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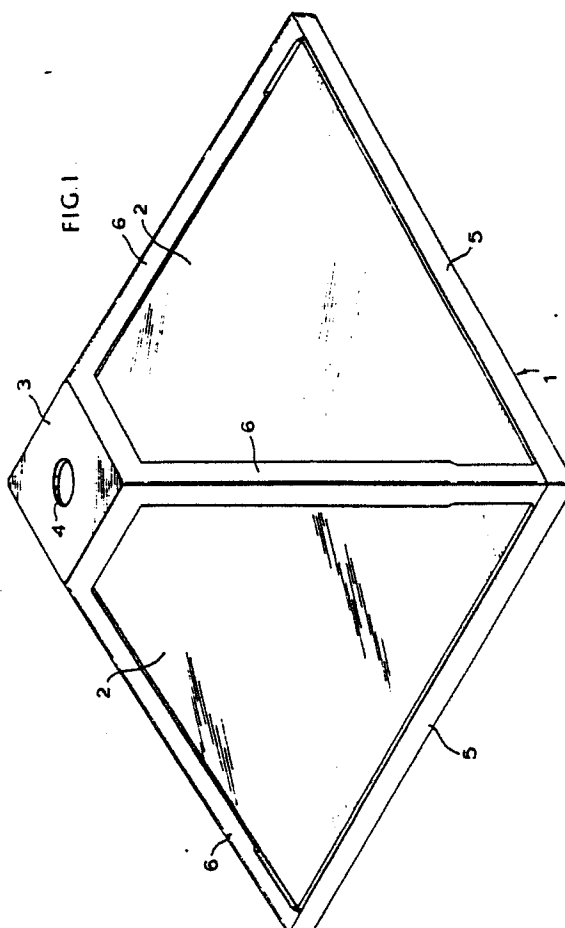
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(54) **Lampshades.**

(57) A lampshade comprising a frame 1 and a shade 2 is constructed so that the shade 2 is secured to the frame 1 by way of interlocking engagement between edges of the shade and formations on the frame. The formations include horizontal and vertical upstanding portions 7a, 7b which form a recess for receiving an edge 10 of the shade 2. The formations further include a downwardly projecting wall 8 which also receives edges 13 of the shade, thereby assisting interlocking engagement of the shade to the frame. The frame may be a single piece moulded plastics material, the formations 7, 8 being integrally moulded therewith. The shade 2 may be stamped out from a single sheet of material and is foldable so as to conform to the shape of the frame 1.



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LAMPSHADES

This invention relates to lampshades having a shade assembled into or on a frame.

According to the present invention there is provided a lampshade having a frame and a shade, wherein the shade is secured to the frame by way of interlocking engagement between edges of the shade and formations on the frame.

The formations may include one or more ledge portions on the base of the frame. Each ledge portion preferably has a horizontal and vertical up-standing portion which forms a recess for receiving an edge of the shade. Receipt of the edges by the one or more recesses, formed by the one or more ledge portions, provides at least part of the interlocking engagement.

The formations may further include a downwardly projecting wall or walls when the lampshade is in its hanging orientation, which form one or more recesses for receiving edges of the shade, thereby to assist the interlocking engagement of the shade to the frame.

The horizontal cross-section of the lamp shade, when in its hanging orientation, may for example, be substantially square, circular, hexagonal, triangular or elliptical. The horizontal cross-sectional area may vary from the base to the top of lampshade. Hence, the overall shape of the lampshade may, for example, be in the form of a truncated cone, pyramid or tetrahedron.

The frame may be a moulded plastics material, and is preferably moulded as a single piece, the formations being moulded integrally therewith.

The shade may be of paper, card, plastics or any semi-rigid or rigid material.

The shade may be stamped or cut out from a card or plastics sheet in a single piece or multiple pieces. The single piece shade is foldable so as to conform to the shape of the frame when inserted into interlocking engagement therewith. The multiple pieces can each be inserted into interlocking engagement with the frame.

At least some of the edges of the shade, which interlock with the formations, may be foldable relative to the remainder of the shade so as to assist assembly of the lampshade.

Cut-away portions may be provided along the edges of the shade for assisting insertion of the shade into the interlocking engagement with the frame.

The shade may comprise foldable flaps along edges of the shade which co-operate with one another when the shade is in interlocking engagement with the frame.

Alternatively, in the case where the shade comprises multiple pieces, each piece may have foldable or preformed rigid flaps along edges thereof, which co-operate with one another when the shade is in interlocking engagement with the frame. The foldable flaps assist the interlocking of the shade in the frame.

According to the present invention, there is further provided a kit-of-parts comprising a frame and a shade for assembly into the lampshade as defined above.

Embodiments of the present invention have the advantage that they are relatively cheap and simple to manufacture. In addition, the relative simplicity of construction of the frame and shade allow the lampshade to be assembled relatively easily and quickly.

Stamping or cutting out the shade from a card or plastics sheet has the advantage that the shade may be formed from a relatively high quality printed card or plastics sheet relatively easily and cheaply, particularly at high production speeds. Further, the shade may be cut into a variety of different shapes and sizes according to the shape and size of the frame.

The invention will now be further described, by way of example, with reference to the accompanying drawings, in which:

Figure 1 shows a perspective view of an assembled frame and shade of a lampshade embodying the present invention;

Figure 1A shows a fragmentary perspective view of the frame without the shade;

Figure 2 shows a sectional view of the frame of Figure 1;

Figure 3 shows a plan view of the shade of Figure 1 prior to assembly into the frame;

Figure 3A shows a pair of pieces which together form part of the shade, when the shade comprises multiple pieces;

Figure 4 shows a part sectional view of an assembled lampshade according to the present invention; and

Figure 5 shows a fragmentary view of the assembled lampshade taken in the direction of arrow "A" of Figure 4.

In Figure 1, there is shown a lampshade having a frame 1 and a shade 2 which is secured to the frame 1. The lampshade is substantially truncated pyramidal in shape. The frame 1 has a plate 3 having an aperture 4 for receiving a ceiling lamp attachment.

The plate 3 of the frame 1 is attached to base members 5 by elongate angled members 6. The frame 1 has four angular members 6, one for each corner of the frame 1.

As shown in Figure 2, each base member 5 has formations in the form of ledge portions 7, having a horizontal ledge portion 7a and vertical upstanding portion 7b, extending along the lengths thereof. The ledge portions 7 are such as to form recesses for receiving edges of the shade 2 as described below. Further formations, in the form of a projecting wall 8 are formed on the plate 3. The projecting wall 8 forms a recess between the projecting wall and the angular members 6 for receiving edges of the shade 2 as described below.

Figure 3 shows the shade 2 when lying in a flat, opened-out position prior to assembly into the frame 1. The shade 2 comprises four major segments each of which is shaped so as to fill corresponding open sides of the frame 1. The shade 2 is stamped from a one-piece sheet of card or plastics material. The sheet 2 is then folded along dot-dash lines 9 as indicated in Figure 3. Formation of the folds 9 enables the shade 2 to be assembled into the frame 1 more easily. When the shade 2 is in position within the frame 1, the folds 9 constitute corners which fit snugly within corresponding corners of the angular members 6.

The shade 2 is provided with foldable edges 10 which are received by respective recesses of the base members 5 of the frame 1. The foldable edges 10 help to provide a snug fit between the frame 1 and the shade 2 (see Figure 4). Foldable flaps 11 are provided along edges of the shade 2 which co-operate with one another when the shade 2 is assembled in the frame 1. The foldable flaps 11 assist in the interlocking engagement of the shade 2 with the frame 1.

In this embodiment, the foldable flaps 10 do not extend along the entire length of the base edge of the shade 2. Cut-out portions 12 are situated along those portions of the shade 2 which form the corners of the shade when assembled in the frame 1. The presence of the cut-outs 12 assist in assembly and insertion of the foldable edges 10 into the recesses of the base members 5.

Figure 4 shows a part sectional view of the lampshade when the shade 2 is assembled within the frame 1. As can be seen from Figure 4, the top edge 13 of the sheet 2 fits into the recess formed between the projecting wall 8 and the angled part of the frame 1. The foldable edge 10 of the shade 2 is shown to fit snugly in the recess formed by the ledge portion 7. The ledge portions 7 do not extend along the entire length of the base members 5. Cut-outs 14 are formed in the frame 1, which

correspond to the cut-outs 12 of the shade 2. The presence of the corresponding cut-outs 12 and 14 assist easy assembly and interlocking engagement of the shade 2 with the frame 1.

Figure 5 illustrates the cut-out portion 14 of a corner of the lampshade of Figure 4, as viewed in the direction of arrow "A" of Figure 4.

Claims

1. A lampshade having a frame and a shade, wherein the shade is secured to the frame by way of interlocking engagement between edges of the shade and formations on the frame.

2. A lampshade according to claim 1, wherein the formations include one or more ledge portions on the base of the frame.

3. A lampshade according to claim 2, wherein each ledge portion has a horizontal and vertical upstanding portion which forms, in conjunction with the base of the frame, a recess for receiving an edge of the shade, wherein receipt of an edge of the shade by a recess provides at least part of the interlocking engagement.

4. A lampshade according to claim 1, claim 2 or claim 3, wherein the formations include a wall or walls projecting downwardly from the top of the frame, when the lampshade is in its hanging orientation, which wall or walls form one or more recesses for receiving edges of the shade, thereby to assist the interlocking engagement of the shade to the frame.

5. A lampshade according to any one of the preceding claims, wherein the horizontal cross-section of the lampshade, when in its hanging orientation, is any one of a substantially square, circular, hexagonal, triangular or elliptical cross-section.

6. A lampshade according to any one of the preceding claims, wherein the horizontal cross-sectional area, when in its hanging orientation, varies from the base to the top of the lampshade.

7. A lampshade according to claim 6, wherein the horizontal cross-sectional area varies such that the overall shape of the lampshade is in the form of a truncated pyramid.

8. A lampshade according to any one of the preceding claims, wherein the frame is of a single piece moulded plastics material, the formations being moulded integrally therewith.

9. A lampshade according to any one of the preceding claims, wherein the shade is of paper, card, plastics or any semi-rigid or rigid material.

10. A lampshade according to any one of the preceding claims, wherein the shade is stamped or cut out in the form of a single piece.

11. A lampshade according to any one of claims 1 to 9, wherein the shade is stamped or cut out in the form of a multiple of pieces.

12. A lampshade according to claim 10, wherein the single piece shade has folds positioned so that the shade conforms to the shape of the frame when inserted into interlocking engagement therewith.

13. A lampshade according to claim 12, wherein cut-away portions are provided at one or more corner locations of the shade for assisting insertion of the shade into interlocking engagement with the frame.

14. A lampshade according to any one of the preceding claims, wherein at least some of the edges of the shade, which interlock with the formations, are foldable relative to the remainder of the shade so as to assist assembly of the lampshade.

15. A lampshade according to any one of the preceding claims, wherein the shade comprises foldable flaps along edges of the shade which co-operate with one another when the shade is in interlocking engagement with the frame.

16. A lampshade according to claim 11, wherein each piece has foldable or preformed rigid flaps along the edges thereof, which co-operate with one another when the shade is in interlocking engagement with the frame, thereby to assist the interlocking of the shade in the frame.

17. A kit-of-parts comprising a frame and a shade according to any one of the preceding claims.

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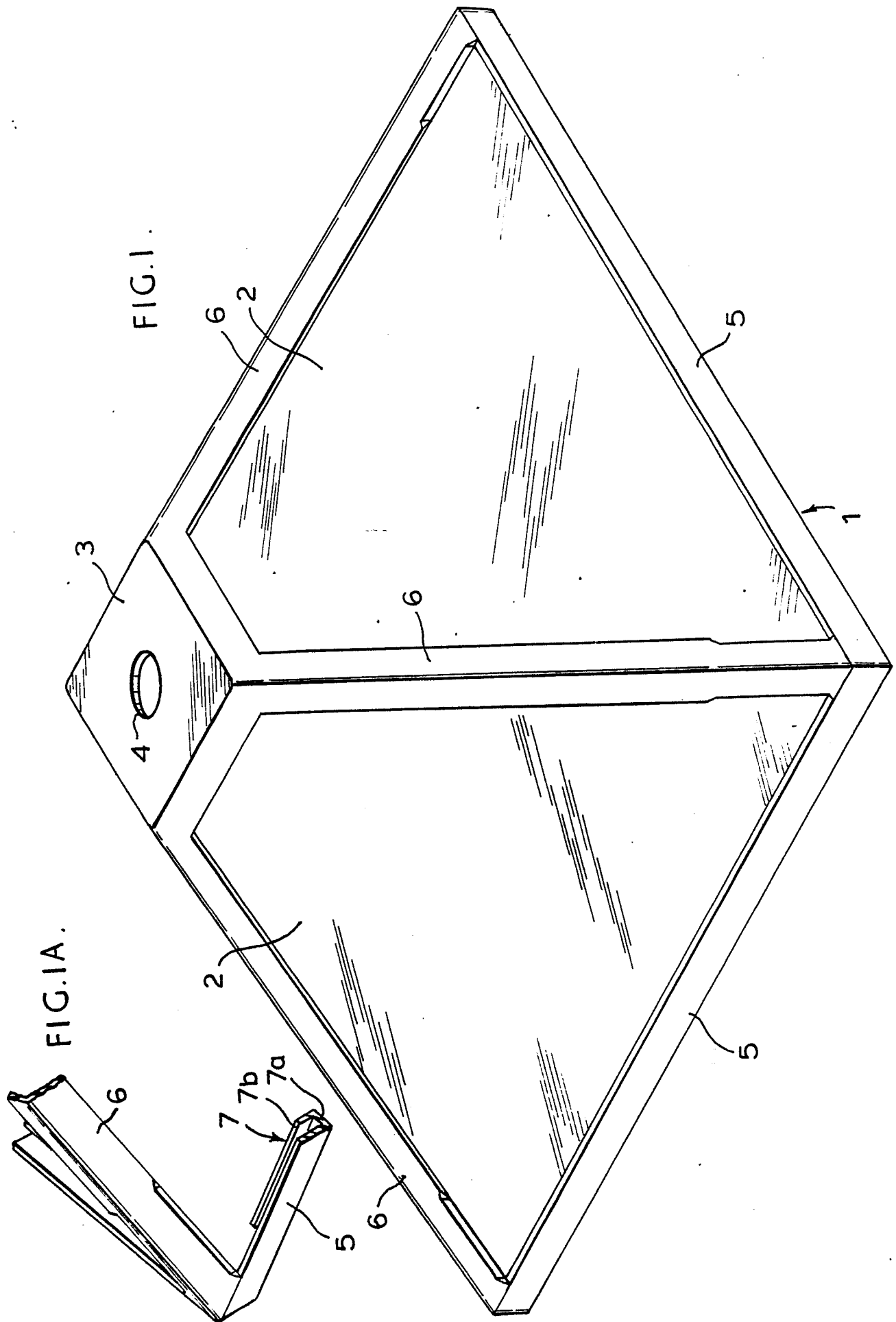
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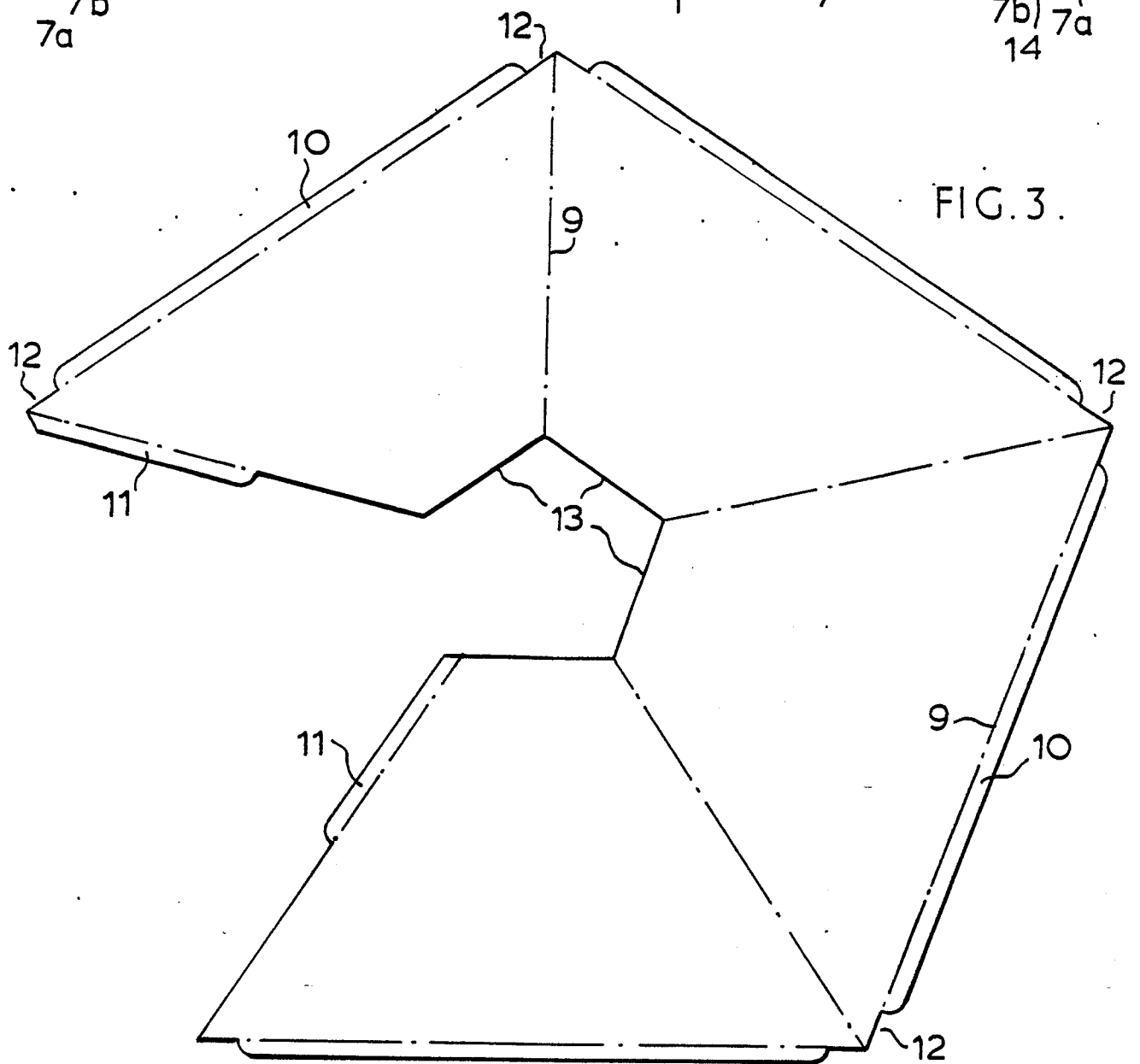
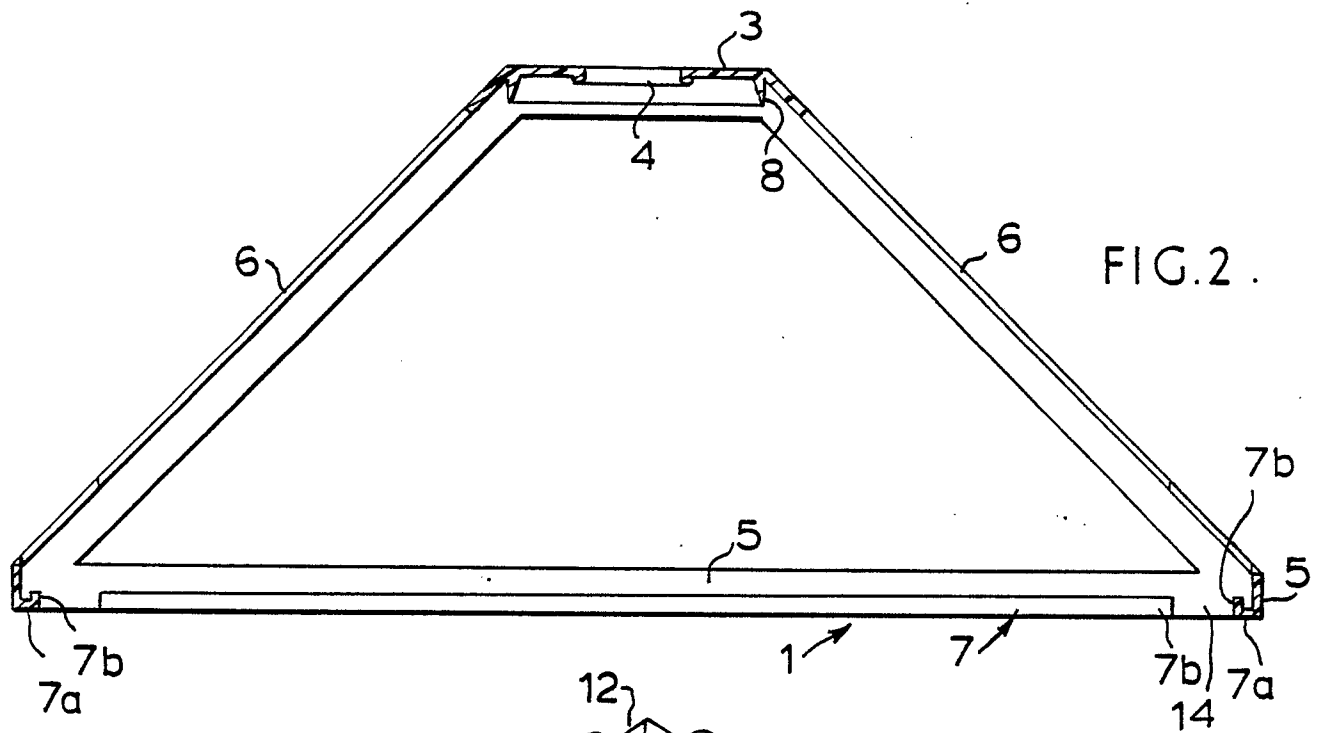
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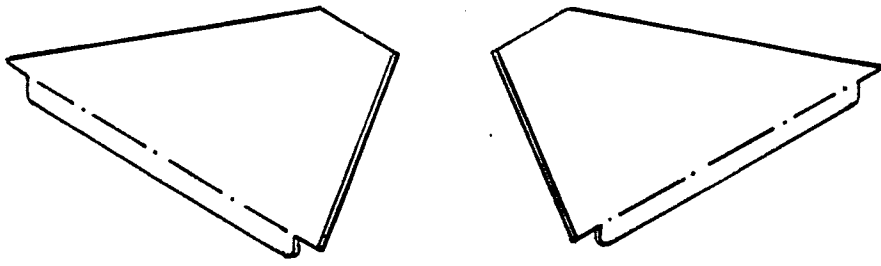
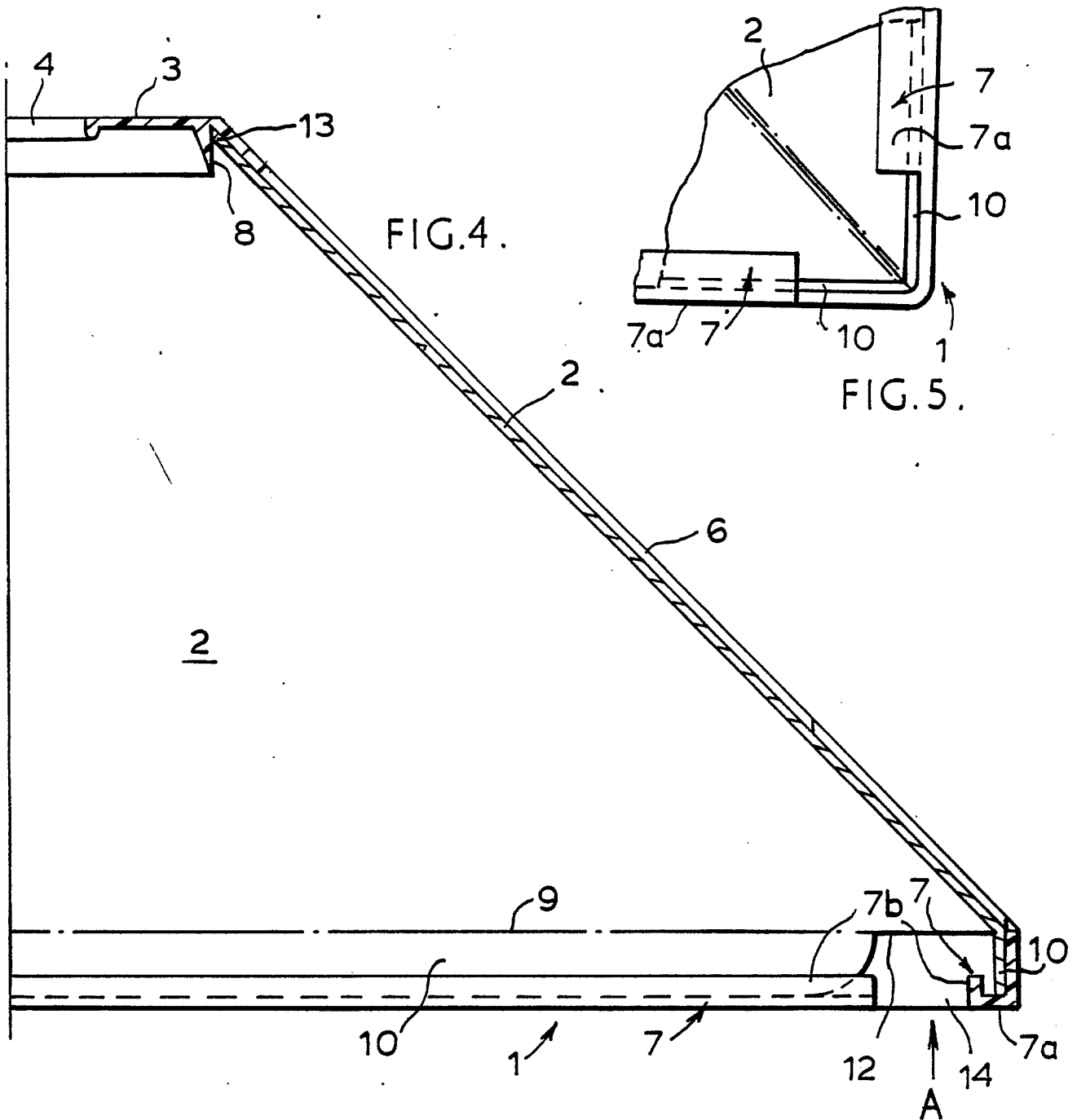


FIG. 3A.





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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. 4)
X	FR-A-1 169 350 (SAUNIER) * Whole document * ---	1-6,8-10	F 21 V 1/00
X	GB-A- 162 935 (PAINE) * Figures 1,2 * ---	1-7,11	
X	US-A-3 582 643 (HEISE) * Figures 1-4 * ---	1-5,9,11	
X	GB-A- 8 971 (WILLIAMS)(A.D. 1915) * Figures 1-3 * ---	1-7,9,11	
X	US-A-2 206 508 (LABUDA) * Figures 5,7 * ---	1-7,12	
A	FR-A-2 159 077 (MARCHAND) * Figure 2 * ---	13	
A	US-A-3 022 417 (LINDEROTH) * Figures 2,5 * ---	14	
A	US-A-4 165 529 (HAGELTHORN) * Figures 1-6 * -----	15,16	TECHNICAL FIELDS SEARCHED (Int. Cl.4) F 21 V
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 19-01-1988	Examiner FOUCRAY R.B.F.
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			