Nov. 28, 1961 F. J. STEPHENS ET AL 3,010,859

CARPET TILE

Filed May 10, 1957

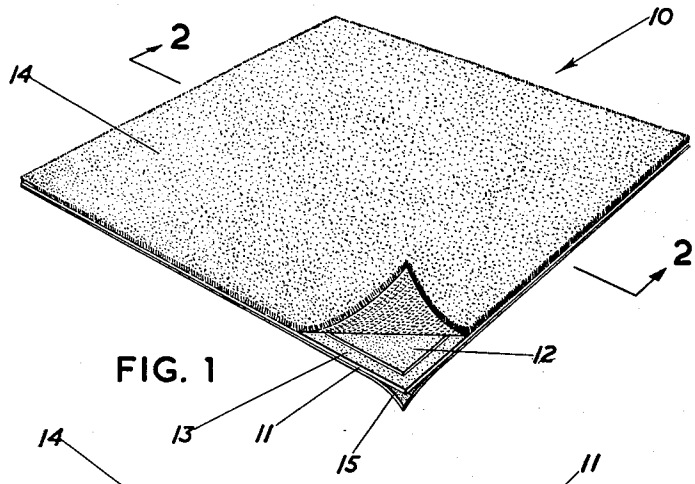


FIG. 1

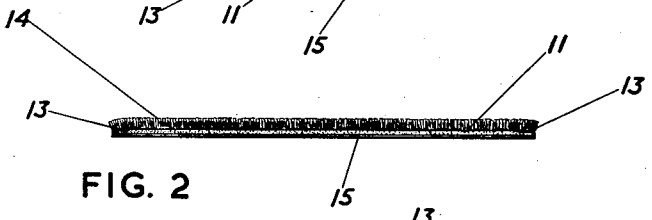


FIG. 2

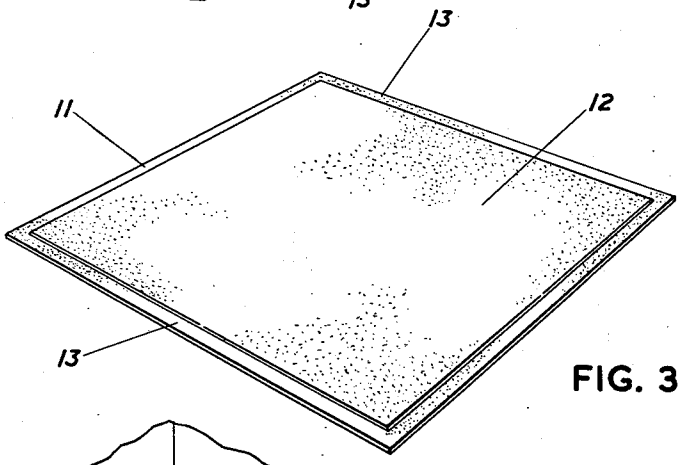


FIG. 3

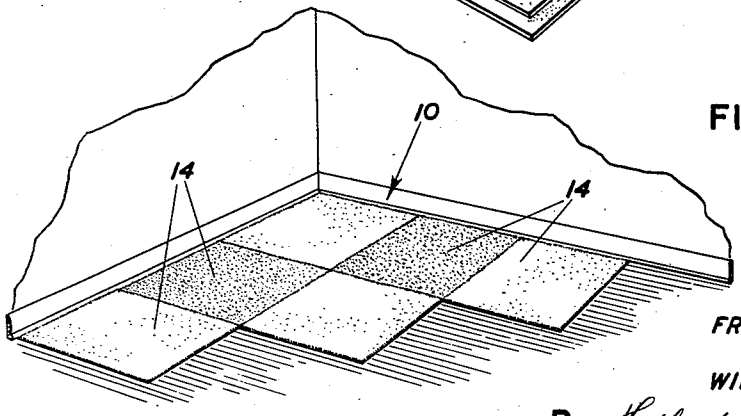


FIG. 4

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3,010,859

CARPET TILE

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This invention relates to carpet tile and more particularly to carpet formed in relatively small squares processed to be handled and used in the manner of tile.

Tile flooring is laid in patterns to produce in most cases a very attractive floor wherein the tiles may be employed in various colours to achieve the result desired. In the case of rugs or carpets the purchaser is confined to specified patterns or combinations of colours or plain colours as may be available. The present invention seeks to provide a carpet covering which may be employed either of rug dimensions or in wall to wall size produced in tile-like units of practical size, and which may be handled and laid even more conveniently than tile and by unskilled labor.

According to the invention tile-like carpet units are provided having a base of relatively stiff, though somewhat pliable, character, a carpet surface adhesively secured to one side of the base, a pressure sensitive adhesive coating on the exposed other side of the base, and a covering of thin paper or paper-like sheet material applied over the pressure sensitive adhesive and which may be readily peeled from the base to expose the adhesive for direct application of the tile-like unit to a selected floor, wall or the like. Preferably the base is reduced in thickness on its upper surface throughout its perimeter to produce in effect a bevelling of the carpet around the perimeter when applied and thus to avoid the possibilty of the edges of any unit being accidentally lifted, such as by contact with the toe of a person's shoe walking thereon.

The invention will be clearly understood by reference to the following detailed specification taken in conjunction with the accompanying drawings.

In the drawings:

FIG. 1 is a perspective view of a carpet tile according to the present invention with the layers making up the unit separated at one corner to illustrate its general construction.

FIG. 2 is a longitudinal section taken through the carpet tile such as shown in FIG. 1.

FIG. 3 is a perspective view of the base for the carpet tile to illustrate the manner in which the edges are skived; and

FIG. 4 is a fragmentary perspective view to illustrate generally the manner of use of the carpet tile.

Referring to the drawings, **10** indicates a carpet tile of the present invention, which is formed as a square of comparatively small size, a convenient size being approximately eighteen inches square, although this may be increased or decreased according to requirements. The tile is made up of a felt base **11**, one side of which is coated or impregnated preferably with a rubber starch, namely a blend of latex and starch, the base being then passed over a heated smooth roll to form it with a smooth surface, which side becomes the outer exposed surface of the base of the tile. This processing produces a base or backing for the carpet of relatively stiff though somewhat flexible character.

The carpet-receiving side or surface **12** of the tile unit is preferably routed or skived inwardly of and throughout its periphery as at **13** (FIG. 3). This may be done

in any suitable manner. The result is that when the carpet **14** is applied thereto the carpet adjacent the periphery of the tile unit thus formed slopes slightly downwardly towards the base, or in other words a bevelled effect is produced.

The side or surface **12** of the belt base **11** is coated with adhesive, preferably water resistant adhesive such as one having natural or a synthetic rubber, as a base, and the carpet is firmly pressed on to the base to provide for a permanent attachment of the two. This may be effected by passing the carpet and base between pressure rolls to produce a firm union, care being taken as well that the peripheral edges of the unit are subjected to sufficient pressure to cause the carpet to adhere firmly to the routed or skived portions **13** of the base, which thus produces the slightly bevelled effect in the carpet around the periphery of the unit.

The remaining side or surface of the base is provided with a coating of pressure sensitive adhesive of known character which will remain tacky, and over this adhesive a film, paper sheet or paper-like covering **15** is applied, the covering being of such character, treated if necessary, that it can be readily peeled from the base when it is desired to put the carpet tile into use.

The carpet tiles of the kind described may be produced economically and, subject to quality of the carpet, may be purchased reasonably. Moreover, the units are of such a character that it does not require a person skilled in carpet laying to lay them. The units are accurately cut in squares and therefore can be applied with care in the manner of tile. They can be used as a rug formation or as wall to wall carpeting, and moreover since they can be produced in many colours, the purchaser is able to provide for a patterned floor of various colours, as may be desired. Likewise, they can be employed in one colour.

In use it is only necessary for the purchaser to use reasonable care to assure that the tiles are laid in straight lines so that with this factor under control the user merely peels the protective covering **15** from the outer surface of the base, which thus exposes the tacky adhesive. The tile is merely pressed into the position on the floor or wall which it is to assume and it merely requires a repetition of this very simple operation until the covering desired made up of a number of units is produced. Likewise it can be removed from the floor or wall on which it is applied in a very simple manner, yet the pressure sensitive adhesive will maintain the tile in place under all normal conditions of usage.

Of particular importance is the skiving of the border of the upper surface of the felt base since the peripheral edges of the tile will always tend to slope downwardly slightly and consequently will avoid any possibility of a shoe catching the edge of a tile and inadvertently lifting it from its set position. Moreover, this has the result of giving a demarcation effect between the tiles which creates a pleasing appearance. While the outer surface of the carpet tile base could be skived inwardly of and throughout its periphery, it is preferable and of substantial importance that the base be skived in the manner described on its carpet-receiving surface, for the reason that the tile will always lay flat since it then has a natural flat base surface as contrasted to a probable curling of the base edges resulting from the pull of the carpet due to the fact that it is necessary to press the edges of the tile firmly against the floor or other surface employed where skiving of the base is done on the outer exposed surface thereof.

What we claim as our invention is:

1. A carpet tile comprising a composite body including a rectangular felt base processed to give it relatively stiff but flexible character, said base having a relatively

narrow portion removed from its upper surface inwardly from and throughout its perimeter to form a border of reduced thickness, the lower surface of the base being uninterrupted to provide a flat bearing surface, a rectangular unitary uninterrupted carpet element adhesively and permanently secured to the upper surface of the base and with its border portion overlying and secured to the base border portions of reduced thickness to impart a substantially bevelled effect to the upper border surface of said body, a pressure sensitive adhesive coating on the exposed flat lower side of the base and a sheet-like covering applied over the pressure sensitive coating but peelable therefrom.

2. A carpet tile as claimed in claim 1 wherein the base is treated with a mixture of rubber and starch and the lower exposed flat surface of the base is processed to provide a smooth bearing surface.

3. A carpet tile as claimed in claim 1 wherein the portion cut out of the edge of the upper surface of said base is substantially of rectangular shape in cross-section.

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