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# (54) INTEGRAL SYSTEM FOR ADAPTING BOXES OR CONTAINERS AS ADHESIVE AND SLIDING DRAWERS

(57) An integral system to adapt boxes or other containers to be installed as drawers in furniture or other surfaces, that comprises a box or container, means of fastening to the box or container, means of fastening to any surface and means of sliding.

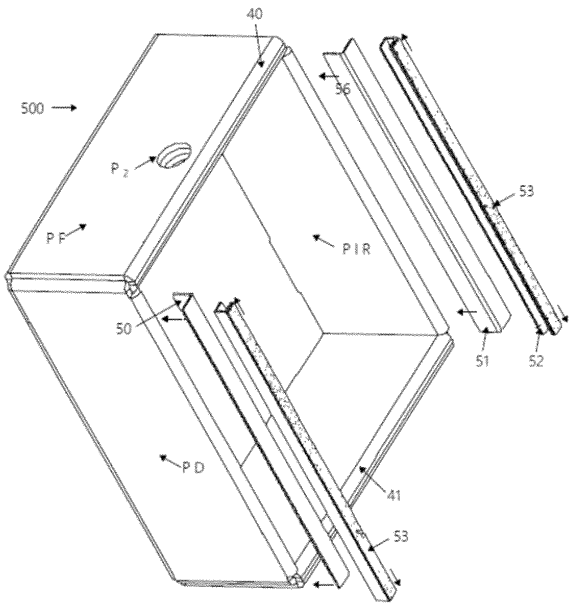


FIG. 5

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## Description

### EXTRACT OF THE INVENTION

**[0001]** The present invention refers to a comprehensive system for adapting boxes or other containers to be installed as drawers in furniture or other surfaces.

**[0002]** In its extended form it is a flat product with marked folds and on the lateral ends it contains a part of what would be a sliding rail system. When folded, it has the shape of a box and at the top of 2 of its parallel sides it is part of the sliding system.

### BACKGROUND OF THE INVENTION

**[0003]** Based on the research that has been carried out, it has been determined that today there is no comprehensive system that can satisfy the demand for useful spaces in existing furniture nor in the different surfaces that are available in daily life, such as shelves, desks, tables, bookcases, doors, walls, etc...

**[0004]** Specifically in elements called drawers, the meaning of drawers is interpreted as square or rectangular elements with 90 degrees corners and sliding systems. (Rails that allow it to slide in order to be used)

**[0005]** In conclusion, a system of self-adhesive mountable rails that can be easily installed by any mechanical or adhesive means such as double-sided tapes, velcro and / or screws, nails, tacks and / or any element of fixation on rails that in turn slide over elements (drawers, boxes, containers with rectangular, square, trapezoidal geometry) and these in turn have countertops or sliding means such as "L", "U", "T" profiles and in staggered levels that are fastened and / or fixed, glued or attached to these drawers, boxes, containers with rectangular, square or trapezoidal geometry.

**[0006]** Specifically, we refer to the implementation of drawers on any surface, be it closets, dressers, desks, bookcases, shelves, other drawers, counters, bars, etc... Without the latter previously having drawers or if they had some, they could be the object of placing one or more additionally.

### DESCRIPTION OF THE FIGURES

**[0007]** Figure 1 corresponds to a one-piece template comprising a plurality of panels that extend around a central panel (PC) provided with slots in pairs (A, B, C, D, E, FG, H) in the edge of each side or fold line (13, 14, 15, 16) that connects with each of the side panels (PI, PD) and the front (PF) and rear (PT) panels which define a panel of corresponding reinforcement that extends beyond a pair of fold lines (17, 18) that form a spine when folding the reinforcement panels (PFR, PTR), said panels have at the far end a pair of flanges (1,2,5,6) which are inserted in a corresponding form and by pressure in the grooves (F, G, B, C) of the central or bottom panel (PC); the front panel and front reinforcement (PF, PFR) have in a central location and close to the fold lines (17) a pair of holes (P1, P2) that serve as pulls or handles to insert the user's and finger's fingers. that way, slide the drawer or drawer outward or inward to open or close the drawer object of the present invention. On the upper edge of the side panels there is a rail, either a "T" or an "L" that serves to slide the drawer or drawer in or out by means of a separate piece in the form of a gutter that is located fixed on a surface; "T" rail has internal fasteners that snap onto top edge of side panels; the "L" rail is attached to the wall of the side panels by means of an adhesive that can be repositionable.

**[0008]** Returning again to the template of figure 1, the manner in which the drawer is assembled from the mentioned template is described; that is, if the central panel (PC) and the fold lines (13, 14, 15, 16) at its ends are taken as a reference, first the left (PI) and right panels (PD), then the tabs (L1, L2, L3, L4) towards the center of the corresponding attached panels; The next step is to fold up the front (PF) and rear (PT) panels in such a way that the tabs (L1, L2, L3, L4) are positioned buttressed on the inside of the mentioned panels, then they are folded down the front and rear reinforcement panels in such a way that the tabs are trapped between the front and rear panels and their corresponding reinforcement (PFR, PTR), whose tabs (1, 2, 5, 6) are inserted into their respective grooves security (F, G, B, C). Thus, in this way the panels are tightly joined and in a vertical position to form a box with vertical bottom and lateral sides and delimits an empty space that can be used to store or keep things in an orderly manner; The reinforcement side panels (PDR, PIR) whose corresponding tabs (3, 4, 7, 8) are inserted into the predetermined slots (H, A, D, E) still have to be bent inwards. The drawer or drawer that is formed is reinforced and avoids the need to use adhesive to hold the sides or vertical side panels. The tabs (L1, L2, L3, L4) are formed as a continuation of the left (PI) and right (PD) panels and a rectangular cut to form a groove at the ends of the front and rear panels to obtain the set of grooves (C1, C2, C3, C4) that allow the bending of the tabs and the fastening of the vertical side panels in cooperation to form the drawer or drawer, object of the present invention.

**[0009]** Without loss of generality, templates of different sizes can be punched according to the requirements of the space to be used, such is the case of an intermediate size such as that of figure 2, designed in a shorter and less wide size; It has the same elements as the template in figure 1, and the assembly procedure is the same.

**[0010]** In the case of narrower drawer or drawer case of figure 3, due to space and template requirements, the front and rear panels have only one flange, and therefore only require a slot as a fastening element. For a better description, the need arises to be more specific in the central area that corresponds to the central panel (PC), front panel (PF) and rear panel (PT), as well as their corresponding reinforcement panels; the template is elongated and has space for the slots (D, E, H, A) where

the tabs of the left and right reinforcement panels fit; but due to the narrowness of this embodiment, it only has one slot (F, B) at each end for the engagement of the flanges of the front and rear reinforcement panels.

**[0011]** For the assembly of the drawer or drawer of this narrow mode, proceed in a similar way to the assembly of the template that corresponds to figure 1, in effect, it begins with bending up or towards the center of the side panels (PI, PD) from the fold lines (15, 13) that correspond appropriately, as a next step, the tabs (L1, L2, L3, L4) corresponding to the side panels are bent towards the center and in the front direction , as a next step, the front (PF) and rear (PT) side panels are bent up or in front, in such a way that they are located behind the tabs, in this way when the reinforcement panels (PRF, PRT) are bent the tabs are trapped by the aforementioned panels whose corresponding tab engages in the slot located at each end of the central panel, the tab (30) engages in the slot (F), the tab (31) engages in the slot (B); Continuing with the assembly, the reinforcement side panels (PIR, PDR) are now bent so that the tabs located on the end edge fit into the grooves (D, E, H, A) of the central panel, thus forming the drawer of the present invention, in one of the preferred embodiments suitable for small spaces due to the narrowness of the drawer.

**[0012]** Figure 4 shows the exploded view of the "T" rail system and the drawer or organizing drawer object of the present invention, the drawer is made up of a central panel (PC) and four side panels, left reinforcement (PIR), right (PD), front (PF), rear reinforcement (PTR), the sliding and fastening system is relevant, consisting of a gutter (43) and a "T" -shaped rail (45); The rail consists of a horizontal flat surface and two parallel vertical planes with internal longitudinal ribs (44), defining a central space similar to a tuning fork into which the upper edge of the left and right side panels is inserted; the rail (45) is introduced by exerting pressure in the downward direction (46). The gutter has a flat upper surface on which a double-sided adhesive tape (42) is located, said tape adheres to the upper surface of the gutter and the other side adheres to the surface where the drawer or sliding drawer will be placed (400), in this way the fastening of the drawer enabled with the "T" -shaped rail is achieved. The sliding is defined in the direction (470) to hide or reach the objects located inside the drawer (400) of figure 4 enabled with a hole (P2) that functions as a handle that allows the drawer to slide (400) to open or close manually. The upper edges (40) and (41) of the front and rear planes, respectively, show the rounded thickness that results from the fold of the outer panel and the inner reinforcing panel in each of the vertical walls that are anchored to the central panel of the drawer (400).

**[0013]** Figure 5 describes a drawer (500) with the clamping and sliding system in an exploded view with a preferred embodiment where the rail is a right-angle or "L-shaped" profile and the straight tubular gutter in the shape of a " U "with 90° corners, a double-sided adhesive tape (53) is located on the upper surface of the gutter (52) for fixing at the location, under a plane of a desk, a table, a shelf or any flat surface that allows fixing the gutter (52); The rail (51) also has a double-sided tape (50) on the vertical internal face, for its placement on the upper edge of the reinforcement side panels it slides in the direction marked with the reference (53) and by means of pressure it adheres to the surface of the reinforcement panels (PIR) and the other, leaving the horizontal plane of the rail (51) free until beyond the plane defined by the right plane (PD), for example; in this way the drawer (500) is enabled to move by sliding along the gutter (52). The front plane (PF) presents a round central hole (P2) and that goes through the front and reinforcement panel that works as a handle element to allow the introduction of the finger and resemble an anchor hook to communicate the movement of the drawer as required. The upper edges (40) and (41) of the front and rear planes, respectively, show the rounded thickness that results from the fold of the outer panel and the inner reinforcing panel in each of the vertical walls that are anchored to the central panel of the drawer (500).

**[0014]** Figure 6 corresponds to a one-piece template forming a packing box provided with a sliding rail to allow orderly storage of the product contained therein, comprising a plurality of panels that extend around a central panel (PC) provided with slots (A, H, 62, E, D, 63) on the edge of each side or fold line (13, 14, 15, 16) that connects with each of the side panels (PI, PD) and the panels front (PF) and rear (PT) which define a corresponding reinforcement panel that extends beyond a pair of fold lines (140,160) that form a spine when folding the reinforcement panels (PFR, PTR), said The panels have at the far end a corresponding flange (67, 64) which is inserted in a corresponding manner and by pressure in the grooves (62, 63) of the central or bottom panel (PC). In the vicinity of the fold lines (150) of the side panels there is an "L" rail (60) that is attached by adhesive to each side reinforcement panel and serves to slide the drawer or drawer in or out. outside by means of a separate piece in the form of a gutter that is fixed to a wall; the "L" rail is attached to the wall of the reinforcing side panels by means of an adhesive that can be repositionable.

**[0015]** Figure 7 corresponds to a template that forms a box that contains on its two of its lateral faces a linear clamping (SL1, SL2) and two dies in each of the lateral ends of the lateral faces (SLI1, SLI2, SLD1, SLD2).

**[0016]** Figure 8 shows the sliding system where the box lid slides through the respective cut-outs made on the side (SL2) and front (SLI2) faces of the template.

**[0017]** Returning again to the template of figure 6, the manner of assembly of the drawer from the mentioned template is described; that is, if the central panel (PC) and the fold lines (13, 14, 15, 16) at its ends are taken as a reference, first the front (PF) and rear panels (PT), then the tabs (L1, L2, L3, L4) towards the center of the corresponding attached panels; The next step is to fold up the right (PD) and left (PI) panels in such a way that the tabs (L1, L2, L3, L4) are positioned buttressed on the

inside of the mentioned panels, then they are folded down the right and left reinforcement panels in such a way that the tabs are trapped between the right and left panels and their corresponding reinforcement panels (PDR, PIR), whose tabs are inserted into their respective security slots (A, H, D, E). Thus in this way the panels are tightly joined and in a vertical position to form a box with vertical bottom and lateral sides and delimits an empty space that can be used to store or keep things in an orderly manner; the front and rear reinforcing panels (PFR, PTR) whose flanges (64, 67) are inserted into the correspondingly predetermined slots (63, 62) still have to be bent inwards, the flanges of the front and rear reinforcing panels remain folded at the center panel to give the case extra reinforcement. The box or package that is formed is reinforced and the need for the use of adhesive to hold the sides or vertical side panels is avoided. The tabs (L1, L2, L3, L4) are formed as a continuation of the front (PF) and rear (PT) panels and a rectangular cut to form a groove at the ends of the right and left panels to obtain the set of four grooves that allow the bending of the tabs and the fastening of the vertical side panels in cooperation to form the box or package, object of the present invention.

**[0018]** Without loss of generality, templates of different sizes can be die-cut according to the requirements of the space to be used, the assembly procedure is the same as described above.

## DETAILED DESCRIPTION OF THE INVENTION

**[0019]** The present invention refers to a comprehensive system for adapting boxes or other containers to be installable as drawers in furniture or other surfaces.

**[0020]** A box or container of the present invention includes a bottom panel, reinforcement panels distributed in two side panels, one back and one front, formed from a one-piece template of flexible material such as cardboard, plastic or other flexible materials, with cuts that form tabs, side and bottom or center panels, as well as fold lines and cuts to form slots and holes that function as handles or pulls; suitable for foldable organization and easy to assemble by any user without tools and complicated instructions. The side panels are coupled to the grooves of the bottom or central panel, in the mentioned grooves the tabs of the reinforcing side panels are inserted, which in turn are interlocked by means of tabs to form the drawer object of the present invention.

**[0021]** In another preferred embodiment of the present invention, a lid and an "L" profile are added to the box or container as a sliding rail, the first use of which is for packaging a product such as shoes, clothing, etc...; the second use avoids packaging waste and is used as a slide-out organizer drawer. The side, rear and front panels have a vertical position, the bottom or central panel is located in a horizontal position, together they form a relocatable drawer object of the present invention, the sliding means such as rail and gutter are located at the edges. of the side panels.

**[0022]** The drawer of the present invention is enabled to contain a plurality of articles within the space formed by the side panels that are connected to each other by means of tabs, said side panels include reinforcement features by means of double-folded side panels that increase the resistance of the drawer or drawer of the present invention, which facilitates order in work spaces in offices, studies and the home; in these drawers they facilitate the access and vision of the articles contained inside. The drawer of the present invention is designed in various sizes to adapt to the available spaces such as lower faces of tables, desks, side faces of the same and open spaces where they can be located by means of adhesive.

**[0023]** The detailed description of the present invention is described more specifically by means of the figures annexed thereto without limiting the scope of protection thereof, which will be determined by the corresponding claims.

## Claims

1. An integral system to adapt boxes or other containers to be installed as drawers in furniture or other surfaces, **characterized in that** it comprises a box or container, means of fastening to the box or container, means of fastening to any surface and sliding means.

2. The integral system for adapting boxes or other containers to be installed as drawers in furniture or other surfaces in accordance with claim 1, **characterized in that** the box or container can have a rectangular, square or trapezoidal geometry.

3. The integral system for adapting boxes or other containers to be installed as drawers in furniture or other surfaces in accordance with claim 2, **characterized in that** the box or container is made of flexible materials.

4. The integral system for adapting boxes or other containers to be installed as drawers in furniture or other surfaces in accordance with claim 2, **characterized in that** the box or container is a one-piece flexible material template, comprising a plurality of panels extending around a central panel.

5. The integral system for adapting boxes or other containers to be installed as drawers in furniture or other surfaces in accordance with claim 2, **characterized in that** the box or container comprises a bottom panel, reinforcing panels distributed in two side panels, one back and one front, formed from a one-piece template of flexible material.

6. The integral system for adapting boxes or other containers to be installed as drawers in furniture or other surfaces in accordance with claim 2, **characterized in that** the box or container comprises cuts that form tabs, tabs, side and bottom panels or center, as well as fold and cut lines to form slots and holes that function as handles or pulls.

7. The integral system for adapting boxes or other containers to be installed as drawers in furniture or other surfaces according to claim 1, **characterized in that** the means of fastening to any surface comprise gutters with adhesive material.

8. The integral system for adapting boxes or other containers to be installed as drawers in furniture or other surfaces in accordance with claim 1, **characterized in that** the sliding means comprise rails that are attached to countertops or gutters adherent to the surface.

9. The integral system for adapting boxes or other containers to be installed as drawers in furniture or other surfaces according to claim 8, **characterized in that** the sliding means are located on the edges of the side panels.

10. The integral system for adapting boxes or other containers to be installed as drawers in furniture or other surfaces according to claim 8, **characterized in that** the sliding means comprise a "T" shaped rail.

11. The integral system for adapting boxes or other containers to be installed as drawers in furniture or other surfaces according to claim 8, **characterized in that** the sliding means comprise an "L" shaped rail.

12. The integral system for adapting boxes or other containers to be installed as drawers in furniture or other surfaces according to claim 8, **characterized in that** the sliding means comprise a "U" shaped rail.

13. The integral system for adapting boxes or other containers to be installed as drawers in furniture or other surfaces in accordance with claim 8, **characterized in that** the "T" rail has internal fasteners that are fixed by pressure on the upper edge of the side panels.

14. The integral system for adapting boxes or other containers to be installed as drawers in furniture or other surfaces in accordance with claim 1, **characterized in that** a lid and an "L" -shaped rail are added to the box or container, as a slide rail, wherein the first use of the box or container is to pack a product.

Amended claims under Art. 19.1 PCT

1. An integral system to adapt boxes or other containers to be installed as drawers in furniture or other surfaces, without the need for its own cabinet, **characterized in that** it comprises a pre-assembled box or container, one or more attached fastening means, on one side, to the box or container, and on the other side, to a counter-rail element, one or more fastening means attached to any surface or furniture, on one side, and to a rail element, on the other hand.

2. The integral system for adapting boxes or other containers to be installed as drawers in furniture or other surfaces in accordance with claim 1, **characterized in that** the box or container can have a rectangular, square or trapezoidal geometry.

3. The integral system for adapting boxes or other containers to be installed as drawers in furniture or other surfaces in accordance with claim 2, **characterized in that** the box or container is made of flexible materials, excluding paper.

4. The integral system for adapting boxes or other containers to be installed as drawers in furniture or other surfaces according to claim 2, **characterized in that** the box or container comprises slots or holes that function as handles.

5. The integral system for adapting boxes or other containers to be installed as drawers in furniture or other surfaces in accordance with claim 2, **characterized in that** the box or container comprises pre-assembled and pre-used boxes for the delivery of products or pre-used as transport boxes and sale of other products.

6. The integral system to adapt boxes or other containers to be installed as drawers in furniture or other surfaces in accordance with claim 1, **characterized in that** the fastening means, the rail and counter rail, are located at the edges of the panels sides.

7. The integral system for adapting boxes or other containers to be installed as drawers in furniture or other surfaces in accordance with claim 6, **characterized in that** the sliding means comprise a "T" shaped rail and a counter rail for rail in the shape of a "T".

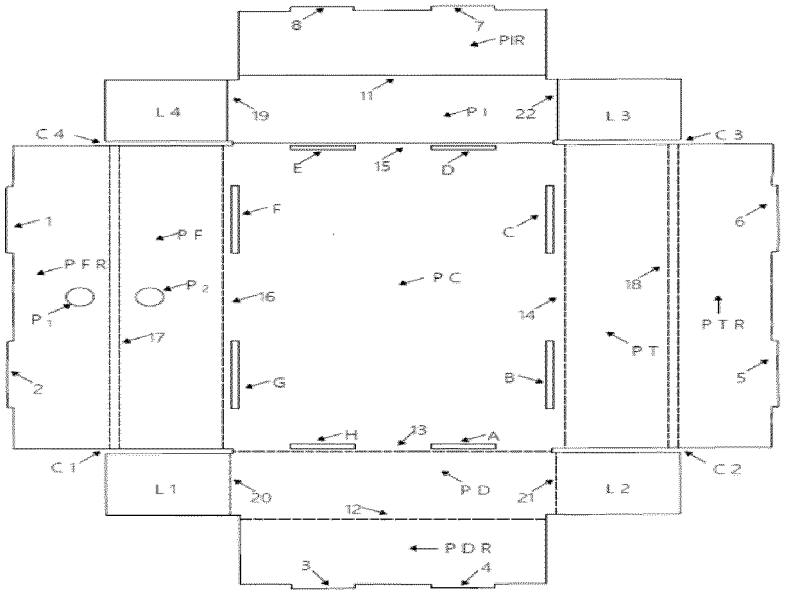
8. The integral system to adapt boxes or other containers to be installed as drawers in furniture or other surfaces in accordance with claim 6, **characterized in that** the sliding means comprise an "L" shaped rail and a counter rail for rail in an "L" shape.

9. The integral system for adapting boxes or other containers to be installed as drawers in furniture or other

surfaces in accordance with claim 6, **characterized in that** the sliding means comprise a "U" shaped rail and a counter rail for rail in "U" shape.

**10.** The integral system to adapt boxes or other containers to be installed as drawers in furniture or other surfaces in accordance with claim 6, **characterized in that** the "T" rail has internal fasteners that are fixed by pressure on the upper edge of the side panels.

**11.** The integral system for adapting boxes or other containers to be installed as drawers in furniture or other surfaces in accordance with claim 1, **characterized in that** a lid is added to the box or container, the structure of which comprises one or more elements perpendicular to the lid itself that comprise the L-shaped rail or rails, while the box comprises one or more elements that come out sideways and are shaped in such a way that they join and hold the rail element of the lid to form the counter rail.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PC
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FIG. 1

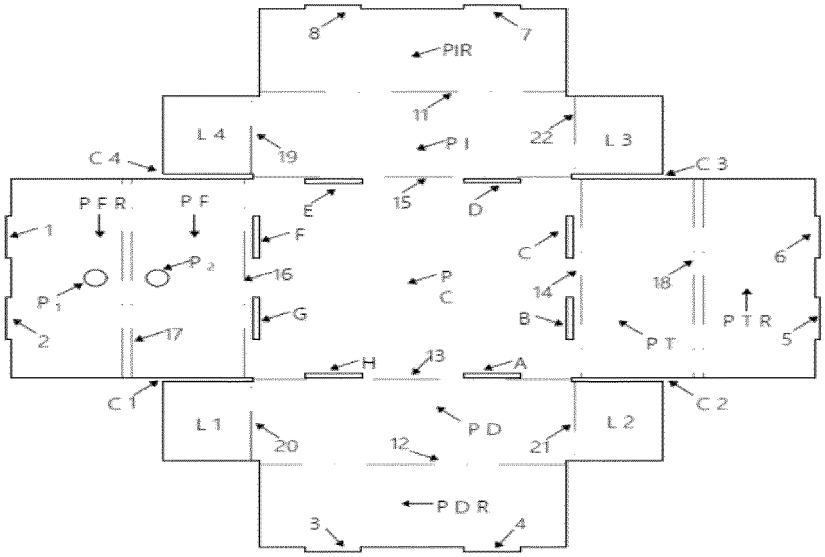
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FIG. 2

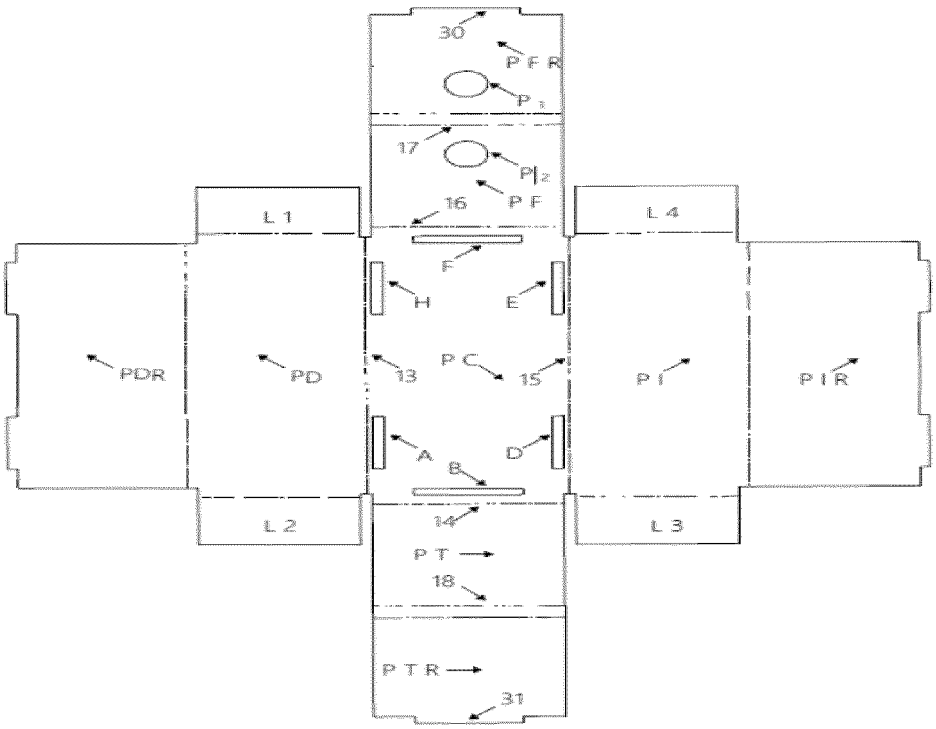
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FIG. 3

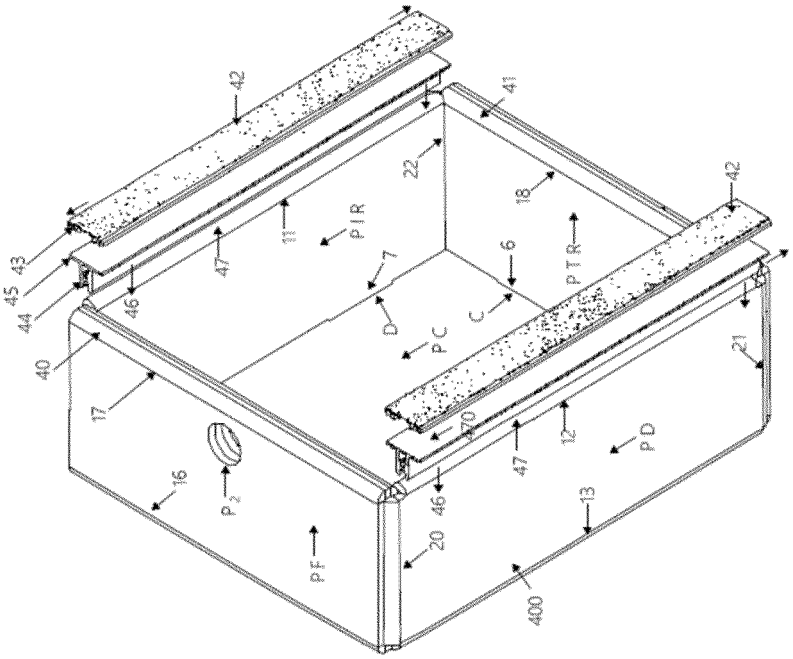
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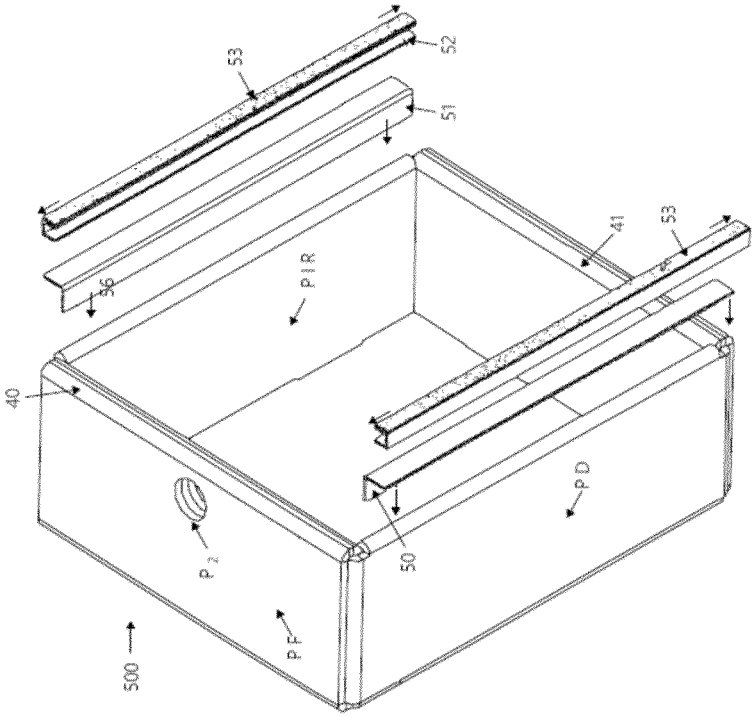
FIG. 4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P 2
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FIG. 5

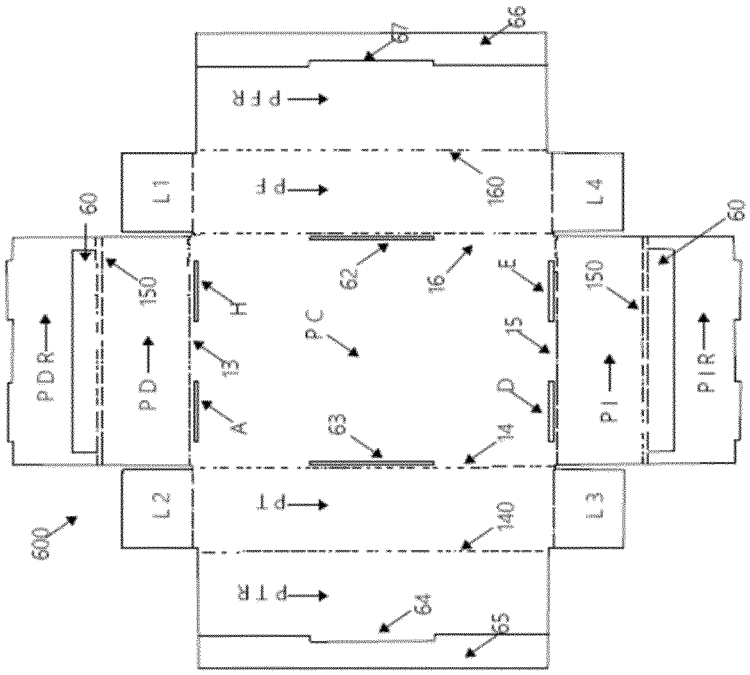
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FIG. 6

FIG. 7

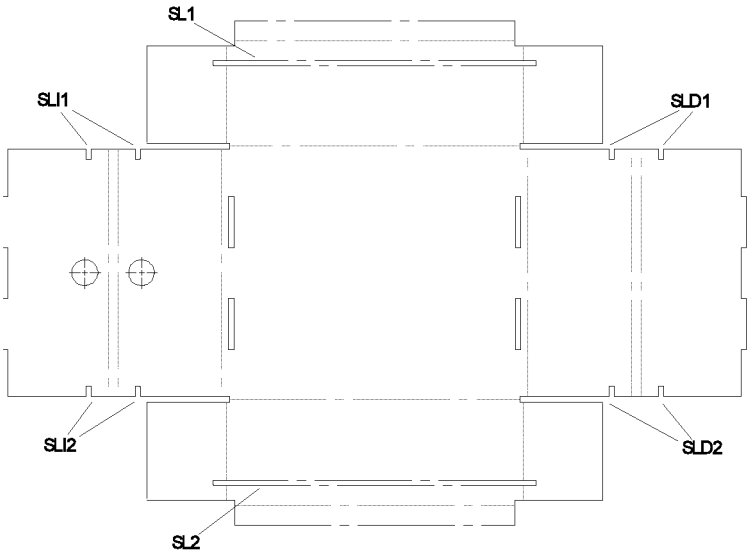
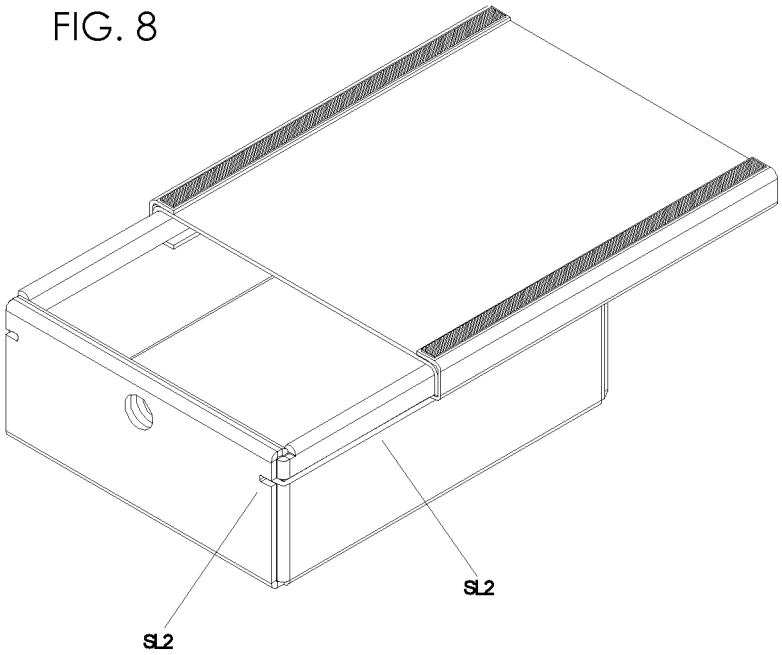



FIG. 8



# INTERNATIONAL SEARCH REPORT

International application No.
PCT/IB2018/057473

A. CLASSIFICATION OF SUBJECT MATTER

**See extra sheet**

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
A47B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPODOC, INVENES, WPI

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|---|---|---|
| X | KR 20180000318U U 31/01/2018, the whole document. | 1-14 |
| A | GB 2479862 A (GORDANO SUPPORT GROUP LTD) 02/11/2011, Figures. | 2-6,14 |
| A | US 4561706 A (GRATI GIORGIO) 31/12/1985, The whole document. | 2-6 |
| A | WO 2006012674 A1 (LIFE ORDER DESIGN PTY LTD ET AL.) 09/02/2006, figure 1 | 13 |
| A | CN 206446923U U (JIANGXI HONGXING PHARMACEUTICAL CO LTD) 29/08/2017, Abstracts EPODOC and WPI. | 12 |
| A | US 2017073106 A1 (DIMER CHRISTOPH) 16/03/2017, Figures | 2-6 |

☐ Further documents are listed in the continuation of Box C. ☒ See patent family annex.

* Special categories of cited documents:
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## INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.
PCT/IB2018/057473

| Patent document cited in the search report | Publication date | Patent family member(s) | Publication date |
|---|---|---|---|
| KR20180000318U U | 31.01.2018 | NONE | |
| GB2479862 A | 02.11.2011 | NONE | |
| US4561706 A | 31.12.1985 | FR2517530 A3<br>FR2517530 B3<br>DE8234215U U1 | 10.06.1983<br>02.12.1983<br>30.11.0002 |
| WO2006012674 A1 | 09.02.2006 | AU2005269251 A1<br>AU2005269251B B2<br>US2008312054 A1<br>US8720736 B2<br>EP1778550 A1 | 09.02.2006<br>15.09.2011<br>18.12.2008<br>13.05.2014<br>02.05.2007 |
| CN206446923U U | 29.08.2017 | NONE | |
| US2017073106 A1 | 16.03.2017 | DE102015115592 A1<br>DE102015115592 B4 | 16.03.2017<br>16.08.2018 |

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## INTERNATIONAL SEARCH REPORT

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### CLASSIFICATION OF SUBJECT MATTER

***A47B67/02*** (2006.01)
***A47B88/931*** (2017.01)
***A47B88/40*** (2017.01)

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