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(54) BOX FOR DISPLAYING PRODUCTS, PARTICULARLY BOTTLES

(57) A box (1) for displaying products, particularly bottles, which comprises a base (5) for resting the box when it is in a display configuration, and a side wall (6) that extends from the base (5), which surrounds at least partly the product, and which is open or interrupted so as to define an opening (3) from which the product is visible from outside the box when it is in the display configuration; the box (1) also comprises at least one flap (4a, 4b) which is adapted to close the opening (3) and is able to oscillate between a closed position and a display position; the box (1) also comprises a retention element (10) for keeping the flap in the display position and which comprises a connecting portion (11) coupled to the box (1).

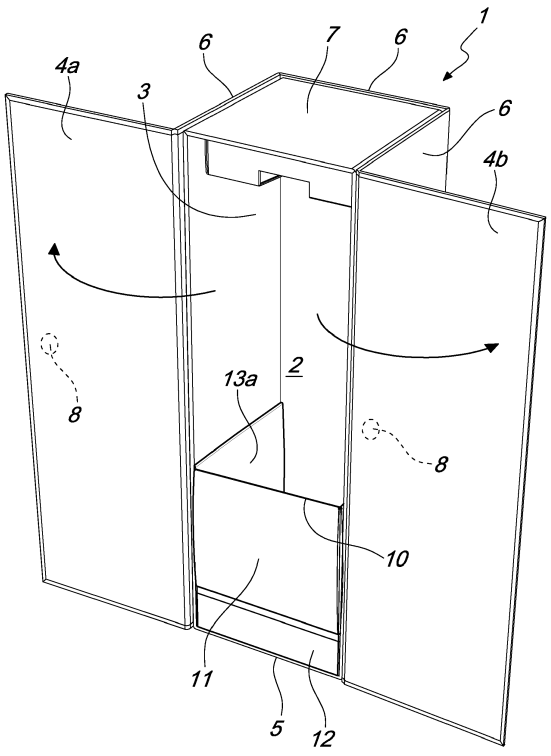

Fig. 2

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Description

[0001] The present invention relates to a box for displaying products, particularly bottles.

[0002] In certain fields it is known to use as a product display the box or package that contains the products during transport or storage. The case of bottles of wine, sparkling wine or champagne is typical, for which there is a side wall of the box, parallel to the axis of the bottle, which can be removed or opened so as to show the contents of the box, while leaving the bottle inside it.

[0003] Boxes that also act as a product display have the drawback that, when one or more flaps are used to occlude a side face of the box during transport or storage and to display the contents thereof when necessary, such flaps do not stay open and tend to return to the position covering the side of the box used to display the contents.

[0004] The aim of the present invention is to provide a box that is capable of improving the known art in one or more of the above mentioned aspects.

[0005] Within this aim, an object of the invention is to provide a box for displaying products that, when it is closed, can be used for the transport and/or storage thereof and which, when the flap or flaps are brought from the closed configuration to the open or display configuration, they stay stably open without being able to return to the closed position, except with manual intervention.

[0006] Another object of the invention is to provide such a box substantially in cardboard and card.

[0007] Another object of the present invention is to overcome the known drawbacks in a different manner to any existing solutions.

[0008] Another object of the invention is to provide a box that is highly reliable, easy to provide and low cost.

[0009] This aim and these and other objects which will become better apparent hereinafter are achieved by a box according to claim 1. Other advantageous characteristics of the box are recited in the dependent claims.

[0010] Further characteristics and advantages of the invention will become better apparent from the description of some preferred, but not exclusive, embodiments of the box according to the invention, which are illustrated by way of non-limiting example in the accompanying drawings wherein:

Figure 1 shows a box according to a first embodiment of the invention in a closed configuration;

Figure 2 shows the box of the previous figure in which the flaps provided therein have been opened in order to display the contents;

Figure 3 shows a step of extracting a retention element according to the invention;

Figures 4 and 5 show the unfolding of the wings of the retention element of the previous figure;

Figure 6 shows the box of Figure 1 in the final open, or display, configuration;

Figure 7 shows the starting die-cut element used in order to obtain the retention element in the first embodiment;

Figure 8 shows the die-cut element of the previous figure in the final configuration for coupling to the box;

Figure 9 shows a box according to a second embodiment of the invention, in a configuration of first opening of the flaps;

Figure 10 shows the box in the previous figure, with the retention elements lowered.

[0011] With reference to the figures, a box according to the invention, generally designated by the reference numeral 1 or 100 according to the embodiment shown in the figures, comprises a chamber 2, 102 adapted to contain at least one product to be displayed, for example a bottle (not shown), a base 5, 105 for resting the box 1, 100 when it is in a display configuration and a side wall 6, 106 that extends from the resting base and which surrounds at least partly at least one product to be displayed while it is accommodated in the box, thus defining the chamber 2, 102. In the embodiments shown, the side wall 6, 106 is formed from adjacent panels, at least one of which is fixed to, or monolithic with, the resting base 5, 105.

[0012] The resting base 5, 105 can be internally shaped to contain the base of the product, for example the bottom of the bottle to be displayed.

[0013] There can further be a top lid or wall 7, 107 adapted to close the chamber 2, 102 in an upper region and optionally to retain the product in an upper region, for example the neck of the bottle to be displayed. Such top lid or wall is fixed to, or monolithic with, at least one of the side walls 6, 106.

[0014] The side walls 6, 106, as well as the base 5, 105 and the top wall 7, 107, are preferably made of rigid cardboard and are optionally formed from multiple layers of cardboard and paper, so as to define a prismatic rigid body. The cardboard can be corrugated or of the FBB, WLC, SBB or SUB type, and can have a thickness comprised between 0.4mm and 2.5mm and a basis weight comprised between 400g/m^2 and 1000g/m^2 or even higher. The rigidity of the layer of cardboard can be comprised between 30mN.m and 300mN.m, for example comprised between 100mN.m and 250mN.m along at least one direction (MD or CD).

[0015] The side wall 6, 106 is open or, as in the examples shown, interrupted so as to define an opening 3, 103 from which the product contained therein, in particular the bottle, is at least partly visible from outside the box 1, 100 when the box is in the display configuration and resting on the base 5, 105.

[0016] In the embodiments shown, the opening 3, 103 affects one entire side of the box, from which the bottle will be frontally visible substantially in its entirety.

[0017] The box 1, 100 of the examples shown has a prismatic shape, but it can have any shape, as long as it is adapted to comprise the aforementioned opening laterally.

[0018] The box 1, 100 further comprises at least one flap, and more preferably, a pair of flaps 4a, 4b, 104a, 104b which are adapted to close at least partially the opening 3, 103 and are able to oscillate between a closed position at least partly superimposed on the opening 3, 103 and a display position spaced apart angularly from the opening 3, 103.

[0019] In the closed position, which can be advantageously maintained by way of a magnetic closure 8, 108, the box 1, 100 completely encloses the product to be displayed, in particular the bottle, which can thus be transported and/or stored.

[0020] The display position of the flaps 4a, 4b, 104a, 104b is assumed when the box 1, 100 is in the display configuration, i.e. in order to show the product contained therein without removing it from the box.

[0021] Up to now a box that is per se known has been described with reference to the figures.

[0022] According to the invention, the box 1, 100 comprises furthermore at least one retention element 10, 110a, 110b for keeping at least one or, preferably, both of the flaps 4a, 4b, 104a, 104b in the above mentioned display position. Such retention element 10, 110 is provided with at least one connecting portion 11, 111a, 111b which is coupled rotatably to the box 1, 100, in particular which is able to rotate along at least one first axis F which has a direction that is substantially transverse, perpendicular or oblique with respect to the direction of the oscillation axis A, B of the flap 4a, 4b, 104a, 104b to be kept in the display position. The oscillation axes A and B of the flaps 4a, 4b, 104a, 104b are preferably directed transversely with respect to the resting base 5, 105 of the box, and more specifically they are substantially perpendicularly to such base 5, 105, and can be arranged at respective corners of the box 1, 100 when it is in the closed configuration.

[0023] In the preferred embodiments of the invention, the retention element 10, 110a, 110b is made of cardboard or card starting from a die-cut element, for example, like that in Figure 7.

[0024] In the first embodiment, the connecting portion 11 of the retention element 10 is coupled rotatably to the resting base 5 of the box 1. For example, the connecting portion 11 is fixed by way of a lobe 12 thereof to an inner face of the base 5 by way of adhesive bonding or seaming. The fixing of the lobe 12 can affect even only one face of an element associated with the base 5, for example the support 9 of the bottom of the bottle.

[0025] As can be seen from the sequence in Figures 2-6, the retention element 10 is usually accommodated in the box 1, in particular in the chamber 2, and can be extracted rotatably by way of a rotation about the axis F so as to engage against the flaps 4a, 4b and extend outward from the chamber 2.

[0026] In the second embodiment, the connecting portion 111a, 111b of the retention element 110a, 110b is coupled rotatably to a respective flap 104a, 104b, respectively, for example by way of adhesive bonding, and the retention element 110a, 110b can therefore be made to extend outward from the box 100 by way of a rotation about the axis F so as to engage against the resting base 105 or other portions of the box 100 with respect to which the flap 104a, 104b can oscillate, for example a face of a support 109 of the bottom of the bottle.

[0027] In both of the embodiments illustrated, the retention element 10, 110 comprises at least one wing 13a, 13b, 113a, 113b which can be unfolded away from the connecting portion 11, 111a, 111b of the retention element to the box 1, 100.

[0028] In the first embodiment, there is a pair of such wings 13a, 13b, which can be unfolded by way of rotation with respect to respective axes G that lie on the connecting portion 11 in order to be engaged against a respective one of the flaps 4a, 4b when such wings are in the unfolded position. The axes G of the first embodiment are preferably directed substantially perpendicularly to the axis F of rotation of the connecting portion 11 of the retention element with respect to the box 1.

[0029] In an alternative embodiment, not shown, the retention element 10 could be associated slideably with the chamber 2 and therefore could be extracted therefrom by sliding, and still have the above mentioned wings 13a, 13b which can rotate about the above mentioned axes G in order to be engaged against the respective flap 4a, 4b.

[0030] In the second embodiment, wherein the connecting portion 111a, 111b of the retention element 110a, 110b is coupled rotatably to a respective flap 104a, 104b, the retention element 110a, 110b is provided with a respective wing 113a, 113b which is able to rotate about an axis G that lies on the connecting portion 111a, 111b and is directed substantially transversely or perpendicularly to the axis F of rotation of the connecting portion 111a, 111b.

[0031] In another embodiment, not shown, the retention element 110a has a connecting portion 111a coupled rotatably to the flap 104a and is provided with a wing that can be unfolded, of length exceeding that of the base 105 and such as to extend beyond the base 105 up until the other flap 104b, in order to thus keep both of the flaps in the display position.

[0032] Advantageously, the wing 13a, 13b, 113a, 113b is configured so as to tend to maintain the unfolded position.

[0033] This tendency can be obtained in different ways. For example, the card that constitutes the die-cut element from which the retention element is provided can be of the fiberboard type, wherein the fibers are directed substantially according to the direction C in which the wing is to be unfoldable, i.e. transversely or perpendicularly to the folding line 14a, 14b, 114a, 114b with respect to which the wing 13a, 13b, 113a, 113b can rotate, i.e. transversely or perpendicularly to the axes G.

[0034] In addition or as an alternative, the retention element 10, 110a, 110b can have a surface convexity on which the folding lines 14a, 14b of the wings 13a, 13b

lie, and which tends to unfold such wings. Such convexity can be obtained in an obvious manner by an average skilled person in the sector by way of suitable adhesive bonding.

[0035] Operation of the box according to the invention is evident from what is described above.

[0036] The box 1, 100 is usually supplied closed, i.e. with the flaps 4a, 4b, 104a, 104b in the closed position, so as to keep the product to be displayed completely closed in the box.

[0037] When the product is to be put on display, for example in a shop window, the flaps 4a, 4b, 104a, 104b are opened, preferably beyond their display position as illustrated in Figure 5, and the retention element is extracted from the chamber 2 or from the flap 104a, 104b.

[0038] By virtue of the fibers of the die-cut element and/or of its surface convexity, the wings 13a, 13b, 113a, 113b unfold automatically so as to lie substantially coplanar with the surface of the connecting portion 11, 111a, 111b of the retention element 10, 110.

[0039] At this point the flaps 4a, 4b, 104a, 104b can be released and, as mentioned in the introduction, these tend to return to the closed position, as is well known. However, the presence of the retention element and in particular of its wings 13a, 13b, 113a, 113b will keep the flaps in the desired display position.

[0040] In practice it has been found that the box according to the invention fully achieves the set aim since it makes it possible to completely keep open the flaps that are usually used to occlude the opening from which the product in the box is visible when this is displayed.

[0041] Although the box according to the invention has been devised in particular for bottles, for example of wine and spirits, it can in any case be used, more generally, for any product that it is desired to display while keeping it in its box, for example a cosmetic product, a toy or a sculpture.

[0042] The box, thus conceived, is susceptible of numerous modifications and variations, all of which are within the scope of the appended claims. Moreover, all the details may be substituted by other, technically equivalent elements.

[0043] In practice, the materials employed, as well as the dimensions, may be any according to requirements and to the state of the art.

[0044] The disclosures in Italian Patent Application No. 102015000082095 (UB2015A006912) 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 box (1, 100) for displaying products, particularly bottles, which comprises a base (5, 105) for resting the box when it is in a display configuration, a side wall (6, 106) that extends from said resting base (5, 105) and surrounds at least partly at least one product to be displayed while it is accommodated in the box (1, 100), said side wall (6, 106) being open or interrupted so as to define an opening (3, 103) from which said at least one product is at least partly visible from outside the box (1, 100) when said box (1, 100) is in the display configuration and rested on said base (5, 105), said box (1, 100) comprising furthermore at least one flap (4a, 4b, 104a, 104b) adapted to close at least partially said opening (3, 103) and able to oscillate between a closed position at least partly superimposed on said opening (3, 103) and a display position spaced apart from said opening (3, 103), **characterized in that** said box (1, 100) comprises furthermore at least one retention element (10, 110a, 110b) for keeping said at least one flap in the display position, said retention element (10, 110a, 110b) comprising at least one connecting portion (11, 111a, 111b) coupled to said box (1, 100).

2. The box according to claim 1, wherein said at least one connecting portion (11, 111a, 111b) of the retention element (10, 110a, 110b) can rotate about at least one first axis (F) which has a direction that is substantially transverse or oblique with respect to the direction of the oscillation axis (A, B) of said at least one flap (4a, 4b, 104a, 104b), said oscillation axis (A, B) of said at least one flap (4a, 4b, 104a, 104b) being directed transversely with respect to said resting base (5, 105) of the box.

3. The box according to one or more of the preceding claims, wherein said at least one connecting portion (11) of the retention element (10) is coupled rotatably to said box (1) and preferably to the resting base (5) of the box (1).

4. The box according to one or more of the preceding claims, wherein said retention element (10, 110a, 110b) is normally accommodated in said box (1, 100) and can be extracted in a rotatable or sliding manner so as to engage against said at least one flap (4a, 4b, 104a, 104b) or against said box (1, 100) through said at least one flap.

5. The box according to one or more of the preceding claims, wherein said at least one connecting portion (111a, 111b) of the retention element (110a, 110b) is coupled rotatably to said at least one flap (4a, 4b, 104a, 104b).

6. The box according to one or more of the preceding

claims, wherein said retention element (10, 110a, 110b) comprises at least one wing (13a, 13b, 113a, 113b) that can be unfolded away from said connecting portion (11, 111a, 111b) of said retention element (10, 110a, 110b).

7. The box according to claim 6, wherein said box (1) comprises a pair of said flaps (4a, 4b) that can rotate on opposite sides of said opening (3) of the box, wherein said at least one connecting portion (11) of the retention element (10) is coupled rotatably to said resting base of the box and comprises a pair of said wings (13a, 13b) that can be unfolded to engage against a respective one of said flaps (4a, 4b) when said wings are in the unfolded position.

8. The box according to claims 6 or 7, wherein said at least one wing (13a, 13b, 113a, 113b) is configured so as to tend to maintain the unfolded position.

9. The box according to one or more of the preceding claims, wherein said retention element (10, 110a, 110b) comprises or is constituted by a die-cut element made of cardboard or card.

10. The box according to claims 8 and 9, wherein said cardboard or card is of the fiberboard type, wherein the fibers are directed substantially in the direction (C) in which said at least one wing (13a, 13b, 113a, 113b) can be unfolded.

11. The box according to claim 10, wherein said at least one wing (13a, 13b, 113a, 113b) is obtained by way of at least one folding line (14a, 14b, 114a, 114b) of said die-cut element, said fibers being directed transversely or substantially perpendicularly to said folding line (14a, 14b, 114a, 114b).

12. The box according to one or more of claims 9, 10 or 11, wherein said at least one wing (13a, 13b, 113a, 113b) is obtained by way of at least one respective folding line (14a, 14b, 114a, 114b) of said die-cut element and said die-cut element has a surface convexity on which said folding line (14a, 14b, 114a, 114b) lies and which tends to unfold said at least one wing (13a, 13b, 113a, 113b).

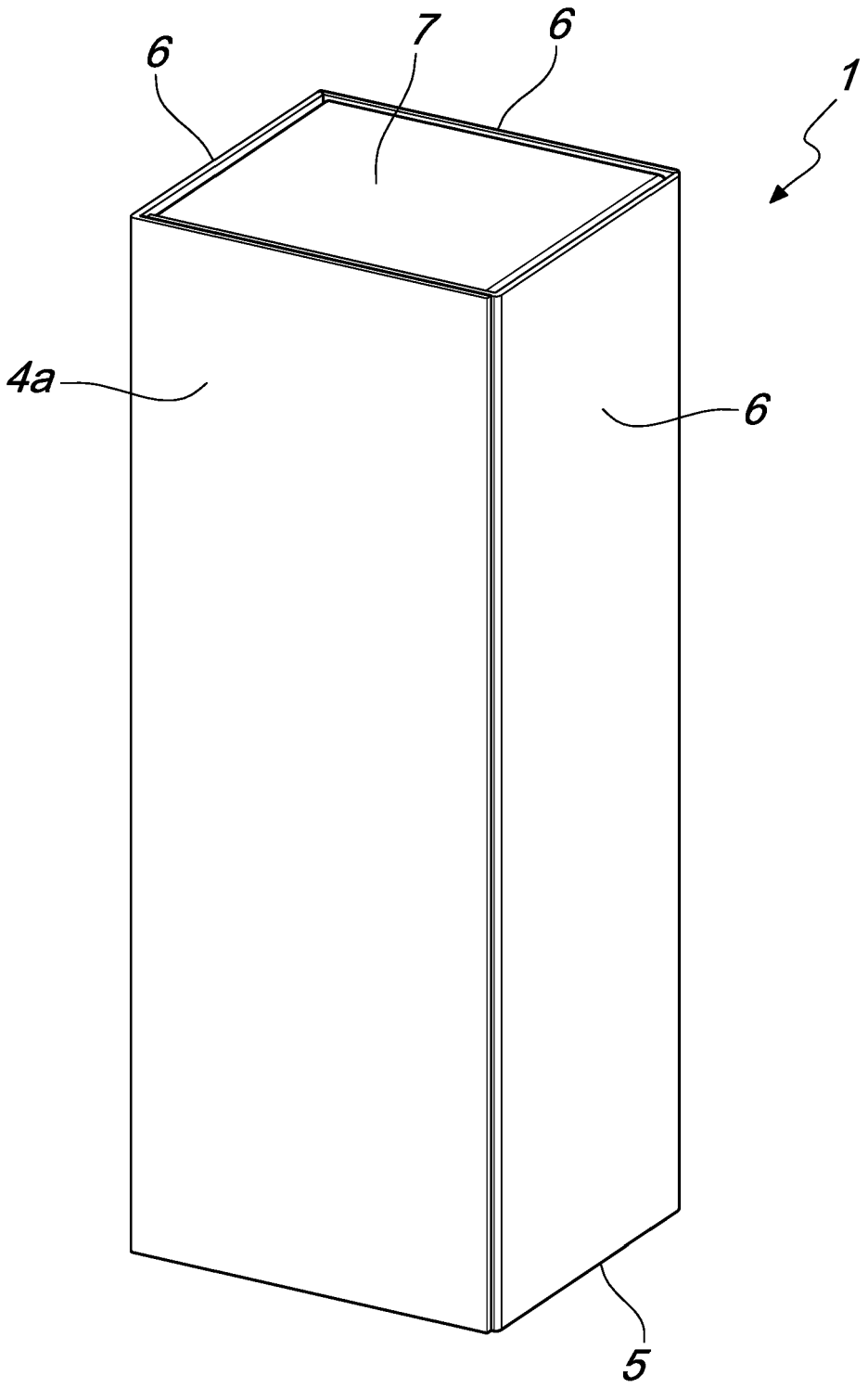

Fig. 1

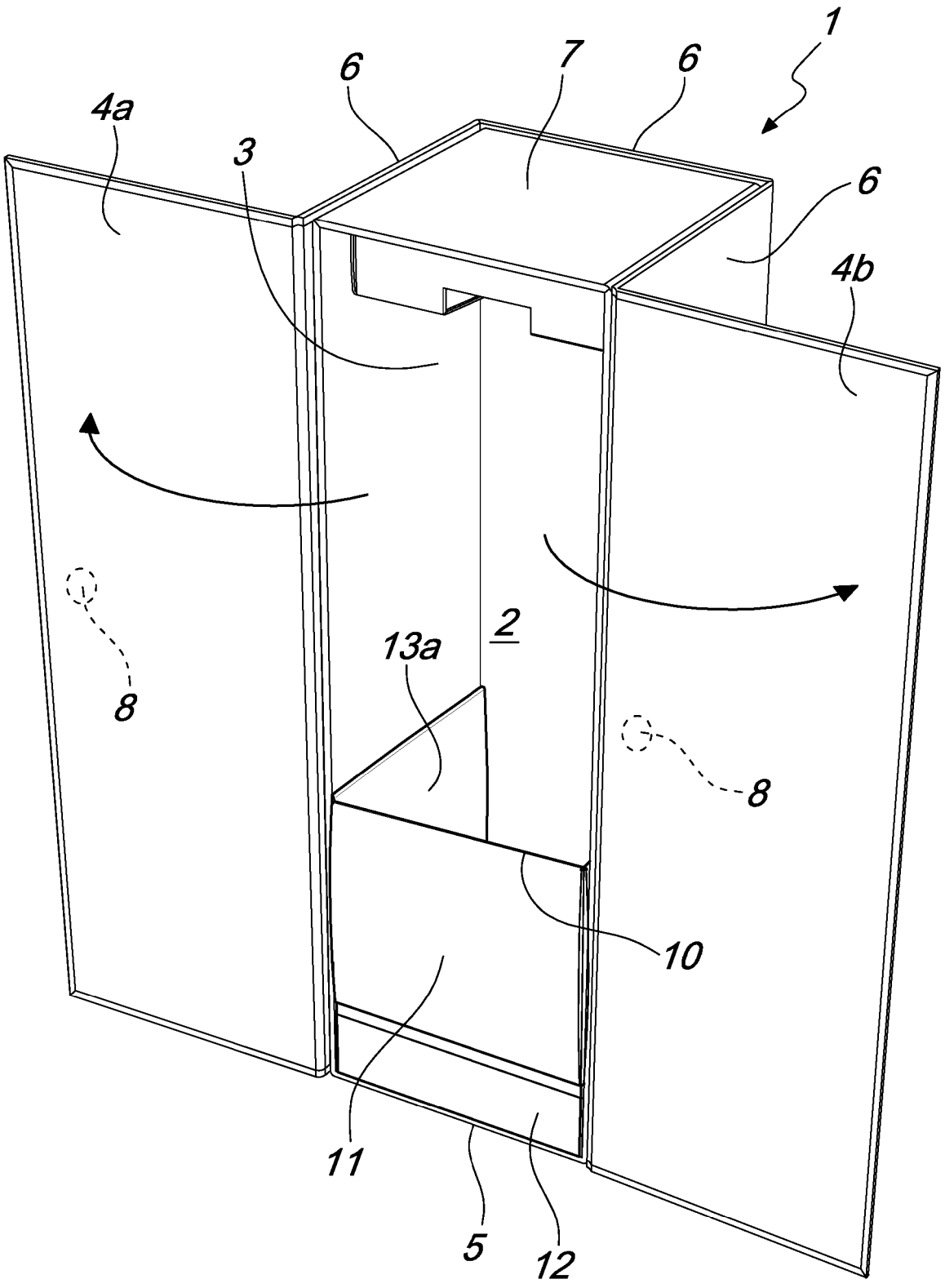

Fig. 2

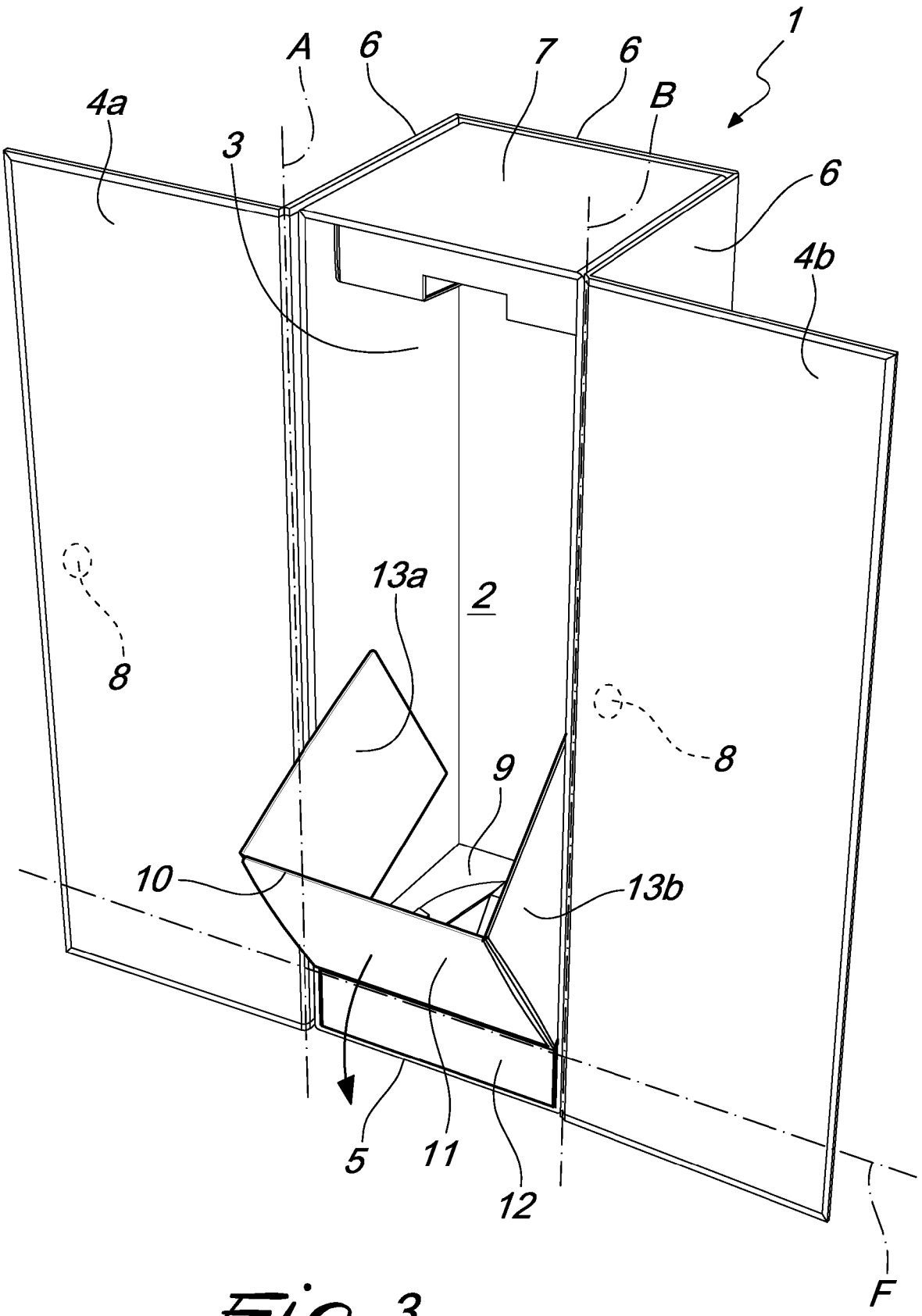

Fig. 3

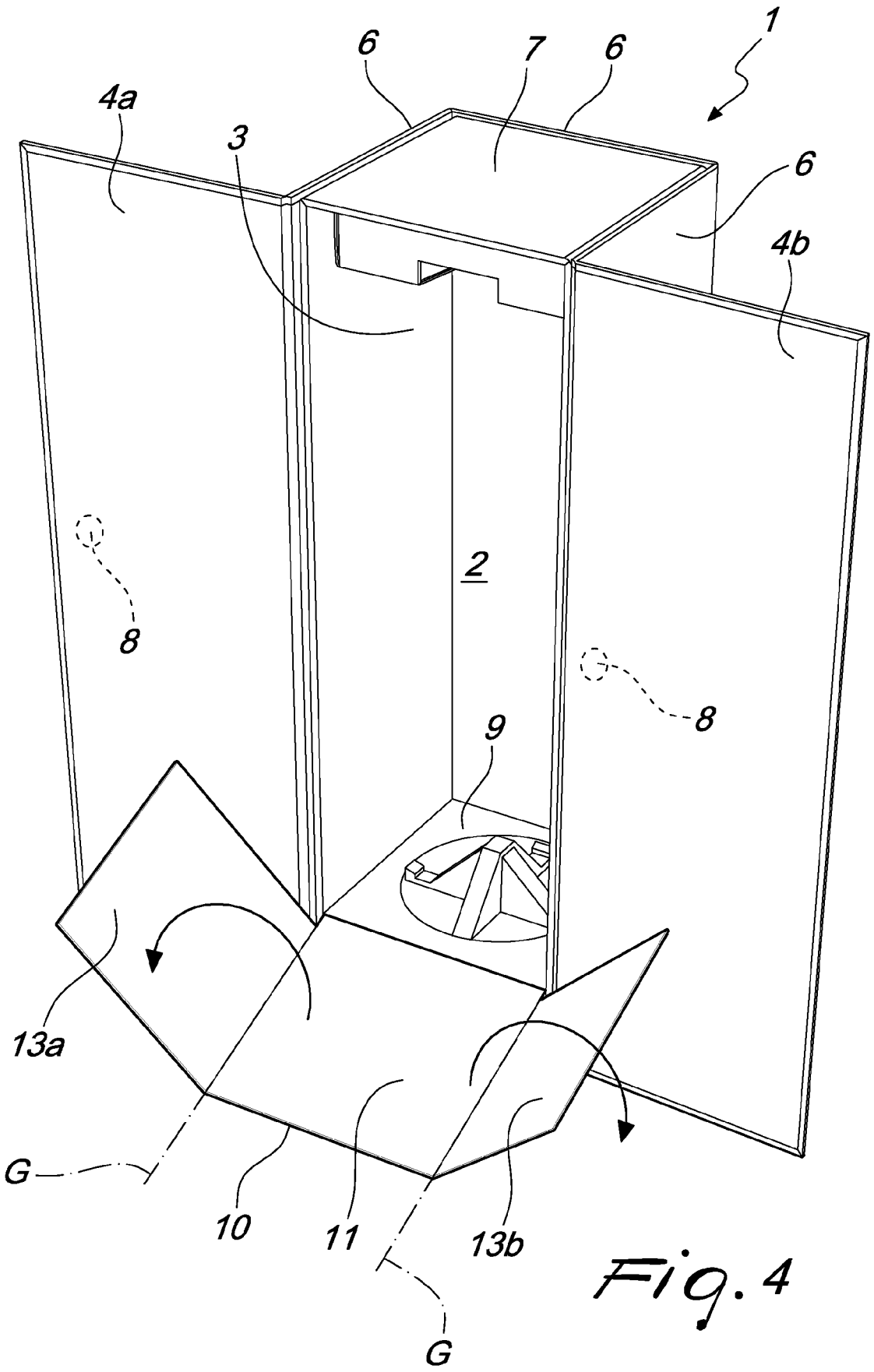

Fig. 4

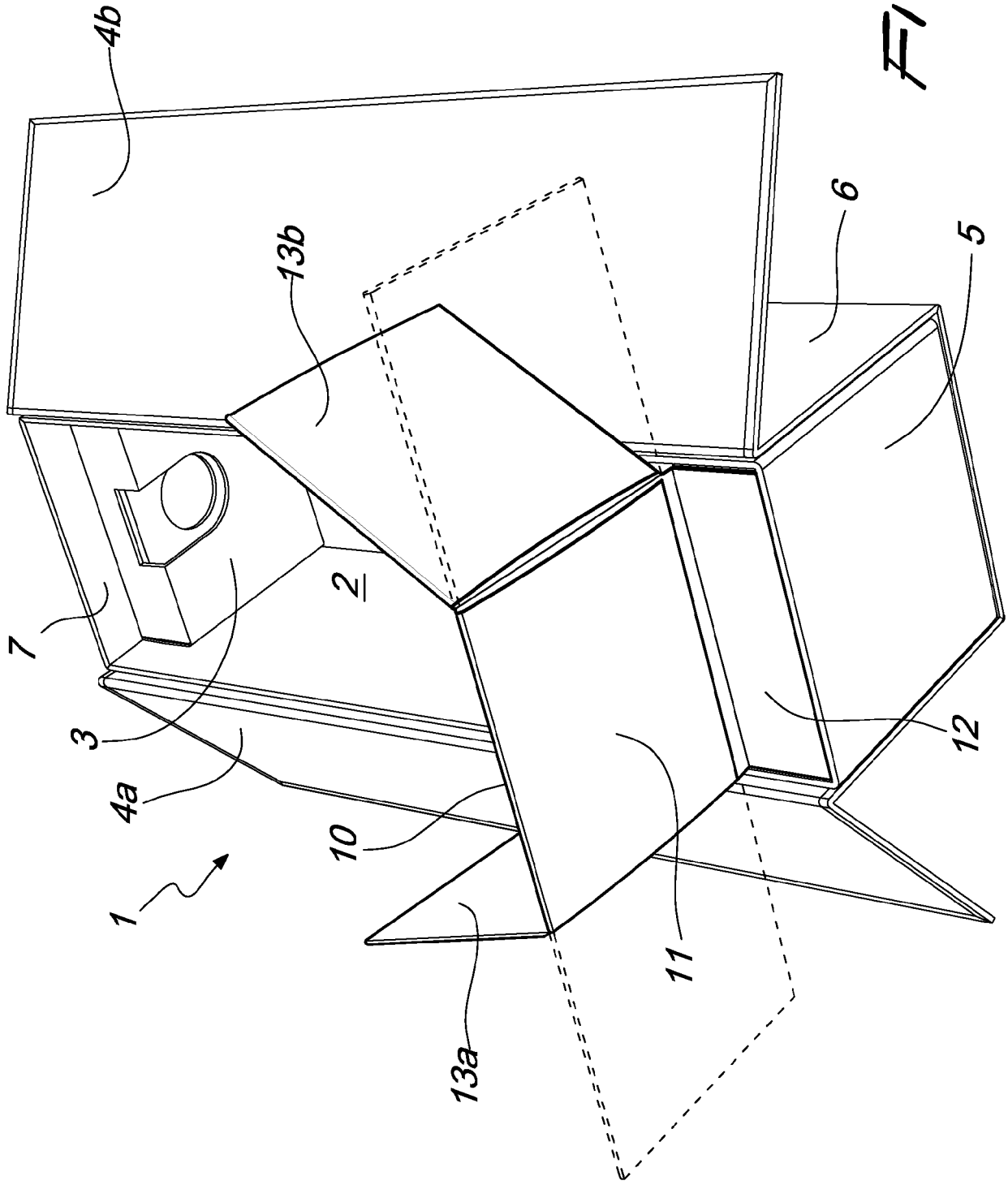

Fig. 5

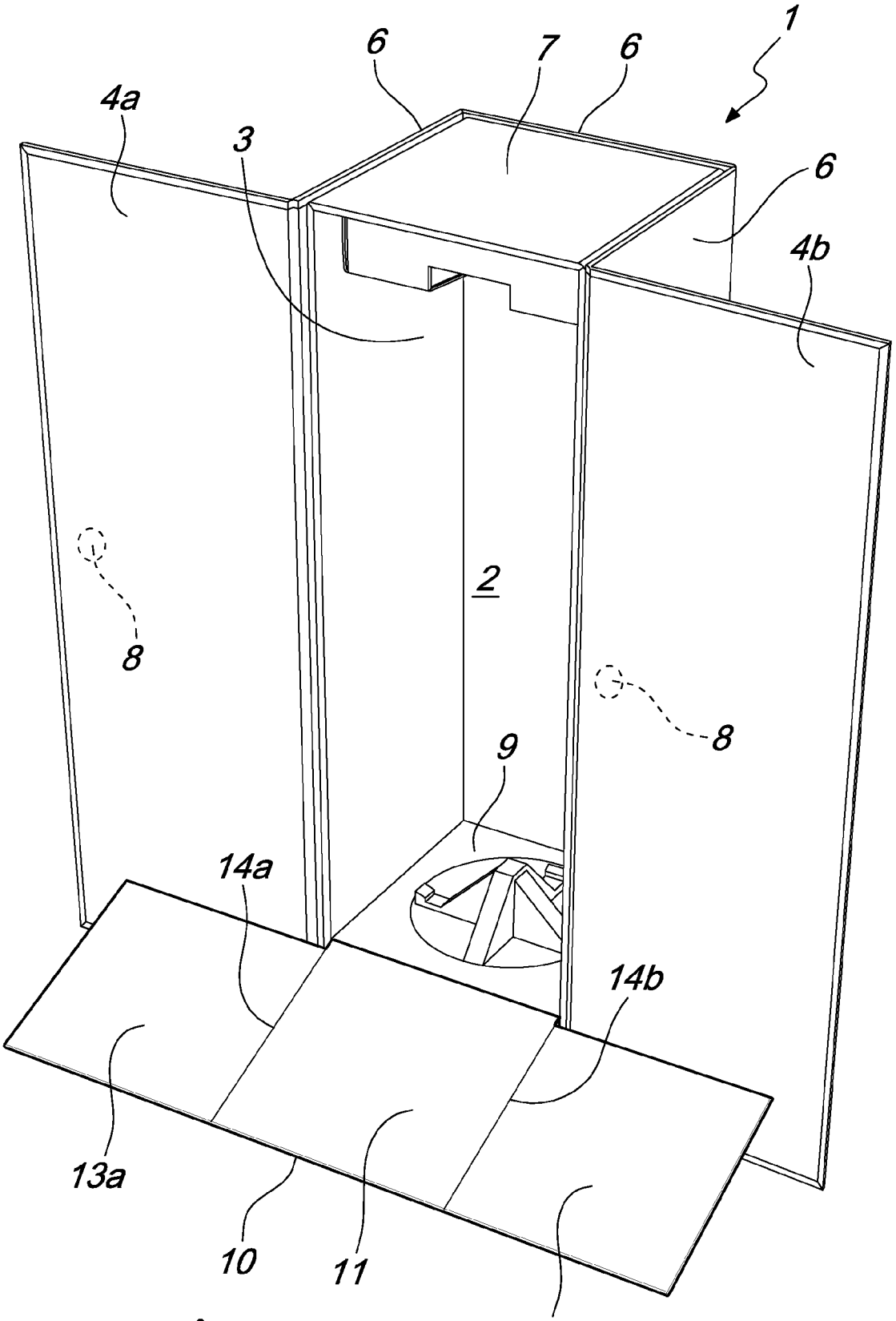

Fig. 6

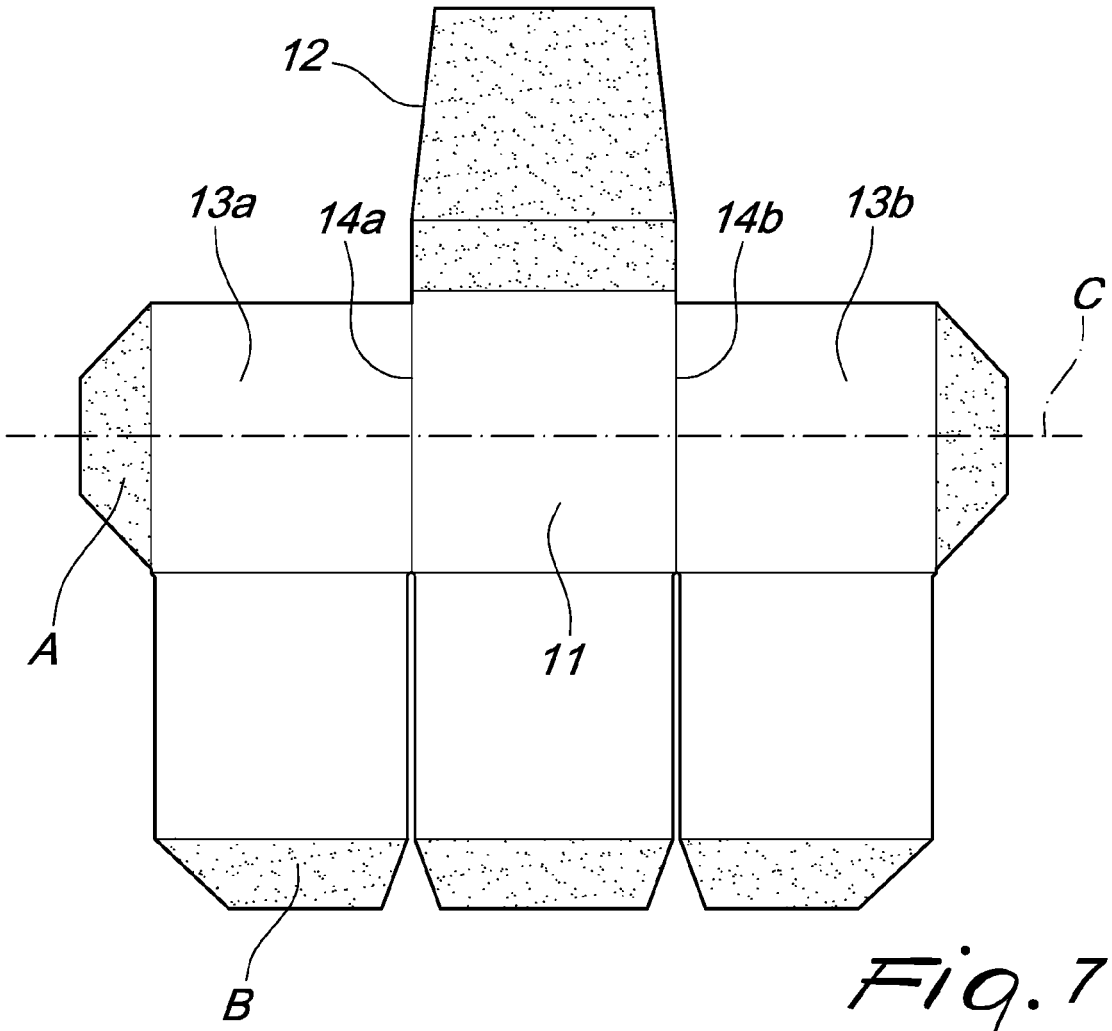

Fig. 7

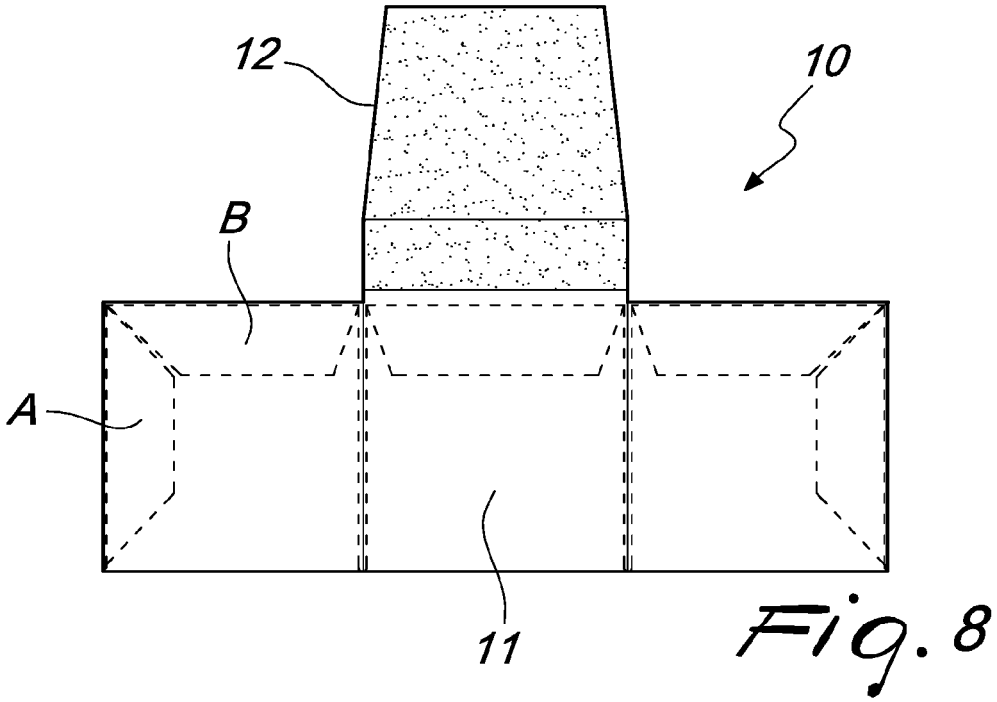

Fig. 8

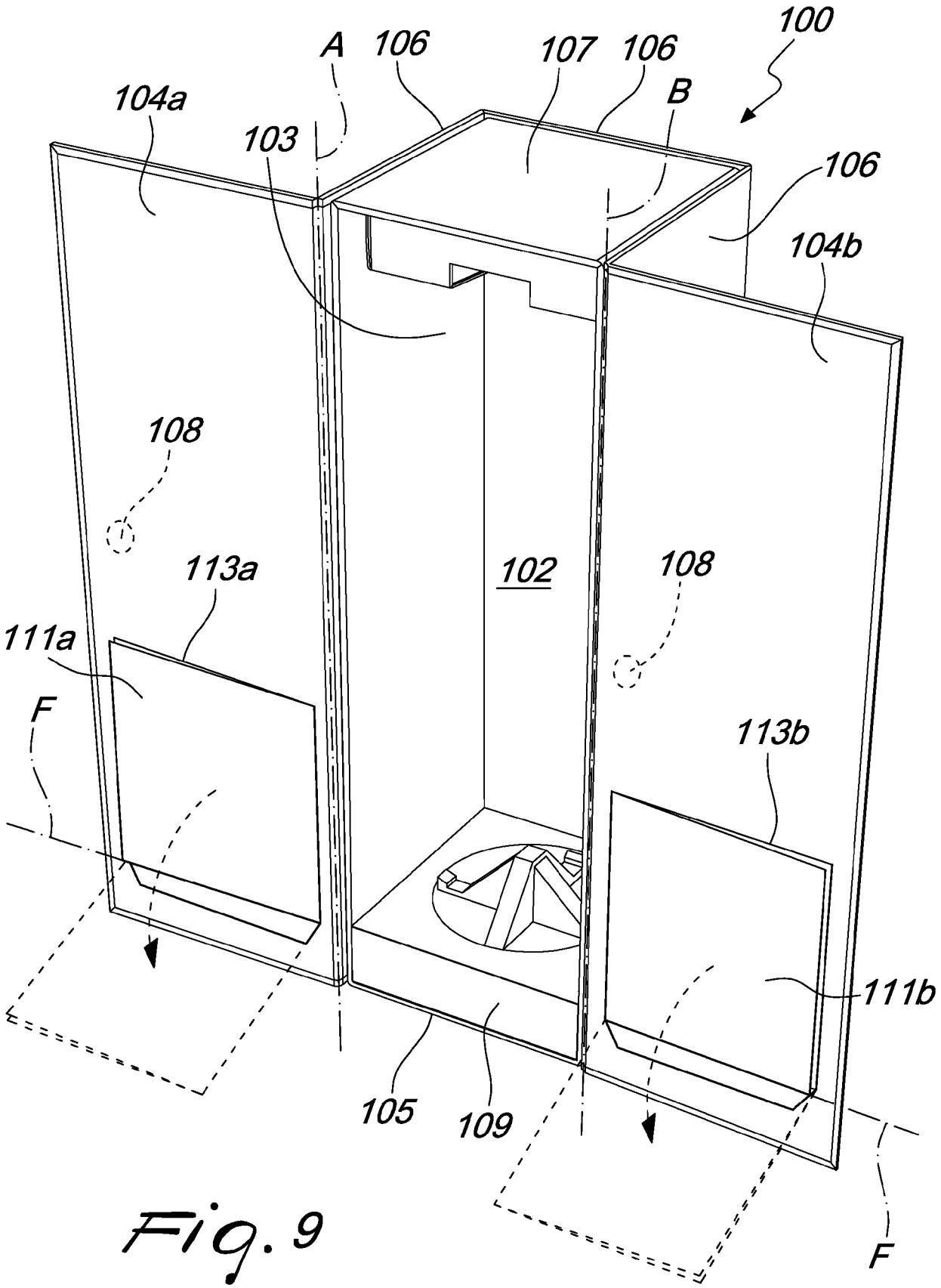
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Fig. 9

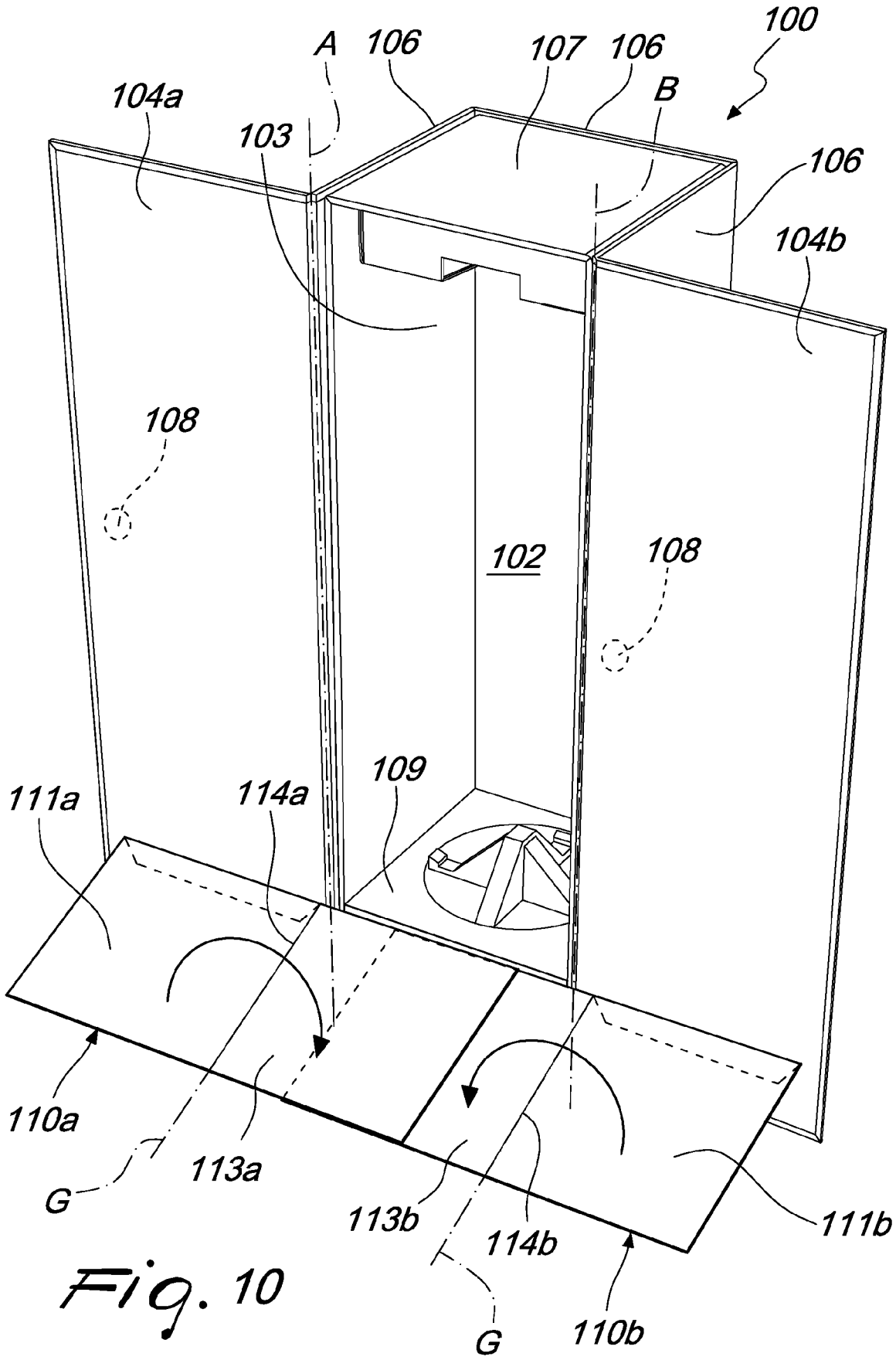
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Fig. 10

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EUROPEAN SEARCH REPORT

Application Number
EP 16 20 2460

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	US 2 058 648 A (WELLMAN CHARLES P) 27 October 1936 (1936-10-27)	1-4,9	INV. B65D5/42
A	* page 1, column 1, line 35 - line 36; figures 1, 2, 6, 9, 11, 12 * * page 3, column 1, line 4 - line 14 * -----	5-8, 10-12	B65D5/52
A	US 2003/098255 A1 (HSIANG KUAN FEN [TW]) 29 May 2003 (2003-05-29) * figures 2, 5 * -----	7	

TECHNICAL FIELDS SEARCHED (IPC)

A47F
B65D

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	17 February 2017	Czerny, M

CATEGORY OF CITED DOCUMENTS

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2058648 A	27-10-1936	NONE	
US 2003098255 A1	29-05-2003	NONE	

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- IT 102015000082095 **[0044]**
- IT UB2015006912 A **[0044]**