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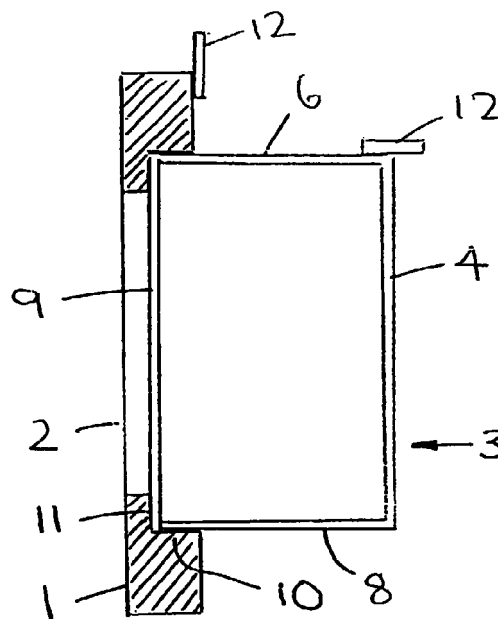
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(54) **Display frame**

(57) A frame which can be used for point of sale display of a packaged article and which, on removal of the packaged article, can be adapted for display of a picture. The frame comprises a bearer member 1 defining a rectangular aperture 2 formed with a rebate 10 opening to the rear of the bear member 1. The rebate 10 provides seating 11 for a box-shaped enclosure 3 mounted in the aperture 2. The enclosure 3 has a clear wall 9 for display of an article housed in the enclosure 3, and base wall 4 which can later be re-used as a backing panel 25 for a photograph 24 mounted in the frame 1 (Figure 5).



**FIGURE 1.**

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## Description

**[0001]** This invention concerns improvements in or relating to display frames. The invention has particular, but not exclusive application to re-usable or multi-purpose display frames. More especially, the invention has application to display frames capable of being used as packaging for merchandise at a point of sale and which can subsequently be used after purchase and removal of the merchandise for another purpose, such as to display a picture or the like. In this way efficient use is made of the packaging for the merchandise.

**[0002]** Other features, benefits and advantages of the invention will be apparent from the following description.

**[0003]** According to one aspect of the invention there is provided a display frame comprising a bearer member formed with a rectangular aperture having a rebate opening to one side of the bearer member and providing a seating for locating a box-shaped enclosure having a transparent or translucent portion through which an article within the enclosure can be viewed.

**[0004]** By this invention, the display frame can be used to display merchandise contained within the enclosure at a point of sale and, on removal of the merchandise after purchase, the display frame can be adapted for re-use as a picture frame or the like by locating and retaining a picture in the rebated aperture.

**[0005]** For such application of the display frame, the enclosure may provide a backing panel for the picture with suitable retainers such as push or press fit clips being provided to secure the backing panel.

**[0006]** The display frame may be provided with a hook or similar device enabling the frame to be hung for display purposes at a point of sale and for subsequently mounting the frame when re-used as a picture frame or the like.

**[0007]** In a preferred embodiment, the box-shaped enclosure comprises a base wall and four side walls formed integrally in one piece from a blank of cardboard or similar material with a separate front wall formed by a sheet of transparent or translucent material such as glass or plastic. In this embodiment, the sheet of transparent or translucent material is seated in the rebate and retained by securing the side walls of the enclosure in the rebate, for example by adhesively bonding the side walls to the bearer member. With this arrangement, the enclosure can be opened to remove merchandise contained therein by detaching the side walls of the enclosure from the bearer member, and the base wall separated from the side walls to provide the backing panel for a picture located between the transparent or translucent sheet and the backing panel. In this way a substantial portion of the original display frame is re-used thereby reducing significantly the amount of waste or scrap to be disposed of from the original packaging for the merchandise. Such re-use is an especially advantageous feature of the invention with the increas-

ing cost of disposing of waste materials and the environmental problems created thereby.

**[0008]** According to another aspect of the invention there is provided a box-shaped enclosure comprising a base wall and four side walls integrally formed from a blank wherein abutting side walls at each corner of the enclosure form a mitre joint.

**[0009]** By this feature of forming mitre joints at the corners of the enclosure a particularly neat and attractive appearance can be achieved.

**[0010]** Advantageously, the blank is cut from a sheet of material such as stiff card or cardboard by cutting at right angles to the plane of the sheet and the corners removed by cutting at 45° to the plane of the sheet so that the abutting edges of the side walls can form mitre joints at the corners of the enclosure. An adhesive may be applied to the abutting edges to bond the side walls to each other at the corners of the enclosure.

**[0011]** The enclosure may be formed using a computer numerical controlled (CNC) cutting machine to obtain the blank from a sheet of stock material and subsequently removing the corners of the blank. The use of such CNC machine enables blanks to be formed with a high degree of accuracy avoiding waste and reducing manufacturing costs significantly.

**[0012]** The invention will now be described in more detail by way of example only with reference to the accompanying drawings, wherein:

**Figure 1** is a side view, partly in section of a display frame embodying the invention;

**Figure 2** is a plan view of a box-shaped enclosure with the separate top wall removed;

**Figure 3** is a plan view showing the method of cutting a sheet of stock material to form a blank for producing the box-shaped enclosure shown in Figure 2;

**Figure 4** is a plan view of the formed blank prior to folding to produce the box-shaped enclosure; and

**Figure 5** is a side view, partly in section, showing the display frame of Figure 1 re-used as a picture frame.

**[0013]** Referring first to Figures 1 and 2, there is shown a display frame embodying the invention comprising a bearer member 1 defining a rectangular aperture 2 in which a box-shaped enclosure 3 is located and retained.

**[0014]** The box-shaped enclosure 3 comprises a base wall 4 and four side walls 5, 6, 7, 8 found integrally in one piece from a blank of cardboard or similar stiff material as described in more detail later. The enclosure 3 further comprises a separate top wall 9 of clear plastics material although other transparent or translu-

cent materials including glass may be used.

**[0015]** The aperture 2 is formed with a rebate 10 extending around the periphery which opens to the rear of the bearer member 1 and provides a seating 11 for the top wall 9.

**[0016]** The top wall 9 is located and retained in position by adhesively bonding the side walls 5, 6, 7, 8 of the enclosure 3 within the rebate 10.

**[0017]** The enclosure 3 may contain merchandise which can be viewed through the top wall 9 from the front of the display frame. A hook or tag 12 attached to the rear of the bearer member 1 enables the display frame to be hung on a suitable support (not shown) for display purposes. Alternatively or additionally, a hook or tag 12 may be attached to the rear of the enclosure 3.

**[0018]** With reference now to Figure 5, the enclosure 3 may be opened after purchase to remove the merchandise by cutting the side walls 5, 6, 7, 8 flush with the rear of the bearer member 1 so that the front wall 9 remains held in place in the rebate 10.

**[0019]** The rebate 10 conceals the portion of the side walls 5, 6, 7, 8 remaining in place when viewed from the front of the bearer member 1 allowing a photograph or photograph mount 24 to be inserted behind the top panel 9 with the edges similarly concealed by the rebate 10.

**[0020]** The base wall 4 of the enclosure 3 can then be separated from the side walls 5, 6, 7, 8 to form a backing panel 25 which fits behind the photograph 24 and can be secured by press or push fit retainer clips 13 engaging the bearer member 1. The frame can then be hung by the hook or tag 12 on a conventional picture hook.

**[0021]** In this embodiment, the bearer member 1 is made of wood, but other materials such as plastic may be used. The bearer member 1 may be of rectangular shape or any other shape as desired, for example round or oval, having regard to the intended re-use as a picture frame. The bearer member 1 may also have any suitable pattern or decoration on the front as desired.

**[0022]** Referring now to Figures 3 and 4, there is shown a sheet 14 of cardboard from which blanks for forming the enclosure 3 are formed using a CNC cutting machine programmed to cut the sheet 14 at right angles to the plane along lines 15, 16, 17, 18 to form a rectangular blank 19. In this way a large number of blanks 19 can be produced with a high degree of accuracy eliminating waste and improving efficiency. Each blank 19 is partially cut at right angles to the plane thereof on one side to form four fold lines 20, 21, 22, 23 defining the base wall 4. The corners of the blank 19 are removed by cutting the blank 19 at 45° to the plane thereof on the other side to form the side walls 5, 6, 7, 8 connected to the base wall 4 along the fold lines 20, 21, 22, 23. The side walls 5, 6, 7, 8 are folded upwards from the base wall 4 and the abutting mitre edges 5a, 6a, 7a, 8a form mitre joints at the corners of the enclosure 3. The mitre joints provide a neat and attractive finish to the interior

of the enclosure 3 which may be secured in the erected position by bonding the abutting edges of the side walls 5, 6, 7, 8 to each other with glue.

**[0023]** As will now be appreciated, the present invention provides a display frame of simple construction suitable for point of sale display of merchandise which can subsequently be re-used as a picture frame with minimal waste of the original packaging. Such re-use of the original packaging avoids the problems associated with disposal of waste materials and makes efficient use of the original packaging to produce an attractive picture frame for displaying photographs, pictures, paintings, collages or the like. Other applications and uses of the display frame will be apparent to those skilled in the art and the invention is intended to include all such alternatives.

### Claims

1. A display frame comprising a bearer member formed with a rectangular aperture having a rebate opening to one side of the bearer member and providing a seating for locating a box-shaped enclosure having a transparent or translucent portion through which an article within the enclosure can be viewed.
2. A display frame according to Claim 1 wherein the display frame can be used to display merchandise contained within the enclosure at a point of sale and, on removal of the merchandise after purchase, the display frame can be adapted for re-use as a picture frame or the like by locating and retaining a picture in the rebated aperture.
3. A display frame according to Claim 2 wherein the enclosure provides a backing panel for the picture.
4. A display frame according to Claim 3 wherein retainer means is provided to secure the backing panel.
5. A display frame according to Claim 4 wherein the retainer means comprises push or press fit clips.
6. A display frame according to any preceding Claim wherein a hook or similar device is provided for hanging the frame.
7. A display frame according to any preceding Claim wherein the box-shaped enclosure comprises a base wall and four side walls formed integrally in one piece from a blank of cardboard or similar material with a separate front wall formed by a sheet of transparent or translucent material such as glass or plastic.
8. A display frame according to Claim 7 wherein the

sheet of transparent or translucent material is seated in the rebate and retained by securing the side walls of the enclosure in the rebate.

9. A display frame according to Claim 8 wherein the side walls are secured by adhesive. 5
10. A display frame according to Claim 8 or Claim 9 wherein abutting side walls at each corner of the enclosure form a mitre joint. 10
11. A display frame according to Claim 10 wherein abutting edges of the side walls are bonded to each other at the corners of the enclosure 15
12. A display frame according to Claim 10 or Claim 11 wherein the blank is made from sheet material by cutting at right angles to the plane of the sheet and the corners removed by cutting at 45° to the plane of the sheet so that the abutting edges of the side walls form mitre joints at the corners of the enclosure. 20
13. A display frame according to Claim 12 wherein the sheet material is stiff card or cardboard. 25
14. A display frame substantially as hereinbefore described with reference to Figures 1 to 5 of the accompanying drawings. 30
15. A picture frame made from the display frame according to any of the preceding Claims. 35

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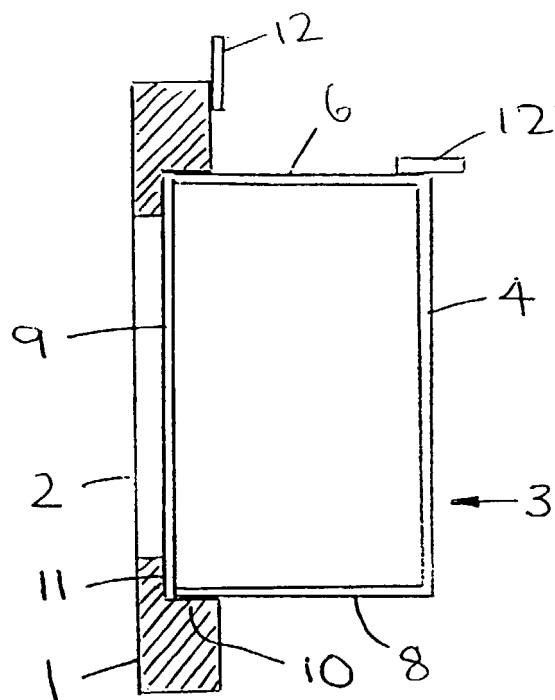


FIGURE 1.

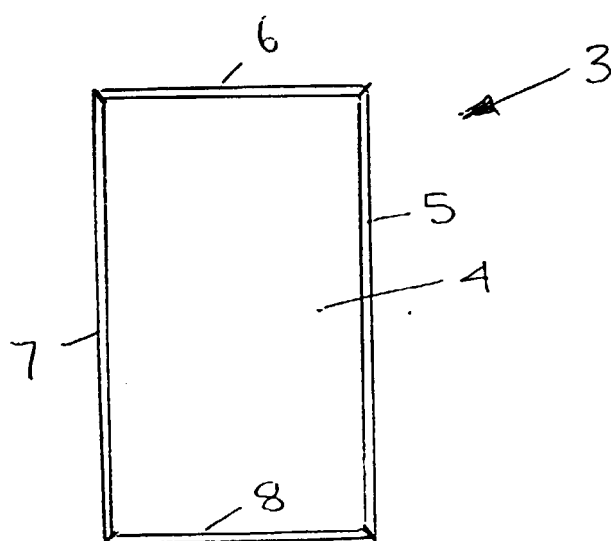
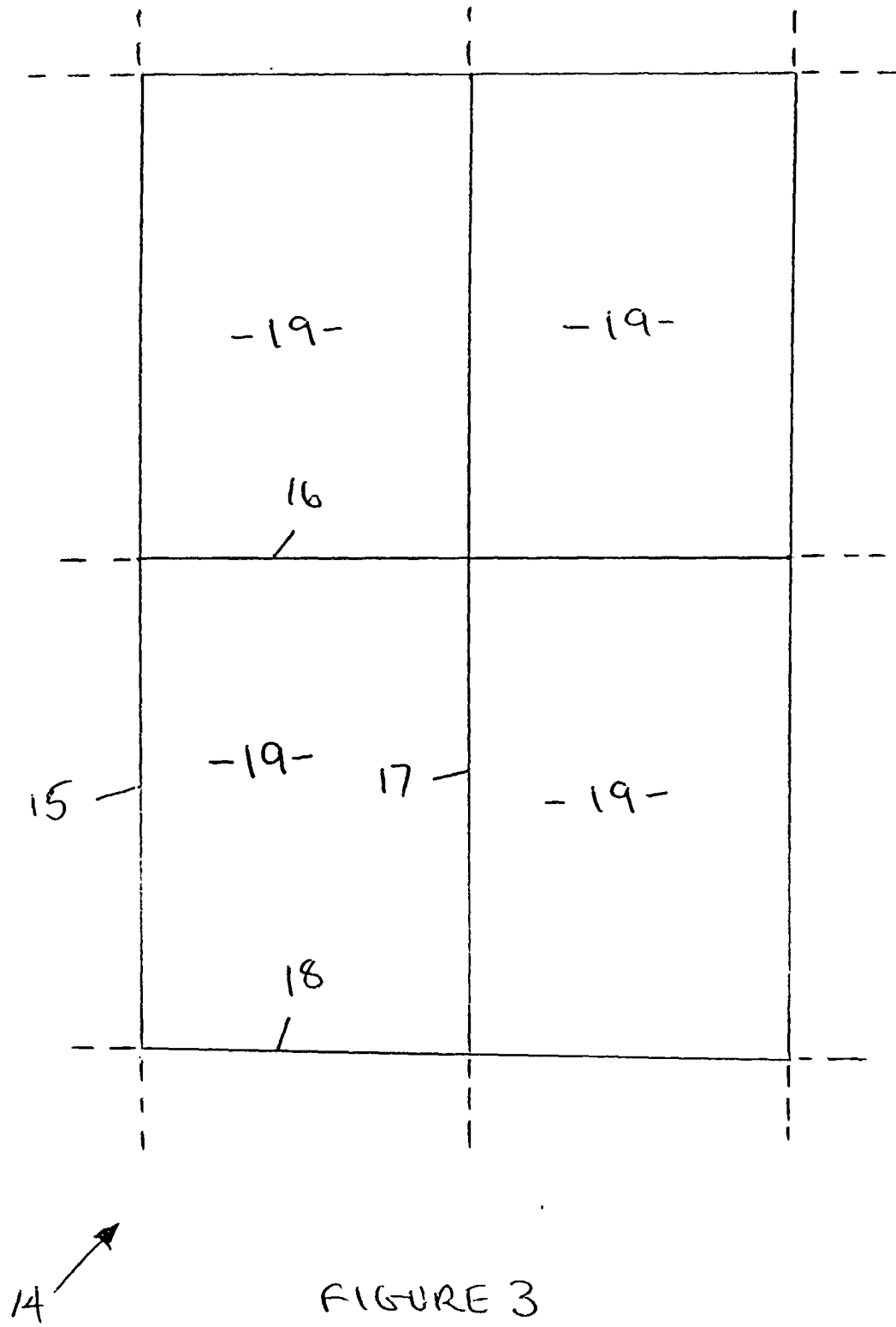


FIGURE 2.



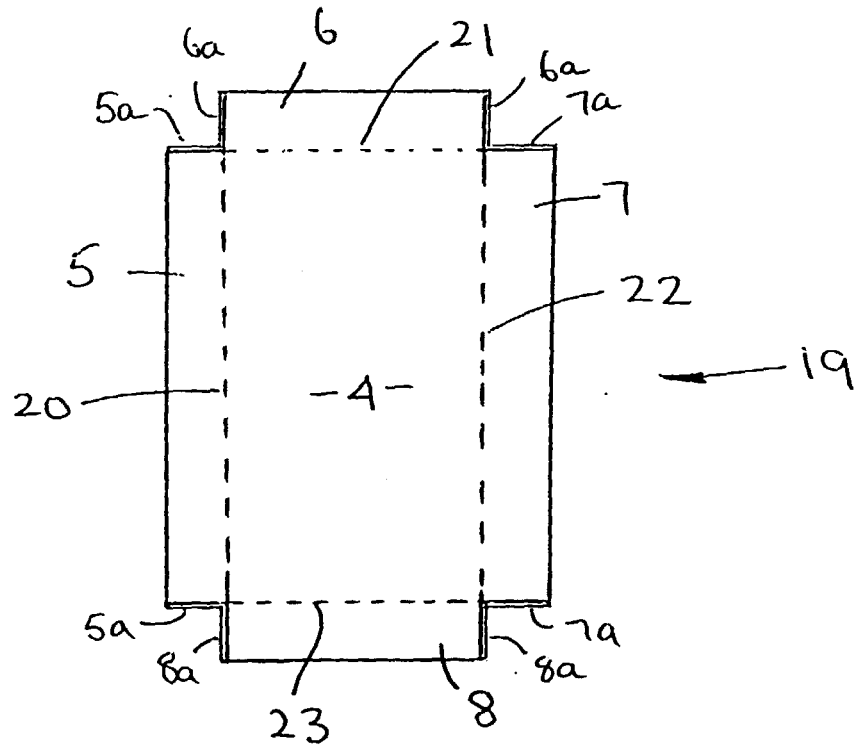


FIGURE 4

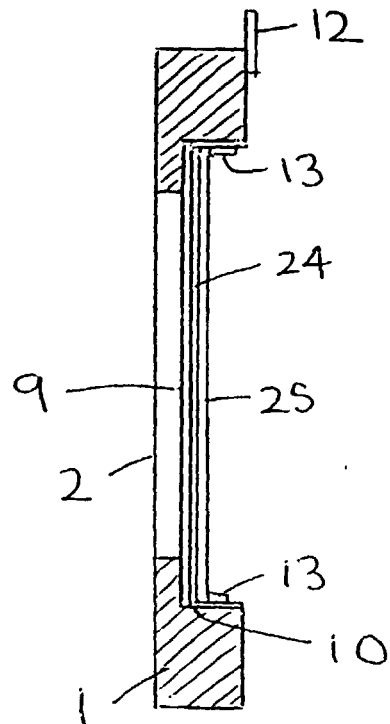


FIGURE 5



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# PARTIAL EUROPEAN SEARCH REPORT

Application Number

which under Rule 45 of the European Patent Convention shall be considered, for the purposes of subsequent proceedings, as the European search report

EP 00 30 1444

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)
X	DE 83 07 117 U (KNIPF) 9 June 1983 (1983-06-09) * page 6, line 4 - page 7, line 7; figures 1,2 *	1-6,15	B65D81/36 B65D5/20
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A	DE 298 17 982 U (LESER) 14 January 1999 (1999-01-14) * claims 1,3; figures 1-3 *	7	
A	DE 33 19 037 A (RAUM) 1 December 1983 (1983-12-01)		
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
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INCOMPLETE SEARCH			
<p>The Search Division considers that the present application, or one or more of its claims, does/do not comply with the EPC to such an extent that a meaningful search into the state of the art cannot be carried out, or can only be carried out partially, for these claims.</p> <p>Claims searched completely : 1-13,15</p> <p>Claims searched incompletely :</p> <p>Claims not searched : 14</p> <p>Reason for the limitation of the search: Rule 29(6) EPC</p>			
Place of search		Date of completion of the search	Examiner
THE HAGUE		7 June 2000	Martens, L
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**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 00 30 1444

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
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07-06-2000

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