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(54) **Holder**

(57) Holder for sheet-shaped products, such as information sheets, brochures, etc., which holder comprises two opposing side walls (40, 50), a rear wall (20), a front wall (30), situated opposite the rear wall, and a bottom wall (60), which walls together define a product space (70) for supportive reception of the products, and an opening, situated opposite the bottom wall, which allows the products to be introduced in a feed-in direction (A) from the opening towards the bottom wall. For the purpose of allowing effective stacking and providing satisfactory product support, the walls are configured to allow slide-in stacking of a number of holders (1, 1') in a stacking direction (B) which is substantially perpendicular to the feed-in direction (A), in which slide-in stacking the product space (70) of a first holder (1) receives at least one of the walls (20') of a second holder (1').

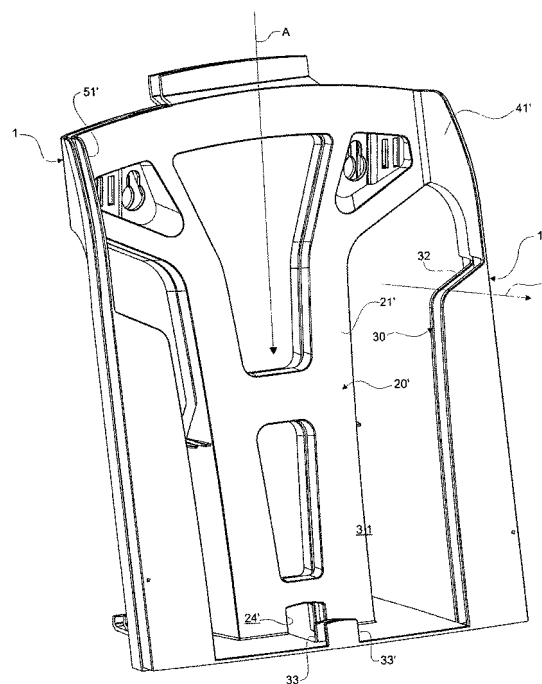


Fig. 4

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Description

Field of the invention

[0001] The invention relates to a holder for sheet-shaped products, such as information sheets, brochures and the like. The invention also relates to a method of stacking such holders

Background and Prior Art

[0002] Such holders are used, for example, in shops, kiosks, receptions and at exhibitions. The primary aim of the holders is to store and keep in order a bundle of sheet-shaped products and, at the same time, to allow individual specimens of the products to be grabbed and taken from the holder. Such a holder usually comprises a number of walls which together define a product space, the dimensions of which are adapted to correspond to the dimensions of the intended bundle. The holders are often configured such that the products rest on a lower wall of the holder. Moreover, it is customary for at least one of the side walls of the holder to be configured to give support to a corresponding side portion of the bundle in order to keep the bundle tidy and prevent individual sheet-shaped products from being displaced in the lateral direction in relation to other products in the bundle. The holders usually have a feed opening, which allows a bundle of the products to be introduced into the product space when products are replenished. Usually, individual products are taken out through the feed opening, but it may also be that the holder has a second opening through which individual products can be removed. In the transport and storage of such holders, the holders are usually stacked one upon the other or side by side, which means that the spatial requirement is at least as great as the sum of the external volume of the stacked number of holders.

[0003] In order to reduce the spatial requirement in the storage and transport of other types of containers, it is known to configure the containers such that they can be insertably stacked or nested together. For this purpose, such containers are usually configured such that a part of a first container can be led in through the product feed-in opening in a second container and is received in the product space of the second holder. When a plurality of containers are stacked or nested in this way, the total volume for the stack will thus be less than the sum of the volumes of the containers included in the stack. A reduction of the volume to be stored or transported is thereby obtained. This type of slide-in stacking or nesting is not suitable for holders for bundles of sheet-shaped products, however, since it requires diverging walls, which do not give satisfactory support to the products. Moreover, the external dimensions of such holders are substantially larger than the dimensions of the bundle for which they are intended, which produces a relatively large spatial requirement. In addition, such holders give an aestheti-

cally disadvantageous visual impression.

[0004] WO 2005/097518 A1 discloses a stackable article holder according to the preamble of claim 1. At this known type of holder the walls are configured such that the interest of providing satisfactory product support in all directions is in conflict with the interest of allowing compact stacking.

Summary of the invention

[0005] One object of the invention is to provide an improved holder for sheet-shaped products. Another object is to provide such a holder which allows more effective stacking, in terms of volume, of a plurality of stacked together holders.

[0006] These and other objects are achieved with a holder of the kind which is defined in the preamble to Patent Claim 1 and which has the features defined in the characterizing part of the patent claim. The holder, which is suitable for sheet-shaped products such as information sheets, brochures, etc., comprises two opposing side walls, a rear wall, a front wall, situated opposite the rear wall, and a bottom wall, which walls together define a product space for supportive reception of the products, and an opening, situated opposite the bottom wall, which allows the products to be introduced in a feed-in direction from the opening towards the bottom wall. The walls are configured to allow slide-in stacking or nesting of a number of holders in a stacking direction which is substantially perpendicular to the feed-in direction, in which slide-in stacking, one of the walls of a second holder is received in the product space of a first holder. The two opposing side walls each comprise, in the direction away from the rear wall, a mutually diverging portion. The rear and the front wall each comprise a breached portion and an unbreached portion, the breached portion of the one of the rear and front walls being disposed such that, in the stacking direction, it overlaps with the unbreached portion of the other of the rear and front walls.

[0007] In previously known insertably stackable or nesting containers, the containers are stacked by a part of a second container being led in the feed-in direction in through the feed-in opening for the products, so as to be received in the product space. The inventors of the present invention have realized that an effective stacking, in terms of volume, can be achieved if the holders are instead configured such that it is possible to stack a second holder onto a first holder by leading the second holder to the first holder substantially perpendicularly to the feed-in direction. Especially in holders which are configured to receive bundles of, for example, information sheets, brochures and the like, the invention yields a considerable advantage from the stacking viewpoint. The height and the width of such a bundle is defined by the height and width respectively of the sheet-shaped products included in the bundle.

[0008] The thickness of the bundle is defined by the sum of the thicknesses of the sheet-shaped products in-

cluded in the bundle. The thickness of the bundle is usually substantially less than both the width and the height. To enable the holder to keep an upright bundle in order, i.e. hold the sides of the bundle substantially level, the holder is required to have three walls which act as support for the sides of the bundle. In order to allow slide-in stacking of the holders, it is further required that these walls are diverging in pairs in the stacking direction, so that one holder can be introduced into another. The inventive configuration of the holder, for stacking substantially perpendicularly to the feed direction, allows just the shortest walls, i.e. the walls supporting the bundle in the lateral direction, to be made mutually diverging. Since these walls have only a small height, corresponding to the thickness of an intended thickest bundle, the difference between the greatest and the least distance between the side walls, which diverge in pairs, will be relatively small. The total width of the holder is thereby reduced, which helps to reduce the total volume of the stacked holders. At the same time, the diverging walls, by virtue of their relatively small height, will be able to be relatively closely adjoined to the sides of the bundle along the full thickness of the bundle. This allows the diverging walls to be used as supporting walls in the lateral direction of the bundle.

[0009] The front wall is expediently, in the stacking direction, not in overlap with the diverging portions of the side walls.

[0010] The front wall is expediently substantially parallel with the rear wall. A considerable advantage is thereby obtained, since the sheet-shaped products can be given satisfactory support along the full height of their front and rear sides.

[0011] An advantageous design with symmetrical product support is obtained if the breached portion of the front wall is disposed between two unbreached side portions of the front wall, and the rear wall comprises two breached portions, which are arranged on either side of an unbreached portion of the rear wall.

[0012] The front wall expediently comprises a tongue, which juts up from the bottom wall and is disposed such that, in the stacking direction, it overlaps with a corresponding breached portion of the rear wall. Full slide-in stackability is thereby maintained, whilst, at the same time, the products can be given a central lower support, which prevents the products from bulging through the breached portion of the front wall.

[0013] The holder can be configured with suspension members for fixing to a wall, a stand or the like. In order also to allow the holder to be placed in a self-supporting manner on a table or the like, the bottom wall is expediently configured such that it forms at least a part of a holder base with which the holder can be placed upright on a support surface.

[0014] The invention also relates to a method for stacking a number of substantially uniform holders for sheet-shaped products such as information sheets, brochures, etc., which holders each comprise two opposing side walls, a rear wall, a front wall, situated opposite the rear

wall, and a bottom wall, which walls together define a product space for supportive reception of the products, and a product opening, situated opposite the bottom wall, which allows the products to be introduced in a feed-in direction from the opening towards the bottom wall, which method involves introducing a part of a second holder into the product space of a first holder. According to the invention, the stacking method further involves the said part of the second holder being introduced into the product space of the first holder substantially perpendicularly to the feed-in direction for the products.

[0015] Further objects, characteristics and advantages of the invention emerge from the following description, the figures and from the patent claims.

Brief description of the figures

[0016] An illustrative embodiment of the invention will be described in detail below with reference to the figures, whereof:

Fig. 1 is a perspective view of a holder according to one embodiment of the invention,

Fig. 2 is a plan view from the side of the holder shown in Fig. 1,

Fig. 3 is a plan view from the front of the holder shown in Fig. 1,

Fig. 4 is a perspective view corresponding to Fig. 1 and shows two holders of the kind shown in Fig. 1, when these are stacked together according to the invention,

Fig. 5 is a plan view from the side of the holders shown in Fig. 4,

Fig. 6 is a plan view from above of the holders shown in Fig. 4.

Detailed description of illustrative embodiments

[0017] Below, directional and positional notations such as upwards, downwards, forwards, rearwards, upper and lower are used. It will be appreciated that such notations are used for increased clarity and with reference to a holder as shown in the drawings. It will also be appreciated that these notations should not be construed as limiting for the scope of protection.

[0018] The holder 1 shown in Figures 1-3 is formed in one piece by injection moulding of a polymer material, for example a styrene material, such as transparent polystyrene. The holder 10 comprises a rear wall 20, a front wall 30, two side walls 40, 50 and a bottom wall 60. These walls together define a product space 70, for the reception of sheet-shaped products. In the shown example, the holder is configured to allow a bundle of sheets, bro-

chures or the like in A4-format to be placed in the product space. The bundle is placed in the holder such that a lower side of the bundle rests against the bottom wall 60 and its rear side is supported against the rear wall. The two side walls 40, 50 act as a guide for the bundle, so that the entire bundle, or individual sheets or brochures thereof, are tilted.

[0019] As can most clearly be seen from Figs. 1 and 2, the bottom wall 60 constitutes a part of a supporting portion 61 in the form of a holder base with which the holder can be stood on a support surface, such as a table top or the like. The holder further comprises suspension devices 81, by which the holder can be hung up on a wall, a stand or the like. If the holder is hung up on a vertical surface, rear parts of the supporting portion 61 will bear against the wall beneath the suspension devices 81, whereby the rear wall 20 of the holder has an upward and rearward sloping angle. As can also be seen from Fig. 2, the rear wall 20 has an angle relative to the supporting portion 61, which angle is chosen such that the rear wall will slope upwards and rearwards even when the holder is placed on a flat support surface. Hence the bundle of sheet-shaped products, when it is placed in the product space 70, will rest against the rear wall 20. The front wall 30 is parallel with the rear wall 20 and prevents the bundle or parts thereof from falling or bending forwards.

[0020] The rear wall 20 comprises a central unbreached portion and, disposed on either side thereof, a breached portion 22, 23. The front wall 30 comprises a central breached portion 31 and, disposed on each side thereof, an unbreached portion 32. As can be seen from the figures, the unbreached portion 21 of the rear wall 20 is disposed directly in front of the breached portion 31 of the front wall 30, so that these portions do not overlap one another in the forward-rearward direction.

[0021] In the upper part of the holder, the side walls 40, 50 are joined to the rear wall 20. The side walls 40, 50 here each comprise an unbreached portion 41, 51, which diverge from one another. The diverging portions 41, 51 are thus disposed at an angle which is somewhat greater than 90° in relation to the rear wall 20. The diverging portions 41, 51 are further disposed above the unbreached portions 32 of the front wall 30. The side walls 40, 50 each also comprise a breached portion 42, 52 disposed beneath the respective diverging portion 41, 51. The breached portion 42 of one side wall 40 forms together with that breached portion 22 of the rear wall 20 which is disposed nearest to the side wall 40 a continuous breached portion. Correspondingly, the breached portion 52 of the second side wall 50 forms together with that breached portion 23 of the rear wall 20 which is disposed nearest to the side wall 50 a continuous breached portion.

[0022] Extending from the bottom wall 60 is an upwardly projecting tongue 33, which is disposed in the same plane as the front wall 30 and which constitutes an unbreached portion of the latter. The tongue is disposed directly in front of a corresponding breached portion 24

in the rear wall 20.

[0023] When a bundle of information sheets, for example, is to be placed in the holder 1, the bundle is fed from above into the holder in the direction downwards through a feed-in opening which is defined by the unbreached portion 21 of the rear wall 20, the diverging portions 41, 51 of the side walls, and the unbreached portions 32 of the front wall. As the bundle is introduced, it is thus fed in a downwardly directed feed-in direction A which is parallel with the rear wall 20. When the bundle is fed further downwards, its lower side comes to bear in supporting arrangement against the bottom wall 60, at least a part of the bundle being received in the product space 70. When the bundle is accommodated in the product space 70, the bundle is supported in the rearward direction by the unbreached portion 21 of the rear wall. In the lateral direction, the bundle is guided and supported by the diverging portions 41, 51 of the side walls. The diverging portions 41, 51 project forwards from the rear wall only by a distance corresponding to the thickness of a thickest intended bundle or product which can be received in the product space. Since this projecting distance is relatively short, the distance between the diverging portions is substantially the same at the rear wall 20 as at the front wall 30. Hence, the side walls 40, 50 give satisfactory support in the lateral direction along the whole of the section between the rear 20 and the front wall.

[0024] As can most clearly be seen from Figs. 4-6, two or more similar holders 1, 1' of the kind shown in Figs. 1-3 can be stacked together in a slide-in manner. In Figs. 4-6, it is shown how a second holder 1', which is identical with the first holder 1 shown in isolation in Fig. 1-3, has been stacked onto the first holder 1. As can also be seen from the figures, the second holder 1' has been stacked onto the first holder 1 in a stacking direction B. By the stacking direction is here meant the direction in which the stack of holders builds when further holders are stacked in a slide-in manner onto a first holder. As can most clearly be seen from Fig. 5, this stacking direction B is substantially perpendicular to the feed-in direction A. A part of the second holder 1' is accommodated, in the stacked state, in the product space 70 of the first holder 1. In the shown example, this is made possible by the unbreached portion 21' of the rear wall 20' of the second holder 1' being allowed to pass in through the breached portion 31 of the front wall 30 of the first holder 1, and by the diverging portions 41', 51' of the second holder 1' being able to pass above the unbreached portions 32 of the front wall 30 of the first holder 1. In the slide-in stacking operation, the rear wall 20' of the second holder 1' is also allowed to pass the tongue 33 of the first holder 1 by virtue of the ability of the tongue to pass through the breached portion 24' of the rear wall 20' of the second holder 1'.

[0025] With the holder according to the invention, an effective slide-in stacking is made possible in a simple manner. At the same time, the holder enables satisfactory support in all directions for the product(s) accommo-

dated in the product space of the holder. It has been shown that the transport costs for the holder according to the invention can be reduced by more than two-thirds compared with the transport costs for a conventional holder for sheet-shaped products, which conventional holder, though it gives satisfactory product support, does not allow slide-in stacking. This considerable reduction in transport costs is due to the fact that the insertable stacking of the holder according to the invention yields a corresponding reduction in the transported volume compared with the conventional holder. In the transport of conventional holders for sheet-shaped products in A4-format, a maximum of about 170 holders can normally be transported with a so-called europallet, whilst a maximum of about 600 corresponding but insertably stacked holders according to the invention can be transported on the same pallet.

[0026] Above, a description has been given of an illustrative embodiment of the invention. It will be appreciated that the invention is not limited to this embodiment, but rather that it can be freely varied within the scope of the following patent claims.

Claims

1. Holder for sheet-shaped products, such as information sheets, brochures, etc., which holder comprises two opposing side walls (40, 50), a rear wall (20), a front wall (30), situated opposite the rear wall, and a bottom wall (60), which walls together define a product space (70) for supportive reception of the products, and an opening, situated opposite the bottom wall, which allows the products to be introduced in a feed-in direction (A) from the opening towards the bottom wall, **characterized in that** the walls are configured to allow slide-in stacking of a number of holders (1, 1') in a stacking direction (B) which is substantially perpendicular to the feed-in direction (A), in which slide-in stacking the product space (70) of a first holder (1) receives at least one of the walls (20') of a second holder (1'), wherein the two opposing side walls (40, 50) each comprise, in the direction away from the rear wall (20), a mutually diverging portion (41, 51), and wherein the rear (20) and the front (30) wall each comprise a breached portion (22, 23, 31) and an unbreached portion (21, 32), the breached portion (22, 23, 31) of the one of the rear and front walls being disposed such that, in the stacking direction (B), it overlaps with the unbreached portion (21, 32) of the other of the rear and front walls.
2. Holder according to Claim 1, in which the unbreached portion (32) of the front wall is, in the stacking direction (B), not in overlap with the diverging portions (41, 51) of the side walls.
3. Holder according to any one of Claims 1-2, in which

the front wall (30) is substantially parallel with the rear wall (20).

4. Holder according to any one of Claims 2-3, in which the breached portion (31) of the front wall (30) is disposed between two unbreached side portions (32) of the front wall (30), and the rear wall comprises two breached portions (22, 23), which are arranged on either side of an unbreached portion (21) of the rear wall (20).
5. Holder according to Claim 4, in which the front wall (30) comprises a tongue (33), which juts up from the bottom wall (60) and is disposed such that, in the stacking direction (B), it overlaps with a corresponding breached portion (24) of the rear wall (20).
6. Holder according to any one of Claims 1-5, in which the bottom wall (60) forms at least a part of a holder base (61) with which the holder can be placed upright on a support surface.
7. Method of stacking a number of substantially uniform holders (1, 1') for sheet-shaped products such as information sheets, brochures, etc., which holders each comprise two opposing side walls (40, 50, 40', 50'), a rear wall (20, 20'), a front wall (30, 30'), situated opposite the rear wall, and a bottom wall (60, 60'), which walls together define a product space (70) for supportive reception of the products, and a product opening, situated opposite the bottom wall, which allows the products to be introduced in a feed-in direction from the opening towards the bottom wall, which method involves introducing a part of a second holder (1') into the product space of a first holder (1), **characterized in that** the said part (21') of the second holder (1') is introduced into the product space (70) of the first holder (1) parallel with a stacking direction (B) which is substantially perpendicular to the feed-in direction (A) for the products and **in that** an unbreached portion (21', 32') of one of the the rear (20') or front (30') wall of the second holder is passed through a breached portion (22, 23, 31) of the other of the rear and front wall of the first holder, which breached portion is disposed such that, in the stacking direction (B), it overlaps with the unbreached portion of the other of the rear and front walls.

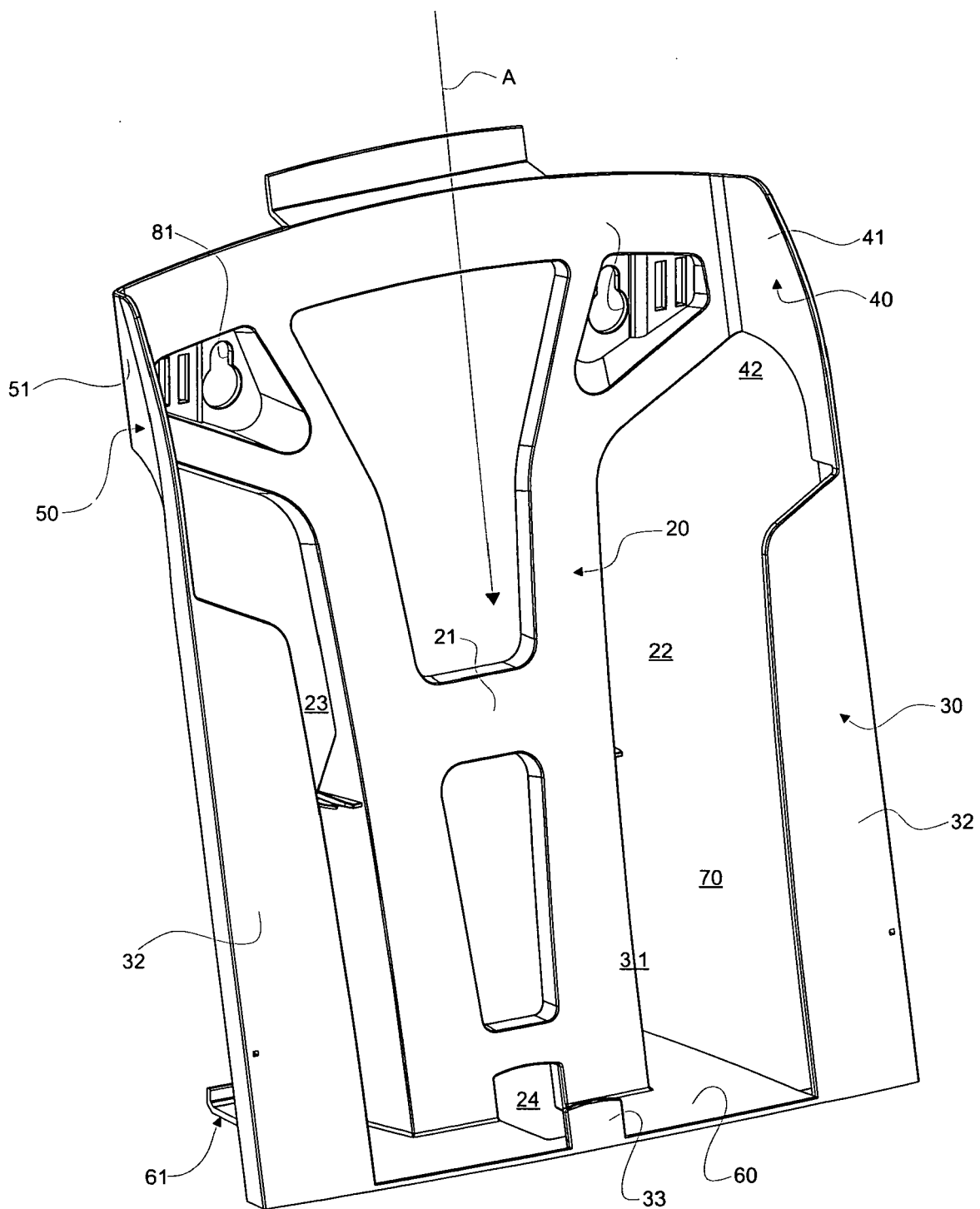


Fig. 1

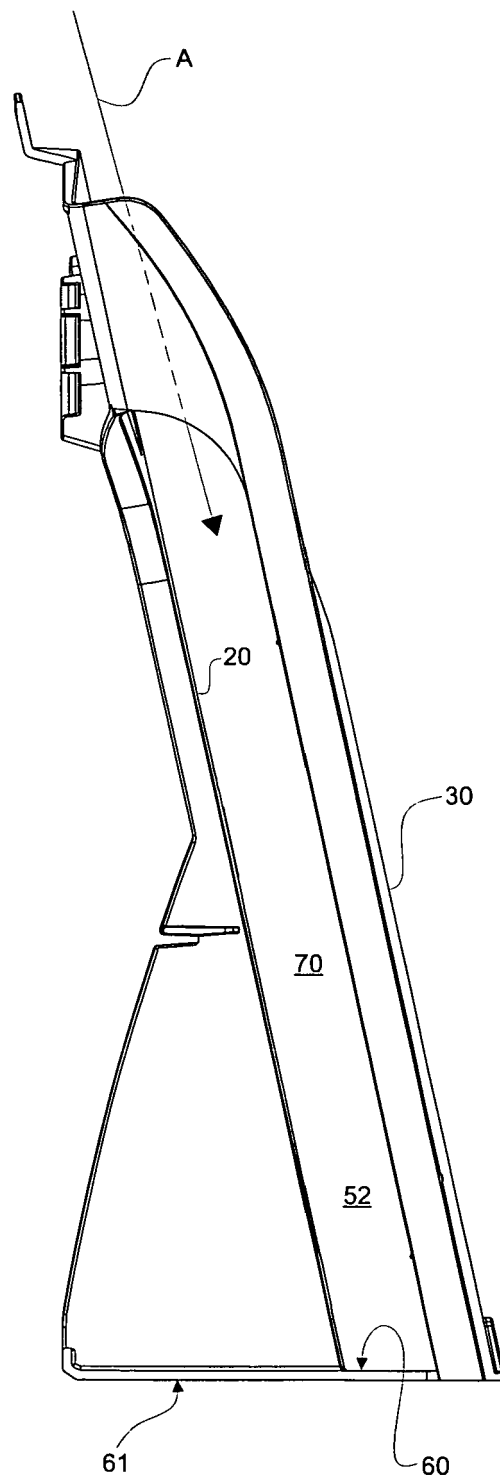


Fig. 2

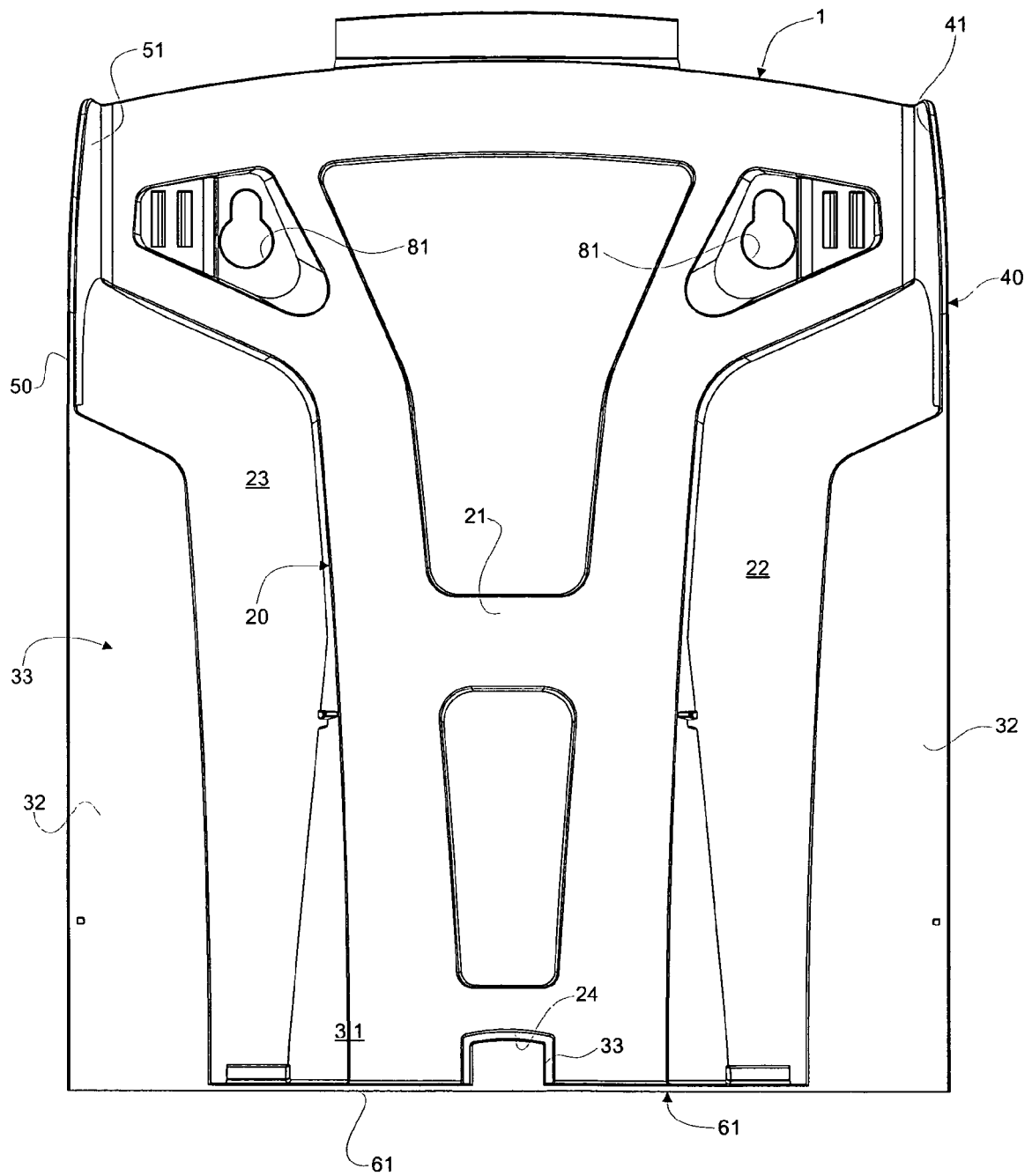


Fig. 3

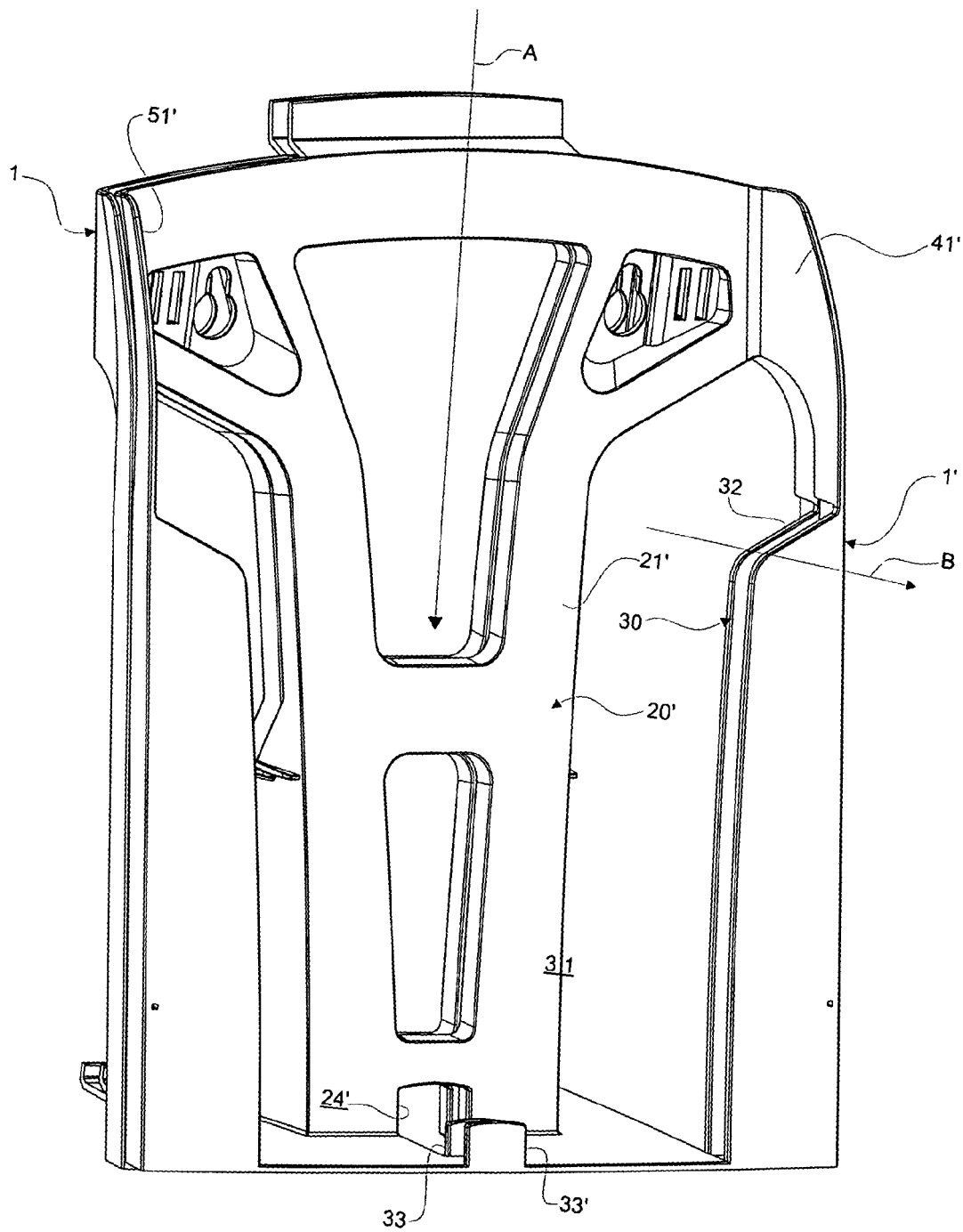


Fig. 4

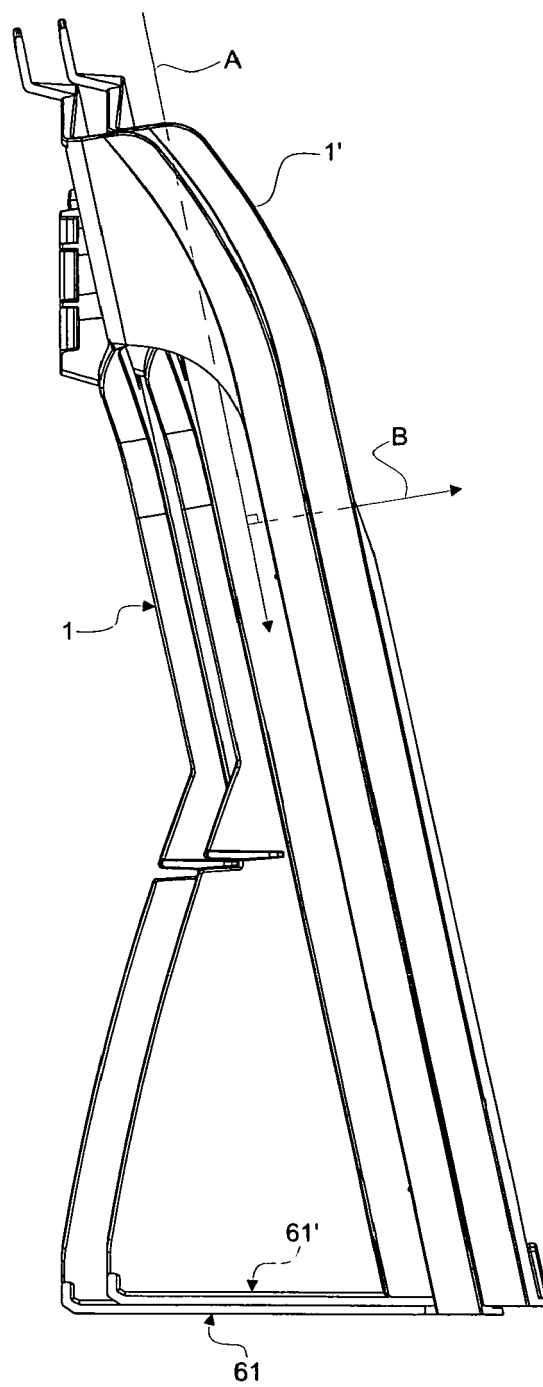


Fig. 5

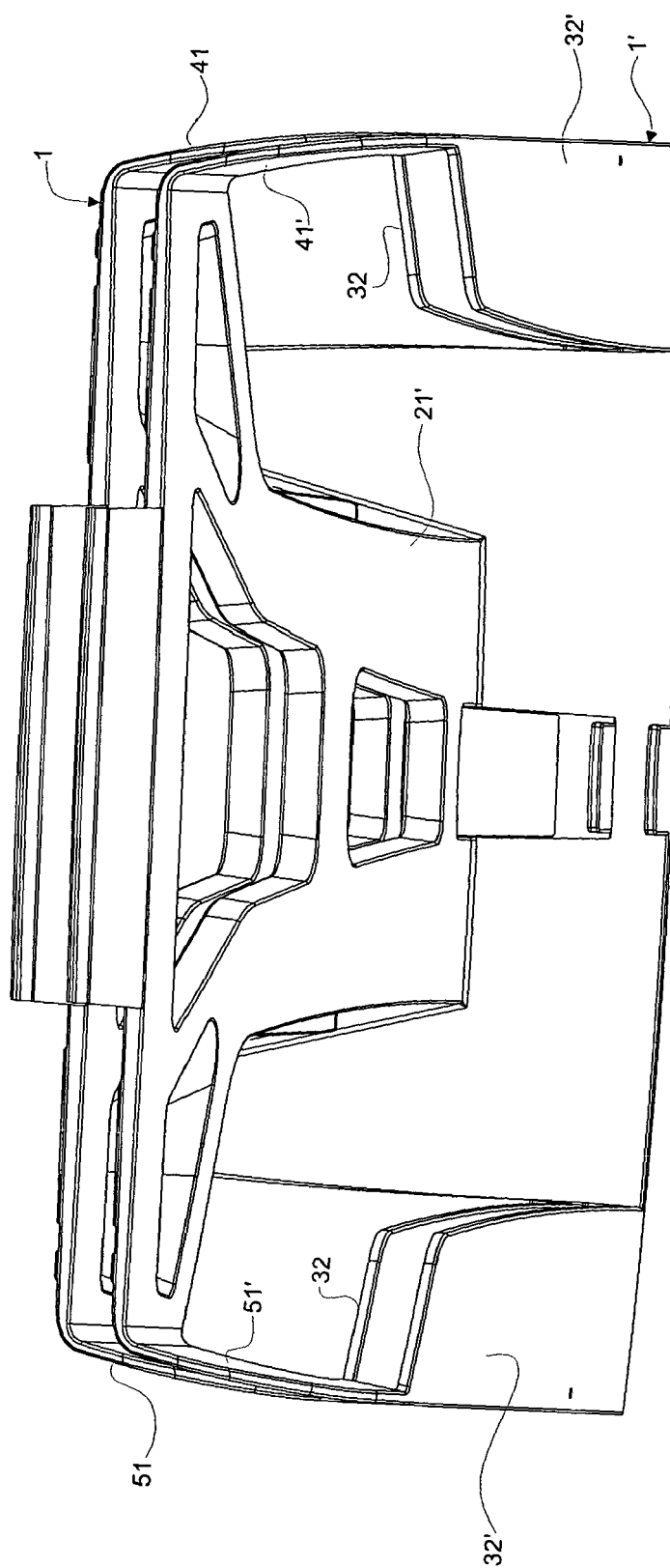


Fig. 6



European Patent
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EUROPEAN SEARCH REPORT

Application Number
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The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 11 April 2008	Examiner Louvion, Bernard
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**ANNEX TO THE EUROPEAN SEARCH REPORT
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EP 07 44 5042

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