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(54) **A BOX FOR DISPLAYING AND HOLDING CONSUMER GOODS**

(57) The present invention relates to a box (100,400, 500) for displaying and holding consumer goods on an elongated support member (300), which elongated support member (300) is adapted for displaying and dispensing articles of the type which have holes for suspending the articles from the elongated support member (300). The box (100,400, 500) comprises a bottom (102), at least a first sidewall (104), and at least one area (112) in the first side wall (104) or in the bottom (102) via which area (112) the box (100,400, 500) is adapted to receive the elongated support member (300). The box (100,400, 500) further comprises a support portion (200, 250) arranged above the bottom (102) and adapted to support the box (100,400, 500) on the elongated support member (300) and a space (1000) arranged at least partly above the support portion (200, 250), the space (1000) being adapted to receive the consumer goods above the support portion (200, 250).

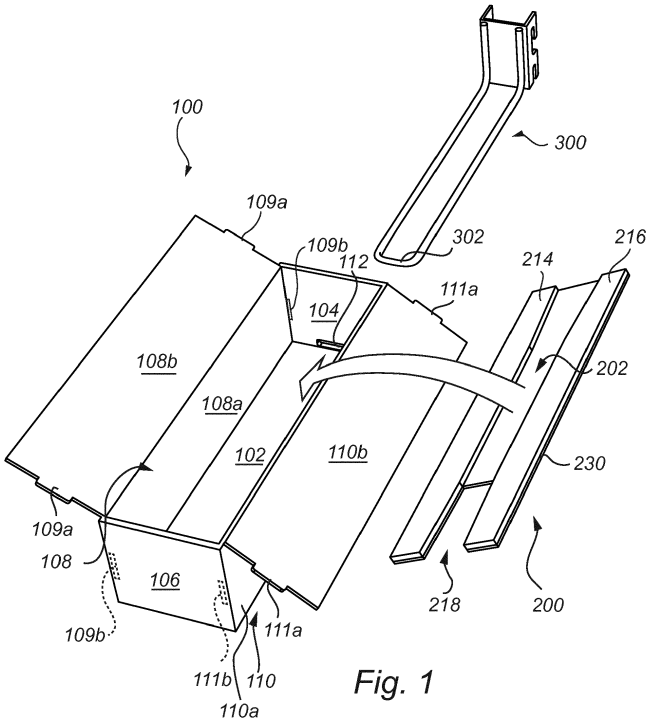

Fig. 1

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Description

Technical field

[0001] The present invention relates to a box for displaying and holding consumer goods on an elongated support member.

Background art

[0002] In the consumer goods industry, especially for consumer goods which are presented to a buyer thereof on racks, shelves or boards in stores, products are oftentimes adapted to be supported or suspended from racks or boards using elongated support members for displaying and dispensing articles. The products therefore have holes in their packaging, or even additional packaging for suspending or supporting the products from the elongated support members. Hence, the products need to be handled one by one by personnel working in the stores in order to support each product on the elongated support members. This is of course both time-consuming and tedious. Further, the additional packaging sometimes needed leads to an increased use of e.g. plastic material which need to be separately sorted and recycled.

[0003] Further, it may be important to communicate both the brand identity as well as imagery which may appear on a package for products. For example, it is desirable to present e.g. a unitary look and feel for the visual appearance for products belonging to the same brand to a customer. Therefore, a certain brand may have an entire shelf, rack or board with only products belonging to that brand. However, stores may not always offer the entire range of products of a certain brand for sale, or enough products to motivate the use of an entire shelf, rack or board dedicated to the specific brand. Thus, it may not be possible to ensure that the visual identity of the brand is thoroughly communicated. Therefore, it may be desirable to keep the visual identity similar between different products from a certain brand, even though they have dissimilar sizes and/or shapes, in order for the product to fit on e.g. standardized storage solutions such as e.g. the aforementioned elongated support members used in stores.

[0004] Hence, there is a generally desire to reduce the time required to suspend each individual product on an elongated support member. It is also desired by brand owners to improve the appearance of products, or product packaging to be supported or suspended from elongated support members in stores. Further, it is desirable that the product are easily removed from the elongated support member, in order to reduce any possible hindrance for a customer removing a product from the elongated support member for e.g. inspection or directly buying the product.

[0005] EP 2599723 discloses a box which can be arranged to an elongated support member. The box has a bottom, two side walls, a rear wall, a front wall, and two flaps which may be folded down from the bottom. The flaps have openings partially aligned with each other. An elongated support member is inserted through the two flaps under the bottom such that the box stands with the bottom on the elongated support member which also extends further than the box. Hence, there are numerous disadvantages with the box discloses in EP 2599723. For example, the elongated support member is visible which may degrade the perceived visual appearance. Further, the material of the flaps needs to be thick and/or sturdy, as otherwise the box may be sit unstable on top of the elongated support member. Furthermore, the hinged flaps may tear, and there is a risk that the box falls from the elongated support member. Moreover, each time the box is to be inserted over an elongated support member the insertion into the flaps requires additional handling and precision.

[0006] Hence, there is still a desire to at least provide a package or box which improves the appearance of the packaging for products to be supported or suspended from elongated support members. Further, it is desirable to provide a package or box which reduces the time and handling required for e.g. refilling shelves, racks or boards. There is thus a need for improving the state of the art to provide packaging for products to be suspended or supported from elongated support members.

Summary of the invention

[0007] It is an object of the present invention to solve at least some of the above problems, and to provide an improved box for displaying and holding consumer goods on an elongated support member.

[0008] The invention is based on the insight that by having a support portion arranged above the bottom of the box, and which support portion is adapted to support the box on the elongated support member, the elongated support member does not have to be visible for a consumer and hence a box may get an improved visual appearance where the box is perceived as floating in the air while supported by the elongated support member. By having a space at least partly above the support portion the box is adapted to receive the consumer goods above the support portion and hence cover the elongated support member inside the box and at the same time accomplish that the consumer goods are easy to remove from the box, as the elongated support member is not in the way for a consumer reaching into the box for a consumer good arranged therein.

[0009] According to a first aspect of the present invention, there is provided a box for displaying and holding consumer goods on an elongated support member, which elongated support member is adapted for displaying and dispensing articles of the type which have holes for suspending the articles from the elongated support member, the box comprises a bottom, at least a first sidewall, and at least one area in the first side wall or in the

bottom via which area the box is adapted to receive the elongated support member, a support portion arranged above the bottom and adapted to support the box on the elongated support member, and a space arranged at least partly above the support portion, the space being adapted to receive the consumer goods above the support portion.

[0010] An advantage is that the box requires no additional handling relating to the support portion, such as e.g. handling flaps or the like. This reduces the time need to refill or restock a storage solution with elongated support members. Further, as the support portion does not require any additional handling, the support portion may be made sturdier than e.g. flaps. Thereby, the box may be more securely attached to the elongated support member, and may sit more stable, during use, on the elongated support member. An additional advantage is that products may be arranged within the box, and the box is thereby used to, indirectly, suspend or support the products from an elongated support member. Hence, the need for additional packaging or adaption of the packaging of product is reduced. This also means that the box reduces the time required by personnel in a store to refill or restock products as the each product does not need to be handled separately. Another advantage is that since no support portion is arranged protruding from the bottom of the box, the box may equally well be suited for being arranged standing on a shelf. Hence, the number of different packaging solutions for each product may be reduced, as the box may standardize the packaging for some products. Thereby, it may also be possible to reduce the costs related to transport of the products.

[0011] The support portion enables the box to be supported during use by arranging said elongated support member between said support portion and said bottom. Hence, it is understood that using a box for consumer goods may comprise sliding the box over a elongated support member, e.g. inserting the elongated support member into the box, such that the elongated support member is received via at least one area in the first side wall or in the bottom and the box becomes supported on the elongated support member by the support portion arranged above the bottom. In the context of this application, any terms determining a relative position such as 'above' or the like should be construed as being described during the use of the box.

[0012] The space arranged at least partly above the support portion should be understood to be at least partly delimited by the bottom and sidewalls of the box. Furthermore, in order to receive the consumer goods above the support portion the top of the space may be open, in other words, the box may be an open-topped box or an at least partly open-topped box. The box may optionally have an opening in the first side wall in order to remove a product from the box. The box may also comprise a lid.

[0013] The at least one area in the first side wall or in the bottom via which area the box is adapted to receive the elongated support member may be arranged towards the bottom of the box in the first sidewall. The at least one area in the first side wall or in the bottom via which area the box is adapted to receive the elongated support member may comprise a hole, or perforations in order to simplify the insertion of an elongated support member through the at least one area. It should of course be noted that the elongated support member may have a sharp end and/or be pointed such that there is no need for a hole or perforations.

[0014] The elongated support member may be an elongated hook or an elongated spear. An elongated spear may comprise two or more straight elongated support members, i.e. two or more prongs. Alternatively, an elongated spear having single straight elongated member may be arranged in proximity of another elongated spear having single straight elongated member such that the two elongated spears form a elongated support member. An elongated hook may be known in the art as a peg hook. An elongated hook, e.g. a peg hook, may comprise and end portion which is bent slightly upwards. An elongated spear may also comprise an end portion which is bent slightly upwards. An elongated spear, an elongated hook, or a peg hook may be attached to a board or a rack which is adapted to hold a plurality of thereto attached elongated spears, elongated hooks, peg hooks.

[0015] According to at least one exemplary embodiment, the support portion is a first support portion arranged at or adjacent to the first sidewall, and the box further comprises a second support portion arranged above the bottom and spaced apart from the first support portion. The second support portion being arranged such that it is adapted to support the box on the elongated support member. This means that the elongated support member, during use, is arranged between the second support portion and the bottom. Hence, it should be understood that separate, e.g. a first and second support portions may be arranged above the bottom. The first and second support portion may be e.g. a portions attached to the bottom of the box and are adapted to receive the elongated support member through the portion. The portions may be pre-formed or adapted to be bent upwards. The first and second support portion may be formed e.g. by small amount of material left over from producing the box. Alternatively, the first and second support portions may be formed integral to the bottom and/or sidewalls of the box.

[0016] According to at least one exemplary embodiment, the box comprises at least one opening in the area in the first side wall, and the support portion may be formed by the opening in the first sidewall or arranged adjacent the first side wall. Advantageously, the support portion is formed by an at least one opening in the area in the first sidewall which is adapted to receive the elongated support member, thereby using the strength of the sidewall to perform the support function. Alternatively, the support portion is formed adjacent to the first sidewall. The opening may be configured to be formed by punching the area in the sidewall adapted to receive the elongated

support member. For example, the opening may comprise perforations outlining a larger opening intended to receive the elongated support member. Hence, the opening may easily be formed by punching the area with the elongated support member while arranging the box to be supported from the elongated support member. Alternatively, the opening is a through going hole formed e.g. while manufacturing the box.

[0017] According to at least one exemplary embodiment, the support portion extends from or adjacent to the first sidewall towards a second sidewall, which is arranged opposite to the first side wall. By having a support portion which extends towards a second side wall the support portion gets an elongated extension, which enables the box to sit stable on the elongated support member. The support portion may extend for a portion of the longitudinal extension of the box from the first sidewall to the second sidewall.

[0018] According to at least one exemplary embodiment, the support portion may extend for about 20-30 %, or 30-40 %, or 40-50%, or 50-60 %, or 60-70 %, or 70-80%, or 80-90%, or more than 90% of the longitudinal extension of the box from the first sidewall to the second sidewall.

[0019] According to at least one exemplary embodiment, the support portion may extend for substantially the entire length of the longitudinal extension of the box from the first sidewall to the second sidewall.

[0020] According to at least one exemplary embodiment, the length of the support portion is less than the length of the elongated support member to be received. Configuring the support portion to be shorter than the elongated support member which is to be received may allow the support portion to be adapted to features of e.g. the elongated support member. For example, it is common that the elongated support members which are used in stores have an end portion which is bent slightly upwards in order to prevent products hanging thereon for falling off.

[0021] According to at least one exemplary embodiment, the support portion is approximately 230 mm long or less, while an elongated support member, e.g. a peg hook or elongated spear to be received may vary in length between 100 and 400 mm in increments of 50 mm. Further, the width of a peg hook or elongated spear, to be received typically varies between 26 and 30 mm.

[0022] According to at least one exemplary embodiment, the support portion is an insert adapted to be arranged on the bottom. Herewith, the support portion may be understood as an additional separate part formed by an insert. Alternatively, the insert may be formed by an additional portion integral to the material supplied to form the box. The additional portion may be glued onto the material which is supplied for making the box before e.g. folding is performed, or may be an additional flap of the flat material before e.g. folding the material into the box.

[0023] The insert may be held, e.g. secured or attached to the bottom of the box by the sidewalls of the box being configured such that when folded, the sidewall hold the insert to the bottom. Alternatively, the insert may be attached or secured to the bottom by any suitable attachment means such as glue, rivets, thumbtacks, protrusions in the insert matching corresponding recesses in the sidewalls of the box, etc.

[0024] According to at least one exemplary embodiment, the insert is an additional bottom. Thereby, the box may be understood to have a double bottom, when the insert is arranged on the bottom, as the elongated support member, during use, is received between the bottom and the additional bottom of the insert.

[0025] The insert may have an additional surface facing upwards, the additional surface being supplied with openings having a shape adapted to receive consumer goods. Thereby, the insert can also be used to set product having complex shapes, or products which are to be presented to a customer in an upright orientation. Alternatively, a product insert may be used to provide an additional surface facing upwards, the additional surface being supplied with openings having a shape adapted to the receive consumer goods.

[0026] According to at least one exemplary embodiment, a portion of the insert is arranged a distance from the bottom and the portion forms together with the bottom an elongated channel, which elongated channel accommodates the elongated support member between the insert and the bottom during use. The elongated channel may be essentially straight.

[0027] The elongated channel may be on both sides delimited by walls in the longitudinal direction of the elongated channel, at least one of the walls being part of the insert. Hence, the elongated channel may also be understood as an elongated tunnel which is delimited by the bottom, the insert, and the walls, of which at least one wall may be part of the insert. The walls in the longitudinal direction prevent the box from moving laterally, during use, on the elongated support member.

[0028] In other words, the insert may comprises at least one protruding portion extending from the insert, the protruding portion being in contact with the bottom of the box in use, whereby at least one space is defined between the insert and the bottom for receiving the elongated support member. The at least one protruding portion may be formed by an additional layer of material which is attached to the insert e.g. by glue. At least two such protruding portions may form an elongated channel which defines the at least one space for receiving the elongated support member. Hence, the protruding portions themselves may also be elongated to form the walls of the elongated channel.

[0029] According to at least one exemplary embodiment, the elongated channel comprises a first section and a second section and the first section may be wider than the second section. The first section may thus facilitate the insertion of the elongated support member. Hence, the first section of the elongated channel may be understood to be arranged towards the at least one area

via which area the box is adapted to receive the elongated support member

[0030] According to at least one exemplary embodiment, the elongated channel may further comprise a third section arranged opposite the first section, and the insert comprises an opening at least partly matching the third section, the opening faces the space of the box, such that the elongated support member is allowed to protrude through the opening during use, wherein the third section is wider than the second section.

[0031] That the opening at least partly matches the third section in this case means that the opening at least partly has the same shape and/or size as the third section of the elongated channel. In particular, the opening allows an end portion of an elongated support member which is bent slightly upwards to partly protrude through the opening. The third section being wider than the second section allows the third section of the elongated channel to receive the elongated support member with less deformation to the insert while the elongated support member is inserted into the elongated channel and into the third section.

[0032] According to at least one exemplary embodiment, the second section is configured such that the distance between the two walls forming the elongated channel is smaller than the width of the elongated support member which is to be received in the elongated channel and at least one of the walls are adapted to deform by the elongated support member. Thereby, the elongated support member is securely held, during use, in the box by the second section of the elongated channel in which at least one of the walls deforms to receive the elongated support member, as the deformation of the material provide a force counteracting the deformation.

[0033] According to at least one exemplary embodiment, the box comprises at least two elongated channels spaced apart from each other, each elongated channel being adapted to receive an elongated support member. For products requiring a wider box, the box may comprise at least two elongated channels spaced apart such that the box sits securely on at least two elongated support members. These two elongated channels may be identical in design or they may differ.

[0034] According to at least one exemplary embodiment, the insert comprises deformable material, whereby the support portion is formed, in use, by inserting the elongated support member through the insert. Thereby, there may be no requirement to provide a pre-defined elongated channel or the like to receive the elongated support member. Further, the deformable material making space for the elongated support member may be compressed and thereby more securely hold the elongated support member by providing a force counteracting the deformation.

[0035] The deformable material may comprise styrofoam. The styrofoam may be selected such that it has properties, e.g. density and plasticity, which allows an elongated support member being either an elongated hook, or an elongated spear to penetrate the styrofoam. Alternatively, the deformable material may comprise corrugated cardboard. The corrugated cardboard may also be selected such that it allows for the elongated support member being either an elongated hook, or an elongated spear to penetrate the corrugated cardboard. Alternatively, the deformable material may comprise a rubber or plastic material which is deformable such that it allows for the elongated support member being either an elongated hook, or an elongated spear to penetrate the rubber or plastic material.

[0036] Alternatively, the deformation may be provided by one or more flexible elongated members arranged in the longitudinal direction of the box. The one or more flexible elongated members being bent such that they may receive the elongated support member between the one or more flexible elongated member and a sidewall of the box, or between two or more such flexible elongated members. The elongated flexible members may be made of e.g. spring steel, plastic or similar material in order has an elasticity which may allow them to return to their original shape.

[0037] According to at least one exemplary embodiment, the box is formed by folding. Hence, the box may be supplied as a pre-formed or pre-cut shape of flat sheet material which when folded forms a box in accordance with the first aspect of the invention.

[0038] According to at least one exemplary embodiment, the box is a cardboard box. Cardboard is cheap, recyclable and a common material used for packaging and e.g. boxes formed through folding a sheet of cardboard. Alternatively, the box may comprise plastic material.

[0039] Generally, all terms used in the claims are to be interpreted according to their ordinary meaning in the technical field, unless explicitly defined otherwise herein. All references to "a/an/the [element, device, component, means, step, etc.]" are to be interpreted openly as referring to at least one instance of said element, device, component, means, step, etc., unless explicitly stated otherwise.

[0040] Further features of, and advantages with, the present invention will become apparent when studying the appended claims and the following description. The skilled person realizes that different features of the present invention may be combined to create embodiments other than those described in the following, without departing from the scope of the present invention.

Brief description of the drawings

[0041] The above, as well as additional objects, features and advantages of the present invention, will be better understood through the following illustrative and non-limiting detailed description of embodiments of the present invention, with reference to the appended drawings, where the same reference numerals will be used for similar elements, wherein:

Figure 1 shows a perspective view of a box with a support portion exploded from the box in accordance with a first embodiment of the invention and an elongated support member;

Figure 2 shows the box in figure 1 partly assembled and in a different perspective view and with the elongated support member arranged in the box;

Figure 3 shows a perspective view of a box according to a second embodiment of the invention;

Figure 4 shows a perspective view of the box in figure 1, 2 or 3 folded together;

Figure 5 shows a perspective view of a box in accordance with a third embodiment of the invention;

Figure 6a is a bottom-up view of the insert shown in figure 1 and figure 2;

Figure 6b shows cross-section A-A of the support portion in figure 6b; and

Figure 7 shows cross-section B-B of the partly assembled box shown in figure 2.

Detailed description of preferred embodiments of the invention

[0042] In the present detailed description, embodiments of a box according to the present invention are mainly discussed with reference to views showing a box according to various embodiments of the invention. It should be noted that this by no means limits the scope of the invention, which is also applicable in other circumstances for instance with other types or variants of boxes or elongated support members than the embodiments shown in the appended drawings. Further, that specific features are mentioned in connection to an embodiment of the invention does not mean that those components cannot be used to an advantage together with other embodiments of the invention.

[0043] Generally for all the embodiments shown in the appended drawings and described below, the boxes showed therein is formed by folding. Hence, the boxes may be supplied as a pre-formed or pre-cut shape of flat sheet material which when folded forms a box in accordance with the different embodiments. For example, the boxes may be cardboard boxes. Alternatively, the boxes may comprise plastic material, or be entirely made from plastic. The invention will now be described with reference to the enclosed drawings where first attention will be drawn to the structure, and secondly to the function.

[0044] Figure 1 shows a perspective view of a box 100. The box 100 comprises a bottom 102, a first sidewall 104, a second sidewall 106 opposite the first sidewall 104, a third sidewall 108, and a fourth sidewall 110 opposite the third sidewall 108. The sidewalls 104, 106, 108, 110 thus form a substantially rectangular shape as seen from above. The bottom 102 and the sidewalls 104, 106, 108, 110 define a space above the bottom 102 in which consumer goods may be received. Hence, the box 100 may be understood as an open-topped box.

[0045] The box 100 is used for displaying and holding consumer goods on an elongated support member 300. The elongated support member 300, as shown in figure 1 is typically adapted for displaying and dispensing articles, e.g. products, of the type which have holes, or additional packaging for suspending the articles from the elongated hook 300. The elongated support member 300 shown in figure 1 has an end portion 302 which connect two prongs, and may therefore be known as an elongated hook 300. The end portion 302 is bent slightly upwards in order to prevent articles from falling of the elongated hook 300 when the elongated hook is attached horizontally from a board or a rack. It is of course possible to use the box 100 with another type of elongated hook 300, for example without any end portion 302 which connects the two prongs, e.g. where two prongs represents the elongated hook 300. Alternatively, the elongated hook may just comprise one or more prongs, e.g. substantially straight elongated members, which in use support the box 100.

[0046] The box 100 comprises at least one area in the bottom 102 or one of the sidewalls 104, 106, 108, 110 via which area the box 100 is adapted to receive the elongated hook 300. In the embodiments shown throughout the appended drawings, and thus for the embodiment shown in figure 1 the area is shown as an opening 112, e.g. a through-going hole 112 in the first sidewall 104. Alternatively, the opening 112 may comprise several through-going holes, or a perforation outlining an opening to be punched, in order to simplify the insertion of the elongated hook 300. It should of course be noted that the elongated hook 300 may instead have a sharp end and/or be pointed such that there is no need for a preformed hole(s) or perforations and the opening 112 is thus formed in e.g. the first sidewall 104 by the insertion of the elongated hook 300.

[0047] As shown in Figure 1 the third sidewall 108 has first portion 108a, and a second portion 108b. The first portion 108a, in use, forms an outer side of the third sidewall 108, and the second portion 108b, in use, forms an inner side of the third sidewall 108. In figure 1 the second portion 108b is shown in an upright position prior to folding the second portion 108b into the box 100. In figure 4, the second portion 108b is shown folded into the box 100. The second portion 108b of the third sidewall has two locking protrusions 109a arranged at opposite ends of the second portion 108b. The first sidewall 104 and the second sidewall 106 has locking recesses 109b which correspond to the two locking protrusions 109a of the second portion 108 b of the third sidewall. Likewise, the fourth sidewall 110 has first portion 110a, and a second portion 110b. The first portion 110a, in use, forms an outer side of the fourth sidewall 110, and the second portion 110b, in use, forms an inner side of the fourth sidewall 110. In figure 1 the second portion 108b is shown in an upright position prior to folding the second portion 108b into the box 100. The second portion 110b of the fourth sidewall has two locking protrusions 111 a arranged at opposite ends of the second portion 110b. The

first sidewall 104 and the second sidewall 106 have locking recesses 111 b which correspond to the two locking protrusions 111 a of the second portion 110b of the third sidewall.

[0048] The box further comprises a support portion formed by an insert 200. The insert 200 has an outer shape which corresponds the bottom 102 such that the insert is elongated and extends from the first sidewall 104 to the second sidewall 106, and from the third sidewall 108 to the fourth sidewall 110. The insert 200 comprises a first protruding portion 214 and a second protruding portion 216. The first and second protruding portions 214, 216 in use, acts as spacers for a portion of the insert 200, e.g. layer 230, such that the layer 230 is arranged at a distance from the bottom 102 of the box 100 when the insert 200 is placed on the bottom 102 of the box 100. When the insert 200 is placed on the bottom 102, the layer 230 and the protruding portions 214, 216 thereby creates an elongated channel 202 which can accommodate the elongated hook 300 between the insert 200 and the bottom 102 during use. The insert 200 comprises an opening 218 which, in use, faces the space inside the box 100, such that the end portion 302 of the elongated hook 300 may protrude through the opening 218.

[0049] It should be noted that the opening 218 in the insert 200 is optional. For example, when the elongated support member is a straight elongated spear or the like without an end portion which is bent slightly upwards, there is no need for the opening 218 and the layer 230 may cover substantially the entire bottom 102.

[0050] In use, the insert 200 is placed on the bottom 102 of the box 100 between the sidewalls 104, 106, 108, 110 as indicated by the arrow in figure 1. Note that the insert 200 is placed such that the protruding portions 214, 216 are facing the bottom 102. Subsequently, the second portion 108b of the third sidewall is folded about the first portion 108a such that the second portion 108b is aligned substantially parallel with the first portion 108a, and such that the locking protrusions 109a of the second portion engage with the locking recesses 109b. The second portion 110b of the fourth sidewall is folded about the first portion 110a such that the second portion 110b is aligned substantially parallel with the first portion 110a, and such that the locking protrusions 111 a of the second portion engage with the locking recesses 111 b. Thereby, the insert 200 is secured to the box, i.e. the bottom 102, by being held to the bottom 102 by the second portion 108b of the third sidewall and the second portion 110b of the fourth sidewall. The insert 200 thereby forms an additional bottom by the layer 230. A perspective view of the box 100, with the insert 200 placed on the bottom 102 is shown in figure 2. A view of the box 100, with the insert 200 placed on the bottom 102 and the second portions 108b, 110b of the third and fourth sidewalls 108, 110 folded is shown in figure 4.

[0051] With the insert 200 placed and secured to the bottom 102, the box 100 is ready to receive the elongated hook 300 via the opening 112, below the insert 200, through the elongated channel 202 and thereby be supported from the elongated hook 300 by the insert 200. The space 1000, see figure 4, above the insert 200 is adapted to receive consumer goods.

[0052] The insert 200, as mentioned previously, extends from the first sidewall 104 to the second sidewall 106 to create a support portion which extends along the longitudinal extension of the box, from the first sidewall 104 towards the second sidewall 106 of the box 100. It is of course possible and within the scope of the invention that the insert 200 only extends partially from the first sidewall 104 to the second sidewall 106, such that the support portion extend for about 20-30 %, or 30-40 %, or 40-50%, or 50-60 %, or 60-70 %, or 70-80%, or 80-90%, of the longitudinal extension of the box 100 from the first 104 sidewall to the second sidewall 106.

[0053] It should of course be noted that the insert 200 may be attached or held to the bottom 102 by other means than the second portion 108b and 110b, such as glue, rivets, thumbtacks, the insert 200 having protrusions which match corresponding recesses in the sidewalls 104, 106, 108, 110 of the box 100, etc.

[0054] In one alternative embodiment (not shown), the insert 200 may be attached via e.g. hinged means to either one of the second portions 108b, 110b of the sidewalls in order reduce the risk that either the box 100 or the insert 200 becomes separated and either one lost.

[0055] Figure 2 shows a perspective view of the box 100 in figure 1 where the insert 200 has been placed in the bottom 102, and the insert 200 forms an additional bottom by the layer 230 above which the consumer goods may be received. The elongated hook 300 is also shown inserted through the opening 112 (see figure 1) where the end portion 302 of the elongated hook protrudes through the opening 218 of the insert 200. The opening 218 is discussed in further detail in connection to figure 7 below.

[0056] Figure 3 shows a perspective view of a second embodiment of the box 400. The box 400 is similar to the box 100 shown in figure 1, and the all features shown with reference numerals have the same or substantially similar functionality. However, one difference is that the insert 200 of figure 1 is not provided as a separate part or piece, it is instead formed by a first insert portion 112 and a second insert portion 114 being attached or formed integrally to the third and fourth sidewalls 108, 110, respectively. The first insert portion 112 has an elongated recess 113. The second insert portion 114 has an opening 115. The opening 115 is similar to the opening 218 of the insert 200, referred to in connection with e.g. figure 1 previously and figure 7 below.

[0057] Hence, as is understood and indicated by the arrows in figure 3, the second portion 108b of the third sidewall 108 is folded about the first portion 108a of the third sidewall, and the first insert portion 112 is folded such that it is arranged on the bottom 102. Subsequently, the second portion 110b of the fourth sidewall is folded

about the first portion 110a of the fourth sidewall, and the second insert portion 114 is folded such that it is arranged on the first insert portion 112. The first and second insert portions 112, 114 are secured to the bottom by the locking protrusions 109a, 111 a engaging the locking recesses 109b, 111 b in the same manner as described in connection with figure 1. Alternatively, the second insert portion 114 may comprise a protrusion (not shown) which locks into a recess (not shown) of the second portion 108b of the third sidewall facing the inside of the box when the second portion 108b has been folded. It should of course be noted that the insert portions 112, 114 may be attached or held to the bottom 102, or to each other, by other means than the locking protrusions 109a, 111 a and locking recesses 109b, 111 b, such as glue, rivets, thumbtacks, the insert 200 having protrusions which match corresponding recesses in the sidewalls 104, 106, 108, 110 of the box 100, etc.

[0058] In the folded state, the elongated recess 113 forms an elongated channel similar to the elongated channel 202 referred to in connection with figures 1, 6a, and 6b, together with the bottom 102 and the second insert portion 114. It is of course possible that the elongated recess 113 comprises the same sections and features as referred to in figures 6a and 6b below in connection with the elongated channel 202 and insert 200.

[0059] Figure 4 shows a perspective view of either one of the boxes 100, 400 shown in figure 1, 2 or 3 where the insert 200 or insert portions 112, 114 has or have been arranged or placed on the bottom and the sidewall portions 108b, 110b folded to secure the insert to the bottom of the box 100, 300.

[0060] Figure 5 shows a perspective view of a third embodiment of the box 500. The box 500 is similar to the box 100 shown in figure 1, and the all features shown with reference numerals have the same or substantially similar functionality. However, rather than having the support portion being formed by an insert 200 as in figure 1, the box 500 comprises a first support portion formed by the opening 112 in the first sidewall 104 and a second support portion 250 arranged above the bottom 102 and spaced apart from the first support portion 112.

[0061] The second support portion 250 is arranged and adapted to support the box 400 on the elongated hook 200 e.g. by receiving the elongated hook 300 between the second support portion 250 and the bottom 102. Hence, the second support portion 250 may be any kind of loop, bridge like member or fastener which allows the elongated hook 300 to protrude through the second support portion 250. The second support portion 250 may be integrated in the bottom 102 of the box 300, or supplied separately and attached during assembly of the box with any suitable means for attachment such as such as glue, rivets, thumbtacks, or that the second support portion 250 has protrusions which matches corresponding recesses in the sidewalls 104, 106, 108, 110 or the bottom 102 of the box 100, etc.

[0062] In one alternative embodiment not shown in the appended drawings, the first support portion may be formed by a support portion similar to the second support portion 250 shown in figure 5. In such an embodiment the first support portion is arranged adjacent to the first sidewall 104. Hereby, the opening 112 may not support or bear any load when the box is supported or suspended from an elongated hook 300.

[0063] In yet another embodiment not shown in the appended drawings, the second support portion may be formed by an opening in the second sidewall 106 similar to the opening 112. In such an embodiment, the box would be supported or suspended by the first and second sidewalls 104, 106.

[0064] Figure 6a and 6b shows the insert 200 of figure 1 in detail. Now referring to figure 6b, note that the insert 200 comprises the previously mentioned layer 230 intended to form the additional bottom. The layer 230 may have a thickness between 0,05 mm and 5 mm. For example, the layer 230 may be approximately 2 mm thick. The insert 200 comprises a first protruding portion 214 and a second protruding portion 216. The first and second protruding portions 214, 216 may have a thickness between 1 mm and 10 mm. For example, the first and second protruding portions 214, 216 may be approximately 4 mm thick. The first and second protruding portions 214, 216 may be formed by an additional layer of flat material which is attached to the insert 200 e.g. by glue or any other of the previously mentioned attachment means. Alternatively, the first and second protruding portions 214, 216 may be formed by removing material from the insert 200.

[0065] Now referring to figure 6a and 6b, the elongated channel 202 of the insert 200 comprises a first section 220 which is to be arranged closest to the first sidewall 104, and a second section 222 arranged between the first section 222 and a third section 224 arranged towards the opposite end, i.e. towards the second sidewall 106 in use. Thus, as the elongated hook 300 is inserted into the box 100 via the opening 112, the first section 220 is the first section of the elongated channel 202 which the elongated hook 300 encounters. Further, the insert 200 has an opening 218 which matches the third section 224, i.e. the material of the layer 230 is absent e.g. through the pre-formed shape of the layer 230 or by cutting the layer 230, such that the opening 218 in use allows the elongated hook 300, or the end portion 302 of the elongated hook to protrude through the opening 218 (see figure 7).

[0066] Hence, as is understood the elongated channel 202 is defined by a space formed between the insert 200 and the bottom 102 of the box 100, which space is on both sides delimited by walls 215, 217 in the longitudinal direction to define the elongated channel 202. In the embodiments shown in the appended drawings, the walls 215, 217 are formed by the protruding portions 214, 216 of the insert 200. However, it is of course possible that at least one such wall may instead be one of the third and fourth sidewalls 108, 110 of the box 100.

[0067] The second section 222 has substantially the same width d_2 along the longitudinal extension of the elongated channel 202. The first section 220 has a tapered shape with a smaller width d_1, equal to the width d_2 of the second section, where the first section 220 meets the second section 222. The first section 220 tapers to a larger width D_1 where the first section 220 meets on the longitudinal end of the insert 200 which is to be arranged closest to the opening 112 in the box. The tapering of the first section 220 makes the insertion of the elongated hook 300 easier. Likewise, the third section 224 has a tapered shape with a smaller width d_3, equal to the width d_2 of the second section 220, where the third section 224 meets the second section 222. The third section 224 tapers to a larger width D_3 where the third section 224 meets one longitudinal end of the insert 200.

[0068] The width of the d_2 second section 222 is configured such that the distance between the two walls 215, 217 forming the elongated channel 202 is smaller than the width of the elongated hook 300 which is to be received in the elongated channel 202. At least one of the walls 215, 217, e.g. either one or both of the protruding portions 214, 216 is/are adapted to deform by the insertion of the elongated hook 300. Therefore, the insert 200, e.g. the layer 230 and the first and second protruding part 214, 216 may be made of a deformable material. For example, the insert 200, e.g. the layer 230 and the first and second protruding part 214, 216 may be made of cardboard.

[0069] Figure 7 shows cross-section B-B in figure 2 of the box 100 with the elongated hook 300, except that the elongated hook 300 in figure 7 is longer than the elongated hook in figures 1 and 2, arranged in the box. Further, the space 1000 arranged above the insert 200 adapted to receive the consumer goods is clearly seen in figure 7. The end portion 302 of the elongated hook protrudes up through the opening 218 of the insert 200. That the end portion 302 protrudes through the opening 218 means that the box 100 is prevented from being accidentally removed from the elongated hook 300 as the deformation caused to the insert 200 by the end portion 302 being pulled through the elongated channel 202 increases the force needed to pull the box 100, 200 off the elongated hook 300.

[0070] Note that the elongated hook 300 is longer than the box 100 but does not protrude through the second sidewall 106. As the consumer goods are arranged above the insert 200, and the customer encounters the box from the front side, i.e. from the second sidewall 106 towards the first sidewall 104, the box 100 provides an improved visual appearance. The box 100, 200 may also protect a person from harming themselves on the elongated hook 300 which is often made of metal and is thus hard, and may also be sharp or pointed.

[0071] Numerous modifications may be made to the invention and still be within the general inventive concept of the invention. A non-exhaustive list of examples follows below.

[0072] For products requiring a wider box, a box may comprise at least two elongated channels spaced apart such that the box sits securely on at least two elongated support members. Each elongated channel is then adapted to receive an elongated support member. The two or more elongated channels may be identical in design or they may differ.

[0073] The insert may comprises deformable material such that the elongated channel and thus support portion is formed by inserting the elongated support member through the insert.

[0074] The insert may have an additional surface which faces upwards, the additional surface being supplied with openings having a shape adapted to receive consumer goods. Thereby, the insert can also be used to set product having complex shapes, or products which are to be presented to a customer in an upright orientation. Alternatively, a product insert, i.e. a separate insert, is used to provide an additional surface facing upwards, the additional surface being supplied with openings having a shape adapted to the receive consumer goods, in e.g. an upright position.

[0075] The skilled person realizes that a number of modifications of the embodiments described herein are possible without departing from the scope of the invention, which is defined in the appended claims.

Claims

1. A box (100,400, 500) for displaying and holding consumer goods on an elongated support member (300), which elongated support member (300) is adapted for displaying and dispensing articles of the type which have holes for suspending the articles from the elongated support member (300), said box (100,400, 500) comprising:

   - a bottom (102);
   - at least a first sidewall (104);
   - at least one area (112) in said first side wall (104) or in said bottom (102) via which area (112) said box (100,400, 500) is adapted to receive said elongated support member (300);
   - a support portion (200, 250) arranged above said bottom (102) and adapted to support said box on said elongated support member (300); and
   - a space (1000) arranged at least partly above said support portion (200, 250), said space (1000) being adapted to receive said consumer goods above said support portion (200, 250).

2. A box (500) according to claim 1, wherein said support portion is a first support portion (112) arranged at or adjacent to said first sidewall, and said box further comprises a second support portion (250) arranged above said bottom (102) and spaced apart

from said first support portion (112), said second support portion (250) being arranged such that it is adapted to support said box on said elongated support member (300).

3. A box (100,400, 500) according to any one of preceding claims, wherein said box (100,400, 500) comprises at least one opening (112) in said area in said first side wall (104) and said support portion is formed by said opening (112) in said first sidewall or arranged adjacent said first side wall.

4. A box (100,400, 500) according to any one of preceding claims, wherein said support portion (200, 250) extends from or adjacent to said first sidewall (104) towards a second sidewall (106), which is arranged opposite to said first side wall (104).

5. A box (100, 400) according to claim to any one of preceding claims, wherein said support portion is an insert (200, 112, 114) adapted to be arranged on said bottom (102).

6. A box (100, 400) according to claim 5, wherein said insert (200, 112, 114) is an additional bottom.

7. A box (100, 400) according to claim 5 or 6, wherein a portion (230) of said insert (200) is arranged a distance from said bottom (102) and said portion (230) forms together with said bottom (102) an elongated channel (202), which elongated channel (202) accommodates said elongated support member (300) between said insert (200) and said bottom (102) during use.

8. A box (100, 400) according to claim 7, wherein said elongated channel (202) is on both sides delimited by walls (215, 217) in the longitudinal direction of said elongated channel (202), said walls (215, 217) being part of said insert (200).

9. A box (100, 400) according to claim 7 or 8, wherein said elongated channel (202) comprises a first section (220) and a second section (222) and said first section (220) is wider than said second section (222).

10. A box (100, 400) according to claim 9, wherein said elongated channel (202) comprises a third section (224) arranged opposite said first section (220), and said insert (200) comprises an opening (218) at least partly matching the third section (224), said opening (218) faces the space (1000) of the box (100, 400), such that the elongated support member (300) is allowed to protrude through the opening during use, wherein said third section (224) is wider than said second section (222).

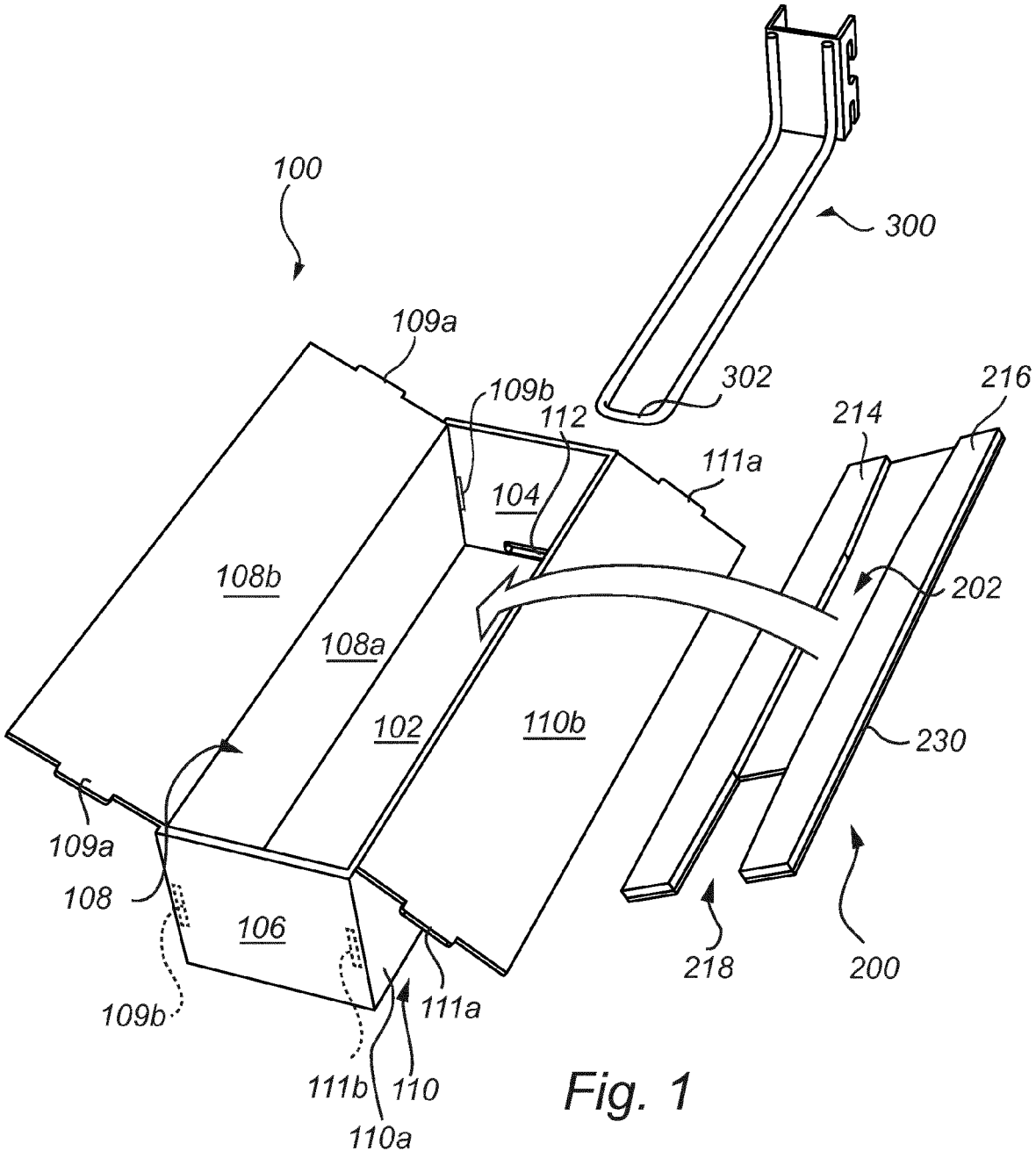
11. A box (100, 400) according to claim 8, 9 or 10, wherein said second section (222) is configured such that the distance between said two walls (215, 217) forming said elongated channel (202) is smaller than the width of the elongated support member (300) which is to be received in said elongated channel (202) and at least one of said walls (215, 217) are adapted to deform by said elongated support member (300).

12. A box (100, 400) according to any one of 8-11, wherein said box comprises at least two elongated channels spaced apart from each other, each elongated channel being adapted to receive an elongated support member (300).

13. A box (100, 400) according to any one of claims 5-12, wherein said insert (200) comprises deformable material, whereby said support portion is formed, in use, by inserting said elongated support member (300) through said insert.

14. A box (100, 400, 500) according to any one of the preceding claims, wherein said box is formed by folding.

15. A box (100, 400, 500) according to any one of the preceding claims, wherein said box is a cardboard box.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218
200
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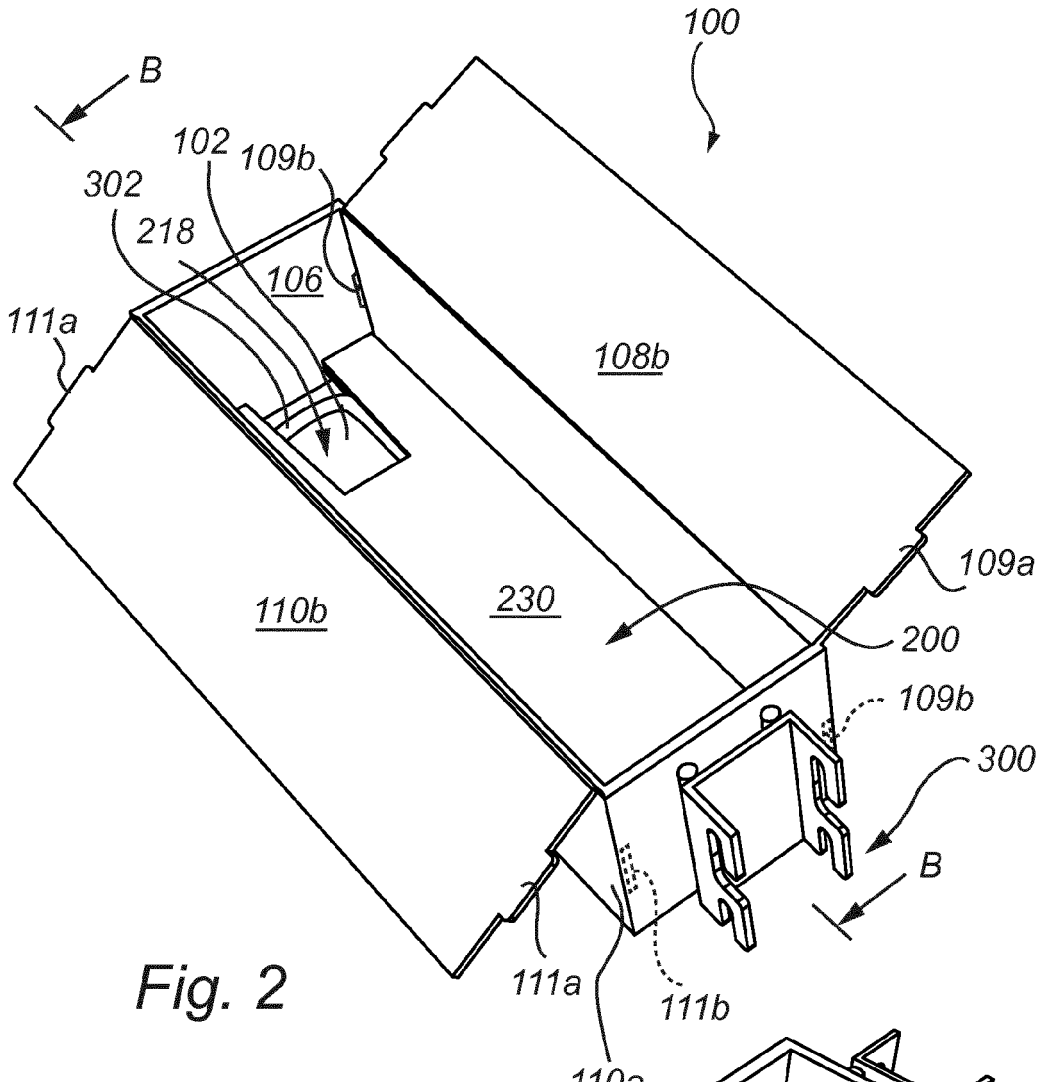
110
110a

Fig. 1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B
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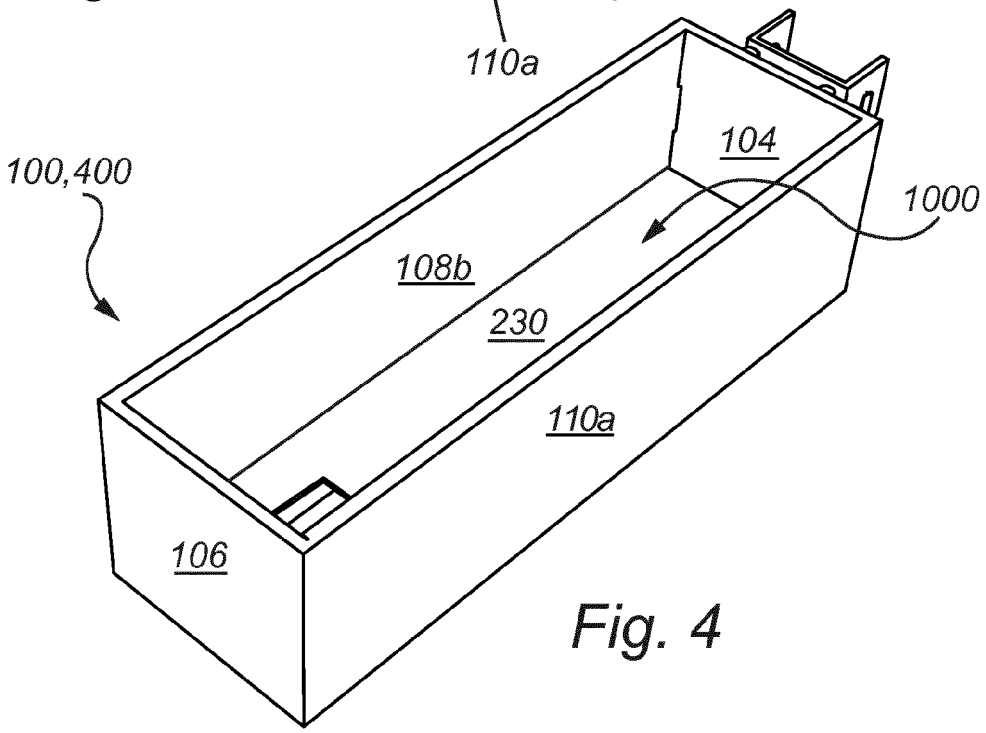
110a

Fig. 2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106

Fig. 4

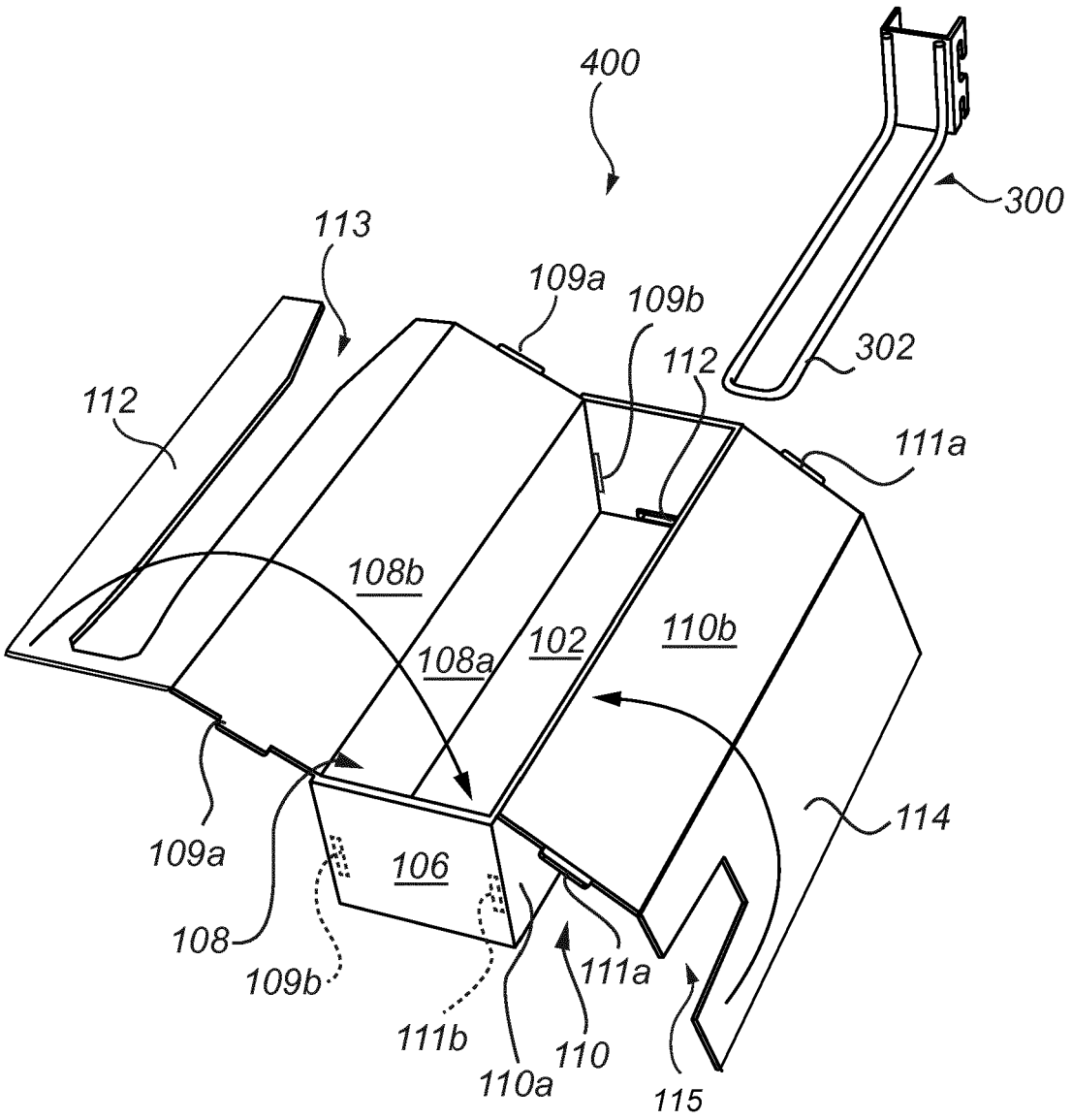
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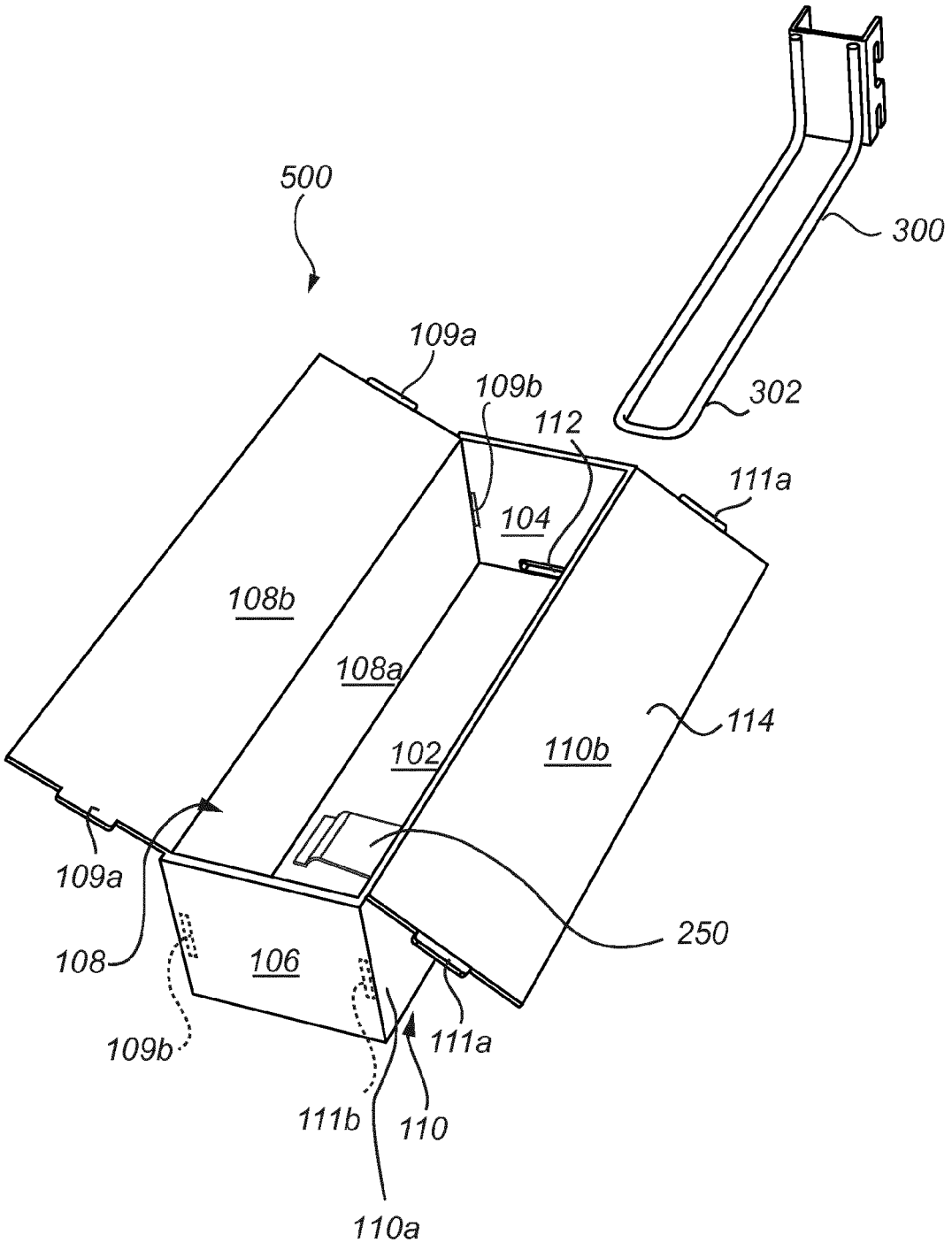
Fig. 3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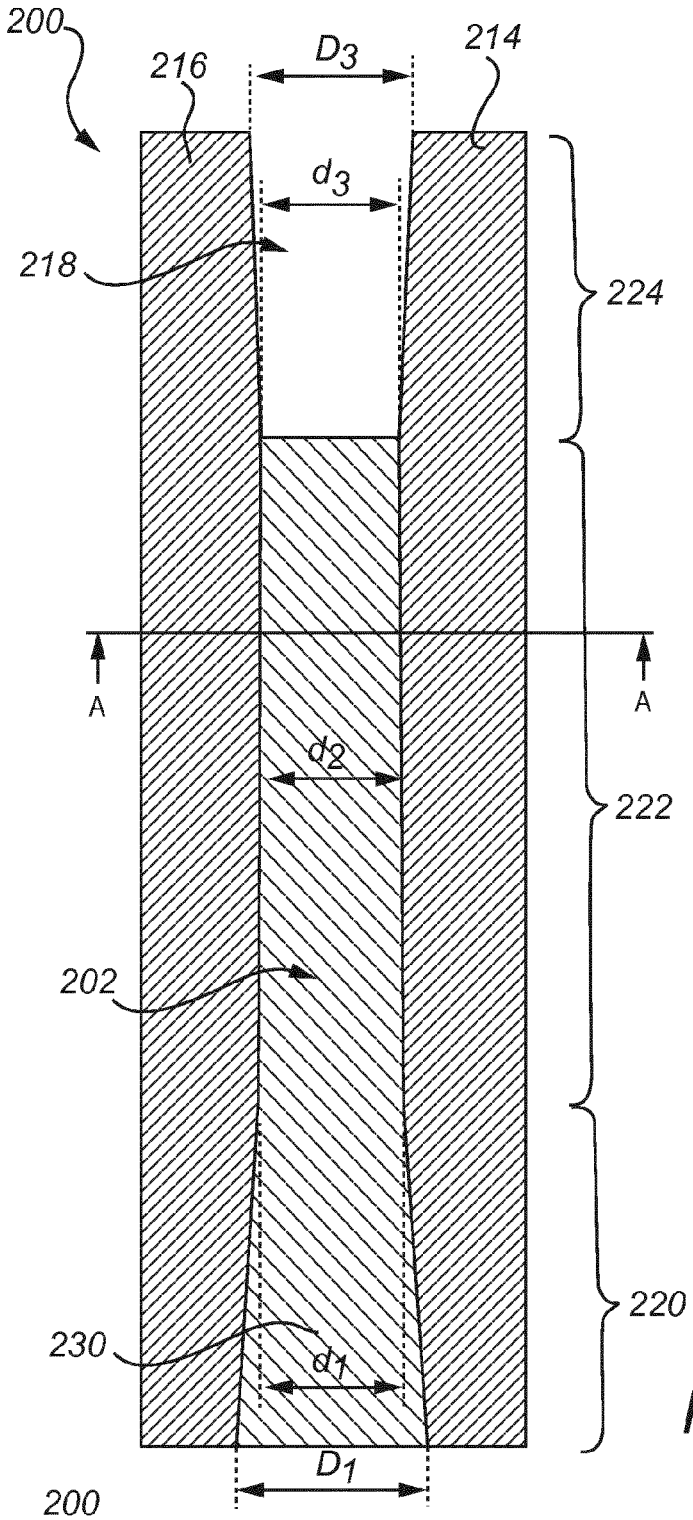
111b
110
110a

Fig. 5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218
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A
d_2
222
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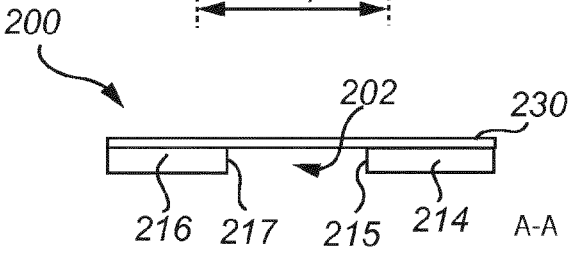
220
230
d_1
D_1

Fig. 6a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217
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214
A-A

Fig. 6b

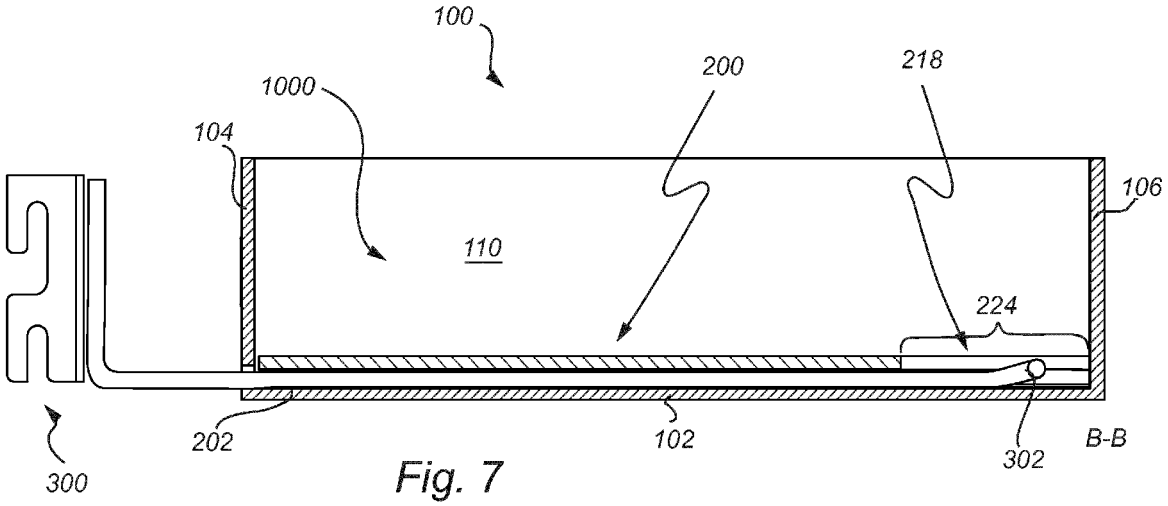

Fig. 7

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EUROPEAN SEARCH REPORT

Application Number
EP 15 17 4545

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X A	DE 91 09 972 U1 (TIPP-EX GMBH & CO KG) 29 October 1992 (1992-10-29) * page 4, lines 21-36 * * page 9, line 10 - page 12, line 37; figures 1-12 *	1-8, 10-15 9	INV. B65D5/42 B65D5/44
X	US 2012/085770 A1 (LY BUNLIM [US]) 12 April 2012 (2012-04-12) * paragraph [0015] - paragraph [0016]; figures 1-5 *	1-4,14, 15	
A	US 4 560 062 A (VALIULIS STANLEY C [US]) 24 December 1985 (1985-12-24) * column 1, line 59 - column 3, line 11; figures 1-5 *	1	
A,D	EP 2 599 723 A1 (DS SMITH PACKAGING DEUTSCHLAND STIFTUNG & CO KG [DE]) 5 June 2013 (2013-06-05) * paragraph [0025] - paragraph [0029]; figures 1-12 *	1	

TECHNICAL FIELDS SEARCHED (IPC)

B65D
A47F

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	6 November 2015	Grondin, David

CATEGORY OF CITED DOCUMENTS

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06-11-2015

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

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