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METHOD OF COVERING A BASE SURFACE WITH DECORATIVE CARPET TILES

Filed Sept. 25, 1967

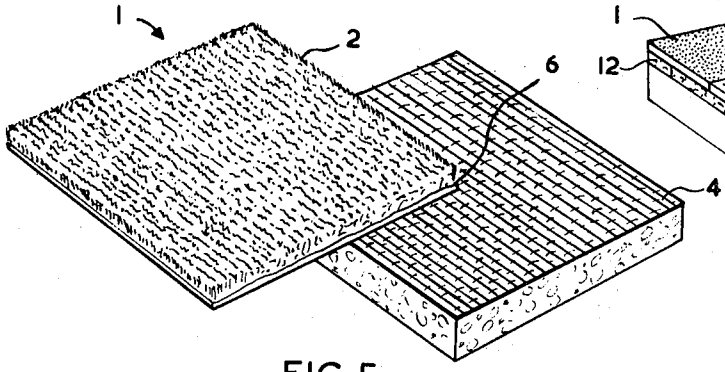

FIG. 5

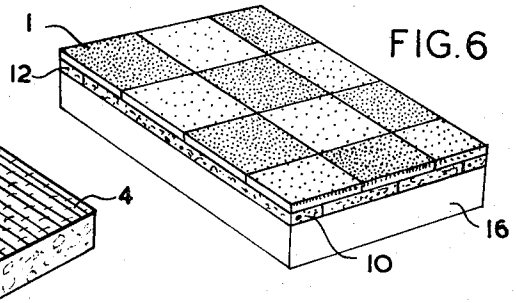

FIG. 6

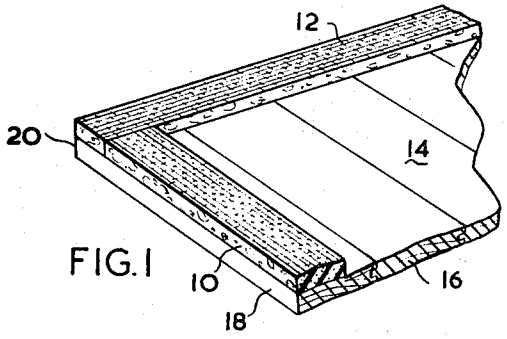

FIG. 1

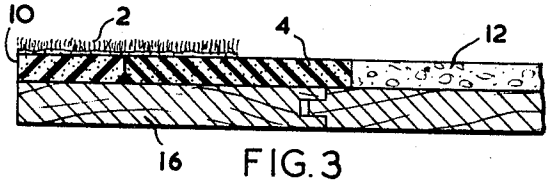

FIG. 3

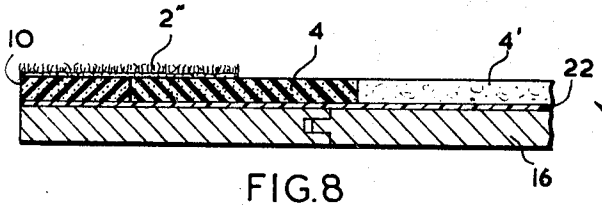

FIG. 8

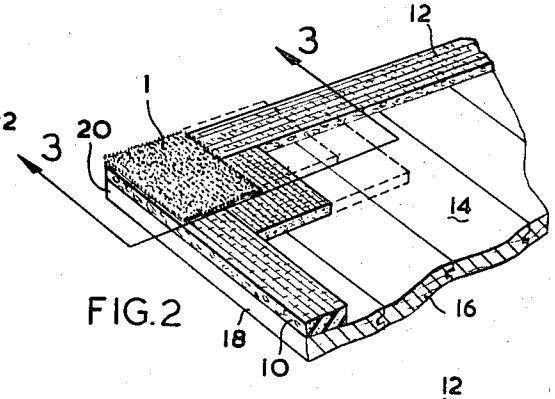

FIG. 2

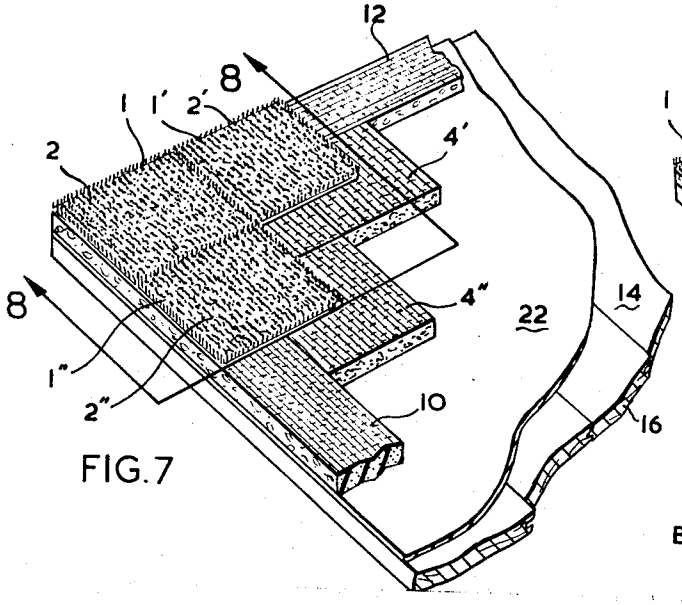

FIG. 7

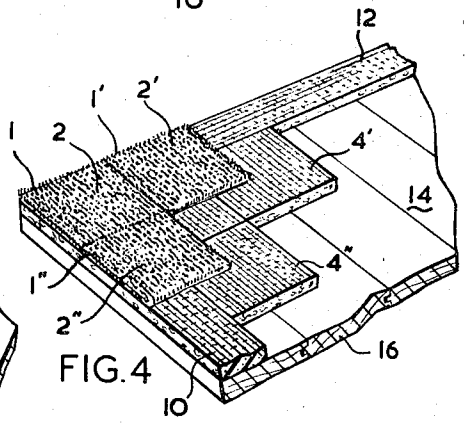

FIG. 4

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METHOD OF COVERING A BASE SURFACE WITH DECORATIVE CARPET TILES

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ABSTRACT OF THE DISCLOSURE

A floor surface is carpeted using individual carpet tiles which are secured to the floor in edge abutment with each other. Each such tile includes a rectangular backing layer of underpadding material and a rectangular upper layer of carpet material, the upper layer of each such tile having the same dimensions as the backing layer but being bonded to the latter so as to be offset therefrom with two adjacent edges of the upper layer being parallel to but outwardly offset with respect to corresponding adjacent edges of the backing layer to provide an outwardly offset upper layer portion. The tiles are secured to the floor surface by their backing layers so that the outwardly offset upper layer portions overlie the exposed portions of the backing layers of adjacent tiles. Elongated strips of backing layer material are used along two mutually perpendicular edges of the floor surface to support the offset portions of the outermost tiles.

The present invention relates to decorative tiles and more particularly to carpet tiles for covering floor tiles. The invention also relates to a method of covering a surface with such decorative tiles.

The advantages of the use of carpet tiles for covering floor and wall surfaces compared to the use of a larger piece of carpet material are well known.

It is an object of the present invention to provide decorative tiles and particularly carpet tiles which can be manufactured simply and inexpensively and which can be secured to a surface to be covered in a simple manner without requiring the services of a skilled tradesman.

It is a further object of the present invention to provide a simple and inexpensive decorative tile which possesses the known advantages of carpet tiles particularly with respect to their ease of handling and their replaceability in the event of wear or damage, as well as to provide additional advantages with respect to their use.

In its broadest scope, the present invention provides a decorative tile comprising an upper exposed layer and a backing layer, each of said layers being rectangular and having substantially identical dimensions in the principal plane of the tile and said upper layer being secured to said backing layer with said layers in such a relative disposition that each edge of said upper layer is substantially parallel to and significantly offset in the principal plane of the tile from the corresponding edge of said backing layer.

The invention also provides a method for covering a surface with such decorative tiles, which method comprises first bonding along each of two mutually perpendicular boundary surface zones of said surface a strip of backing layer material of the same thickness as the backing layers of said tiles, and subsequently bonding to said surface a plurality of said decorative tiles in edge-abutment with each other and/or with said strips, so that the offset portions of the upper layers of said tiles have their under-surfaces in surface abutment with the exposed top surfaces of the backing layers of others of said tiles and the widths of said strips being such that the top surfaces of said strips are substantially completely

covered by the offset portions of the upper layers of those of said tiles which are in edge-abutment with said strips.

Although the invention will be described with particular reference to the covering of floor surfaces with carpet tiles, it will be appreciated that the invention also embraces the use of such tiles for covering surfaces other than floor surfaces. Decorative tiles can, in accordance with the invention, be applied to many surfaces and, merely by way of example, there may be mentioned the application of tiles to wall surfaces and to the surfaces of articles of furniture.

It should also be noted that the invention embraces decorative tiles other than carpet tiles and to the application of such tiles to a surface. It will further be appreciated that either or both of the uper and backing layers may be formed from one or more component layers without departing from the scope of the invention.

In a preferred construction for a decorative tile in accordance with the invention, the upper layer and the backing layer will be in such a relative disposition that one corner of the upper layer is disposed substantially over centre of the backing layer. In general, it is preferred that the upper layer and the backing layer each be square.

In the case of carpet tiles, the upper layer of the tile will be of carpet material which can be secured, for instance by means of an adhesive, to the backing layer which will be of a resilient underpadding material, and cemented or otherwise secured to the floor.

In accordance with a useful modification of the method of the invention, the offset portions of the upper layers of the tiles are bonded to the underlying top surfaces of the backing layers of the adjacent tiles and/or to the underlying top surfaces of the aforementioned strips.

If it is desired to have the assembled surface covering removable from the underlying surface, the tiles and the strips may be secured or bonded to a piece of sheet material initially disposed on the surface to be covered.

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

FIG. 1 is a cut-away perspective view partly in section showing the first step of the method according to the invention for covering a surface,

FIG. 2 is a cut-away perspective view partly in section showing the second step of the method according to the invention, namely the positioning of the first tile on the surface to be covered,

FIG. 3 is a sectional view from along the line 3—3 of FIG. 2,

FIG. 4 is a cut-away perspective view partly in section similar to FIG. 2 after three tiles have been positioned in edge-abutting relationship,

FIG. 5 is an enlarged perspective view of one of the tiles shown in FIGS. 2, 3 and 4,

FIG. 6 is a perspective view of a surface completely covered with tiles in accordance with the invention,

FIG. 7 is a perspective view partly in section and similar to FIG. 4 but showing a useful modification of the method of the invention, and

FIG. 8 is a sectional view from along the line 8—8 of FIG. 7.

Referring first to FIG. 5, it will be seen that the tile generally indicated at 1 comprises an exposed layer 2 of the carpet material which is bonded to a backing layer 4 of resilient underpadding material. It will be noted that, in accordance with the aforementioned preferred feature of the invention, both the upper layer 2 and the backing layer 4 are square. It will also be noted from FIG. 5 that the layers 2 and 4 are bonded together in such a relative disposition that each edge of the upper layer is

substantially parallel to and significantly offset in the principal plane of the tile from the corresponding edge of the backing layer. In accordance with a preferred feature of the invention, the layers **2** and **4** are so disposed that the corner **6** of the upper layer **2** is disposed substantially over the centre of the backing layer **4**.

For the purpose of explaining how a tile such as that shown in FIG. 5 is used to cover a surface, reference will now be made to FIGS. 1 to 4 and to FIG. 6. Two strips **10** and **12** of backing layer material are first bonded along two mutually perpendicular and adjacent boundary surface zones of the surface **14** which, in the example shown, is the upper surface of a floor **16**. In the embodiment illustrated, these two zones lie along perpendicular adjacent edges **18** and **20** of the floor **16**. These strips have the same thickness as the backing layers of the tiles **1**. As will become more readily apparent as the description proceeds, these strips will each have a width substantially equal to the distance by which the upper layer **2** of each tile is offset from the backing layer **4** of the tile. With the preferred form for the tile as shown in FIG. 5, the widths of these strips **10** and **12** will be equal to half the width of each layer of the tile **1**.

The second step in covering the surface **14** involves bonding a tile **1** to the surface in edge-abutment with each of the strips **10** and **12** (see FIG. 2). It will be seen that, since the upper layer **2** of the tile **1** projects beyond the backing layer **4** rearwardly and to the left a distance equal to the width of the strips **10** and **12**, the rear and left hand edges of the upper layer **2** of the so disposed tile **1** will be flush with the rear and left hand edges respectively of the strip **12** and the strip **10** respectively. The tile **1** may be bonded to the surface **14** in any suitable manner, example, by glueing or cementing. The broken lines in FIG. 2 indicate the position in which the second tile **1'** will be disposed but this second tile is omitted from the sectional view of FIG. 3.

Reference should now be made to FIG. 4 which shows three tiles **1**, **1'** and **1''** disposed on and bonded to the surface **14**. It will readily be understood that, as a result of the specified dimensions of the tiles and of the strips **10** and **12**, when the tiles are so disposed with their backing layers **4**, **4'** and **4''** in edge-abutment with each other and with the strips **10** and **12**, the upper layers **2**, **2'** and **2''** will also be in edge-abutment with each other.

FIG. 6 shows a surface completely covered with tiles in accordance with the invention and it should be noted that the tiles finally fixed to the surface **14** of the floor **16**, namely those tiles along the front and right-hand edges of the floor will have been cut to the required size.

As hereinbefore stated, those parts of the upper layer of each tile which overlie the strips **10** and **12** or the exposed top surfaces of the backing layers of others of the tiles may also be bonded for example, by cementing, to the underlying top surfaces.

If, for any reason, it is not desired to secure the individual tiles directly to a surface, for instance, if the surface is not sufficiently level or smooth or if it is desired to have the assembled covering removable from the surface, a piece of sheet material may initially be disposed on the surface to be covered. This possibility is illustrated in FIGS. 7 and 8 in which the same numerals are used as in

the other figures to indicate like parts. In this respect, it will be noted from FIGS. 7 and 8 that the surface **14** is first covered with a layer of sheet material **22** and that the strips **10** and **12** and the individual tiles are then secured to this sheet material **22**. The sheet material may be secured to the floor, for example, by glueing or may merely be stretched across the floor while the strips and tiles are secured thereon. In the latter manner, the assembled covering may be readily removed from the floor for cleaning, for use in a different location or for any other purpose.

What I claim is:

1. A method of covering a base surface with decorative tiles, each of which tiles comprises an upper exposed layer of carpet material and a backing layer of resilient underpadding material, each of said layers being rectangular and having substantially identical dimensions in the principal plane of the tile and said upper layer of each tile being secured to said backing layer of that tile in such a relative disposition that all edges of said upper layer are substantially parallel to corresponding edges of said backing layer and that two adjacent edges of said upper layer are offset outwardly in the principal plane of the tile from corresponding adjacent edges of said backing layer to provide an outwardly offset upper layer portion, which method comprises first bonding along each of two mutually perpendicular boundary surface zones of said base surface a strip of backing layer material of the same thickness as the backing layers of said tiles, and subsequently bonding to said base surface a plurality of said decorative tiles in edge-abutment with each other and with said strips, so that the outwardly offset portions of the upper layers of said tiles have their under-surfaces in bonded surface-abutment with the exposed top surfaces of the backing layers of others of said tiles and the backing layers are in bonded engagement with the base surface being covered and the widths of said strips being such that the top surfaces of said strips are substantially completely covered by the outwardly offset portions of the upper layers of those of said tiles which are in edge-abutment with said strips.

2. A method as claimed in claim **1** in which the upper layer and the backing layer of each of said tiles are square, in which the upper layer and the backing layer of each of said tiles are in such a relative disposition that one corner of said upper layer is disposed substantially over the centre of said backing layer, and in which said strips each have a width substantially equal to half the width of each layer of said tiles.

3. A method as claimed in claim **2** in which said strips and said tiles are bonded to a piece of sheet material previously disposed over the surface to be covered.

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PHILIP DIER, Primary Examiner

U.S. Cl. X.R.

156—297, 304; 161—39, 62, 145