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(54) **CONTAINER HAVING TWO ACCESS OPENINGS**

(57) A container (1) for consumer goods (60), the container comprising: a box (20) for housing the consumer goods, the box (20) comprising a box front wall (22), a box back wall, a box bottom wall (70), a first box side wall and a second box side wall, wherein the top face of the box is at least partially open to provide a top access opening for accessing the interior of the box, and wherein the box bottom wall (70) comprises a first bottom wall panel (71) hingedly connected to one of the box front wall (22), box back wall, first box side wall or second box side wall and movable between an open position in which a bottom access opening (73) is exposed, and a closed position in which the first bottom wall panel (70) covers

the bottom access opening (73). A lid (40) is hingedly connected to the box back wall and movable between an open lid position in which the top access opening is uncovered and a closed lid position in which the lid (40) covers the top access opening. A separator element (80) is disposed within the box (20), the separator element (80) comprising a platform (81) dividing the interior of the box (20) into an upper compartment (91) adjacent to the top access opening and a lower compartment (92) adjacent to the bottom access opening (73), and wherein the separator element (80) is configured to slide along the longitudinal axis of the box (20) to change the volume of each of the upper and lower compartments (91, 92).

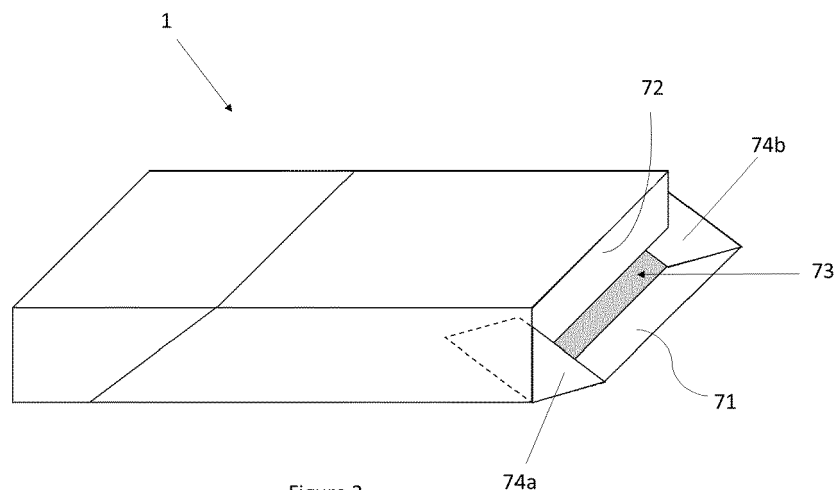


Figure 3

Description

[0001] The present invention relates to a container for consumer goods. Containers according to the invention find particular application as containers for aerosol-generating articles or components of aerosol-generating articles.

[0002] It is known to package aerosol-generating articles and other consumer goods in containers formed from folded laminar blanks. Consumer goods are commonly sold in containers having a box for housing the consumer goods and a lid connected to the box about a hinge line extending across a wall of the container. Such packs are typically constructed from laminar cardboard blanks. The lid may take the form of a lid flap or a three dimensional hinge lid. In use, the lid is pivoted about the hinge line to open the pack and expose an access opening in the box, through which the consumer can gain access to the consumer goods held within the box.

[0003] In order to remove an aerosol-generating article from one of these known containers, the consumer must first open the lid and then draw an aerosol-generating article from the bundle of aerosol-generating articles housed within the container. Typically, the aerosol-generating articles will be arranged vertically within the container, with their ends directed towards the access opening. This is particularly applicable for combustible aerosol-generating article, such as filter cigarettes.

[0004] A number of aerosol-generating articles in which an aerosol forming substrate, such as tobacco, is heated rather than combusted have also been proposed in the art. In heated aerosol-generating articles, the aerosol is generated by heating the aerosol forming substrate. Known heated aerosol-generating articles include, for example, aerosol-generating articles in which an aerosol is generated by electrical heating or by the transfer of heat from a combustible fuel element or heat source to an aerosol forming substrate. In contrast to conventional cigarettes, such aerosol-generating articles typically do not substantially change their size or shape when they are consumed. Consequently, consumers may be left with a larger item to discard, after they have consumed said aerosol-generating articles.

[0005] It would be desirable to provide a container having improved internal storage features. It would be further desirable to provide a container having improved storage for aerosol-generating articles in which an aerosol forming substrate is heated rather than combusted. It would be further desirable to provide a container having improved means for storing discarded aerosol-generating articles.

[0006] According to a first aspect of the invention, there is provided a container for consumer goods, the container comprising: a box for housing the consumer goods, the box comprising a box front wall, a box back wall, a box bottom wall, a first box side wall and a second box side wall, wherein the top face of the box is at least partially open to provide a top access opening for accessing the

interior of the box, and wherein the box bottom wall comprises a first bottom wall panel hingedly connected to one of the box front wall, box back wall, first box side wall or second box side wall and movable between an open position in which a bottom access opening is exposed, and a closed position in which the first bottom wall panel covers the bottom access opening; a lid hingedly connected to the box back wall and movable between an open lid position in which the top access opening is uncovered and a closed lid position in which the lid covers the top access opening; and a separator element disposed within the box, the separator element comprising a platform dividing the interior of the box into an upper compartment adjacent to the top access opening and a lower compartment adjacent to the bottom access opening, and wherein the separator element is configured to slide along the longitudinally axis of the box to change the volume of each of the upper and lower compartments.

[0007] The features of the first bottom wall panel and the separator element may each be considered novel and inventive in their own right.

[0008] Therefore, according to a second aspect of the invention, there is provided a container for consumer goods, the container comprising: a box for housing the consumer goods, the box comprising a box front wall, a box back wall, a first box side wall and a second box side wall, wherein the top face of the box is at least partially open to provide a top access opening for accessing the interior of the box, and the top face of the box is at least partially open to provide a bottom access opening for accessing the interior of the box. The container further comprises a first lid hingedly connected to an upper edge of one of the box walls and movable between an open lid position in which the top access opening is uncovered and a closed lid position in which the first lid covers the top access opening; and a second lid hingedly connected to a lower edge of one of the box walls and movable between an open lid position in which the bottom access opening is uncovered and a closed lid position in which the second lid covers the bottom access opening. The container further comprises a separator element disposed within the box, the separator element comprising a platform dividing the interior of the box into an upper compartment adjacent to the top access opening and a lower compartment adjacent to the bottom access opening, and wherein the separator element is configured to slide along the longitudinally axis of the box to change the volume of each of the upper and lower compartments.

[0009] According to a third aspect of the invention, there is provided a container for consumer goods, the container comprising: a box for housing the consumer goods, the box comprising a box front wall, a box back wall, a box bottom wall, a first box side wall and a second box side wall, wherein the top face of the box is at least partially open to provide a top access opening for accessing the interior of the box, and wherein the box bottom wall comprises a first bottom wall panel hingedly connected to one of the box front wall, box back wall, first

box side wall or second box side wall and movable between an open position in which a bottom access opening is exposed, and a closed position in which the first bottom wall panel covers the bottom access opening. The container further comprises a lid hingedly connected to the box back wall and movable between an open lid position in which the top access opening is uncovered and a closed lid position in which the lid covers the top access opening.

[0010] In the following description of the invention the terms "side", "top", "bottom", "front", "back" and other terms used to describe relative positions of the components of containers according to the invention refer to the container in an upright position with the top access opening at the top. When describing containers according to the present invention, these terms are used irrespective of the orientation of the container being described. The "bottom" of the container refers to the side of the container opposite the "top" of the container. The "back" of the container refers to the side towards which the lid swings open.

[0011] The term "height" is used herein to refer to dimensions extending between the top and the bottom. The term "width" is used herein to refer to dimensions extending between two sides. The term "depth" is used herein to refer to dimensions extending between the front and the back. Height, width and depth are orthogonal to each other.

[0012] The term "panel" is used herein to refer to a portion of the container formed from a single, continuous portion of material. A panel may depend from one or more other panels. The term "flap" refers to a panel that depends from only one other panel.

[0013] The term "wall" refers more generally to a facet of the container, and a wall may be formed from a single panel or flap, or a wall may be formed from two or more abutting or overlapping panels or flaps.

[0014] The term "depending" is used herein to describe a physical connection between two elements of a container in accordance with the invention. In more detail, the term "depending" is used to indicate that there is a material continuity between two elements, such as two walls or panels of a container or blank. This encompasses both cases wherein a wall or panel depends directly from an adjacent wall or panel as well as cases wherein an intermediate wall or panel effectively connects two walls or panels.

[0015] By way of example, a side wall or panel may depend directly from an adjacent front wall or panel. In such case, the wall or panel typically depends along a line of weakness from the adjacent wall. As an alternative, especially in containers having curved or bevelled edges, a side wall or panel may depend indirectly from a front wall or panel. In such case a curved or bevelled edge wall or panel connects the side wall or panel and the front wall or panel. In the case of a bevelled edge, both side wall or panel and front wall or panel may depend from the connecting bevelled edge wall or panel along respec-

tive fold lines. This also applies to optional components of containers in accordance with the invention, for example to a reinforcing member provided in the form of an inner frame.

[0016] The term "fold line" is used herein to describe any line of a blank about which the blank is folded. The fold line may be defined by a line of weakness to assist with the folding action. Alternatively, a fold can be formed without the presence of a weakening line, depending for example on the pliability of the blank material and other material characteristics.

[0017] The term "hinge line" is used herein to refer to a line about which a component of the container may pivot relative to another component. For example, the container comprises a hinge line which is the line about which the lid may be pivoted in order to open the container. A hinge line may also be provided in the dispensing means such that a portion of the dispensing means can be pivoted away from the consumer goods after dispensing, as described below. A hinge line may be, for example, a fold line or a score line.

[0018] Containers according to the present invention may comprise a box bottom wall comprising a first bottom wall panel hingedly connected to one of the box front wall, box back wall, first box side wall or second box side wall and movable between an open position in which a bottom access opening is exposed, and a closed position in which the first bottom wall panel covers the bottom access opening. Containers according to the present invention may comprise a separator element disposed within the box, the separator element comprising a platform dividing the interior of the box into an upper compartment adjacent to the top access opening and a lower compartment adjacent to the bottom access opening, and wherein the separator element is configured to slide along the longitudinally axis of the box to change the volume of each of the upper and lower compartments.

[0019] By providing a first bottom wall panel movable between its open and closed positions, the container may be able to incorporate a selectively openable bottom access opening at its lower end, whilst also having an appearance at its lower end, which closely or identically resembles that of a conventional container, such as a conventional container for aerosol-generating articles. Consumers can therefore use, store, transport and view the container in a manner, which is already familiar to them, whilst also benefitting from being able to use an additional bottom access opening.

[0020] By providing the separator element within the box, the sizes of the upper and lower compartments can be adjusted during use of the container. A consumer can therefore choose how big or small they wish to make each compartment, depending on their preferences. For examples, as a consumer progressively consumes goods from within the container, they could choose to reduce the size of the compartment, which contained said goods. For example, if the goods were initially provided to the consumer in the upper compartment, then reducing

the size of upper first compartment during use, would have the additional effect of bringing the remaining goods within the compartment closer to the top access opening.

[0021] The combination of the first bottom wall panel movable between its open and closed positions, and the separator element within the box is particularly advantageous. In particular, when the container and the goods are first supplied to the consumer, the separator element may be disposed towards the bottom of the container, such that the volume of the upper compartment is greater than the volume of the lower compartment. The goods may then be removed from the upper compartment by the consumer via the top access opening. Once a good has been consumed by the consumer, the good or any remaining part thereof, can be reintroduced to the container via the bottom access opening. In doing so, the separator element can be moved upwards to accommodate the good or any remaining part thereof in the lower compartment. This upwards movement also acts to reduce the volume of the upper compartment, meaning that any remaining goods within the upper compartment are moved closer to the top access opening. Consequently, through the action of storing a used consumer good within the lower compartment, the consumer can additionally make it easier for them to access the next good they wish to consume from the upper compartment, because it has been moved closer to the top access opening. It will be appreciated that, in some embodiments, the lower compartment may initially store the goods to be consumed, and the upper compartment is used to store the consumed goods or any remaining part thereof.

[0022] Furthermore, by having a distinct upper and lower compartment for storing used and unused consumer goods, a consumer can keep any used consumer goods separate from the unused consumer goods. This may help to minimise contamination.

[0023] The separator element and the hinged first bottom wall panel can be readily incorporated into an existing container with minimal modification required to the exterior of the container. Therefore, the separator element and the hinged first bottom wall panel can advantageously be incorporated into a container without affecting the external appearance or shape of the container.

[0024] As described in more detail below, the containers of the present invention find particular application as containers for heated aerosol-generating articles that are adapted to be used with an aerosol-generating device comprising a heater element.

[0025] Preferably, the first bottom wall panel is hingedly connected to the box back wall, more preferably to the bottom edge of the box back wall. By providing the hinged connection on the box back wall, the consumer may be able to more easily access the bottom access opening when they are holding the container with the box front wall facing towards them.

[0026] In some embodiments, the first bottom wall panel extends from the bottom edge of the back wall to the bottom edge of the box front wall when the first bottom

wall panel is in the closed position. This advantageously means that the first bottom wall panel can define the entire outer surface of the box bottom wall when the first bottom wall panel is in the closed position. Consequently, when the first bottom wall panel is in the closed position the container can have an appearance at its lower end, which closely or identically resembles that of a conventional container. The bottom access opening may therefore appear hidden in such embodiments.

[0027] In such embodiments, the box bottom wall may further comprise a second bottom wall panel extending from the bottom edge of the box front wall only to a point between the bottom edge of the front wall and the bottom edge of the back wall. The second bottom wall panel may therefore be configured to underlie the first bottom wall panel when the first bottom wall panel is in the closed position. Put another way, the first bottom wall panel may be configured to extend over the second bottom wall panel when the first bottom wall panel is in the closed position.

[0028] This means that the access opening does not extend across the entire bottom wall when the first bottom wall panel is in the open position. Instead the access opening is defined by the space between the second bottom wall panel and the lower edge of the box back wall, when the first bottom wall panel is in the open position. The second bottom wall panel can therefore act as a barrier which can reduce the likelihood of items, such as used or unused consumer goods, falling out of the bottom of the container, when the bottom access opening is exposed by the first bottom wall panel being in the open position.

[0029] In some embodiments, the first bottom wall panel extends from the bottom edge of the back wall only to a point between the bottom edge of the back wall and the bottom edge of the front wall when the first bottom wall panel is in the closed position. In such embodiments, the box bottom wall may not extend across the entire bottom of the box, and thus a portion of the bottom access opening remains exposed. However, preferably, the box bottom wall further comprises a second bottom wall panel extending from the bottom edge of the box front wall only to a point between the bottom edge of the front wall and the bottom edge of the back wall.

[0030] In such embodiments, a leading edge of the first bottom wall panel is preferably configured to abut a leading edge of the second bottom wall panel when the first bottom wall panel is in the closed position. This can mean that the outer surface of the box bottom wall is formed entirely by the combination of the outer surface of the first bottom wall panel and the outer surface of the second bottom wall panel when the first bottom wall panel is in the closed position. Consequently, when the first bottom wall panel is in the closed position the container can have an appearance at its lower end, which closely resembles that of a conventional container. The bottom access opening may therefore appear relatively hidden in such embodiments.

[0031] The first bottom wall panel may be free to hinge

between and beyond the open and closed positions. However, preferably the container comprises one or more mechanisms for temporarily retaining the first bottom wall panel in one or both of its open and closed positions. For example, preferably one or both of a non-permanent adhesive and a micro suction material are provided for temporarily retaining the first bottom wall panel in the closed position.

[0032] Preferably, the container comprises one or more mechanisms for preventing the first bottom wall panel from hinging beyond the open position. Said mechanism may additionally be used to temporarily hold the first bottom wall panel in the open position.

[0033] For example, preferably, the container further comprises first and second side flaps connected to respective side edges of the first bottom wall panel, each side flap being disposed within the box and adjacent to the inner surface of a respective box side wall when the first bottom wall panel is in the closed position. Each side flap is preferably configured to engage with a portion of the container when the first bottom wall panel is in the open position to prevent the first bottom wall panel from moving beyond the open position. Preferably, each side flap is configured to engage with a portion of the second bottom wall panel when the first bottom wall panel is in the open position to prevent the first bottom wall panel from moving beyond the open position.

[0034] Each side flap may extend beyond the lower edge of the box side walls when the first bottom wall panel is in the open position. This may help to facilitate one or both of removal and insertion of consumer goods through the bottom access opening. This may further help to reduce the likelihood of goods inadvertently falling out of the bottom of the container, since the side flaps can act as side barriers at the bottom access opening.

[0035] As noted above, the separator element of the present invention comprises a platform dividing the interior of the box into an upper compartment adjacent to the top access opening and a lower compartment adjacent to the bottom access opening, and wherein the separator element is configured to slide along the longitudinally axis of the box to change the volume of each of the upper and lower compartments. The upper compartment is accessible through the top access opening and the lower compartment is accessible through the bottom access opening.

[0036] The separator element is therefore incorporated inside the box of containers according to the invention in order to define separate compartments within the box. The upper compartment defined above the separator element is separate from the lower compartment from which the consumer goods are dispensed. The upper or lower compartment can therefore advantageously be used as a waste compartment to store used consumer goods, such as used aerosol-generating articles. The other of the lower or upper compartment can be used to store unused consumer goods.

[0037] The separator element is preferably slidable

within the box to adjust the relative volumes of the upper compartment and the lower compartment. The separator element is therefore preferably mounted within the box such that it can slide upwards and downwards inside the box. In this way, the size of the lower compartment can be reduced as the consumer goods are emptied from the container and the upper compartment will increase in size, which may be useful for containers in which the upper compartment is intended for storage of used consumer goods.

[0038] Preferably, where the lower compartment is intended for storage of used consumer goods, the separator element automatically slides upwards to adjust the relative volumes of compartments as used consumer goods are inserted into the lower compartment. Alternatively or in addition, the separator element may be adapted that the consumer can manually adjust the position to control the relative volumes of the compartments.

[0039] The separator element is preferably formed from a single laminar blank which is folded and inserted inside the box of the container during assembly. The separator element may be formed of the same sheet material as the box, or a different sheet material.

[0040] The platform of the separator element may have any suitable structure. For example, the platform may comprise a mesh. Preferably, the platform of the separator element forms a transverse wall extending across the internal volume of the box. Preferably, the separator transverse wall has a size and shape substantially corresponding to the internal transverse cross-section of the box so that the compartments are completely separated from each other by the separator element. This can help to minimise any transfer of material between the upper and lower compartments.

[0041] The separator element may consist solely of the platform. Preferably, the separator element further comprises a separator front wall, a separator back wall, and separator side walls, connected to the platform. One or more of the separator front wall, separator back wall, and separator side walls, may be formed from the same material as the separator platform. This provides the separator element with a three dimensional form which has good structural rigidity.

[0042] In some embodiments, one or more of the separator front wall, the separator back wall and the separator side walls lie against the inner surface of their respective box front wall, the box back wall and the box side walls. Preferably, all of the separator front wall, the separator back wall and the separator side walls lie against the inner surface of their respective box front wall, the box back wall and the box side walls. This can advantageously help to ensure that there is a snug fit between the separator element and the box, and thus help to reduce the likelihood of the separator element inadvertently moving within the container. That is, the friction between the corresponding surfaces of the separator element and the box provides a certain level of resistance to the sliding of the separator element within the box. The

separator element therefore does not slide freely but can be retained in the appropriate position within the box until a force is applied directly or indicated by the consumer.

[0043] In some embodiments, the container further comprises an inner frame disposed within the box, the inner frame having one or more of an inner frame front wall, inner frame back wall, first inner frame side wall, and second inner frame side wall. Preferably, the inner frame has all of said walls, or consists solely of the inner frame front wall, first inner frame side wall, and second inner frame side wall.

[0044] Where an inner frame is provided in the container, one or more of the separator front wall, the separator back wall and the separator side walls lie against the inner surface of their respective inner frame front wall, inner frame back wall, first inner frame side wall, and second inner frame side wall. Preferably, all of the separator front wall, the separator back wall and the separator side walls lie against the inner surface of their respective inner frame front wall, inner frame back wall, first inner frame side wall, and second inner frame side wall. This can advantageously help to ensure that there is a snug fit between the separator element and the inner frame within the box, and thus help to reduce the likelihood of the separator element inadvertently moving within the container. That is, the friction between the corresponding surfaces of the separator element and the inner frame provides a certain level of resistance to the sliding of the separator element within the box. The separator element therefore does not slide freely but can be retained in the appropriate position within the box until a force is applied directly or indicated by the consumer.

[0045] Where an inner frame is provided in the container, and the inner frame has a back wall, preferably a guide flap depends from a top edge of the inner frame back wall. This can be used to urge one or more of the consumer goods in the upper compartment towards the front wall of the box. This can be particularly beneficial as goods are progressively consumed and thus removed from the upper compartment, because the guide flap can help to ensure that any remaining goods are urged towards the front of the container, where they may be more easily accessible for a consumer.

[0046] The separator transverse wall may optionally be provided with a barrier layer on at least one of the top surface and the bottom surface. For example, a layer of a metallic film may be provided on at least one of the top surface or bottom surface of the separator transverse wall. Such a barrier layer may advantageously prevent the migration of odours, flavours, moisture or other liquids and gases between the compartments. This may be particularly beneficial, for example, where the upper compartment is used as a waste compartment for used consumer goods or where the compartments are used to hold different consumer goods having different flavours.

[0047] Containers according to the present invention preferably comprise one or more elongate consumer goods within the box. Preferably, the one or more elon-

gate consumer goods are arranged transversely across the box, so that the longitudinal axis of the one or more consumer goods is substantially horizontal. The separator element is particularly advantageous for container containing elongate consumer goods, which are arranged transversely across the box. This is because the separator element can be used to ensure that the final good or goods, which are removed from the container, are located close to the top access opening at the time of removal. That is, when the consumer gets to the stage of removing the final good or goods from the container, the consumer can arrange for the separator element to be located in the upper portion of the box. This means that the upper compartment has a relatively small volume, and that the final good or goods, which rest on the separator element are located close to the top access opening. This problem would not be encountered with elongate consumer goods are arranged longitudinally within the box, so that the longitudinal axis of the one or more consumer goods is substantially vertical. This is because such goods would be likely to have an end portion which was already close to the top access opening, with the other end portion of the good being located at the bottom of the container.

[0048] Containers according to the present invention are also beneficial for housing consumer goods which do not substantially change in volume when they are consumed. For example, containers according to the present invention are particularly beneficial for housing aerosol-generating articles in which an aerosol forming substrate, such as tobacco, is heated rather than combusted. This is because such articles may not substantially change in volume when they are consumed.

[0049] For such articles, a consumer can use one of the compartments, such as the lower compartment to store the used articles. Because the articles do not substantially change in volume when they are consumed, insertion of a used article into the lower compartment can result in the separator element moving upwards. This consequently moves the unconsumed articles in the upper compartment upwards, closer to the top access opening. After each further article is consumed it can therefore in effect be transferred from the upper compartment to the lower compartment, and there will always be space for said consumed article within the container, because of the space that it will have vacated in the upper compartment. Consequently, after all of the articles have been consumed and thus removed from the upper compartment, they can all be reintroduced to the container via the bottom access opening and thus efficiently rehoused within the container. The consumed articles may then be collectively recycled or disposed of in an appropriate manner by the consumer.

[0050] Through an appropriate choice of dimensions, containers according to the invention may be designed to hold different types or numbers of aerosol-generating articles or other consumer goods.

[0051] The lid of the containers according to the inven-

tion is hingedly connected to the box back wall so that it can be moved between the open and closed positions. The lid may take any suitable form that enables the top access opening to be covered in the closed lid position.

[0052] In certain preferred embodiments of the invention, the lid is a lid flap that comprises a lid top wall for covering the top access opening. In alternative embodiments, the lid may comprise a lid top wall, a lid front wall and lid side walls to form a three dimensional, cup-shaped lid.

[0053] Preferably, containers according to the invention further comprise closure means for retaining the lid in the closed lid position. The closure means preferably provides a resealable structure that retains a secure closure before first opening of the container and also enables repeated opening and closing of the lid between uses. The closure means may be provided on the lid, on any part of the box walls that underlie the lid in the closed position, or both.

[0054] The closure means may take any suitable form. For example, the closure means may comprise a micro-suction structure. The term "micro-suction structure" is used herein to refer to an article comprising a flexible material having a plurality of micro cavities on the material's external surface. The walls of the micro cavities are deformable, such that, when the external surface of the material is pressed against a contact surface, a sealed environment of reduced pressure is formed between the walls of the cavities and the contact surface. This provides a suction force between the walls of the cavities and the contact surface. The micro-suction structure can therefore provide an effective means for securing the lid flap in the closed position relative to the box. Alternatively, the closure means may comprise a resealable adhesive or a magnetised or magnetizable material in cooperation with one or several magnets provided between the contacting surfaces of the lid and the box.

[0055] Alternatively or in addition to any of the closure means described above, the closure means may comprise a closure tab extending from an edge of the lid. The closure tab may be adapted for insertion behind the box front wall in the closed lid position. Alternatively, the box may be provided with a corresponding slit in the box front wall for receiving the closure tab when the lid is in the closed lid position.

[0056] Containers according to the invention are preferably formed from one or more folded laminar blanks. The one or more laminar blanks may be formed from any suitable material or combination of materials including, but not limited to, cardboard, paperboard, plastic, metal, or combinations thereof. The different components of the container may be formed from the same material, or from different materials. Particularly preferably, the box and lid of the containers according to the invention are integrally formed from a single laminar blank.

[0057] The invention will now be further described, by way of example only, with reference to the accompanying drawings in which:

Figure 1 shows a perspective view of a container for consumer goods, according to a first embodiment of the present invention, with the lid in an open configuration;

Figure 2 shows a perspective view of the container of Figure 1, with the lid in a closed configuration;

Figure 3 shows a perspective view of the container of Figure 1, with the bottom wall in an open configuration;

Figure 4 shows perspective view of a container for consumer goods, according to a second embodiment of the present invention;

Figure 5 shows a perspective view of the container of Figure 4, with the bottom wall in an open configuration;

Figure 6 shows a partially transparent perspective view of a separator element for use in the container of Figure 1;

Figure 7 shows a partially transparent perspective view of the container of Figure 1, with a separator element in a first position; and

Figure 8 shows a partially transparent perspective view of the container of Figure 1, with a separator element in a second position.

[0058] Figure 1 shows a perspective view of a container 1 according to a first embodiment of the present invention, where the container 1 is in an open condition. Figure 2 shows a perspective view of the container 1 of Figure 1, where the container 1 is in a closed condition. The container is formed from one or more folded laminar blanks and has a lid portion 40 and a box portion 20. The container 1 contains a wrapped bundle of consumer goods, such as a bundle of aerosol-generating articles 60, arranged transversely within the box 20. The consumer goods 60 are contained within an upper compartment within the box 20, as will be explained in more detail below with reference to Figures 7 and 8.

[0059] The lid portion has a first lid side wall 44a, a second lid side wall 44b, and a lid top wall 46. The lid portion also has a lid front wall 42 and a lid back wall (not shown). The box portion 20 has a box front wall 22, and a first box side wall 24a. The box portion 20 also has a box bottom wall 70, a box back wall and a second box side wall (not shown). The lid 40 depends along a hinge line (not shown) from a top edge of the box back wall, and is movable about the hinge line between an open position (as shown in Figure 1) and a closed position (as shown in Figure 2). An inner frame 50 is attached to the inside of the box 20 and includes a first inner frame side wall (54a), a second inner frame side wall (not shown), an inner frame front wall 52, and an inner frame back wall (not shown).

[0060] As best seen from Figure 3, the box bottom wall 70 comprises a first bottom wall panel 71 hingedly connected to the bottom edge of the box back wall. The first bottom wall panel 71 is movable between an open position in which a bottom access opening 73 is exposed

(see Figure 3), and a closed position in which the first bottom wall panel 71 covers the bottom access opening 73 (see Figure 2). In this embodiment, the first bottom wall panel 71 extends from the bottom edge of the box back wall to the bottom edge of the box front wall 22 when the first bottom wall panel 71 is in the closed position.

[0061] As also shown in Figure 3, the box bottom wall 70 further comprises a second bottom wall panel 72 extending from the bottom edge of the box front wall 22 only to a point between the bottom edge of the front wall 22 and the bottom edge of the back wall. This means that the access opening 73 does not extend across the entire bottom wall 70 when the first bottom wall panel 71 is in the open position. Instead the access opening 73 is defined by the space between the second bottom wall panel 72 and the lower edge of the box back wall, when the first bottom wall panel 71 is in the open position. The second bottom wall panel can therefore act as a barrier which can reduce the likelihood of items, such as used or unused consumer goods, falling out of the bottom of the container, when the bottom access opening is exposed by the first bottom wall panel being in the open position. The second bottom wall panel 72 is therefore configured to underlie the first bottom wall panel 71 when the first bottom wall panel 71 is in the closed position.

[0062] The container 1 further comprises first and second side flaps 74a, 74b connected to respective side edges of the first bottom wall panel 71, each side flap 74a, 74b being disposed within the box 20 and adjacent to the inner surface of a respective box side wall when the first bottom wall panel 71 is in the closed position. Each side flap 74a, 74b is configured to engage with a portion of the container when the first bottom wall panel is in the open position to prevent the first bottom wall panel from moving beyond the open position. This can be best seen from the embodiment shown in Figure 5.

[0063] In the embodiment of Figures 4 and 5, the first bottom wall panel does not overlie the second bottom wall panel when in the closed position. Instead, the first bottom wall panel 471 extends from the bottom edge of the back wall only to a point between the bottom edge of the back wall and the bottom edge of the front wall when the first bottom wall panel 471 is in the closed position. A second bottom wall panel 472 extends from the bottom edge of the box front wall only to a point between the bottom edge of the front wall and the bottom edge of the back wall.

[0064] As best seen from Figure 4, a leading edge of the first bottom wall panel 471 is preferably configured to abut a leading edge of the second bottom wall panel 472 when the first bottom wall panel 471 is in the closed position. This means that the outer surface of the box bottom wall is formed entirely by the combination of the outer surface of the first bottom wall panel 471 and the outer surface of the second bottom wall panel 472 when the first bottom wall panel 471 is in the closed position. The first and second side flaps 474a, 474b of Figure 5 engage with a tab 475 disposed on the inner surface of

the respective box side walls. Alternatively, each side flap may engage with a corresponding notch provided at the side edges of the second bottom wall panel 472.

[0065] Figure 6 depicts a separator element 80 for use inside the container 1 of Figure 1. The separator element 80 comprises a platform, in the form of a separator transverse wall 81, sized and shaped to extend transversely across the inside of the box 20. The separator element 80 also comprises a separator front wall 82, a separator back wall 83, and separator side walls 84, 85, connected to the separator transverse wall 81.

[0066] As illustrated by Figures 7 and 8, the separator element 80 divides the interior of the box 20 into an upper compartment 91 adjacent to the top access opening and a lower compartment 92 adjacent to the bottom access opening. The separator element 80 is configured to slide along the longitudinally axis of the box to change the volume of each of the upper and lower compartments 91, 92. In particular, Figure 7 illustrates the container before the consumer goods 60 have been consumed. In this state, the consumer goods all reside in the upper compartment 91, and the volume of the upper compartment 91 is greater than the volume of the lower compartment 92. As each good is consumed, it is removed from the top access opening, and once consumed, the used good is inserted into the lower compartment 92 via the bottom access opening. Once all of the consumer goods 60 have undergone this process, the container will be in the configuration shown in Figure 8. In particular, all consumer goods 60 now reside in the lower compartment 92, and the volume of the lower compartment 92 is now greater than the volume of the upper compartment 91. This is because the separator element 80 has slid along the longitudinally axis of the box, in response to consumer goods being inserted through the bottom access opening.

Claims

1. A container for consumer goods, the container comprising:

a box for housing the consumer goods, the box comprising a box front wall, a box back wall, a box bottom wall, a first box side wall and a second box side wall, wherein the top face of the box is at least partially open to provide a top access opening for accessing the interior of the box, and wherein the box bottom wall comprises a first bottom wall panel hingedly connected to one of the box front wall, box back wall, first box side wall or second box side wall and movable between an open position in which a bottom access opening is exposed, and a closed position in which the first bottom wall panel covers the bottom access opening;
a lid hingedly connected to the box back wall

- and movable between an open lid position in which the top access opening is uncovered and a closed lid position in which the lid covers the top access opening; and
 a separator element disposed within the box, the separator element comprising a platform dividing the interior of the box into an upper compartment adjacent to the top access opening and a lower compartment adjacent to the bottom access opening, and wherein the separator element is configured to slide along the longitudinal axis of the box to change the volume of each of the upper and lower compartments.
2. A container according to claim 1, wherein the first bottom wall panel extends from the bottom edge of the box back wall to the bottom edge of the box front wall when the first bottom wall panel is in the closed position.
 3. A container according to claim 1, wherein the first bottom wall panel extends from the bottom edge of the back wall only to a point between the bottom edge of the back wall and the bottom edge of the front wall when the first bottom wall panel is in the closed position.
 4. A container according to claim 2 or claim 3, wherein the box bottom wall further comprises a second bottom wall panel extending from the bottom edge of the box front wall only to a point between the bottom edge of the front wall and the bottom edge of the back wall.
 5. A container according to claim 4, when dependent on claim 2, wherein the first bottom wall panel is configured to extend over the second bottom wall panel when the first bottom wall panel is in the closed position.
 6. A container according to claim 4, when dependent on claim 3, wherein a leading edge of the first bottom wall panel is configured to abut a leading edge of the second bottom wall panel when the first bottom wall panel is in the closed position.
 7. A container according to any one of the preceding claims, wherein the container further comprises first and second side flaps connected to respective side edges of the first bottom wall panel, each side flap being disposed within the box and adjacent to the inner surface of a respective box side wall when the first bottom wall panel is in the closed position, and wherein each side flap is configured to engage with a portion of the container when the first bottom wall panel is in the open position to prevent the first bottom wall panel from moving beyond the open position.
 8. A container according to claim 7, when dependent on claim 4, wherein each side flap is configured to engage with a portion of the second bottom wall panel when the first bottom wall panel is in the open position to prevent the first bottom wall panel from moving beyond the open position.
 9. A container according to any one of the preceding claims, wherein the platform of the separator element forms a transverse wall extending across the internal volume of the box.
 10. A container according to claim 9, wherein the separator element further comprises a separator front wall, a separator back wall, and separator side walls, connected to the separator transverse wall.
 11. A container according to claim 10, wherein one or more of the separator front wall, the separator back wall and the separator side walls lie against the inner surface of their respective box front wall, the box back wall and the box side walls.
 12. A container according to claim 10, further comprising an inner frame disposed within the box, the inner frame having one or more of an inner frame front wall, inner frame back wall, first inner frame side wall, and second inner frame side wall, and wherein one or more of the separator front wall, the separator back wall and the separator side walls lie against the inner surface of their respective inner frame front wall, inner frame back wall, first inner frame side wall, and second inner frame side wall.
 13. A container according to claim 12, wherein a guide flap depends from a top edge of the inner frame back wall for urging one or more of the consumer goods in the upper compartment towards the front wall of the box.
 14. A container according to any one of the preceding claims, wherein a barrier layer is provided on at least one surface of the platform.
 15. A container according to any preceding claim, wherein at least the upper compartment of the box contains a plurality of aerosol-generating articles transversely arranged, with the longitudinal axis of each aerosol-generating article extending horizontally.

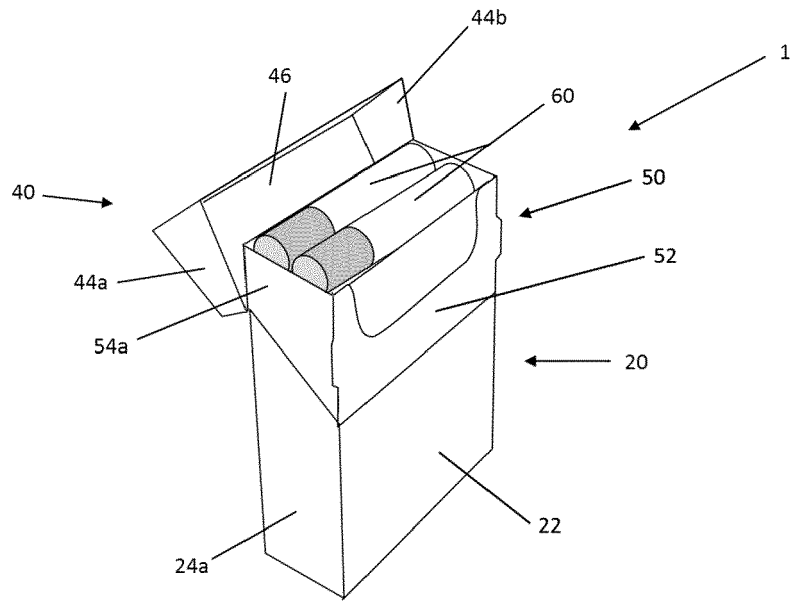


Figure 1

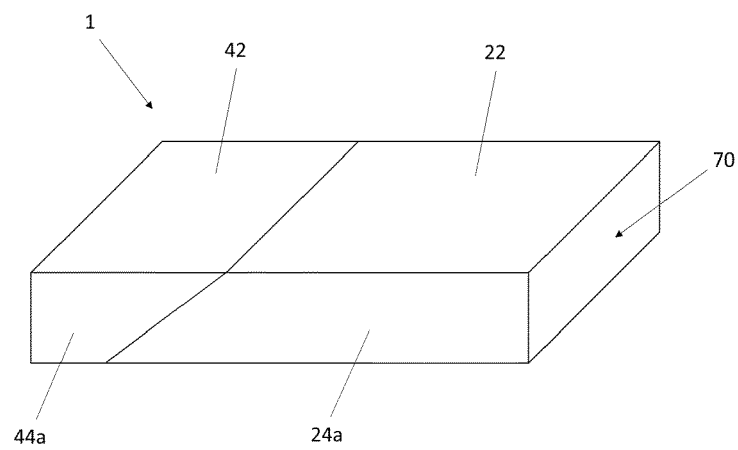


Figure 2

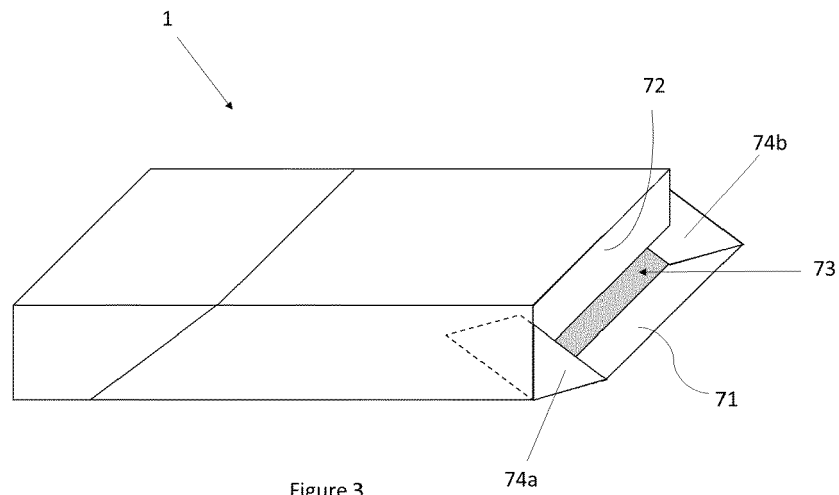


Figure 3

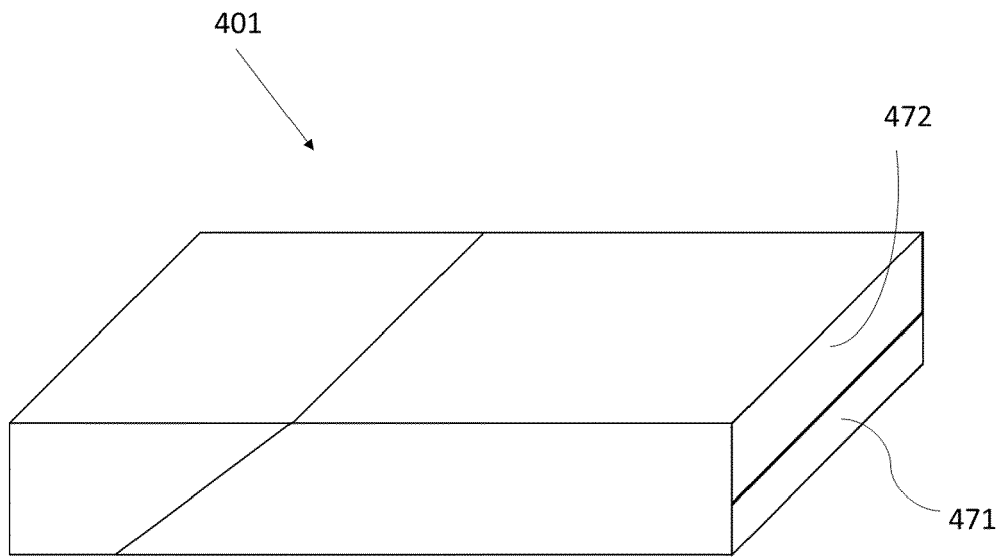


Figure 4

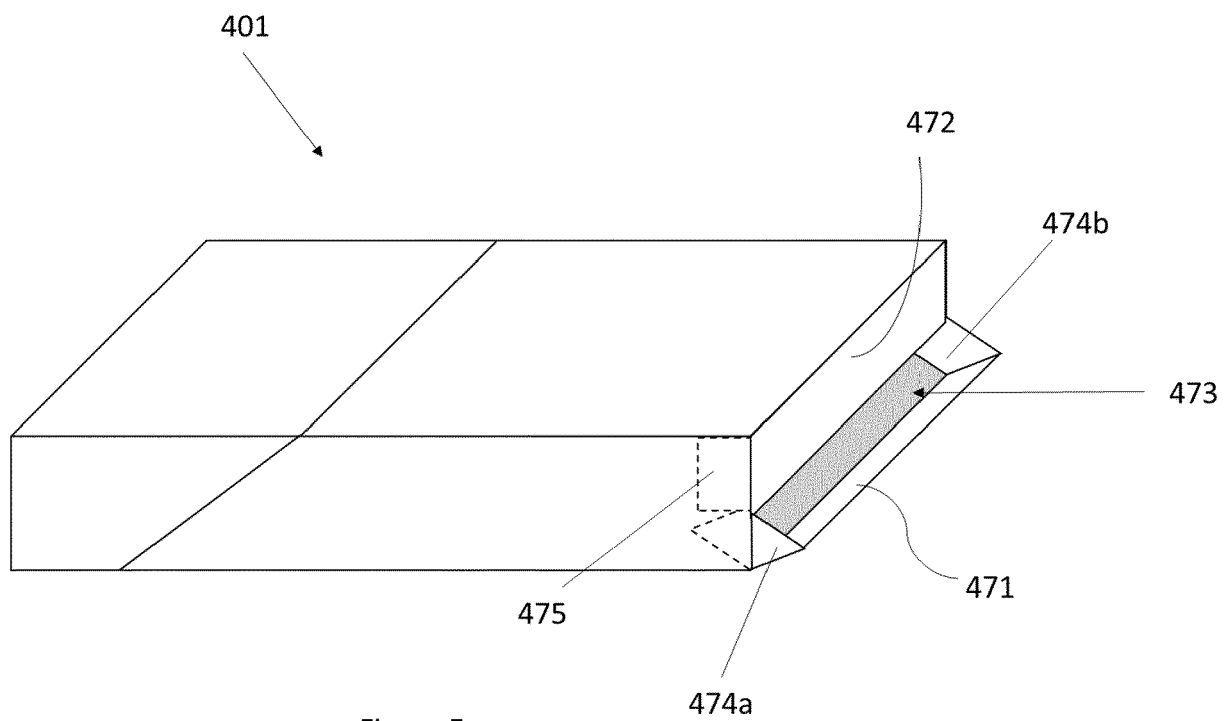


Figure 5

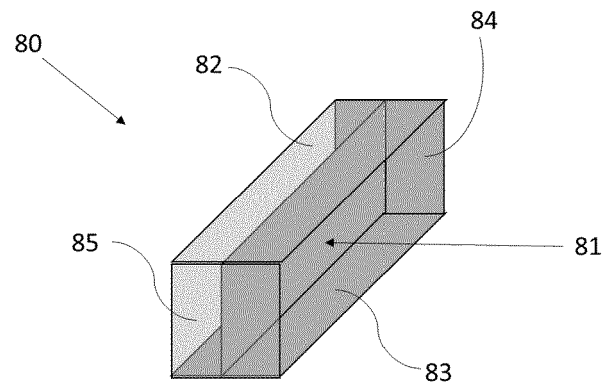


Figure 6

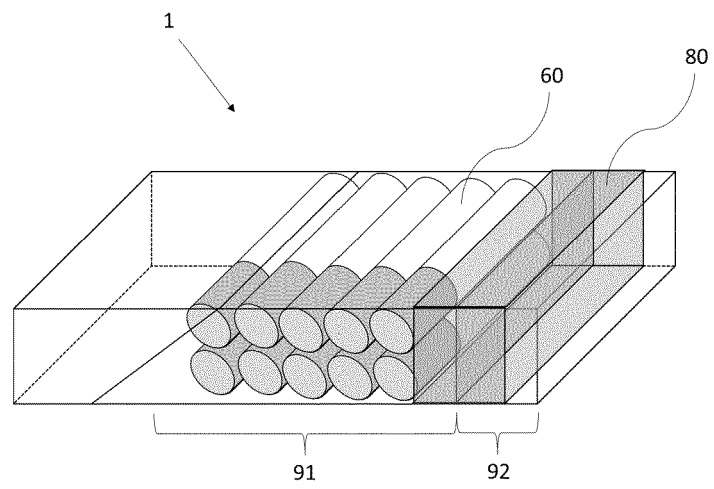


Figure 7

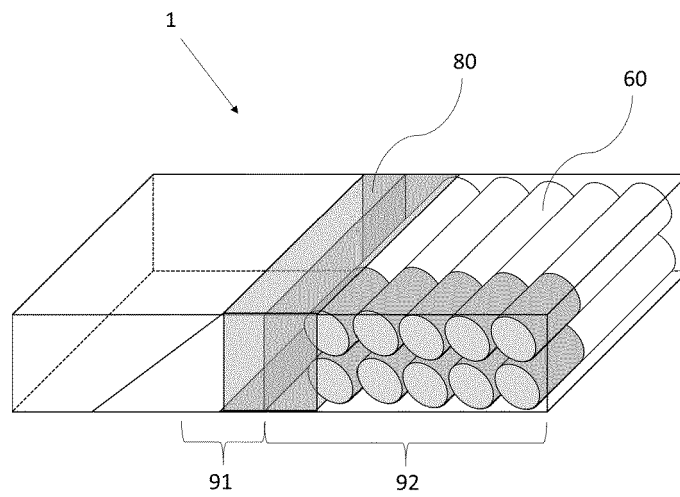


Figure 8



EUROPEAN SEARCH REPORT

 Application Number
 EP 17 20 2430

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	GB 2 535 444 A (NGIP RES LTD [GB]) 24 August 2016 (2016-08-24) * abstract; figures 14-18 * * page 1, paragraph 1 - paragraph 2; figures 1,2 * * page 11, line 8 - page 13, paragraph 2 * * page 14, line 1 - line 24; figure 4 *	1-15	INV. B65D85/10
A	FR 2 766 164 A1 (CRUCHET DAVY [FR]) 22 January 1999 (1999-01-22) * abstract; figures 1,2 *	1-15	
A	US 5 074 412 A (WHITE MARIE B [US]) 24 December 1991 (1991-12-24) * abstract; figures 1,2 *	1-15	
			TECHNICAL FIELDS SEARCHED (IPC)
			B65D
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 28 February 2018	Examiner Segerer, Heiko
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EP 17 20 2430

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
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28-02-2018

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
GB 2535444	A	24-08-2016	NONE	
FR 2766164	A1	22-01-1999	NONE	
US 5074412	A	24-12-1991	NONE	

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