

PACKAGING OF SMOKING ARTICLES

The present invention relates to packaging of smoking articles and provides a pack for such articles,
5 as well as a pack charged with them.

It relates to a pack in which cigarettes are positioned with their axes parallel to the axis of a hinge of a lid of the pack.

DE-A-3345586 shows a proposal for such a pack.
10 Cigarettes are held in a pack parallel to a hinge axis between its halves and which when opened exposes the interior of both halves to the user. Both may contain cigarettes. An open inner frame is provided which as drawn in Figure 4 would prevent opening or closing of
15 the pack. See also the multi-part hinged pack disclosed in US-A-5344008.

There are also packs in which the charge of cigarettes is held in a drawer-like inner slide part which moves in a shell outer in directions
20 perpendicular to the axis of the cigarettes. See, for example, US-A-5080227, US-A-4534463 and GB-A-285778. However, it is a feature common to all these that an end wall of the drawer forms the closure to the pack and there is no hinged lid.

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The pack of the present invention has a conformation which externally resembles that of a conventional "flip-top" pack. In such packs, however, it is conventional for the smoking article such as cigars, cigarettes, or cigarillos (hereinafter referred to for convenience as "cigarettes") to be presented with their long axes i.e. the axis of their cylindrical body perpendicular to the axis of the hinge. When the top is opened by rotation about the hinge line what the user sees is the circular ends of the array of cigarettes and these cigarettes can be removed from the pack by movement along their axis, perpendicular to the hinge axis, and usually in a region towards the centre of the width of the pack. Usually in a flip-top box the major axis of the pack as a whole is parallel to the axes of the cigarettes contained in it.

In the present invention the pack is adapted to receive a charge of cigarettes which have their axes parallel to the axis of the hinge of the lid of the pack, and has a liner portion of the pack partially enclosing the charge of cigarettes and preventing sideways escape from the pack but offering an actual or potential access opening for the removal of a cigarette from the pack in a direction generally parallel to the

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hinge axis, when the lid is open, in a region adjacent to one side of the pack.

Particular embodiments of the invention are described with reference to the accompanying drawings,
5 wherein:

Figure 1 shows an assembled pack empty and with the lid open;

Figure 2 shows the pack containing a charge of cigarettes and open;

10 Figure 3 shows the pack in closed condition;

Figures 4 and 5 show the inner face of blanks for two embodiments of container body and lid;

Figures 6 and 7 show the inner face of blanks for respective further embodiments of container body
15 and lid;

Figures 8 to 12 show the inner face of blanks for respective embodiments of liner; and

Figure 13 shows the outer face of a blank of a foil wrap.

20 Referring first to Figures 1 to 3, a container of a pack 1 is made in a substantially conventional manner from folded card or the like to provide a container body portion 2 and a container lid portion 3 having an end wall 4, a front wall 5 and top and bottom

walls 6,7, the latter each having a sloping edge 8,9 so that the pack resembles generally in shape and in action a conventional "flip-top" pack. However, the proportions of the pack will usually be different from those conventional for a flip-top pack in that its major dimension a is parallel to an axis 10 about which the lid 3 pivots relative to the container body portion 2. (In flip-top packs the dimension b (Figure 3) from the top of the lid to the opposite end wall is usually the major dimension.)

The container body portion 2 is cuboid. It has a major front panel 11 to which is parallel a major back panel in the plane of which or very closely adjacent to the plane of which lies the hinge axis 10. The major back panel continues into a back wall 12 of the lid portion.

Within the container body 2 there is inserted a liner 13 to project at least into the portion of the container body which is exposed when the lid 3 is opened, as in Figure 1. The liner has a front wall 14 which lies within and abuts face-to-face with at least part of the inner surface of the major front wall 11 of the body, and a rear wall 15 (Figure 1) which lies within and abuts face-to-face with at least part of the

inner surface of the major back panel of the container portion. Joining these front and rear walls 14 and 15 is an enclosure-forming side wall 16. The liner also has a base (not shown in these Figures).

5 The projecting part of the liner has no top wall, and the top corners of the liner front wall 14 and side wall 16 are both cut away in an open S shape as seen at 17 in Figures 1 and 2. Thus an access opening to the contents of the container is formed at a
10 corner portion of the pack, when the lid 3 is open. Of course, when the lid 3 is closed as seen in Figure 3 there is no access to the interior of the pack or its contents: an edge 18 of the front wall 5 of the lid 3 abuts an edge 19 of the front wall 11 of the body
15 portion of the container, and sloping edges 8,9 abut against sloping edge 20 of a top wall 21 and of a base (not shown in these Figures) of the body portion.

 The contents of the pack is intended to be a charge of (for example) twenty cigarettes, part of
20 which charge is seen at 22 in Figure 2. The charge may be cigarettes only, a foil-wrapped bundle of cigarettes or a part-foil-wrapped bundle, for example. The charge may be inserted as a whole together with the liner 13 from one side or other of the pack during its erection,

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or inserted as a charge into a pack pre-assembled with the liner, while conventional end closure flaps at side wall 23 of the container body are open at an intermediate stage of erection of the pack. Once assembled, it is not intended that the liner should be moved for the extraction of cigarettes, or otherwise. It may be a strong interference fit within the body, or preferably will be adhered or heat-sealed to it.

The central axes 24 of the cigarettes lie parallel to the hinge axis 10 of the lid 3 and also in this case to the major dimension a of the pack. When the lid is open as seen in Figure 2, the user may remove a cigarette through the access opening, by a movement along the axis 24 after removing at least the top corner of any foil or other wrapping of the cigarettes. Most conveniently the cigarette removed will be the one nearest to the corner, i.e. in the most cutaway portion of the curves 10,17 since these give easiest access to the fingers of the user. The pack can then be reclosed by a normal pivoting movement of the lid about the hinge axis 10 with the liner acting in the manner of the frame of a conventional flip-top pack, to exert frictional and/or an over-centre action on the lid as it moves.

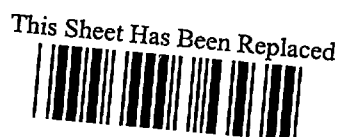
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Although the above description will suffice for the skilled person to make the pack, some preferred blanks for containers and liners will be described now. All are made of conventional sheet material such as card. Any of the liners are usable with any of the containers, and any may be used either with insertion of a charge of cigarettes into a preassembled liner or container, or by being assembled, wholly or partially, around a charge. All may be left-handed or right-handed; that is, with the lid open and away from the user, the access opening may be at the top right or top left of the pack. In many cases this can be achieved by moving the cuts 17 to a different corner of the liner.

Figures 4 and 5 show blanks for containers which assemble by folding perpendicular to the axes of cigarettes of a charge which it contains or is to contain i.e. the charge may be positioned with a pre-erected liner for the container to be assembled around it, or inserted with a liner after erection of the container, or both liner and container may be successively assembled around a charge.

In Figure 4 fold lines 30 define a front wall 11 of a body of the container and a front wall 5 of a



lid 3 of the container, separated by cut line 31. The cut line 31 continues at a slant into top and bottom panels 21,32 to define top and bottom walls 6,7 of the lid.

5 Rear panel 33 of the blank includes a hinge line 34 for the lid, dividing a rear wall 12 of the lid from a rear wall 35 of the body of the container.

 Bottom panel 32 has a tab 36 which is to be joined to the inside of the bottom of the rear panel
10 33.

 A side wall 23 of the body is formed by overlying side panels 23,37 of the blank, with corners strengthened by inturned end tabs 38,39.

 The lid is assembled by adhesion of tab 36 to
15 the inside of the rear wall 35 of the body and also to the inner surface of the rear wall 12 of the lid. Top and bottom 6,7 walls of the lid are formed with end tabs 40,41 of the panel 39 adhered to the inner surface of top and bottom walls 6,7 of the lid to strengthen
20 them.

 Once erected appropriately and secured together, a container is obtained having the appearance of Figure 3.

 Figure 5 is very similar except that tab 36 is



omitted, with top (or bottom) wall panel 21,32 being repeated at 42 for securing under its counterpart. If cut line 22' goes to an edge of the blank, as shown, it is made incomplete, pips or lands 43 of uncut material being left at the ends of the cut and in each panel.
5 Corner tabs 40',41' are here shown on panel 39 and corner tabs 38',39' on panel 37.

A blank 50 for a further embodiment of . container is seen in Figure 6. It is a blank of which
10 the main panels are folded about axes parallel to those of the cigarettes it contains or will contain. A rear panel 35 is joined to front panel 11 through side panel 57, and has a portion defined by hinge line 34, which may include partial cuts 51, which will be the rear
15 wall 12 of the lid, the side and front walls of which are provided by panels 4 and 5. A flap 52 attached to panel 5 is to be folded back through 180° and secured under it to define edge 18 and providing stiffening for the front wall of the lid. The container is erected in
20 the conventional way, with securing together of top and base panels of the body and of the lid, respectively. Tabs 53,54 on the lid, side wall 4 and tabs 55,56 on the base panel 57 of the body part will fold to underlie the respective top and base walls thus formed.

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Blank 50' shown in Figure 7 is similar except that tabs 53',54' on the lid and 55',56' on the body are provided on top and base walls and will underlie their end walls respectively.

5 All of these containers when erected will resemble that seen in Figures 1 to 3.

Figure 8 shows a first blank 60 for a liner. Front and rear panels 14,15 are joined through fold lines 61 by a side wall 16. The cutaway 17 in and
10 towards the corner between the front and side walls 14,16 reduces the height of that corner in the erected state and offers finger access. A base of the liner is formed by folding panels 62,63 to overlie each other. The width of the front and rear panels is such that
15 when erected (and enclosing a charge of cigarettes) and pushed home into a container so that the free edges 64,65 abut the side wall of the container body, a portion of the front panel projects beyond the lip of the front wall of the body as shown in Figures 1 and 2,
20 and the projecting enclosure as a whole acts analogously to the inner frame of a conventional flip-top box namely to provide a frictional and/or over-centre action on the lid as it is hinged to or form its closed and open positions, while at the same time

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offering access to the user to withdraw cigarettes in a direction parallel to the hinge axis 10 of the container and restraining cigarettes from sideways escape from the enclosure, by means of side wall 16.

5 Figure 9 shows a blank 70 for a liner wherein front and rear panels 14,15 are joined at their minor edges by base panel 62', through hinge lines 71. A first side wall is formed by overlying panels 72,73, with end tab 74 tucked in, and the side wall 16 of the
10 enclosure is formed by overlying panels 75,76, having corresponding S-cuts 17 in one end and in the front panel to form a finger access opening. End tab 77 on panel 76 is tucked in.

 Figure 10 shows a blank 80 for a liner wherein
15 as in Figure 8 front and rear panels 14,15 are joined at major edges, though a first side panel and respective hinge lines. However, the first side panel 81 is not one forming part of the projecting enclosure. That side panel 16 is hingedly joined to the other
20 major edge of the front panel, with tab 82 beyond it for securing to the inside of the far edge of rear panel 15. A base of the liner is formed of panel 83, and tabs 85,86 infolded and underlain by second panel 84. As before, reduced height of the exposed side

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panel and front panel offer a finger access at the corner between them.

A simple embodiment of liner blank 90 is seen in Figure 11. Its back panel 15 is joined at its major edge by side wall panel 16 through respective hinge lines to a partial rear panel 14'. A flap 91 on the opposite major edge of the back panel 15 forms a side panel to be parallel to panel 16. A partial base for the liner, over little more than its projecting portion, is afforded by flap 92 at the base end of the side panel 16. When infolded, the free end of the flap 92 will rest on the base of the body of the container.

In any of the embodiments, a liner may have a top wall also, provided that it does not close off the access opening offered by the enclosure, at least not permanently (a removable top wall portion could be provided in that area).

A further embodiment of liner blank 93 is seen in Figure 12. This liner may be preassembled, sent away in collapsed condition and charged after re-erection. Front and rear liner panels 14, 15 are joined through fold lines to side wall 16. Opposite side wall is formed by flap 81 joined through a fold line to panel 14, to the inner side of which is adhered side



flap 94 of the rear panel 15 by adhesive or heat-seal hatched area 95. At the base of each the side wall 16 and flap 94 are L-flaps 96. Each has an end tab 97 with an adhesive or heat-seal hatched area, the end tab
5 being joined to the wall or flap by a link 98 which has a 45° angled fold line 99 at its centre, as well as conventional fold lines at its edges.

The end tabs 97 are brought round and adhered to the inner faces of the front and rear wall panels
10 14,15 respectively. When the liner is erect in its cuboid state the links 98 will be essentially planar and act as a partial base wall. However, the liner can be collapsed sideways, with the links folding about the lines 99.

15 The blank 100 of Figure 13 shows the outer face of a foil wrap for a charge of cigarettes, adapted so that an access opening is provided. Here, that provision is by a removable portion of the wrap.

Front and rear panels 101,102 are joined by
20 first and second side panels 103,104 through respective fold lines. Back panel 102 is in two parts 102,105 which in the assembled state overlap partially. Base-forming and top-forming panels 106,107 are folded in using diamond or gusset folds. At part of the top

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which will be at the projecting enclosure, and in the corner between the front and side walls, lines of weakening 108 and 109 define a removable portion 110 of the top and of that corner. The user opens the pack,
5 exposes the wrap and pulls that portion 110 so as to expose the charge and so as to allow withdrawal of a cigarette.

Although, as stated, any liner may be used with any container body, our presently preferred combination
10 is of the liner of Figure 10 with the container of Figure 7.

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CLAIMS:

1. A pack for smoking articles which have an axis of elongation, the pack having a container body and a lid hinged to the body about a pivot axis parallel to that of the smoking articles, and a liner in the body forming an enclosure for the articles, the enclosure projecting from one side of the body to be closable by the lid in a closed position of the latter but accessible in an opened position of the latter, the enclosure then enclosing the articles but offering an access opening for the removal of a smoking article from the pack in a direction generally parallel to the hinge axis.
2. A pack according to claim 1 wherein the projecting enclosure is formed of front, rear, side and base walls of the liner, the front and side walls being of reduced height adjacent to and at a corner of the enclosure formed by them.
3. A pack according to claim 1 or claim 2 wherein a front wall of the lid is deeper than a rear wall thereof so that top and bottom walls of the lid have sloped edges, and top and bottom walls of the body portion have correspondingly sloped edges so as to lie

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edge to edge in the closed position of the lid.

4. A panel according to any one of the preceding claims which is a cuboid with its major dimension parallel to the hinge axis.

5 5. A pack according to any one of the preceding claims containing a foil-wrapped or part-foil-wrapped charge of smoking articles.

6. A pack according to claim 6 wherein the foil of the charge has a portion defined by a line of weakening so as to be removable at the access opening of the enclosure.

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