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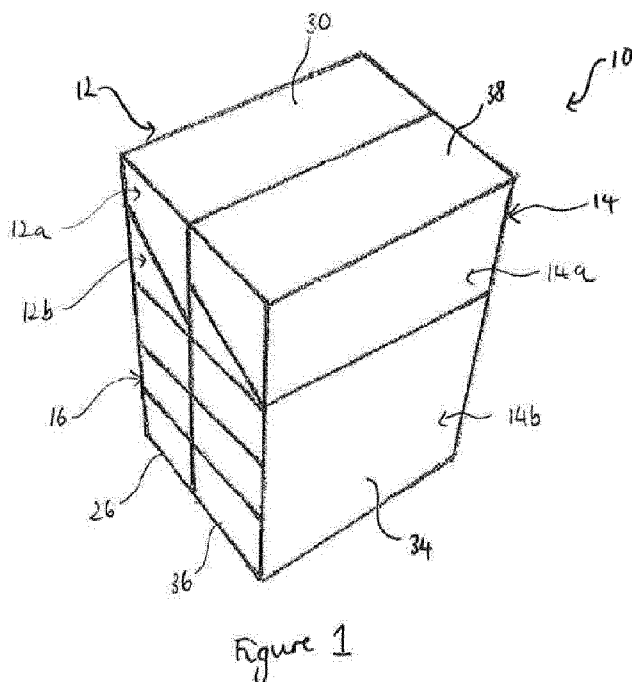
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(54) Title: CONTAINER WITH RECEPTACLES CONNECTED BY HINGED CONNECTOR



(57) Abstract: A container (10) for consumer goods comprises: a first receptacle (12) and a second receptacle (14), each receptacle having a first wall (26, 36) with opposed first and second edges; and a connector (16) attached between the first (12) and second (14) receptacles. The connector (16) comprises: a first panel (40) overlying and affixed to the first wall (26) of the first receptacle (12); a second panel (42) overlying and affixed to the first wall (36) of the second receptacle (14); a first connector section (46) extending between the first panel (40) and the second panel (42) and comprising a first portion (46a) overlying and affixed to the first panel (40) and a second portion (46b) hingedly connected to the first portion and hingedly connected to the second panel (42) along the first edge of the second receptacle (14); and a second connector section (44) extending between the first panel (40) and the second panel (42) and comprising a first portion (44a) overlying and affixed to the second panel (42) and a second portion (44b) hingedly connected to the first portion (44a) and hingedly connected to the first panel (40) along the first edge of the first receptacle (12).

CONTAINER WITH RECEPTACLES CONNECTED BY HINGED CONNECTOR

The present invention relates to a container for consumer goods comprising two receptacles that are hingedly connected to each other by means of a connector affixed between the receptacles. 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, which has a relatively complex layout. The process for assembling the joining blank and attaching the joining blank around the first and second packs is also relatively complex.

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.

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, printed and assembled in a simple and efficient way. In particular, it would be desirable if such a container could be formed from packs of an existing design, which can be assembled and filled using conventional apparatus and methods.

According to the invention there is provided a container for consumer goods comprising : a first receptacle and a second receptacle, each receptacle having a first wall with opposed first and second edges; and a connector attached between the first and second receptacles. The connector comprises a first panel overlying and affixed to the first wall of the first receptacle; a second panel overlying and affixed to the first wall of the second receptacle; a first connector section extending between the first panel and the second panel; and a second connector section extending between the first panel and the second panel.

The first connector section comprises a first portion overlying and affixed to the first panel and a second portion hingedly connected to the first portion and hingedly connected to the second panel along the first edge of the second receptacle. The second connector section comprises a first portion overlying and affixed to the second panel and a second portion
5 hingedly connected to the first portion and hingedly connected to the first panel along the first edge of the first receptacle.

In a first 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
10 receptacles are adjacent.

From the first position, the second receptacle is rotatable relative to the first receptacle about the first edge of the first receptacle into a second 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. From the first position the second receptacle is alternatively
15 rotatable relative to the first receptacle about the second edge of the first wall of the first receptacle into a third 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.

The arrangement of the connector results in the first and second receptacles of containers according to the invention being hingedly connected to each other in a Jacob's
20 ladder arrangement as described in the prior art.

The container of the present invention can conveniently be formed by connecting existing assembled and filled receptacles of consumer goods. The receptacles are readily connected to each other by affixing the connector between the receptacles as defined above. The connector may be separately formed and can be attached to the first and second
25 receptacles in a simple and efficient gluing process.

The connector can be produced, printed and partially assembled in a separate process to the production of the receptacles, for example, by the manufacturer of the connector. The arrangement of panels in the connector is such that the connector can advantageously be assembled whilst remaining flat. This enables the connector manufacturer to assemble the
30 connector prior to transport to the manufacturer of the consumer goods, who will complete the process of connecting the receptacles by affixing the assembled connector directly to the receptacles. This makes the overall production process more efficient for the manufacturer of the consumer goods and allows the manufacturer to use existing packaging apparatus and methods for assembly.

The size and shape of the connector can be readily adapted to suit a variety of sizes and shapes of receptacle. No structural modification to the receptacles is required in order to
35 integrate the connector. This provides greater flexibility in the use of the connector with existing

receptacle designs. In addition, for any particular design of receptacle, the connector can be adapted such that it can be produced with minimised wastage of the materials.

The printing on the surfaces of the connector can also be readily adapted so that it can be integrated into the overall surface design of the receptacles. The integration of the connector into the surface design of the receptacles can advantageously be improved by printing the connector on both sides, which can be readily carried out by the manufacturer. This ensures that all exposed surfaces of the container of the present invention can be printed.

The connector of the container of the present invention comprises an arrangement of panels including first and second panels to be affixed to the first wall of each assembled receptacle and two or more connector sections extending between the first and second panels, for providing the Jacob's ladder arrangement. Preferably, the connector is formed of a single laminar blank with lines of weakness and cut lines provided in the blank to define the different panels and connector sections.

Each connector section is connected to both the first panel and the second panel along a hinge line extending along an edge of that panel. An intermediate hinge line is provided in each connector section in order to define the first and second portions of the connector section. The intermediate hinge line is preferably parallel to the hinge lines connecting the connector section to the first and second panels.

This arrangement of hinge lines allows the first portion of the first connector section to be folded so that it overlies the first panel and the first portion of the second connector section to be folded so that it overlies the second panel. The first portion of each connector section is affixed to the underlying panel in order to retain it in this position overlying the panel. In addition, in the assembled container, 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 in the connector 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 portion of each connector section is preferably affixed to the respective panel of the connector section by means of a suitable adhesive.

Advantageously, the first portion of each connector section can be folded and affixed to the respective panel whilst the connector remains flat, so that the connector can be assembled during the manufacture of the laminar blanks. As set out above, this facilitates the assembly of the container by the manufacturer of the consumer goods and allows for the final assembly of the containers to be carried out in a fast and efficient gluing process.

Preferably, one or more additional connector sections are provided in the connector, between the first and second panels. For example, in preferred embodiments of the invention, a third connector section is provided between the first and second panels of the connector.

Preferably, each additional integral connector has the same construction as the first and second integral connectors, with a first portion overlying and affixed to one of the first panel or the second panel of the connector and a second portion hingedly connected to the first portion and hingedly connected to the other one of the first and second panels.

5 Preferably, the two or more connector sections of the connector are provided adjacent to each other, so that the connector sections can be readily formed from a single panel extending between the first panel and the second panel in a laminar blank, through a simple arrangement of cut lines between the connector sections. For example, the connector sections may be arranged vertically, with substantially horizontal cut lines extending between the first and
10 second panels in order to define the connector sections.

Each of the first panel and the second panel of the connector is preferably substantially the same width as the first wall of the receptacle to which that panel is affixed. Particularly preferably, each of the first panel and the second panel has substantially the same shape and dimensions as the first wall of the receptacle to which that panel is affixed. This potentially
15 minimises the visual impact of the connector on the outside of the container. Furthermore, the process of aligning and affixing the connector to the first walls of the receptacles may be facilitated. This is at least in part because the position of the first and second panels may be more easily registered when the underlying panels have correspondingly positioned edges. The printing on the connector panels may also be more easily incorporated into the overall printing
20 of the receptacles without the need for accurate registering or alignment of the printing on the connector with the printing on the first wall of the receptacle.

The shape and size of the first and second panels of the connector can readily be adapted in order to substantially match the size and shape of the first walls of the first and second receptacles to which the connector is to be attached. This can be easily achieved
25 during manufacture of the connector so that there is no impact on the process of affixing the connector to the receptacles. This provides flexibility in the potential application of the connector to existing pack designs.

Preferably, the first portion of the first connector section has substantially the same width as the first panel. When the connector is in place between the first and second receptacles, the
30 first connector section is therefore positioned such that the hinge line between the first and second portions coincides with the second edge of the first receptacle. The second portion of the first connector section is therefore pivotable about both the second edge of the first receptacle and the first edge of the second receptacle.

In addition or alternatively, the second portion of the second connector section
35 preferably has substantially the same width as the second panel. When the connector is in place between the first and second receptacles, the second connector section is therefore positioned such that the hinge line between the first and second portions coincides with the

second edge of the second receptacle. The second portion of the second connector section is therefore pivotable about both the second edge of the first receptacle and the first edge of the first receptacle.

It is this arrangement of hinge lines that provides the Jacob's ladder arrangement such that the receptacles can move relative to each other between the different positions defined above and described in more detail below.

Preferably, the first wall of the first receptacle is substantially the same size and shape as the first wall of the second receptacle. The first panel of the connector is therefore also preferably the same size and shape as the second panel of the connector.

Preferably, the first wall of at least one of the first and second receptacles is a minor wall of the receptacle. The term 'minor' is used to refer to the walls of the receptacle having a smaller surface area than the other, major walls. Preferably, at least one of the first walls of the first receptacle and the second receptacle is a side wall or the bottom wall. Particularly preferably, the first wall of both of the first and second receptacles is a side wall, or the first wall of both of the first and second receptacles is the bottom wall.

This results in the connector being affixed between side walls of the first and second receptacles, or between the bottom walls of the first and second receptacles, respectively. This arrangement advantageously makes it simpler for the connector to be affixed to a pair of first and second receptacles during a high speed process. During such a process, the receptacles will typically be stacked so that the pairs are placed together with one of the major walls together and the minor walls facing outwardly. This may correspond to the second position or the third position of the container, as defined above.

Where the receptacles are of the same size and shape, this means that the side walls and bottom walls of the first and second receptacles are already lined up with each other in approximately the same plane. The walls to which the connector is to be affixed can be conveniently be provided at the top or side of the pair of receptacles. The assembled connector can therefore be placed directly onto the surfaces of the first walls of the first and second receptacles in a single gluing step, without rearrangement of the receptacles or the connector. The resultant, connected pairs of receptacles can then be wrapped directly, with the connector affixed to the bottom edge or a side edge of the container.

Advantageously, where the connector is affixed to a side wall or the bottom wall of the first and second receptacles, a continuous process of affixing connectors to pairs of receptacles can be readily established using existing apparatus and techniques.

Preferably, the opposed first and second edges of the first walls of the first and second receptacles are the longitudinal edges of the first wall, which correspond to the longest edges. For example, in certain preferred embodiments in which the receptacles are rectangular parallelepipedal and the first wall of each receptacle is the bottom wall, the opposed first and

second edges preferably correspond to the front and back edges of the bottom wall, which will typically be substantially horizontal. In alternative preferred embodiments in which the receptacles are rectangular parallelepipedal and the first wall of each receptacle is a side wall, the opposed first and second edges preferably correspond to the front and back edges of the side wall, which will typically be vertical.

In the first position of the container, the first walls of the first and second receptacles face each other so that the first edges of the first walls are adjacent and the second edges of the first walls are adjacent. In this position, the first walls of the first and second receptacles are therefore brought together such that they lie against each other and the connector will not typically be visible.

The first position of the container may correspond to a closed position, which is typically the position in which the container is packaged and sold and the position into which the container is returned between uses. Alternatively, the first position of the container may correspond to an open position, which is typically a position into which the container is moved in order to access the consumer goods from within the container.

In preferred embodiments of the invention in which the connector is affixed to minor walls of the first and second receptacles, such as the bottom wall or a side wall, the first position will typically correspond to an open position. In the closed position of such containers, the receptacles are preferably positioned with a pair of major walls, such as the front walls or back walls, positioned together. The side walls and bottom walls are therefore at the outside of the container, facing outwards and the connector will be visible in the closed position of the container.

In the first position of the container the front walls of the receptacles may face in the same direction as each other or in a different direction.

Preferably, the first position of the container corresponds to an open position and each of the second position and the third position corresponds to a closed position. In order to move the receptacles from the first position to the second 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 first position to the third 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 second position and the third position, the first and second receptacles may be positioned with one of their walls together, so that the first and second receptacles face one another and are fully closed together. Alternatively, the first and second receptacles may be positioned with walls facing each other but not brought together, so that the receptacles have an angle of greater than 0 degrees between them.

Preferably, containers according to the invention are provided with retention means for retaining the receptacles in a closed position until a positive force is applied by the consumer to move the first and second receptacles apart from each other towards an open position. For example, the retention means may be provided to retain the receptacles in the second position
5 or the third position until the first opening after which the receptacles can be moved to the first position. In certain embodiments, the retention means may additionally be capable of retaining the receptacles in a closed 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
10 more mechanical or magnetic fasteners, or combinations thereof.

The connector sections in the connector are arranged such that in each of the second and third positions the connector sections overlie at least a part of the first walls of the receptacles. However, in each of the second and third positions different surfaces of the connector sections will be exposed at the first walls of the receptacles. The different surfaces of
15 the connector sections can therefore advantageously be printed or decorated with different graphics or text to provide contrasting or complementary appearances in the second and third positions.

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
20 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
25 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
30 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.

Where one or both of the first receptacle and the second receptacle of containers
35 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.

5 Preferably, where the first or the second receptacle is a hinge lid container, the first wall of the receptacle is a wall panel of the box such that the connector is affixed to the box and not the hinge lid. This ensures that the connector does not affect the opening and closing of the hinge lid. Particularly preferably, the connector is affixed to a side wall or the bottom wall of the box. The shape of the first and second panels may be adapted to substantially match the
10 shape of the wall panel of the box so that the connector does not affect the opening of the hinge lid. For example, the top of the first or second panel may be shaped to follow the line of abutment between the box and hinge lid on that wall of the container.

 In embodiments in which the connector is affixed to a side wall or the bottom wall of the box of a receptacle, the back wall including the hinge line will typically face inwards towards a
15 wall of the other receptacle in either the second position or the third position of the container. In this position, the hinge lid will be prevented from pivoting about the hinge line into an open position. It will therefore be necessary to move the receptacles to either of the other two positions before the hinge lid container can be opened. This may advantageously prevent the inadvertent opening of the hinge lid container between uses.

20 Where both the first receptacle and the second receptacle of containers according to the invention are hinge lid containers, the receptacles may be provided so that the back walls face in the same direction or in a different direction to each other when the container is in the first position. In either case, where the connector is provided on a side wall or bottom wall of the receptacles, both of the hinge lids will be substantially prevented from opening by the other
25 receptacle when the container is in both the second and the third position. Preferably, where the connector is affixed to a side wall or the bottom wall of both receptacles, the back walls face in opposite directions to each other in the first position, such that in one of the second or third positions, the receptacles are positioned back to back, with their back walls together and their front walls facing outwards. This enables the front surfaces of both receptacles to be seen.
30 Such a position may be the preferred position for wrapping the receptacles, since the front surfaces of both receptacles can both be displayed to the consumer prior to opening.

 Alternatively or in addition, one or both of the first receptacle and the second receptacle may be a slide and shell container comprising an outer shell and an inner slide mounted within the outer shell. The inner slide is moveable relative to the outer shell between a closed position
35 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.

5 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
10 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
15 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
20 portion of the closure flap, as described above. This facilitates the grasping and opening of the 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
25 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,
30 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
35 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 the same dimensions. In alternative embodiments, the first receptacle and the second receptacle of containers according to the

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invention are of substantially the same length and width, but of different depth.

Preferably, each receptacle of the container is formed from one or more laminar blanks and particularly preferably from a single laminar blank.

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, each receptacle 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 blanks for forming the receptacle 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
5 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
10 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
15 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
20 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
25 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
30 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
35 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.

The receptacles of the containers according to the invention can advantageously be assembled separately from one or more laminar blanks, using conventional assembly methods and apparatus.

The present invention also provides a method of producing a container according to the invention, as defined above. The method comprises the steps of:

providing an assembled connector in which the first portion of the first connector section is affixed to the first panel and the first portion of the second connector section is affixed to the second panel;

providing assembled and filled first and second receptacles; and

affixing the first panel of the assembled connector to the first wall of the first receptacle and affixing the second panel of the assembled connector to the first wall of the second connector.

The method may optionally include the additional step of assembling the connector from a single laminar blank. However, the step of assembling the connector is preferably carried out in a separate process, as described above, such that the connector can be provided to the manufacturer in an assembled state, ready to affix to the receptacles.

Preferably, the assembled first and second receptacles are provided such that the receptacles are lined up with their first walls positioned together and facing outwardly. This enables the assembled connector to be affixed to the receptacles in a simple manner requiring very little manipulation of the receptacles or the connector. The connector is affixed to the first walls of the first and second receptacles using a suitable adhesive.

If desired, a continuous line of pairs of first and second receptacles may be provided on a conveyor with the first walls of the receptacles facing in a common direction. A continuous

stack of connectors is then provided, such that connectors can be affixed to the pairs of receptacles in a continuous process.

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

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

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

 Figure 5 shows a container according to a second embodiment of the present invention, in a first, closed position.

 The container 10 shown in Figure 1 comprises a first receptacle 12 and a second receptacle 14 connected by a connector 16. Each of the first receptacle 12 and the second
15 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 12 and second 14 receptacles each comprise a hinge lid 12a, 14a connected to a box 12b, 14b about a hinge line 'B' extending across the back wall of the corresponding
20 receptacle. The smoking articles within each hinge lid container 12, 14 are accessed by pivoting the hinge lid 12a, 14a of the receptacle to an open position.

 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. 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 left side
25 wall 26 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, a left side wall 36, a right side wall, a top wall 38 and a bottom wall. The left side wall 36 corresponds to the 'first' wall of the second receptacle.

 The connector 16 is affixed to the left side wall 26 of the first receptacle 12 and the left
30 side wall 36 of the second receptacle. The form of the laminar blank for forming the connector 16 is shown in Figure 4, with the shaded areas indicating the position of the adhesive required to affix the connector to the receptacles and to itself. The connector 16 is rectangular in shape and comprises a first panel 40 at one side of the connector 16, a second panel 42 at the opposite side of the connector 16 and three connector sections 44, 46, 48 extending between
35 the first panel 40 and the second panel 42.

 The first 40 and second 42 panels are substantially the same width as the width of the left side walls 26, 36 of the first 12 and second 14 receptacles. In the assembled container 10,

- 15 -

the first panel 40 overlies and is affixed to the left side wall 26 of the first receptacle 12 and the second panel 42 overlies and is affixed to the left side wall 36 of the second receptacle. The height of the first 40 and second 42 panels corresponds approximately to the height of the front wall of the box portion 12a, 14a of each receptacle. The connector 16 is positioned so that the first 40 and second 42 panels extend from the bottom edges of the left side walls 26, 36 up to the level of the line of abutment between the hinge lid and the box on each receptacle. In this way, the connector 16 does not affect the opening of the receptacles.

A first connector section 44 extends between the first panel 40 and the second panel 42. The first connector section 44 is rectangular in shape and is provided at the top of the connector 16 so that the upper edge of the first connector section 44 is at substantially the same level as the upper edge of the first 40 and second 42 panels. The height of the first connector section 44 is approximately one third of the overall height of connector 16.

The first connector section 44 comprises a first portion 44a hingedly connected to the first panel 40 and a second portion 44b hingedly connected to the second panel 42. The first 44a and second 44b portions are hingedly connected to each other along a central, substantially vertical fold line 50. Each of the first 44a and second 44b portions has a width corresponding to the width of the first 40 and second 42 panels. In the assembled connector 16 the first portion 44a overlies and is affixed to the first panel 40.

The second connector portion 46 is provided directly below the first connector section 44 and similarly extends between the first 40 and second 42 panels. The second connector portion 46 is similar in size and construction to the first connector section 44. It comprises a first portion 46a hingedly connected to the first panel 40 and a second portion 46b hingedly connected to the second panel. The first 46a and second 46b portions are also hingedly connected to each other along the central hinge line 50. In the assembled connector, the second portion 46b overlies and is affixed to the second panel 42.

The third connector portion 48 is provided directly below the second connector portion 46 and the bottom edge of the third connector portion 48 is at substantially the same level as the bottom edges of the first 40 and second 42 panels. The third connector portion 48 is similar in size and construction to the first connector section 44 and comprises a first portion 48a and a second portion 48b hingedly connected along the central hinge line 50. In the assembled connector, the first portion 48a of the third connector section 48 overlies and is affixed to the first panel 40.

Figure 1 shows the container 10 in a first closed position with the front wall 22 of the first receptacle 12 and the back wall of the second receptacle 14 together. In this position, the connector 16 is visible at one side of the container 10. Both receptacles 12, 14 are prevented from opening, since any movement of the hinge lids 12a, 14a is blocked by the other receptacle.

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The first closed position shown in Figure 1 corresponds to the second position of the container, as defined above.

In the first closed position, the first connector section 44 is folded so that the first 44a and second 44b portions of the first connector section 44 overlies each other against the second panel 42, which is affixed to the left side wall 36 of the second receptacle 14. Similarly, the third connector portion 48 is folded so that the first 48a and second 48b portions of the third connector section 48 overlies each other against the lower third of the second panel 42. The second connector section 46 is folded such that the first 46a and second 46b portions overlies each other against the first panel 40, which is affixed to the left side wall 26 of the first receptacle 12.

From the closed position shown in Figure 1, the container 10 can be moved into the open position shown in Figure 2 by rotating the first 12 and second 14 receptacles towards each other in order to bring the left side walls 26,36 together. This corresponds to the first position of the container, as defined above. In the open position only the left side walls 26,36 of the receptacles are in contact with each other and the front and back walls of both receptacles are exposed. Both of the hinge lids 12a, 14a are therefore free to rotate about their respective hinge lines B in order to open the receptacles. In this position, the connector 16 lies between the receptacles 12, 14 and is therefore no longer visible.

From the open position shown in Figure 2, the container 10 can be moved back to the first closed position shown in Figure 1 by rotating the receptacles 12,14 relative to each other about the axis 'X' indicated in Figure 2. The axis 'X' coincides with one of the vertical edges of the left side walls. Alternatively, the receptacles 12,14 can be moved relative to each other about the axis 'Y' indicated in Figure 2 in order to bring the container 10 into the second closed position shown in Figure 3. The axis 'Y' coincides with the opposite vertical edge of the left side walls.

In the second closed position of the container 10 shown in Figure 3, the back wall of the first receptacle and the front wall of the second receptacle are positioned together and the connector 16 is visible at the opposite side of the container 10 to the first closed position. As in the first closed position, the hinge lids 12a, 14a are therefore prevented from opening. This position corresponds to the third position of the container, as defined above.

In the second closed position, the connector sections 44, 46, 48 are opened out so that each connector section extends across the left side walls 26, 36 of the first 12 and second 14 receptacles. The connector sections 44, 46, 48 fully cover the first 40 and second 42 panels of the connector 16.

The first receptacle 12 and the second receptacle 14 are each formed from one or more laminar blanks and filled with a bundle of smoking articles using conventional apparatus and methods.

The connector 16 is formed from the single laminar blank shown in Figure 4. In Figure 4, the fold lines are shown with dashed lines and the cut lines are shown by solid lines. The connector may be partially assembled as described above, by folding the connector 16 along the fold lines indicated to define the first panel 40, second panel 42 and connector sections 44, 46 and 48 and by affixing a portion of each connector section to the first or second panel, as described above. This assembled connector 16 remains in a flat state.

In order to connect the first 12 and second 14 receptacles to each other with the connector 16, the receptacles are brought together into the first closed position shown in Figure 1 and the assembled connector 16 is affixed to the left side walls 26, 36, which are positioned adjacent to each other. The first panel 40 of the connector is glued to the left side wall panel of the box 12a of the first receptacle 12 and the second panel of the connector is glued to the left side wall panel of the box 14a of the second receptacle.

Figure 5 shows an alternative container 60 according to the invention, which comprises a first receptacle 12, a second receptacle 14 and a connector 16, all of which are similar in construction to the corresponding parts of the container 10 shown in Figures 1 to 4. The difference between the container 60 shown in Figure 5 and the container 10 shown in Figures 1 to 4 is that in the container 60 the connector 16 is affixed to the bottom walls 62, 64 of the first 12 and second 14 receptacles rather than a side wall.

Figure 5 shows the container 60 in a first closed position, in which the first 12 and second 14 receptacles are positioned with their back walls together. The connector 16 is visible at the bottom wall of the container. From this first closed position, the container can be moved into an open position in which the bottom walls 62, 64 of the first 12 and second 14 receptacles are brought together. In this open position, the receptacles can each be opened by moving the hinge lid to an open position. From the open position, the container can be moved back to the first closed position shown in Figure 5 or to a second, alternative closed position in which the front walls of the first 12 and second 14 receptacles are brought together.

CLAIMS

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

a first receptacle and a second receptacle, each receptacle having a first wall with
5 opposed first and second edges, wherein in a first 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; and

a connector attached between the first and second receptacles, the connector
10 comprising :

a first panel overlying and affixed to the first wall of the first receptacle;

a second panel overlying and affixed to the first wall of the second receptacle;

a first connector section extending between the first panel and the second panel
and comprising a first portion overlying and affixed to the first panel and a second
15 portion hingedly connected to the first portion and hingedly connected to the second
panel along the first edge of the second receptacle; and

a second connector section extending between the first panel and the second
panel and comprising a first portion overlying and affixed to the second panel and a
second portion hingedly connected to the first portion and hingedly connected to the first
20 panel along the first edge of the first receptacle

wherein from the first position the second receptacle is rotatable relative to the first
receptacle about the first edge of the first receptacle into a second position in which the first
edges of the first and second receptacles are adjacent and the second edges of the first and
25 second receptacles are spaced apart and rotatable relative to the first receptacle about the
second edge of the first receptacle into a third 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 connector
30 sections extending between the first panel and the second panel.

3. A container according to claim 1 or 2 wherein the first wall of at least one of the first
receptacle and the second receptacle is a first side wall of the receptacle.

4. A container according to claim 1 or 2 wherein the first wall of at least one of the first
receptacle and the second receptacle is the bottom wall of the receptacle.

5. A container according to any preceding claim wherein the connector is formed of a single laminar blank.

5 6. A container according to any preceding claim wherein the first connector section and the second connector section are separated by a cut line or a line of weakness extending between the first panel and the second panel.

7. A container according to any preceding claim wherein at least one of the first receptacle and the second receptacle is a hinge lid receptacle comprising a box and a hinge lid connected to the box along a hinge line extending across the back wall of the receptacle.

8. A container according to claim 7 wherein in at least one of the second position and the third position, the first receptacle and the second receptacle are positioned with the back wall of at least one hinge lid receptacle facing a wall of the other receptacle such that the hinge lid is prevented from opening.

9. A container according to claim 7 or 8 wherein both the first receptacle and the second receptacle are hinge lid receptacles and wherein the first panel and the second panel of the connector are affixed to the box of the first receptacle and the second receptacle, respectively, below the level of the hinge line in the back wall of the receptacle.

10. A container according to claim 9 wherein the first wall of at least one of the first receptacle and the second receptacle is a first side wall and wherein the panel of the connector overlying the first side wall substantially covers the first side wall of the box.

11. A container according to any of claims 1 to 6 wherein at least one of the first receptacle and the second receptacle is a slide and shell container comprising an outer shell and an inner slide housed within the outer shell and moveable relative to the outer shell between a closed position and an open position.

12. A container according to any preceding claim wherein in the first position the front walls of the first and second receptacles face in substantially opposite directions.

13. 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.

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14. A method of producing a container according to any preceding claim, the method comprising the steps of:

providing an assembled connector in which the first portion of the first connector section is affixed to the first panel and the first portion of the second connector section is affixed to the

5 second panel;

providing assembled and filled first and second receptacles; and

affixing the first panel of the assembled connector to the first wall of the first receptacle and affixing the second panel of the assembled connector to the first wall of the second connector.

10

15. A method according to claim 14 further comprising the step of assembling the connector from a single laminar blank.

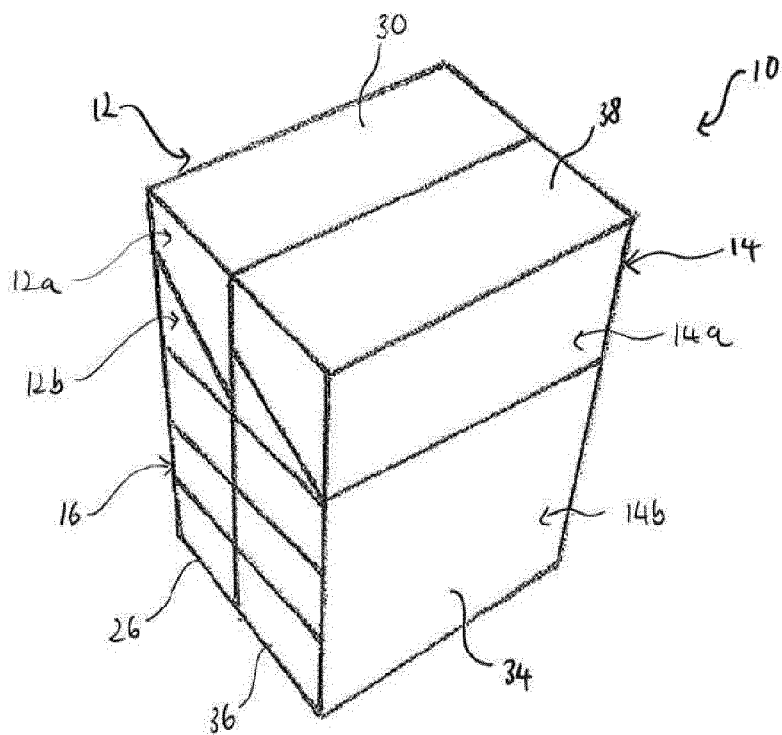


Figure 1

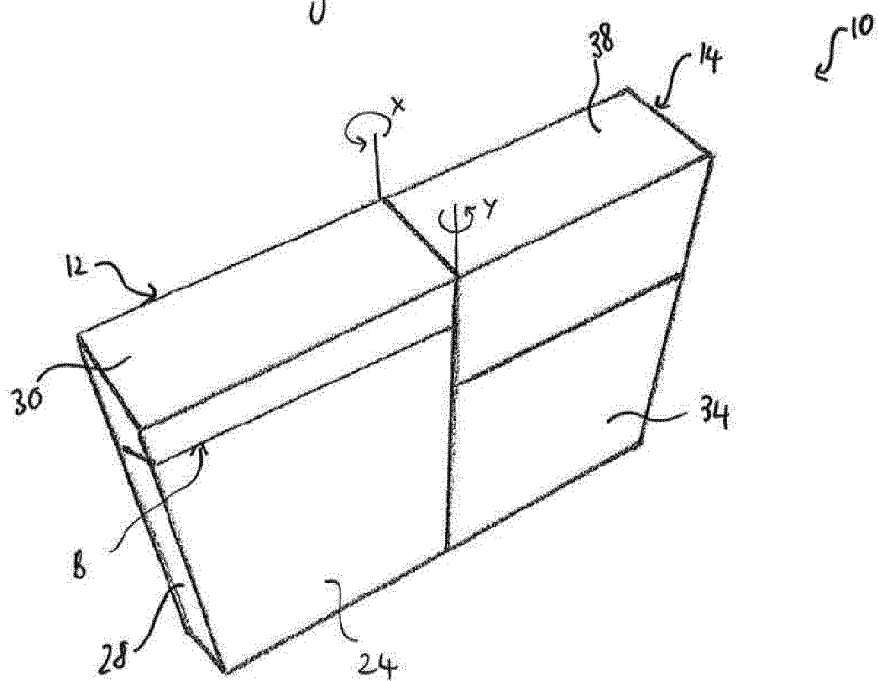


Figure 2

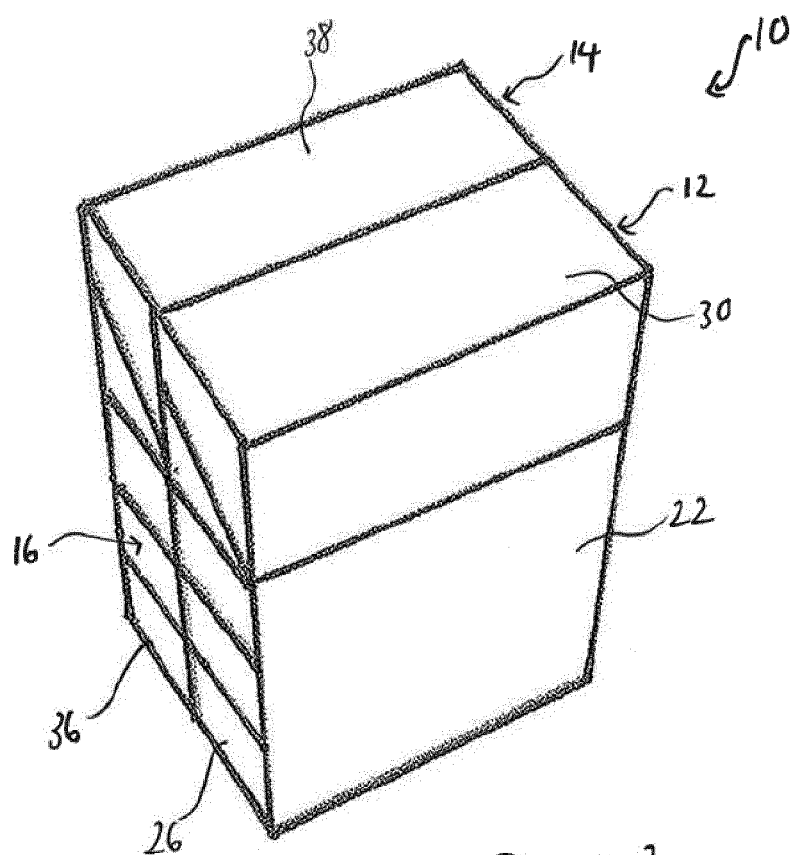


Figure 3

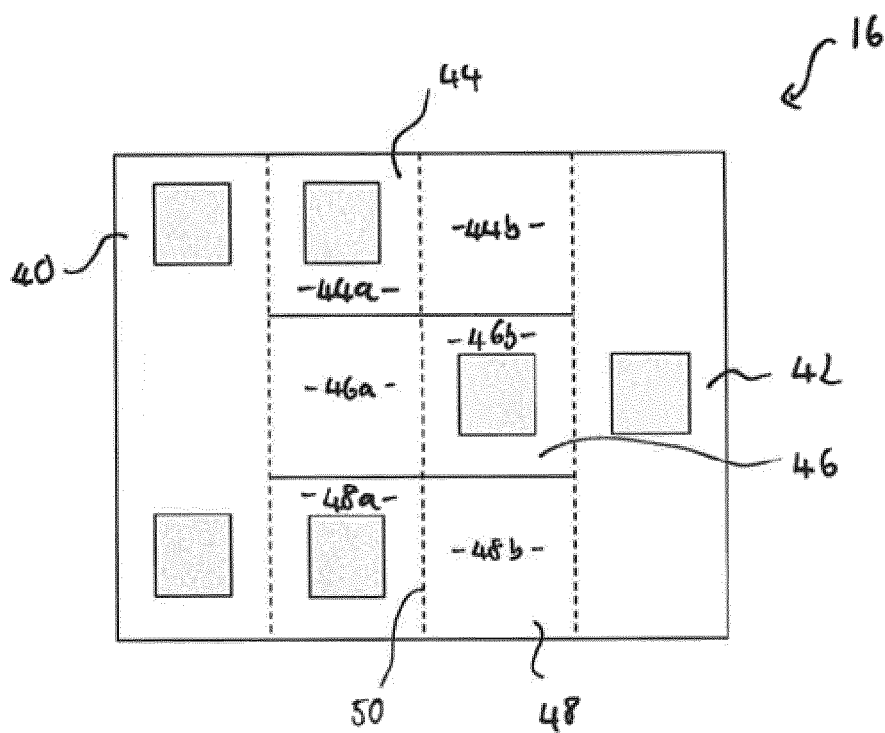


Figure 4

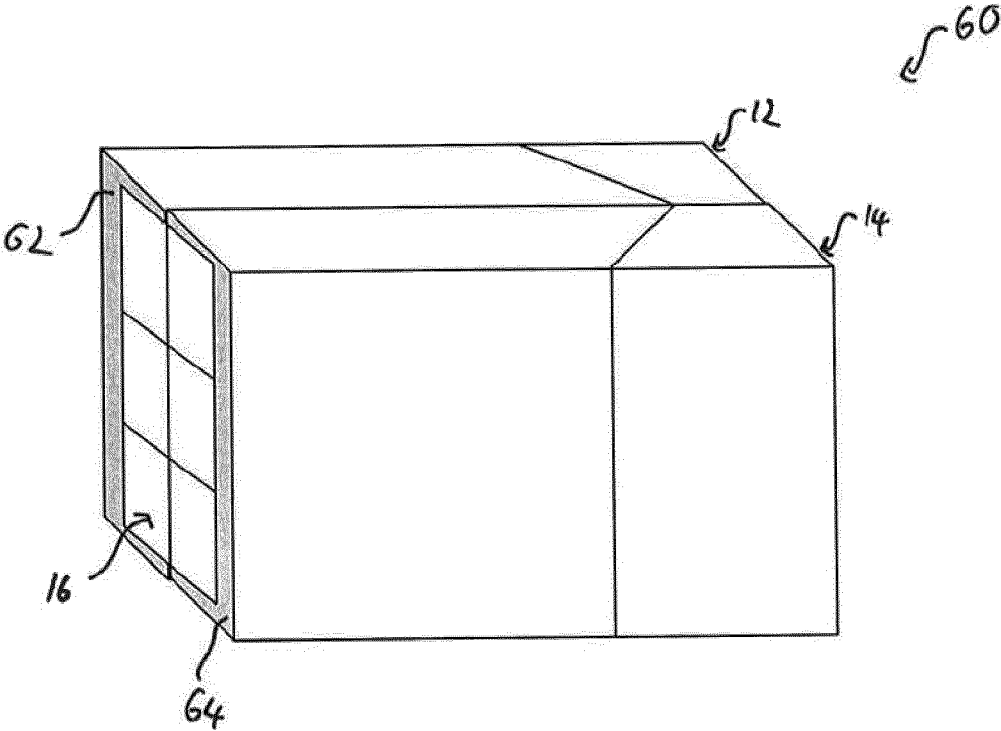


Figure 5

INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2012/074924

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 Al (GD SPA [IT]) 22 November 2007 (2007-11-22) paragraph [0025] paragraph [0028] ; figures 1-5 -----	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 "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "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 "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "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 12 April 2013		Date of mailing of the international search report 24/04/2013
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016		Authorized officer Derrien, Yannick

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/EP2012/074924

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
DE 102007018772 A1	22-11-2007	NONE	