conventional hinged-lid pack may have interference problems with the lid opening action.

Another embodiment of the invention provides a set of blanks for forming such a pack.

Brief description of the drawings

Embodiments of the invention will now be described, by way of example only, with reference to the accompanying drawings in which:

Figure 1 shows a rear perspective view of a slide and shell pack according to an embodiment of the invention when closed;

Figure 2 shows a rear perspective view of the outer shell of the pack shown in Figure 1;

Figure 3 shows another perspective view of the outer shell of the pack shown in Figure 1;

Figure 4 shows a rear perspective view of the inner tray from the pack shown in Figure 1 where the inner tray is closed;

Figure 5 shows a front perspective view of the inner tray from the pack shown in Figure 1, where the cover flap is closed;

Figure 6 shows a front perspective view of the inner tray from the pack shown in Figure 1, where the cover flap is open;

Figure 7 shows a rear perspective view of the pack of Figure 1 where the inner tray is withdrawn from the outer shell and where the inner tray is closed;

Figure 8 shows a front perspective view of the pack of Figure 1 where the inner tray is withdrawn from the outer shell and where the inner tray is open;

Figure 9A shows a blank suitable for making the outer shell of the pack as illustrated in Figures 1 to 3, 7 and 8; and

Figure 9B shows a blank suitable for making the inner tray of the pack as illustrated in Figures 1 and 4 to 8.

Detailed description

Figure 1 shows a perspective view of a slide and shell pack 1 for smoking articles in accordance with an embodiment of the invention. The pack 1 is viewed from the rear in Figure 1. The pack 1 includes an outer shell 3, as shown separately in Figures 2 and 3, and an inner tray 5, as shown separately in Figures 4, 5 and 6. Smoking articles such as cigarettes may be located in the inner tray 5.

Referring to Figures 1, 2 and 3, the outer container 3 has a generally rectangular shape and includes a front major panel 2, a rear major panel 4 and two opposing minor side panels 6, 8. The outer shell 3 further includes a bottom end panel 10. The top end of the outer shell 3 (opposite the bottom end panel 10) is open to allow the inner tray 5 to be withdrawn from the outer shell 3.

In the embodiment shown, the rear edges of the outer shell 3 and the corresponding edges of the inner tray 5 are sharp, whereas the front edges of the outer shell 3 and the corresponding edges of the inner tray 5 are curved. It will be appreciated that in other embodiments, the edges of the outer container 3 and inner tray 5 can be any suitable shape, for example rounded, sharp or chamfered.

An aperture 12 in the outer shell 3 extends from the middle of the bottom panel 10 towards the edge where the bottom panel 10 joins the back major panel 4. The aperture extends around this edge, and partway up the back major panel. The aperture 12 provides an opening through which the inner tray 5 is exposed (as shown in Figure 1). The exposed area allows a consumer to apply pressure and push the inner tray 5 such that it emerges from the open end of the outer shell 3.

In the illustrated embodiment, aperture 12 occupies approximately the middle third of the back major panel 4 and bottom panel in the width direction (with respect to opposing side panels 6, 8). In the length direction, the aperture 12 commences in the bottom end panel 10 about halfway between the edge with the front major panel 2 and the edge with the back major panel 4. The aperture 12 terminates approximately 40% of the way up the back major panel (from end panel 10 to the open end). It will be appreciated that other embodiments may have other dimensions and spacings.

In the embodiment shown in Figure 2, the outer shell 3 also includes an inwardly turned lip 14 on the inside of the front panel 2. The inwardly turned lip 14 acts as a stop to prevent the inner tray 5 from being fully withdrawn from the outer shell 3. The interaction of the inwardly turned lip 14 and the inner tray 5 is described further below with reference to Figure 8.

As shown in Figures 4, 5 and 6, the inner tray 5 is substantially rectangular in shape and includes a base 7 and two opposing side panels 9, 11 which are perpendicular to base 7. When the inner tray is inserted into the outer shell 3, the base 7 is adjacent and parallel to rear major panel 4 of the outer shell, while opposing side panels 9 and 11 of the inner tray are adjacent and parallel to opposing side panels 6 and 8 respectively of the outer shell.

The inner tray 5 further includes a first cover portion comprising an end panel 15 attached to base 7 and a cover flap 17 attached to end panel 15. The first cover portion acts as a lid when the assembled pack 1 is closed (when the inner tray 5 is inside the outer shell as shown in Figure 1).

When the pack is closed, the end panel 15 is perpendicular to the base 7 (as shown in Figure 5). The cover flap 17 is perpendicular to the end panel 15, and is folded back over, inside and parallel to the base 7 (and parallel and adjacent to the front major panel 2 of the outer container 3). In this configuration, the end panel 15 covers and acts to close the open end of the outer shell 3 with the inner tray 5 inside. The cover flap 17 helps to keep the end panel 15 closed. In particular, since the cover flap 17 is considerably longer than the end panel 15, the cover flap 17 cannot be withdrawn from the outer shell 3 (it cannot clear the front major panel 2) unless the inner tray 5 slides upwards and out of the outer shell. Accordingly, the cover flap 17 helps to hold the end panel 15 in place in the closed position, thereby retaining the cigarettes or other smoking articles within pack 1.

When the inner tray 5 is (partly) withdrawn from the outer shell 3, this allows the cover flap 17 to clear the front major panel 2 of the outer shell. The cover flap 17 and the end panel 15 may now be rotated back away from base 7, for example to the position shown in Figure 6, in which the base 7, end panel 15 and cover flap 17 are all

aligned. This then enables a consumer to remove a cigarette or other product from the inner tray 5.

The inner tray 5 further includes a second cover portion. The second cover portion includes a bottom end panel 21, which is adjacent and parallel to the bottom end panel 10 of the outer container 3 when the pack is closed. The second cover portion further includes opposing side panels 25, 27, which overlap and adhere to the side panels 9 and 11 respectively.

The second cover portion further includes a cover panel 23 which spans opposing side panels 25, 27, and also extends down to the bottom end panel 21. The cover panel 23 extends just over half the height of the base 7 (from bottom end panel 21 towards the cover end panel 15). The cover panel 23 is parallel and adjacent to the front major panel 2 of the outer container 3 when the pack 1 is closed. The base 7, cover panel 23, side panels 25, 27 and end panel 21 together form a pocket at the bottom of the inner tray 5 for holding cigarettes or other content.

In the embodiment illustrated in Figure 4, the underside of base 7 (i.e. the side facing the rear panel 4 of the outer container 3 when the pack is closed) includes a textured region 29 that is embossed with ridges. When the pack is closed, textured region 29 coincides with the aperture 12 (as can be seen in Figure 1). The textured area 29 assists a consumer in pushing inner slider 5 out of the outer shell 3, in that it provides better grip on (friction with) the base 7 to be pushed.

Pushing the inner slider 5 out of the outer shell 3 is also assisted in that aperture 12 extends into bottom end panel 10. This then allows a consumer to push directly against bottom end panel 21 of the inner tray 5 to open the pack. This is generally convenient and effective for a user, since bottom end panel 21 is perpendicular to the direction of withdrawal (rather than parallel, as for base 7). Accordingly, a consumer is able to open the pack by sliding the inner tray out of the outer container without undue effort.

Figures 7 and 8 are rear and front views respectively of the pack when the inner slider is partly withdrawn from the outer shell. In these views the pack is fully open, in that the inner tray 5 is withdrawn to the maximum permitted extent from the outer

container 3. (In Figures 7 and 8, the part of the inner tray 5 that remains inside the outer shell 3 is shown in broken lines to help illustrate the position of the inner tray 5 relative to the outer shell 3 when the pack 1 is open).

When the inner tray 5 emerges from the open end of the outer shell 3, the contents in the pack 1 can be accessed by lifting the cover flap 17 of the first cover portion, as described above. N.B Figure 7 depicts cover flap 17 still in the closed position, Figure 8 depicts cover flap 17 in the open position.

The inner tray is fully withdrawn from the outer container, as shown in Figures 7 and 8, when the top edge of cover panel 23 abuts against the lower edge of the inwardly turned lip 14. This configuration acts as a stop mechanism to prevent the inner tray 5 from being further extracted from the outer shell 3. Accordingly, the stop mechanism ensures that the inner tray is not removed completely from outer shell 3.

Also in the open position, the bottom end of the inner tray 5, in particular bottom end panel 21, is approximately coincident with the top of the aperture 12 – i.e. the portion of aperture 12 furthest from the outer shell bottom end panel 10. This therefore represents a natural limit for pushing the pack open. For example, if a finger is used to push the bottom end panel 21 of the inner tray 5 upwards via aperture 12, the finger will now abut against the portion of the back panel 4 forming the (top) edge of aperture 12. In other words, the length of aperture 12 along back panel 4 corresponds approximately to the distance that inner tray 5 is allowed to slide within the outer container 3 until the stop mechanism (lip 14 and cover panel 23) engages. This configuration produces a more robust pack, in that a user cannot easily push against the stop mechanism. Rather the stop mechanism and the edge of aperture 12 act together to limit the motion of the inner slider out of the outer container. This helps to protect the stop mechanism against wear and/or damage.

When closing the pack, the cover flap 17 portion is folded back over the contents, and the inner tray is then pushed from the top end, such as end panel 15, to return the inner tray to the closed position shown in Figure 1. In this action, the closed end of the outer shell 3 acts as a stop to limit movement of the inner tray 5. In particular, the

closed position is reached as bottom end panel 21 of the inner tray abuts against bottom end panel 10 of the outer shell 3.

Although Figures 7 and 8 illustrate one particular stop mechanism to prevent the inner tray 5 from being fully withdrawn from the outer shell 3, the skilled person will be aware of other possible arrangements for the stop mechanism. For example the inwardly turned lip could be provided on a different panel of the outer shell 3 from front panel 2, and/or multiple inwardly turned lips and multiple corresponding stop members may be used to form the stop mechanism. Nevertheless, having the lip just on the front panel 2 has the advantage that it coincides with the direction of access to the contents of the inner tray (and so neither the outer container nor the inner tray extends further in this direction at the front of the pack). One possibility is that a piece of card or the like could be fixed to the outside of one of the panels of the inner tray 5 to engage with an inwardly turned lip or other structure on the inside of the outer container 3.

Figure 9A depicts a blank 30 suitable for making the outer shell 3 as illustrated in Figures 1, 2, 3, 7 and 8 in accordance with one embodiment of the invention. The blank 30 includes a first panel 31 that defines the front major panel 2 of the outer shell 3. The first panel 31 is joined by a scored fold line F1 at its top edge to a second panel 32 that forms an inwardly turned lip 14 on the outer shell 3 and by a scored fold line F2 at its bottom edge to a third panel 33 that defines the bottom end panel 10 at the closed end of the outer shell 3. The third panel 33 is joined at its bottom edge by a scored fold line F3 to a fourth panel 34 that defines the rear major panel 4 of the outer shell 3. The fourth panel 34 is joined at its bottom edge by a scored fold line F4 to a fifth (extension) panel 35 that defines a second inwardly turned lip on the outer shell 3. (This second lip is to provide a smooth folded edge on the pack, rather than acting as a stop mechanism). The fold lines F1, F2, F3 and F4 are parallel to each other. A hole or aperture 12 is cut through the blank 30. Aperture 12 extends from the third panel 33, across fold line F3, into the fourth panel 34 of the blank 30.

The fourth panel 34 is joined by a scored fold line F5 to a sixth panel 36 and by a scored fold line F6 to a seventh panel 37. The fold line F5 is parallel to fold line F6.

The sixth panel 36 and seventh panel 37 define opposing side panels 8 and 6 respectively of the outer shell 3. An eighth panel 38 and a ninth panel 39 are joined by scored fold lines F7 and F8 to the sixth and seventh panels 36, 37 respectively. In the assembled pack, the eighth and ninth panels 38, 39 each overlaps on the inside of third panel 33 (bottom end panel 10 of the outer shell 3) to facilitate attaching the side panels 6, 8 of the outer shell 3 to the bottom end panel 10 (closed end) of the outer shell 3. A tenth panel 40 and an eleventh panel 41 are joined by a scored region S1, S2 respectively to opposing sides of the first panel 31. In the erected outer shell 3, scored regions S1 and S2 each defines a rounded edge on the front of the outer shell 3. The tenth panel 40 and the eleventh panel 41 help to form opposing side panels 8, 6 of the outer shell 3. In particular, in the erected outer shell 3, the tenth panel 40 overlaps the sixth panel 36 and the eleventh panel 41 overlaps the seventh panel 37 to define the opposing side panels 8 and 6 respectively of the outer shell 3.

Figure 9B shows a blank 50 suitable for making the inner tray 5 as illustrated in Figures 1, 4, 5, 6, 7 and 8 in accordance with one embodiment of the invention. The blank 50 includes a first panel 51 that defines the cover flap 17 of the first cover portion of the inner tray 5. The first panel 51 is joined by a scored fold line F10 along its bottom edge to a second panel 52 that defines the top end panel 15 of the first cover portion of the inner tray 5. The second panel 52 is joined by a scored fold line F12 to a third panel 53 that defines the base 7 of the inner tray 5. The third panel 53 is joined by a scored fold line F13 to a fourth panel 54 that defines the bottom end panel 21 of the second cover portion. The fourth panel 54 is joined by a scored fold line F14 to a fifth panel 55 that defines the cover panel 23 of the second cover portion of the inner tray 5. The fold lines F10, F12, F13 and F14 are parallel to each other.

The third panel 53 is joined by a scored fold line F15 to a sixth panel 56 and by a scored fold line F16 to a seventh panel 57. The fold line F15 is parallel to fold line F16. The sixth panel 56 and seventh panel 57 define opposing side panels 11 and 9 respectively of the inner tray 5. An eighth panel 58 and a ninth panel 59 are joined by scored fold lines F17 and F18 to the sixth and seventh panels 56, 57 respectively. The eighth and ninth panels 58, 59 each overlaps on the inside of the fourth panel 54 (corresponding to the bottom end panel 21 of the inner tray 5) to facilitate attaching,

e.g. by adhesive, the side panels 11 and 9 of the inner tray 5 to the bottom end panel of the second cover portion of the inner tray 5.

A tenth panel 60 and an eleventh panel 61 are joined by respective scored regions S11 and S12 to the fifth panel 55. The tenth panel 60 and the eleventh panel 61 define opposing side panels 27 and 25 respectively of the inner tray 5. The scored regions S11 and S12 each define a rounded edge at the front of the second cover portion of the inner tray 5. In the erected inner tray 5, the tenth panel 60 overlaps the sixth panel 56 and the eleventh panel 61 overlaps the seventh panel 57 to define the opposing side panels 27 and 25 respectively of the pocket formed at the bottom of the inner tray.

The third panel 53 includes a textured region 29 close to the fourth panel 54. The textured region 29 defines a tactile region that is exposed through the aperture 12 in the erected and assembled pack 1 as shown in Figure 1. It will be appreciated that the textured region 29 may be made by any suitable method, such as embossing, debossing, delaminating the surface, etc., in order to provide improved contact between a finger or thumb and the base 7 of the inner tray 5.

In one embodiment, the pack described herein is relatively thin compared to conventional hinged-lid packs. For example, the dimensions of the outer shell are approximately as follows:

length (from top to bottom): 86mm
width (from one side panel to the other side panel): 59mm
depth (from front to back): 12mm.
It is relatively difficult to make such a thin pack – i.e. with the low depth dimension – according to a traditional pattern for a hinged-lid carton because of potential interference with the lid opening action.

The skilled person will be aware of various modifications that may be made to the embodiments described above and although the invention has been described by way of example in relation to a thin cigarette pack, it can be embodied in any of the usual pack and carton configurations used for cigarettes and similar smoking articles, for

example standard square corner, twenties, tens and other sized packs. As used herein the term pack is intended to include a carton.

Furthermore, although the stop mechanism is described embodied as an inwardly turned lip 14 that is attached to the major front panel that cooperates with cover portion on the inner tray, these features can be embodied on one or more other panels of the pack to provide the stop mechanism. For example the inwardly turned lip could be provided on one or more of the minor side panels 6, 8 to abut against portions of the inner tray.

Also the configuration of the inner tray can be modified to make the cover flap shorter so that the cigarettes in the pack are readily exposed as the pack is opened. Furthermore the length of the cover panel 23 can be made shorter to extend the length of the inner tray that can protrude from the outer shell before being stopped by the stop mechanism.

Further, the aperture need not extend over both the second end panel and the major back panel but could be disposed in solely either one of these panels.

Accordingly, the scope of the present invention is defined by the appended claims and their equivalents.

Claims

1. A pack for smoking articles comprising:

an outer shell comprising opposing front and back major panels, two opposing minor side panels, and opposing first and second ends; and

an inner tray located within the outer shell and slidable along an axis directed between the first and second ends, the inner tray including a base adjacent and parallel to the back major panel of the outer shell and a bottom edge adjacent to the first end of the outer shell when the pack is fully closed;

wherein the first end of the outer shell is configured to prevent the inner tray emerging from the outer shell at the first end, and the second end is open to permit the inner tray to emerge from the outer shell at the second end;

wherein said pack includes a stop mechanism to prevent withdrawal of the inner tray from the second end of the outer shell past a predetermined limit; and

wherein the outer shell includes an aperture to allow to a user to push the inner tray out of the outer shell through the second end until stopped by the stop mechanism.

2. A pack according to claim 1 wherein the aperture is disposed at least in the major back panel of the outer shell.

3. A pack according to claim 1 or 2 wherein the aperture is disposed at least in the closed first end of the outer shell.

4. A pack according to claim 3 wherein the aperture extends round to an edge partway up the back major panel, and wherein the bottom edge of the inner tray substantially coincides with the edge of the aperture partway up the back major panel when the inner tray has been withdrawn from the outer shell to said predetermined limit.

5. A pack according to any preceding claim, wherein the stop mechanism includes at least one an inwardly turned lip attached to at least one of the panels of the outer shell to limit outward movement of the inner tray.

6. A pack according to claim 5 wherein the inwardly turned lip is attached to the front major panel of the outer shell which abuts against a cover panel that forms part of the inner tray, when the inner tray has reached said predetermined limit of withdrawal from the outer shell.

7. A pack according to Claim 6, wherein the cover panel is coupled to the base of the inner tray to form a pocket for receiving smoking articles.

8. A pack according to any one of the preceding claims, wherein the aperture exposes the bottom edge of the inner tray when the pack is closed, thereby allowing a user to push on the bottom edge to remove the inner tray from the outer shell.

9. A pack according to any one of the preceding claims, wherein the surface of the base of the inner tray exposed through said aperture when the pack is closed, is textured.

10. A pack according to any one of the preceding claims, wherein the inner tray further comprises a top cover portion comprising first and second panels, wherein the first panel extends from the opposite end of the base to said bottom edge, and wherein the second panel extends from the first panel, said top cover portion enclosing the smoking articles within the pack when the pack is closed.

11. A pack according to claim 10, wherein the second panel folds back inside the outer shell towards the bottom edge when the pack is closed such that the second panel can only be unfolded by sliding the inner tray out of the outer shell.

12. A pack according to any preceding claim, containing smoking articles.

13. A set of one or more blanks for forming the pack as claimed in any preceding claim.

14. A set of blanks according to Claim 9, comprising two blanks, wherein a first blank provides the outer shell and a second blank provides the inner tray.

15. A pack for smoking articles as hereinbefore described and with reference to the accompanying drawings.

16. A set of blanks as hereinbefore described and with reference to Figures 9A and 9B.

17. A blank for forming the outer shell of a pack as claimed in any one of claims 1 to 13 comprising a single sheet of material including a first panel for defining the major front panel portion, a second panel extending along a side of the first panel for being folded inwardly to provide a stop for the inner tray, side panel portions extending along opposite sides of the major front panel portion and delineated therefrom by fold lines, a major rear panel portion, a base portion between the major panel portions and delineated therefrom by fold lines, and an aperture in at least one of the base portion and the major rear portion to provide access to slide the inner tray in the outer shell when assembled.

18. A blank according to claim 17 including peripheral side panel portions on opposite sides of the major rear panel portion and delineated therefrom by fold lines, the peripheral side panel portions together with the panel portions on the front major surface being alignable to provide said side panels of the outer shell, with curved front edges.

19. A blank for forming the inner tray of a pack as claimed in any one of claims 1 to 13, comprising a single sheet of material that includes a panel portion that defines the base of the tray, with opposed peripheral panel portions joined by fold lines to the base panel portion so as to define side panels for the tray, a bottom panel portion coupled by a fold line to the base panel portion, and a cover portion coupled by a fold line to the bottom portion and having a smaller length dimension than the base panel portion.

20. A blank as claimed in claim 17 together with a blank as claimed in claim 19.

21. A method of fabricating a pack comprising folding the blanks claimed in claim 20 to form the pack claimed in claim 1.

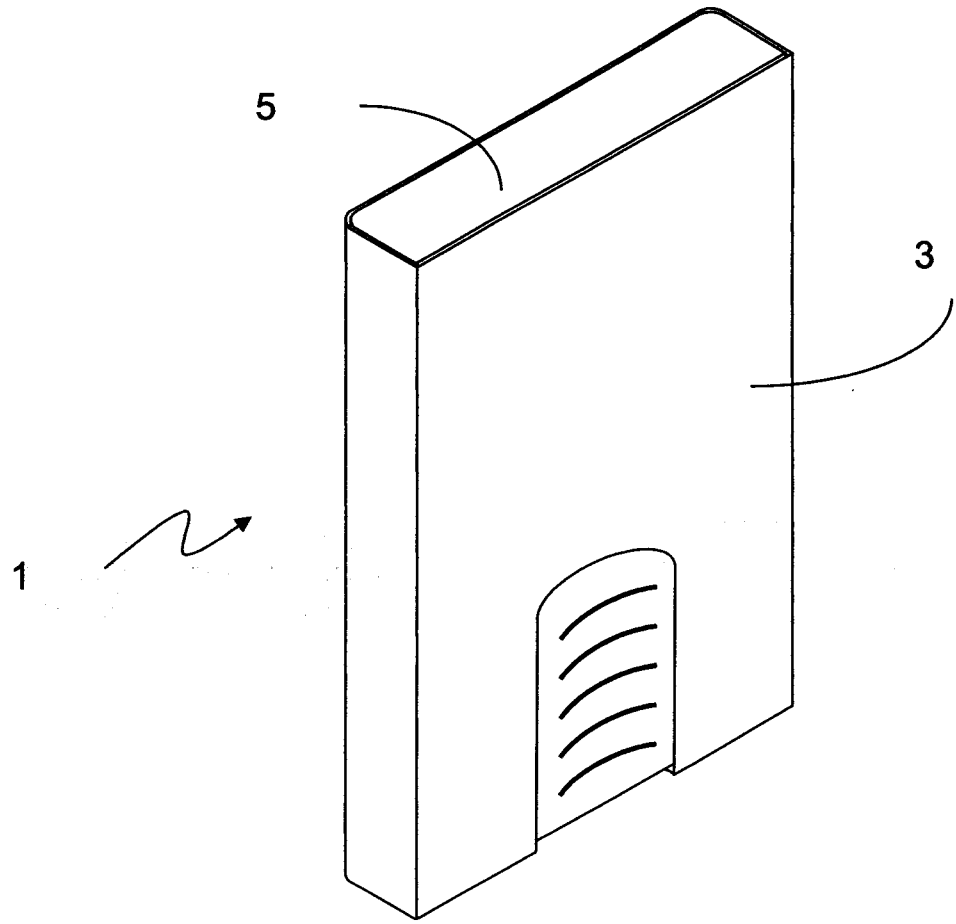


Fig. 1

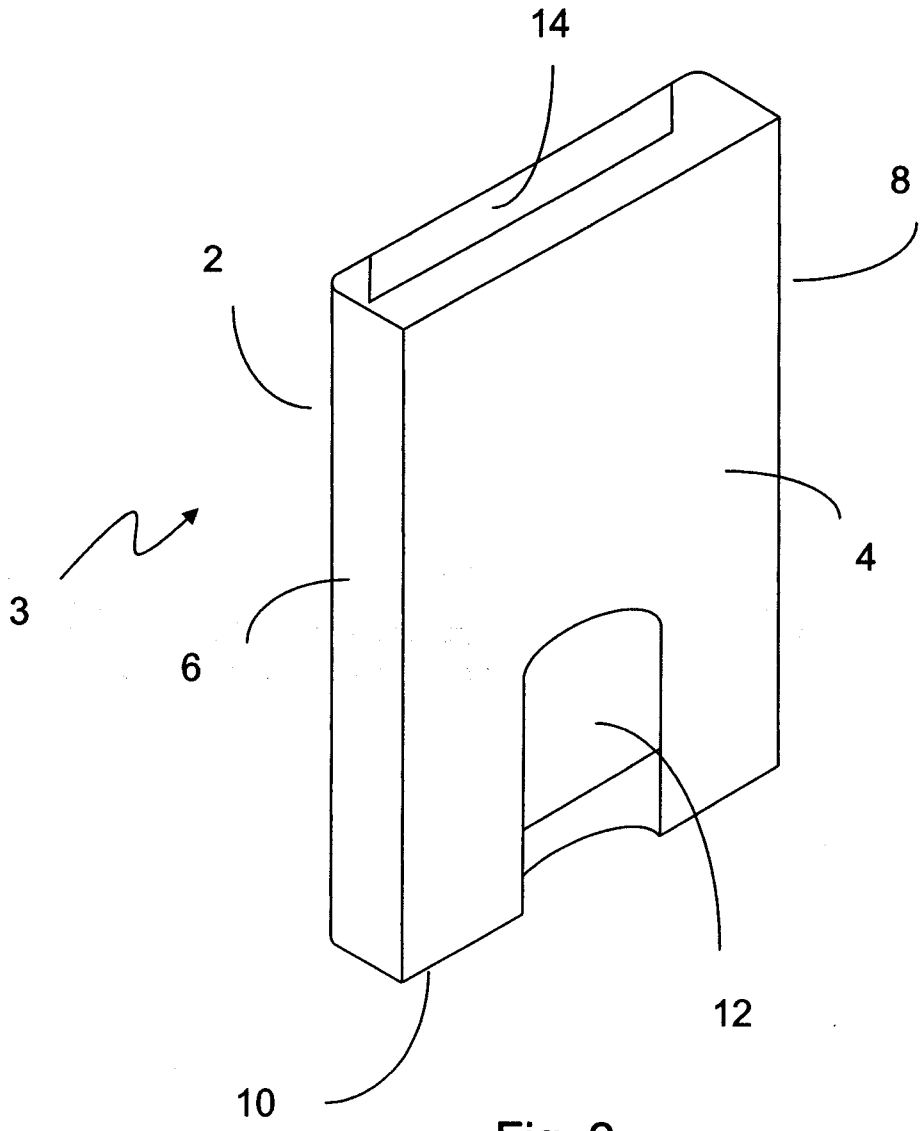


Fig. 2

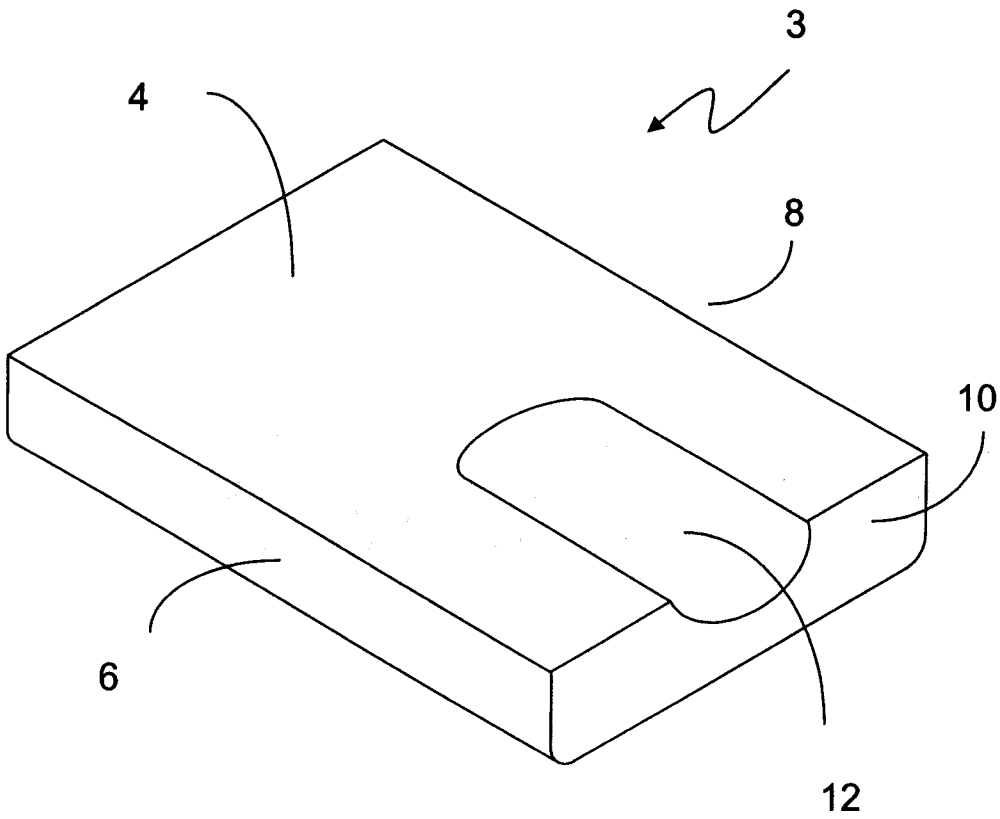


Fig. 3

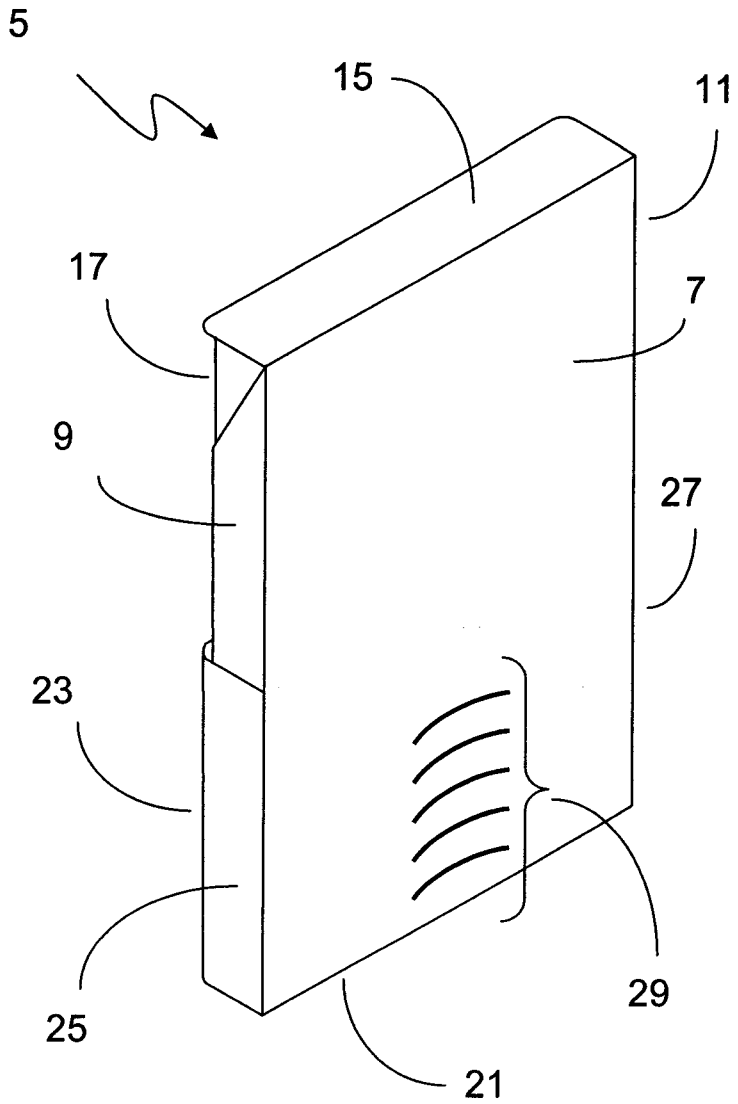


Fig. 4

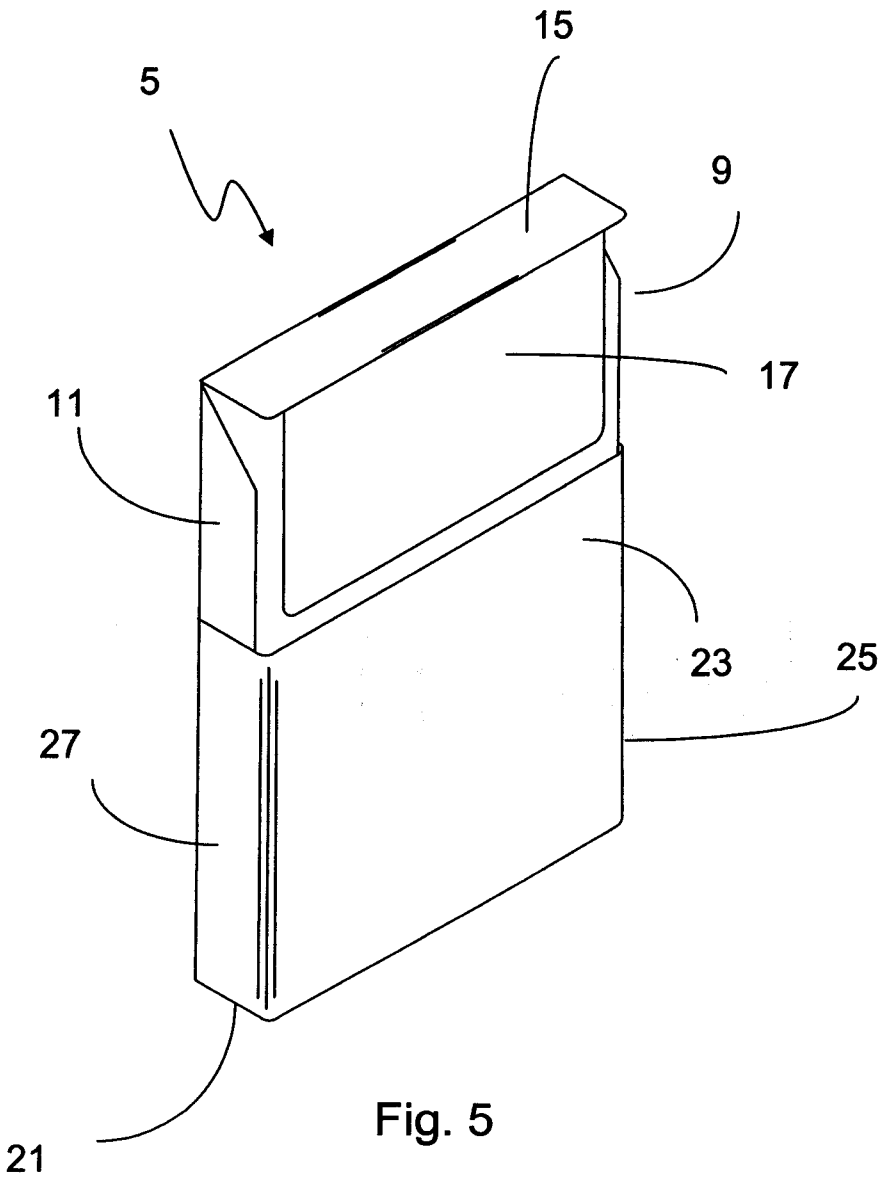


Fig. 5

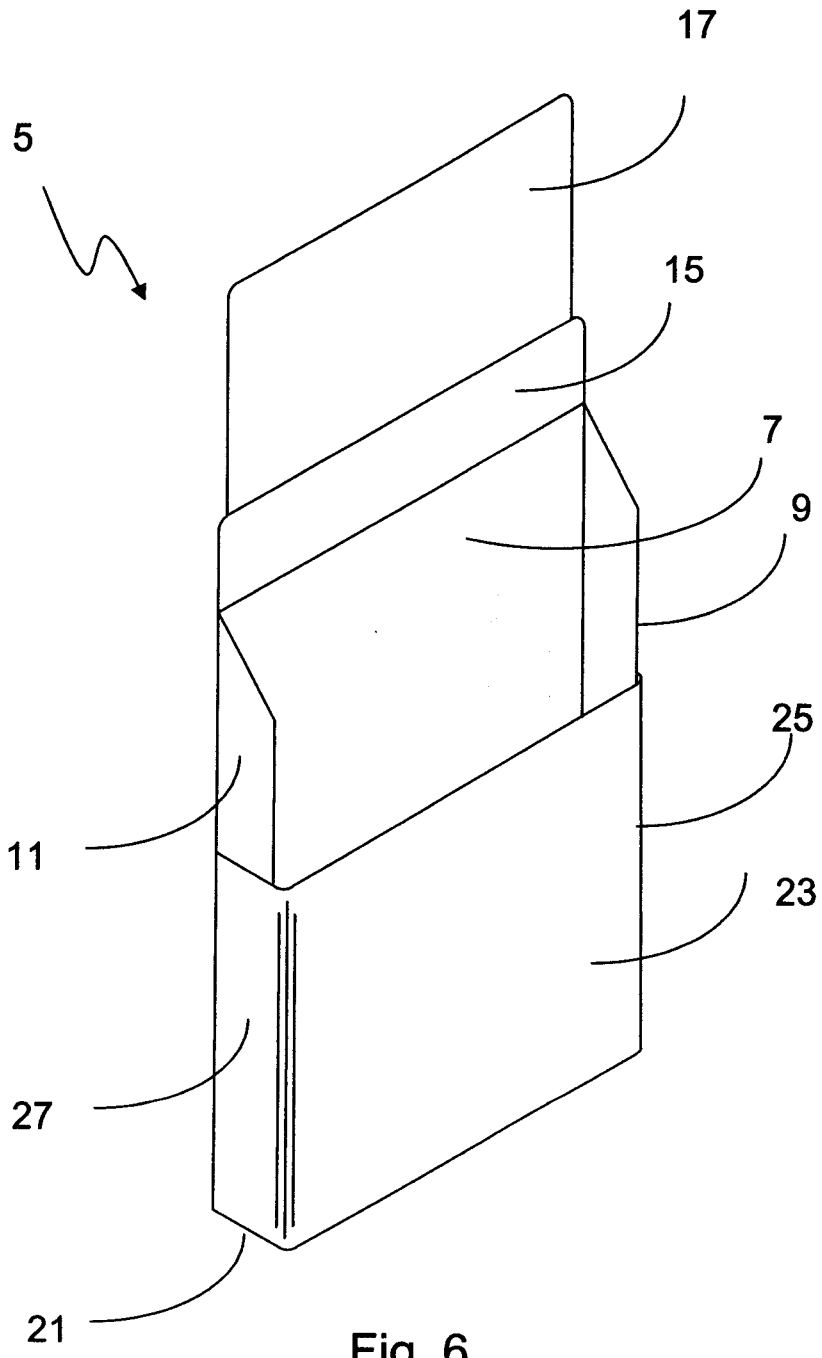


Fig. 6

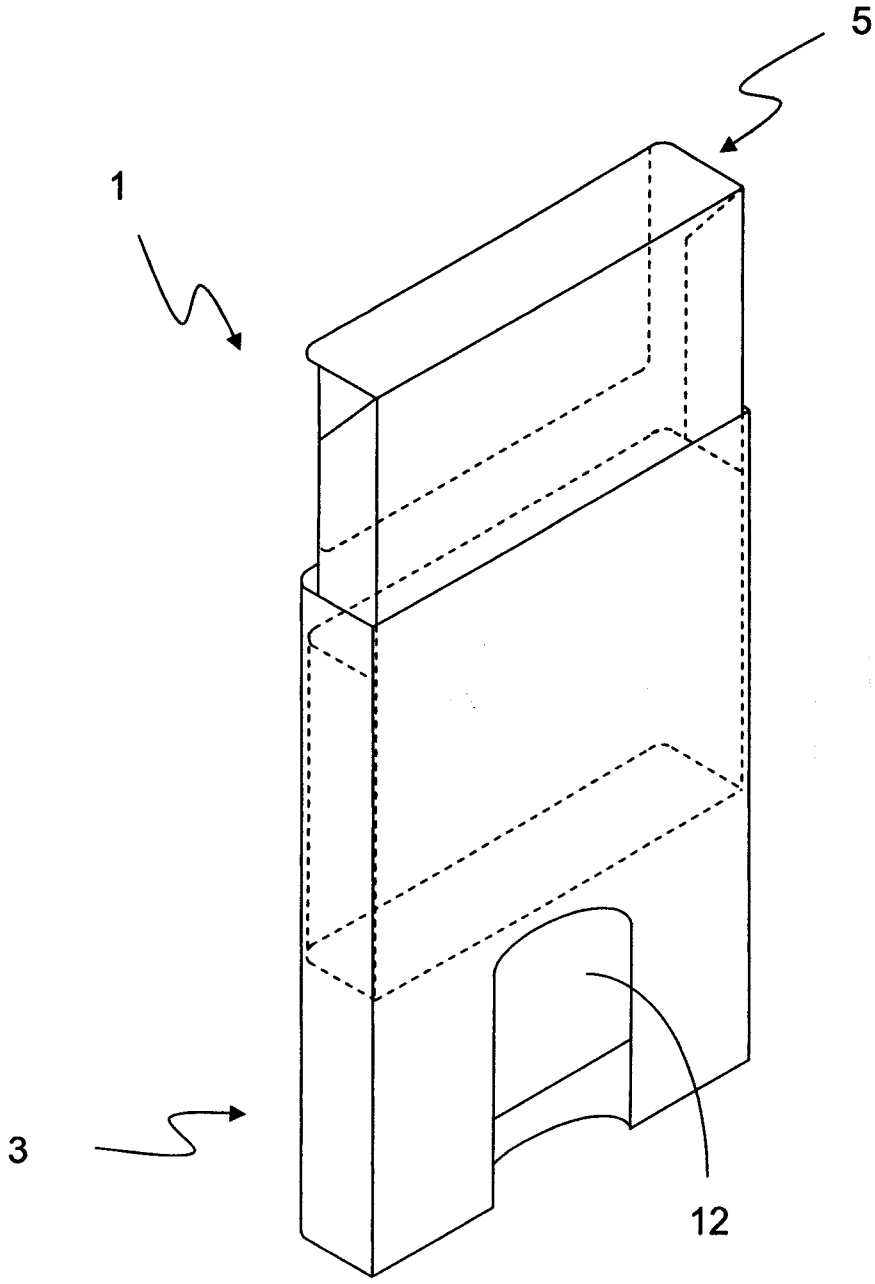


Fig. 7

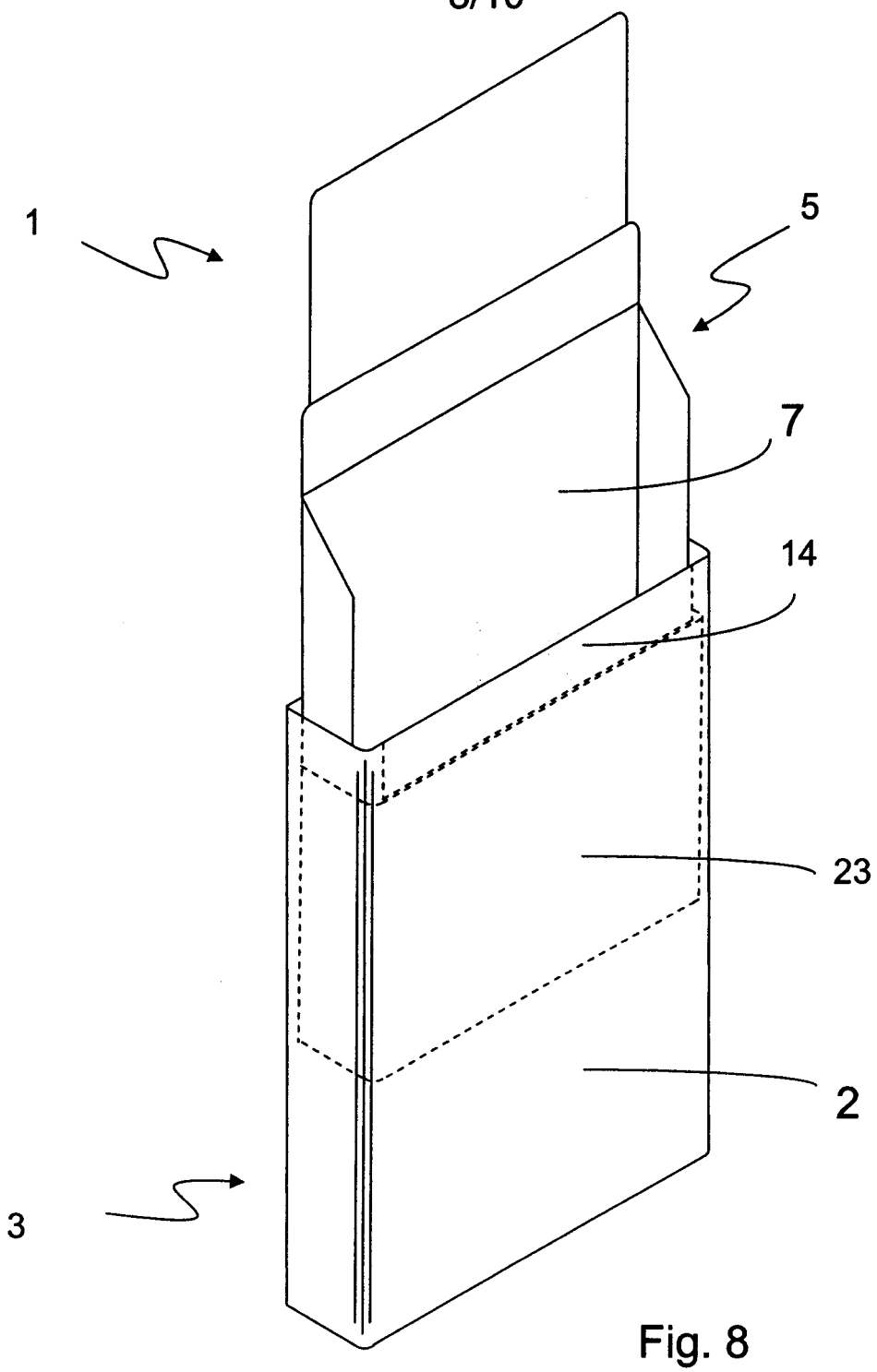


Fig. 8

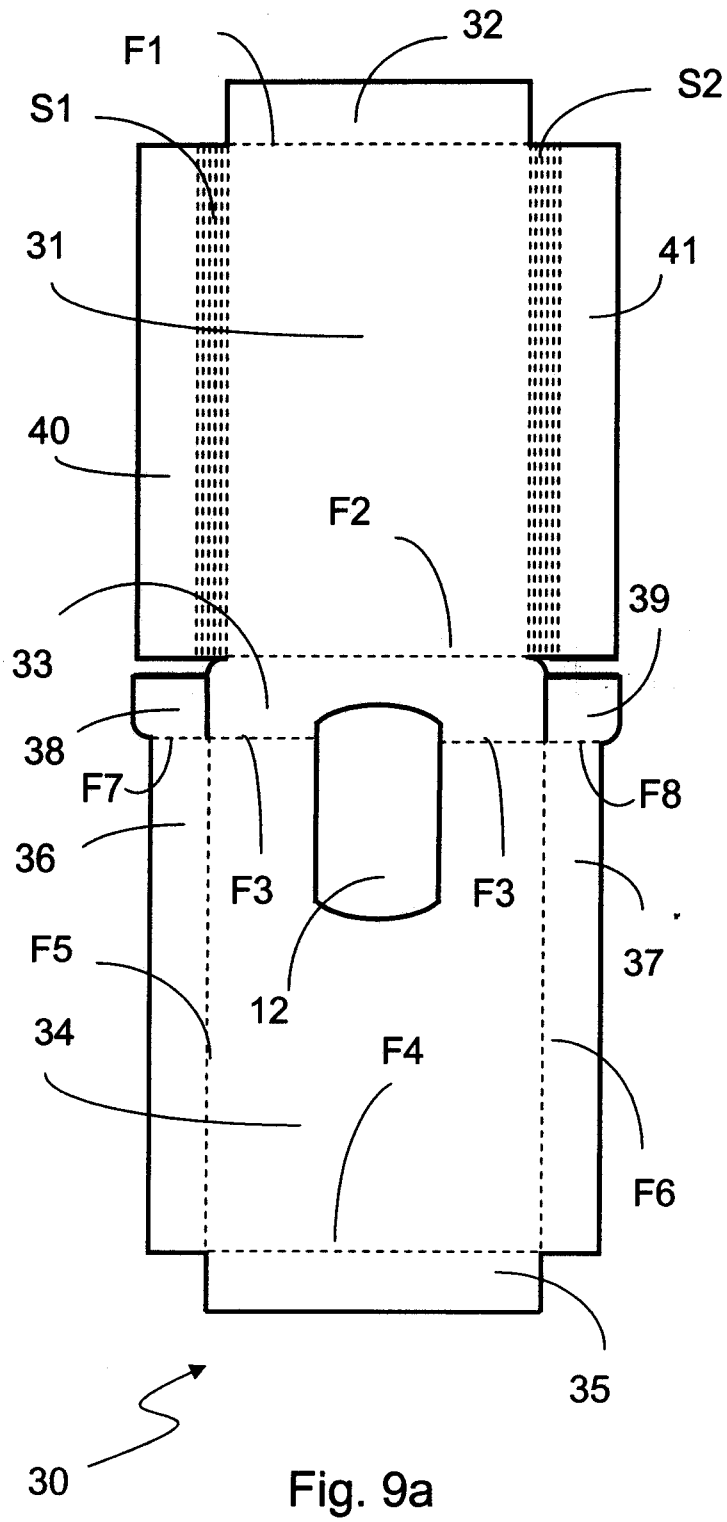
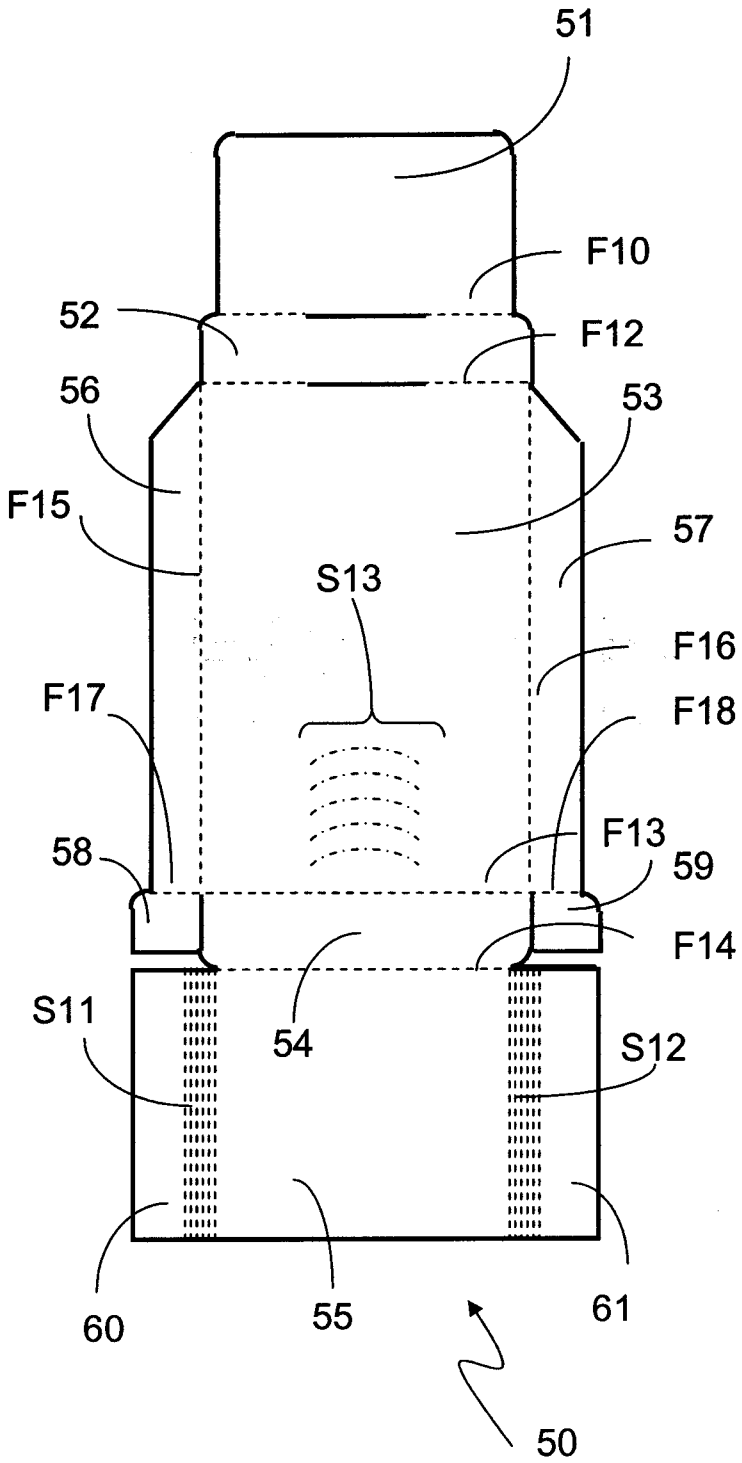


Fig. 9a


51
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F15
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S13
F16
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F18
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F14
S11
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S12
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Fig. 9b

INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2009/051490

A. CLASSIFICATION OF SUBJECT MATTER
INV. B65D85/10

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 A24F

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 practical, search terms used)
EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	GB 916 012 A (ALLEN DAVIES & COMPANY LTD) 16 January 1963 (1963-01-16) page 1, line 36 - page 2, line 31; claim 5; figures 1-6	1,2,4,8, 13,17, 20,21 5
X	CH 571 977 A5 (SHIMADA KATSUJI) 30 January 1976 (1976-01-30) column 2, line 21 - column 3, line 13 column 4, line 34 - line 56; claim 1; figures 1-8	1,3,5,8, 13,17,20
X	GB 388 971 A (LEON PIORNIK; WALTER TUCKER) 9 March 1933 (1933-03-09) page 3, line 55 - line 122; claim 1; figures 1-17	1,2,12, 13

-/--

[X] Further documents are listed in the continuation of Box C. [X] See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier document but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
13 July 2009	22/07/2009

Name and mailing address of the ISA/	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Janosch, Joachim

INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2009/051490

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 505 550 A (ROYAL SOVEREIGN PENCIL COMPANY; LEON PIORNIK) 12 May 1939 (1939-05-12) page 1, line 68 - page 2, line 31; claims 1,3; figures 1-10	1,2,13, 17,20,21
X	CH 370 699 A (JEHOUDA DANIEL [CH]; ARTIGAS JOSE [CH]) 15 July 1963 (1963-07-15) page 1, line 21 - line 60; figures 1-6	1,3,13, 17,20,21
X	GB 425 671 A (ANDRES SEGUNDO NUCCI) 19 March 1935 (1935-03-19) page 1, line 65 - page 2, line 8; claim 2; figures 2-4	1,5-7
Y	EP 0 183 397 A (TABAC FAB REUNIES SA [CH]) 4 June 1986 (1986-06-04) page 4, last paragraph - page 5, line 2; claim 3; figures 1-3	5

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.2

Claims Nos.: 15,16

Claims 15 and 16 are so unclear since they exclusively refer to the drawings, that a meaningful search is not possible.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.2), should the problems which led to the Article 17(2)PCT declaration be overcome.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP2009/051490

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☒ Claims Nos.: 15,16
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

see FURTHER INFORMATION sheet PCT/ISA/210

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers allsearchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.

3. ☒ As only some of the required additional search fees were timely paid by the applicant, this international search reportcovers only those claims for which fees were paid, specifically claims Nos.:

1-8,12,13,17,20,21

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.

☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.

☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-4,8,12,13,17,20,21

   A pack comprising an inner tray and an outer shell with an aperture which is disposed at least in the major back panel of the outer shell of the pack.

   ---

2. claims: 1,5-7

   A pack comprising an inner tray and an outer shell with a stop mechanism including at least an inwardly turned lip attached to the outer shell to limit outward movement of the inner tray.

   ---

3. claims: 1,9-11,14,19

   A pack comprising an inner tray and an outer shell where a surface of the base of the inner tray exposed through an aperture is textured.

   ---

4. claims: 1,18

   A pack comprising an inner tray and an outer shell where fold lines delineate opposite side panels of the major rear panel, which form together with the major front surface the outer shell with curved front edges.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/EP2009/051490

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
GB 916012 A	16-01-1963	NONE	
CH 571977 A5	30-01-1976	AT 345159 B	11-09-1978
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