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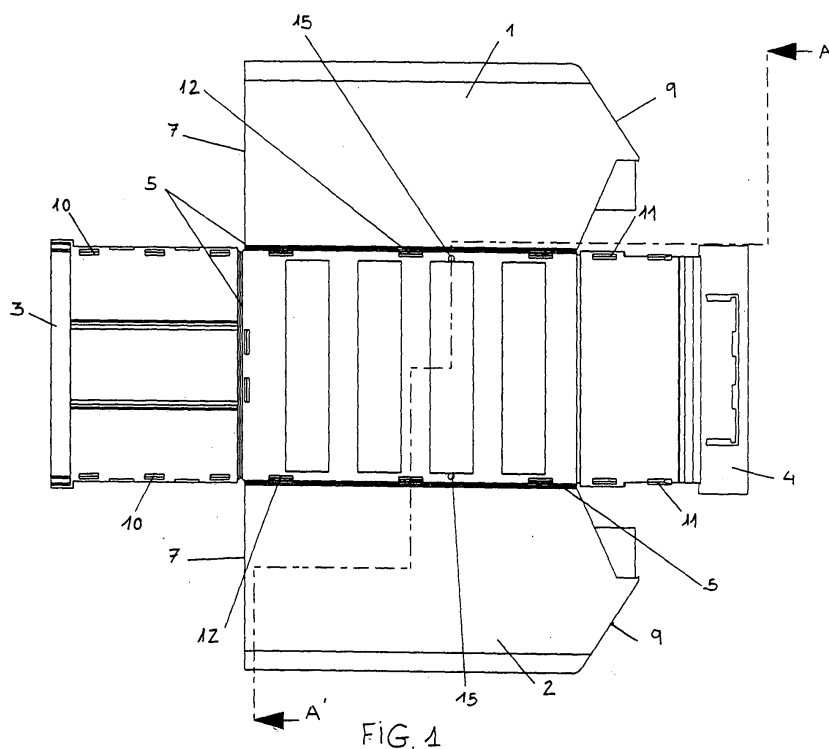
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AL BA MK RS(72) Inventor: **Tarin Martin, Enrique****46469 Beniparrell (Valencia) (ES)**(74) Representative: **Canadell-Isern, Roberto****Travessera de Gracia 30-1° C****08021 Barcelona (ES)**(71) Applicant: **Industrias Tayg, S.L.****46469 Beniparrell, Valenica (ES)****(54) Foldably collapsible plastic tray**

(57) "Container tray for assembleable and stackable products", in which the faces (1, 2, 3 and 4) that make up the tray are related to the base or bottom by weakening lines (5) of the plastic material. The setting up of the tray consists of the vertical pressing of the larger sides (1 and 2) and the smaller sides (3 and 4) onto the base, and their fitting together by using the lateral box holes (6 and 8) that the larger faces (1 and 2) have in their sides. Projections (10 and 11) that the smaller faces (3 and 4) have fit by pressure into these box holes (6 and 8). The base

of the tray also has projections (12) on its lateral edge which fit into the box holes (13) which the two larger side faces (1 and 2) and the back face (3) of the tray have for this purpose. For the packaging, presentation and transport of the tray, the smaller faces (3 and 4) fold underneath the base, being held thanks to one of the smaller faces having tabs (14) that fit into holes (15) of the base of the tray, with a smaller face (3), which makes up the back part of the tray, being supported by the other face (4).

**FIG. 1****EP 2 141 076 A1**

Description

PURPOSE

[0001] The purpose of the invention that is protected by this patent consists of a "Container tray for assembleable or stackable products", which is comprised of lateral walls of a certain height and a lower height for the introduction of the products when two or more of them are stacked, so that the four main faces that make it up form a single plane before being assembled or folded.

BACKGROUND

[0002] The plastic drawers of this type that are manufactured up to now are made of a single piece obtained by moulding. Their inconvenience is the space or volume that they require for their storage, transport, points of sale, etc.; with the novelty of the tray subject of this patent consisting of the fact that the four faces that make it up can be folded; that is, that for transport, storing, etc., it is transformed into a single horizontal plane.

[0003] Because of all the inconveniences described above, the creation is necessary of a tray that through its structure it occupies the minimum space possible when it is not in use. Furthermore, when it is necessary to use the tray, its assembly is simple and quick. The reduction in transport and storage costs can be taken into account since it occupies must less space when it is not assembled.

DESCRIPTION OF THE INVENTION

[0004] The purpose of the invention that constitutes the subject of this patent is the improvement of the structural inconveniences of the known object, having been designed and developed according to this priority objective.

[0005] The four faces that make up the tray are related to the base or bottom by means of weakening lines of the plastic material, so that in practice they act like hinges.

[0006] The first phase for forming the tray when it is completely unfolded consists of pressing vertically the larger lateral faces onto the bottom; subsequently the same is done with the smaller faces.

[0007] The fitting in the vertical position between the larger and smaller lateral faces is achieved thanks to lateral box holes that the larger faces have on both sides, into which projections of the smaller faces are fastened by pressure.

[0008] The two larger lateral faces and the one that makes up the back face of the tray fit into the base thanks to the projections that they have on their lateral edges that are introduced in box holes contained in the three faces described; the assembly of the tray is completed by introducing the projections of the smaller face in the box holes contained in the coinciding edge of the larger faces.

[0009] In practice, the tray, for its packaging, presentation and transport folds the smaller faces underneath the tray base; being held thanks to one of the smaller sides having tabs that fit in the holes in the bottom of the tray, with the smaller face that forms the back part of the package being supported by the other smaller face.

BRIEF DESCRIPTION OF THE DRAWINGS

[0010] To complement the description of the invention and to facilitate the interpretation of the structural and functional characteristics of its purpose, drawings are attached that outline the preferred realisation of the container tray for products to be assembled and stacked that constitutes the subject of this patent. In these drawings:

- Figure 1 represents a ground plan view of the tray completely disassembled.
- Figure 2 shows a lateral view of the tray.
- Figure 3 illustrates a section of figure 1 by A-A'.
- Figure 4 corresponds to a close-up of one of the peripheral projections of the base of the tray, the slot where it fits and the weakening line.
- Figure 5 shows a close-up of the hole where the tabs fit for the folding of the tray.
- Figure 5 shows an underside view of the tray, were the smaller faces have been folded.
- Figure 7 illustrates an upper view of the tray with the small faces folded.
- Figure 8 corresponds to a section of figure 6 by B-B'.
- Figure 9 shows a close-up of one of the projects that the base of the tray has.
- Figure 10 shows one of the tabs that fit into the holes in the base of the tray.
- Figure 11 illustrates the tray completely assembled.
- Figures 12 and 13 show different close-ups where the fitting of the larger, smaller faces and base of the tray can be observed.

DESCRIPTION OF THE PREFERRED REALISATION

[0011] To show clearly the nature and scope of the advantageous application of the container tray for assembleable and stackable products, which constitutes the purpose of the claimed invention, its structure is described below, referring to the drawings that, by showing a preferred realisation of said object, with an informative character, they must be considered in their broadest sense and not as limitations of the application and the content of the claimed invention.

[0012] The four faces (1, 2, 3 and 4) that make up the tray are related to the base or bottom by weakening lines (5) of the plastic material, so that in practice they act like hinges.

[0013] The first phase for setting up the tray consists of vertically pressing the larger faces (1 and 2) on the base and then doing the same with the smaller faces (3 and 4).

[0014] The fitting together of the larger faces (1 and 2) and the smaller ones (3 and 4) is achieved through the lateral box holes (6) that the larger faces (1 and 2) have on their straight edge (7) and the lateral box holes (8) that these larger faces (1 and 2) have on their other edge (9). The projections (10 and 11) that the smaller faces (3 and 4) have for this purpose fit into these box holes (6 and 8) by pressure.

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[0015] The base of the tray has projections (12) on its lateral edge that are introduced in the box holes (13) that the two larger faces (1 and 2) and the back face (3) of the tray have for this purpose; completing the assembly of the tray by introducing the projections (11) of the smaller face (4) in the box holes (8) that the coinciding side (9) of the larger faces has for this purpose.

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[0016] In practice, for its packaging, presentation and transport, the smaller faces (3 and 4) are folded underneath the base; being fastened thanks to one of the small faces having tabs (14) that fit into holes (15) in the bottom of the tray, with one smaller face (3), the back part of the tray, being supported by the other smaller face (4).

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Claims

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1. "Container tray for products that can be assembled and stacked", **characterised by** the four faces (1, 2, 3 and 4) that make up the tray being related to the base or bottom by weakening lines (5) of the plastic material, acting in practice like hinges, so that the shape of the tray when it is completely unfolded consists of the vertical pressing of the larger sides (1 and 2) and the smaller sides (3 and 4) onto the base, fitting them together by using the lateral box holes (6) of the larger faces (1 and 2) in its straight side (7) and lateral box holes (8) that these larger faces (1 and 2) have in their other side (9), fitting into them the tabs (10 and 11) that the smaller faces (3 and 4) have, and with the base of the tray having projections (12) on its lateral edge in which the box holes are introduced (13) which the two larger side faces (1 and 2) and the back face (3) of the tray have for this purpose; completing the assembly of the tray by introducing the projections (11) of the smaller face in box holes (8) that the coinciding side (9) of the larger faces have for this purpose.

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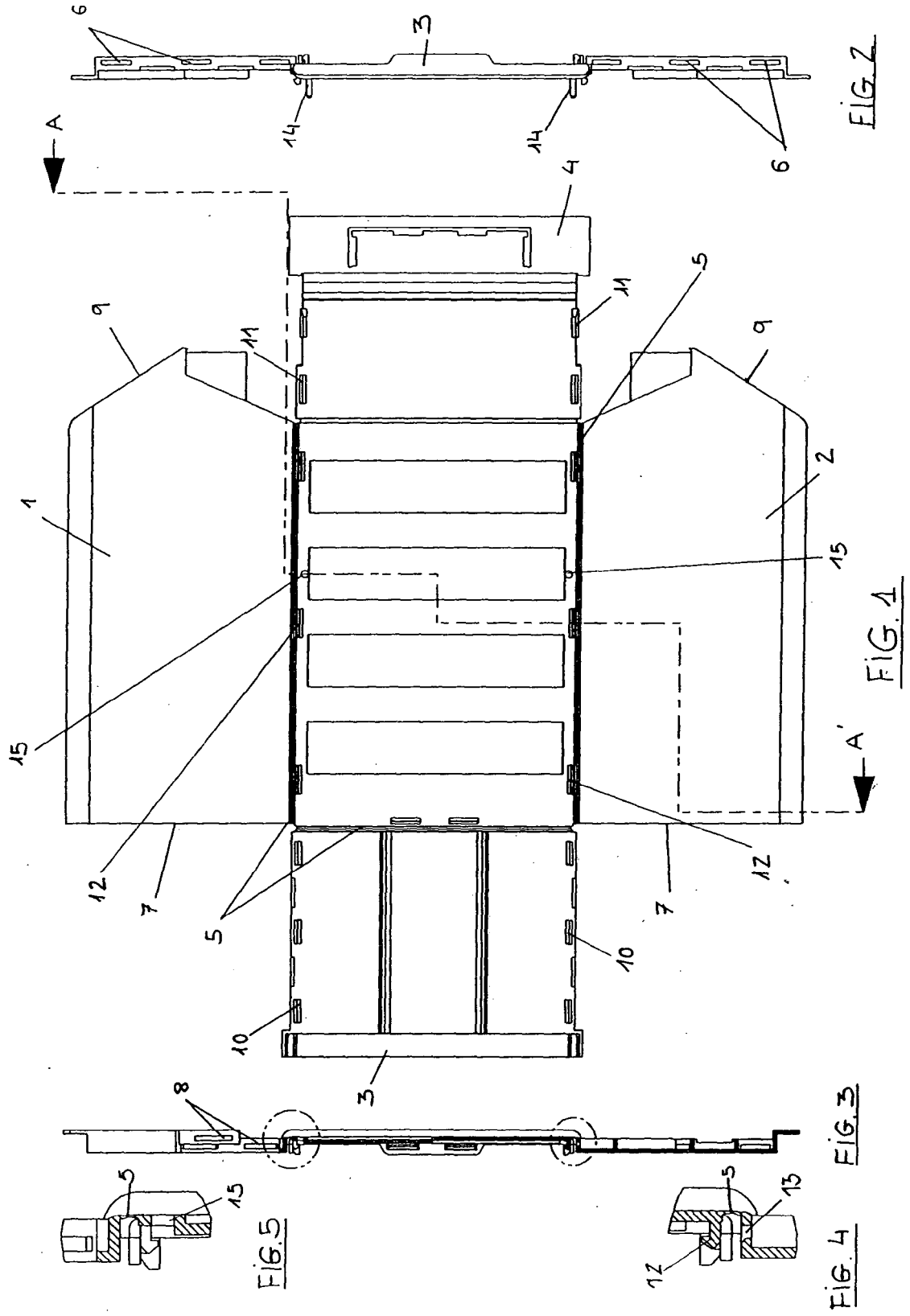
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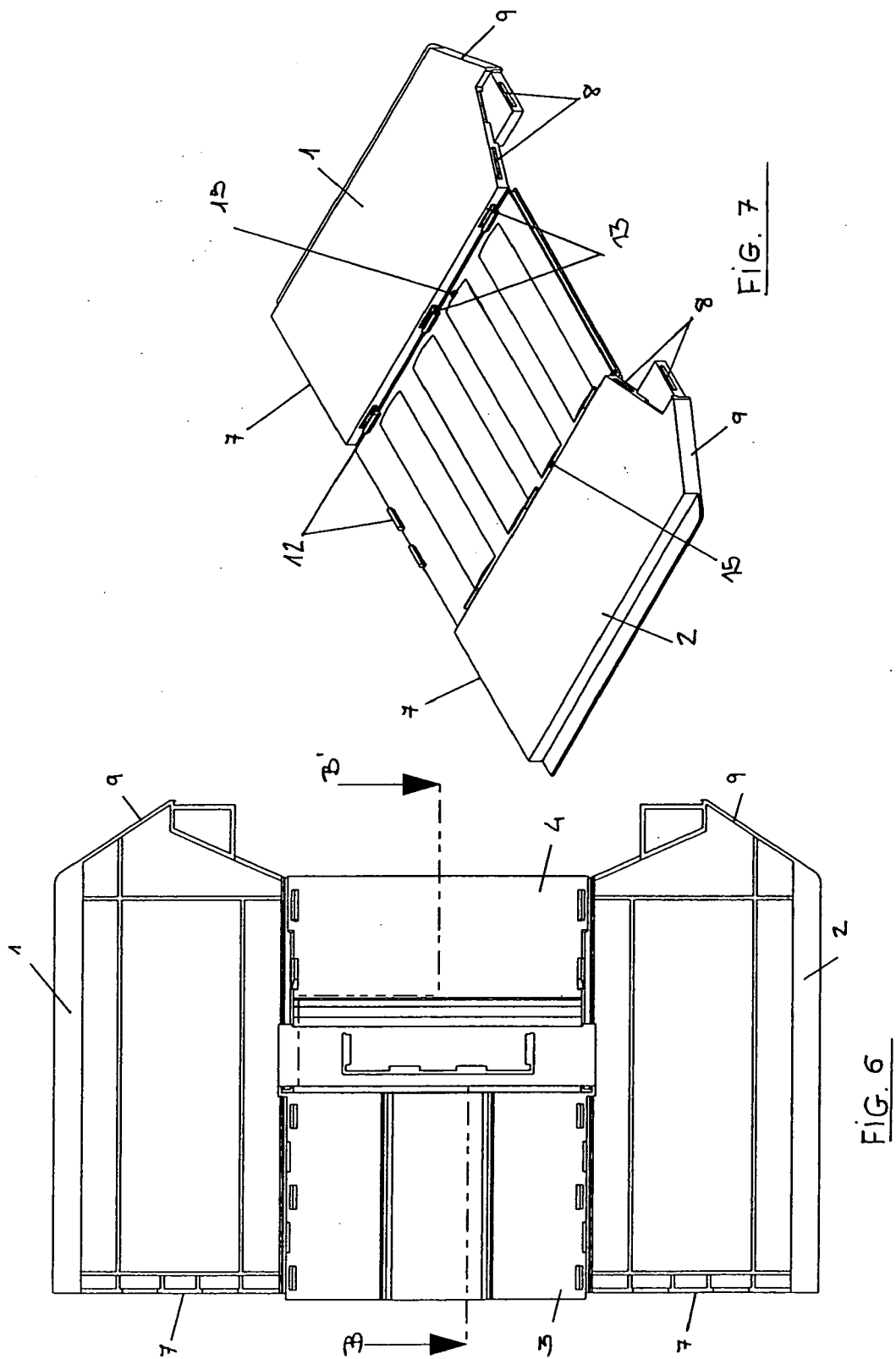
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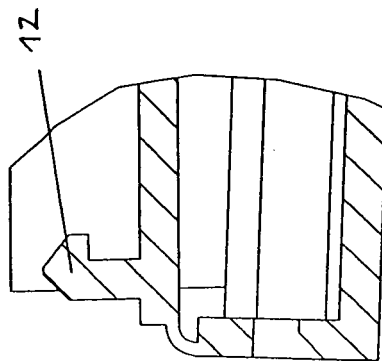
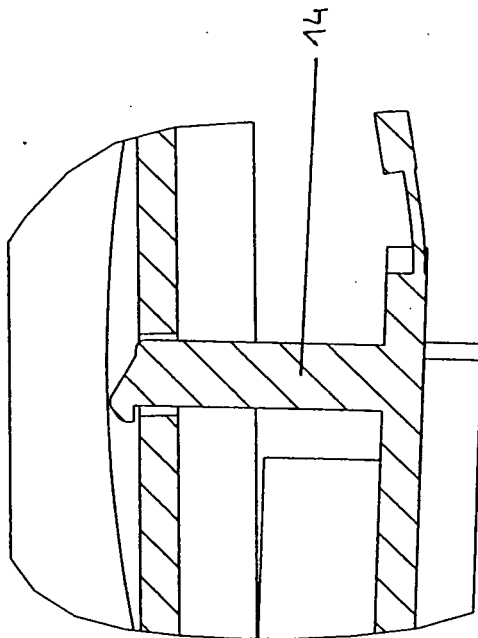
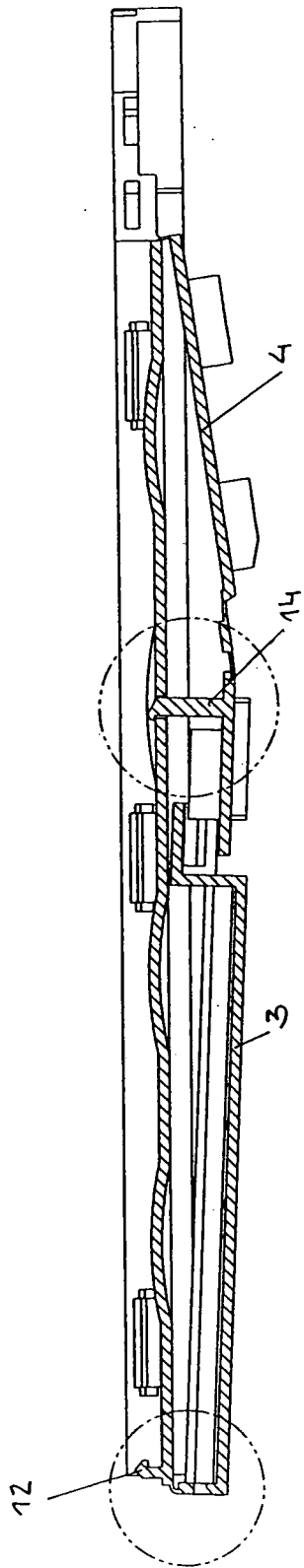
2. "Container tray for products that can be assembled and stacked", according to claim 1, **characterised by** the folding, for packing, presentation and transport, of the smaller sides (3 and 4) to the bottom but on the under side; being adhered thanks to one of its faces having tabs (14) that fit into the holes (15) of the base of the tray, with one smaller face (3), which makes up the back side of the tray, being supported by the other smaller face (4).

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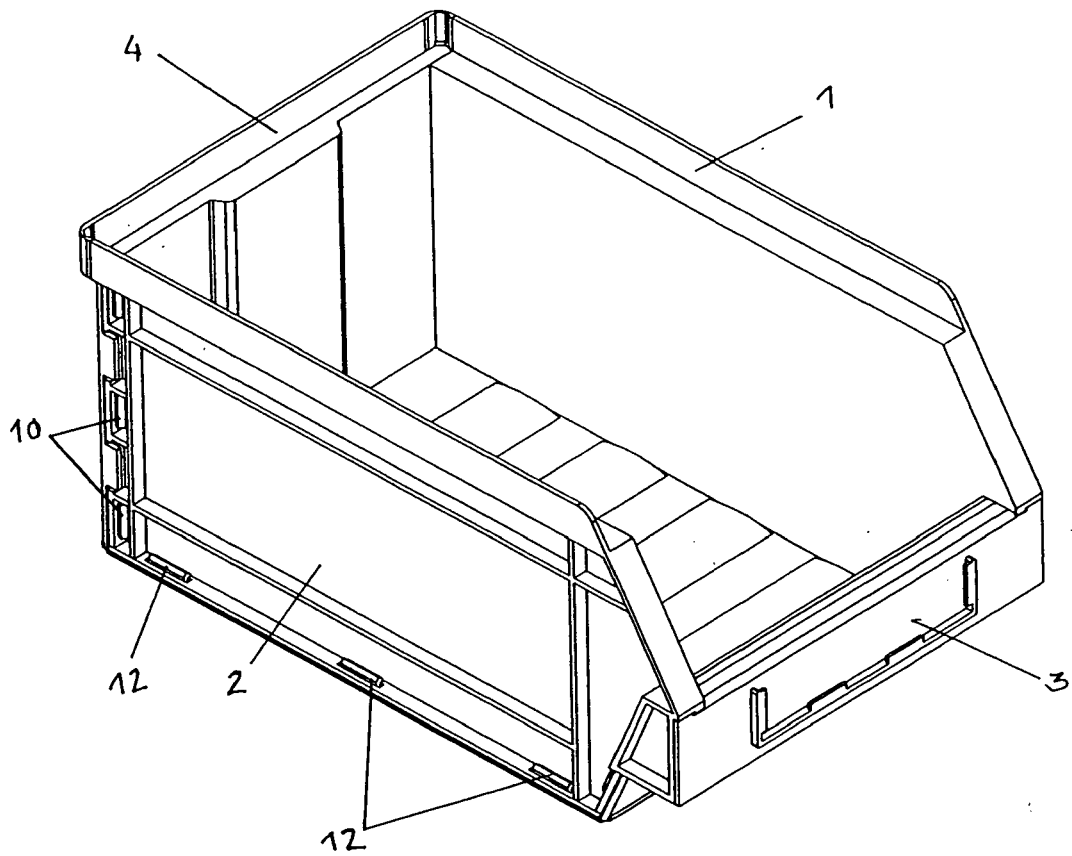


FIG. 11

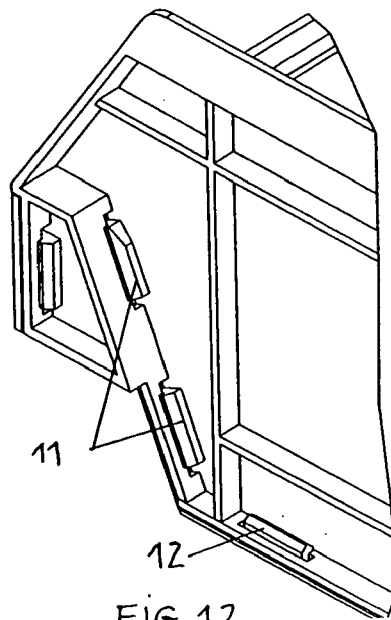


FIG. 12

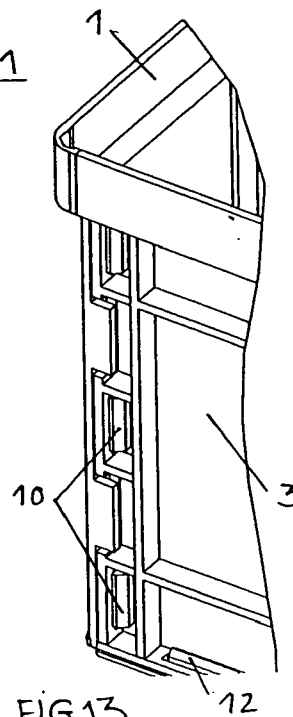


FIG. 13



EUROPEAN SEARCH REPORT

Application Number
EP 08 38 0190

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	WO 99/02410 A (RAIOLA VITALIANO [BR]) 21 January 1999 (1999-01-21) * abstract; figures 1-3 * * page 4, line 25 - page 7, last paragraph *	1,2	INV. B65D1/22
X	DE 92 18 977 U1 (SCHOELLER PLAST AG [CH]) 8 August 1996 (1996-08-08)	1	
A	* page 5, line 1 - page 8, paragraph 1; figures 1,3-9 *	2	
A	EP 0 659 650 A (PROPLAST A HATZOPOYLOS G ANTON [GR]) 28 June 1995 (1995-06-28) * abstract; figures 1,2 *	1,2	
			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 11 November 2008	Examiner Seegerer, Heiko
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			

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EPO FORM 1503 03.82 (P04C01)

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

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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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11-11-2008

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		EP 0925226 A1	30-06-1999
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