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Remarks:
Amended claims in accordance with Rule 86 (2)
EPC.

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(54) **Combination storage box**

(57) A combination storage box is constructed to include four side panels (1) arranged into two pairs reversely arranged at four sides, each side panel having a plurality of elongated narrow coupling slots (11) perpendicularly extended to one side and a locating groove (13) extended along one side across the elongated narrow coupling slots, and a bottom panel (2) set in between the side panels with two opposite side edges respectively forced into engagement with the locating grooves of two opposite side panels.

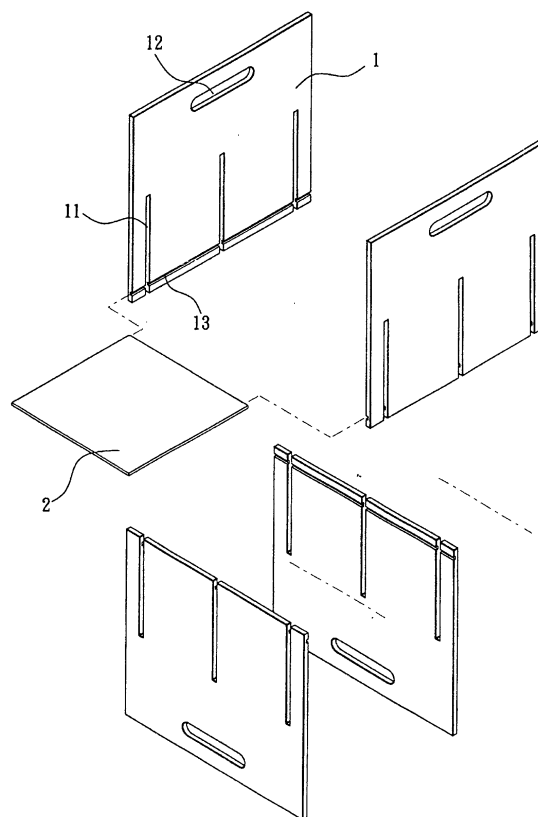


FIG.1

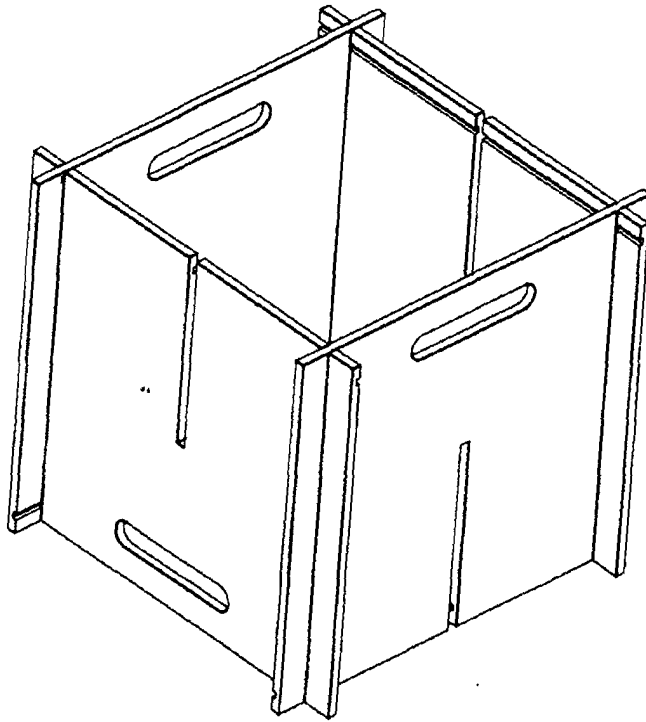


FIG.2

Description

BACKGROUND OF THE INVENTION

1. Field of the Invention:

[0001] The present invention relates to storage boxes and, more particularly, to a combination storage box that is inexpensive to manufacture and, easy to assemble.

2. Description of the Related Art:

[0002] Conventional storage boxes may be made of wood, metal, or plastics. These storage boxes occupy much storage space during delivery because they are not folding collapsible. There are also known detachable storage boxes in which screws are used to detachably fix parts into shape. However, it is inconvenient to assemble or disassemble these detachable storage boxes.

SUMMARY OF THE INVENTION

[0003] The present invention has been accomplished under the circumstances in view. It is one object of the present invention to provide a combination storage box, which is detachable. It is another object of the present invention to provide a combination storage box, which can easily be assembled or disassembled. It is still another object of the present invention to provide a combination storage box, which can be mounted with a partition member, forming a bottle rack for keeping wines or the like. It is still another object of the present invention to provide a combination storage box, which can be used with drawers, forming a cabinet. According to one aspect of the present invention, the combination storage box is constructed to include four side panels arranged into two pairs reversely arranged at four sides, each side panel having a plurality of elongated narrow coupling slots perpendicularly extended to one side and a locating groove extended along one side across the elongated narrow coupling slots, and a bottom panel set in between the side panels with two opposite side edges respectively forced into engagement with the locating grooves of two opposite side panels. According to another aspect of the present invention, additional side panels may be fastened to the combination storage box and coupled to each other to divide the holding space of the combination storage box into separated storage chambers for holding different storage items or drawers.

BRIEF DESCRIPTION OF THE DRAWINGS

[0004]

FIG. 1 is an exploded view of a combination storage box constructed according to the present invention.
FIG. 2 is an assembly view of the combination stor-

age box according to the present invention.

FIG. 3 illustrates the use of two additional side panels with the combination storage box shown in FIG. 2.

FIG. 4 is an assembled view of FIG. 3.

FIG. 5 illustrates a crossed partition member installed in the combination storage box, bottles of wine stored in the separated chambers in the combination storage box.

FIG. 6 illustrates a combination storage cabinet constructed according to the present invention.

FIG. 7 illustrates a combination storage cabinet with drawers constructed according to the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0005] Referring to FIGS. 1 and 2, a combination storage box is shown comprised of a four side panels **1**, and a bottom panel **2**. Each side panel **1** comprises a plurality of elongated narrow coupling slots **11** arranged in parallel and extended to one side, a locating groove **13** extended along one side across the elongated narrow coupling slots **11**, and a narrow elongated hand hole **12** extended along an opposite side remote from and in parallel to the locating groove **13**. The four side panels **1** are arranged in two pairs set in reversed directions and respectively coupled to one another at four sides by forcing one elongated narrow coupling slot **11** of one side panel **1** into a corresponding elongated narrow coupling slot **11** of another side panel **1**. After connection of the four side panels **1**, the bottom panel **2** is inserted into the space surrounded by the four side panels **1** from the top side to force two opposite side edges of the bottom panel **2** into engagement with the locating grooves **13** of the two side panels **1** that are set at two opposite sides with the respective narrow elongated hand holes **12** disposed at the top side and the respective locating grooves **13** disposed at the bottom side.

[0006] Referring to FIGS. 3 and 4, additional two side panels **1** may be respectively fastened to the four side panels **1** of the established combination storage box shown in FIG. 2 and coupled to each other in a crossed manner to divide the inside holding space of the combination storage box into four rectangular storage spaces.

[0007] Referring to FIG. 5 two additional side panels may be coupled to each other in a crossed manner to form a crossed partition member **3**, enabling the crossed partition member **3** to be set in the established combination storage box shown in FIG. 2 to divide the inside holding space of the combination storage box into four triangular storage spaces for holding bottles.

[0008] FIG. 6 illustrates a combination cabinet constructed according to the present invention. This combination cabinet is constructed in similar manner as that shown in FIGS. 3 and 4 with the exception of the size of the side panels and the bottom panel. Further, drawers

4 may be installed in the holding spaces defined in the combination cabinet (see FIG. 7).

[0009] Although particular embodiments of the invention have been described in detail for purposes of illustration, various modifications and enhancements may be made without departing from the spirit and scope of the invention. Accordingly, the invention is not to be limited except as by the appended claims.

Claims

1. A combination storage box comprising four side panels coupled to one another at four sides and a bottom panel surrounded by said side panels and connected between two opposite side panels, wherein said side panels each comprises a first horizontal side, a second horizontal side, a plurality of elongated narrow coupling slots perpendicularly extended to said first side and arranged in parallel, and a locating groove extended along said first side across said elongated narrow coupling slots; said side panels include two first side panels disposed at opposite sides with the respective elongated narrow coupling slots facing upwards, and two second side panels disposed at two opposite sides with the respective elongated narrow coupling slots facing downwards and coupled to the elongated narrow coupling slots of said first side panels; said bottom panel is surrounded by the four side panels, having two opposite side edges respectively engaged into the locating grooves of said second side panels.
2. The combination storage box as claimed in claim 1, wherein said side panels each further comprise a narrow elongated hand hole extended along said second side remote from and in parallel to said locating groove.

Amended claims in accordance with Rule 86(2) EPC.

1. Combination storage box comprising four side panels coupled to one another at four sides and a bottom panel, wherein
 - each of said four side panels comprises at least three elongated narrow coupling slots extending parallel to each other and perpendicularly to a horizontal edge of the side panel and a locating groove extending along said horizontal edge across said elongated narrow coupling slots,
 - said four side panels being assembled in such a way that two first side panels are disposed at opposite sides of the storage box with the respective elongated narrow coupling slots facing upwards and two second side panels are disposed at the other two opposite sides of the storage box with the locating grooves facing each other and the respec-

tive elongated narrow coupling slots facing downwards, the two outer slots of each of the second side panels being coupled to the respective outer slots of said first side panels, with

said bottom panel being surrounded by said four side panels and having two opposite side edges respectively engaged in the locating grooves of said second side panels.

2. Combination storage box comprising four side panels coupled to one another at four sides and at least two additional side panels, wherein

each of said four and said at least two additional side panels comprises at least three elongated narrow coupling slots extending parallel to each other and perpendicularly to a horizontal edge of the side panel and a locating groove extending along said horizontal edge across said elongated narrow coupling slots,

said four side panels being assembled in such a way that two first side panels are disposed at opposite sides of the storage box with the respective elongated narrow coupling slots facing upwards and two second side panels are disposed at the other two opposite sides of the storage box with the respective elongated narrow coupling slots facing downwards, the two outer slots of each of said second side panels being coupled to the respective outer slots of said first side panels, with

said at least two additional side panels being coupled to each other in a crossed manner via their respective inner slots and being disposed between said four side panels in order to partition the inner space surrounded by said four side panels.

3. Combination storage box according to claim 2, wherein said at least two additional side panels disposed between said four side panels are arranged in a rectangular manner with the outer slots of each of said at least two additional side panels being coupled to the respective inner slots of said four side panels.

4. Combination storage box according to claim 2, wherein said at least two additional side panels disposed between said four side panels are arranged in a diagonal manner.

5. Combination storage box according to one of the preceding claims, wherein each of said side panels further comprises a narrow elongated hand hole extending along the edge opposite to said horizontal edge.

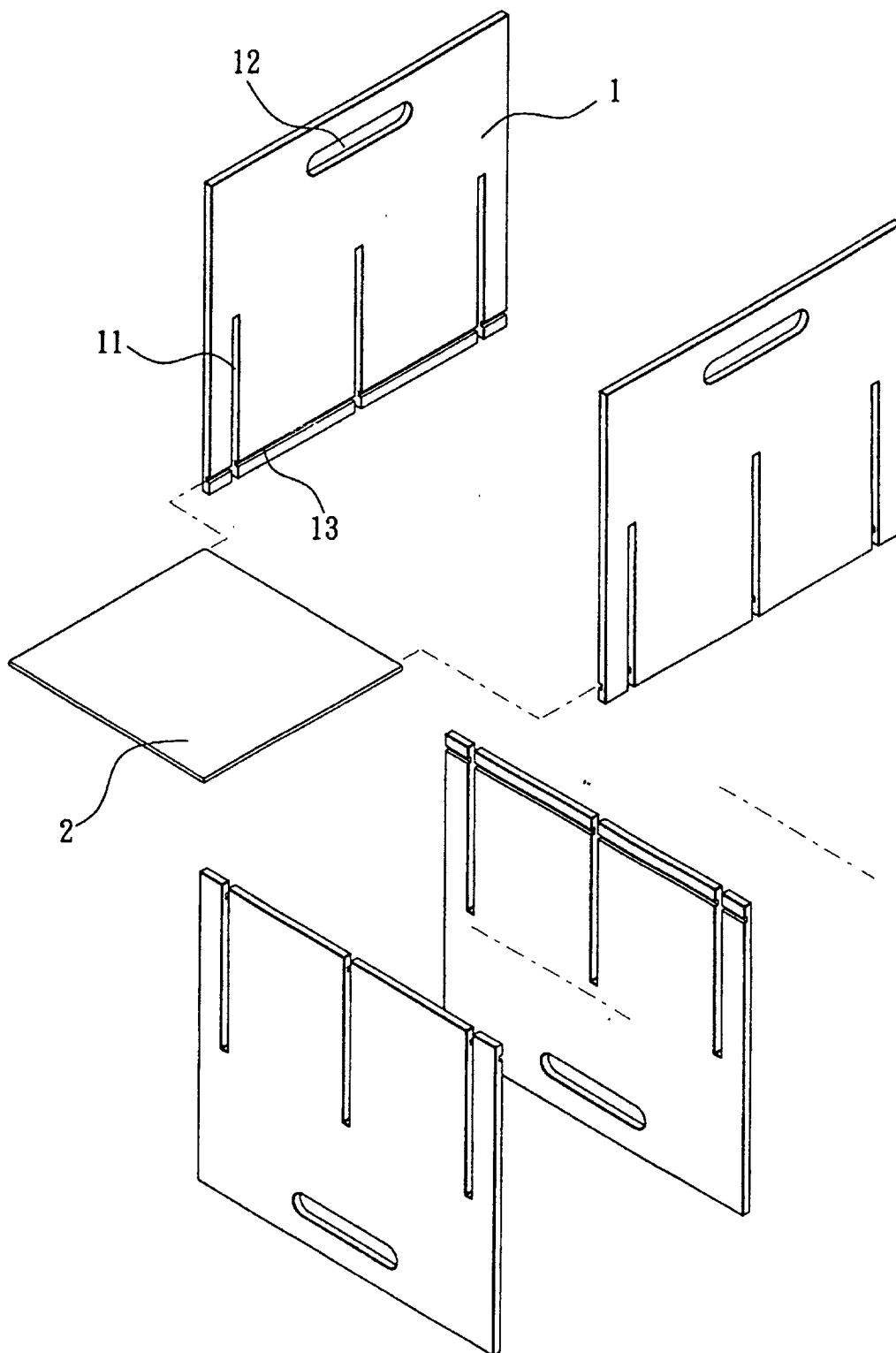


FIG.1

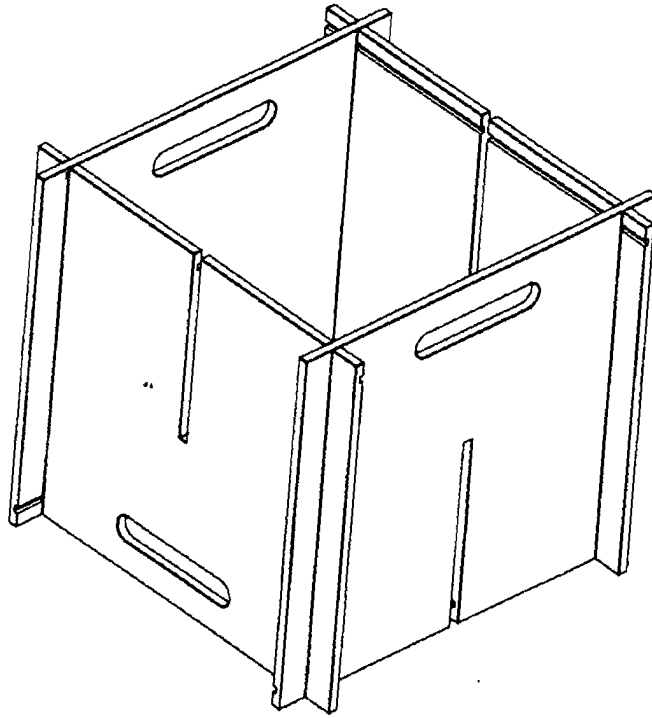


FIG.2

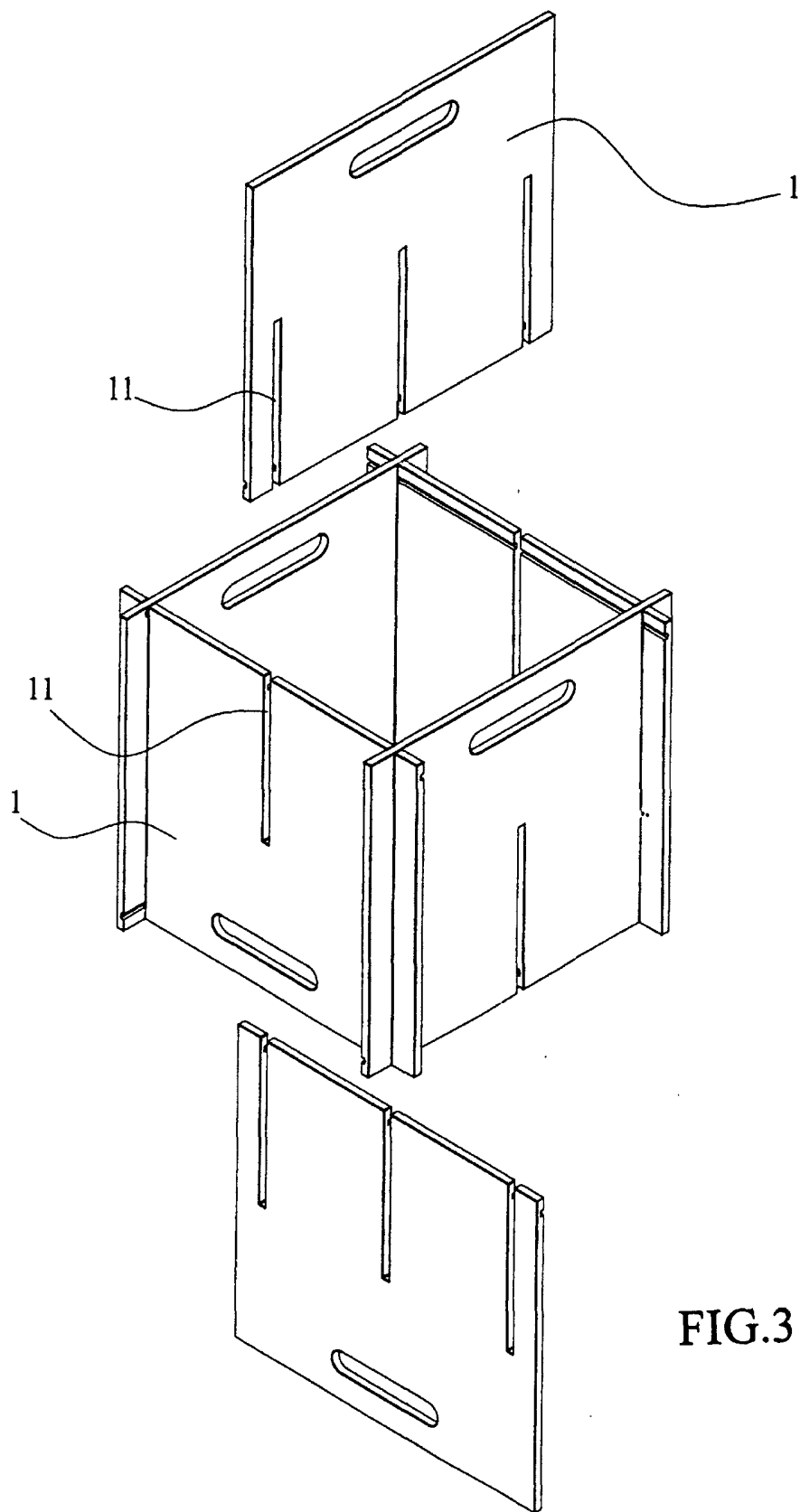


FIG.3

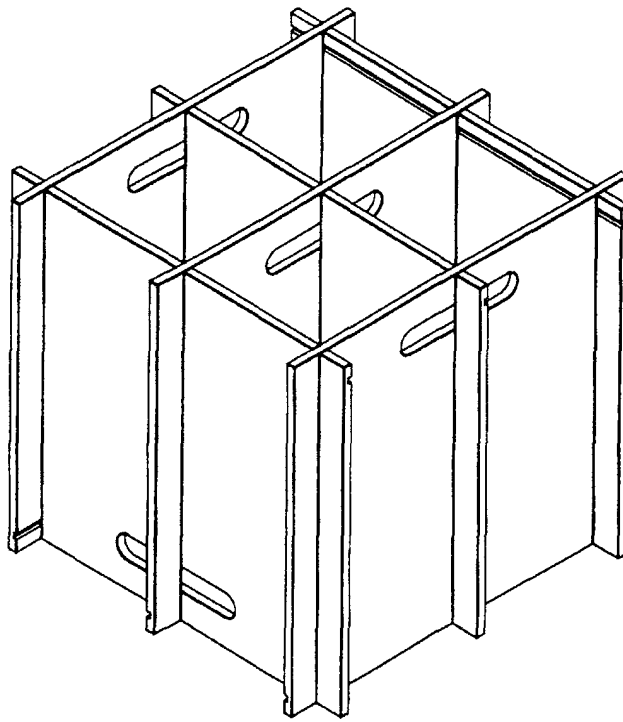


FIG.4

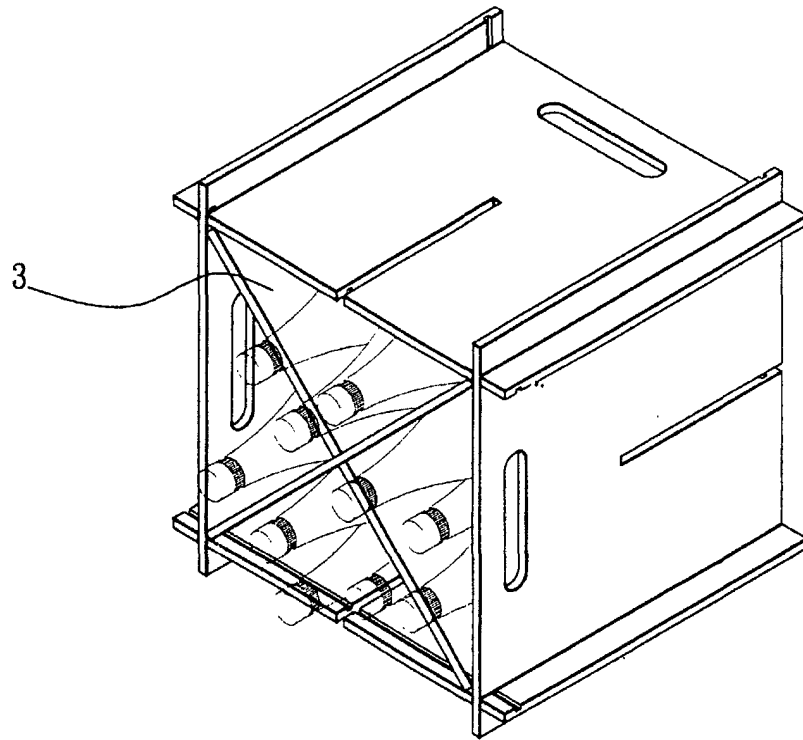


FIG.5

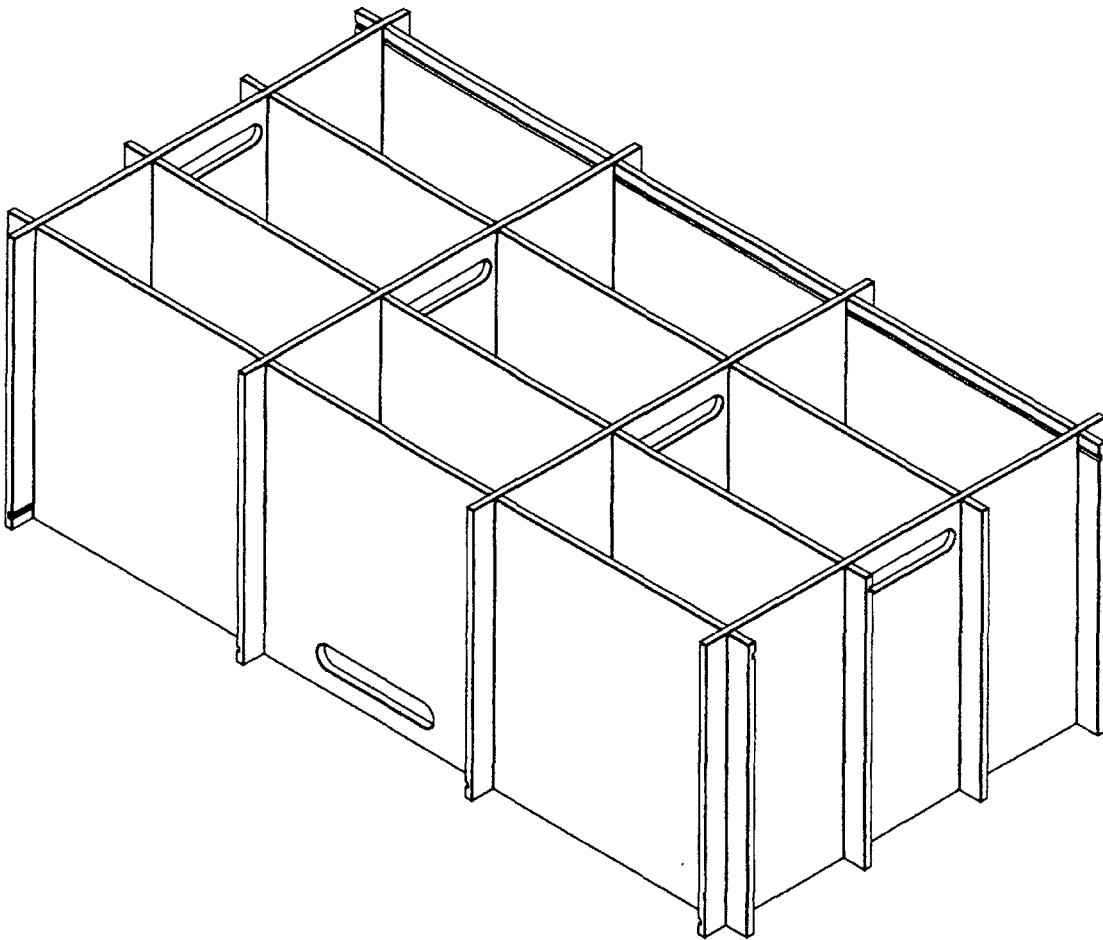


FIG.6

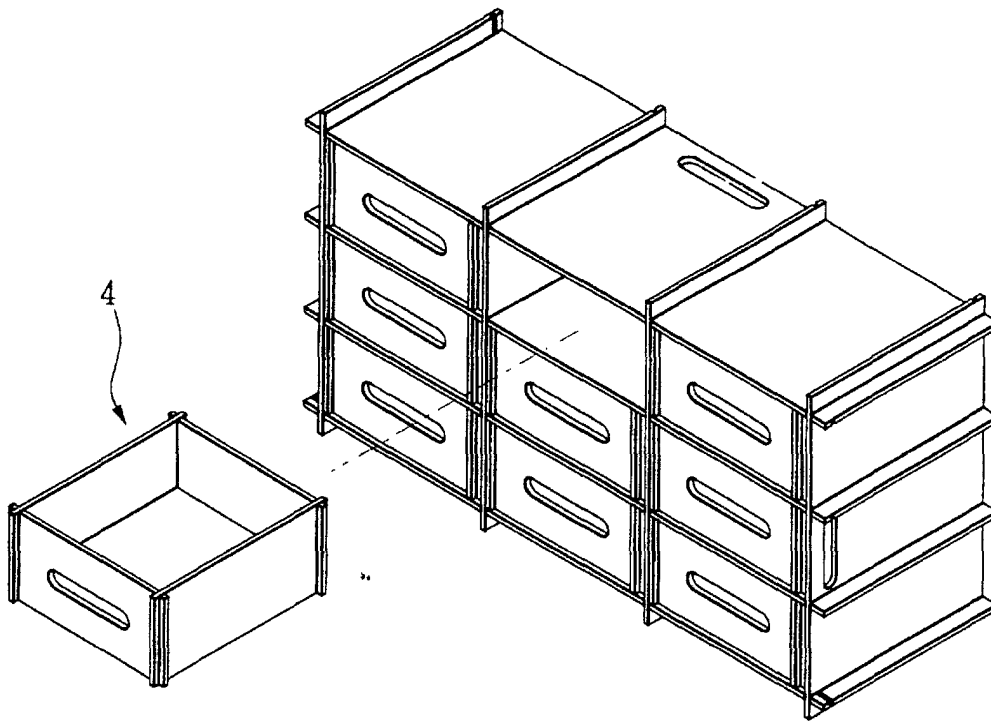


FIG.7



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 02 00 0361

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
Y	US 1 364 968 A (WAGSTAFF ANDREW L) 11 January 1921 (1921-01-11) * column 1, line 42 - line 54; figures 2,4 *	1,2	B65D9/12
Y	US 3 143 236 A (CHARLES HAAS JAY) 4 August 1964 (1964-08-04) * column 1, line 25 - line 52; figures 1,3,5 *	1,2	
Y	CH 575 318 A (KOHLE ERICH) 14 May 1976 (1976-05-14) * column 2, line 34 - line 36; figures 1,2 *	2	
A	US 5 527 103 A (PITTMAN CHARLES) 18 June 1996 (1996-06-18) * figure 1 *	1	
A	US 4 153 311 A (TAKAHASHI TADAO) 8 May 1979 (1979-05-08) * abstract; figures 1,4 *		
A	US 5 170 892 A (FROMKIN CYRUS J) 15 December 1992 (1992-12-15) * abstract; figure 4 *		
A	US 4 023 681 A (PLANT DAVID N) 17 May 1977 (1977-05-17) * abstract; figure 1 *		TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			B65D
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 6 June 2002	Examiner Kamerbeek, M
CATEGORY OF CITED DOCUMENTS 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 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			

EPO FORM 1503 03/82 (Pd4C01)

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

EP 02 00 0361

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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06-06-2002

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