SLIDE AND SHELL CONTAINER HAVING TAMPER EVIDENT SEAL

The present invention relates to a novel slide and shell container for consumer goods. The container finds particular application as a container for elongate smoking articles, such as cigarettes.

It is known to package consumer goods in containers comprising an outer shell or sleeve and an inner slide or tray in which the consumer goods are housed and which is slidable within the outer shell. To remove consumer goods from such containers, a consumer slides the inner slide from an initial position within the outer shell to an open lid position in which the inner slide projects outwardly from the outer shell, in order to partially expose an open end or side of the inner slide.

It is known to provide a slide and shell container with a tamper evident seal or closure. For example, US-A-4,524,901 discloses a two-piece box having an outer part and an inner part that are attached to each other by means of a tear strip. In order to gain access to the consumer goods within the inner part of the container, the outer part and the inner part must be separated from each other by removal of the tear strip. Due to the construction of the blank and the machinery used to manufacture this two-piece box from the blank, the outer part is just a sleeve without top or bottom. Thus, the structural strength of the outer part of this assembled two-piece box is limited, particularly in the open position of the two-piece box.

It would be desirable to provide an improved slide and shell container having a tamper evident seal, which must be broken before the inner slide can be removed from within the outer shell. It would be particularly desirable if such a slide and shell container could be assembled using conventional methods and apparatus and shows an improved structural strength over known containers.

According to a first aspect of the invention, there is provided a slide and shell container comprising: an outer shell comprising a shell front wall, a shell back wall, a first shell side wall, a second shell side wall and a shell bottom wall formed of a shell inner bottom wall panel comprising a cut out portion and a shell outer bottom wall panel; and an inner slide, wherein the inner slide is mounted within the outer shell and comprises a slide front wall, a slide back wall, a first slide side wall,a second slide side wall and a slide bottom wall formed of a slide inner bottom wall panel and a slide outer bottom wall panel, wherein the outer shell and the inner slide are detachably connected to each other along one or more lines of weakness and wherein upon separation of the outer shell and inner slide along the one or more lines of weakness, the inner slide becomes moveable within the outer shell between a closed slide position and an open slide position; and wherein the slide outer bottom wall panel is shaped such that upon assembly of the container, the slide outer bottom wall panel passes through the cut out portion of the shell inner bottom wall panel.

TAccording to the invention there is also provided a slide and shell container for consumer goods comprising an outer shell and an inner slide for housing the consumer goods, which is mounted within the outer shell. The outer shell comprises a shell front wall, a shell back wall, a shell bottom wall, a first shell side wall and a second shell side wall. The inner slide comprises a slide front wall, a slide back wall, a first slide side wall and a second slide side wall. TAccording to the invention, the outer shell and the inner slide are detachably connected to each other along one or more lines of weakness. Upon separation of the outer shell and inner slide along the one or more lines of weakness, the inner slide becomes moveable within the outer shell between a closed slide position and an open slide position.

The terms "front", "back", "upper, "lower", "side", "top", "bottom", "left", "right" 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 opening through which the consumer goods are removed at the top end.

Preferably, the ratio of the height of the lid front wall of the outer sleeve to the height of the box front wall of the outer sleeve 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.

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.

The exterior surfaces of containers according to the invention may be printed, embossed, debossed or otherwise embellished with manufacturer or brand logos, trade marks, slogans and other consumer information and indicia.

Where the inner slide of a container according to the present invention contains a bundle of cigarettes or other elongate smoking articles, the smoking articles are preferably wrapped in an inner liner of, for example, metal foil or metallised paper.

Once filled, containers according to 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 the invention are over wrapped, the over wrapper may include one or more a tear tapes. In addition, the over wrapper may be printed with images, consumer information or other data.

The inner slide and outer shell of containers according to the invention may be formed from separate laminar blanks which are connected to each other in some way, with the one or more lines of weakness provided in the connecting portion. The connecting portion may be an integral part of the inner slide or outer shell, or may be a completely separate portion that has been attached to the inner slide and outer shell during assembly.

Preferably, containers according to the invention are formed from a single laminar blank, which is provided with one or more lines of weakness between a slide-defining portion for forming the inner slide and a shell-defining portion for forming the outer shell.

According to a second aspect of the invention, there is provided a laminar blank for forming a slide and shell container of the first aspect of the invention comprising a slide-defining portion for forming the inner slide and a shell-defining portion for forming the outer shell, wherein the slide-defining portion and the shell-defining portion are connected to each other along one or more lines of weakness, wherein the inner slide defining portion comprises a slide front wall panel, a slide back wall panel, a first slide side wall panel,a second slide side wall panel, a slide outer bottom wall panel and a slide inner bottom wall panel, wherein the shell-defining portion comprises a shell front wall panel, a shell back wall panel, a first shell side wall

panel, a second shell side wall panel, a shell outer bottom wall panel and a shell inner bottom wall panel comprising a cut out portion, and wherein the slide outer bottom wall panel is shaped such that upon assembly of the laminar blank to form a container, the slide outer bottom wall panel passes through the cut out portion of the shell inner bottom wall panel.

There is ~~present invention~~ also provides~~d~~ a laminar blank for forming a container ~~according to the invention as described above~~. The laminar blank comprises a slide-defining portion and a shell-defining portion connected to each other along one or more lines of weakness. The slide-defining portion comprises a slide front wall panel, a slide back wall panel a first slide wall panel and a second slide wall panel and the shell-defining portion comprises a shell front wall panel, a shell back wall panel, a shell bottom wall panel, a first shell side wall panel and a second shell side wall panel.

In particularly preferred embodiments of the laminar blank and container according to the invention, the blank comprises a shell inner bottom wall panel and a shell outer bottom wall panel for forming the outer shell bottom wall. The blank also comprises a slide inner bottom wall panel and a slide outer bottom wall panel for forming the inner slide bottom wall. The bottom wall of each of the inner slide and outer shell are therefore formed of two panels, which are adhered together during assembly of the container.

The inner bottom wall panels of the inner slide and outer shell are connected to the back wall of the inner slide and the outer shell, respectively, such that the hinge lines about which the inner bottom wall panels are folded during assembly substantially coincide with each other when the inner slide is in place within the outer shell. This means that both panels can be folded into position during assembly of the container in a single folding motion. Similarly, the outer bottom wall panels of the inner slide and outer shell are connected to the front walls of the inner slide and outer shell, respectively, such that the hinge lines about which the outer bottom wall panels are folded during assembly substantially coincide with each other.

The shell inner bottom wall panel preferably comprises a cut out portion which exposes a portion of the underlying slide inner bottom wall panel when the container is at least partially assembled. The slide outer bottom wall panel preferably has a shape that substantially corresponds to the shape of the cut out portion in the shell inner bottom wall panel, or is smaller than the cut out portion. In addition, the slide outer bottom wall panel is preferably positioned such that it coincides with the cut out portion when the container is assembled.

This arrangement enables the slide outer bottom wall panel to pass through the cut out portion in the shell inner bottom wall panel during assembly such that it can adhere to the slide inner bottom wall panel in order to form the bottom wall of the inner slide. Without the provision of the cut out portion, the shell inner bottom wall panel would overlie and cover the slide inner bottom wall panel such that it would not be possible to adhere the panels of both the slide bottom wall and the shell bottom wall using a standard assembly procedure.

The arrangement of the bottom wall panels described above is therefore particularly advantageous since it enables containers in which both the outer shell and inner slide have bottom walls to be assembled using conventional assembly methods and apparatus, as described in more detail below. For example, the containers can be automatically assembled on a standard Bergami® machine, of the type used to assemble conventional packs of smoking articles.

Advantageously, the inclusion of a bottom wall in both the outer shell and the inner slide provides the container with improved rigidity and structural strength.

According to a third aspect of the invention, there is provided a method for forming a slide and shell container from the laminar blank of the second aspect of the invention, comprising the steps of: partially assembling the container by folding the inner slide defining portion and the outer shell defining portion along the longitudinal fold lines provided therein; inserting consumer goods into the inner slide defining portion through an open end thereof; folding the slide inner bottom wall panel and the shell inner bottom wall panel inwards; applying adhesive to the slide inner bottom wall panel and the shell inner bottom wall panel; and folding the slide outer bottom wall panel and the shell outer bottom wall panel inwards such that the slide outer bottom wall panel passes through the cut out portion in the shell inner bottom wall panel to adhere to the slide inner bottom wall panel and the shell outer bottom wall panel adheres to the shell inner bottom wall panel.

T~~According to the present invention t~~here is also provided a method for assembling a container ~~according to the invention~~ from a single laminar blank, as described below.