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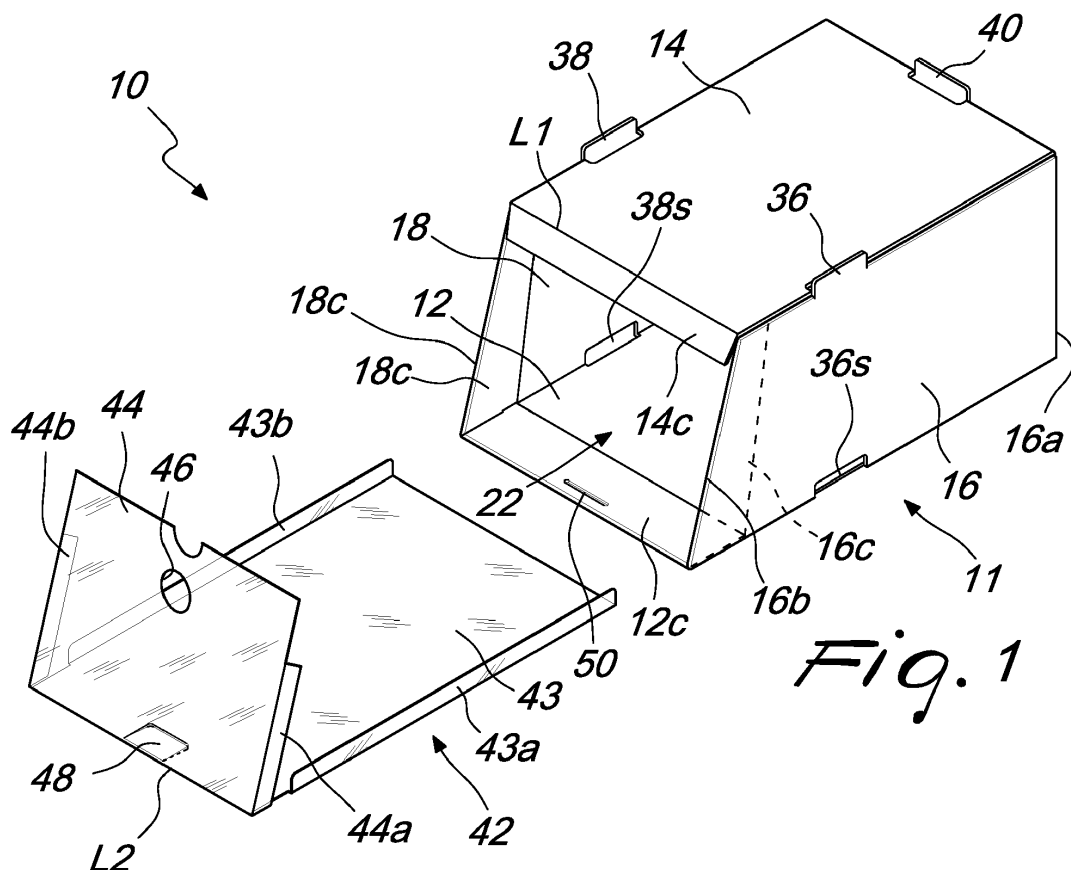
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(54) STORAGE BOX FOR STORING SHOES IN A DOMESTIC ENVIRONMENT

(57) A container (11) made of cardboard sheet has a lower face (12) and an upper face (14) which are mutually parallel, two lateral walls (16, 18), and a rear wall (20). A platform (43) is extractably inserted through an

open front side (22) of the container (11) and is adapted to line the inner side of the lower face (12). A door (44) that can be bent upward to close the open front side (22) is connected to the platform (43).

**Fig. 1****EP 3 199 465 A1**

Description

[0001] The present invention relates to a storage box for storing shoes in a domestic environment.

[0002] As is known, the practice is widespread of storing shoes in cabinets, shelving units and the like, using the ordinary shoe boxes that are usually provided by shoe shops.

[0003] A generic shoe box can comprise a cardboard container in the form of parallelepiped, closed in an upper region by a lid which is also made of cardboard.

[0004] The lid can be a separate element fitted over the upper edge of the box, or it can be joined along one side of the upper edge of the box and be opened/closed in the manner of a door.

[0005] In any case, in order to place the shoes inside the box or take them out therefrom it is necessary to lift the lid.

[0006] Such fact renders traditional shoe boxes rather impractical for use in the storage of shoes in a domestic environment.

[0007] In fact, in order to place a pair of shoes inside a box in a stack or remove them therefrom, or even just to check the contents of a box, it is necessary to first move all the boxes stacked on top of it, with obvious inconvenience.

[0008] Such inconvenience is aggravated by the fact that stacks of traditional shoe boxes are intrinsically unstable and, as a consequence, they can easily overturn.

[0009] Another drawback of traditional shoe boxes is that they take up a lot of space even when they are not in use.

[0010] Last but not least, traditional cardboard shoe boxes deteriorate when they come into contact with dampness, and they cannot be washed. Therefore, in order to protect the box, one always has to adequately clean and/or dry the shoes before storing them. Such aspect further compromises the practicality of the box.

[0011] With the aim of overcoming the above mentioned drawbacks, containers are widespread which are made of a different material, e.g., synthetic fabric mounted over a rigid frame, plasticized cardboard and the like, and which are provided with a lateral opening.

[0012] Although such containers are more practical than traditional shoe boxes in terms of stackability and washability, they do however have higher manufacturing costs owing to the more complex structure and/or the more expensive material. Therefore, as consumer goods they are not very economically competitive.

[0013] The aim of the present invention is to provide a storage box for storing shoes in a domestic environment which, while keeping manufacturing costs commercially competitive in terms of consumer goods, overcomes the drawbacks of conventional shoe boxes, and, more specifically, lends itself to being stored together with other identical boxes in a stacked configuration, as well as being washed periodically.

[0014] Within this aim, an object of the invention is to

provide a storage box that, when not in use, can be folded into a space-saving configuration, and can be easily mounted by the user by hand without the use of tools.

[0015] This aim and this and other objects, which will become clearer from the description that follows, are achieved by the storage box having the characteristics recited in the appended claim 1, while the appended dependent claims define other characteristics of the invention which are advantageous, although secondary.

[0016] Now the invention will be described in greater detail, with reference to a preferred but not exclusive embodiment thereof, which is illustrated for the purposes of non-limiting example in the accompanying drawings, wherein:

Figure 1 is a perspective view of a storage box according to the invention;

Figures 2-4 are three views similar to Figure 1, showing the storage box according to the invention together with a pair of shoes, in three respective successive active configurations;

Figure 5 is a perspective view showing two storage boxes according to the invention about to be stacked;

Figure 6 is a perspective view showing the two storage boxes of Figure 5 in the stacked configuration;

Figure 7 is a perspective view of the two storage boxes of Figure 5 from a different angle;

Figure 8 is a perspective view of the two storage boxes of Figure 6 from a different angle;

Figure 9 is a perspective view of the storage box according to the invention in an additional active configuration;

Figure 10 is a plan view of the extension of the storage box according to the invention.

[0017] With reference to the figures, a storage box 10 for shoes according to the invention comprises a container 11 formed from a sheet B of die-cut cardboard, the extension of which is shown in plan view in Figure 10.

[0018] The sheet B is bent at right angles along pre-formed folding lines so as to define a lower face 12 and an upper face 14 which are mutually parallel and have a rectangular profile, two lateral walls 16, 18 with a rectangular trapezoid profile, and a rear wall 20 which lies between the vertical sides 16a, 18a of the lateral walls 16, 18 (Figures 7 and 8).

[0019] Preferably, a sheet of single-wave corrugated cardboard is used, which is constituted by two layers of flat paper between which is glued a layer of corrugated paper.

[0020] With particular reference to Figure 10, the sheet B is provided with, in succession and from left to right, the upper face 14, the second lateral wall 18, the lower face 12, the first lateral wall 16, and a flap 21. The latter is adapted to be glued under the free lateral edge of the upper face 18 so as to give a closed tubular configuration to the container 11.

[0021] The front side 22 of the container 11, that is to

say, the side opposite the rear wall 20 which is delimited between the oblique sides 16b, 18b of the lateral walls 16, 18, is open.

[0022] The rear wall 20 is formed from four wings 24, 26, 28, 30 which extend respectively from the rear ends of the lower face 12, of the upper face 14, and of the two lateral walls 16, 18. The wings 24, 26, 28, 30 have respective profiles that can be mutually engaged by snap action when folded inward at right angles (Figures 7 and 8).

[0023] Respective tabs 12c, 14c, 16c, 18c extend from the front ends of the lower face 12, of the upper face 14, and of the two lateral walls 16, 18.

[0024] The lower tab 12c extending from the lower face 12, as well as the lateral tabs 16c, 18c extending from the lateral walls 16, 18, are folded 180° inside the container 11 for stiffening and finishing of the open front side 22.

[0025] The upper tab 14c extending from the upper face 14 is folded obliquely downward, preferably along a creasing line L1. The creasing operation generates a permanent deformation in the material of the container, for purposes that will be made clear below.

[0026] Respective alignment protrusions 36, 38 and 40 protrude from the upper edges of the lateral walls 16, 18 and of the rear wall 20. The alignment protrusions 36, 38 and 40 extend on the same planes as the respective walls from which they protrude, and are cut from adjacent portions of the cardboard sheet, in particular, from the upper face 14 and, in the case of the first lateral wall 16, from the flap 21. The alignment protrusions 36, 38 and 40 can be engaged in corresponding slots 36s, 38s, 40s which are aligned therewith and which are provided at the lower edges of the lateral walls 16, 18 and of the rear wall 20, in order to keep multiple storage boxes in the stacked configuration aligned.

[0027] According to an important characteristic of the invention, the storage box 10 contains a sheet 42, extractably inserted, which comprises a platform 43 that lines the inner side of the lower face 12, and a door 44 that is connected to the platform 43 and can be bent upward to close the open front side 22.

[0028] Advantageously, the door 44 and the platform 43 are provided by a single sheet 42 of semirigid plastic material, e.g., transparent polypropylene of thickness comprised between 0.1 and 3 mm, preferably 0.6 mm, and joined monolithically along a folding line L2.

[0029] In particular, by inserting the door 44 under the upper tab 14c, it is kept in the closed position.

[0030] Preferably, the platform 43 and the door 44 have respective lateral edges 43a, 43b and 44a, 44b which are bent at right angles inward for stiffening.

[0031] Furthermore, in the preferred embodiment described herein, the door 44 is provided with a hole 46 which acts as a handle and for ventilation.

[0032] Finally, a lip 48 is cut into the platform 43 and is adapted to be inserted into a rectilinear slot 50 that is provided in the container 11, in particular, in the lower

tab 12c, in order to prevent the platform 43 from rising.

[0033] In use, the shoes are inserted frontally into the storage box through the open front side 22. In this regard, the sheet 42 can be extracted, as illustrated in Figure 1, before placing a pair of shoes S on the platform 43 as illustrated in Figure 2, and then the sheet 42 with the shoes S can be replaced inside the container as illustrated in Figures 3 and 4.

[0034] Alternatively, one can open the door 44 and insert the shoes S into the container 11 without extracting the sheet 42, as illustrated in Figure 9.

[0035] In both cases, even when a storage box is stacked together with others, the shoes S can be introduced or removed without having to move the storage boxes above, with consequent practical advantages.

[0036] In order to open the door 44, it is sufficient to insert one or two fingers into the hole 46 and pull, so as to bend the upper tab 14c upward. Once the upper edge of the door 44 has passed beyond the upper tab 14c, the latter returns to its initial position, protruding obliquely downward, by virtue of the permanent deformation conferred on the material by the creasing operation along the line L1.

[0037] Similarly, in order to close the door 44 it is sufficient to push it inside the container 11 until it passes beyond the upper tab 14c.

[0038] Since the sheet 42 is made of plastic material, it can be extracted and washed periodically.

[0039] Furthermore, once the sheet 42 has been extracted and the rear wall 20 disassembled, the container 11 can be collapsed into a flattened, space-saving configuration. As the skilled person will easily grasp, such aspect is particularly advantageous both for the user, since it facilitates storage of the storage boxes that are not in use, and for the manufacturer, since it makes it possible to optimize the costs of packaging, warehousing and transport, and furthermore it facilitates the sale of storage boxes in multi-packs.

[0040] A preferred embodiment of the invention has been described, but obviously the person skilled in the art may make various modifications and variations within the scope of protection of the appended claims.

[0041] In particular, although the provision of the container 11 monolithically is particularly advantageous in economic terms, obviously it is possible to provide the container 11 in several pieces glued together. Similar considerations apply to the sheet 42, where the platform 43 and the door 44 can be made in two separate pieces.

[0042] Furthermore, the material of the sheet 43 can be embossed or otherwise treated for stiffening and/or resistance to scratches.

[0043] Obviously, although in the present description reference has always been made to the storage of shoes, the storage boxes according to the invention can be used for the storage of any type of footwear, as well as for items of clothing in general.

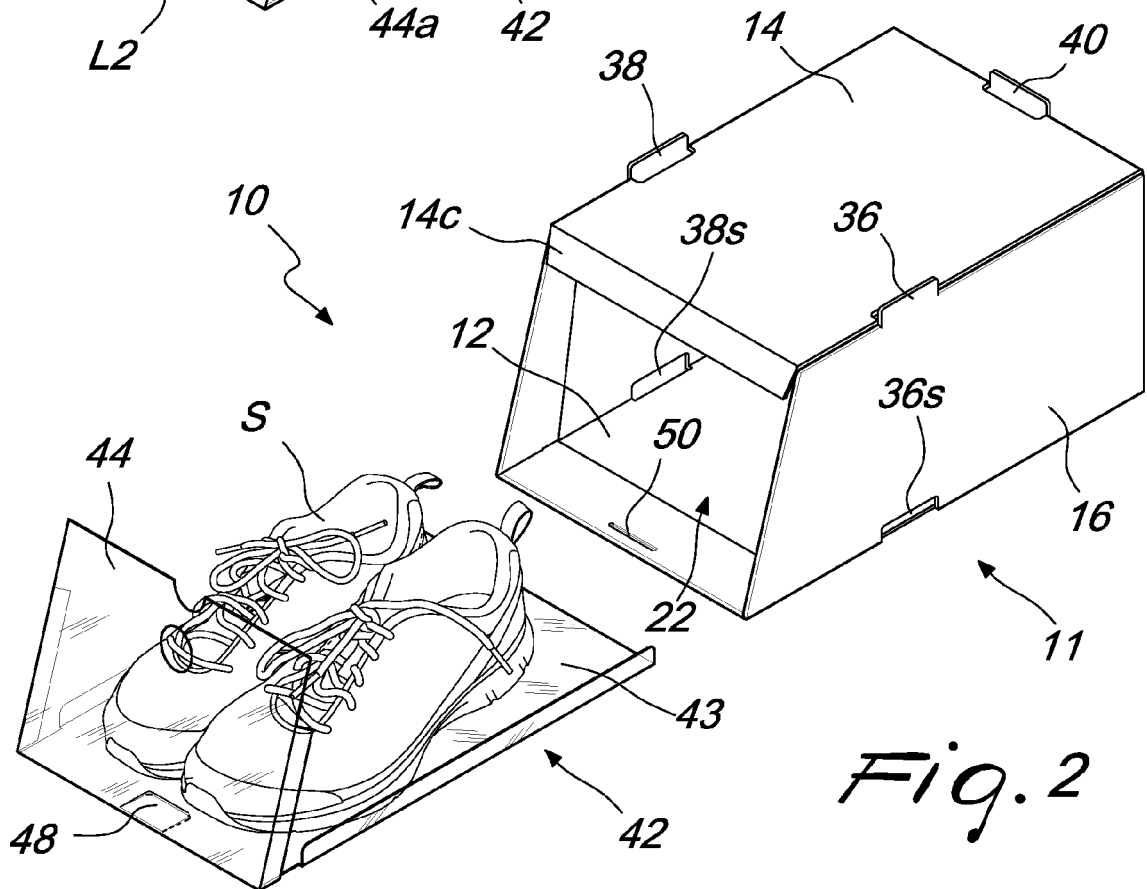
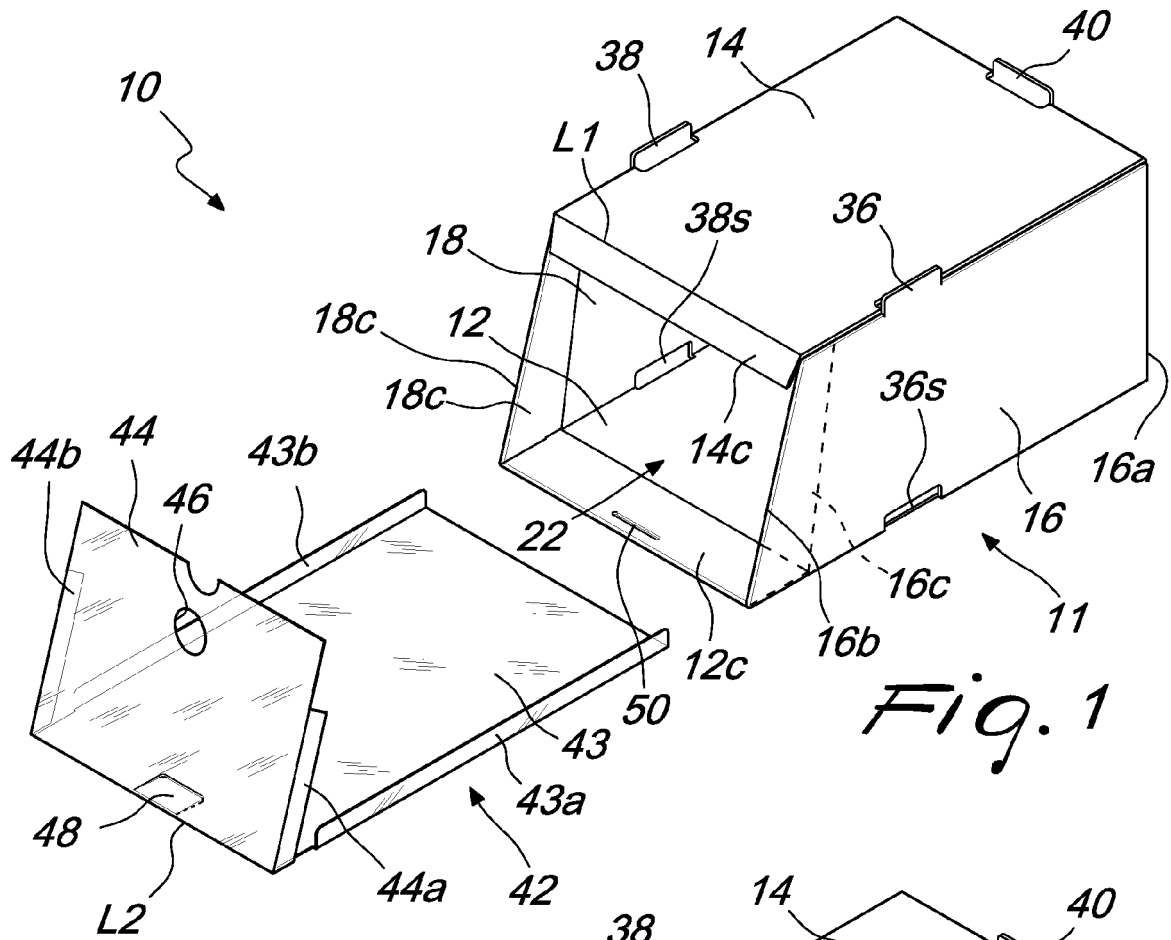
[0044] The disclosures in Italian Patent Application No. 102016000009682 (UB2016A000038) from which this

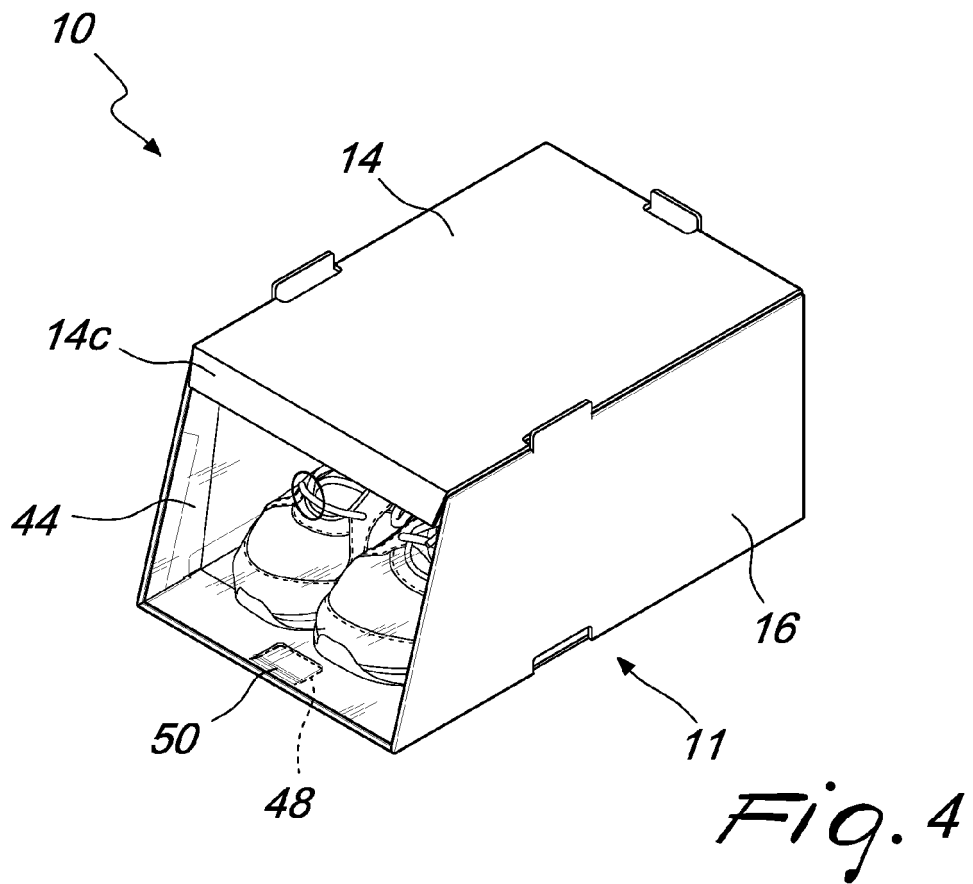
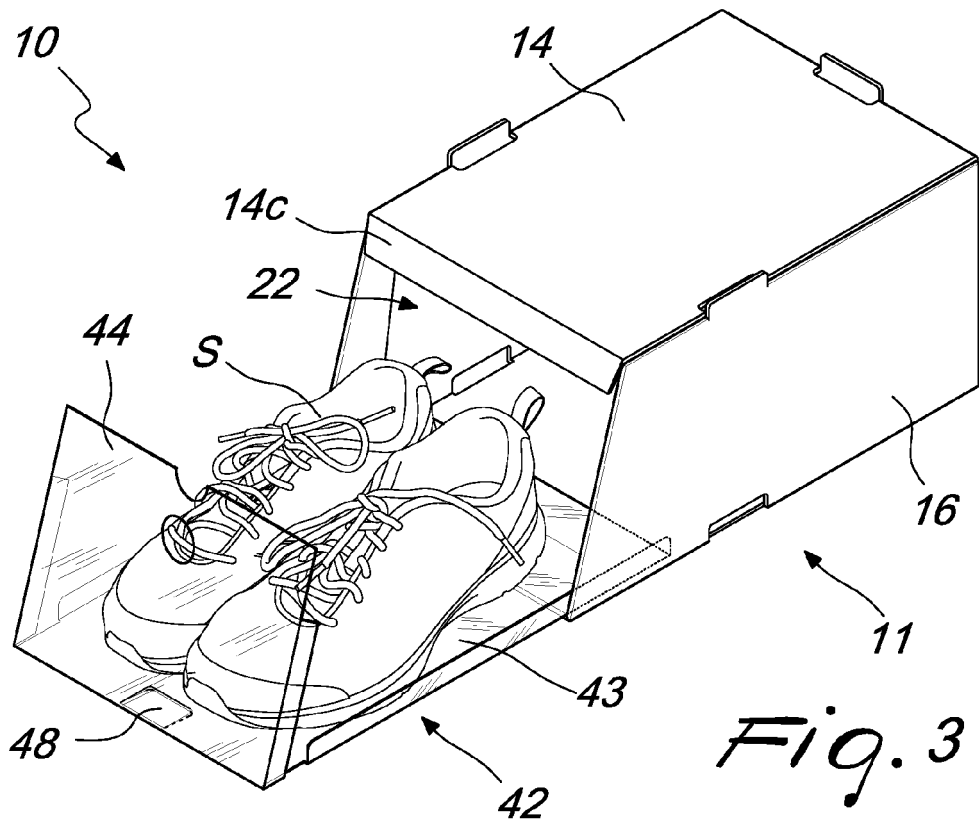
application claims priority are incorporated herein by reference.

[0045] Where technical features mentioned in any claim are followed by reference signs, those reference signs have been included for the sole purpose of increasing the intelligibility of the claims and accordingly, such reference signs do not have any limiting effect on the interpretation of each element identified by way of example by such reference signs.

Claims

1. A shoe storage box, comprising a container (11) made of cardboard sheet, which has a lower face (12) and an upper face (14) which are mutually parallel, two lateral walls (16, 18), and a rear wall (20), **characterized in that** said container (11) has an open front side (22) which is opposite to said rear wall (20) and through which a platform (43) is extractably inserted which is adapted to line the inner side of said lower face (12), a door (44) that can be bent upward to close said open front side (22) being connected to said platform (43). 5
2. The storage box according to claim 1, **characterized in that** said door (44) and said platform (43) are made from a single sheet (42) of semirigid plastic material and are joined monolithically along a folding line (L2). 10
3. The storage box according to claim 1 or 2, **characterized in that** said door (44) is kept in the closed configuration by an upper tab (14c) which protrudes downward from the front end of said upper face (14). 15
4. The storage box according to one of claims 1 to 3, **characterized in that** said lateral walls (16, 18) have respective oblique sides (16b, 18b) between which said open front side (22) is defined. 20
5. The storage box according to one of claims 1 to 4, **characterized in that** said container (11) is formed by a single cardboard sheet (B) bent at right angles along preformed folding lines. 25
6. The storage box according to claim 5, **characterized in that** said rear wall (20) is formed by four wings (24, 26, 28, 30) which extend respectively from the rear ends of the lower face (12), of the upper face (14) and of the two lateral walls (16, 18), which have respective profiles that can be mutually engaged by snap action. 30
7. The storage box according to claim 5 or 6, **characterized in that** it comprises alignment protrusions (36, 38 and 40) which rise from the upper edges of the lateral walls (16, 18) and of the rear wall (20) and can be engaged in corresponding slots (36s, 38s, 40s) aligned therewith, which are provided at the lower edges of the lateral walls (16, 18) and of the rear wall (20). 35
8. The storage box according to one of claims 5 to 7, **characterized in that** it comprises wings (12c, 16c, 18c) which extend from the front edges of the lower face (12) and of the lateral walls (16, 18) and are folded toward the inside of the container for stiffening. 40
9. The storage box according to one of claims 1 to 8, **characterized in that** either or both of said platform (43) and said door (44) has respective lateral edges (42a, 42b and 44a, 44b) bent at right angles for stiffening. 45
10. The storage box according to one of claims 1 to 9, **characterized in that** said door (44) has a hole (46) that can be engaged manually for opening. 50
11. The storage box according to one of claims 1 to 10, **characterized in that** said sheet (42) is made of polypropylene with a thickness comprised between 0.1 and 3 mm. 55
12. The storage box according to one of claims 1 to 11, **characterized in that** the container (11) is made of single-wave corrugated cardboard.
13. The storage box according to one of claims 1 to 12, **characterized in that** it comprises a lip (48) which is cut into said platform (43) and is adapted to be inserted in a corresponding slot (50) provided in said container (11) in order to prevent the platform (43) from rising.





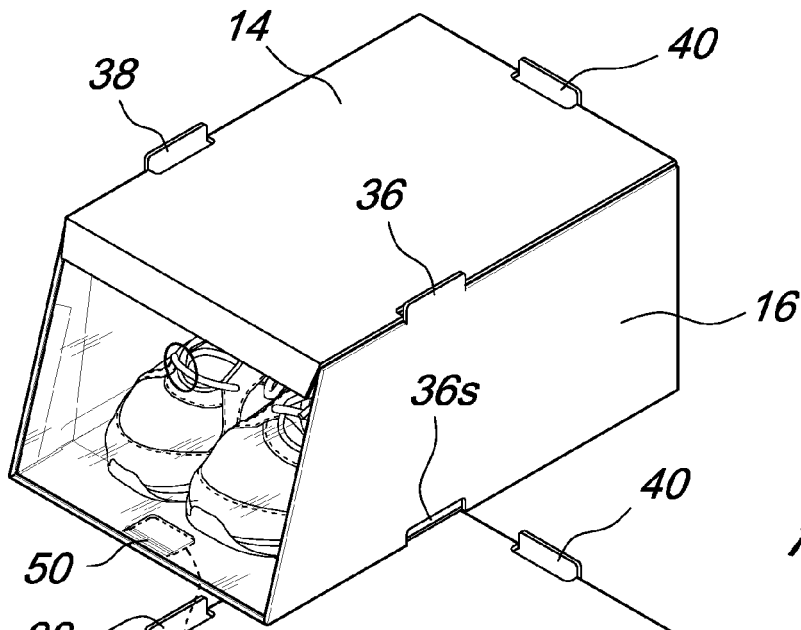


Fig. 5

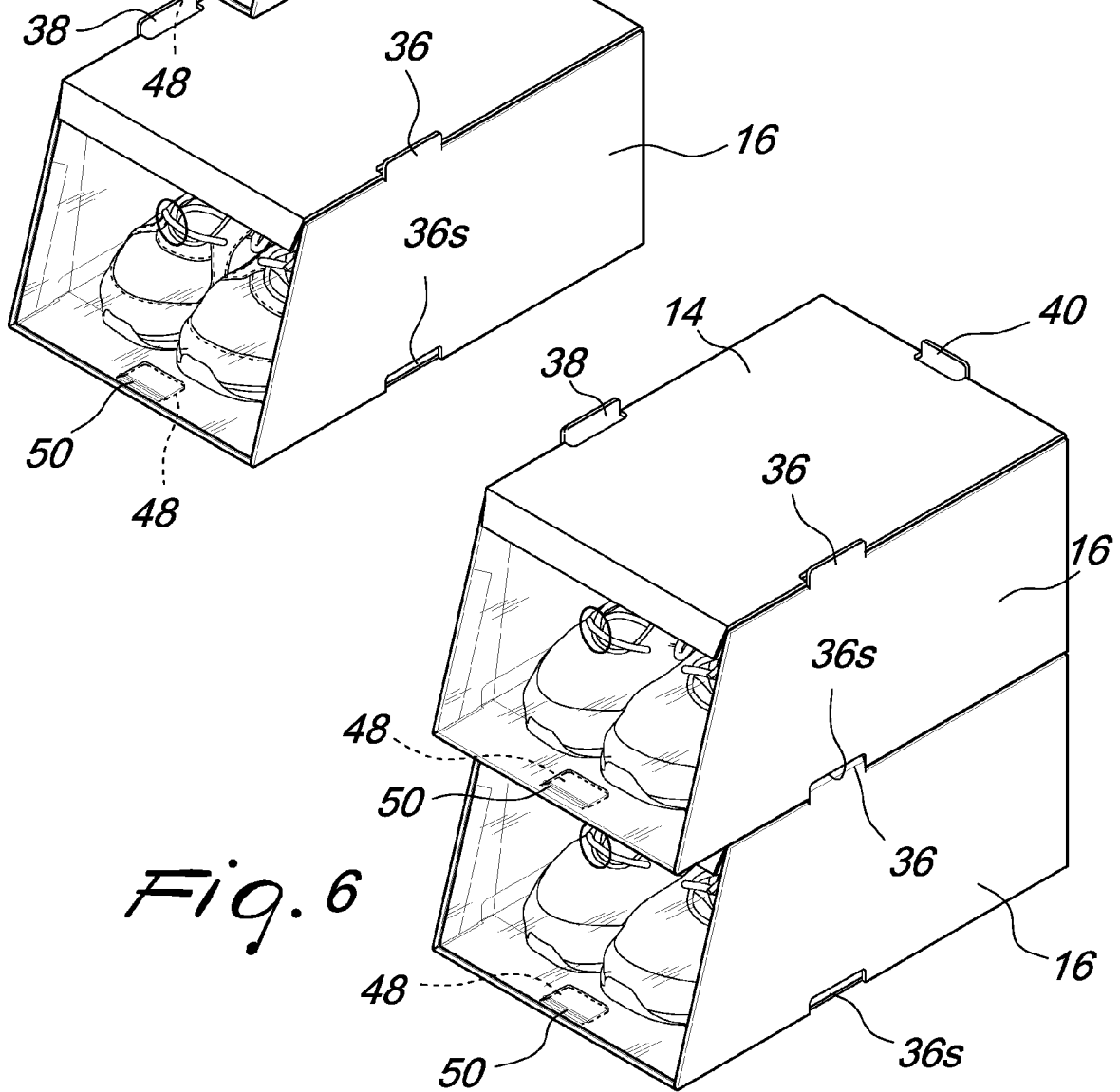
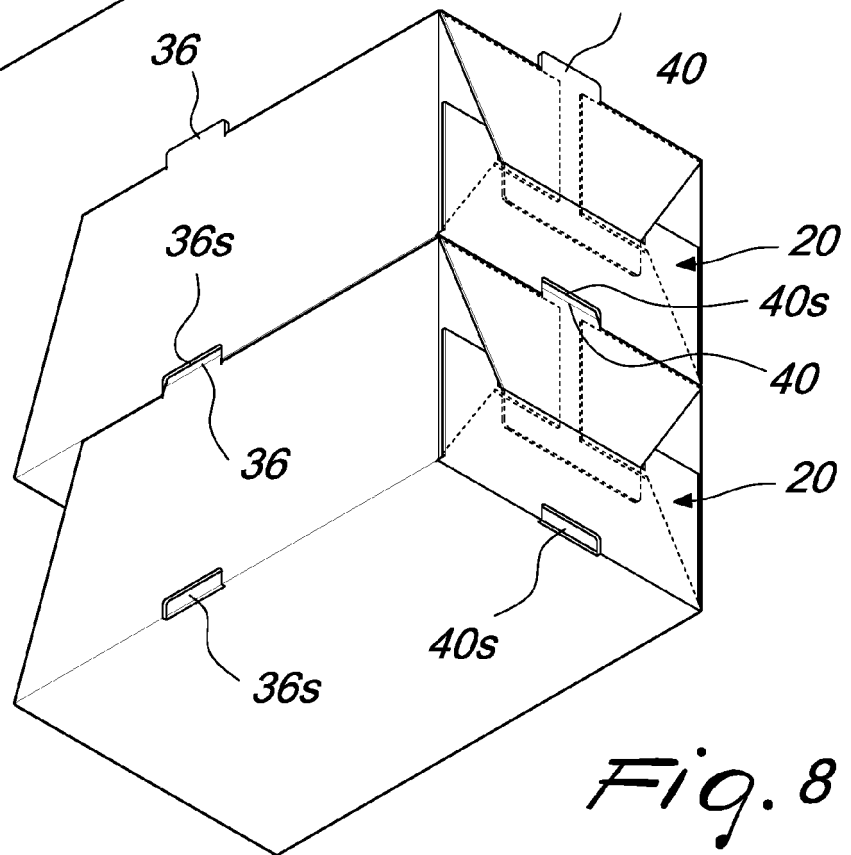
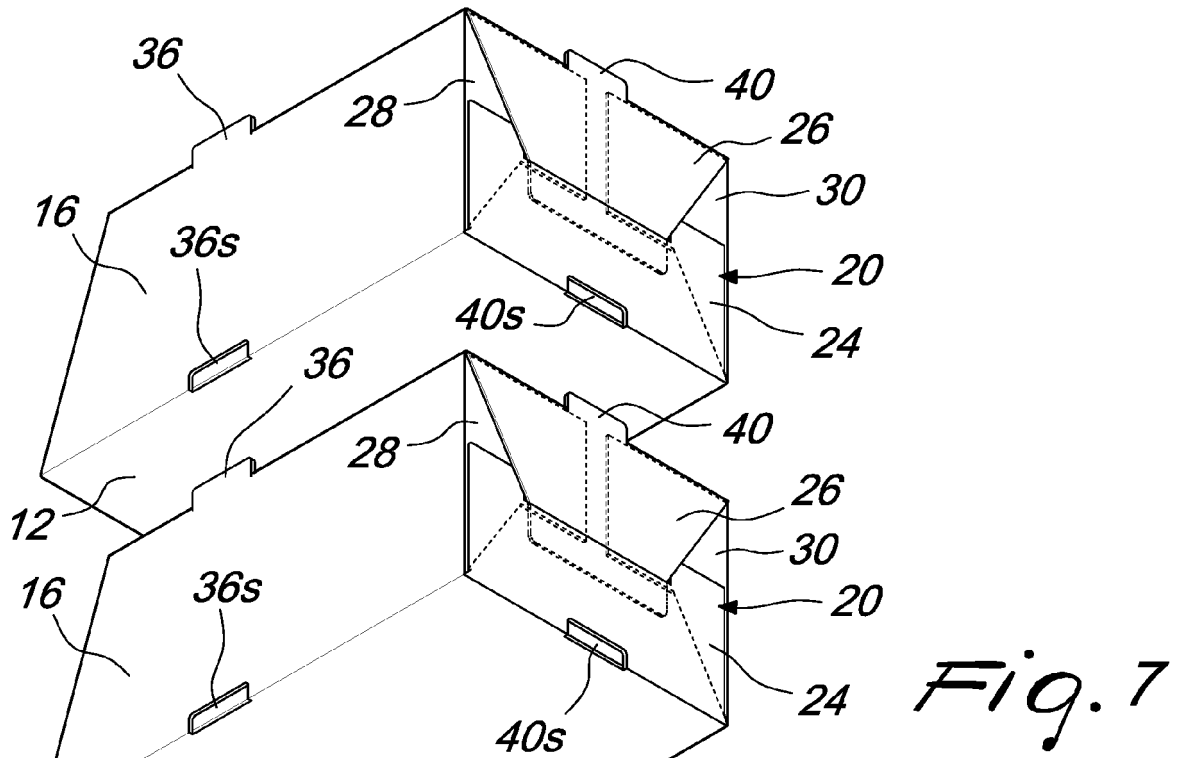


Fig. 6



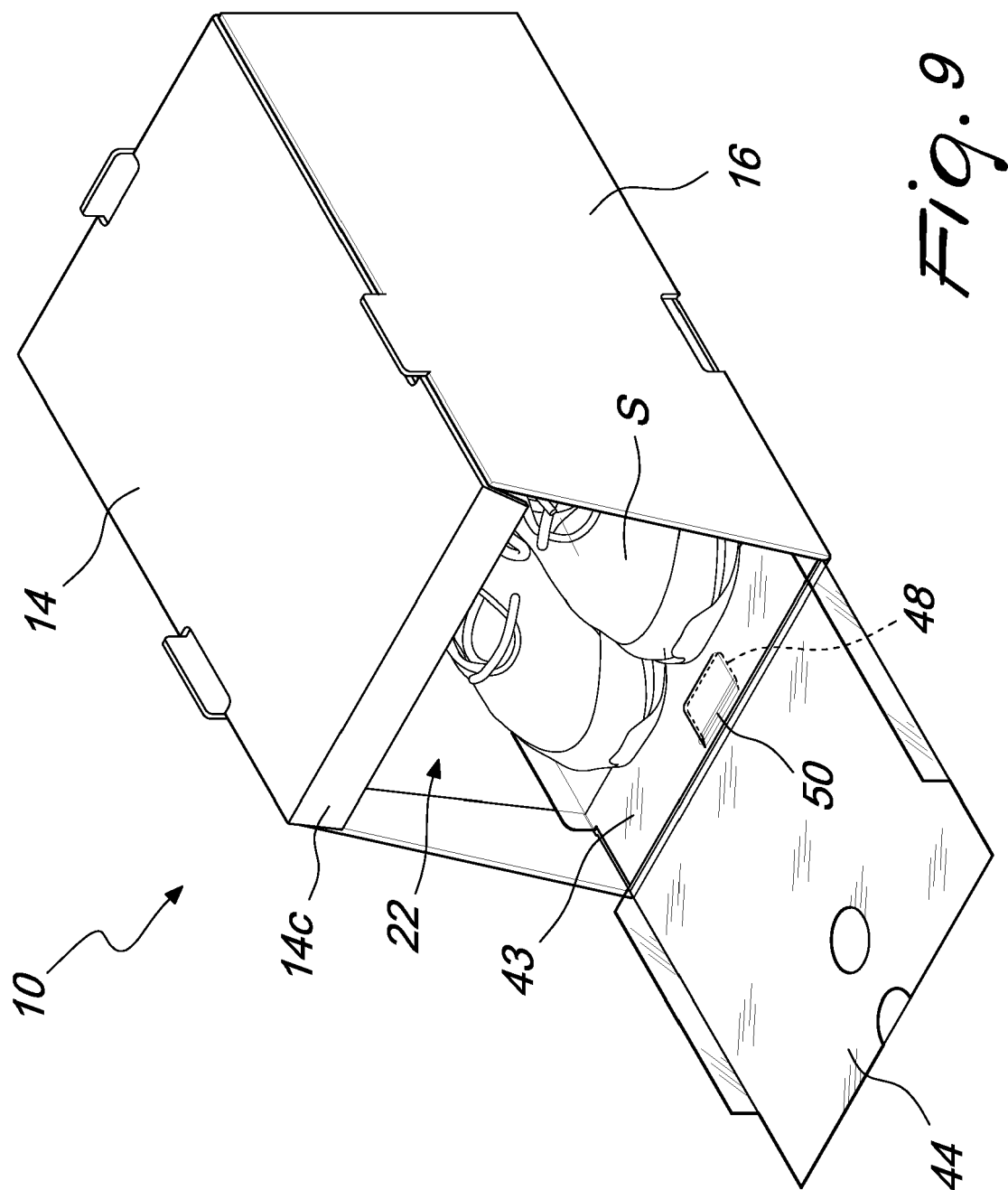


Fig. 9

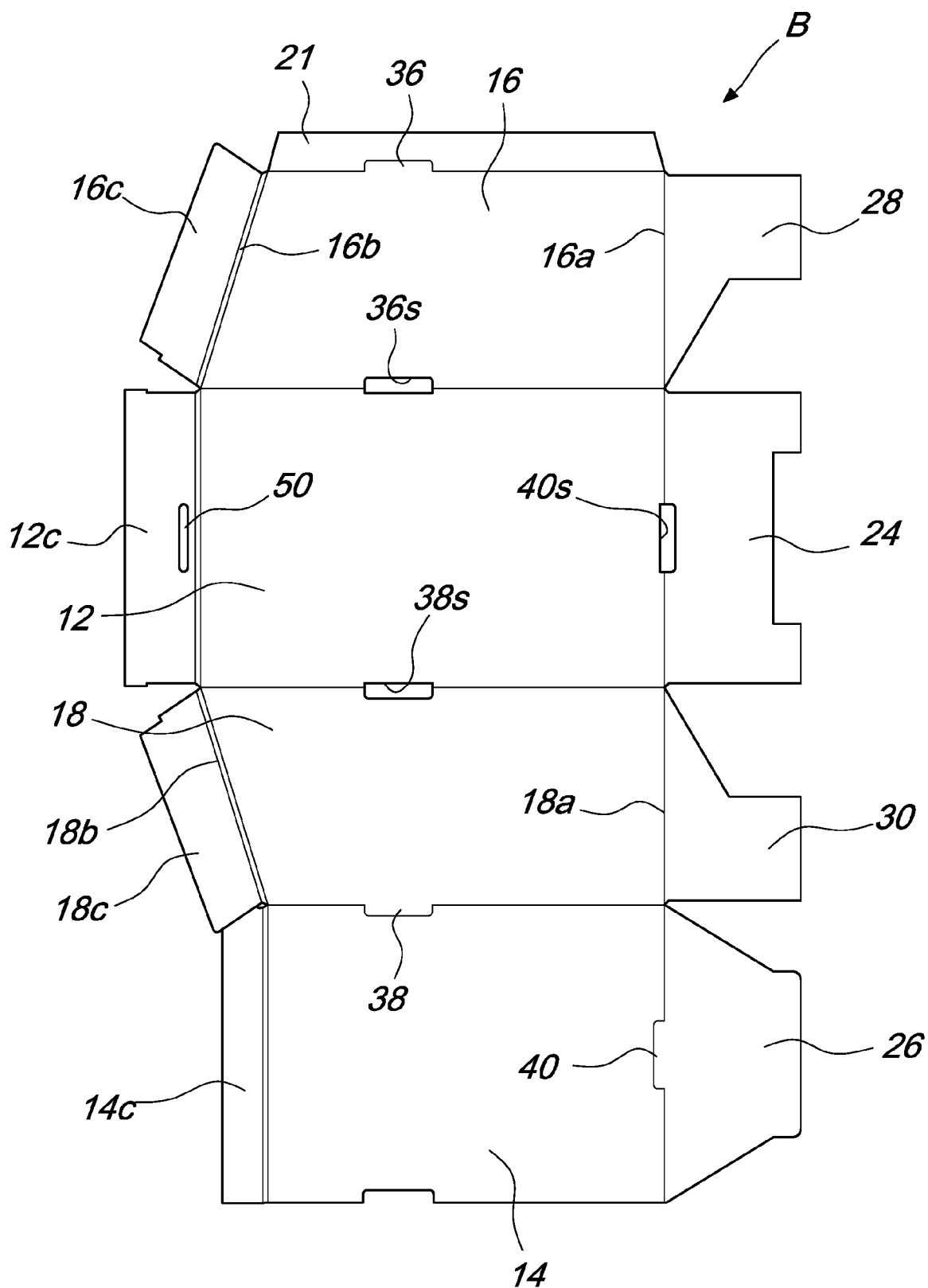


Fig. 10



EUROPEAN SEARCH REPORT

Application Number
EP 17 15 3882

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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	FR 2 789 051 A1 (NORDIA [FR]) 4 August 2000 (2000-08-04)	1-6,8,9,13	INV. B65D5/10
Y	* page 2, lines 36-37 * * page 3, lines 13-17; figure 1 *	7,11,12	B65D5/38 B65D5/42
A	WO 2005/051801 A1 (MEADWESTVACO CORP [US]; HESSION CHRISTOPHER [US]; WESTON MICHAEL [US]) 9 June 2005 (2005-06-09) * page 6, lines 8-9; figures 5, 6 *	1-3,5,8	
Y	US 6 354 487 B1 (MUISE JR H DONALD [US]) 12 March 2002 (2002-03-12) * figures 2-4 *	7	
Y	FR 2 440 880 A1 (BRENNEISEN & CIE H) 6 June 1980 (1980-06-06) * page 1, lines 25, 31-33 *	11	
Y	US 2012/055922 A1 (AKSAN YAVUZ [US] ET AL) 8 March 2012 (2012-03-08) * page 3, lines 10-12 *	12	
			TECHNICAL FIELDS SEARCHED (IPC)
			B65D
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 23 March 2017	Examiner Serbescu, Anca
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 17 15 3882

5

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The members are as contained in the European Patent Office EDP file on
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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
FR 2789051 A1	04-08-2000	NONE	
WO 2005051801 A1	09-06-2005	AT 420042 T AU 2004293430 A1 CA 2546012 A1 CN 1882482 A DK 1697232 T3 EP 1697232 A1 EP 1961674 A1 ES 2321306 T3 JP 4767865 B2 JP 2007511439 A MX PA06005549 A US 2008314780 A1 WO 2005051801 A1	15-01-2009 09-06-2005 09-06-2005 20-12-2006 20-04-2009 06-09-2006 27-08-2008 04-06-2009 07-09-2011 10-05-2007 23-08-2006 25-12-2008 09-06-2005
US 6354487 B1	12-03-2002	NONE	
FR 2440880 A1	06-06-1980	NONE	
US 2012055922 A1	08-03-2012	AU 2011295742 A1 CA 2810052 A1 CL 2013000564 A1 CO 6700847 A2 CR 20130110 A EP 2611702 A2 GT 201300053 A NZ 717319 A US 2012055922 A1 WO 2012031214 A2	04-04-2013 08-03-2012 04-10-2013 28-06-2013 20-05-2013 10-07-2013 26-12-2014 31-03-2016 08-03-2012 08-03-2012

EPO FORM P0459

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REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- IT 102016000009682 [0044]