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- (54) Title: CONTAINER WITH INTEGRALLY CONNECTED RECEPTACLES

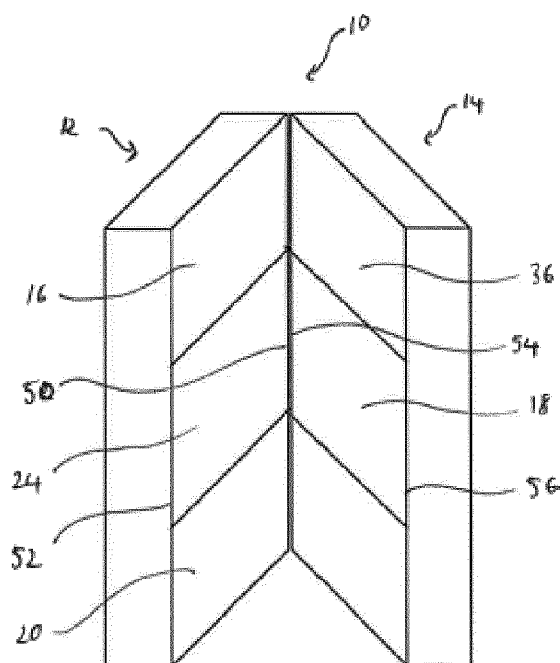


Figure 2

(57) Abstract: A container (10), (80) for consumer goods formed from a one-piece laminar blank (110), (180), the container comprising: a first receptacle (12), (82) having a first wall (24) with opposed first (50) and second (52) edges; a second receptacle (14), (84) having a first wall (36) with opposed first (54) and second (56) edges, wherein in an initial position the first wall (24) of the first receptacle (12), (82) and the first wall (36) of the second receptacle (14), (84) face each other so that the first edges of the first and second receptacles are adjacent and the second edges of the first and second receptacles are adjacent. A first integral connector (16), (86) and a second integral connector (18), (88) extend between the first edge (50) of the first receptacle (12) and the first edge (54) of the second receptacle (14). The second receptacle (14) is rotatable relative to the first receptacle (12) from the initial position into a first position or a second position.



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CONTAINER WITH INTEGRALLY CONNECTED RECEPTACLES

The present invention relates to a container for consumer goods comprising two receptacles that are hingedly connected to each other by integral connectors. Containers according to the invention find particular application in the packaging of smoking articles.

It is known to package smoking articles in containers comprising two connected packs. For example, WO-A-2006/079799 describes a package comprising two packs connected in a Jacob's ladder arrangement by at least first and second straps. In a first position, the first and second packs face each other with the first faces of the packs together. The arrangement of the first and second straps enables the first and second packs to move relative to each other from the first position into a second position in which the second pack is rotated relative to the first pack about a first edge of the first pack, or a third position in which the second pack is rotated relative to the first pack about a second edge of the first pack, opposed to the first edge.

The first and second packs of the packages of WO-A-2006/079799 are formed from separate laminar blanks and the packs are connected in the Jacob's ladder arrangement by a separate joining blank or structure.

A further example of a container comprising two connected packs is described in WO-A-2009/013627. The container of WO-A-2009/013627 includes first and second packs, each including an integral connector extending across a first wall. The integral connectors of the first and second packs are affixed to each other in order to obtain a Jacob's ladder arrangement. This enables the packs to move relative to each other between first, second and third positions as described above in relation to WO-A-2006/079799.

It would be desirable to provide a container comprising two or more receptacles connected in a Jacob's ladder or similar arrangement that can be produced and assembled in a simple and efficient way. In particular, it would be desirable if such a container could be assembled and filled using conventional apparatus and methods, without significant modification.

According to the invention there is provided a container for consumer goods comprising: a first receptacle having a first wall with opposed first and second edges; a second receptacle having a first wall with opposed first and second edges; a first integral connector extending between the first edge of the first receptacle and the first edge of the second receptacle; and a second integral connector extending between the first edge of the first receptacle and the first edge of the second receptacle. The first integral connector comprises a first connector section affixed to the first wall of the first receptacle and a second connector section hingedly connected to the first connector section and hinged about the first edge of the second receptacle. The second integral connector comprises a

first connector section affixed to the first wall of the second receptacle and a second connector section hingedly connected to the first connector section and hinged about the first edge of the first receptacle.

In an initial position of the container, the first wall of the first receptacle and the first wall of the second receptacle face each other so that the first edges of the first walls of the first and second receptacles are adjacent and the second edges of the first walls of the first and second receptacles are adjacent. From the initial position, the second receptacle is rotatable relative to the first receptacle about the first edge of the first wall of the first receptacle into a first position in which the first edges of the first walls of the first and second receptacles are adjacent and the second edges of the first walls of the first and second receptacles are spaced apart. From the initial position the second receptacle is alternatively rotatable relative to the first receptacle about the second edge of the first wall of the first receptacle into a second position in which the second edges of the first walls of the first and second receptacles are adjacent and the first edges of the first walls of the first and second receptacles are spaced apart.

The arrangement of the first and second integral connectors results in the first and second receptacles of containers according to the invention being hingedly connected to each other in a Jacob's ladder arrangement as described in the prior art. However, the container of the present invention is advantageously formed from a single, one-piece laminar blank. The first receptacle, the second receptacle, the first integral connector and the second integral connector are therefore integrally formed together from the same piece of material.

The integration of all of the components of the container, including the integral connectors, into a single laminar blank provides significant manufacturing advantages. In particular, through the use of a single laminar blank the production process of the containers according to the invention can be made simpler and more efficient than the corresponding processes for containers of the prior art. Further, the positioning of all of the connectors between the same first edge of the first receptacle and the same first edge of the second receptacle allows for a very compact layout of the blank used in the assembly of the container.

In the containers of the prior art, the first and second receptacles are formed of separate and distinct laminar blanks which must be produced and printed separately before being assembled and combined to form the final container. The handling and assembly of the separate laminar blanks for the different receptacles typically requires relatively complex manufacturing processes. In contrast, the use of a single laminar blank to form both the first receptacle and the second receptacle of containers according to the invention enables the use of simpler and more efficient machinery and processes. In addition, registration of

printing and other surface treatments on the assembled container is significantly improved where the container is made from a single blank over a container that is assembled from multiple blanks. In many cases, the assembly of the containers from the single laminar blanks can be carried out using existing packaging machinery.

In addition, there is greater flexibility in the processing of the single laminar blank, since the integration of the first receptacle and the second receptacle enables the container to be partially assembled whilst remaining flat. This enables the blank manufacturer to partially assemble the container prior to transport to the manufacturer of the consumer goods who will complete the assembly and filling of the process. This makes the overall production process more efficient for the manufacturer of the consumer goods and allows the manufacturer to use the existing packaging apparatus and methods for assembly.

The integral connectors of the containers of the present invention are integrally formed with both the first and second receptacles of the container. Each integral connector is connected to the first receptacle along a hinge line extending along the first edge of the first receptacle and connected to the second receptacle along a hinge line extending along the first edge of the second receptacle. An intermediate hinge line is provided in the integral connector, between the first and second connector portions. The intermediate hinge line is preferably parallel to the hinge lines along the first edges of the receptacles.

This arrangement of hinge lines allows the first connector portion of each integral connector to be folded so that it overlies the first wall. The first connector portion is affixed to the first wall in order to retain it in this position overlying the first wall. In addition, the arrangement of the hinge lines allows the necessary rotational movement of the receptacles relative to each other between the different positions, as defined above.

Each of the hinge lines is preferably formed by a line of weakness in the material forming the laminar blank, for example, a score line or line of perforation. The first connector portion of each integral connector is preferably affixed to the first face of one of the receptacles by means of a suitable adhesive.

Advantageously, the first connector portion of each integral connector can be folded and affixed to one of the first walls whilst the laminar blank remains flat, so that the integral connectors can be fixed in place during the manufacture of the laminar blanks. This facilitates the assembly of the container by the manufacturer of the consumer goods and allows for the final assembly of the containers using conventional apparatus for filling standard containers, such as those already used for containers of smoking articles.

Preferably, one or more additional integral connectors may be provided between the first edges of the first and second receptacles. For example, in preferred embodiments of the invention, a third integral connector is provided between the first edges of the first and second receptacles. Preferably, each additional integral connector has the same

construction as the first and second integral connectors, with a first connector portion affixed to a first face of one of the receptacles and a second connector portion hinged about the first edge of the other receptacle. Preferably, the two or more integral connectors are provided adjacent to each other, so that the integral connectors can be readily formed from a panel in the single laminar blank through a simple arrangement of cut lines between the connectors.

Preferably, the opposed first and second edges of the first walls of the first and second receptacles are longitudinal edges. More preferably, the opposed first and second edges are substantially vertical, longitudinal edges of the receptacle.

Preferably, the first wall of each of the first and second receptacles is a major wall of the receptacle, such as the back wall or the front wall. The term 'major' is used to refer to the walls of the receptacle having a greater surface area than the other walls. Particularly preferably, the first wall of at least one of the first and second receptacles is the back wall of the receptacle. Preferably, the first wall of both of the first and second receptacles is the back wall of the receptacle. This means that in the initial position of the container with the receptacles together, the back walls face inwards and the front walls that are opposed to the back walls face outwards. The front of both receptacles can therefore be seen in the initial position. This may be advantageous if the filled containers are presented to the consumer in the initial position at the point of sale.

Preferably, the initial position of the receptacles corresponds to a closed position and each of the first position and the second position corresponds to an open position. In order to move the receptacles from the initial position to the first position, the container is opened like a book by rotating the first and second receptacles relative to each other about an axis coinciding with the adjacent first edges. Similarly, in order to move the receptacles from the initial position to the second position, the container is opened like a book in the opposite direction by rotating the first and second receptacles relative to each other about an axis coinciding with the adjacent second edges.

In each of the first position and the second position, the first and second receptacles may be positioned with an angle of approximately 180 degrees between them, so that the first and second receptacles lie substantially flat within the same plane, with their side walls together. Alternatively, the first and second receptacles may be positioned with an angle of less than 180 degrees between them.

The first walls of the first and second receptacles are not visible to the consumer in the initial position but are revealed to the consumer as the receptacles are moved to the first position or the second position. The integral connectors are arranged such that in each of the first and second positions the integral connectors overlies at least a part of the first walls of the receptacles. However, in each of the first and second positions different surfaces of the integral connector will be exposed at the first walls of the receptacles. The different

surfaces of the integral connectors can therefore advantageously be printed or decorated with different graphics or text to provide contrasting or complementary appearances in the first and second positions.

Preferably, containers according to the invention are provided with retention means for retaining the receptacles in the initial position until a positive force is applied by the consumer to move the first and second receptacles apart from each other towards the first or second position. The retention means may be provided to retain the receptacles in the initial position until the first opening. In certain embodiments, the retention means may additionally be capable of retaining the receptacles in the initial position between uses. Suitable retention means would be known to the skilled person but may include, for example, an area of resealable adhesive for sealing the first walls of the first and second receptacles to each other, one or more retention tabs, one or more mechanical or magnetic fasteners, or combinations thereof.

One or both of the first receptacle and the second receptacle of containers according to the present invention may be in the form of a single compartment box or carton containing the consumer goods. Each box comprises a front wall, back wall, top wall, bottom wall, left side wall and right side wall so that the consumer goods are fully enclosed. Preferably, the top wall of the box is openable to provide access to the consumer goods. For example, the top wall is preferably pivotable about the top edge of the back wall.

In a preferred embodiment, the top wall of the box is provided with a closure flap extending from the front edge of the top wall, which can be tucked into the box between the front wall of the box and the consumer goods. Preferably, a cut out is provided in the front wall of the box at the top edge, overlying the tucked portion of the closure flap. This facilitates the removal of the closure flap from within the box and the opening of the top wall. If desired, a similar closure flap may be provided at the bottom wall of the box in order to provide a secure closure.

Alternatively or in addition, one or both of the first receptacle and the second receptacle of containers according to the present invention may be a hinge lid container comprising a box and an integral hinge lid connected to the box along a hinge line extending across the back wall of the receptacle. Preferably, the hinge line extends across the first wall of the receptacle so that the first wall corresponds to the back wall of the receptacle. With this arrangement, the hinge lid will be prevented from pivoting about the hinge line into an open position whilst the first and second receptacles are in the initial position with the first walls together. It will therefore be necessary to move the receptacles to the first position or the second position before the hinge lid container can be opened. This may advantageously prevent the inadvertent opening of the hinge lid container between uses.

Where one or both of the first receptacle and the second receptacle of containers according to the invention comprises a hinge lid, the hinge lid may be formed by an appropriate arrangement of cut lines and fold lines in the single laminar blank so that the hinge lid is formed upon assembly of the container. Alternatively, the hinge lid may be at least partially defined by one or more lines of weakness in the single laminar blank. The one or more line of weakness must be broken upon the first opening of the container in order to form the hinge lid and separate the hinge lid from the box of the container.

Where both the first receptacle and the second receptacle of containers according to the invention are hinge lid containers, both receptacles may have a hinge lid pivotable about a hinge line extending across the first wall of the container. In the initial position, the hinge lid containers are therefore positioned back-to-back with the back walls together so that neither hinge lid can be opened. In alternative embodiments, the first receptacle has a hinge lid pivotable about a hinge line extending across the first wall of the receptacle and the second receptacle has a hinge lid pivotable about a hinge lid extending across a second wall of the receptacle. Preferably, the second wall is parallel and substantially opposed to the first wall of the second receptacle.

Alternatively or in addition, one or both of the first receptacle and the second receptacle may form the outer shell of a slide and shell container, wherein a separate inner slide housing the consumer goods may be mounted within the outer shell. The inner slide does not form a part of the container of the invention and must be formed from a separate laminar blank. The inner slide is moveable relative to the outer shell between a closed position and an open position.

Preferably, the inner slide includes an opening through which the consumer goods can be removed when the inner slide is in an open position. The whole of one side of the inner slide may be open, or an opening may be provided in one of the walls of the inner slide, such as the top wall or a side wall. The size of the opening may be selected according to the size of the consumer goods and may be adapted to dispense a single consumer good, or a small group of the consumer goods at one time.

The outer shell includes at least one access opening through which the inner slide projects in the open position. Preferably, the top end of the outer shell is open to allow movement of the inner slide out from the outer shell. Preferably, the bottom end of the outer shell is also open to enable the inner slide to be pushed in an upwards direction out of the top end of the outer shell. Alternatively, the outer shell may further comprise one or more closure flaps at the at least one access opening. The one or more closure flaps are preferably moveable between a closed position in which the one or more flaps covers the access opening and an open position in which the access opening is uncovered and the inner slide can be accessed.

The one or more closure flaps may be glued in the closed position, using a permanent or resealable adhesive. Alternatively, the one or more closure flaps may include a flap portion which can be tucked into the outer shell, between a wall of the outer shell and the consumer goods, as described above in relation to the embodiments in which one or more receptacles are in the form of a box. Where the one or more closure flaps are capable of being tucked into the outer shell, a cut out is preferably provided in the wall of the outer shell overlying the tucked portion of the closure flap, as described above. This facilitates the grasping and opening of the closure flap.

Where one or both of the first and second receptacles of containers according to the invention is the outer shell of a slide and shell container, the at least one access opening and any closure flaps may be defined in the single laminar blank by an appropriate arrangement of panels, cut lines and fold lines. Alternatively, the single laminar blank may be provided with one or more lines of weakness which are broken upon first opening of the receptacle in order to define at least one access opening or at least one closure flap.

Preferably, the first receptacle and the second receptacle of containers according to the invention are both of the same construction as each other. It will be appreciated, however, that containers according to the invention may comprise a first receptacle and a second receptacle with different opening and closing means. For example, the first receptacle may be a hinge lid container and the second receptacle may be a slide and shell container, or vice versa.

The first receptacle and the second receptacle of containers according to the invention may be of the same or different cross-section. For example, one or both of the first receptacle and the second receptacle of containers according to the invention may be rectangular, square, triangular, pentagonal, hexagonal, D-shaped, semi-circular or semi-oval in cross-section.

Preferably, the first receptacle and the second receptacle of containers according to the invention are substantially parallelepipedal. More preferably, the first receptacle and the second receptacle of containers according to the invention are substantially cuboidal.

The dimensions of the first receptacle and the second receptacle of containers according to the invention may be the same or different. Preferably, the first receptacle and the second receptacle of containers according to the invention are of different dimensions. More preferably, the first receptacle and the second receptacle of containers according to the invention are of substantially the same length and width, but of different depth.

Preferably, the first wall of the first receptacle and the first wall of the second receptacle of containers according to the invention are of substantially the same dimensions.

The container of the present invention may be formed from any suitable materials including, but not limited to, cardboard, paperboard, plastic, or combinations thereof. Preferably, the container is

formed from a single laminar cardboard blank and preferably, the cardboard has a weight of between about 100 grams per square metre and about 350 grams per square metre.

The first receptacle and second receptacle of containers according to the invention may be in the shape of a rectangular parallelepiped, with right-angled longitudinal and right-angled transverse edges. Alternatively, the receptacles may comprise one or more rounded longitudinal edges, rounded transverse edges, bevelled longitudinal edges or bevelled transverse edges, or combinations thereof. For example, the first receptacle and the second receptacle of containers according to 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; or
- Two longitudinal rounded or bevelled edges on a first side wall or two transverse rounded or bevelled edges on the second side wall.

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

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

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

Where one or both of the receptacles comprises a bevelled edge, the bevel may be formed by two parallel creasing lines or scoring lines in the single laminar blank forming the container. The creasing lines or scoring lines may be arranged symmetrically to the edge between two walls. Alternatively, the creasing lines or scoring lines may be arranged asymmetrically to the edge between the two walls, such that the bevel reaches further into one of the walls than into the other.

Containers according to the invention find particular application as receptacles for elongate smoking articles such as, for example, cigarettes, cigars or cigarillos. Preferably, at least one of the first receptacle and the second receptacle houses a plurality of smoking articles, particularly preferably a wrapped bundle of smoking articles.

It will be appreciated that through appropriate choices of the dimensions thereof, the first and second receptacles of containers according to the invention may be designed to house separate bundles of different numbers of smoking articles. For example, through an appropriate choice of the dimensions thereof, the first and second receptacles of containers according to the invention may be designed to hold a total of between ten and thirty smoking articles each.

The smoking articles housed in the first and second receptacles may be arranged in different collations, depending on the total number of smoking articles. For example, the smoking articles may be arranged in a single row of 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 or seven; or four rows of four, five or six. Alternatively, the two or more rows may include at least two rows containing different number 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). The collation of smoking articles in the first receptacle may be the same as or different to the collation of smoking articles in the second receptacle. The above described collations apply to each receptacle individually as well as to the combination of the two receptacles. For example, each single receptacle may contain a single row of smoking articles or two rows of smoking articles according to a collation as above, such that the one of the collations of two or three rows for the entire container is achieved. For example, the first receptacle may comprise a 7-6 collation and the second receptacle may comprise a further 7 collation so as to create a complete 7-6-7 collation for the entire container.

The first and second receptacles may be designed to house separate bundles of cigarettes of different dimensions, such as conventional size, king size, super-king size, slim or super-slim cigarettes. Alternatively, other consumer goods may be housed inside one or both of the first and second receptacles of the container.

The first and second receptacles of containers according to 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. Preferably, the dimensions of each receptacle are adapted to the length of the smoking articles, and the collation of the smoking articles. Typically, the outer dimensions of each receptacle are between about 0.5 mm to about 5 mm larger than the dimensions of the bundle or bundles of smoking articles housed inside the receptacle.

The length, width and depth of the first and second receptacles of containers according to the invention may be such that, in the initial position, the resultant overall dimensions of the container are similar to the dimensions of a typical disposable hinge lid container of twenty cigarettes.

Preferably, containers according to the invention have an overall 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 bottom wall to the top wall of the container.

Preferably, containers according to the invention have an overall 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 one side wall to the other side wall of the container.

Preferably, containers according to the invention have an overall depth of between about 6 mm and about 150 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.

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 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 2 to 1 and 3 to 1.

The interior surfaces or exterior surfaces or both interior and 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.

The consumer goods within the containers according to the invention may be wrapped individually or in groups. This has the advantage that once the container according to the invention is opened and a first consumer good is removed, the remainder of the consumer goods are still wrapped and remain such protected from dust, sunlight or other environmental influences.

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.

Containers according to the invention can advantageously be assembled from a single laminar blank using conventional assembly methods and apparatus, as described in more detail below. For example, the containers can be automatically assembled on existing packaging machinery, as for example provided by Bergami®, Bologna, Italy.

The present invention also provides a laminar blank for forming a container according to the invention as described above. The laminar blank comprises a first receptacle-defining portion including a first wall panel with opposed first and second edges; a second receptacle-defining portion including a first wall panel with opposed first and second edges; a first integral connector extending between the first edges of the first receptacle-defining portion and second receptacle-defining portion and comprising a hinge line defining first and second connector sections; and a second integral connector extending between the first edges of the first receptacle-defining portion and second receptacle-defining portion and comprising a hinge line defining first and second connector sections.

Preferably, the laminar blank further comprises a third integral connector extending between the first edges of the first receptacle-defining portion and the second receptacle-defining portion.

Preferably, the laminar blank of the present invention comprises a connector panel extending between the first edges of the first receptacle-defining portion and the second receptacle-defining portion and integral to the first walls of the first receptacle-defining portion and the second receptacle-defining portion, wherein the connector panel comprises one or more cut lines extending between the first edges of the first and second receptacle-defining portions defining the first, second and optional third integral connectors.

The present invention also provides a method of producing a container from the laminar blank of the invention, as defined above. The method comprises the steps of:

partially assembling the first receptacle and the second receptacle by folding the first receptacle-defining portion and the second receptacle-defining portion along the longitudinal fold lines provided therein;

inserting consumer goods into an open end of the partially assembled first receptacle and second receptacle;

closing the ends of the first receptacle and the second receptacle;

applying adhesive to the first connector section of each integral connector panel; and

affixing the first connector section of the first integral connector to the first wall of the first receptacle and affixing the first connector section of the second integral connector to the first wall of the second receptacle.

The step of affixing the first connector section of each integral connector panel to the first walls of the first and second receptacle is preferably carried out as part of an initial assembly procedure, together with the step of partially assembling the first receptacle and the second receptacle. The resultant partially assembled container can advantageously be flattened at this stage for efficient storage or transport. The consumer goods may be inserted into the first and second receptacles in the same or a separate process. If desired, the assembled first and second receptacles may be placed in the initial position with their first walls together and overwrapped with a suitable transparent wrapper.

The present invention additionally provides a method of accessing consumer goods from a container according to the invention, as described above. The method comprises rotating the second receptacle relative to the first receptacle about the first edge of the first receptacle from the initial position to a first position, or rotating the second receptacle relative to the first receptacle about the second edge of the first receptacle from the initial position to a second position; and opening the first receptacle or the second receptacle to access the consumer goods.

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

Figure 1 shows a container according to a first embodiment of the present invention, in the initial, closed position;

Figure 2 shows the container of Figure 1 in a first open position;

Figure 3 shows the container of Figures 1 and 2 in a second open position;

Figure 4 shows a laminar blank suitable for forming the container of Figures 1 to 3;

Figure 5 shows a container according to a second embodiment of the present invention, in the initial closed position; and

Figure 6 shows a laminar blank suitable for forming the container of Figure 5.

The container 10 shown in Figure 1 comprises a first receptacle 12 and a second receptacle 14 connected by a first integral connector 16, a second integral connector 18 and a third integral connector 20. Each of the first receptacle 12 and the second receptacle 14 is a rectangular parallelepiped and the receptacles are substantially the same size and shape as each other. A wrapped bundle of smoking articles (not shown) is housed in each of the receptacles of the container 10.

The first receptacle 12 has a front wall 22, a back wall 24, a left side wall 26, a right side wall 28, a top wall 30 and a bottom wall 32. The front wall 22 and the back wall 24 are opposed to each other and have a width that is greater than the width of the side walls 26, 28. The back wall 24 corresponds to the 'first' wall of the first receptacle.

The second receptacle 14 is of the same construction as the first receptacle 12, with a front wall 34, a back wall 36, a left side wall 38, a right side wall 40, a top wall 42 and a bottom wall 44. The back wall 36 corresponds to the 'first' wall of the second receptacle.

Each of the front walls 22,34 includes a central cut out portion 46 extending from the upper edge of the front wall. The top wall 30,42 of each receptacle is connected to the back wall 24,36 along a fold line extending across the top edge of the back wall 24,36. A closure flap 48 extends from the free edge of each of the top walls 30,42. As shown in Figures 1 and 3, when the receptacles are closed, each closure flap 48 is folded by approximately 90 degrees to the top wall 30,42 and inserted between the corresponding front wall 22,34 and the bundle of smoking articles within the receptacle. The smoking articles in the first 12 and second 14 receptacles may be accessed through the top ends of the receptacles, by opening the corresponding top wall 30,42 and closure flap 48 and pivoting them about the fold line at the upper edge of the back wall. The cut out portions 46 in each of the front walls facilitates the opening of the receptacle.

A similar closure flap 50 is provided at the bottom end of each receptacle, extending from the corresponding bottom walls 32,44. The bottom closure flap 50 is folded by approximately 90 degrees to the bottom wall and inserted between the corresponding front wall and the bundle of smoking articles within the receptacle.

The back wall 24 of the first receptacle 12 includes a first vertical edge 50 along which the back wall 24 is connected to the integral connectors 16,18,20 and an opposed, second vertical edge 52 along which the back wall 24 is connected to the right side wall 24. Similarly, the back wall 36 of the second receptacle 14 includes a first vertical edge 54 along which the back wall 36 is connected to the integral connectors 16,18,20 and an opposed, second vertical edge 56 along which the back wall is connected to the left side wall 38.

The first integral connector 16 extends between the first edge 50 of the back wall 24 of the first receptacle 12 and the first edge 54 of the back wall 36 of the second receptacle. The first integral connector 16 is rectangular in shape and is provided at the top of the receptacle so that the upper edge of the first integral connector 16 is at substantially the same level as the upper edge of the back walls 24,36. The height of the first integral connector 16 is approximately one third of the overall height of the back walls 24,36.

The first connector comprises a first connector portion 16a hingedly connected to the back wall 24 of the first receptacle 12 along its first edge 50 and a second connector portion 16b hingedly connected to the back wall 36 of the second receptacle 14 along its first edge 54. The first 16a and second 16b connector portions are hingedly connected to each other along a central, substantially vertical fold line 58. Each of the first 16a and second 16b connector portions has a width corresponding to the width of the back walls 24,36 of the first and second receptacles. In the assembled container 10 the first connector portion 16a

overlies the back wall 24 of the first receptacle 12 such that the fold line 58 overlies the second edge 52 of the back wall 24. The first connector portion 16a is affixed to the back wall 24 of the first receptacle 12 using a suitable adhesive.

The second integral connector 18 is provided directly below the first integral connector 16 and similarly extends between the first edges 50,54 of the back walls 24,36 of the first and second receptacles. The second integral connector 18 is similar in size and construction to the first integral connector 16. It comprises a first connector section 18a hingedly connected to the first edge 54 of the back wall 36 of the second receptacle 14 and a second connector section 18b hingedly connected to the first edge of back wall 24 of the first receptacle 12. The first 18a and second 18b connector portions are also hingedly connected to each other along a central hinge line 58'. In the assembled container, the first connector portion 18a overlies the back wall 36 of the second receptacle 14 so that the hinge line 58' overlies the second edge 56 of the back wall 36. The first connector portion 18a is affixed to the back wall 36 of the second receptacle 14 using a suitable adhesive.

The third integral connector 20 is provided directly below the second integral connector 18 and the bottom edge of the third integral connector 20 is at substantially the same level as the bottom edges of the back walls 24,36. The third integral connector 20 is similar in size and construction to the first integral connector 16 and comprises a first connector portion 20a and a second connector portion 20b hingedly connected along a central hinge line 58''. The first connector portion 20a of the third integral connector 20 is affixed to the back wall 24 of the first receptacle 12 in the same way as the first connector portion of the first integral connector 16.

Figure 1 shows the container 10 in a closed position with the back walls 24, 36 of the first receptacle 12 and second receptacle 14 together. In this position, the first edges 52, 56 of the back walls 24, 36 are adjacent to each other and the second edges 54,58 are also adjacent to each other. Each of the integral connectors 16, 18, 20 are folded along the central hinge line 58, 58',58'' so that the first and second connector portions overlie each other and lie substantially flat between the back walls 24,36 of the first 12 and second 14 receptacles.

From the closed position shown in Figure 1, the container 10 can be moved into the first open position shown in Figure 2 by rotating the second receptacle 14 relative to the first receptacle 12 about the first edge 52 of the back wall 24 of the first receptacle 12. Alternatively, the first receptacle 12 may be rotated relative to the second receptacle 14 about the first edge 56 of the back wall 36 of the second receptacle 14. In the first open position the back walls 24,36 of the first 12 and second 14 receptacles are moved apart from each other so that the back surfaces of the receptacles are exposed. The first edges 52,56 of the back walls 24,36 remain together as the receptacles are moved from the closed

position to the first open position whilst the second edges 54,58 of the back walls 24,36 are moved apart from each other.

In the first open position, the first integral connector 16 remains folded so that the first 16a and second 16b connector panels of the first integral connector 16 overlies each other against the upper third of the back wall 24 of the first receptacle. Similarly, the third integral connector 20 remains folded so that the first 20a and second 20b connector panels of the third integral connector 20 overlies each other against the lower third of the back wall 24 of the first receptacle 12. The second integral connector also remains folded so that the first 18a and second 18b connector panels of the second integral connector overlies each other against the back wall 36 of the second receptacle 14. The area of the back wall 24 of the first receptacle 12 between the first 16 and third 20 integral connectors is visible and the back wall 36 of the second receptacle 14 is also visible on either side of the second integral connector 18.

From the closed position shown in Figure 1, the container 10 can alternatively be moved into the second open position shown in Figure 3 by rotating the second receptacle 14 relative to the first receptacle 12 about the second edge 54 of the back wall 24 of the first receptacle 12. This position can also be reached by rotating the first receptacle 12 relative to the second receptacle 14 about the second edge 58 of the back wall 36 of the second receptacle 14. In the second open position the back walls 24,36 are also moved apart from each other so that the back faces of the receptacles are exposed. In contrast to the first open position, in the second open position the second edges 54,58 of the back walls 24,36 remain together as the receptacles are moved from the closed position to the second open position whilst the first edges 52,56 of the back walls 24,36 are moved apart from each other.

In the second open position, the integral connectors 16,18,20 are opened out so that each integral connector extends across the back walls 24,36 of the first 12 and second 14 receptacles between the first edges 52,56 which are now spaced apart from each other. In this position, the back walls 24,36 of the first 12 and second 14 receptacles are covered by the integral connectors 16,18,20.

The first receptacle 12, the second receptacle 14 and the integral connectors 16,18,20 are formed together from a single laminar blank such as the blank 110 shown in Figure 4. The blank 110 comprises a first receptacle-defining portion 112, a second receptacle-defining portion 114 and a connector panel 116 extending between the back walls 24,36 of the first 112 and second 114 receptacle defining portions. In Figure 4 the panels of the blank 110 have each been labelled with the reference numeral corresponding to the wall formed by the panel in the assembled container 10. Fold lines or score lines are provided in the blank 110 between adjacent panels.

The connector panel 116 is of the same height as the back walls 24,36 and has a width corresponding to the combined width of the back walls 24,36. The connector panel 116 is provided with two substantially horizontal cut lines 'A' extending the full width of the connector panel 116 and dividing it into the three integral connectors 16,18,20 which are of substantially equal height. A substantially vertical hinge line is provided down the centre of the connector panel 116 which provides the hinge lines 58,58',58'' defining the first and second connector portions of each integral connector.

A first gluing panel 60 extends from the left side edge of the left side wall panel 26 of the first receptacle defining portion 112 and a similar second gluing panel 62 extends from the right side edge of the right side wall panel 40 of the second receptacle defining portion 114. A cut out 46 is provided at the top edge of each of the front wall panels 22,34.

The container 10 may be assembled from the blank 110 in the manner described above. Firstly, the first 112 and second 114 receptacle defining portions are each folded along the longitudinal, vertical edges and the gluing panels 60,62 of each receptacle are adhered to the inner surface of the corresponding back wall 24,36. The first connector portions 16a,20a of the first 16 and third 20 integral connectors are affixed to the back wall panel 24 of the first receptacle defining portion 112 and the first connector portion 18a of the second integral connector 18 is affixed to the back wall panel 36 of the second receptacle defining portion. In this partially assembled state, the laminar blank 110 may be flattened and transported to the manufacturer.

In a subsequent step, a wrapped bundle of smoking articles is then inserted through one of the open ends of the each of the first 12 and second 14 receptacles of the partially assembled container and the panels forming the top walls 28,42 and the bottom walls 30,44 of each receptacle are then folded closed using a standard packing machine so that the closure flaps 48,50 are tucked between the front walls 22,34 of the receptacles and the bundles of smoking articles within each receptacle. If desired, the assembled first 12 and second 14 receptacles may be brought together into the initial position shown in Figure 1 and wrapped with an outer wrapper.

Figure 5 shows an alternative container 80 according to the invention, which is similar in construction to the container 10 shown in Figures 1 to 3 but in which the first 82 and second receptacles 84 each comprise a hinge lid 82a,84a connected to a box 82b,84b about a hinge line 'B' extending across the back wall 24,36 of the corresponding receptacle. The smoking articles within each hinge lid container 82,84 are therefore accessed by pivoting the hinge lid 82a,84a of the receptacle to an open position.

The integral connectors 86,88,90 of the container 80 are similar in construction to the integral connectors 16,18,20 of container 10 except that the upper edge of the first integral connector 86 is at substantially the same level as the hinge line B in the back walls 24,36 of

the receptacles rather than the level of the upper edge of the back walls as in container 10. This is to ensure that the integral connectors 86,88,90 do not affect the pivoting of the hinge lids 82a,84a about the hinge line B to an open position.

In the initial closed position shown in Figure 5, the first 82 and second 84 receptacles are positioned with the back walls 24,36 together. The hinge lines B about which the hinge lids 82a,84a are pivotable are provided on the back walls 24,36, as described above, and are therefore also positioned together. This means that each receptacle prevents the opening of the hinge lid of the other receptacle. In the closed position it is therefore not possible to access the smoking articles within the container 80.

The first 82 and second 84 receptacles of container 80 may be moved into first and second open positions in the same way as described above in relation to container 10. Once in the first or second open position, each of the hinge lids may be pivoted about the hinge line B in order to access the interior of the corresponding receptacle.

The container 80 is formed from a single laminar blank, such as that shown in Figure 6. The laminar blank 180 shown in Figure 6 comprises a first receptacle-defining portion 182, a second receptacle-defining portion 184 and a connector panel 186 extending between the first and second receptacle-defining portions, as in the laminar blank 110. Each receptacle-defining portion includes a box-defining portion 182b,184b and a lid-defining portion 182a,184a connected to the box-defining portion about the hinge line B. As in the laminar blank 110, the connector panel 186 is split into three integral connectors 86,88,90 by means of two parallel cuts A extending across the full width of the panel 186. A substantially vertical fold line defines the two connector panels of each integral connector, as described above in relation to container 10.

The method of assembling the container 80 from the blank 180 is similar to that described above for container 10.

CLAIMS

1. A container for consumer goods formed from a one-piece laminar blank, the container comprising:

a first receptacle having a first wall with opposed first and second edges;

a second receptacle having a first wall with opposed first and second edges, wherein in an initial position the first wall of the first receptacle and the first wall of the second receptacle face each other so that the first edges of the first and second receptacles are adjacent and the second edges of the first and second receptacles are adjacent;

a first integral connector extending between the first edge of the first receptacle and the first edge of the second receptacle and comprising a first connector section affixed to the first wall of the first receptacle and a second connector section hingedly connected to the first connector section and hinged about the first edge of the second receptacle; and

a second integral connector extending between the first edge of the first receptacle and the first edge of the second receptacle and comprising a first connector section affixed to the first wall of the second receptacle and a second connector section hingedly connected to the first connector section and hinged about the first edge of the first receptacle

wherein from the initial position the second receptacle is rotatable relative to the first receptacle about the first edge of the first receptacle into a first position in which the first edges of the first and second receptacles are adjacent and the second edges of the first and second receptacles are spaced apart and rotatable relative to the first receptacle about the second edge of the first receptacle into a second position in which the second edges of the first and second receptacles are adjacent and the first edges of the first and second receptacles are spaced apart.

2. A container according to claim 1 further comprising one or more additional integral connectors extending between the first edge of the first receptacle and the first edge of the second receptacle.

3. A container according to claim 1 or 2 wherein each integral connector is connected to the first receptacle along a hinge line extending along the first edge of the first receptacle and connected to the second receptacle along a substantially opposed hinge line extending along the first edge of the second receptacle.

4. A container according to any preceding claim wherein the first wall of at least one of the first receptacle and the second receptacle is the back wall of the receptacle.

5. A container according to any preceding claim, wherein the first integral connector is separated from the second integral connector by a cut or weakening line.
6. A container according to any preceding claim wherein at least one of the first receptacle and the second receptacle is a hinge lid container comprising a box and a hinge lid connected to the box along a hinge line extending across the back wall of the receptacle.
7. A container according to claim 6 wherein at least one of the first receptacle and the second receptacle has a hinge lid that is pivotable about a hinge line extending along the first wall of that receptacle.
8. A container according to claim 6 or 7 wherein the first receptacle has a hinge lid pivotable about a hinge line extending across the first wall of the first receptacle and the second receptacle has a hinge lid pivotable about a hinge line extending across a second wall of the second receptacle, wherein the second wall is substantially opposed to the first wall of the second receptacle.
9. A container according to any preceding claim wherein at least one of the first receptacle and the second receptacle is a slide and shell container comprising an inner slide and an outer shell housed within the inner slide and moveable relative to the outer shell between a closed position and an open position.
10. A container according to any preceding claim wherein at least one of the first receptacle and the second receptacle comprises at least one access opening and a closure flap provided at the opening, wherein the closure flap is moveable between a closed position in which the flap covers the access opening and an open position, in which the access opening is uncovered and the inner slide can be accessed.
11. A container according to any preceding claim wherein at least one of the first receptacle and the second receptacle houses a plurality of smoking articles.

12. A laminar blank for forming the container according to any preceding claim, the laminar blank comprising:

a first receptacle-defining portion including a first wall panel with opposed first and second edges;

a second receptacle-defining portion including a first wall panel with opposed first and second edges;

a first integral connector extending between the first edges of the first receptacle-defining portion and the second receptacle-defining portion and comprising a hinge line defining first and second connector sections; and

a second integral connector extending between the first edges of the first receptacle-defining portion and second receptacle-defining portion and comprising a hinge line defining first and second connector sections.

13. A laminar blank according to claim 12 comprising a connector panel extending between the first edge of the first receptacle-defining portion and the first edge of the second receptacle-defining portion and integral to the first walls of the first receptacle-defining portion and the second receptacle-defining portion, wherein the connector panel comprises a cut line extending across the panel between the first edges of the first and second receptacle-defining portions defining the first and second integral connectors.

14. A laminar blank according to claim 12 or 13 further comprising a third integral connector extending between the first edges of the first receptacle-defining portion and the second receptacle-defining portion.

15. A method of producing a container from the laminar blank of claims 12 to 14, the method comprising the steps of:

partially assembling the first receptacle and the second receptacle by folding the first receptacle-defining portion and the second receptacle-defining portion along the longitudinal fold lines provided therein;

inserting consumer goods into an open end of the partially assembled first receptacle and second receptacle;

closing the ends of the first receptacle and the second receptacle;

applying adhesive to the first connector section of each integral connector panel; and

affixing the first connector section of the first integral connector to the first wall of the first receptacle and affixing the first connector section of the second integral connector to the first wall of the second receptacle.

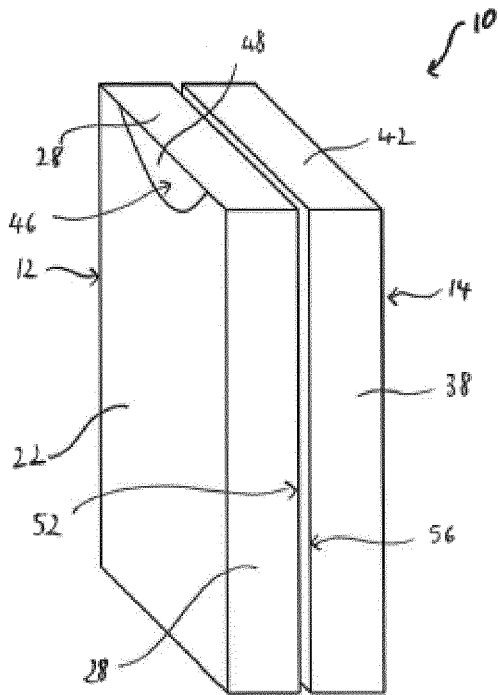


Figure 1

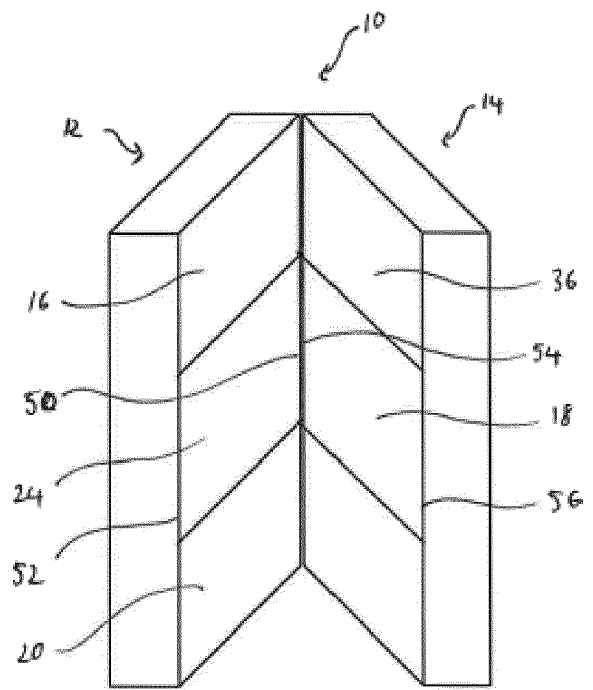


Figure 2

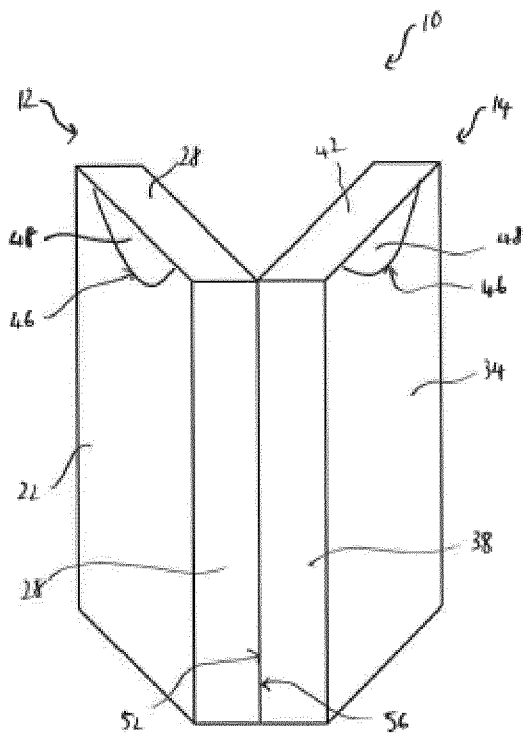


Figure 3

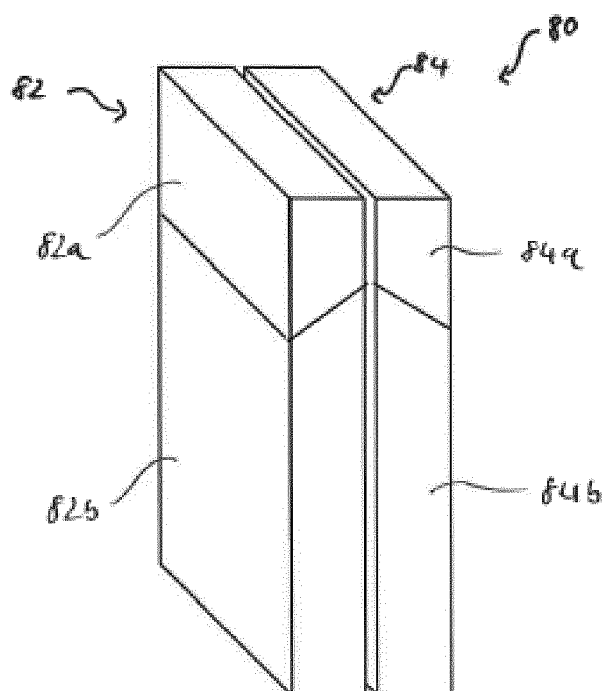
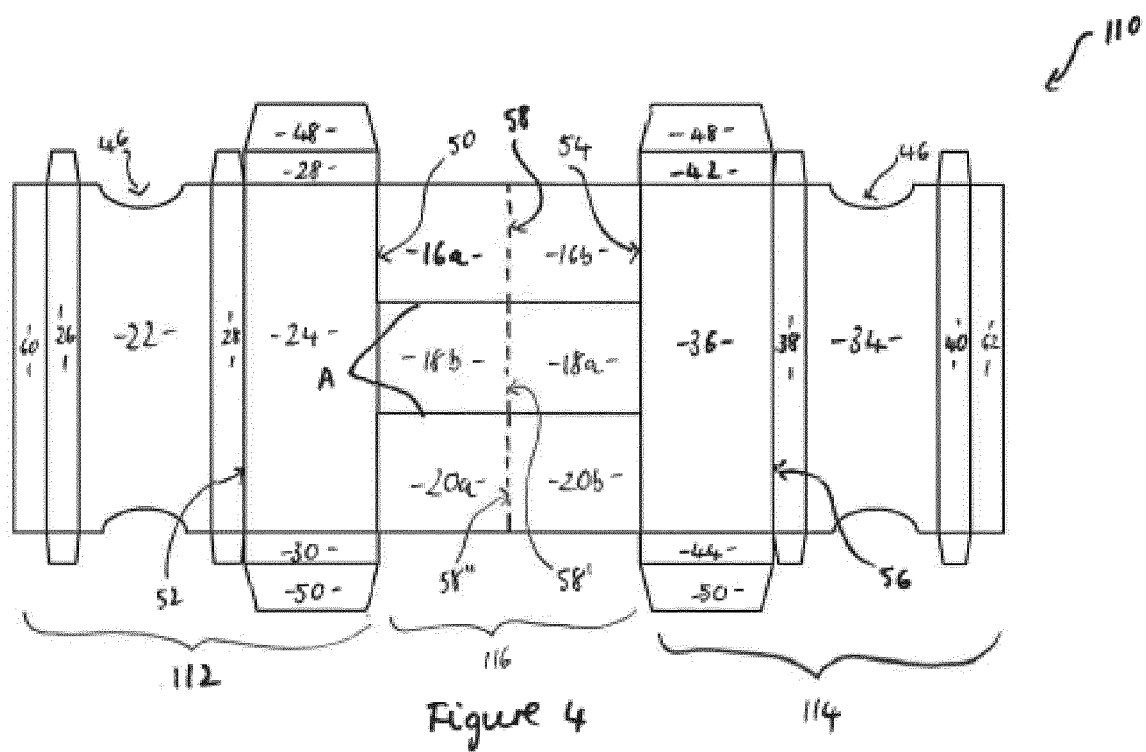


Figure 5

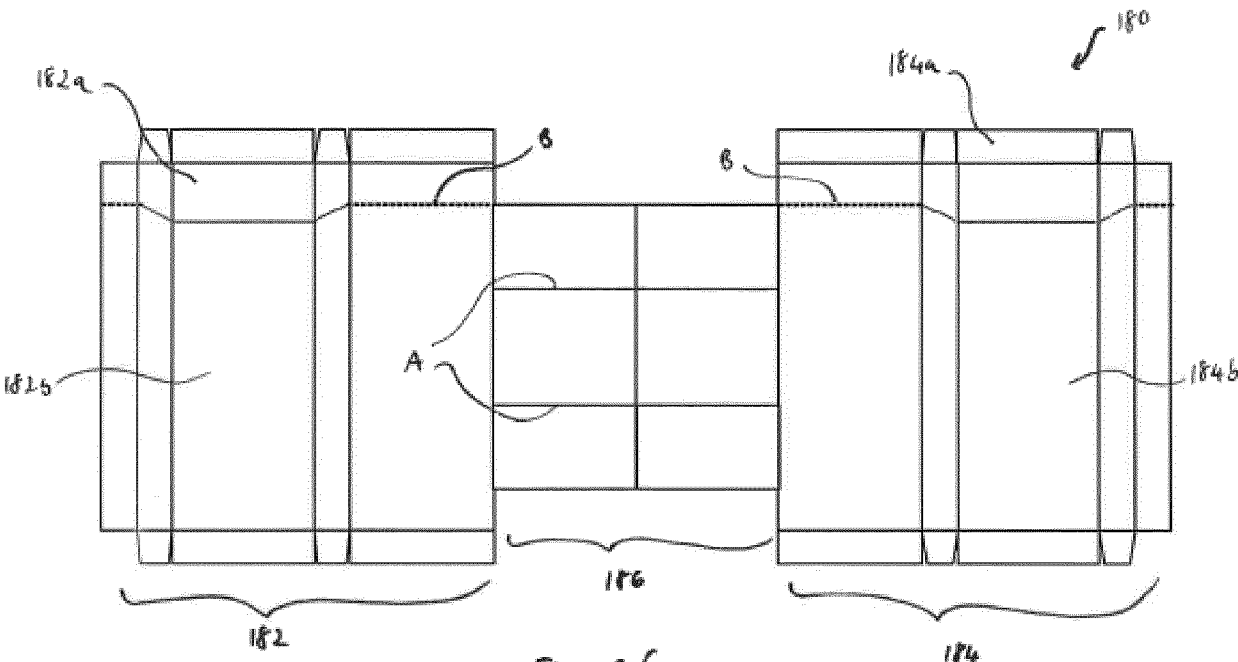


Figure 6

INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2012/062639

A. CLASSIFICATION OF SUBJECT MATTER

INV. B65D5/00 B65D5/42 B65D21/02 B65D85/10
ADD.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
B65D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	DE 10 2007 018772 A1 (GD SPA [IT]) 22 November 2007 (2007-11-22) paragraph [0029] - paragraph [0033]; figures 1-7	1-15
A	----- WO 2008/012489 A1 (BRITISH AMERICAN TOBACCO CO [GB]; BRAY ANDREW JONATHAN [GB]; HODGES PA) 31 January 2008 (2008-01-31) page 6, line 22 - page 8, line 10; figures 1-4 -----	1-15



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

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"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

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"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

23 October 2012

Date of mailing of the international search report

13/11/2012

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/EP2012/062639

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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