Feb. 25, 1936. F. H. BERGER 2,031,684

TILE SPACER

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Fig. 1.

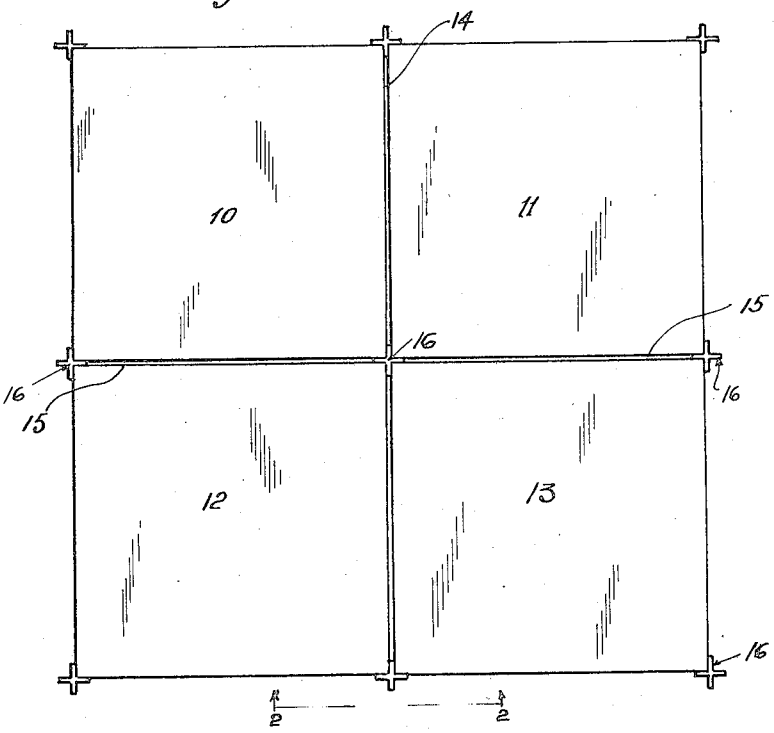
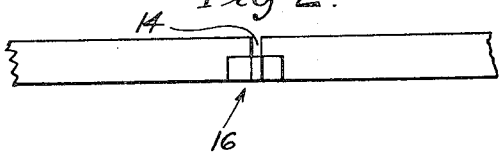


Fig 2.



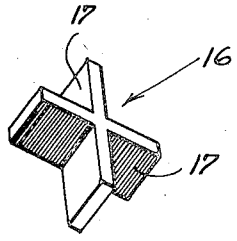


Fig. 3.

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TILE SPACER

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4 Claims. (Cl. 72—18)

This invention has for its general purpose to facilitate the laying of tile with uniform and accurately alined joint spaces, and deals specifically with an improved tile spacer that is parcticularly adapted for use in the laying of rectangular tile on floors, walls, and like places.

In laying tile, the usual procedure is to first apply a coating of cement to the surface to be tiled, and to then place the tile edge to edge upon the fresh unset cement. In order to obtain a secure bond between the tile and the cement, it is customary to tamp the tiles after they are arranged in place, thereby causing the back, usually irregular, faces of the tiles to become well embedded in the cement.

Tile is laid most satisfactorily, both from stand points of construction and appearance, by leaving joint spaces between adjacent edges of the tile, which spaces are filled with cement after the tiles are arranged in place. Sometimes, however, the tiles are laid with their edges in engagement, at the sacrifice of strength and appearance, for the reason that heretofore, because of the difficulties in laying tile with uniform and accurately alined joint spaces, a substantial saving in labor cost could be effected. Where the tiles are laid with their edges in engagement, such arrangement is also objectionable by reason of the fact that serious chipping of the edges of the tiles frequently occurs by reason of their engagement.

On the other hand, laying of the tiles with joint spaces between them has its disadvantages due to the difficulties heretofore involved in maintaining uniformity and alinement of the joint spaces, and in the painstaking labor required. In order to provide for joint spaces between the tiles it is customary to space the latter by using heavy cord or string extended between the rows of tile. Although the tiles may be initially placed in exact alinement and with uniform joint spaces, tamping of the tiles against the cement invariably throws them out of alinement, and consequently it becomes necessary to realine them as by running a trowel through the joint spaces. And even then it is often difficult to approach exact alinement. This has been found to be particularly true as to tiles that are applied to walls or other vertically extending surface.

In accordance with the invention, I have devised a tile spacer that will insure exact alining and spacing of the tiles, and which is so simply made and convenient in its use that tiles can be laid with perfect joint spaces without the requirement of appreciably more time or labor than is necessary for the laying of tiles in edge to edge engagement. The present type of spacer is of particular advantage in that it is adapted to be inserted between the tiles at the intersecting joint spaces so as to space each tile in two directions, and to form joint spaces between four tiles at their adjacent corners. Another important feature of the invention resides in the provision of a tile spacer made of resilient and compressible material, so that in case any misalinement is found between the edges of the tiles, the spacers will permit of sufficient compression to bring those edges into exact alinement.

The above mentioned features and objects of the invention, as well as the details of a typical and preferred embodiment thereof, will be understood most readily and to best advantage from the following detailed description. Throughout the description, reference is had to the accompanying drawing, in which:

Figure 1 is a general view showing a plurality of rectangular tiles maintained in alinement with uniform joint spaces, by my improved type of spacer;

Fig. 2 is a fragmentary enlarged view taken along one edge of the tiles at the joint space, as indicated by line 2—2 of Fig. 1; and

Fig. 3 is an enlarged perspective of the spacer.

Referring first to Fig. 1, the tiles **10**, **11**, **12**, and **13**, are shown to be arranged in accurately alined rows with joint spaces **14** and **15** between them. While I have shown square tile for the sake of convenience and simplicity of illustration, it will be understood that the tiles may be of any desired shape, and that the joint spaces may be formed in conformity with the shape of the tiles. I may state that ordinarily, however, the tiles will be square or rectangular in shape.

Referring particularly to Fig. 3, my improved spacer, generally indicated at **16**, is shown to comprise an angular element, preferably cross-shaped, the webs **17** of which are of such length as to extend, when inserted in the joint spaces, as shown in Fig. 1, a short distance beyond the edges of the tiles. Broadly speaking, the spacer element may be made of any suitable material, though preferably, for the reason stated hereinabove, it will be made of a resilient and compressible substance. Rubber has been found to be well suited as a material from which the spacers may be made. In this connection I may mention that the spacers may be conveniently formed by molding an elongated rubber strip of cross-shape in section, and then cutting the spacers in desired predetermined lengths from this molded strip.

The rubber spacers are deformable and compressible under pressure less than the tile will stand without chipping or cracking. Consequently, after they are applied to the corner edges of the tiles of a given course and a second course is laid with the corner edges of its tile engaged with the exposed webs of the spacers, the assembly of tiles and spacers may be gathered in a direction parallel to the course axes and in a direction transverse thereto, to line the tiles up in both directions and in spaced relation; the spacers, due to their deformability and compressibility, yielding under the gathering compression sufficiently to compensate, without damage to the tile, for such slight tile irregularities as may exist. Of course, since the spacers are individually applied to the tiles and may move bodily and independently during the alinement operation, the problems incident to the use of fixed spacers are obviated.

As illustrated in Fig. 2, the axial thickness of the spacer **16** is substantially less than the thickness of the tiles, so that when the joint spaces are filled with cement, the latter will completely cover the spacer. By virtue of the uniformity in thickness of the spacer web portions **17**, the joint spaces **14** and **15** between the tiles will be of exactly the same width. Also, by reason of the particular shape of the spacer, it will be seen that the joint spaces formed by oppositely projecting webs of the spacer, will be accurately alined.

In laying the tile, the spacers can be much more quickly and easily inserted into the joint spaces than the usual spacing means employed, and without appreciably more time or labor being required than in the usual operation of laying tile without providing for joint spaces. If it be found, after a series of tiles have been laid, that there is misalinement in the edges of the tiles, the capacity of the spacers for deformation and compression will permit sufficient adjustment or movement of a row of misalined tile, to bring the edges thereof into exact alinement with the tiles in adjacent rows.

I claim:

1. A self-contained tile spacer comprising a cross-shaped rubber element adapted to be inserted within intersecting joint spaces between tile courses, the webs being solid and of substantially uniform thickness throughout their extents.

2. A self-contained tile spacer adapted to be inserted into the corner joint spaces between tiles, comprising a compressible rubber element which includes a plurality of webs extending radially from a common juncture.

3. A self-contained tile spacer adapted to be inserted into the corner joint spaces between tiles, comprising a compressible rubber element which includes a plurality of webs extending radially from a common juncture, said webs being solid and of uniform thickness throughout.

4. The combination comprising, a plurality of tile members arranged to form a plurality of intersecting joint spaces, and a self-contained spacing element inserted into the joint spaces at the point of intersection, said element comprising a plurality of rubber webs projecting radially into the joint spaces, and the webs being compressible by pressing together the tiles forming the joint spaces.

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