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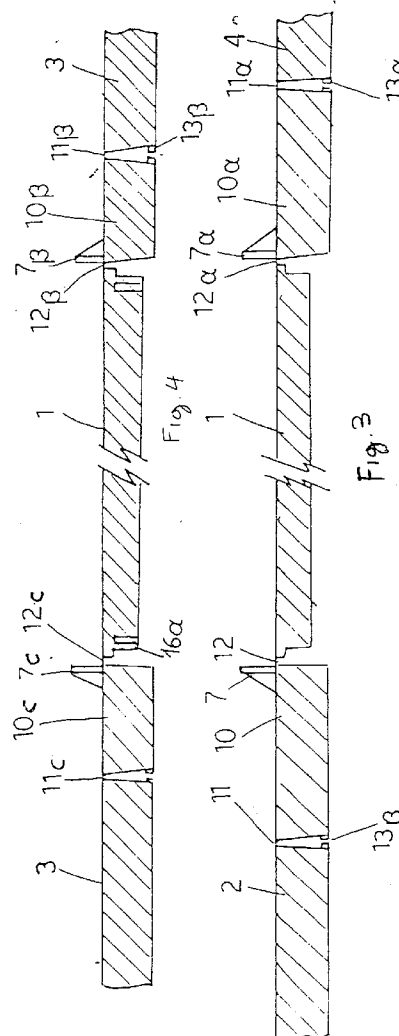
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(54) **Folding box.**

(57) A folding box useful for tidying-up and storing goods, which consists of the base (1) where the two sides (3) bearing handles (8), as well as the shorter front (4) and the larger back (2) sides are attached with the assistance of the support plates (7,7a,7b,7c). The sides of the box are fastened to each other with angular fixtures (5,6). All sides consist of a main part and a smaller part (10,10a,10b,10c) connected to the main part with a strip of membrane (11,11a,11b,11c) and to the base with another strip of membrane (12,12a,12b,12c). The small parts of the sides bear contact pads (13,13a,13b,13c) that enable their attachment to each other and which close the existing gaps. The sides also bear aeration holes (9). The base can also bear such holes. The box is made of plastic or any other suitable recyclable material (wood, cardboard etc.).



It is an invention which is referred to a folding box the aim of which is the arrangement-storage of merchandises. The folding box is necessary, at home for the arrangement of fruits, vegetables, toys and various other things, in the factory for the various small machine-parts equipments, in the garden for the hobbies. There are different sorts of boxes, a special type is the one of ours which has many more advantages compared with the other boxes regarding the following.

- Because of folding its transport is easy and also its sale to a small package and afterwards its setting to a specific place.
- In addition to this because of folding of its 4 sides we are able to close whichever box is not used and as a result we free the space which are valuable to us (e.g. balcony - storage room)
- The perimetric membrane in all 4 sides with which their main body is combined with the second, it has the role of hinge for the possibility of being flexible during the connection of the box and of coming back to its horizontal position during the phase of dismantling.

In addition to this, the existence perimetrically in ordinary spaces of the neurons and also of the spikes reassures the regular distribution of the cargos of the content of each box on the whole surface of the bottom.

In this invention a folding box appears which is constructed by the base combined with its 4 sides perimetrically with a cover of membrane from the same material.

A membrane also exists perimetrically in all 4 sides where their main body is combined with the second section.

The box is constructed in 4 versions and in particular: The A version has the two sides of the same height and the other two, the one equal in height with the previous two and the facing one lower.

The B version has all the 4 sides in the same height from which the 2 are folded in 3. The C version has all the four sides in the same height from which the two are folded in two and finally the D version with the same height and all 4 sides folded in 2.

A practical application is given in connection with the attached figures.

At figure 1 we are able to see in a perspective design the box as it is unfold.

At figure 2 we are able to see in a perspective design the box in a position of assemblage.

At figure 3 we can see in a A-A section the oblique view of the box.

At figure 4 we can see in a B-B section the facade of the box.

At figure 5 we can see the settlement of the box over another one.

At figure 6 we can see the box as it sorts out from the machine in flap.

At figure 7 we are able to see perspectively the B version of the box.

At figure 8 we can see the box B version in a position of assemblage.

At figure 9 we can see the box C version perspectively designed.

At figure 10 we are able to see the box C version in a position of assemblage.

At figure 11 we can see the box D version perspectively designed.

At figure 12 we can see the box D version in a position of assemblage.

At figure 13 we are able to see the ground plan of the box D version as it sorts out from the machine in flap.

In reference to the figures the box of A version is composed of the bottom -1- where with the help of the neurons 7-7a-7b-7c- the two sides -3- are developed together with the handles -8- and the other two sides (the small in front -4- and the big in the back -2-). The sides button up together with formations at the corners -5-6-. The sides besides their main body also have secondary small parts respectively 10,10a,10b which are combined with the main ones with a membrane 11,11a,11b,11c and afterwards the same with the bottom with a membrane 12,12a,12b,12c. The parts of the sides have stringes 13,13a,13b,13c for lying upon one another similarly closing the existent space.

The sides also have airing holes -9- which also the bottom can have. The construction's material is plastic or another available recycled ecological material (wood - paper - mass).

The other 3 versions of the boxes, the B (14b), the C (14c) and the D (14d) have the same constructed structure with a difference regarding the form of the sides.

In reference to the construction of the A version at a certain extent we can say the following:

After coming out of the form of the mould in a flagstone the whole box becomes a first crease of the 4 sides towards the base and afterwards we elevate the small side in front -4- and the big one in the back -2-. Furthermore we open outside out the two sides -3- with the handles -8-. The sides all button up with each other with the help of formations at the corners -5-6-. The sides' creases in reference with the base and in reference with their formation are succeeded by the existence of two covers of membrane from the same stuff perimetrically. Here the membrane takes the part of the hinge for the possibility of being flexible during its arrangement of the box and coming back to the horizontal position during the stage of the dismantling. Also the existence in regular spaces of the neurons 7,7a,7b,7c and of the stringes reassures us of the uniform distribution of the cargos of the content of each box on the whole surface of the bottom. In order that this can be understood, we refer as an exam-

ple to one side.

By lifting to a horizontal position the big side (2) because of the existence of membranes (11), (12), the neuron (7) comes to apply internally to the bottom and simultaneously the stringes (13) touch each other, closing the space between the main body (2) of the side and the second part (10). The same happens with the other 3 sides correspondently.

When we would like to dismantle the box, firstly we unbutton the sides (3) with the handles (8) with the other two (2), (4).

Claims

1- A folding box which is constructed in 4 versions (14a), (14b), (14c), (14d) the aim of which is the arrangement-storage of merchandises and it is characterized by the fact that the A version is composed of the buttom (1) where with the help of the neurons (7), (7a), (7b), (7c) the two sides (3) with the handles (8) are developed with the other two sides (the small in front (4) and the big in the back (2)). The sides are buttoned up between them and with formations at the corner (5), (6). The sides except of their main body have correspondently secondary small parts (10), (10a), (10b), (10c) which are connected to the main with membrane (11), (11a), (11b), (11c) and followingly the same with the buttom with a membrane (12), (12a), (12b), (12c). The parts of the sides have stringes (13), (13a), (13b), (13c) in order to touch one another similarly closing the existing space. The sides also have holes of airing (9) that also the buttom may have. The construction's material is plastic or another available recycled ecological material (wood-paper-mass).

2- A folding box constructed in 4 versions (14a), (14b), (14c), (14d) like in the claim land which is characterized by the fact that the B vesion (14b) has all of the four sides in the same height from which the two are folded in 3. The C version (14c) again with the 4 sides of the same height from which the 2 are folded in 2 and finally the D version (14d) with 4 sides of the same height and folded in 2 all of the 4.

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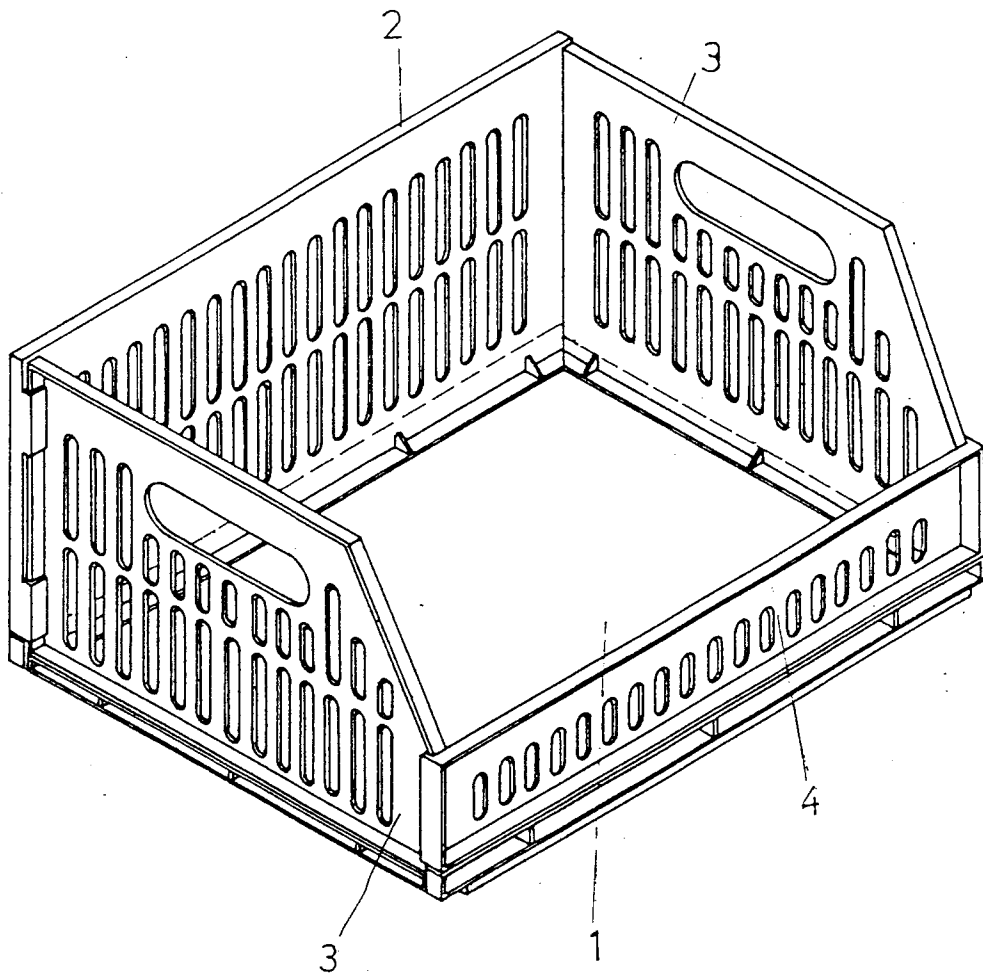
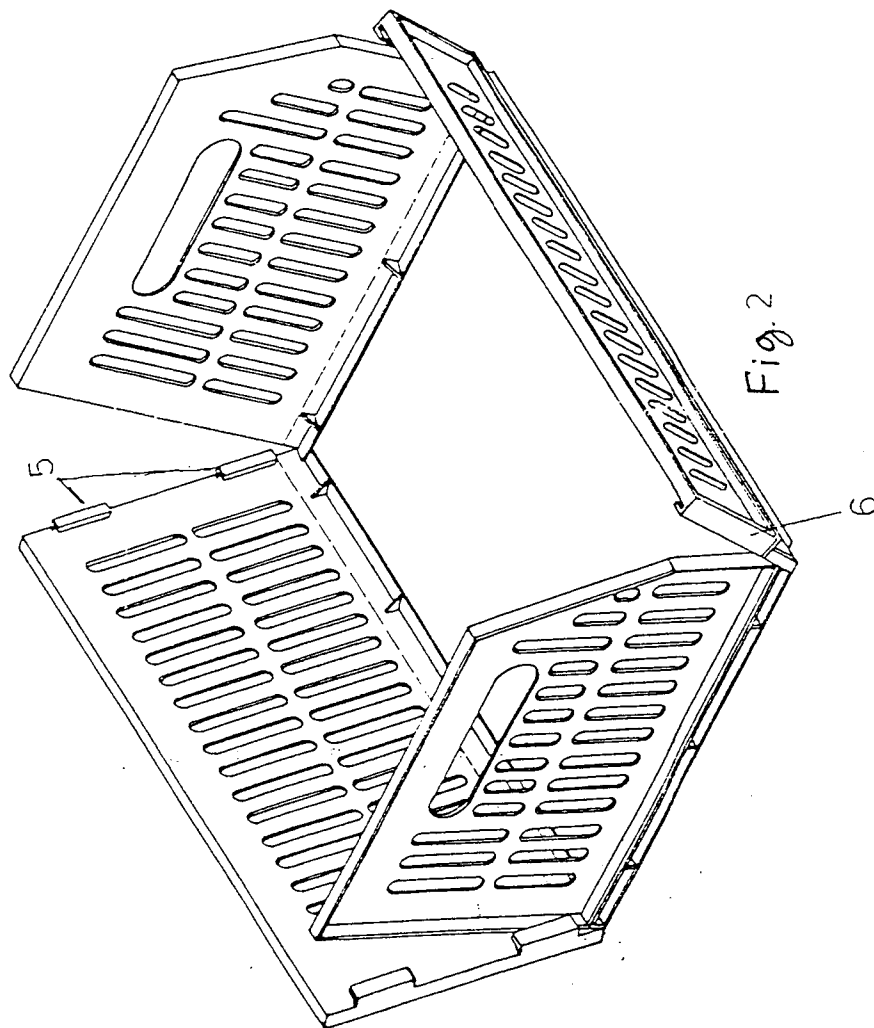
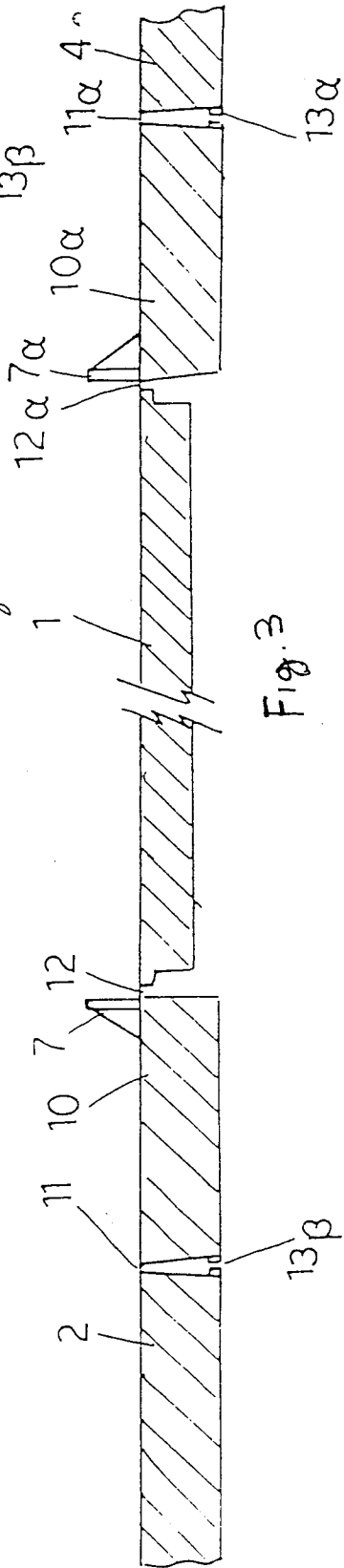
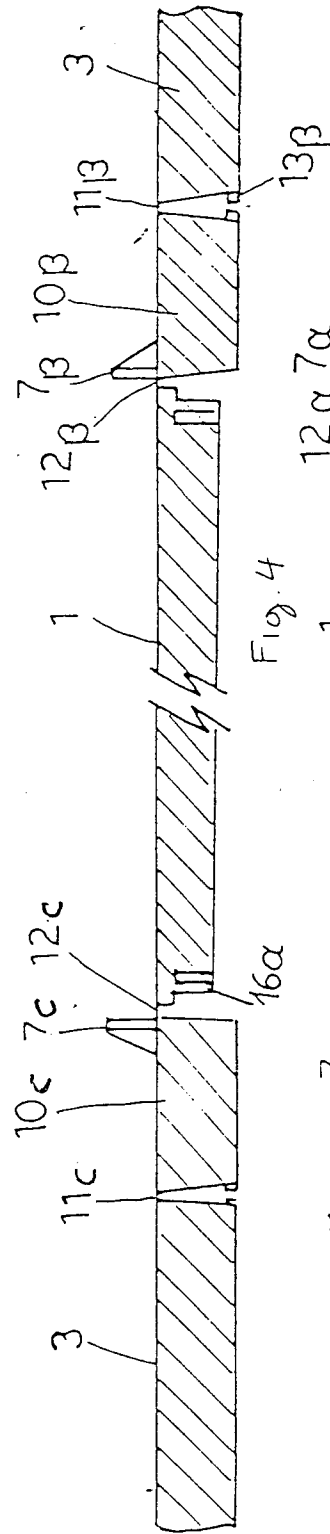
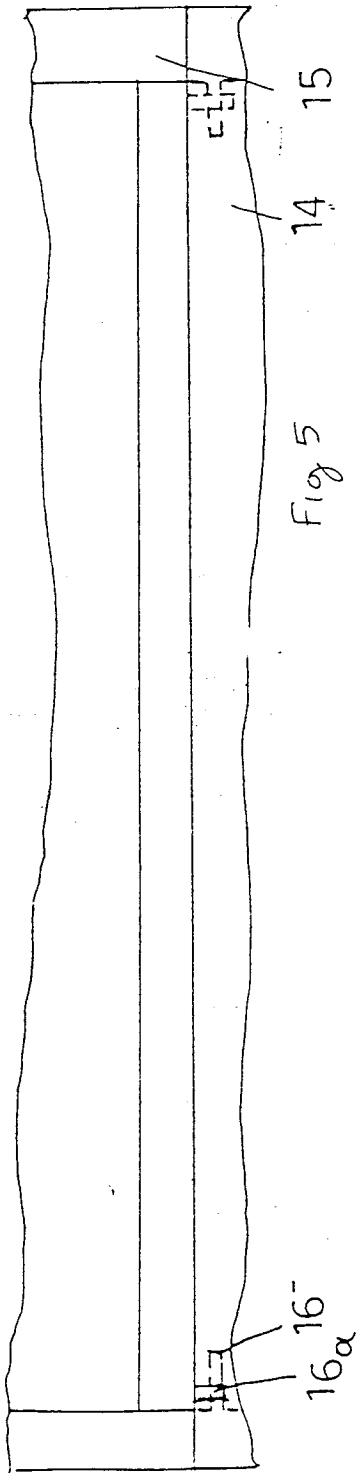


Fig 1





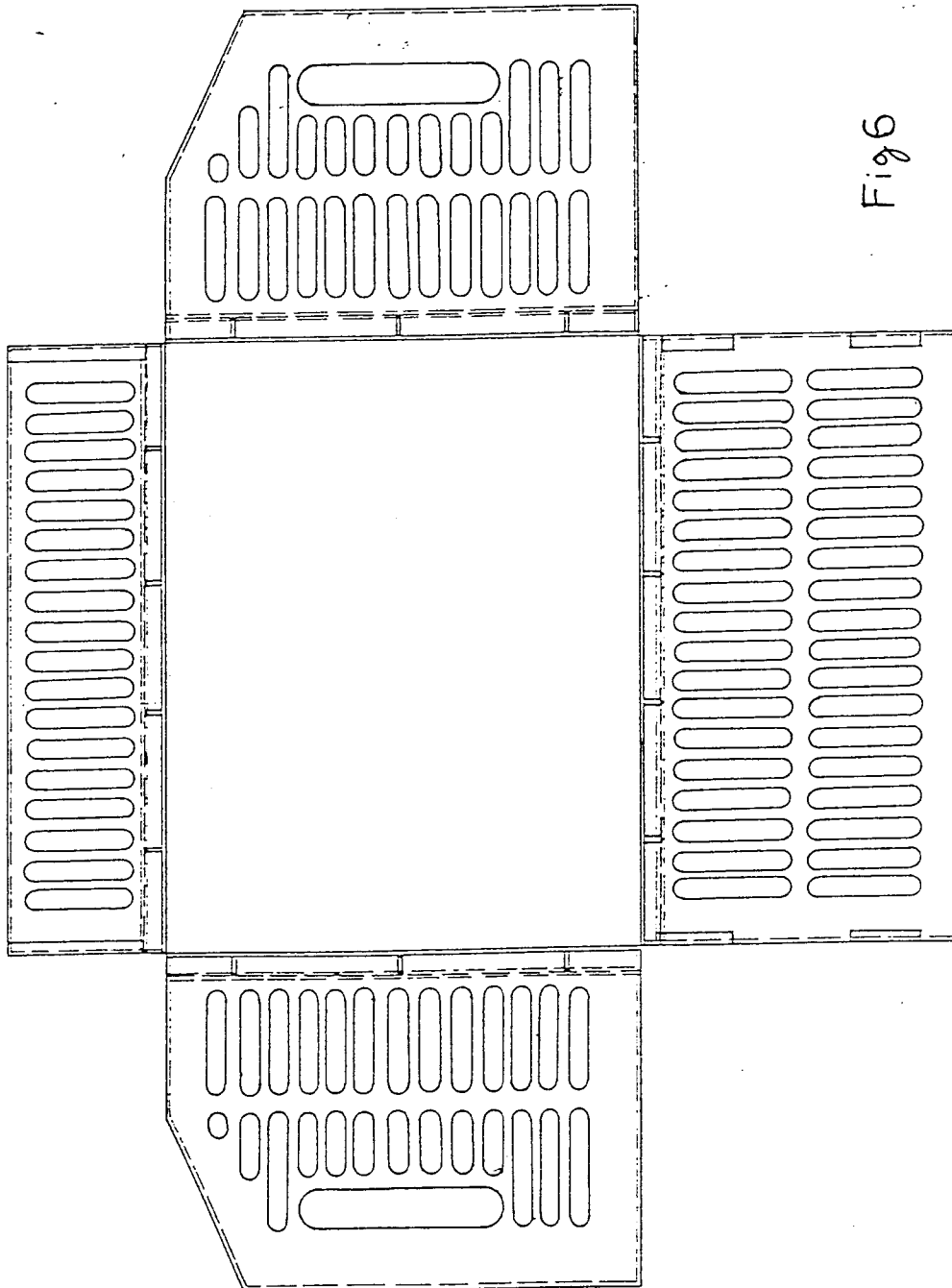


Fig 6

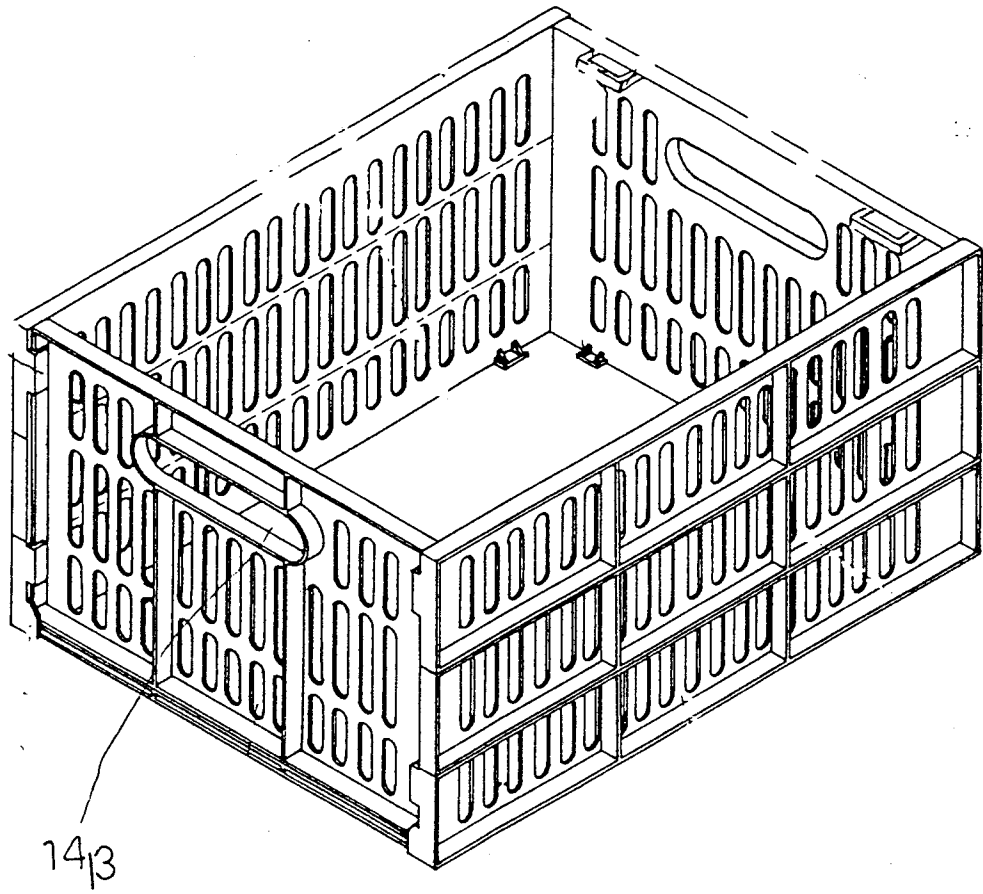
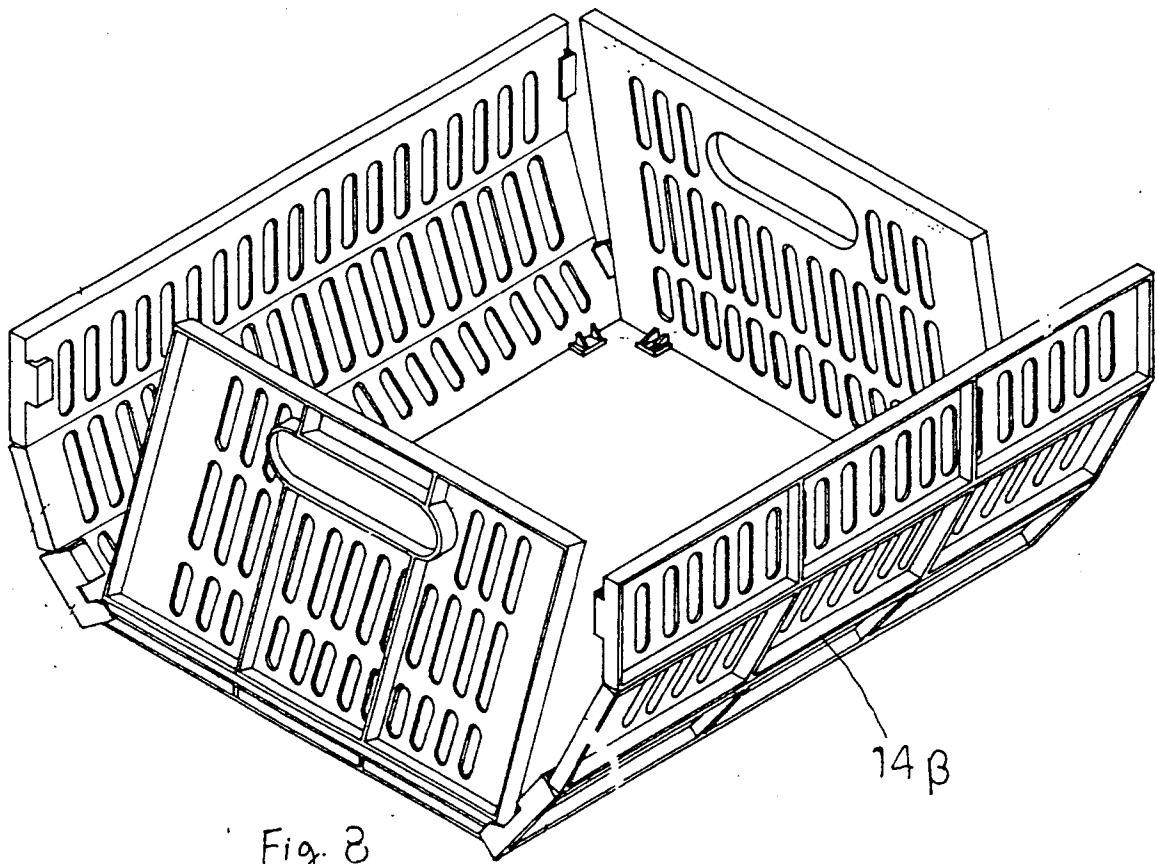


Fig. 7



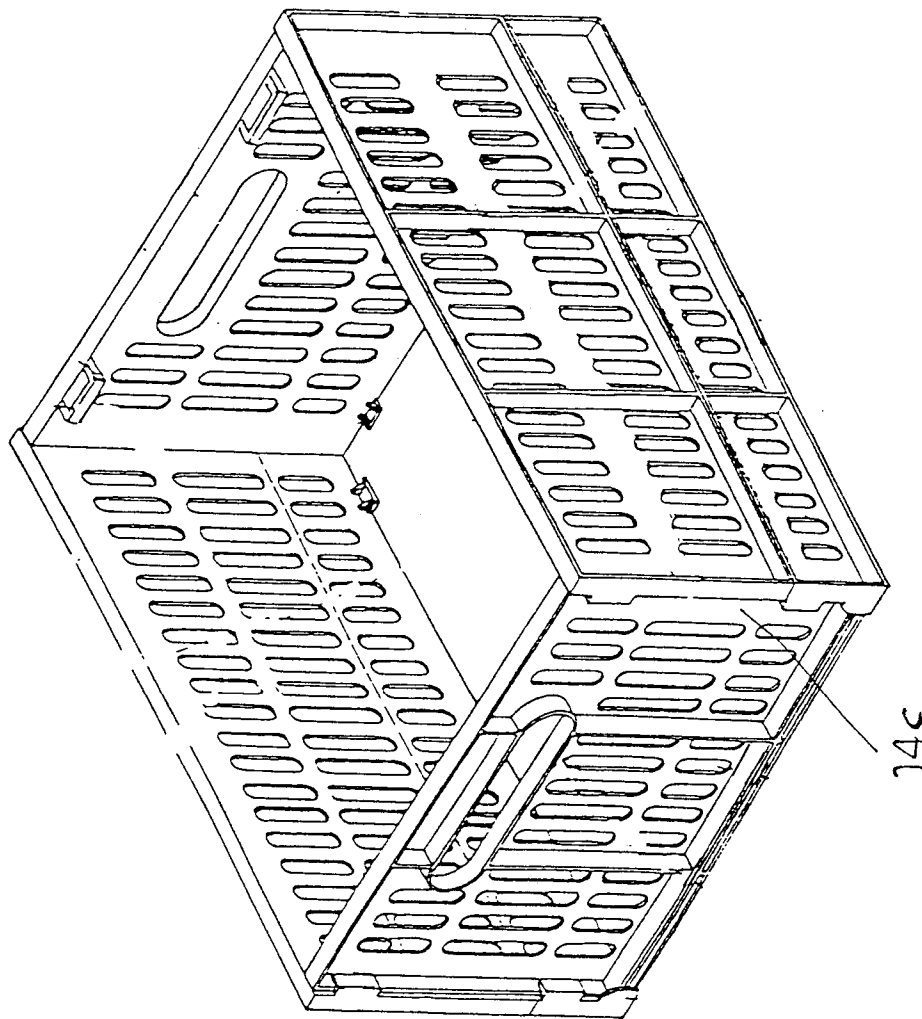
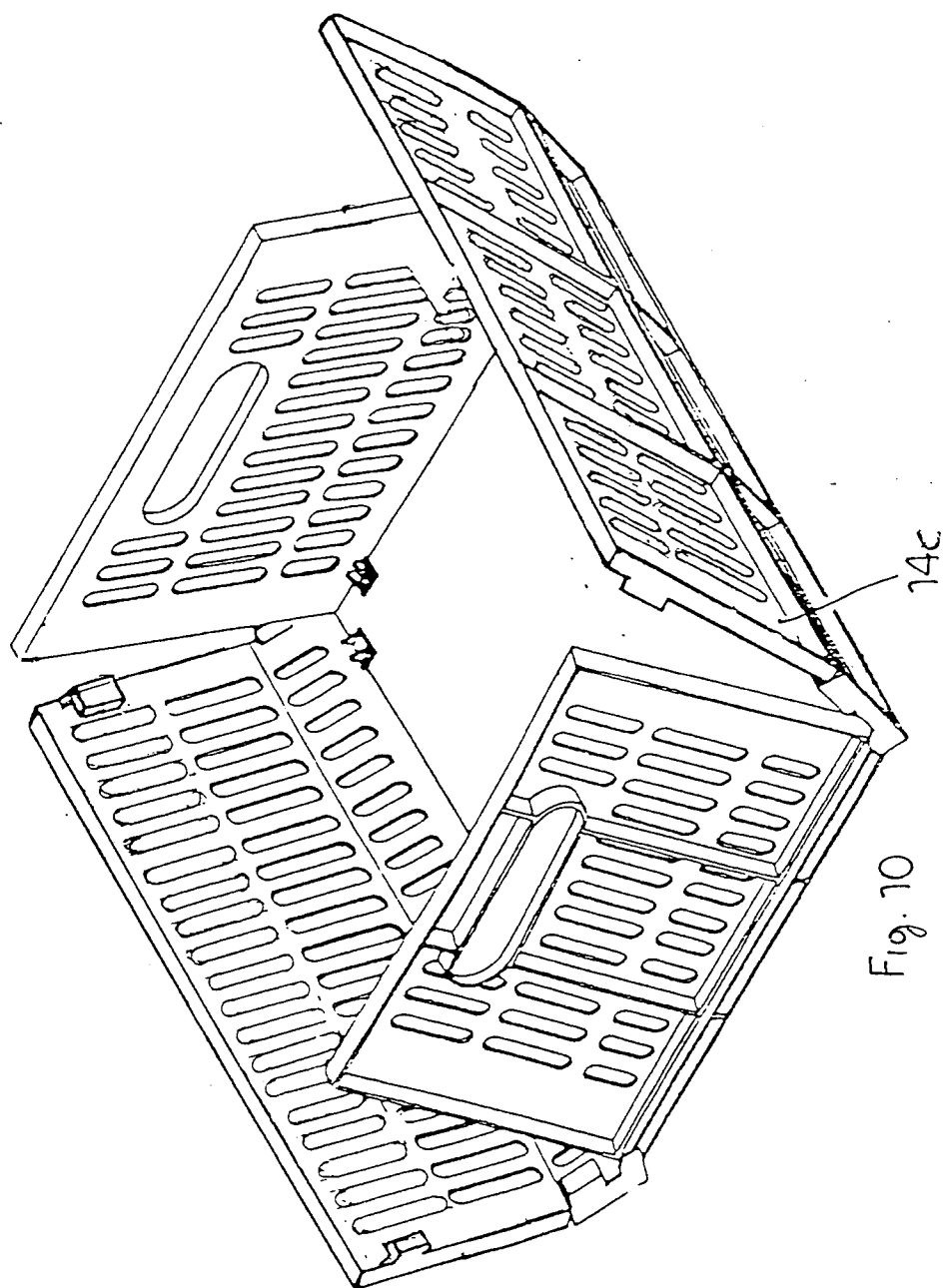


Fig. 9

14c



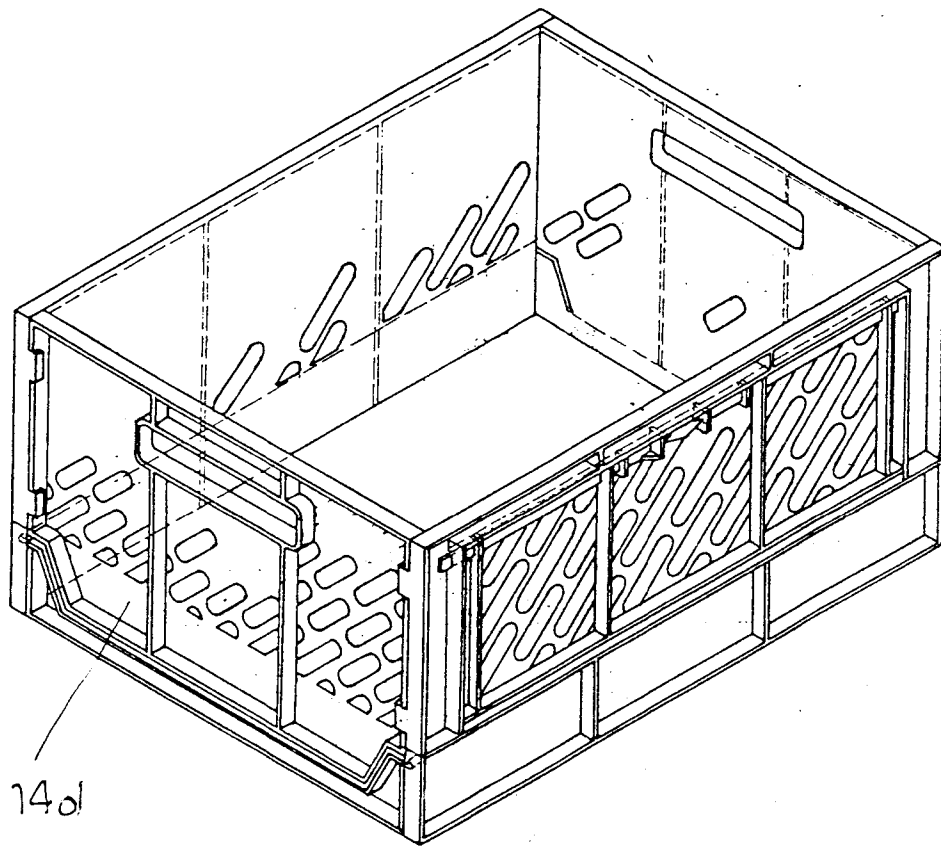


Fig. 11

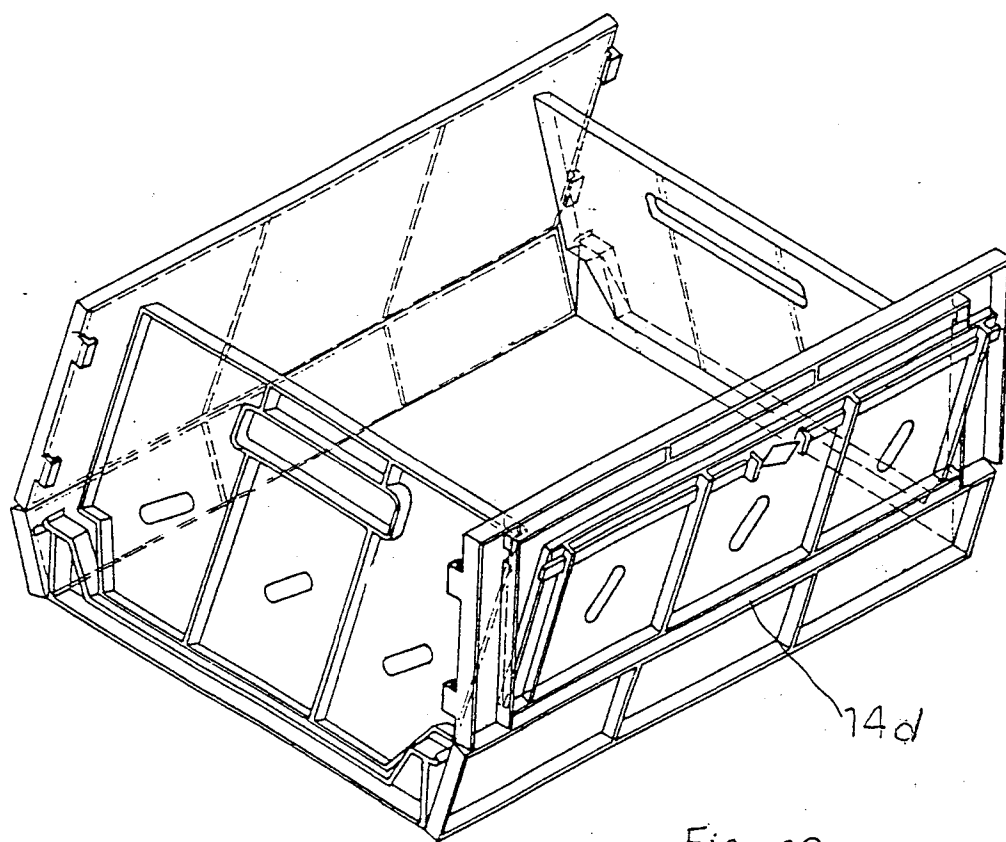


Fig. 12

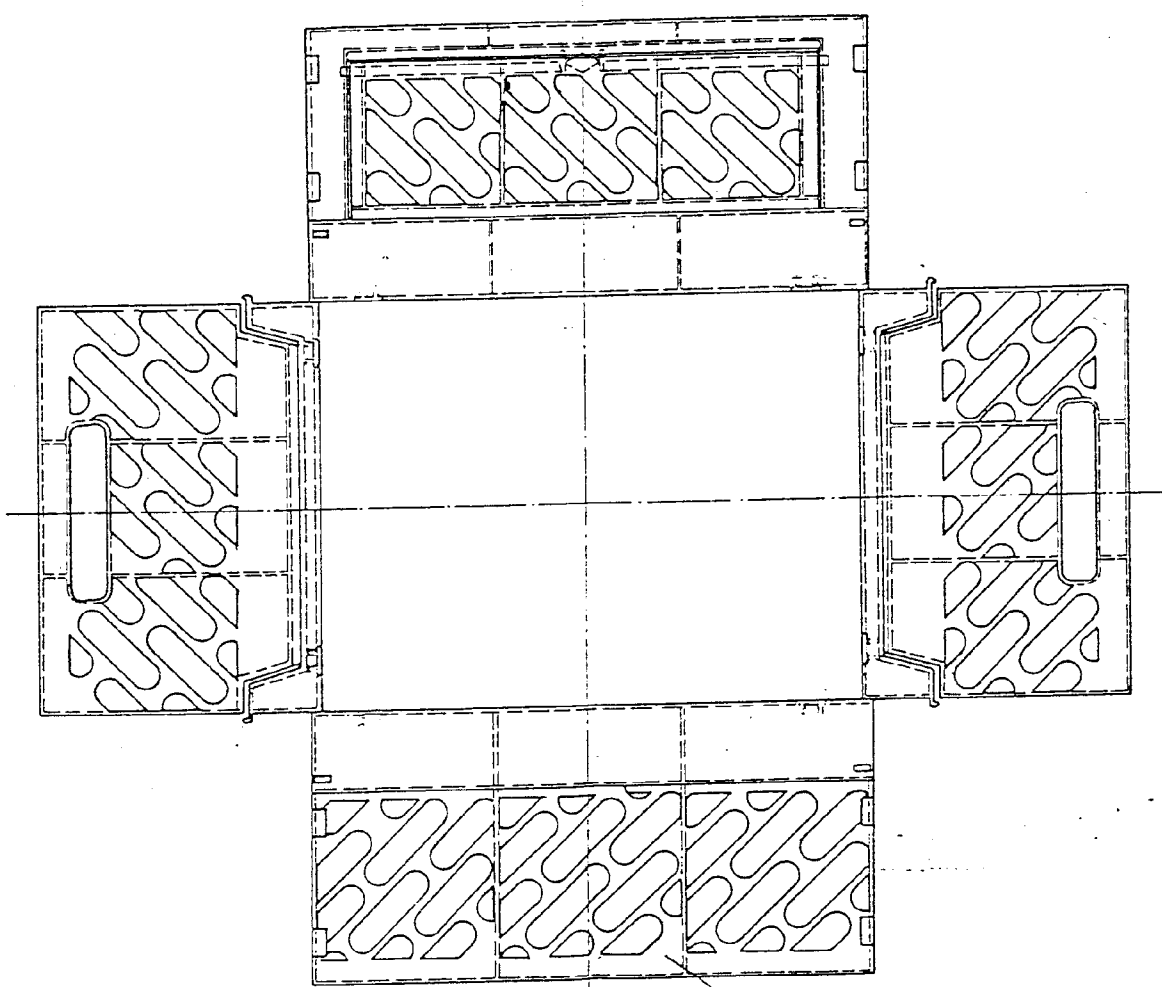


Fig 13

14d



European Patent
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EUROPEAN SEARCH REPORT

Application Number
EP 94 60 0010

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.6)
A	FR-A-2 172 047 (RODDIER) * the whole document * ---	1,2	B65D6/18
A	GB-A-1 261 883 (THERMO PLASTICS LTD.) * the whole document * ---	1,2	
A	WO-A-93 13991 (SCHOELLER-PLAST) -----		
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			B65D
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 31 March 1995	Examiner Leong, C
<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 & : member of the same patent family, corresponding document</p>			

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