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(12) # EUROPEAN PATENT APPLICATION

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(54) **Improvements in or relating to decorative panels and to decorative building blocks.**

(57) The disclosure relates to a decorative panel (10) of glass fibre reinforced cement or plaster which is thick enough to be self-supporting but is not intended to be a structural panel. One surface (11) of the panel has a plurality of stained glass elements (12) cast into the surface of the panel and shaped and spaced in relation to each other to create a pattern or optical effect.

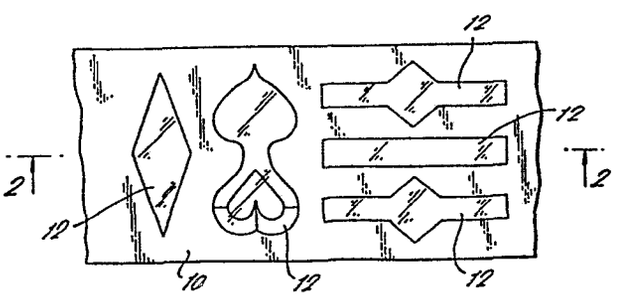

FIG. 1.

EP 0 147 221 A2

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"IMPROVEMENTS IN OR RELATING TO DECORATIVE PANELS AND TO DECORATIVE BUILDING BLOCKS"

This invention relates to decorative panels and to decorative building blocks.

The invention provides a decorative panel comprising a cast cementatious layer (e.g. glass fibre reinforced cement or plaster) having a multiplicity of coloured (e.g stained) glass elements embodied in a face or faces of the layer and arranged in a predetermined pattern or format in the surface.

Preferably the glass elements are spaced apart in the surface of the layer with cementatious material between the spaced elements.

It is further preferred that the glass elements are cast into the surface of the layer to secure the element to the layer.

The invention also provides a decorative building block having a cast cementatious body formed with a plurality of apertures through the body and coloured glass elements disposed in the respective apertures and bonded to the block around the apertures.

The block may be in the form of an open frame work (e.g. a square) the interstices of which provide apertures in which coloured glass elements are bonded.

The following is a description of some specific embodiments of the invention, reference being made to the accompanying drawings in which:-

Figure 1 is a plan view of part of a decorative panel;

Figure 2 is a section on the line2-2 on Figure 1;

Figures 3 and 4 show modified forms of the panel of Figures 1 and 2 incorporating different "sculptured" effets;

Figure 5 is an elevational view of a decorative uilding block;

Figure 6 is a side view of the block of Figure 3; and

Figure 7 is a side view of an alternative form of block.

Referring firstly to Figures 1 and 2 of the drawings, there is shown a decorative panel comprising a glass fibre reinforced cement or plaster layer 10. The layer is of sufficient thickness to render the panel

self-supporting but is not intended to be a structural panel. One surface 11 of the panel has a plurality of coloured (e.g. stained) glass elements 12 cast into the surface of the panel. The coloured glass elements are shaped and spaced from one another to form a required pattern or optical effect. The elements are bonded into the surface of the panel by being cast into the panel when the panel is formed in a mould. The elements are spaced apart from one another to that cast material (cement or plaster) fills the spaces between adjacent elements to form a continuous surface 13 of the panel flush with the surfaces of the glass elements 12.

The glass of the elements may be transparent or opalescent in accordance with the requirements of the pattern. The elements are of the order of 2.5 to 5mm thick but the final thickness is chosen both for the required optical effect and also to avoid or minimise thermal induced stresses when the panel is subjected to widely varying temperatures due to the different coefficients of thermal expansion of the stained glass and the cementatious material from which the layer of the panel is formed.

The panel may be formed with a curvature in which case the coloured glass elements are correspondingly curved to suit the curved surface of the panel in which they are to be bonded.

The glass elements are, as indicated above, held in the surface of the panel by casting of the elements in the panel, but, alternatively, they may be attached to the cementatious layer with a bonding agent.

Figure 3 of the drawings shows a modified form of panel in which glass elements 12 are superimposed in "Applique" form or are fused or laminated together to a give a relief or "sculptured" effect.

Figure 4 shows a further arrangement to obtain a sculptured or relief effect in which elements of differing thickness or depth are bonded side-by-side to the panel surface.

Referring now to the further embodiment illustrated in Figures 5 and 6, a decorative screen block 15 is illustrated comprising a square outer frame having a wall 16 containing a cruciform formed by leg 17 with a ring 19 at the centre of the cruciform. The side wall 16, leg 17 and cruciform 18 are all cast in glass reinforced cement or plaster.

The apertures or interstices in the frame defined within the ring 18 and between the legs of the cruciform and the side walls of the frame containcoloured glass elements 19 which are cast into the block as illustrated in Figure 6 .

In an alternative block construction shown in Figure 7, the block is formed in two superimposed parts 20, 21 as illustrated in Figure 5 which are bonded together with the coloured glass element 19 sandwiched between them.

Further, glass fibre reinforced gypsum may be used for the panels/block described above in place of a cementitious material or plaster.

CLAIMS:

1. A decorative panel comprising a cast, settable layer having a multiplicity of coloured glass elements embodied in a face or faces of the layer and arranged in a predetermined pattern or format in the surface.

2. A panel as claimed in claim 1, wherein the glass elements are spaced apart in the surface of the layer with material between the spaced elements.

3. A decorative panel as claimed in claim 1 or claim 2 wherein the panel is formed from glass fibre reinforced cement or from plaster.

4. A decorative panel as claimed in claim 1 or claim 2 wherein the panel is formed from gypsum reinforced with glass fibres.

5. A decorative panel as claimed in any of the preceding claims wherein the glass elements are in the region of 2.5 to 5mm in thickness.

6. A decorative panel as claimed in any of the preceding claims, wherein the glass elements are transparent or opalescent.

7. A decorative panel as claimed in any of the preceding claims, wherein the glass elements are cast into the surface of the layer to secure the elements to the layer.

8. A decorative panel as claimed in any of claims 1 to 7, wherein the glass elements are secured by a bonding agent to the layer.

9. A decorative panel as claimed in any of claims 1 to 7 wherein glass elements are superimposed and bonded together or elements of differing thickness are embodied in the panel face to give a relief or "sculptured" effect.

10. A decorative building block having a cast body formed with a plurality of apertures through the body and coloured glass elements disposed in the respective apertures and bonded to the block around the apertures.

11. A decorative building block as claimed in claim 10, wherein the block is in the form of an open framework the interstices of which provide apertures in which coloured glass elements are bonded.

12. A decorative building block as claimed in claim 11, comprising a square perimeter frame containing a cruciform with a ring at the intersection of the cruciform, the interstices provided within the ring and between the elements of the cruciform and walls of the frame containing coloured glass elements bonded thereto.

FIG. 1.

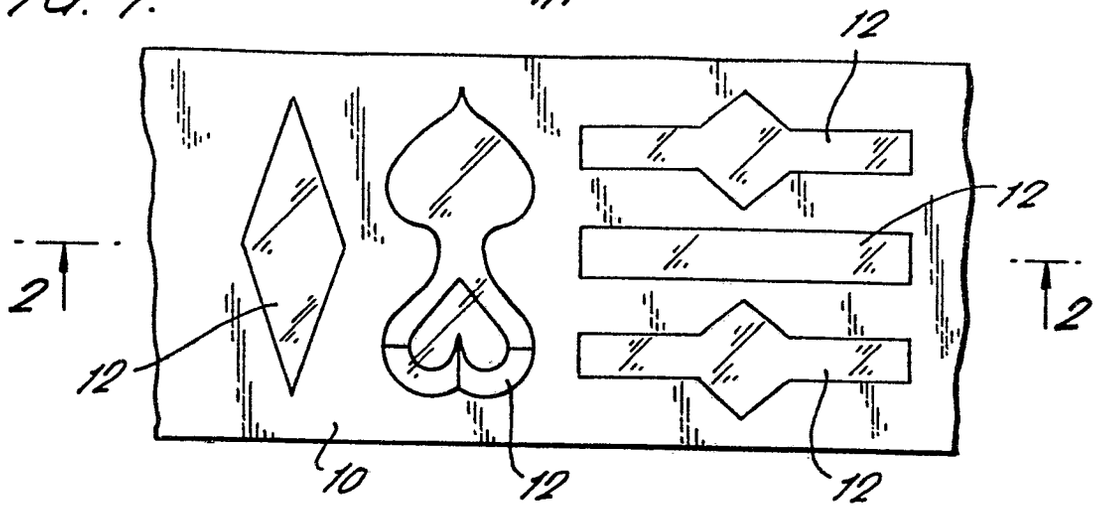

FIG. 2.

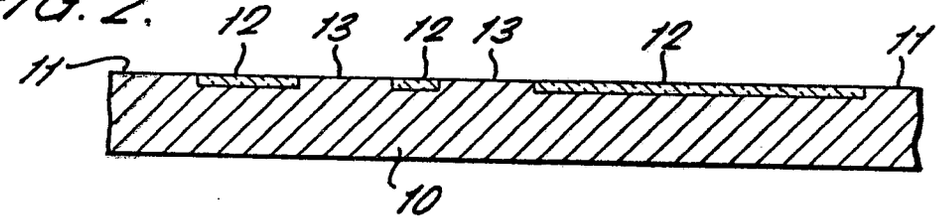

FIG. 3.

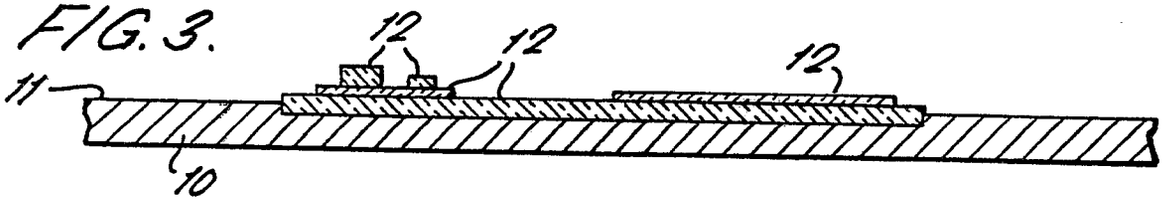

FIG. 4.

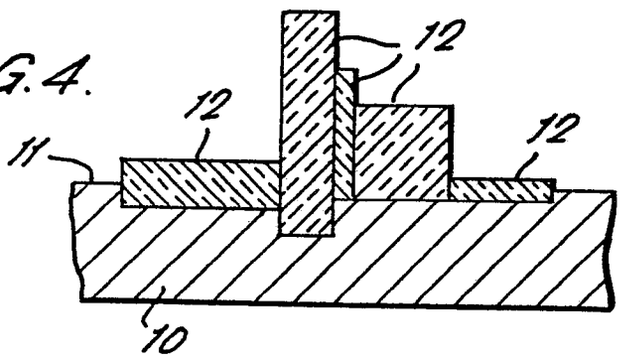

FIG. 5.

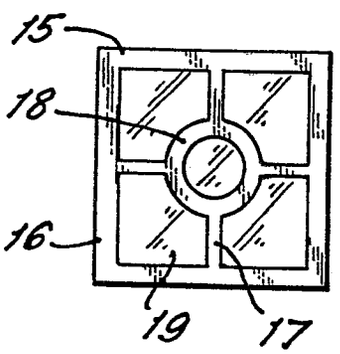

FIG. 6.

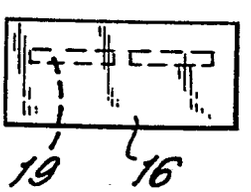

FIG. 7.