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(54) **Mounting pictures to produce a domed surface.**

(57) A picture such as a photographic print is formed to a concave/convex configuration for aesthetic reasons by fixing the flat print to a flat sheet metal mount with an interposed adhesive, the sheet metal having a central hole, and the assembly then being press formed to provide the curvature. The central hole avoids an unsatisfactory result due to the formation of air bubbles in the adhesive.

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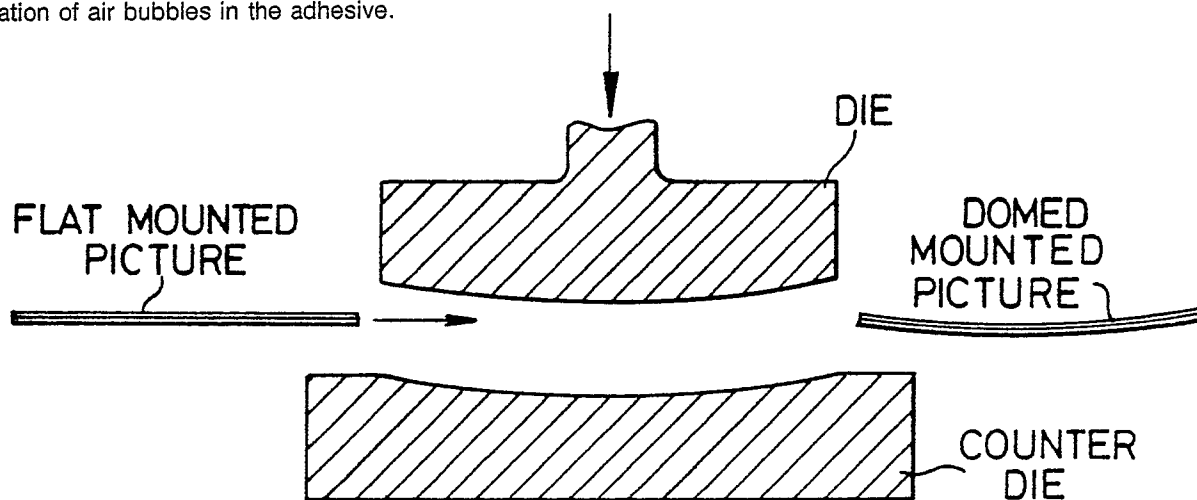


Fig. 4

MOUNTING PICTURES TO PRODUCE A DOMED SURFACE

This invention relates to a method of mounting pictures. The term "picture" is used herein to relate principally but not exclusively to photographic prints.

Pictures are normally mounted to provide a required rigidity, and usually a flat surface is provided. It would be desirable for some purposes to mount the pictures on a domed surface for aesthetic reasons. However, this involves problems, which it is the object of the invention to solve.

According to the invention, a method of mounting a picture comprises assembling a flat picture on a flat sheet metal mount with an interposed adhesive, and pressing the assembly to a concave/convex configuration; and is characterised by the provision of at least one hole in the sheet metal.

According to another aspect of the invention a method of mounting a picture comprises assembling a flat picture on a flat sheet metal mount with an interposed adhesive, and pressing the assembly to a concave/convex configuration between matched heated dies.

The picture and its mount may be circular or oval either before the pressing operation, or after it. That is to say the method can be carried out on a square or rectangular mount and print which are subsequently trimmed, or any desired shaping can be done first.

Specific embodiments of the invention will now be described by way of example with reference to the accompanying drawing in which:-

Figure 1 shows the picture and the flat sheet metal plate;

Figure 2 shows a contact adhesive applied to one side of the metal plate and also on the back of the picture and allowed to dry until tacky before bringing the two surfaces together and allowing curing;

Figure 3 shows the mounted picture now marked out and cut to the size and shape required;

Figure 4 shows the flat mounted picture ready for forming by means of a press and suitable die and counter die add the resulting domed picture.

The central hole shown in (Fig.1) allows the escape of trapped air between the picture and metal when forming takes place using cold, or ambient temperature, dies.

While metal will readily form under pressure and retain the required shape, materials used to produce the picture e.g. paper prints do not readily conform to compound curvature, and do not retain shape so impressed.

In order to overcome this the picture is bonded

to a flat metal plate with a contact adhesive which secures the picture but which is also flexible and allows for any necessary movement when forming as shown in Figure 4. This allows the picture and mount to be formed together into a domed surface and prevents the picture reverting back to its original (flat) form.

The picture surface can also be coated with a transparent matt or high gloss finish e.g. subsequently, which gives added stability in preventing the picture reverting back to its original form and may also add to the aesthetic presentation.

Alternately and preferably, the dies are heated to a temperature of the order of 50 deg.C. Both dies may be heated, or only one. The assembly of print and mount may also be heated. Then the assembly is pressed to shape, and held for a suitable small time which may be of the order of 30 seconds. When this is done, a particularly smooth and satisfactory appearance is achieved with improved stability and shape retention, and moreover it is found unnecessary to provide the hole in the sheet metal.

Experiments made by the inventor have shown that without the use of the invention entrapped air tends to accumulate in bubbles giving a lumpy appearance. with the invention this does not occur. Where cold pressing is used and for large pictures, more than one hole may be employed.

Claims

1. A method of mounting a picture comprising assembling a flat picture on a flat sheet metal mount with an interposed adhesive, and pressing the assembly to a concave/convex configuration.

2. A method as claimed in Claim 1 wherein the sheet metal mount is provided with a central hole before assembling the picture thereto, and trimmed to a circular or oval shape.

3. A method as claimed in Claim 1 wherein the assembly is pressed between matched dies and the assembly is hot pressed to shape.

4. A method as claimed in Claim 3 wherein the assembly is pressed in matched dies, at least one of which is preheated to a temperature of the order of 50 deg.C.

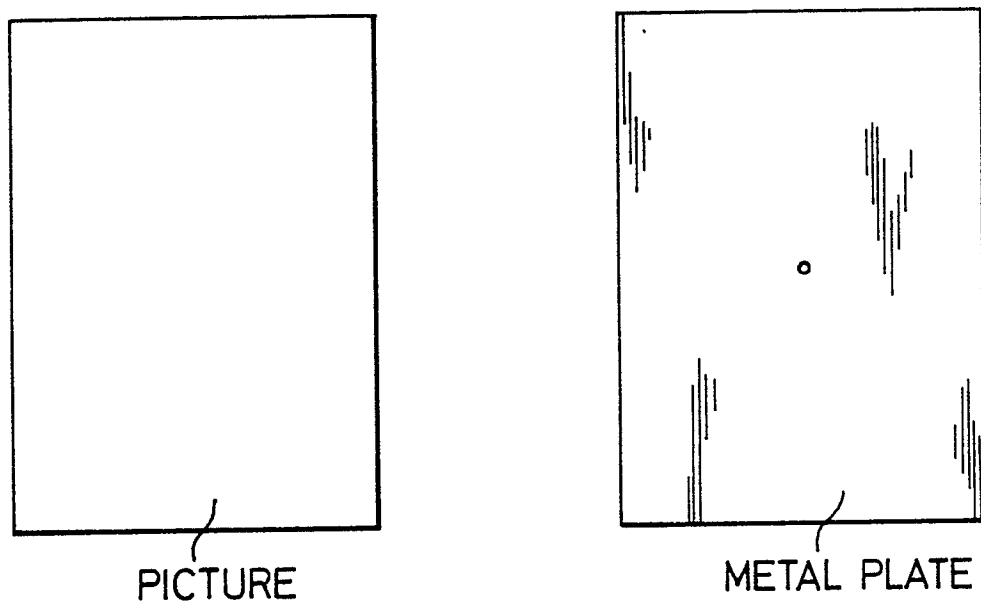


Fig. 1

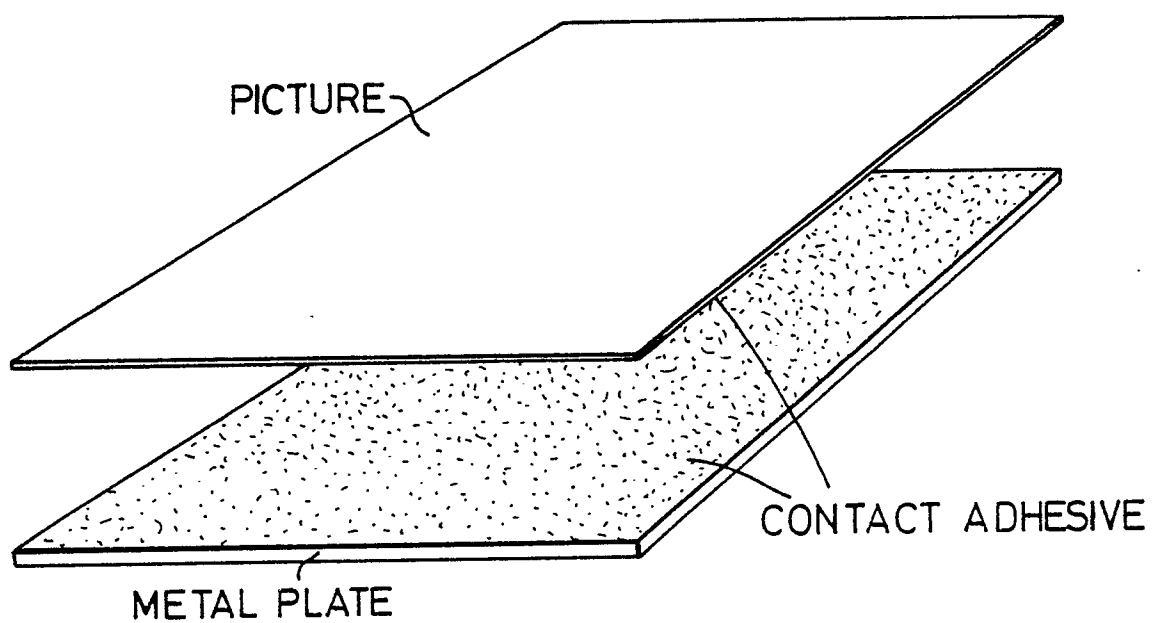


Fig. 2

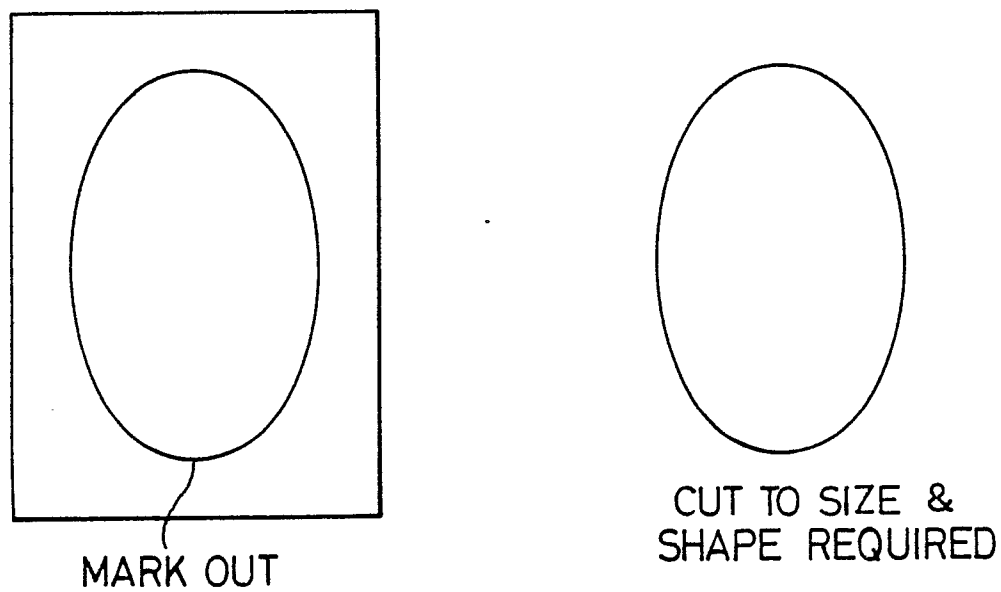


Fig. 3

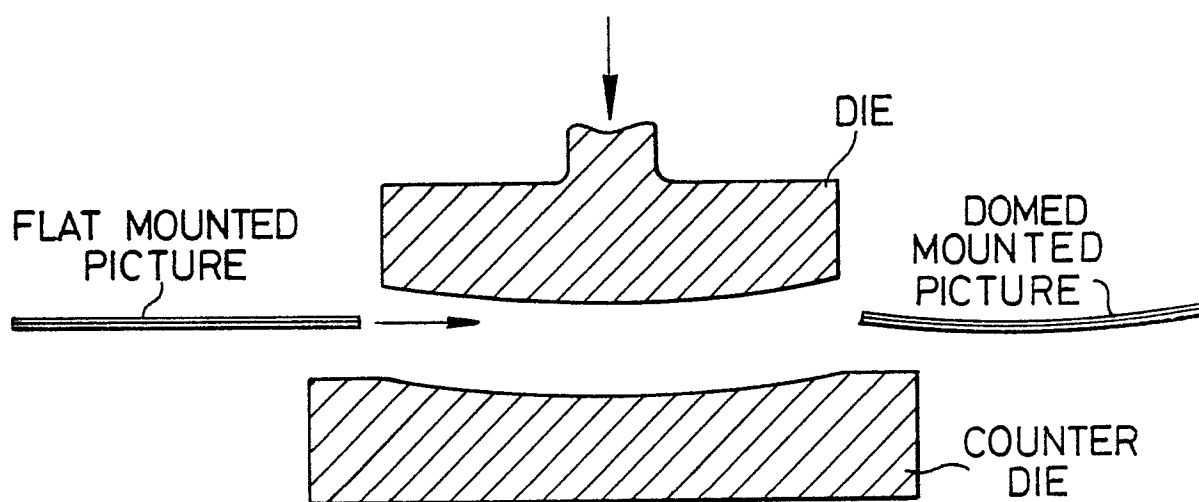


Fig. 4



| 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) |
| Y | GB-A- 526 092 (V. BERNHARDT et al.) * Page 2, lines 43-60 * --- | 1,3 | B 44 C 5/02 B 44 C 3/08 A 47 G 1/06 |
| Y | FR-A-2 359 714 (A. GUITTON) * Page 1, lines 4-15 * --- | 1,3 | |
| A | US-A-1 480 198 (J. DENKHOFF) * Page 1, lines 32-46 * --- | 1,2 | |
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| E | GB-A-2 200 280 (C.B. TILLEY) * Claims 1-4 * ----- | 1-4 | |
| | | | TECHNICAL FIELDS SEARCHED (Int. Cl.4) |
| | | | B 44 C A 47 G |
| The present search report has been drawn up for all claims | | | |
| Place of search | Date of completion of the search | Examiner | |
| THE HAGUE | 10-03-1989 | FRIDEN N. | |
| CATEGORY OF CITED DOCUMENTS | | | |
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