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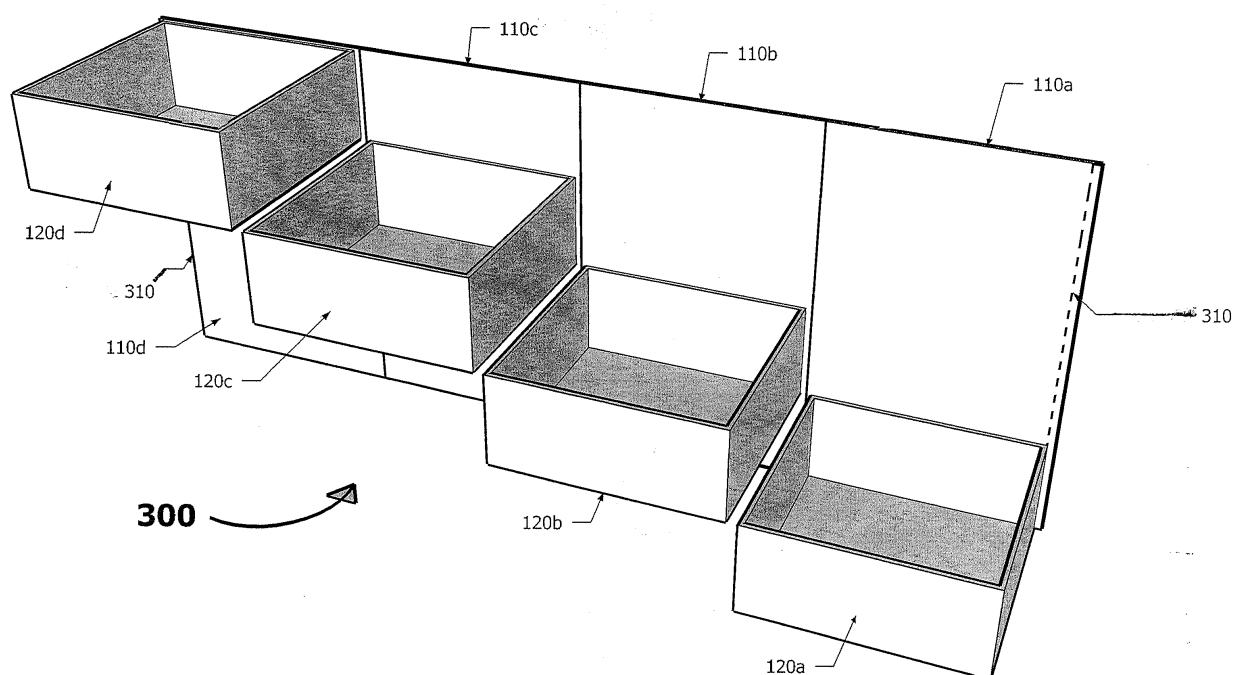
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(54) **Collapsible multiple-receptacle storage container**

(57) A storage container (300) comprising at least one storage unit is disclosed, the container being collapsible as well as operable to store items in two states. In one operable state the container walls (110) are opened out along hinges connecting them so as to allow

access to the plurality of storage receptacles simultaneously. In another operable state the container walls are closed, the storage receptacles being stacked one above the other. In this state, a removable lid (600) may also be provided.

**FIGURE 3**



## Description

### Field of the Invention

**[0001]** The invention relates to a collapsible storage container.

### Background of the Invention

**[0002]** Collapsible storage containers are useful because, while they allow for the storage of goods, they can also be stowed away when not in use without occupying a large amount of space. Containers comprising several storage compartments are convenient when the user wishes to store different items without mixing them up e.g. different items of jewellery.

**[0003]** Collapsible storage containers, with multiple storage compartments, exist which comprise removable partitions. Such containers, as are known in the art, are generally intended for long term storage of items, insofar as they do not allow users to remove items quickly and replace them without considerable inconvenience e.g. the user would have to remove items stored at the top of the compartment before reaching the desired items. Such containers are only operable in two states - one where the container is collapsed and another where it is assembled and operable to store items. There is a need for a storage container that is operable to store items in two states - one closed so as to conserve space and another to allow convenient access to the stored items - in addition to a collapsed state wherein no items are stored.

### Summary of the Invention

**[0004]** The invention provides a storage container comprising at least one storage unit including a container wall and a storage receptacle attached to said container wall, said storage receptacle comprising a plurality of side walls around a base, cantilevered from and being configured so as to be collapsible into the plane of the container wall.

**[0005]** The container may include a plurality of storage units wherein the storage receptacle of each storage unit is disposed on a respective container wall such that when the storage container is closed the plurality of storage receptacles are stacked one above the other, the container walls forming the closed storage container.

### Brief Description of the Drawings

**[0006]** In order that the invention may be more fully understood an embodiment thereof will be described by way of example with reference to the accompanying drawings in which:

Figure 1 is a three dimensional view of a storage unit,

Figures 2A-D are plan views of the storage unit showing its storage receptacle in sequential stages of opening,

Figure 3 is a three dimensional view of a storage container made up of four of the storage units in Figure 1, in an open state,

Figure 4 is a three dimensional view of the storage container in a partially closed state,

Figure 5 is a three dimensional view of the storage container in a fully closed state,

Figure 6 is a three dimensional view of the storage container lid, and

Figure 7 is a three dimensional view of the storage container with the lid placed thereon.

### Detailed Description of the Drawings

**[0007]** Figure 1 is a view of a storage unit comprising a container wall **110** and a collapsible storage receptacle **120**, comprising side walls **130** and base **140**, attached to the container wall **110** where the side walls **130** of the storage receptacle **120** are shown in an operational position, the side walls **130** being collapsible into the plane of the container wall **110** as shown in Figure 2. Referring again to Figure 1, the base **140** of the storage receptacle **120** is cantilevered so as to be collapsible into the plane of the container wall **110** and is shown in a semi-raised position. In its operable position the base **140** is perpendicular to each of the plurality of side walls **130**. In the embodiment of the invention shown in Figure 1, there are four side walls **130**. However, it should be understood that a person skilled in the art could conceive of an embodiment of a storage receptacle **120** with a different number of side walls **130** without departing from the scope of the invention.

**[0008]** In one embodiment, the storage receptacle **120** is attached to the container wall **110** using an adhesive between one of the side walls **130** and the container wall **110**. In another embodiment, the container wall **110** additionally forms the rear wall of the storage receptacle **120**.

**[0009]** Figures 2 A-D are plan views of the storage unit of Figure 1 showing sequentially the process of opening the storage receptacle **120** into its operational position. Figure 2A shows the storage receptacle **120** almost in its fully collapsed state, with both the plurality of side walls **130** and base **140** collapsed into the plane of the container wall **110**. Figure 2B shows the storage receptacle **120** where the side walls **130** are in their operational state and where the base **140** is partially raised. Figure 2C shows the next stage of opening, where the base **140** is lowered further. Figure 2D shows the storage receptacle **120** in its fully operational state, where each of the side

walls **130** abuts all adjoining side walls perpendicularly. The base **140** is shown additionally in its operable state, being perpendicular to the container wall **110**.

**[0010]** Figure 3 shows an embodiment of a storage container **300** in an open state, comprising several of the storage units hinged together, with hinges running along one elongated edge of container walls **110a** and **110d** and along both elongated edges of container walls **110b** and **110c**. The storage receptacles **120a-d** of each storage unit are positioned so that when the storage container **300** is closed the storage receptacles **120a-d** are stacked one above the other. This embodiment requires that successive storage receptacles **120a-d** be positioned on the container walls **110a-d** in a stepped manner when the storage container is open. In one preferred embodiment magnetic strips **310** are placed on the storage units that are located at opposing ends of the storage container **300** so as to run along the length of the non-hinged elongated edge of the container walls **110a** and **110d**. The magnetic strips **310** are provided to hold the storage container **300** closed. However, it should be understood that the means for securing the container **300** need not be limited to magnetic strips.

**[0011]** Figure 4 shows the storage container **300** in a partially closed state. The storage receptacles **120a-c** are stacked one above the other. The top storage receptacle **120d** and container wall **110d** are still in the open configuration, while the remaining container walls **110a-c** are folded, about their hinges, to form the outer walls of the storage container **300**.

**[0012]** Figure 5 shows the storage container **300** in its fully closed state. All four storage receptacles **120a-d** are stacked one above the other. The magnetic strips **310** provided along the non-hinged elongated edges of container walls **110a** and **110d** are engaged so as to hold the storage container **300** closed. A removable lid **600** is additionally provided (Figure 6), to be placed on top of the storage container **300** when the container **300** is in its closed state, as shown in Figure 7.

**[0013]** The storage container **300** can occupy one of three states. The storage receptacles **120a-d** can be collapsed into the plane of the container walls **110a-d** as shown in Figure 2, this collapsed state being particularly advantageous during transit as it minimises shipping costs. Additionally, when the container **300** is sold, retailers can exploit the collapsed state to minimise the amount of shelf space occupied by the product. In one embodiment of the invention, the storage container **300** is manufactured from a laminated material. This allows the storage container **300** to be folded bidirectionally so that, in addition to folding in the direction required to close the container **300**, the container **300** can be folded in the opposite direction along the hinge separating container walls **110b** and **c**, without degrading the container material, to reduce the space that the folded container **300** occupies.

**[0014]** Another state the preferred embodiment of the invention can occupy is the open state, wherein the stor-

age receptacles **120a-d** are folded out into their operable state as shown in Figure 3. This is particularly advantageous when the user requires simultaneous access to goods stored in several of the storage receptacles. One illustrative example of the uses of the storage container **300** could be as a jewellery box, with earrings stored in one receptacle **120**, a necklace in another and so forth.

**[0015]** Yet another state the preferred embodiment of the invention can occupy is the closed state, with or without the removable lid **600** placed on the storage container **300** as shown in Figures 5 & 7. This state would be of benefit when the user has insufficient space to keep the container **300** in the open state but cannot collapse it as the receptacles **120a-d** are full, or for transport. A further advantage of the closed state would be to a retailer who wished to sell retail articles in the container **300**, allowing the end user to reuse the container with other items once the original retail articles were exhausted.

**[0016]** The embodiments so far described involve a storage container comprising four walls, with four storage receptacles. However, it should be understood that a container comprising more or less than four walls and receptacles could be produced according to the invention. Examples may include, but are not limited to, hexagonal storage containers with six receptacles or storage containers with curved walls. Indeed, various modifications or enhancements could be made without departing from the scope of the invention.

## Claims

1. A storage container comprising at least one storage unit including:
  - a container wall; and
  - a storage receptacle attached to and said container wall, said storage receptacle comprising a plurality of side walls around a base, cantilevered from and being configured so as to be collapsible into the plane of the container wall.
2. A storage container according to claim 1 wherein said storage receptacle is attached to the container wall along one of said side walls and said base is cantilevered at the base of said one side wall.
3. A storage container according to claim 1 or 2, including a plurality of the storage units hinged to one another so that the storage container may be opened or closed.
4. A storage container according to claim 3, wherein the storage receptacle of each storage unit is disposed on a respective container wall such that when the storage container is closed the plurality of storage receptacles are stacked one above the other, the container walls form the closed storage contain-

er.

5. A storage container according to any preceding claim including a locating device to hold the container walls closed. 5
6. A storage container according to claim wherein the locating device includes cooperating magnetic strips attached to the container walls. 10
7. A storage container according to any preceding claim, further comprising a removable lid.
8. A storage container according to any preceding claim wherein the or each container wall comprises a flat planar panel. 15
9. A storage container when the or each container wall comprises a curved planar panel. 20
10. A storage container according to any preceding claim, wherein said container is manufactured from a laminated material. 25

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FIGURE 1

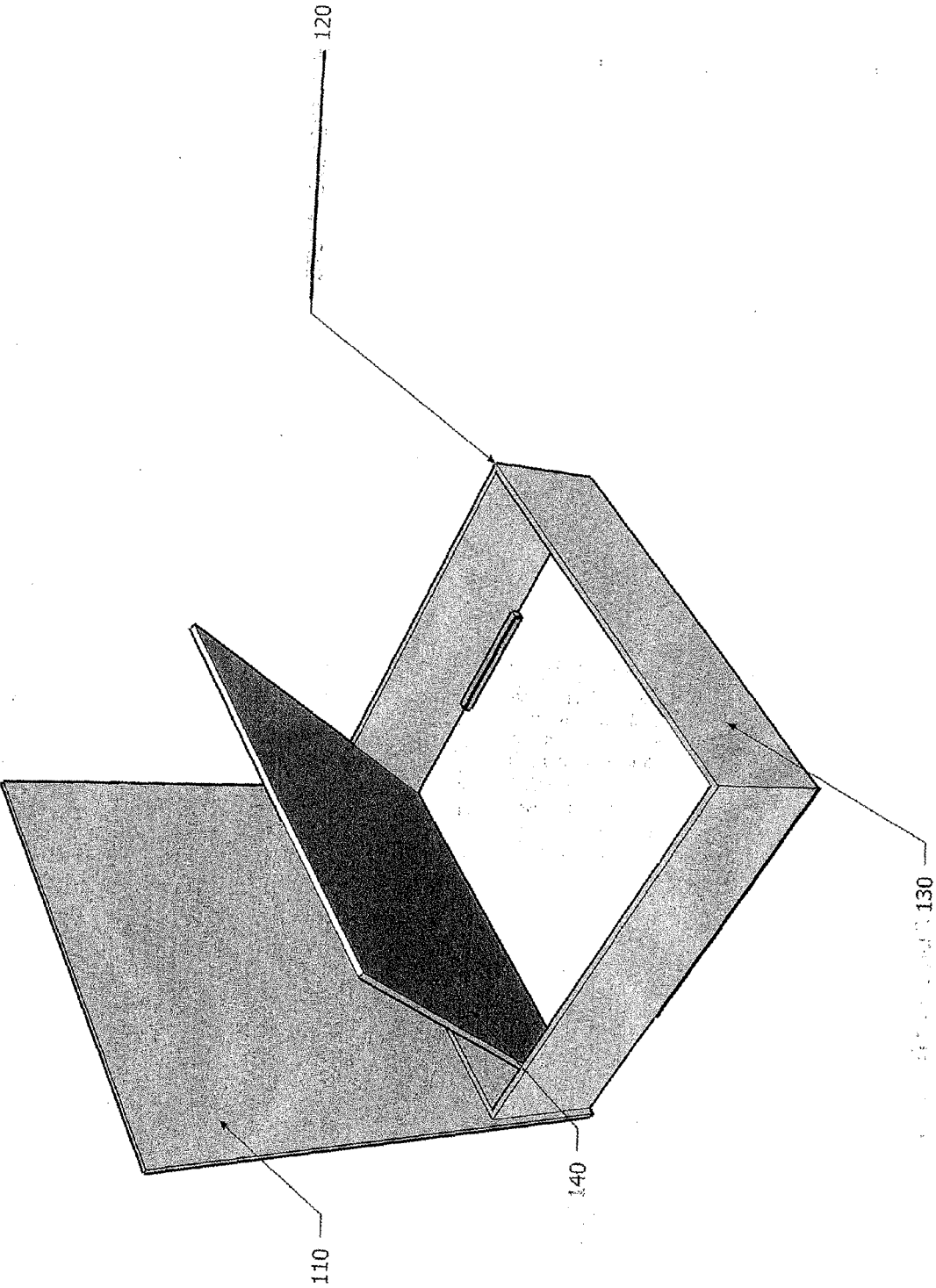


FIGURE 2

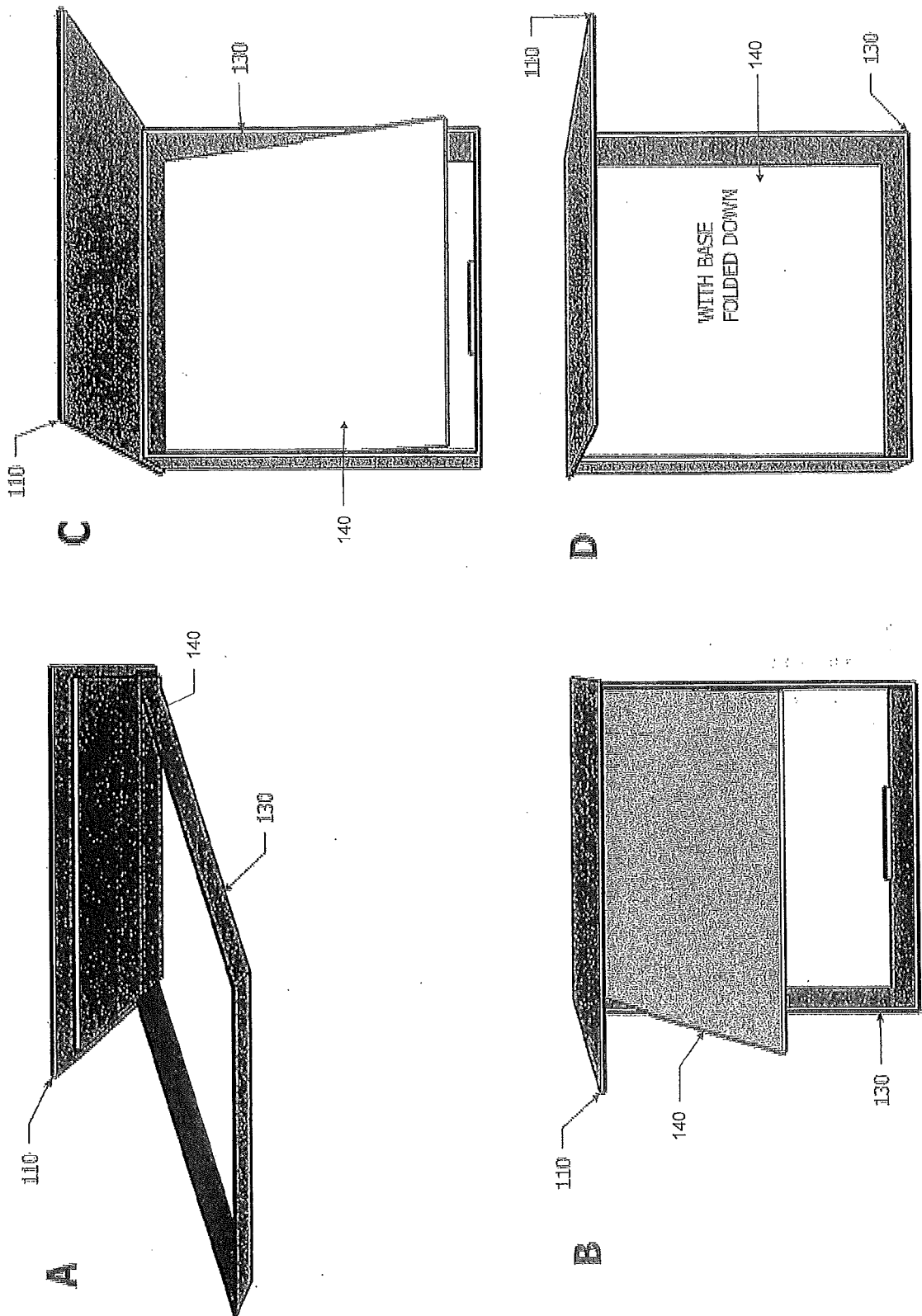
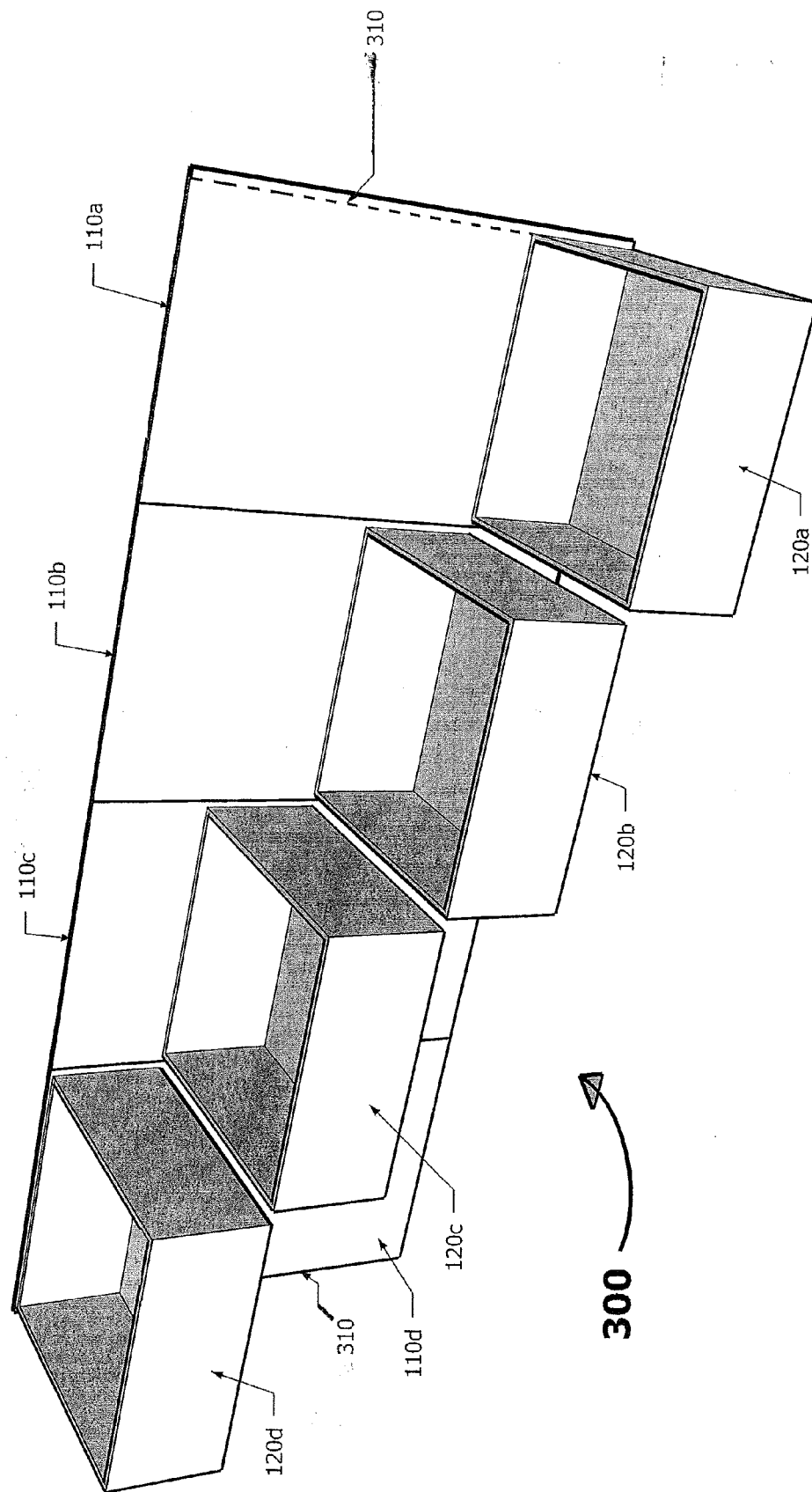
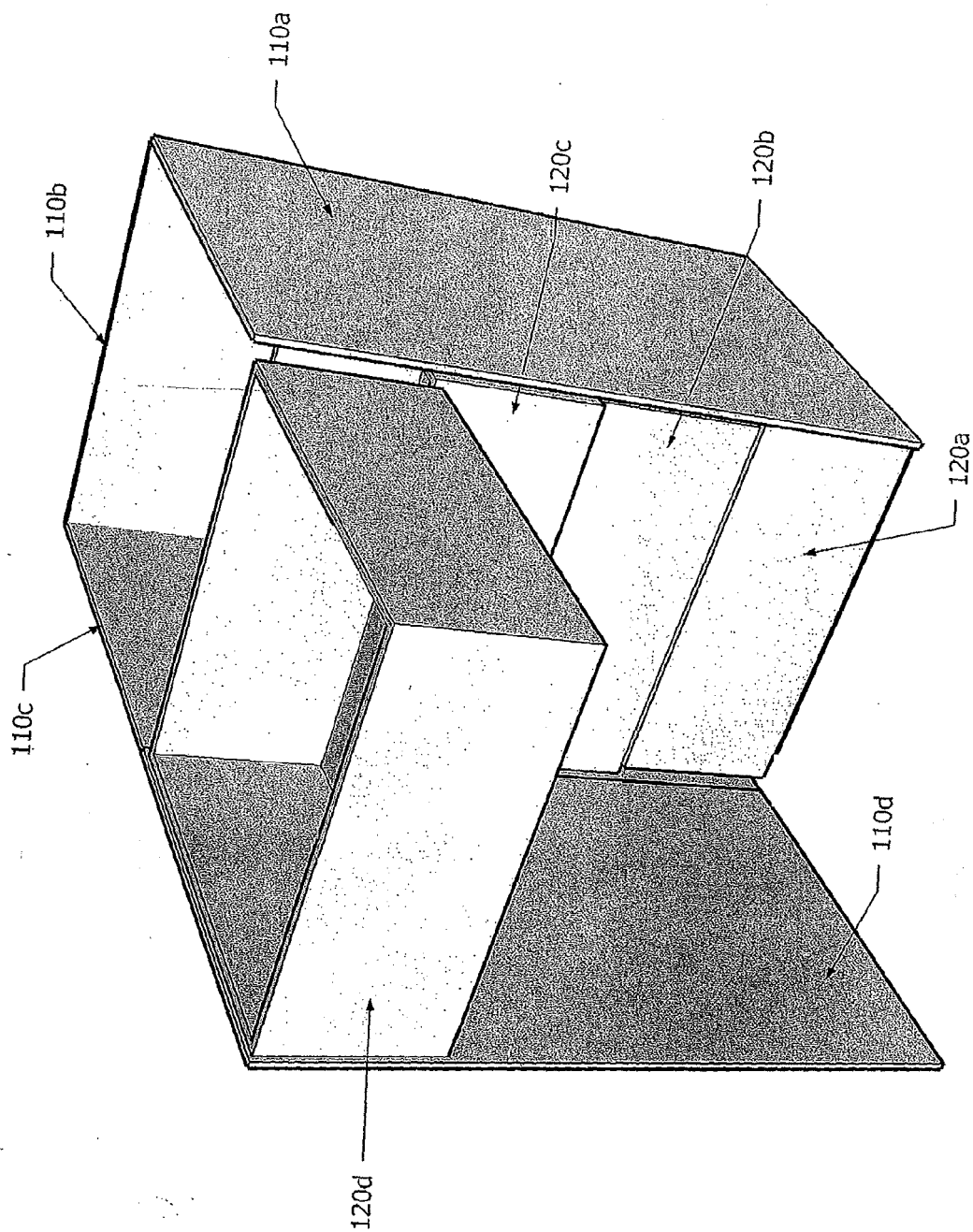


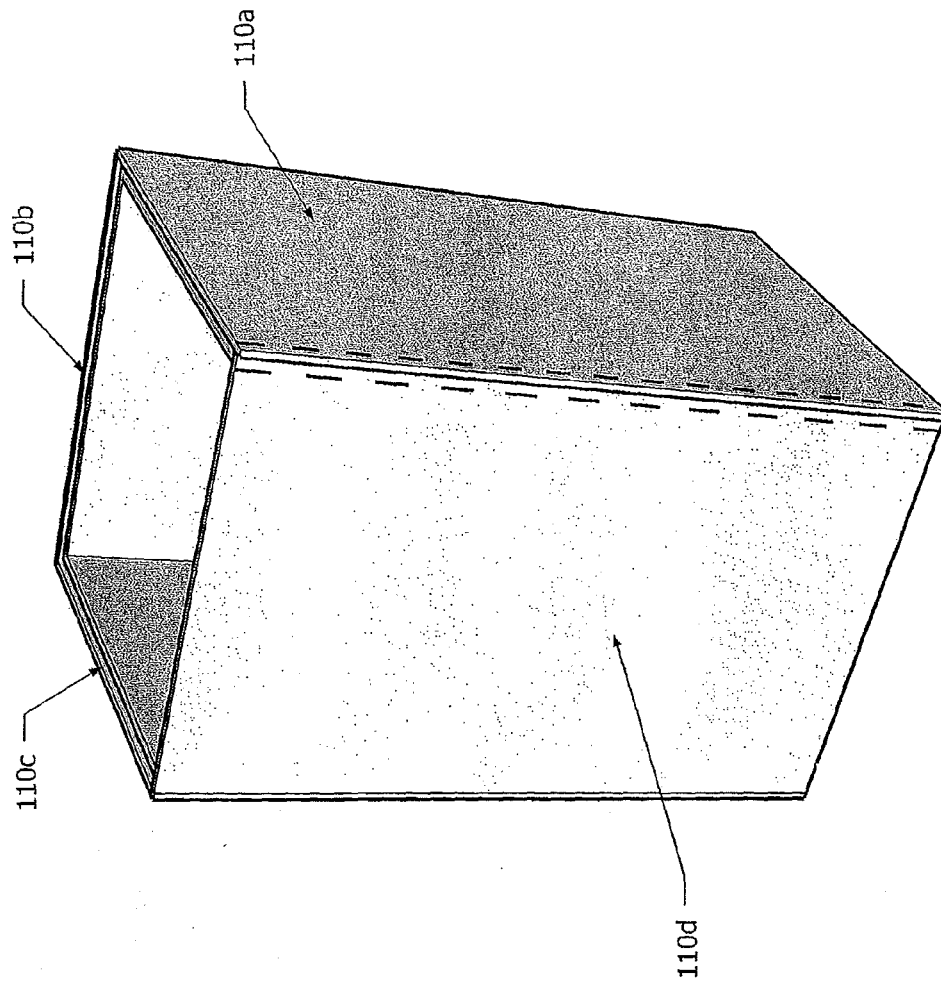
FIGURE 3



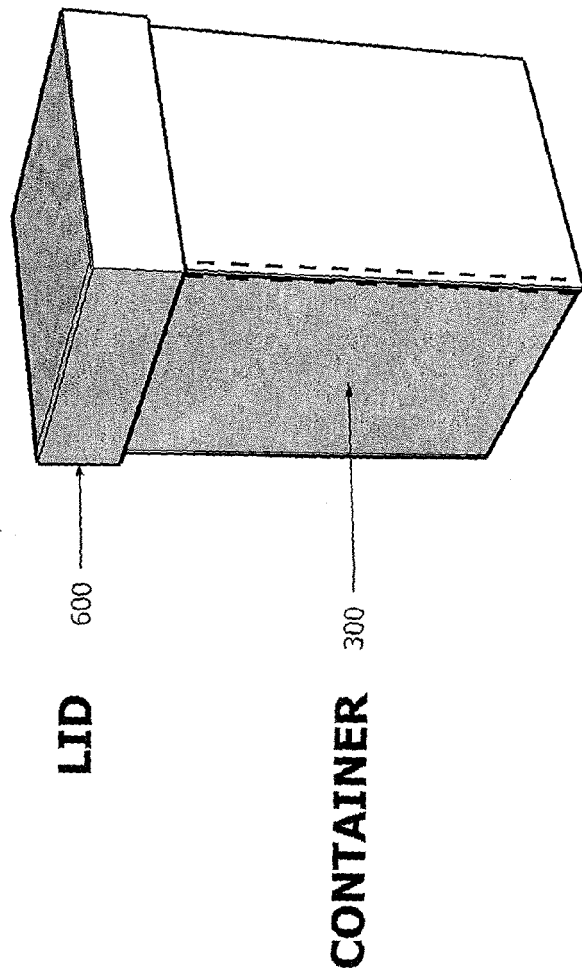
**FIGURE 4**



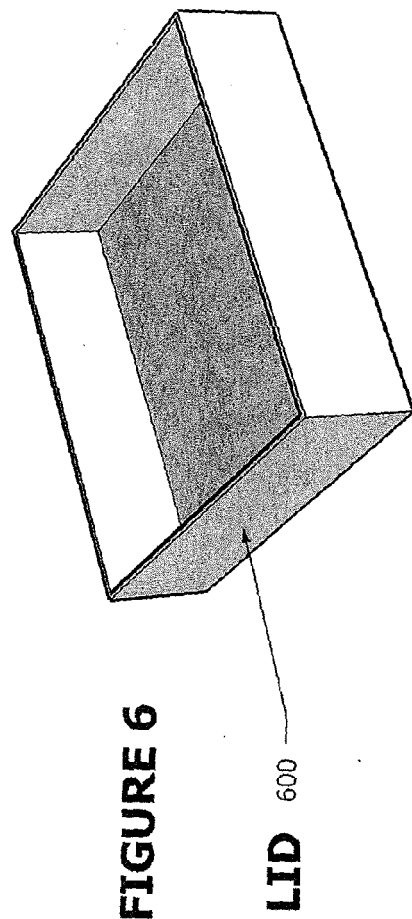
**FIGURE 5**



**FIGURE 7**



**FIGURE 6**





## EUROPEAN SEARCH REPORT

Application Number  
EP 10 15 1362

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
Y	US 5 346 091 A (HSU WEN-HSIUNG [TW]) 13 September 1994 (1994-09-13) * column 2, lines 48-57; figures 1-5, 7, 8 *	1-10	INV. B65D5/00 B65D5/36
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A	US 5 370 255 A (YANG TENG-FENG [TW]) 6 December 1994 (1994-12-06) * figures 1-3 *	1-10	
			TECHNICAL FIELDS SEARCHED (IPC)
			B65D B25H A47F
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 6 May 2010	Examiner Balz, Oliver
<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 &amp; : member of the same patent family, corresponding document</p>			

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EPO FORM 1503 03/82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT  
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EP 10 15 1362

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
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06-05-2010

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