Container with a lifting element

The present invention relates to a container comprising smoking articles and further comprising a lifting element correlated to at least one smoking article for lifting the smoking article.

Smoking articles are commonly provided in hinged-lid containers which are formed from a blank. In order to access the smoking articles in the container, the consumer typically removes a transparent outer wrapper, opens the lid and removes a section of the inner liner that covers the upper ends of the smoking articles. Typically, the upper end of the smoking article is the mouth end of the smoking article. This is particularly common where the smoking article comprises a filter. When removing such a smoking article from the container, the consumer touches the mouth end of the smoking article.

Some consumers prefer to avoid touching the mouth end of the filter, particularly, where the mouth end of the smoking article comprises a recessed filter. A smoking article with a recessed filter is disclosed for example in the European Patent EP1299012.

The US patent US-A-4,949,841 discloses a hinged-lid pack for easily extracting cigarettes contained therein. The cigarettes in the pack are wrapped in an inner liner that is attached, for example glued, to parts of the bottom wall and the rear wall of the pack. When a gripping tab at the front wall of the inner liner is pulled, a part of the bottom wall of the inner liner is raised such that the first row of cigarettes is lifted.

However, the inner liner of this pack requires a significant modification of the inner liner blank compared to a prior art container for smoking articles and requires extensive modification to the packaging machine. Furthermore, the lifting part and the liftable front wall of the inner liner exert pressure on the rod end of the smoking article during the lifting process which may damage the rod end.

Embodiments of the invention provide a container that facilitates the easy removal of the smoking articles, whilst being able to be manufactured at high quality and cost efficient.

According to an aspect of the invention, there is provided a container comprising smoking articles and a cup shaped box for the smoking articles where the cup shaped box comprises a bottom wall, side walls and an opening, the container further comprising a lifting element correlated to at least one smoking article for lifting the smoking article off the bottom wall of the container, wherein the lifting element comprises an engaging portion, and wherein the engagement portion is engageable with the outside upper end portion of the smoking article

As the engagement between the lifting element and the smoking article takes place at a location at the outside upper end portion of the smoking article the rod end portion of the smoking article is not engaged and thus cannot be damaged during the lifting movement. In addition, the consumer does not have to touch the mouth end of the smoking article as the lifting element may move the smoking article sufficiently off the bottom wall of the container, so that the upper end of the smoking article protrudes over the other smoking articles in the container. This allows the consumer to easily grab the protruding upper end of the lifted smoking article along its side.

Furthermore, the construction of the lifting element according to embodiments of the invention facilitates the production of the container according to embodiments of the invention as the lifting element can easily be included at a well known production step during the production process of the container. Thus, the lifting element according to embodiments of the present invention only requires slight modification regarding the known container production process, and can therefore be implemented as an inexpensive modification in a known production line.

The engagement of the lifting element with the outside upper end portion of the smoking article further enables a small size and simple geometry of the lifting element. Such a lifting element is inexpensive in its manufacture itself.

As used herein, the terms "front", "back", "upper", "lower", "side", "top", "bottom" and other terms used to describe relative positions of the components of containers according to embodiments of the invention refer to the container in an upright position with the lid at the top end. Where the container comprises a hinged lid, the lid may be hinged at the back of the container. The terms "left" and "right" are used with reference to side walls of the container when the container is viewed from the front in its upright position. When the container in the upright position is open, the smoking articles contained in the box may be removed from the upper end of the container.

The lower end portion of the smoking article is the end portion which is closer to the bottom of the container. Accordingly, the upper end portion is the opposite end of the smoking article. Where the smoking article comprises a filter, the upper end portion of the smoking article is typically the filter end of the smoking article.

The term "longitudinal" refers to a direction from bottom to top or vice versa. The term "transverse" refers to a direction perpendicular to the longitudinal direction across the front wall, the back wall or one of the side walls. The referred lifting direction is generally in the longitudinal direction away from the bottom wall of the container.

The term "hinge line" refers to a line about which the lid may be pivoted in order to open the container. A hinge line may be, for example, a fold line or a score line in the back wall of the container. Alternatively, a hinge line may be a fold line or a score line in a piece of material bridging the lower edge of the back wall of the lid and the upper edge of the back wall of the box. Such a piece of material may be, for example, a label that is permanently or removably attached to the back wall of the lid and the back wall of the box. Preferably, the hinge line is positioned along the back wall of the container at a level below the upper edge of the back wall.

Preferably, the smoking article is lifted from the bottom of the container by between about 5 percent and about 50 percent of the length of the smoking article, preferably between about 10 percent and about 30 percent of the length of the smoking article.

Preferably, the lifting element is part of an existing packaging component, like for example the inner liner, the inner frame, an insert, onsert or outsert or a piece of the blank for any of the existing packaging components listed above.

Preferably, the at least one smoking article in the container comprises a shoulder in the form of a full ring or a section of a full ring on its outer side that is adapted to be engaged by the lifting element. The shoulder is a section along the smoking article, where the diameter of the smoking article changes in a direction from the rod end of the smoking article towards the mouth end of the smoking article. The shoulder may comprise a ring element in the form of a protrusion as well as a ring element in the form of a latch or slight reduction of diameter of the smoking article. Alternatively or in addition, the shoulder can be formed by an additional part fixed to the smoking article providing a portion that can be engaged by the engaging portion of the lifting element. The shoulder is preferably formed fully angular, such that the lifting element can engage the smoking article at any circumferential position. However, depending on the arrangement of the smoking articles in the container the shoulder may also extend only partially around the circumference of the smoking article. The shoulder enables an engagement of the lifting element to provide positive locking or frictional locking, such that the lifting element can reliably transfer force in a lifting direction to the shoulder of the smoking article to lift the smoking article.

In one embodiment of the invention, the shoulder of the smoking article is formed by a lower end of a circumferentially wrapped tipping paper of the smoking article. Tipping paper is commonly used for all filter cigarettes or filter cigars and is substantially wrapped around the filter portion of the smoking article. However, also smoking articles that do not comprise a filter may comprise a paper ring to change the visual and tactile appearance of

one end of the smoking article. The engagement of the lifting element with the edge of a tipping paper provides the benefit that a feature already commonly available in filter cigarettes can be used to provide a lifting functionality. According to embodiments of the invention, a filter cigarette requires no modification to engage with the lifting element according to embodiments of the invention. Thus, the manufacturing process of the smoking article does not have to be amended, and therefore the lifting functionality is inexpensive to implement.

Preferably the dimension of the lifting element is such that it extends from the opening of the cup shaped box to below the lower edge of the tipping paper. This feature provides the benefit that only a lifting motion of the lifting element towards the top is necessary to securely engage the lifting element with the edge of the tipping paper to lift the smoking article.

According to another embodiment of the invention, the lifting element is only in frictional engagement with the outside upper end portion of the smoking article. Thus, the engagement takes place via frictional forces. No protrusions, shoulders or the like are necessary to allow the lifting of the smoking article from the bottom of the cup shaped box by the lifting element. Embodiments of the invention can also be applied to smoking articles that do not comprise a tipping paper or the like, but preferably only a general cylindrical or oval outside without any edges for positive locking. Additional protrusions, edges or shoulders on the outside upper end portion of the smoking article can support the frictional engagement. In addition, the lifting element or the smoking article or both may have a surface area where the coefficient of friction is increased compared to the rest of the surface of the smoking article or lifting element. This may be, for example, a rough or tacky surface. Preferably, such lifting element interacts only through friction with the outside upper end portion of the smoking article by simultaneously interacting with at least two locations at the outside upper end portion of the smoking article, more preferably with two locations that are opposite of each other on the circumference of the outside upper end portion of the smoking article.

Preferably, the lifting element comprises a protrusion as the engaging portion. The protrusion may be adapted to form a portion which engages a shoulder of the smoking article in a positive locking. Alternatively, the protrusion may provide a normal force for a frictional engagement between the lifting element and the smoking article.

The normal force can be generated by elastic properties either of the protrusion itself, or of the container that elastically forces the lifting element towards the smoking articles.

In one embodiment, the protrusion is formed by a flap of the lifting element that is folded along a fold in the lifting element. Thus, only a portion of an otherwise flat blank is folded to form the lifting element thereby forming a protrusion. The elasticity of the fold can be used to generate the normal force of the flap towards the smoking article.

The flap may extend in a direction towards the smoking article, in particular in an upward direction towards the smoking article. Preferably, the flap depends from the lifting element about a transverse flap hinge line. Preferably, the flap further comprises at least one transverse engaging edge that engages with the smoking article. Preferably, the flap has a rectangular or trapezoidal shape.

In one embodiment, the transverse flap hinge line is located on the lower end of the flap such that the free portion of the flap points upwards. In this embodiment, preferably the flap is prefolded in a direction towards the smoking articles. Advantageously, the elastic force of the fold of the flap hinge line will keep the flap biased towards the smoking articles in the assembled pack.

In an alternative embodiment, the transverse flap hinge line is located on the lower end of the flap such that the free portion of the flap points downwards. In the latter case, the flap is preferably prefolded in an angle greater than 90 degrees such that the elastic force pushes the flap away from the lifting element and brings the flap into snug contact with the smoking articles. Furthermore, this feature enables the benefit that when a force in the downward direction is applied to the flap during the lifting of the smoking article, the flap is forced in the direction of the smoking article, therefore securing the engagement. This has the further effect, that the lifting element may be pushed back into its initial position while the smoking article remains in the lifted position.

In one embodiment the container comprises an inner liner that surrounds the smoking articles, wherein the inner liner comprises a pull foil that is adapted to be removed, such that the smoking articles can be accessed. In this embodiment, the lifting element is attached to the inner side of the pull foil, such that it is engageable with the smoking articles. Preferably, the lifting element is in contact with the smoking articles below the outside upper end portion of at least some of the smoking articles and engages and lifts same, when the pull foil is removed. The top front section of the inner liner is typically perforated to define the pull foil which is removable in order to gain access to the smoking articles within the

inner liner. This embodiment provides the benefit that the lifting element can be provided on the inner liner before the cutting of the inner liner. In particular the lifting element is a hooking tape which is already folded to provide an engaging portion before the cutting of the liner.

In another embodiment the container comprises an inner liner that surrounds the smoking articles. The lifting element is brought into contact with the smoking articles upon removal of the inner liner. The top front section of the inner liner is typically perforated to define the pull foil which is removable in order to gain access to the smoking articles within the inner liner. Preferably, the pull foil is defined such that the outside upper end portion of the smoking article may come into contact with the lifting element, when the pull foil is removed. Alternatively, the lifting element can be disposed within the inner liner, for example between a row of smoking articles and the inside of the inner liner, in between two rows of smoking articles.

In one embodiment the lifting element is attached to the pull foil. This way, the removal of the pull foil automatically lifts the lifting element, such that at least one smoking article is lifted and provided for easy access for a consumer. The lifting element may be fully removable from the container together with the pull foil, when the smoking article is in the lifted position.

The pull foil may be detachable from the lifting element, when a predefined maximal pulling force on the pull foil is exceeded. Thus, the pull foil may be removed separately from the container after lifting the lifting element together with the smoking article by pulling the pull foil. This allows that the lifting element can remain in the pack and may eventually be reused for a subsequent lifting operation of a smoking article, while the pull foil is removed separately so as to provide access to the smoking articles.

In one embodiment the lifting element comprises a second flap which is adapted to engage the cup shaped box, when the lifting element is lifted for a predefined lifting height, so as to provide a stop for the lifting element. This enables that the lifting element stops after having carried out the lifting operation of the smoking article in a defined position. Preferably, the lifting element remains in the defined position without restricting access of the consumer to the smoking articles. For example, the lower edge of the inner frame may function as the stop that engages with the second flap of the lifting element.

In a further embodiment the lifting element may comprise several flaps which are provided at different heights of the lifting element. Therefore, several smoking articles may

be lifted in different heights, such that the individual smoking article is easily accessible for the consumer and the arrangement of the lifted smoking articles is esthetically appealing.

Preferably, the lifting element extends at least partially parallel to one box wall of the cup-shaped box and is guided by at least one neighboring box wall. This allows that the lifting element is in the desired position during the lifting process and therefore engages properly the smoking article at the outside of the upper end portion of the smoking article such that the same may be reliably lifted out of the cup shaped box. The lifting element may be in physical contact with the cup shaped box. For example, the lifting element has substantially the same width as the interior of the cup shaped box. Thus, the lifting element may be closely correlated to the side walls of the box, and may therefore be reliably guided therein.

Preferably, the container comprises an inner frame mounted within the box, wherein the inner frame extends above the upper edges of at least the front wall of the box of the container. The inner frame becomes visible to the consumer when the lid is opened. The front wall of the inner frame may be printed with indicia which may be the same as, or different to the indicia printed on the front wall of the box. Alternatively, or in addition, the front wall of the inner frame may be cut into a distinctive shape, for example, to reflect the branding of the consumer goods. If required, the inner frame may also comprise a line of weakness to facilitate flattening of the container.

Preferably, the front wall of the inner frame is provided with a cut out portion at the upper edge thereof. This enables more convenient access to the smoking articles within the container, without significantly reducing the surface area of the front wall of the inner frame.

Containers according to embodiments of the invention may be in the shape of a rectangular parallelepiped, with right-angled longitudinal and right-angled transverse edges. Alternatively, the container may comprise one or more rounded longitudinal edges, rounded transverse edges, bevelled longitudinal edges or bevelled transverse edges, or combinations thereof. For example, the container according to embodiments of the invention may comprise, without limitation:

- one or two longitudinal rounded or bevelled edges on the front wall, and/or
- one or two longitudinal rounded or bevelled edges on the back wall,
- one or two transverse rounded or bevelled edges on the front wall, and/or
- one or two transverse rounded or bevelled edges on the back wall,
- one longitudinal rounded edge and one longitudinal bevelled edge on the front wall, and/or

- one transverse rounded edge and one transverse bevelled edge on the back wall,
- one or two transverse rounded or bevelled edges on the front wall and one or two longitudinal rounded or bevelled edges on the front wall,
- two longitudinal rounded or bevelled edges on a first side wall or two transverse rounded or bevelled edges on the second side wall.

Where the container comprises one or more rounded edges and is made from a laminar blank, preferably the blank comprises three, four, five, six or seven scoring lines or creasing lines to form the rounded edge in the assembled container. The scoring or creasing lines may be either on the inside of the container or on the outside of the container. Preferably, the scoring or creasing lines are spaced apart from each other by between about 0.3 mm and 4 mm.

Preferably, the spacing of the creasing or scoring lines is in function of the thickness of the laminar blank. Preferably, the spacing between the creasing or scoring lines is between about 0.5 and about 4 times larger than the thickness of the laminar blank.

Where the container comprises one or more bevelled edges, preferably the bevelled one or more edges have a width of between about 1 mm and about 10 mm, preferably between about 2 and about 6 mm. Alternatively, the container may comprise a double bevel formed by three parallel creasing lines or scoring lines that are spaced apart such that two distinct bevels form on the edge of the container.

Alternatively to a container with a rectangular transverse cross section, the container may have for example a polygonal cross section such as triangular, quadrangular or hexagonal, or a cross section which is oval, semi-oval, circular or semi-circular.

Where the container comprises a bevelled edge and is made from a laminar blank, the bevel may be formed by two parallel creasing lines or scoring lines in the laminar blank. The creasing lines or scoring lines may be arranged symmetrically to the edge between a first wall and a second wall. Alternatively, the creasing lines or scoring lines may be arranged asymmetrically to the edge between the first wall and the second wall, such that the bevel extends further into the first wall of the container than into the second wall of the container.

The container may be formed from any suitable materials including, but not limited to, cardboard, paperboard, plastic, metal, or combinations thereof. Preferably, the cardboard has a weight of between about 100 grams per square meter and about 350 grams per square meter.

Containers according to embodiments of the invention may be advantageously used to package smoking articles including, but not limited to, known lit-end cigarettes, cigars or cigarillos, heated smoking articles comprising a combustible fuel element or heat source and an aerosol-generating substrate (for example cigarettes of the type disclosed in US-A-4,714,082) and smoking articles for use with electrical smoking systems (for example cigarettes of the type disclosed in US-A-5,692,525).

Through an appropriate choice of the dimensions thereof, containers according to embodiments of the invention may be designed to hold different total numbers of smoking articles, or different arrangements of smoking articles. For example, through an appropriate choice of the dimensions thereof, containers according to embodiments of the invention may be designed to hold a total of between ten and thirty smoking articles.

Containers according to embodiments of the invention may hold one, two, three four or five separate bundles of smoking articles. The separate bundles may be arranged substantially parallel to the front wall and to the back wall or substantially perpendicular to the front wall and to the back wall.

Within a bundle, the smoking articles may be arranged in different collations, depending on the total number of smoking articles, the dimensions of the smoking articles or the cross sectional shape of the container. For example, the smoking articles may be arranged in a bundle in a single row of five, six, seven, eight, nine or ten. Alternatively, the smoking articles may be arranged in two or more rows. The two or more rows may contain the same number of smoking articles. For example, the smoking articles may be arranged in: two rows of five, six, seven, eight, nine or ten; three rows of five, six, seven, eight, nine, or ten; or four rows of four, five, six or seven. Alternatively, the two or more rows may include at least two rows containing different numbers of smoking articles to each other. For example, the smoking articles may be arranged in: a row of five and a row of six (5-6); a row of six and a row of seven (6-7); a row of seven and a row of eight (7-8); a middle row of five and two outer rows of six (6-5-6); a middle row of five and two outer rows of seven (7-5-7); a middle row of six and two outer rows of five (5-6-5); a middle row of six and two outer rows of seven (7-6-7); a middle row of seven and two outer rows of six (6-7-6); a middle row of nine and two outer rows of eight (8-9-8); or a middle row of six with one outer row of five and one outer row of seven (5-6-7).

Containers according to embodiments of the present invention may hold smoking articles of the same type or brand, or of different types or brands. In addition, both filterless smoking articles and smoking articles with various filter tips may be contained, as well as smoking articles of

differing length (for example, between about 40 mm and about 180 mm), diameter (for example, between about 4 mm and about 9 mm). In addition, the smoking articles may differ in strength of taste, resistance to draw and total particulate matter delivery. Wherein the container comprises more than one bundle, each bundle within the same container may hold the same or different types of smoking articles as listed above.

Preferably, the dimensions of the container are adapted to the length of the smoking articles, and the collation of the smoking articles. Typically, the outer dimensions of the container are between about 0.5 mm to about 5 mm larger than the dimensions of the bundle of smoking articles housed inside the container.

Preferably, containers according to embodiments of the invention have a height of between about 60 mm and about 150 mm, more preferably a height of between about 70 mm and about 125 mm, wherein the height is measured from the top wall to the bottom wall of the container.

Preferably, containers according to embodiments of the invention have a width of between about 12 mm and about 150 mm, more preferably a width of between about 70 mm and about 125 mm, wherein the width is measured from the first side wall to the second side wall of the container.

Preferably, containers according to embodiments of the invention have a depth of between about 6 mm and about 100 mm, more preferably a depth of between about 12 mm and about 25 mm wherein the depth is measured from the front wall to the back wall of the container (comprising the hinge between box and lid).

Preferably, the ratio of the height of the container to the depth of the container is in between about 0.3 to 1 and about 10 to 1, more preferably between about 2 to 1 and about 8 to 1, most preferably between about 3 to 1 and 5 to 1

Preferably, the ratio of the width of the container to the depth of the container is in between about 1 to 1 and about 10 to 1, more preferably between about 2 to 1 and about 8 to 1, most preferably between about 2 to 1 and 3 to 1.

Preferably, the ratio of the height of the lid back wall to the height of the box back wall is between about 0 to 1 (hinge located at the top edge of the container) to about 1 to 1, more preferably, between about 1 to 5 and about 1 to 10, most preferably, between about 1 to 6 to about 1 to 8.

Preferably, the ratio of the height of the lid front wall to the height of the box front wall is between about 1 to 0 (lid covering the entire front wall) to about 1 to 10, more preferably, between about 1 to 1 and about 1 to 5, most preferably, between about 1 to 2 and about 1 to 3.

The exterior surfaces, the interior surfaces, or both the exterior and the interior surfaces of containers according to embodiments of the invention may be printed, embossed, debossed or otherwise embellished with manufacturer or brand logos, trade marks, slogans and other consumer information and indicia. Alternatively, or in addition, the exterior surfaces, the interior surfaces, or both the exterior and the interior surfaces of containers according to embodiments of the invention may be at least partially covered with lacquer, metallisation, holograms, luminescent material, or any other materials that alter the feel, odour or appearance of the container.

Where the inner housing of a container according to embodiments of the present invention contains one or more bundles of smoking articles, the smoking articles are preferably wrapped in an inner liner of, for example, metal foil or metalized paper.

Where the container comprises smoking articles, the container may further comprise waste-compartments (for example for ash or butts) or other consumer goods, for example matches, lighters, extinguishing means, breath-fresheners or electronics. The other consumer goods may be attached to the outside of the container, contained within the container along with the smoking articles, in a separate compartment of the container or combinations thereof.

Once filled, containers according to embodiments of the invention may be shrink wrapped or otherwise over wrapped with a transparent polymeric film of, for example, high or low density polyethylene, polypropylene, oriented polypropylene, polyvinylidene chloride, cellulose film, or combinations thereof in a conventional manner. Where containers according to embodiments of the invention are over wrapped, the over wrapper may include a tear tape. The tear tape is preferably positioned around the container below the lower edge of the front wall of the lid, such that once the tear tape has been removed, the lid is free to be rotated about the first hinge line. Alternatively or in addition, there may be a second tear tape positioned around the container above the hatch, such that once the tear tape has been removed, the hatch is free to be rotated about the second hinge line. Alternatively, the tear tape may be provided lengthways around the container.

Containers according to embodiments of the present invention comprise as well so called soft-packs, wherein the cup-shaped box is made of a material that has a lower bending strength or thickness compared to containers made out of cardboard or the like. However, the lifting element is brought into reliable contact with the smoking articles during the lifting operation where the soft-pack is snugly filled with smoking articles.

The lifting element may be formed of any material that is able to provide a sufficient strength to enable the engagement with the smoking articles. In particular, when lifting element comprises a flap, the material in the flap region has to provide a sufficient strength to snuggly engage the smoking article during the lifting operation. The lifting element can be formed out of paper, cardboard as well as polymer material.

The accompanying drawings are incorporated to form part of the specification for the purpose of explaining the principles of the invention. The drawings are not to be construed as limiting the invention to only the illustrated and described examples of how the invention can be made and used. Further features and advantages will become apparent from the following description of the invention, as illustrated in the accompanying drawings, wherein:

Fig. 1 is a sectional view of a container according to a first embodiment with the lid closed.

Fig. 2 is a sectional view of the container according to the first embodiment with a lifted smoking article.

Fig. 3 is a magnification of the lifting element engaging the edge of the tipping paper as in Fig. 2.

Fig. 4 is a sectional view of the container according to a second embodiment with a lifted smoking article.

Fig. 5 is a sectional view of a container according to a third embodiment with a lifted smoking article.

Fig. 6 is a sectional view of a container according to a fourth embodiment of the invention.

Fig. 7 is a sectional view of a container according to a fifth embodiment of the invention.

Fig. 8 is a plan view of a lifting element according to the first or second embodiment of the invention.

Fig. 9 is a plan view of a lifting element according to the invention.

Fig. 10 is a plan view of a lifting element according to the invention.

Fig. 11 is a plan view of a lifting element according to the invention.

Fig. 12 is a plan view of a lifting element according to the third embodiment of the invention.

Fig. 13 is a plan view of a lifting element according to the fourth embodiment of the invention.

Fig. 14 is a plan view of a lifting element according to the invention.

Fig. 15 is a plan view of a lifting element disposed on an inner liner according to the fifth embodiment of the invention.

Fig. 16 is a plan view of a lifting element according to the invention that interacts with the outside upper end of a smoking article.

In Fig. 1 a sectional view of a container 1 according to a first embodiment of the invention is shown. The container 1 comprises a cup shaped box 2 and a lid 3 that are connected along a hinge line 4. The lid 3 can be pivoted along the hinge line 4 in an open state (Fig. 2). The cup shaped box 2 comprises a box front wall 5, a box right side wall, a box left side wall, a box bottom wall 8, and a box back wall 9 which is adjacent to the hinge line 4. The lid 3 comprises a lid front wall 10, a lid right side wall, a lid left side wall, a lid top wall 13, and a lid back wall 14 that is adjacent to the hinge line 4. Preferably, the box 2 and the lid 3 are formed of one blank that is folded and glued so as to form described geometry.

The container 1 comprises an inner frame 15 that is fixed to the inside of the box front wall 5, box right side wall, and box left side wall, so as to protrude parallel to the aforementioned box walls. The inner frame 15 engages with the lid 3 when it is closed, such that the lid 3 remains reliably closed and the contents of the container 1 are protected. The inner frame 15 comprises a cut out 16 that allows accessing the contents of the box 2.

The box 2 comprises a wrapped bundle of smoking articles 17 being located in an inner liner 18. Usually the inner liner 18 is made from a metalized paper. The inner liner 18 is glued to itself, around the smoking articles 17. The top front section of the inner liner 18 forms a pull foil 19 that is removable in order to gain access to the smoking articles 17 within the inner liner 18. Therefore, the inner liner 18 is perforated such that the pull foil 19 can be removed when being pulled.

In between the inner frame 15, respectively the box front wall 5 and the inner liner 18, a lifting element 20 is disposed in the form of an insert. The lifting element 20 can be accessed from the front side in the cut out 16 of the inner frame 15.

Fig. 2 shows a state of the container according to the first embodiment of the invention, wherein the pull foil 19 has been removed and the lifting element 20 has been lifted, such that the smoking articles 17 are lifted.

The box 2 usually fits snuggly around the bundle of smoking articles 17. Therefore, it is difficult to remove a smoking article 17 by directly grabbing it. In particular a filter or similar element at the upper end of the smoking article 17 has to be adapted for a convenient removal operation. This is particularly the case for recessed filter tipped smoking

articles. However, according to the present invention, the smoking articles 17 are not directly removed from the box 2 but first lifted by the lifting element 20.

The lifting element 20 engages at least one smoking article 17 and lifts the smoking articles 17 together with the motion of the lifting element 20 as shown in Fig. 2. Therefore the lifting element 20 comprises a hook which interlocks with the upper end portion of the smoking articles 17. When the lifting element 20 is lifted to a certain height it can be removed. Some smoking articles 17 are lifted and can be easily removed in a convenient manner and without touching the end of the filter portion.

Three rows of smoking articles 17 are provided in between the box front wall 5 and the box back wall 9. The lid 3 is in a closed state, such that the lid front wall 10 is adjacent to the box front wall 5. The inner frame 15 is fixed to the back side of the box front wall 5, in particular by being glued thereto.

The smoking articles 17 are wrapped in the inner liner 18 that comprises a perforation 21 to allow the pull foil 19 of the inner liner 18 to be removed. In between the inner frame 15, respectively the box front wall 5, and the first row of smoking articles 17, the lifting element 20 is provided comprising a flap 22 that extends in an upward direction towards the smoking articles 17.

The smoking articles 17 comprise a tipping paper 23 at an outside upper end portion of the smoking article 17. The tipping paper 23 forms a small edge 24 or lip over a front portion of the smoking article 17 that is in particular a cigarette paper 25.

The perforation 21 which defines the height of the pull foil 19 is preferably defined in a position such that it is at least below the sum of the tipping paper length 101, a safety margin 102 and the lifting element flap length 103 measured from the top of the smoking article 17. Preferably the lifting element flap length 103 is 4mm and the safety margin 102 is 4mm. The tipping paper length 101 is, for example, 32mm.

When the pull foil 19 is removed, the flap 22 of the lifting element 20 is in contact with the smoking article 17 below the edge 24 of the tipping paper 23. The close contact of the flap 22 is enabled, as the flap 22 is folded along a fold 26, and the elasticity inherent to the material of the lifting element creates a force on the flap 22 in the direction of the smoking article 17. Now some pressure is applied on the upper part 27 of the lifting element 20 and the lifting element 20 is moved by frictional forces to the top.

After the lifting movement of a certain height distance, the lifting element 20 engages with its flap 22 the edge 24 of the tipping paper 23.

Fig. 3 depicts an enlarged representation of the engagement in between the flap 22 of the lifting element 20 and the edge 24 of the tipping paper 23. In this embodiment, engagement is possible because of the thickness of the tipping paper 23 that forms the edge 24 that is sufficient for engagement in between the lifting element flap 22 and the smoking articles 17. This engagement is supported by the elastic force of the fold 26, and the pressure applied by the consumer to the upper part 27 of the lifting element 20. When the force is applied to the upper part 27 of the lifting element 20, same may come into contact with the upper part of the smoking article 17.

Subsequently, as shown in Fig. 2 the lifting element 20 is further lifted, lifting a smoking article 17 such that it projects out of the opening of the box 2. Now the smoking article 17 can be easily removed. If the lifting element 20 is further moved to the top, the lifting element 20 can be removed from the container 1.

In Fig. 4 a second embodiment of the present invention is depicted, mainly differing to the first embodiment in that fixation means 28 are provided that fix the lifting element 20 that is an insert, to the pull foil 19. Furthermore, to still enable the engagement in between the flap 22 and the edge 24 of the tipping paper 23, the perforation 21 of the pull foil 19 is now arranged to be just above the flap 22.

Thus, when the consumer lifts the pull foil 19, the perforation 21 is torn and the lifting element 20 is lifted together with the pull foil 19. The lifting element 20 engages with its flap 22 the edge 24 of the tipping paper 23 and lifts at least one smoking article 17 in a position as shown in Fig. 4, such that it can be easily accessed.

The pull foil 19 can be lifted by the consumer until the lifting element 20 is removed from the box 2, such that the lifting element 20 and pull foil 19 can be disposed together.

In Fig. 5 a third embodiment of a container 1 according to the present invention is depicted. The lifting element 20 that is an insert, comprises additionally at least one second flap 29 that is folded along a second fold 30 disposed on a lower position with respect to the fold 26. The second flap 29 extends towards the box front wall 5.

When the lifting element 20 is fully lifted as in Fig. 5, the second flap 29 engages with the container 1 and provides a stop to prevent the lifting element 20 from being fully removed from the container 1. This allows, that the lifting element 20 is reusable, i.e. that after the removal of the first smoking article 17 the lifting element 20 can again be lowered together with the remaining lifted smoking articles 17. In a further removal operation another smoking article 17 can be lifted with the lifting element 20. Preferably the second flap 29

engages the lower edge of the inner frame 15 in the lifted position, and the lifting element 20 is flush with the upper end of the inner frame 15.

According to the invention, the features of the second embodiment of Fig. 4 can be combined with the third embodiment of Fig. 5. Thus, the lifting element 20 comprising at least the flap 22, and the second flap 29 is fixed by fixation means 28 to the pull foil 19. For this combination it is preferred that the fixation means 28 is chosen in such a manner that the pull foil 19 is detached from the lifting element 20 when a predefined maximum pulling force on the pull foil 19 is exceeded. This is the case, when the second flap 29 engages the lower edge of the inner frame 15.

Thus, with only one operation, i.e. pulling on the pull foil 19, the container 1 is brought into a configuration as depicted in Fig. 5, wherein the pull foil 19 is already detached from the lifting element 20.

Fig. 6 shows a fourth embodiment of the invention, wherein the lifting element 20 that is an insert, is disposed in between two rows of smoking articles 17 and within the bundle of smoking articles 17 contained in the inner liner 18. When the lid 3 of the container 1 is opened, the pull foil 19 can be removed and a handle portion 31 of the lifting element 20 can be accessed by the consumer. The consumer then lifts the handle portion 31 and therefore enables the engagement of the flap 22 of the lifting element 20 with the smoking article 17, in particular at the edge 24 of the tipping paper 23. The smoking articles 17 are then lifted until the lifting element 20 is removed from within the box 2. Thus, smoking articles 17 of the second row of the box 2 can be easily accessed by the consumer.

Regarding the embodiment of Fig. 6, it is also possible that the handle portion 31 is fixed by a fixation means, such as glue, to the pull foil 19 of the inner liner 18. By pulling on the pull foil 19 and removing the same, the lifting element 20 is lifted and engages the smoking article 17 for the aforementioned function. Thus, with one sole operation, the pull foil 19 can be removed and the smoking articles 17 of the second row can be lifted such that they are accessible in a convenient manner by the consumer.

Fig. 7 shows a fifth embodiment of the present application wherein the lifting element 20 is a hooking tape 33 attached to the inner side of the inner liner 18, in particular in the area of the pull foil 19. The hooking tape 33 is attached to the material forming the inner liner 18, including the pull foil 19. The inner liner 18 is cut into the desired shape for wrapping the smoking articles and providing the pull foil 19. The hooking tape 33 comprises a flap 22 that preferably is already folded before the material of the inner liner 18 is cut. When the lid 3 of the container 1 is opened, the pull foil 19 can be removed. During the

removal of pull foil 19 the lifting element 20 in the form of a hooking tape 33 will engage the edge 24 of the tipping paper 23 of the smoking article 17. The hooking tape lifts the smoking article 17 until the pull foil 19 together with the hooking tape 33 is fully removed. Therefore, at least one smoking article 17 can be easily accessed.

In Figs. 8 to 14 several embodiments of lifting elements in the form of inserts according to the invention are depicted.

Fig. 8 represents the lifting element 20 as it can be applied in the first and second embodiments of Figs. 1 to 4. The lifting element 20 comprises a flap 22 that extends at least partially along a lower edge of the lifting element 20. The lifting element 20 is a two-dimensional blank and comprises a fold 26 that can be partially perforated to facilitate folding along the same. Before the lifting element 20 is inserted in the container 1, the flap 22 is folded in an upward direction along the fold 26. Thus, the lifting element 20 according to Fig. 8 can be adapted to lift the central three smoking articles 17 of a first row of smoking articles 17, while the two left side smoking articles 17 and the two right side smoking articles 17 are not lifted.

To asymmetrically lift smoking articles 17, a blank according to Fig. 9 is used to form the lifting element 20. The lifting element 20 comprises at one lower side a flap 22, with a fold 26, and a cut 32. The flap 22 is able to be folded in the upper direction to be able to engage, for example, three smoking articles 17 on a left side of the first row of smoking articles 17 in the container 1.

Fig. 10 depicts a blank for a lifting element 20 with a lifting element flap 22 along the whole width of the lifting element 20. Thus, the lifting element 20 is adapted to engage all smoking articles 17 which are in a front row of the container 1.

Fig. 11 depicts a blank for a lifting element 20 that provides flaps 22 at different heights. Therefore, if this lifting element 20 is used to engage and lift smoking articles 17, the central smoking articles 17 will be lifted higher than the smoking articles 17 which are adjacent to the central smoking articles 17 in the first row of smoking articles 17 in a container 1. The flaps 22 are all folded in a direction such that they extend in a direction towards the smoking articles 17.

Fig. 12 depicts a blank for a lifting element 20 which is applied in the third embodiment of Fig. 5. The lifting element 20 comprises a flap 22 which is folded along a fold 26 in the direction towards the smoking articles 17 to be able to engage same. Further, the lifting element 20 comprises second flaps 29 which are provided at a lower position and are

folded along a second fold 30 towards the container 1 to be able to engage same after the lifting element 20 has been lifted for a certain height.

Fig. 13 depicts a blank for a lifting element 20 which can be used in the fourth embodiment according to Fig. 6. The lifting element 20 comprises a flap 22 defined by a fold 26 and cuts 32. The flap 22 can be folded towards the smoking articles 17 to engage same at an outside upper end portion. Further, the lifting element 20 comprises a handle portion 31 which is provided at an upper end of the lifting element 20 and can either be fixed to the pull foil 19 or used to allow to easily grab the lifting element 20 to lift same.

Fig. 14 depicts a blank for a lifting element 20 according to another embodiment of the invention. The blank comprises a fold 26 and a cut 32 inside the blank extending from the fold 26. Thus, when the blank is folded along the fold 26 the flap 22 will be bent out of the upper portion of the blank and thus project in the direction of the smoking articles 17 to engage the smoking articles 17. The blank is folded along the fold 26 such that the lower portion of the blank comes into contact with the upper portion of the blank to form the lifting element 20. Alternatively, the fold 26 does not extend across the entire width of the lifting element 20 but only across the flap 22. In one embodiment, the fold 26 is located below the flap 22 when inserted into the container 1. The flap 22 is then prefolded slightly towards the smoking articles such that the engaging edge of the flap 22 leaves the plane of the main body of the lifting element. In an alternative embodiment, the fold 26 is located above the flap 22 when inserted into the container 1. In this embodiment, the flap is prefolded by more than 90 degrees in order to make the engaging edge of the flap 22 point upwards when in the container.

Fig. 15 depicts an inner liner 18 for the application in the fifth embodiment of the invention. The inner liner comprises the perforation 21 to enable that the pull foil 19 can be easily removed. Further, the lifting element 20 in the form of the hooking tape 33 is applied on the inner liner 18 during the manufacturing process of the same such that it extends through the region of the pull foil 19. In particular, the lifting element 20 in the form of the hooking tape 33 is folded and attached to the inner side of the inner liner 18. Thus, when the inner liner 18 is wrapped around a bundle of smoking articles 17 and provided within a container 1 a configuration as depicted in Fig. 7 is obtained. As the hooking tape 33 is applied in the manufacturing process of the inner liner 18, only minor modifications have to be implemented in a known manufacturing process. Thus the cost of production of the container can remain low.

The lifting element 20 is preferably formed out of a material that comprises sufficient strength to allow the flap 22 to be in proper engagement with the smoking articles 17. Thus, for example, paper, cardboard and polymer materials can be used.

Furthermore, the features of the described lifting elements 20 can be combined, for example, a handle portion 31 can be provided on the aforementioned lifting elements 20.

The second flap 29 can be provided at any position along the width of the lifting element 20. Furthermore, it is possible that the lifting element 20 has a greater height, such that the upper part 27 is conveniently accessible by the consumer. The height of lifting element 20 is only limited by the upper edge of the box 2 of the container 1.

The flaps are preferably of 3 to 4mm in height. The fold of the flaps is preferably transversal.

Fig. 16 depicts a further embodiment of a lifting element 20 according to the invention that simultaneously may interact with the outside upper end of a smoking article 17 at two locations. The lifting element 20 has two protrusions 22 that help to increase the friction between the outside upper end of a smoking article 17 and the lifting element 20. For example, the lifting element 20 is a piece of the lid of a hinged lid container, for example a dust flap. In use, the lifting element 20 as shown in Fig. 16 may easily be detached from the blank, for example by tearing along a weakening line like a perforation line. Then the cut out in the lifting element 20 is put over the outside upper end of a smoking article 17 at both sides such that the cut out acts as a pincer. The two protrusions 22 create sufficient friction between the lifting element 20 and the smoking article 17 in order to lift the smoking article 17 up when the lifting element is pulled upwards. Alternatively to being a part of the container blank, an insert may be provided as lifting element 20 that provides a cut out with which a smoking article 17 may be lifted by engaging the smoking article 17 on two sides of the outside upper end of the smoking article 17.

Claims

1. A container comprising smoking articles,

further comprising a cup shaped box for the smoking articles; comprising a bottom wall, side walls and an opening,

further comprising a lifting element correlated to at least one smoking article for lifting the smoking article of the bottom wall of the container,

characterized in that

the lifting element has an engaging portion, engageable with the outside upper end portion of the smoking article.

2. A container according to claim 1, wherein the smoking article comprises a ring like shoulder on its circumferential outer side that is adapted to be engaged by the lifting element.

3. A container according to claim 2, wherein the shoulder of the smoking article is formed by an edge of a circumferentially wrapped tipping paper of the smoking article that is in particular a filter cigarette.

4. A container according to claim 3, wherein the lifting element extends from the opening of the cup shaped box to below the edge of the tipping paper.

5. A container according to one of the previous claims, wherein the lifting element is in frictional engagement with the smoking article.

6. A container according to one of the previous claims, wherein the lifting element comprises a protrusion as the engaging portion.

7. A container according to claim 6, wherein the protrusion is formed by a flap of the lifting element that is folded along a fold in the lifting element.

8. A container according to claim 7, wherein the flap extends in a direction towards the smoking article, in particular in an upward direction towards the smoking article.

9. A container according to one of the claims 1 to 8, comprising an inner liner that surrounds the smoking articles, wherein the inner liner comprises a pull foil that is adapted to being removed, wherein the lifting element is attached to the inner side of the pull foil, such that the lifting element is contactable with the smoking articles.

10. A container according to one of the claims 1 to 8 comprising an inner liner that surrounds the smoking articles, wherein the inner liner comprises a pull foil that is adapted to being removed, such that the smoking articles can be accessed and the lifting element is contactable with the smoking articles.

11. A container according to claim 10, wherein the lifting element is attached to the outer side of the pull foil.

12. A container according to claims 10 or 11, wherein the pull foil is detached from the lifting element, when a predefined maximal pulling force on the pull foil is exceeded.

13. A container according to one of previous claims, wherein the lifting element comprises a second flap that is adapted to engage the cup shaped box, when the lifting element is lifted for a predefined lifting height, so as to provide a stop for the lifting element.

14. A container according to one of previous claims, wherein the lifting element comprises several flaps which are provided at different heights of the lifting element.

15. A container according to one of the previous claims, wherein the lifting element extends at least partially parallel to one box wall of the cup shaped box and the lifting element is guided by at least one neighboring box wall of the one box wall, and particularly the lifting element has substantially the same width as the interior of the cup shaped box.