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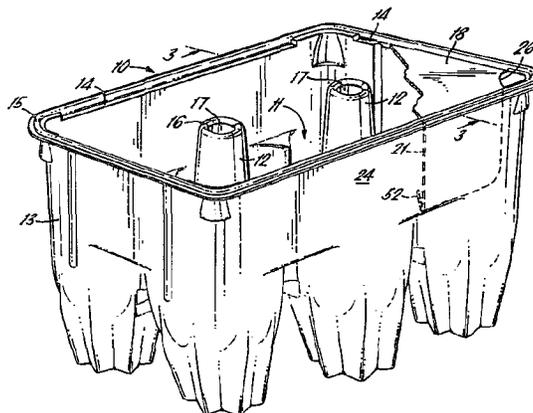
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64 Packaging containers.

The invention relates to a packaging container for eggs, fruit or other articles.

The container, e.g. an egg box, has a base portion (10) formed of plastics material having article receiving depressions (11) and a surrounding wall (13). A separate flat lid (18), e.g. of cardboard, is at least partially supported by upstanding pillars (12; 31) within the base portion. The lid has at least one flap (21) which when the lid is fitted extends downwardly substantially parallel to an adjacent portion (24) of the surrounding wall of the base portion.

In the case of an egg box, the purpose of the flap or flaps is to display the class, size and number of the eggs within the box and/or other information such as advertising material.



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PACKAGING CONTAINERS

This invention relates to packaging containers for eggs, fruit or other articles.

5 It is known to provide an egg box comprising a base portion formed of plastics material having egg receiving depressions and a height which is greater than that of the eggs, and a flat cardboard lid supported on pillars within the base portion. The lid is clipped to the pillars to hold it in place after the box has been filled with eggs. The upper surface of the lid bears display material including the class, size and number of the eggs but such display material is not visible when a number of boxes are stacked one upon the other.

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This type of container is equally applicable for packaging fruit or other articles instead of eggs.

According to the invention there is provided a packaging container comprising a base portion formed of plastics material having article receiving depressions and a

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surrounding wall, and a separate flat lid at least partially supported by upstanding pillars within the base portion, the lid having at least one flap which when the lid is fitted extends parallel or sub-

5 stantially parallel to an adjacent portion of the surrounding wall of the base portion. The purpose of the flap or flaps is to display information about the packaged articles and/or other information, e.g. advertising material.

10 Preferably the lid is a cardboard lid having a respective crease defining the or each flap.

It is also preferred that the lid is generally rectangular and has a flap extending along one or both of its side edges and/or along one or both of

15 its end edges.

In one embodiment of the invention the adjacent portion of the surrounding wall of the base portion associated with the or each flap is transparent, and when the lid is fitted the or each flap lies inside

20 the respective adjacent portion of the surrounding wall.

In this case means are preferably provided which urge the or each flap to lie against the inner surface of the respective transparent adjacent portion of the

25 surrounding wall of the base portion.

Said means may comprise a portion of the or each flap which extends inwardly of the base portion when

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the lid is fitted for engagement with at least one of the packaged articles. Alternatively said means for the or each flap may be provided on the base portion for engagement by the free longitudinal edge of the respective flap.

In another embodiment of the invention when the lid is fitted the or each flap lies outside the respective adjacent portion of the surrounding wall of the base portion. Preferably the external surface of the surrounding wall of the base portion has means for retaining the or each flap in a folded down position.

Means are preferably provided for retaining the lid on the base portion.

The retaining means may clip the lid to the support pillars. The lid may have tags which are depressed through holes in the upper surfaces of the pillars, each tag having a lip which engages beneath the upper surface of the respective pillar. Alternatively the lid may have apertures which are aligned with undercut upper portions of the pillars.

In another embodiment the edges of the lid may engage beneath pips extending inwardly from the surrounding wall of the base portion.

Preferably the packaging container is an egg box, e.g. for six eggs or any other desired number.

If desired, the base portion of the packaging container may be formed as one of two or more, e.g. four,

units joined by tear lines produced in the manner described in British Patent Specification No. 1165793.

By way of example, specific embodiments in accordance with the invention will be described with
5 reference to the accompanying drawings in which:-

Figure 1 is a perspective view of an egg box, the lid of the box being partly cut-away;

Figure 2 shows the lid of the egg box of Figure 1 before the flap is folded downwardly;

10 Figure 3 is a section through a part of the egg box of Figure 1 to show the lid flap folded downwardly inside the base portion and one of the tags of the lid depressed through a hole in the upper surface of the respective pillar in the base portion;

15 Figures 4 and 5 are scrap views of other egg boxes having alternative means for urging the lid flap to lie against the adjacent portion of the surrounding wall of the base portion;

Figure 6 is a perspective view of a different egg
20 box lid having two side edge flaps; and

Figure 7 is a section through part of a further egg box in which the pillars within the base portion are aligned with holes in the lid and the lid is pressed over undercut upper portions of the pillars;

25 Figure 8 is a perspective view of an egg box in which the lid flap lies outside the surrounding wall of the base portion, the lid being partly cut-away.

With reference to Figures 1 to 3 of the drawings,

an egg box comprises a base portion 10 formed of plastics material and a separate lid. The base portion 10 has six egg receiving depressions 11 and two centrally arranged upstanding pillars 12 within a surrounding wall 13. In this embodiment at least the upper portion of the surrounding wall 13 above the egg receiving depressions 11 is transparent.

The upper edge of the wall 13 has internal side and end shoulders 14 and a peripheral rim 15. In this embodiment the shoulders 14 are in the same plane as the upper surfaces 16 of the pillars 12 which are provided with holes 17. Also the height of the upper surfaces 16 of the pillars 12 above the bases of the depressions 11 is equal to or greater than the greatest dimension of the eggs to be packed in the egg box. The eggs may thus be covered by a flat lid 18 which rests on the shoulders 14 and the pillars 12.

The lid 18 (Figure 2), in this embodiment, is formed of cardboard having printed matter on its upper surface and is held in position by two shaped tags 19 which are depressed through the holes 17 in the pillars 12 (Figure 3), each tag having a lip 20 which engages beneath the upper surface of the respective pillar.

Extending along the major part of one of the sides of the lid 18 is a flap 21 defined by a crease 22 which allows the flap to be readily folded downwardly to lie inside and parallel or substantially parallel to the adjacent portion 24 of the surrounding wall 13 of the base portion 10. On the lid flap 21 there is printed matter, for example the class, size and number of eggs in the egg box, such printed matter being readily visible through the transparent adjacent portion 24 of the surrounding wall 13, even when a number of egg boxes are stacked one upon the other. Alternatively or additionally, the printed matter on the flap may be desired advertising material.

The corners of the lid 18 are cut-away to provide ventilation for the eggs when packed within the base portion 10.

To urge the flap 21 to lie against the inner surface of the adjacent portion 24 of the surrounding wall 13 of the base portion 10, the flap has a portion extending inwardly of the base portion and which, in use, contacts the adjacent eggs 53 (Figure 3). In this embodiment, the portion is a reverse fold 52 extending along the free longitudinal edge of the flap. This positioning of the flap is advantageous to ensure good viewing of the information on the flap through the base material.

Alternative means to urge the flap 21 to lie against the inner surface of the adjacent portion 24 of the surrounding wall 13 of the base portion 10 are shown in both Figures 4 and 5. In Figure 4, the means are projections 54 which project upwardly from each of the six horizontal surfaces 55 of the base portion, each projection being spaced from the surrounding wall 13 to define a gap therebetween of sufficient width to receive the free longitudinal edge of the flap.

Figure 5 shows a different arrangement in which a slot 57 is provided between each horizontal surface 55 and the surrounding wall 13 to receive the free longitudinal edge of the flap.

In practice, the projections 54 or slots 57 are provided on all four sides of the egg box to allow the lid 17 to be fitted with its flap 21 on either side, or to allow other lids to be used which may have two side flaps and/or a flap at one or both ends.

Each of the arrangements shown in Figures 4 and 5 does not require a lid flap having a reverse fold 52.

Figure 6 shows a lid 18 having two side flaps 21 each of which is intended to be folded downwardly and inserted inside a transparent base portion 10 of an egg box so that information on each flap may be viewed through the surrounding wall 13 of the base portion. As in the

embodiment of Figures 1 to 3, each flap 21 is provided with a reverse fold 52 for engagement with one or more of the adjacent eggs.

In another embodiment of egg box the lid 18 has holes instead of tags which are aligned with undercut upper portions 30 of the support pillars 31 within the base portion (Figure 7). The lid may thus be held in position by pressing the lid over the upper portions 30 of the pillars and thereby clipping the lid to the pillars.

10 In a further embodiment of egg box (Figure 8), the lid has a flap 21 which is folded downwardly and slotted into holder portions 23 on the outside of the surrounding wall 13 of the base portion 10 rather than inserted inside the base portion. In this embodiment, the base portion
15 need not be formed of transparent plastics material or have a transparent portion.

In order that the flap 21 lies as close as possible to the adjacent portion 24 of the surrounding wall of the base portion, the upper rim 25 of the adjacent portion
20 24 which is between the holder portions 23 is formed so that it is narrower than the remainder of the peripheral rim 15 of the base portion.

In each embodiment, the base portion 10 may be formed as a single unit or as one of two or more units joined
25 by tear lines. Such tear lines are illustrated in the

case of the embodiment of Figure 8 and indicate that the base portion 10 has been formed as one of four such units resulting with tear lines 27 along two edges of its peripheral rim 15. Each tear line 27 is formed in the
5 manner described in British Patent Specification No.1165793. If the lid has two side flaps 21 for insertion into respective external holder portions 23, the base portion 10 is formed singly or as one of a multiplicity of units attached end to end by tear lines 27.

10 The invention is not restricted to the specific details of the embodiments described above. For example, the invention is equally applicable to containers for packaging fruit or other articles instead of eggs.

CLAIMS:

1. A packaging container comprising a base portion formed of plastics material having article receiving depressions and a surrounding wall, and a separate flat lid at least partially supported by upstanding pillars within the base portion, characterised in that the lid (18) has at least one flap (21) which when the lid is fitted extends parallel or substantially parallel to an adjacent portion (24) of the surrounding wall (13) of the base portion (10).
2. A packaging container as claimed in Claim 1, characterised in that the lid is a cardboard lid (18) having a respective crease (22) defining the or each flap (21).
3. A packaging container as claimed in Claim 2, characterised in that the lid (18) is generally rectangular and has a flap (21) extending along one or both of its side edges and/or along one or both of its end edges.
4. A packaging container as claimed in any one

of the preceding claims, characterised in that the adjacent portion (24) of the surrounding wall (13) of the base portion (10) associated with the or each flap (21) is transparent, and when the lid is fitted the or each flap lies inside the respective adjacent portion of the surrounding wall.

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5. A packaging container as claimed in Claim 4, characterised in that means (52;54;57) are provided which urge the or each flap (21) to lie against the inner surface of the respective transparent adjacent portion (24) of the surrounding wall (13) of the base portion (10).

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6. A packaging container as claimed in Claim 5, characterised in that said means comprise a portion (52) of the or each flap (21) which extends inwardly of the base portion (10) when the lid is fitted for engagement with at least one of the packaged articles (53).

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7. A packaging container as claimed in Claim 6, characterised in that the inwardly extending portion of the or each flap (21) comprises a reverse fold (52) along its free longitudinal edge.

8. A packaging container as claimed in Claim 5, characterised in that said means (54;57) for the or each flap (21) are provided on the base portion (10) for engagement by the free longitudinal edge of the respective flap.

9. A packaging container as claimed in any one of Claims 1 to 3, characterised in that when the lid (18) is fitted the or each flap (21) lies outside the respective adjacent portion (24) of the surrounding wall (13) of the base portion (10).

10. A packaging container as claimed in Claim 9, characterised in that the external surface of the surrounding wall (13) of the base portion (10) has means (23) for retaining the or each flap (21) in a folded down position.

11. A packaging container as claimed in any one of the preceding claims, characterised in that means (19,17;30) are provided for retaining the lid (18) on the base portion (10).

12. A packaging container as claimed in Claim 11, characterised in that the retaining means

(19,17;30) clip the lid (18) to the support pillars (12;31).

13. A packaging container as claimed in any
5 one of the preceding claims, characterised in that
the container (10,18) is an egg box.

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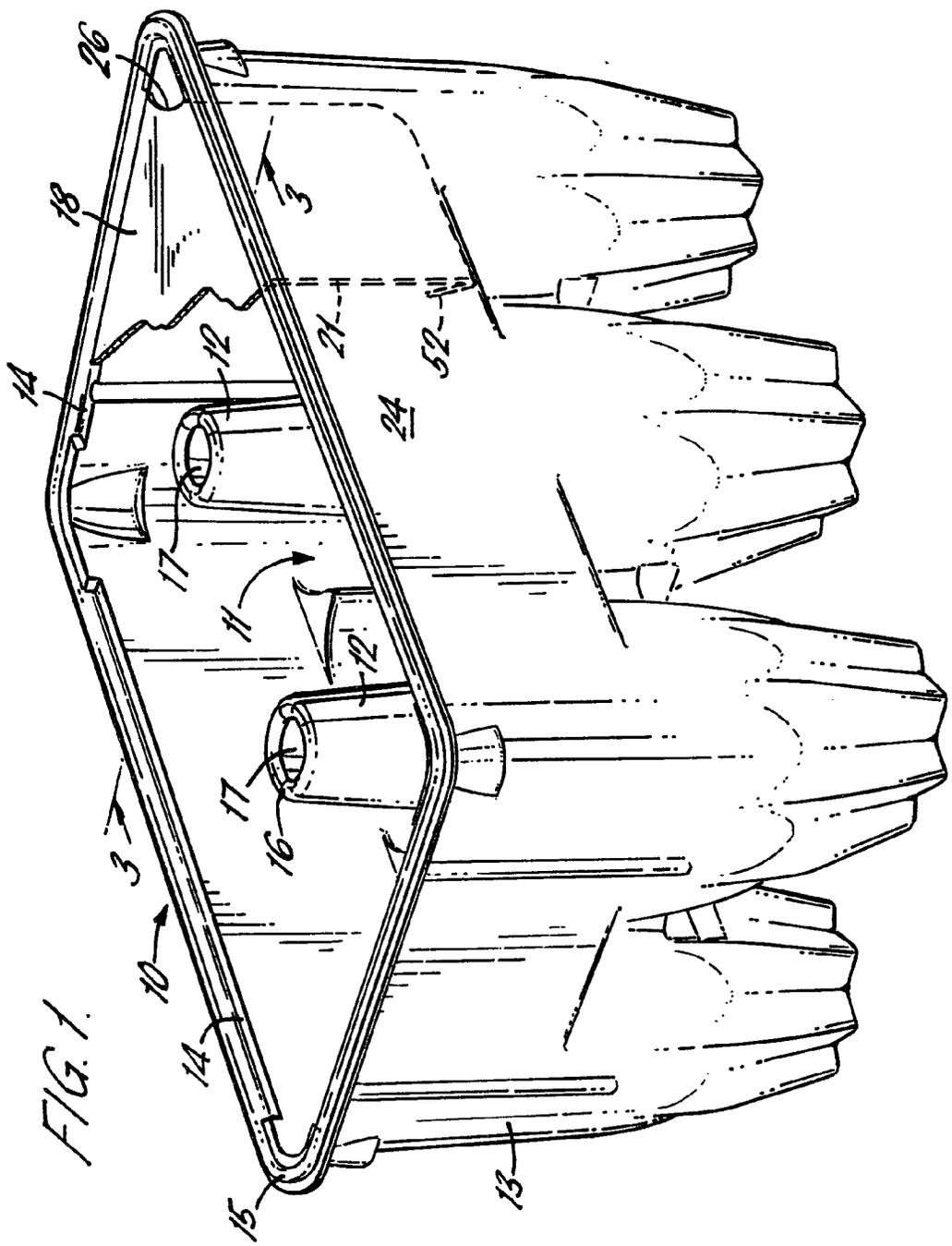


FIG. 1.

FIG. 2.

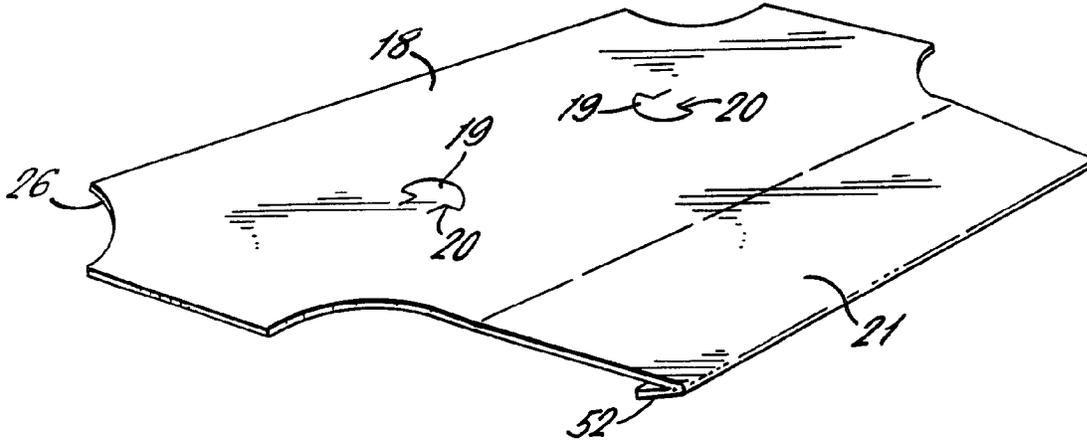
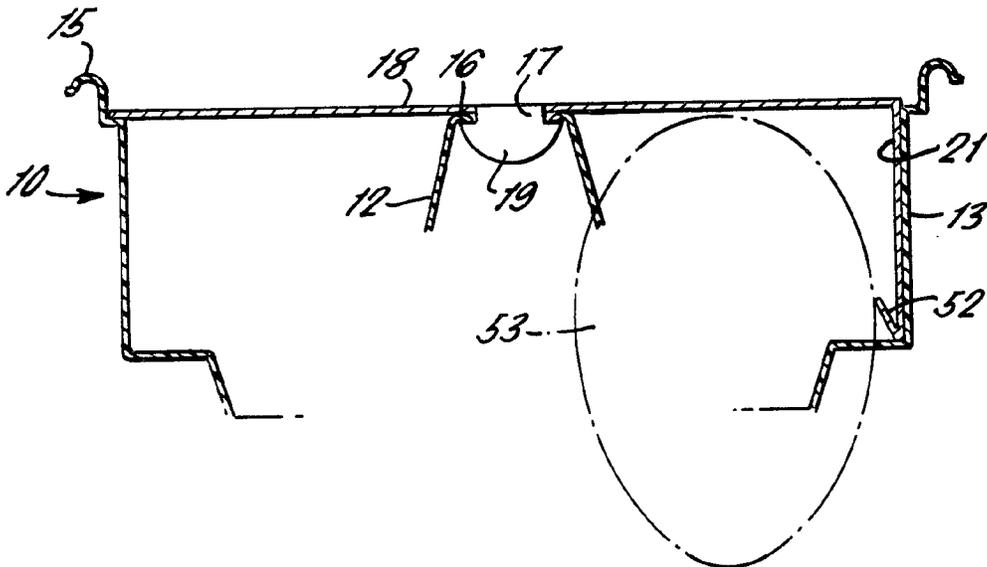


FIG. 3.



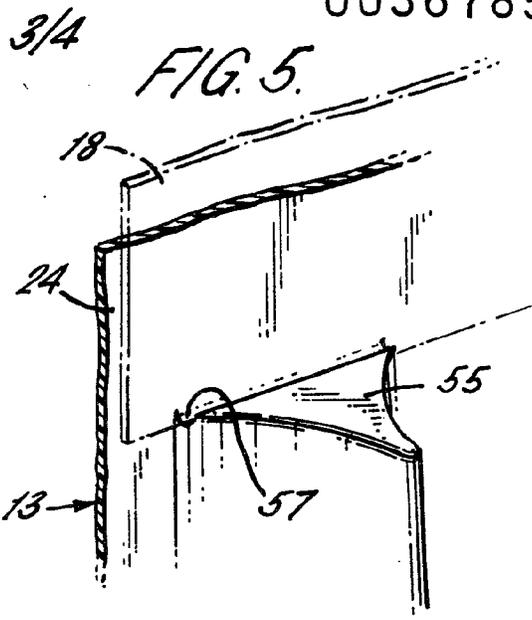
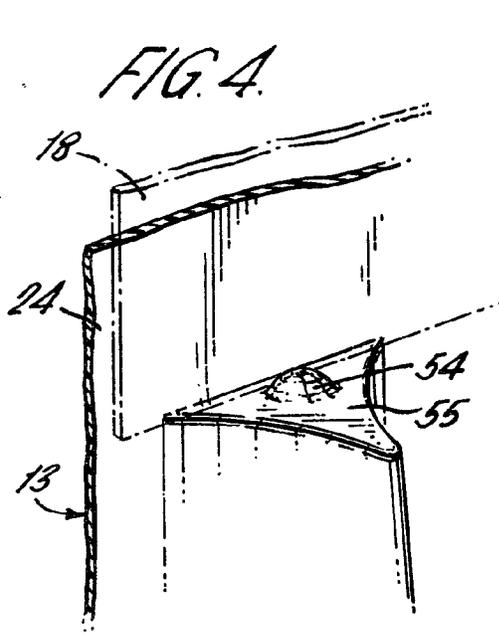


FIG. 6.

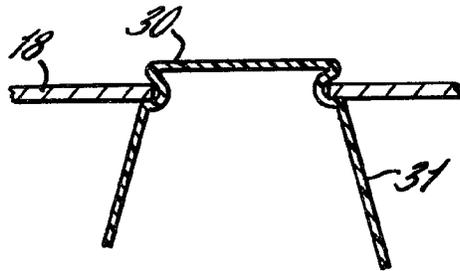
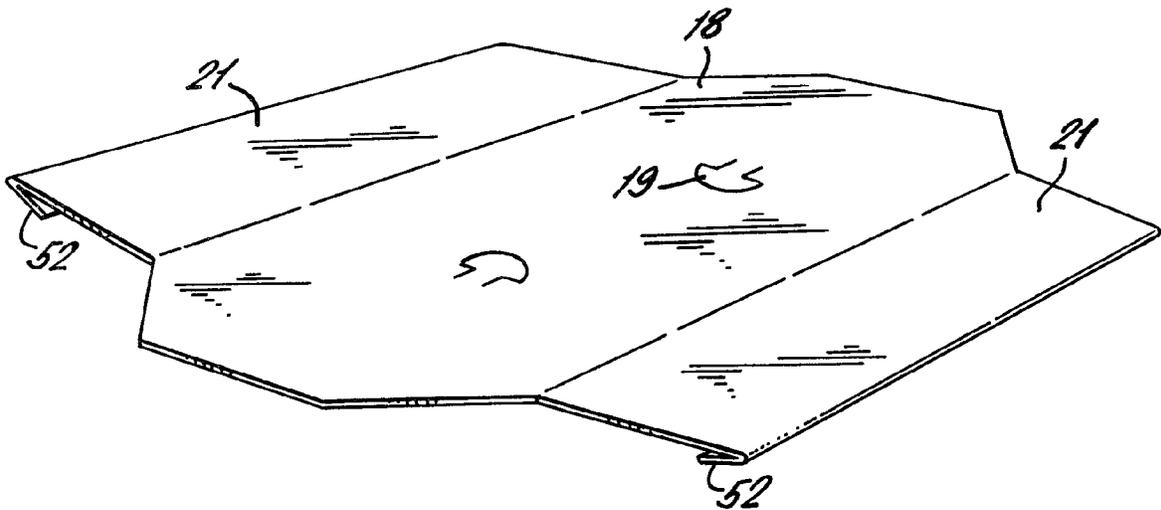
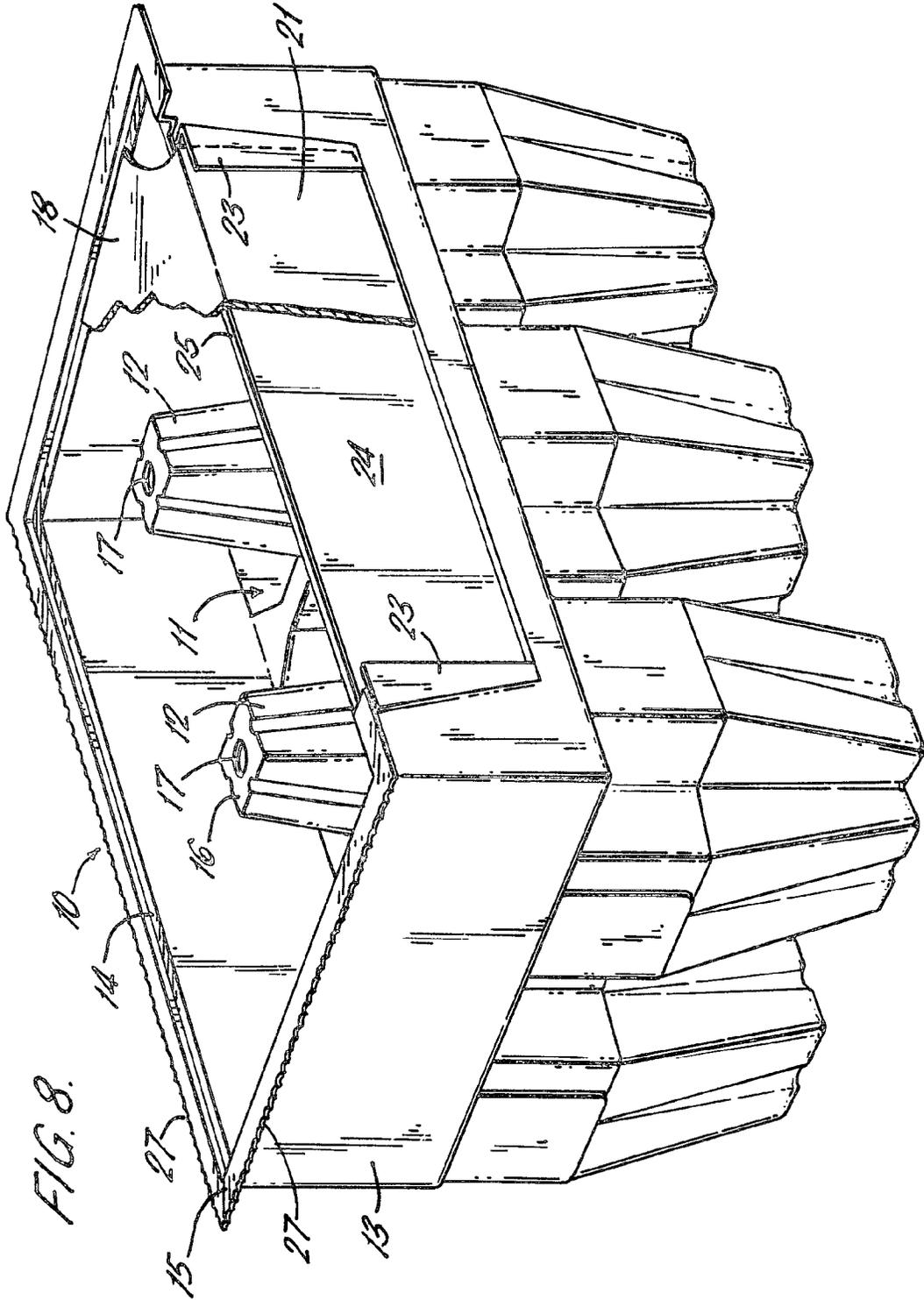


FIG. 7.







DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int. Cl.)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
	<p><u>US - A - 3 372 856 (ERHART)</u> * Column 2, lines 23-65; column 3, lines 1-5; figures 1,3,4 *</p> <p>--</p> <p><u>US - A - 3 193 177 (CRABTREE)</u> * Column 2, lines 1-24; figures 1,3,4 *</p> <p>--</p> <p><u>FR - A - 2 188 564 (SOC. CIVILE D'INVENTION ET DE PROMOTION)</u> * Page 2, lines 39-40; page 3, lines 1-7; page 4, lines 30-37; page 5, lines 25-27; figure 1 *</p> <p>--</p> <p><u>GB - A - 1 358 629 (THE METAL BOX COMP)</u> * Page 1, lines 10-37, 54-87; page 2, lines 4-75; figures 1,6-9 *</p> <p>--</p> <p><u>FR - A - 2 418 753 (ONO)</u> * Page 2, lines 24-26; page 3, lines 11-14; page 4, lines 5-10; figures 1-4 *</p> <p>--</p> <p>D <u>GB - A - 1 165 793 (HINTEREGGER)</u> -----</p>	<p>1,2,3,9,13</p> <p>1,2,9,10,13</p> <p>1,3,9,13</p> <p>1,2,3,7,8,9,13</p> <p>4,11,12,13</p>	<p>B 65 D 85/32</p> <p>TECHNICAL FIELDS SEARCHED (Int. Cl.)</p> <p>B 65 D</p> <p>CATEGORY OF CITED DOCUMENTS</p> <p>X: particularly relevant A: technological background O: non-written disclosure P: intermediate document T: theory or principle underlying the invention E: conflicting application D: document cited in the application L: citation for other reasons</p> <p>&: member of the same patent family, corresponding document</p>
<p><input checked="" type="checkbox"/> The present search report has been drawn up for all claims</p>			
Place of search	Date of completion of the search	Examiner	
The Hague	18-06-1981	BAERT	