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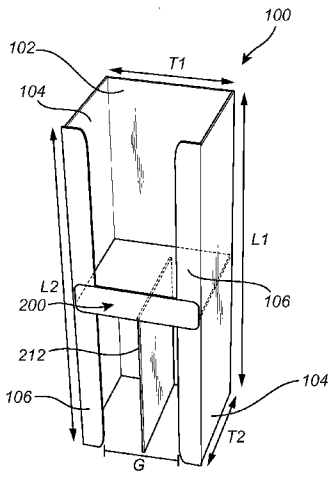
(57) Abstract:

A package having a plurality of compartments. The package comprising a back wall, two opposing side walls, two opposing front wall portions and a separator sheet. The back wall, the two opposing side walls, and the two opposing front wall portions define a package volume. The separator sheet is configured to provide a divider between two adjacent compartments of the package. The separator sheet comprising a floor panel having an extension along a first transversal direction and a second transversal direction, a first front wall panel connected to the floor panel, and a second front wall panel connected to the first front wall panel.



ABSTRACT

A package having a plurality of compartments. The package comprising a back wall, two opposing side walls, two opposing front wall portions and a separator sheet. The back wall, the two opposing side walls, and the two opposing front wall portions define a package volume. The separator sheet is configured to provide a divider between two adjacent compartments of the package. The separator sheet comprising a floor panel having an extension along a first transversal direction and a second transversal direction, a first front wall panel connected to the floor panel, and a second front wall panel connected to the first front wall panel.

A PACKAGE HAVING COMPARTMENTS AND A SEPARATION SHEET THEREFOR

Field of invention

The invention relates to a package having a plurality of compartments.

The invention also relates to a separation sheet for forming such a package having a plurality of compartments.

Technical Background

When designing a package, it is often desirous to take into account a number of different design criteria. The package should e.g. often be designed such that it makes efficient use of the material, is easy to transport to the point of use, is easy to prepare for use, and provide a strong structure. It is often desirable that it is strong during handling and stable in an erected state.

It is common that packages are designed in such a way that several packages can be stacked upon each other to achieve a shelf like structure. This is for example desirous when designing packages that are to be used as display stands. When packages are stacked on top of each other, a package that has been emptied can be removed from the stack to open up easy access to the package underneath. Packages made from cardboard are beneficial since they do not take up much space before they are erected, during for example transport. There exist numerous attempts to address the above design criteria in connection to designing a package of cardboard material.

US4506790 discloses a display stand comprising a shelf supporting structure and a plurality of shelves. The display stand is made of a light weight material such as cardboard. The shelves are held in place by a slot in the supporting structure and are upheld by merchandise placed between two shelves.

US9474389 discloses a display unit comprising a hutch formed from corrugated material, such as cardboard. The hutch has a back wall, a first side wall extending from a first end of the back wall, and a second side wall extending from a second end of the back wall. The back wall of the hutch includes a plurality of spaced horizontal slots. The hutch further comprises a first side wall support attached to the first side wall, and a second side wall support attached to the second side wall. The first and second side wall supports include shelf support tabs. The hutch further includes a plurality of shelves formed from a foldable blank of material, each shelf having a tab insertable into one of the plurality of spaced horizontal slots, and supported by the shelf support tabs.

It may be noted that none of the prior art documents discloses a package which adequately addresses the set of design criteria that the package should make efficient use of the material, be easy to transport to the point of use, be easy to erect, and provide a strong structure.

Summary of invention

It is an object of the invention to provide a package which addresses the set of design criteria that the package should be mechanically stable and provide a strong structure, it should be easy to erect, and it should provide a simple solution to stacking packages on top of each other. It is also an object of the invention to provide a package with a design which inherently is useful as a display package.

This object has been achieved by a package having a plurality of compartments, the package comprising

a back wall extending in a plane defined by a first longitudinal direction and a first transversal direction,

two opposing side walls each extending in a respective plane defined by a respective second longitudinal direction having at least a major component along the first longitudinal direction and a second transversal direction having at least a major component across the first transversal direction,

two opposing front wall portions, each being connected to a respective one of the side walls and extending in a respective direction having at least a major component towards a respective other one of the front wall portions and having an extension towards the other one of the front wall portion such that a gap is formed between the two front wall portions as seen along the first transversal direction,

wherein the back wall, the two opposing side walls, and the two opposing front wall portions define a package volume,

wherein the package volume is divided into said plurality of compartments by the package further comprising:

a separator sheet comprising:

a floor panel having an extension along the first and second transversal directions and forming a major component of a divider between two adjacent compartments of the package,

a first front wall panel connected to the floor panel, and

a second front wall panel connected to the first front wall panel,

wherein the first and second front wall panels are configured to be folded relative to the floor panel and relative to each other about fold lines extending along a direction having a major component along the first transversal direction to form a double front wall,

wherein outer portions, as seen along the first transversal direction, of the fold lines are formed as through-cuts such that open ended slits, as seen along both the second longitudinal direction and the respective extension of an associated front wall portion are formed at the outer portions of the front wall,

wherein each respective slit is configured to receive the associated front wall portion and to thereby lock the separator sheet in place as seen along the second transversal direction.

With such a design, it is possible to provide a stable package having compartments and a package having a shelve structure. When a compartment is emptied, the separator sheet may be removed to open up or provide access to another compartment. This action can be performed

without the risk of a package falling down, which may happen in case there are two or more packages stacked in top of each other and the packages sliding in a way such that a package may fall down when an emptied top package is to be removed. With the provided design, effective use of material is achieved since there is no need to provide double layering of materials between two packages forming a stack of packages. The package is mechanically stable due to the separator sheet being held in place by the front wall portion. Moreover, there is provided a package having flexible compartment size. Thus, a wide variety of products may be placed within the compartment without major design changes or inefficient use of material.

The compartments of the package may be consecutively arranged one above the other. This configuration allows for a separator sheet to be removed when the compartment above the separator sheet is empty, and another compartment is opened up for easy access. This provides a shelve structure within the package. The package provides a stable structure and lowers the risk of two packages stacked on top of each other moving around and a top package falling down.

In a preferred embodiment, the second longitudinal direction is parallel to the first longitudinal direction. In a preferred embodiment, the second transversal direction is at a right angle to the first transversal direction. In a preferred embodiment, the back wall and the two opposing front wall portions extend along parallel planes. It may be noted that it is conceivable that one or both of the two opposing side walls may have an extension relative to the back wall such that the second longitudinal direction is inclined relative to the first longitudinal direction and/or the second transversal direction is not at a right angle with the first transversal direction. It may be noted that independently of the extensions of the opposing side walls, it is preferred that the back wall and the two opposing front wall portions extend along parallel planes. It may be noted that it is conceivable that the two opposing front wall portions extend along a plane being inclined relative to the back wall as seen in the longitudinal direction, and/or as seen along the first transverse

direction. In any case it is preferred that the two opposing front wall portions extend along a single, common plane.

It may be noted that the gap formed between the two front wall portions may have an extension as seen along a projection of the first transversal direction onto the back wall. The gap provides the compartments with a front opening such that any products placed therein can be removed from the front side of the package.

It may be noted that the floor panel need not be oriented such that it is parallel to the first and the second transversal directions. The floor panel may be oriented such that it is oriented inclined relative to the first transversal direction and/or inclined relative to the second transversal direction. It may be noted that the floor panel is preferably arranged such that it extends horizontally, irrespectively of if it is parallel or inclined relative to the first transversal direction and irrespectively of if it is parallel or inclined relative to the second transversal direction.

By the slits being configured to receive the associated front wall, the separator may be held in place without the need of cut-throughs in either the back wall or in the two opposing side walls. This configuration enables easy handling of the package and prevents any need for merchandise placed in the compartments to provide upholding support to the separator sheet and the shelve structure. This configuration prevents the separator sheet from moving about in the second transversal direction.

The fold lines preferably extend along a direction in the same direction as the two opposing front wall portions extend. The fold lines preferably extend horizontally when the separation sheet is installed in the package.

The first front wall panel and the second front wall panel may in a flat laid state of the separator sheet be arranged in consecutive order one after the other along a direction, which direction when the separator sheet is installed in the package will extend along the second transversal direction.

The first front wall panel may form an outwardly facing surface of the front wall and the second front wall panel may form an inwardly facing surface of the front wall. This may be provided by the front wall panel being folded

relative to the floor panel in a first folding direction and the second front wall panel being folded relative to the first front wall panel in the same folding direction. This provides a strong double front wall, which is beneficial for keeping the mechanical stability of the package. It may be noted that the separator sheet may be configured such that the first front panel forms an outwardly facing surface, and such that the second front wall panel forms an inwardly facing surface.

The second front wall panel may comprise a locking portion, the locking portion being positioned at a side of the second front wall panel being opposite to a side of the second front wall panel connected to the first front wall panel. The locking portion may e.g. be a lug or a tongue extending from the second front wall panel, as seen in a flat-laid state of the separator sheet, in a direction extending from the floor panel towards and past the first and second front wall panels. This direction will, when the separator sheet is installed in the package, from the floor panels perspective extend along the second transversal direction. The locking portion will, when the separator sheet is installed in the package, extend along the longitudinal direction. If the separation sheet is oriented such that the front wall extends upwardly relative to the floor panel, the locking portion will extend downwardly, and vice versa. The locking portion aids in preventing unintentional unfolding of the double front wall, which is beneficial for keeping the mechanical stability of the package. The locking portions may provide a lock to the separator sheet to keep the separator sheet in a desirous placement of the package. The locking portion may prevent the separator sheet from moving in the first transversal direction. The locking portion may prevent the separator sheet from twisting such that the front wall portion is moved out of the slut.

The locking portion may be configured to interact with a slit formed in the floor panel or formed in a connection between the floor panel and the first front wall panel. When a locking portion interacts with a slit, the double folding of the front wall may be retained in a low-complexity manner, and a mechanical lock holding the separator sheet in a desirous place may be

achieved. It may be noted that the connection between the floor panel and the first wall panel may comprise one or more slits.

The locking portion may be configured to interact with at least one of the through-cuts. By the locking portion interacting with the through-cut, the separator sheet may be held in place such as to avoid any unintentional unfolding or pulling out of the separator sheet from the package.

The second front wall panel may comprise two locking portions being positioned at a side of the second front wall panel being opposite to a side of the second front wall panel connected to the first front wall panel and being positioned one on each of respective opposing side of the second front wall panel as seen along the first transversal direction, and wherein each one of the two locking portions may be configured to interact with the respective through-cut. The provision of two locking portions facilitates designing a package with enhanced stability. Two locking portions may be used to provide a separator sheet that is held in place by strong retaining mechanical forces. It may be noted that the second front wall panel may comprise more than two locking portions. The locking portions may be positioned on a side of the second wall panel arranged to interact with the connection between the floor panel and the first front wall panel. It may be noted that the locking portions may be arranged to interact with through-cuts formed in the floor panel of the separator sheet. The separator sheet may be made of paper-based material. Paper-based material may provide a light weight package. Paper-based material is environmentally friendly and can be recycled in a simple manner. Paper-based material may provide a package that is easy to transport and handle before erection of the package. It may be noted that the separator sheet may be made of other materials. It may be noted that the package as a whole may be made of paper-based material. It may be noted that the package and the separator sheet need not to be made of the same material.

The package may further comprise a support element being configured to abut an underside of the floor panel and to thereby define a height of a compartment formed underneath the floor panel of the separator sheet. A support element may provide each compartment with a stable structure. A

support element may remove the need for any merchandise placed in the compartments to hold up the shelve structure and the separator sheet. The separator sheet may provide the package with support to the separator sheet such that no through holes or any other arrangement is needed in order to retain the shelve structure when merchandise or products are placed in the compartments. By using a support element, the separator may be upheld in place without any support from upholding forces of merchandise or products placed in the compartment below the separator sheet. By using different heights of a support element, a package having compartments of different sized may be achieved.

The support element may be made of paper-based material. It may be noted that the separator may be made of other materials.

The support element may comprise a panel extending in a plane defined by a first vector having a major component along the first longitudinal direction, the first vector preferably extending in a vertical direction, and a second vector extending in the first and/or second transverse direction, the second vector preferably having an extension along both the first and the second transverse directions. This may provide the separator sheet with support for forming the compartments while at the same time leaving room in the compartment for a variety of merchandise to be placed therein.

The support element may comprise two panels, the first panel extending in a first plane and the second panel extending in a second plane, each plane being defined by a respective first vector and a respective second vector, wherein the first vector of the first plane and the first vector of the second plane each have a major component along the first longitudinal direction, the first vectors preferably extending in a vertical direction, wherein the second vector of the first plane and the second vector of the second plane each extend in the first and/or the second transverse direction, wherein the second vector of the first plane and the second vector of the second plane intersects each other such that the two panels interact with each other.

Each of the second vectors may have an extension along both the first and the second transverse directions whereby the two panels cross each

other, as seen in a cross-sectional view defined by the first transversal direction and the second transversal direction. This may provide the separator sheet with an evenly distributed upholding force. Thus, heavier merchandise or items may be stored in the plurality of compartments. This configuration may increase simplicity of handling and transport of the package up to use.

The above-mentioned object has also been accomplished by the provision of a separator sheet configured to be installed in a package and form a divider between two adjacent compartments of the package, the separator sheet comprising

a floor panel having an extension along a first transversal direction and a second transversal direction,

a first front wall panel connected to the floor panel, and

a second front wall panel connected to the first front wall panel,

wherein the first and second front wall panels are configured to be folded relative to the floor panel and relative to each other about fold lines extending along a direction having a major component along the first transversal direction to form a double front wall,

wherein outer portions, as seen along the first transversal direction, of the fold lines are formed as through-cuts such that open ended slits, as seen along both the second longitudinal direction and the respective extension of an associated front wall portion are formed at the outer portions of the front wall.

A respective slit is configured to receive an associated front wall portion of a package comprising two opposing front wall portions, each being connected to a respective one of two opposing side walls and extending in a respective direction having at least a major component towards a respective other one of the front wall portions and having an extension towards the other one of the front wall portion such that a gap is formed between the two front wall portions as seen along the first transversal direction.

Advantages associated with the different features and preferred embodiments have been discussed in detail in the above in relation to the package. The discussion is equally valid in relation to the separator sheet. It

may be noted that the various preferred embodiments or optional features are equally applicable to the separator sheet.

The invention may also in short be said to relate to a package having a plurality of compartments, the package comprising a back wall, two opposing side walls, two opposing front wall portions and a separator sheet, wherein the back wall, the two opposing side walls, and the two opposing front wall portions define a package volume, wherein the separator sheet is configured to provide a divider between two adjacent compartments of the package, the separator sheet comprising a floor panel having an extension along a first transversal direction and a second transversal direction, a first front wall panel connected to the floor panel, and a second front wall panel connected to the first front wall panel.

Brief description of the drawings

The invention will by way of example be described in more detail with reference to the appended schematic drawings, which shows a presently preferred embodiment of the invention.

Figure 1 discloses some major components of a package.

Figure 2 discloses a separator sheet.

Figure 3 discloses a blank for forming a separator sheet.

Figure 4A discloses a package.

Figure 4B discloses the package of figure 4A with a top sheet removed.

Detailed description of preferred embodiments

With reference to figures 1, and 4A-4B there is disclosed a package 100 having a plurality of compartments. The package 100 comprises a back wall 102, two opposing side walls 104, two opposing front wall portions 106. The back wall 102, the two opposing side walls 104, and the two opposing front wall portions 106 define a package volume. The package 100 also comprises a separator sheet 200. The separator sheet 200 forms a divider that divides the package volume into the plurality of compartments.

The back wall 102 extends in a plane defined by a first longitudinal direction L1 and a first transversal direction T1. Two opposing side walls each extend in a respective plane defined by a respective second longitudinal direction L2 having at least a major component along the first longitudinal direction L1 and a second transversal direction T2 having at least a major component across the first transversal direction T1. It is preferred that the second longitudinal direction L2 is parallel to the first longitudinal direction L1. In a preferred embodiment, the second transversal direction T2 is at a right angle to the first transversal direction T1. In a preferred embodiment, the back wall 102 and the two opposing front wall portions 106 extend along parallel planes. It may be noted that it is conceivable that one or both of the two opposing side walls 104 may have an extension relative to the back wall 102 such that the second longitudinal direction L2 is inclined relative to the first longitudinal direction L1 and/or the second transversal direction T2 is not at a right angle with the first transversal direction T1. It may be noted that independently of the extensions of the opposing side walls 104, it is preferred that the back wall 102 and the two opposing front wall portions 106 extend along parallel planes. It may be noted that it is conceivable that the two opposing front wall portions 106 extend along a plane being inclined relative to the back wall 102 as seen in the longitudinal direction, and/or as seen along the first transverse direction T1. In any case it is preferred that the two opposing front wall portions 106 extend along a single, common plane.

Two opposing front wall portions 106 are each connected to a respective one of the side walls 104. Each of the front wall portions 106 is connected to the respective side wall 104 along a longitudinally extending side, the side being opposite a side of the respective side wall 104 being close to or connected to the back wall 102. The two opposing front wall portions extend in a respective direction having at least a major component towards a respective other one of the front wall portions 106. The two opposing front wall portions have an extension towards the other one of the front wall portion 106 such that a gap G is formed between the two front wall portions 106 as seen along the first transversal direction T1. The gap may be

seen as having an extension as seen along the projection of the first transversal direction T1 onto the back wall 102.

The package 100 may comprise a support element 212. The support element 212 may be configured to abut an underside of the floor panel 202 of the separator sheet 200. The support element 212 may be configured define a height of a compartment formed underneath the floor panel 202 of the separator sheet 200. The support element 212 may provide the separator sheet 200 with an upholding force to prevent the separator sheet 200 from falling to the bottom of the package 100. As shown e.g. in figures 4A and 4B, the package 100 may comprise a plurality of separation sheets 200. The package 100 may also comprise a plurality of support elements 212 which are arranged alternatingly with the separation sheets 200 along the longitudinal direction L1.

The support element 212 may comprise a panel. The panel may extend in a plane defined by a first vector having a major component along the first longitudinal direction L1, and a second vector extending in the first and/or second transverse direction T1, T2. In such case, the first vector preferably extends in a vertical direction, and the second vector preferably has an extension along both the first and the second transverse directions T1, T2. The support element 212 may be arranged to form compartments within each compartment of the package 100.

As shown in figure 4B the support element 212 may comprise two panels. The support element may comprise more than two panels. A first panel may extend in a first plane and a second panel may extend in a second plane. Each plane may be defined by a respective first vector and a respective second vector. The first vector of the first plane and the first vector of the second plane may each have a major component along the first longitudinal direction L1. In a preferred embodiment, the first vectors extend in a vertical direction. The second vector of the first plane and the second plane may each extend in the first and/or the second transverse direction T1, T2. The second vector of the first plane and the second vector of the second

plane may intersect each other such that the two panels interact with each other.

Each of the second vectors may have an extension along both the first and the second transverse directions T1, T2. Thus, the two panels may cross each other, as seen in a cross-sectional view defined by the first transversal direction T1 and the second transversal direction T2.

It is preferred that the support element 212 is made of paper-based material.

Figure 2 shows a separator sheet 200, and Figure 3 shows a blank for forming such a separator sheet 200. The separator sheet 200 is configured to be installed in a package 100.

The separator sheet 200 comprises a floor panel 202, a first front wall panel 204, and a second front wall panel 206. The floor panel 202 has an extension along the first transversal direction T1 and along the second transversal direction T2. The floor panel 202 of the separator sheet 200 forms a major component of a divider between two adjacent compartment of the package 100.

The first front wall 204 panel is connected to the floor panel 202. The second front wall panel 206 is connected to the first front wall panel 204. The first and second front wall panels 204, 206 are configured to be folded relative to the floor panel 202. The first and second front wall panels are further configured to be folded relative to each other about fold lines 208 extending along a direction having a major component along the first transversal direction T1 to form a double front wall. It is preferred that the fold lines 208 extend along a direction being in the same direction as the two opposing front wall portions 106 extend. The fold lines 208 preferably extend horizontally when the separator sheet 200 is installed in the package 100.

The outer portions, as seen along the first transversal direction T1, of the fold lines 208 are formed as through-cuts 210 such that open ended slits, as seen along both the second longitudinal direction L2 and the respective extension of an associated front wall portion 106 are formed at the outer portions of the front wall. Each respective slit is configured to receive the

associated front wall portion 106 of the package 100. Thereby the separator sheet 200 is locked in place as seen along the second transversal direction T2. By each respective slit being configured to receive the associated front wall portion 106 of the package, the separator sheet 200 is prevented from moving in the second transversal direction T2.

As shown in Figure 4A-4B, the separator sheet 200 may be arranged to form a bottom of the package 100. The separator sheet 200 may be arranged to form a top lid of the package 100. It may be noted that the package 100 may stand on an arrangement forming a bottom of the package 100.

As shown in figure 3, the floor panel 202, the first front wall panel 204 and the second front wall panel 206 may in a flat laid state of the separator sheet 200 be arranged in consecutive order one after the other along a direction. The direction may, when the separator sheet 200 is installed in the package 100 extend along the second transversal direction T2.

The first front wall panel 204 may form an outwardly facing surface of the front wall. The second front wall panel 206 may form an inwardly facing surface of the front wall. In such case, the first front wall panel 204 may be folded relative to the floor panel 202 in a first folding direction and the second front wall panel 206 may be folded relative to the first front wall panel 204 in the same folding direction. The outwardly facing surface of the front wall may allow for printing on the separator sheet 200 to provide a more aesthetic look of the package 100. Printing on the outwardly facing surface may provide a package 100 where a separator sheet 200 may be chosen or printed based on the products that are to be put in the package compartments.

The second front wall panel 206 may comprise a locking portion 214. The locking portion 214 may be positioned at a side of the second front wall panel 206 being opposite to a side of the second front wall panel 206 connected to the first front wall panel 204. The locking portion 214 may e.g. be a lug or a tongue extending from the second front wall panel 206, as seen in a flat-laid state of the separator sheet, in a direction extending from the floor panel 202 towards and past the first and second front wall panels 204,

206. This direction will, when the separator sheet 200 is installed in the package 100, from the floor panels 202 perspective, extend along the second transversal direction T2. For the three lowermost separation sheets 200 in figure 4A, the front wall extends upwardly from the floor panel 202 and the lugs or tongues 214 extend downwardly. For the uppermost separation sheet 200 in figure 4A, the front wall extends downwardly from the floor panel 202 and the lugs or tongues 214 extend upwardly.

The locking portion 214 may be configured to interact with a slit formed in the floor panel 202. The locking portion 214 may be configured to interact with a slit formed in a connection between the floor panel 202 and the first front wall panel 204. The connection between the floor panel 202 and the first front wall panel may be the fold line 208. The locking portion 214 may be configured to interact with at least one of the through-cuts 210.

As seen in figure 3, the second front wall panel 206 may comprise two locking portions 214. The locking portions 214 may be positioned opposite to a side of the second front wall panel 206 being connected to the first front wall panel 204. The locking portions 214 may be positioned on each of a respective opposing side of the second front wall panel 206, as seen along the first transversal direction T1. When the second front wall panel 206 comprises two locking portions 214, each locking portion 214 may be configured to interact with the respective through-cut 210.

It is preferred that the separator sheet 200 is made of paper-based material. It is preferred that the back wall 102, the two opposing side walls 104 and the two opposing front wall portions are formed by one blank.

It is contemplated that there are numerous modifications of the embodiments described herein, which are still within the scope of the invention as defined by the appended claims.

The back wall 102, the two opposing side walls 104, and the two opposing front wall portions 106 may for instance be made of a rigid material such as a plastic or metal, and the separator sheet 200 may be made of paper-based material. In such a case, the compartments can be exchanged continuously by only needing to exchange the separator sheet. This would

provide a simple display option where the main structure of the package need not to be exchanged dependent on what products are to be placed in the compartments.

In one example the support element 212 may be a panel formed as a cylindrical shape. Such a design may provide an evenly distributed upholding force onto the separator sheet, while at the same time provide a spacious compartment.

CLAIMS

1. A package (100) having a plurality of compartments, the package comprising:

a back wall (102) extending in a plane defined by a first longitudinal direction (L1) and a first transversal direction (T1),

two opposing side walls (104) each extending in a respective plane defined by a respective second longitudinal direction (L2) having at least a major component along the first longitudinal direction (L1) and a second transversal direction (T2) having at least a major component across the first transversal direction (T1),

two opposing front wall portions (106), each being connected to a respective one of the side walls (104) and extending in a respective direction having at least a major component towards a respective other one of the front wall portions (106) and having an extension towards the other one of the front wall portion (106) such that a gap (G) is formed between the two front wall portions (106) as seen along the first transversal direction (T1),

wherein the back wall (102), the two opposing side walls (104), and the two opposing front wall portions (106) define a package volume,

wherein the package volume is divided into said plurality of compartments by the package (100) further comprising:

a separator sheet (200) comprising:

a floor panel (202) having an extension along the first and second transversal directions (T1, T2) and forming a major component of a divider between two adjacent compartments of the package (200),

a first front wall panel (204) connected to the floor panel (202), and

a second front wall panel (208) connected to the first front wall panel (204),

wherein the first and second front wall panels (204, 206) are configured to be folded relative to the floor panel (202) and relative to each other about fold lines (208) extending along a direction having a

major component along the first transversal direction (T1) to form a double front wall,

wherein outer portions, as seen along the first transversal direction (T1), of the fold lines are formed as through-cuts (210) such that open ended slits, as seen along both the second longitudinal direction (L2) and the respective extension of an associated front wall portion (106), are formed at the outer portions of the double front wall,

wherein each respective slit is configured to receive the associated front wall portion (106) and to thereby lock the separator sheet (200) in place as seen along the second transversal direction (T2).

2. Package (100) according to claim 1, wherein the floor panel (202), the first front wall panel (204) and the second front wall panel (206) are in a flat laid state of the separator sheet (200) arranged in consecutive order one after the other along a direction, which direction when the separator sheet (200) is installed in the package (100) will extend along the second transversal direction (T2).

3. Package (100) according to claim 1 or 2, wherein the first front wall panel (204) forms an outwardly facing surface of the front wall and the second front wall panel (206) forms an inwardly facing surface of the front wall.

4. Package (100) according to any one of the preceding claims, wherein the second front wall panel (206) comprises a locking portion (214), the locking portion (214) being positioned at a side of the second front wall panel (206) being opposite to a side of the second front wall panel (206) connected to the first front wall panel (204).

5. Package (100) according to claim 4, wherein the locking portion (214) is configured to interact with a slit formed in the floor panel (202) or

formed in a connection between the floor panel (202) and the first front wall panel (204).

6. Package (100) according to claim 4 or 5, wherein the locking portion (214) is configured to interact with at least one of the through-cuts (210).

7. Package (100) according to any one of the preceding claims, wherein the second front wall panel (206) comprises two locking portions (214), the locking portions (214) being positioned at a side of the second front wall panel (206) being opposite to a side of the second front wall panel (206) connected to the first front wall panel (204) and being positioned one on each of respective opposing side of the second front wall panel (206) as seen along the first transversal direction (T1), and wherein each one of the two locking portions (214) are configured to interact with the respective through-cut (210).

8. Package (100) according to any one of the preceding claims, wherein the separator sheet (200) is made of paper-based material.

9. Package according to any of the preceding claims, wherein the package (100) further comprises:

a support element (212) being configured to abut an underside of the floor panel (202) and to thereby define a height of a compartment formed underneath the floor panel (202) of the separator sheet (200).

10. Package (100) according to claim 9, wherein the support element (212) is made of paper-based material.

11. Package (100) according to claim 9 or 10, wherein the support element (212) comprises a panel extending in a plane defined by a first vector having a major component along the first longitudinal direction (L1), the first vector preferably extending in a vertical direction, and a second vector

extending in the first and/or second transverse direction (T1, T2), the second vector preferably having an extension along both the first and the second transverse directions (T1, T2).

12. Package (100) according to any one of claims 9-11, wherein the support element (212) comprises two panels, the first panel extending in a first plane and the second panel extending in a second plane, each plane being defined by a respective first vector and a respective second vector, wherein the first vector of the first plane and the first vector of the second plane each have a major component along the first longitudinal direction (L1), the first vectors preferably extending in a vertical direction, wherein the second vector of the first plane and the second vector of the second plane each extend in the first and/or the second transverse direction (T1, T2), wherein the second vector of the first plane and the second vector of the second plane intersects each other such that the two panels interact with each other.

13. Package (100) according to claim 12, wherein each of the second vectors have an extension along both the first and the second transverse directions (T1, T2) whereby the two panels cross each other, as seen in a cross-sectional view defined by the first transversal direction (T1) and the second transversal direction (T2).

14. A separator sheet (200) configured to be installed in a package (100) and form a divider between two adjacent compartments of the package (100), the separator sheet (200) comprising:

a floor panel (202) having an extension along a first transversal direction (T1) and a second transversal direction (T2),

a first front wall panel (204) connected to the floor panel (202), and

a second front wall panel (206) connected to the first front wall panel (204),

wherein the first and second front wall panels (204, 206) are configured to be folded relative to the floor panel (202) and relative to each other about fold lines (208) extending along a direction having a major component along the first transversal direction (T1) to form a double front wall,

wherein outer portions, as seen along the first transversal direction (T1), of the fold lines (208) are formed as through-cuts (210) such that open ended slits, as seen along both the second longitudinal direction (L2) and the respective extension of an associated front wall portion (106), are formed at the outer portions of the double front wall,

wherein respective slit is configured to receive an associated front wall portion (106) of the package (100) comprising

two opposing front wall portions (106), each being connected to a respective one of two opposing side walls (104) and extending in a respective direction having at least a major component towards a respective other one of the front wall portions (106) and having an extension towards the other one of the front wall portion (106) such that a gap (G) is formed between the two front wall portions (106) as seen along the first transversal direction (T1).

I följande bilaga finns en översättning av patentkraven till svenska. Observera att det är patentkravens lydelse på engelska som gäller.

A Swedish translation of the patent claims is enclosed. Please note that only the English claims have legal effect.

PATENTKRAV

1. Förpackning (100) med ett flertal fack, varvid förpackningen innefattar:

en bakvägg (102) som sträcker sig i ett plan definierat av en första längdriktning (L1) och en första tvärriktning (T1),

två motstående sidoväggar (104) som var och en sträcker sig i ett respektive plan definierat av en respektive andra längdriktning (L2) som har åtminstone en huvudkomponent i den första längdriktningen (L1) och en andra tvärriktning (T2) som har åtminstone en huvudkomponent tvärs mot den första tvärriktningen (T1),

två motstående framväggsdelar (106), som var och en är förbunden med en respektive av sidoväggarna (104) och sträcker sig i en respektive riktning som har åtminstone en huvudkomponent mot en respektive annan av framväggsdelarna (106) och har en utsträckning mot den andra framväggsdelen (106) sådan att ett mellanrum (G) bildas mellan de två framväggsdelarna (106) sett i den första tvärriktningen (T1),

varvid bakväggen (102), de två motstående sidoväggarna (104) och de två motstående framväggsdelarna (106) definierar en förpackningsvolym,

varvid förpackningsvolymen är indelad i nämnda flertal fack genom att förpackningen (100) dessutom innefattar:

en avdelningsskiva (200) som innefattar:

en golvpanel (202) som har en utsträckning i de första och andra tvärriktningarna (T1, T2) och bildar en huvudkomponent av en avdelare mellan två angränsande fack hos förpackningen (200),

en första framväggspanel (204) som är förbunden med golvpanelen (202), samt

en andra framväggspanel (208) som är förbunden med den första framväggspanelen (204),

varvid de första och andra framväggspanelerna (204, 206) är utformade att vikas i förhållande till golvpanelen (202) och i förhållande till varandra kring viklinjer (208) som sträcker sig i en riktning som har en huvudkomponent i den första tvärriktningen (T1) för att bilda en dubbel framvägg,

varvid yttre partier av viklinjerna, sett i den första tvärriktningen (T1), är utformade som genomgående snitt (210) så att slitsar med öppna ändar bildas i de yttre partierna av den dubbla framväggen, sett både i den andra längdriktningen (L2) och den respektive utsträckningen av en därmed sammanhörande framväggsdel (106),

varvid varje respektive slits är utformad att mottaga den därmed sammanhörande framväggsdelen (106) och att därigenom låsa avdelningsskivan (200) på plats sett i den andra tvärriktningen (T2).

2. Förpackning (100) enligt patentkrav 1, varvid golvpanelen (202), den första framväggspanelen (204) och den andra framväggspanelen (206), i ett tillstånd när avdelningsskivan (200) är utlagd platt, är anordnade i på varandra följande ordning den ena efter den andra i en riktning, vilken riktning kommer att sträcka sig i den andra tvärriktningen (T2) när avdelningsskivan (200) är installerad i förpackningen (100).

3. Förpackning (100) enligt patentkrav 1 eller 2, varvid den första framväggspanelen (204) bildar en utåtvänd yta hos framväggen och den andra framväggspanelen (206) bildar en inåtvänd yta hos framväggen.

4. Förpackning (100) enligt något av de föregående patentkraven, varvid den andra framvägspanelen (206) innefattar ett låsparti (214), varvid låspartiet (214) är placerat på en sida av den andra framväggspanelen (206) som ligger mittemot en sida av den andra framväggspanelen (206) som är förbunden med den första framväggspanelen (204).

5. Förpackning (100) enligt patentkrav 4, varvid låspartiet (214) är utformat att samverka med en slits som är utformad i golvpanelen (202) eller utformad i en förbindning mellan golvpanelen (202) och den första framväggspanelen (204).

6. Förpackning (100) enligt patentkrav 4 eller 5, varvid låspartiet (214) är utformat att samverka med åtminstone ett av de genomgående snitten (210).

7. Förpackning (100) enligt något av de föregående patentkraven, varvid den andra framväggspanelen (206) innefattar två låspartier (214), varvid låspartierna (214) är placerade på en sida av den andra framväggspanelen (206) som ligger mittemot en sida av den andra framväggspanelen (206) som är förbunden med den första framväggspanelen (204) och är placerade ett på var och en av respektive motstående sida av den andra framväggspanelen (206) sett i den första tvärriktningen (T1), samt varvid vart och ett av de två låspartierna (214) är utformat att samverka med det respektive genomgående snittet (210).

8. Förpackning (100) enligt något av de föregående patentkraven, varvid avdelningsskivan (200) är tillverkad av pappersbaserat material.

9. Förpackning enligt något av de föregående patentkraven, varvid förpackningen (100) dessutom innefattar:

ett stödelement (212) som är utformat att anligga mot en undersida av golvpanelen (202) och att därigenom definiera en höjd hos ett fack som bildas under golvpanelen (202) hos avdelningsskivan (200).

10. Förpackning (100) enligt patentkrav 9, varvid stödelementet (212) är tillverkat av pappersbaserat material.

11. Förpackning (100) enligt patentkrav 9 eller 10, varvid stödelementet (212) innefattar en panel som sträcker sig i ett plan definierat av en första vektor som har en huvudkomponent i den första längdriktningen (L1), varvid den första vektorn företrädesvis sträcker sig i en vertikal riktning, samt en andra vektor som sträcker sig i den första och/eller andra tvärriktningen (T1, T2), varvid den andra vektorn företrädesvis har en utsträckning i både de första och andra tvärriktningarna (T1, T2).

12. Förpackning (100) enligt något av patentkraven 9-11, varvid stödelementet (212) innefattar två paneler, varvid den första panelen sträcker sig i ett första plan och den andra panelen sträcker sig i ett andra plan, varvid varje plan definieras av en respektive första vektor och en respektive andra vektor, varvid den första vektorn för det första planet och den första vektorn för det andra planet var och en har en huvudkomponent i den första längdriktningen (L1), varvid de första vektorerna företrädesvis sträcker sig i en vertikal riktning, varvid den andra vektorn för det första planet och den andra vektorn för det andra planet var och en sträcker sig i den första och/eller den andra tvärriktningen (T1, T2), varvid den andra vektorn för det första planet och den andra vektorn för det andra planet skär varandra så att de två panelerna samverkar med varandra.

13. Förpackning (100) enligt patentkrav 12, varvid var och en av de andra vektorerna har en utsträckning i både de första och andra tvärriktningarna (T1, T2), varigenom de två panelerna korsar varandra, sett i en tvärsnittsvy definierad av den första tvärriktningen (T1) och den andra tvärriktningen (T2).

14. Avdelningsskiva (200) som är utformad att installeras i en förpackning (100) och bilda en avdelare mellan två angränsande fack hos förpackningen (100), varvid avdelningsskivan (200) innefattar:

en golvpanel (202) som har en utsträckning i en första tvärriktning (T1) och en andra tvärriktning (T2),

en första framväggspanel (204) som är förbunden med golvpanelen (202), samt

en andra framväggspanel (206) som är förbunden med den första framväggspanelen (204),

varvid de första och andra framväggspanelerna (204, 206) är utformade att vikas i förhållande till golvpanelen (202) och i förhållande till varandra kring viklinjer (208) som sträcker sig i en riktning som har en huvudkomponent i den första tvärriktningen (T1) för att bilda en dubbel framvägg,

varvid yttre partier av viklinjerna (208), sett i den första tvärriktningen (T1), är utformade som genomgående snitt (210) så att slitsar med öppna ändar bildas i de yttre partierna av den dubbla framväggen, sett i både den andra längdriktningen (L2) och den respektive utsträckningen hos en därmed sammanhörande framväggsdel (106),

varvid respektive slits är utformad att mottaga en därmed sammanhörande framväggsdel (106) hos förpackningen (100), som innefattar

två motstående framväggsdelar (106), som var och en är förbunden med en respektive av två motstående sidoväggar (104) och sträcker sig i en respektive riktning som har åtminstone en huvudkomponent mot en respektive annan av framväggsdelarna (106) och har en utsträckning mot den andra framväggsdelen (106) sådan att ett mellanrum (G) bildas mellan de två framväggsdelarna (106) sett i den första tvärriktningen (T1).

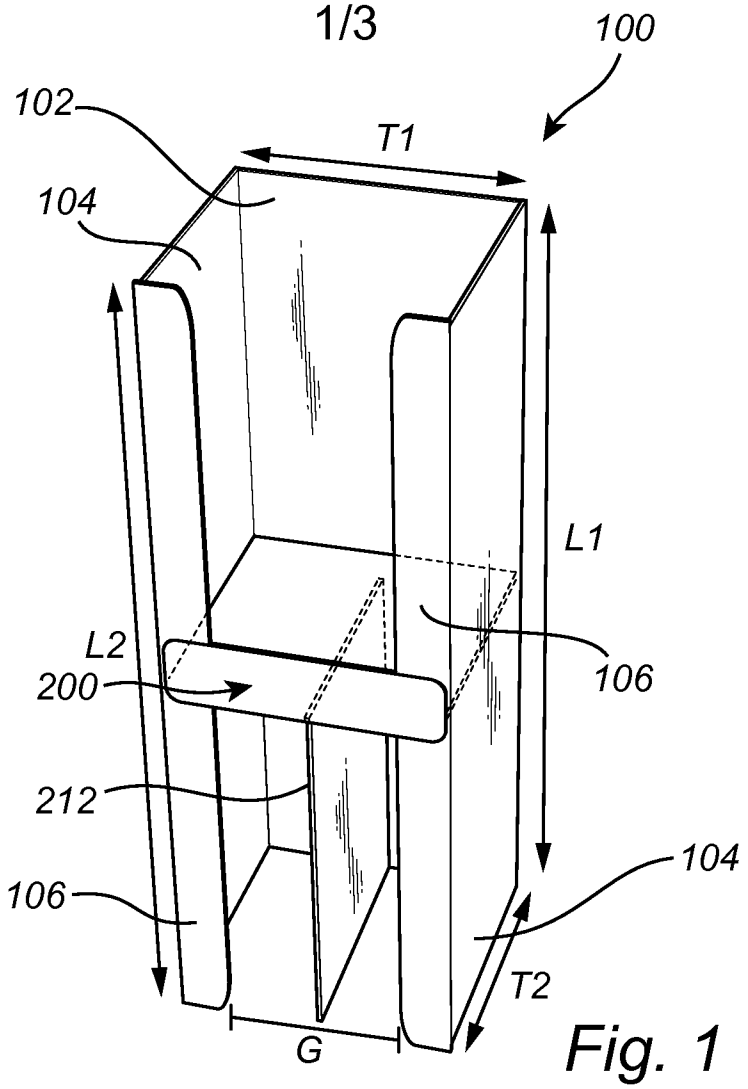
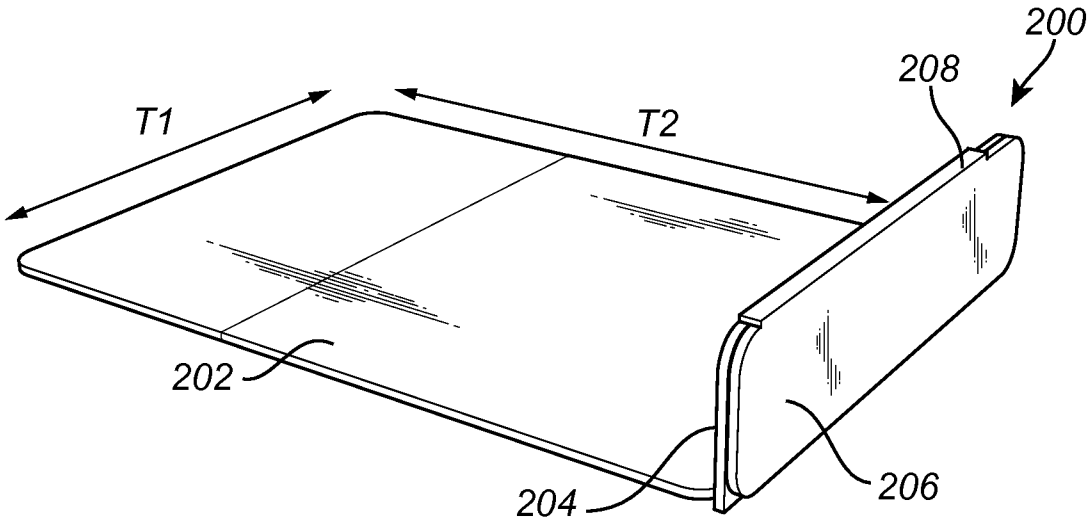

100
102
T1
104
L1
L2
200
106
212
104
106
T2
G

Fig. 1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208
T1
T2
202
204
206

Fig. 2

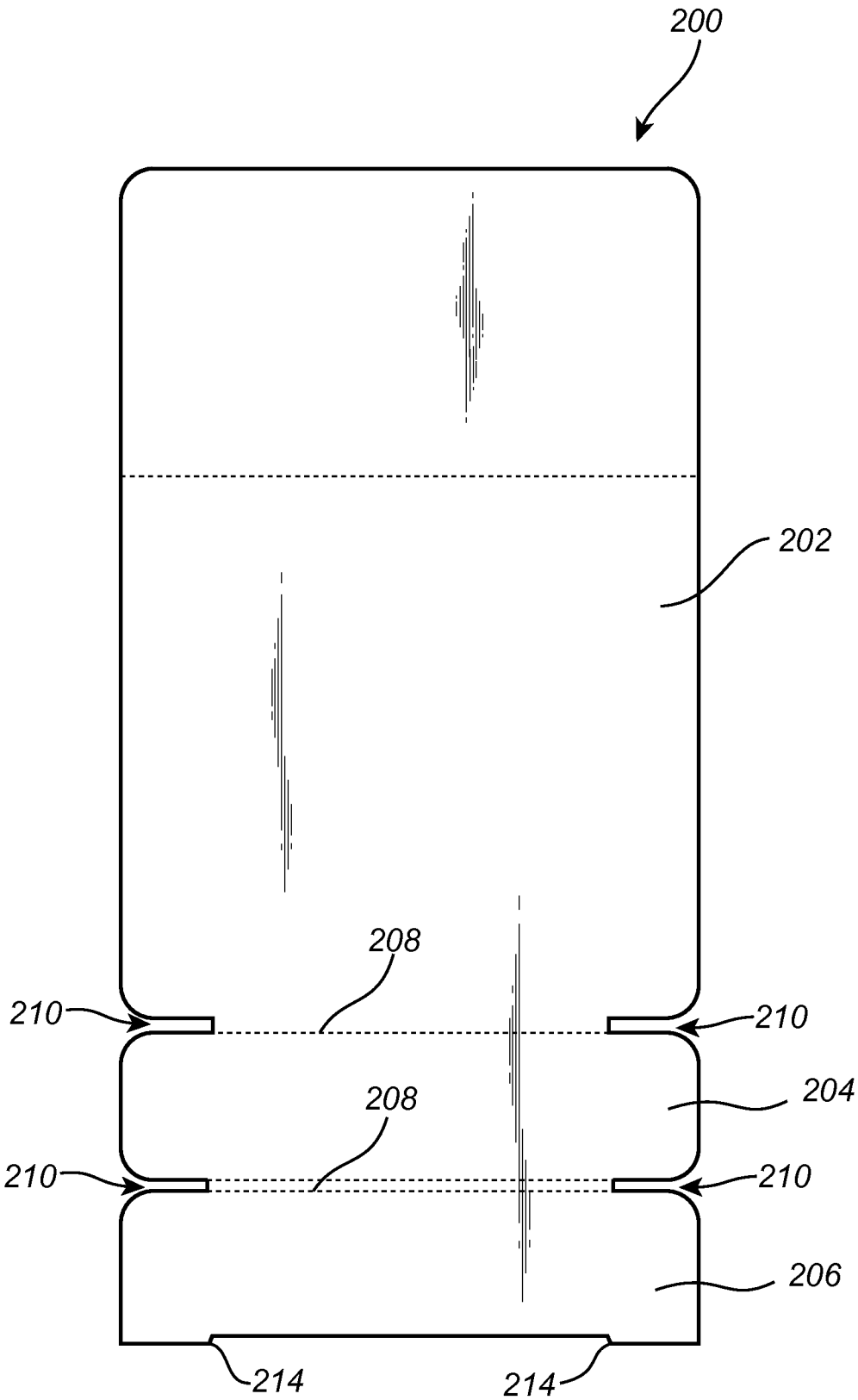
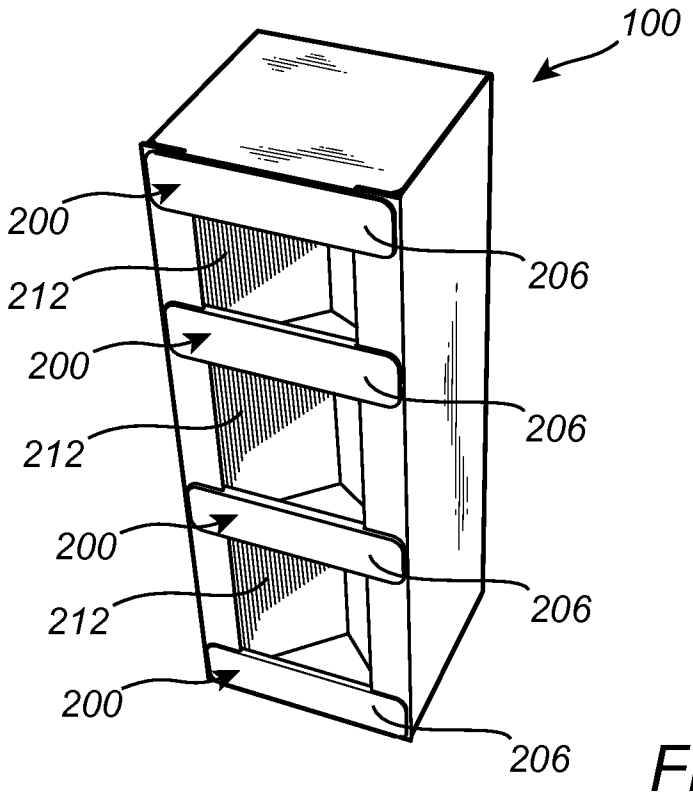


Fig. 3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200
212
200
212
200
212
200
206
206
206
206

Fig. 4A

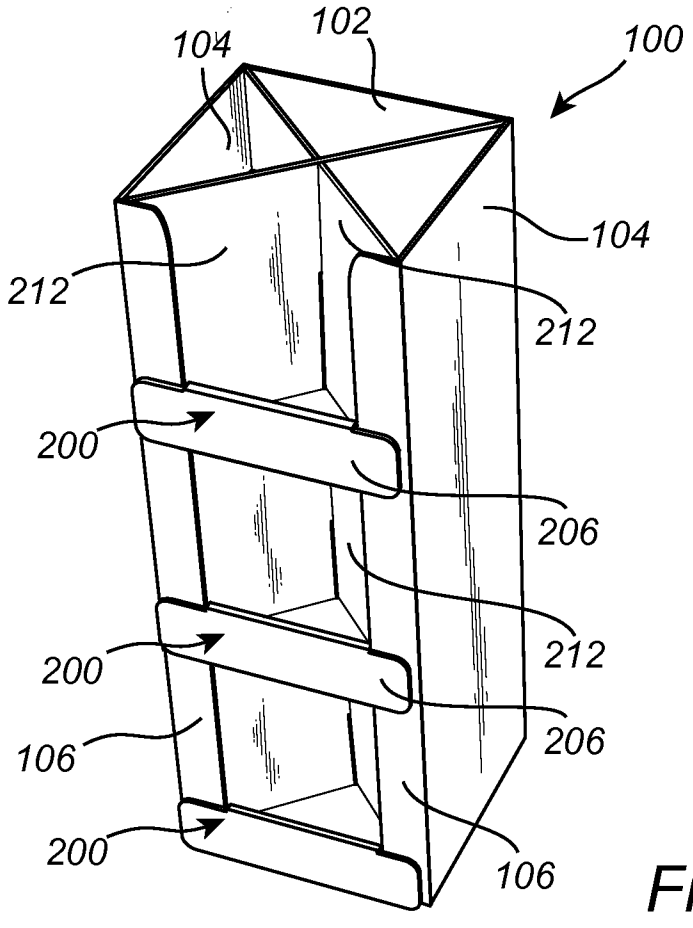
104
102
100
212
200
200
106
200
104
212
206
212
206
106

Fig. 4B