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ALIGNING APPARATUS FOR TILE

Filed Jan. 17, 1963

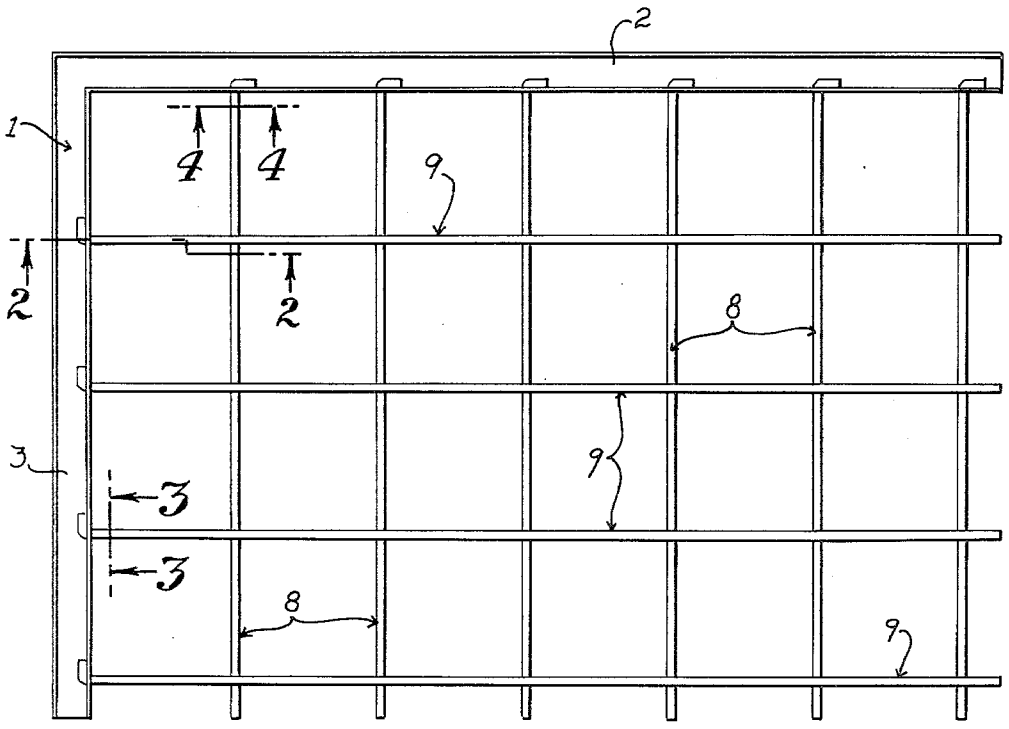


FIG. 1

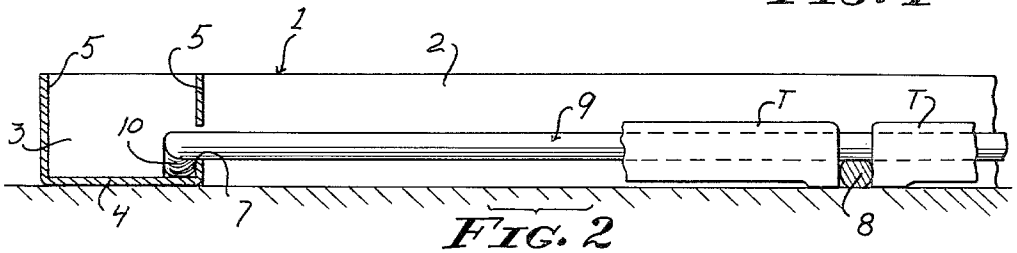


FIG. 2

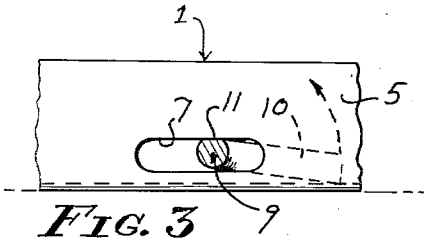


FIG. 3

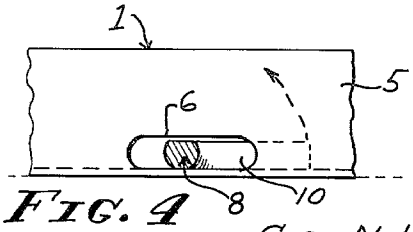


FIG. 4

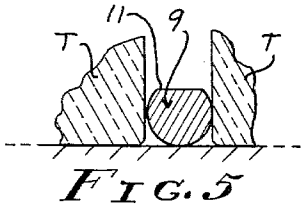


FIG. 5

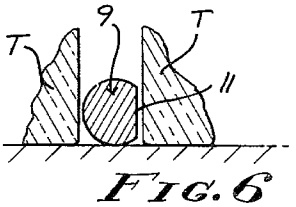


FIG. 6

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ALIGNING APPARATUS FOR TILE

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3 Claims. (Cl. 33—180)

This invention relates to aligners for laying tile, and included in the objects of this invention are:

First, to provide an aligning apparatus for laying tile which is particularly adapted for laying floor tile, such as ceramic tile which may be very inaccurate in its dimensions, the apparatus being arranged to compensate for irregularities while maintaining the integrity of the overall pattern of the tile.

Second, to provide an aligning apparatus which facilitates the laying of floor tile by inexperienced persons.

Third, to provide an aligning apparatus wherein the spacing between the tile is accurately maintained uniform.

Fourth, to provide an aligning apparatus for floor tile which includes an L-shaped square having slots which receive aligning rods in such a manner as to define a plurality of squares intended to receive tile, the rods serving to space the tile the correct distance.

Fifth, to provide an aligning apparatus of this type wherein the aligning rods are especially shaped to facilitate their removal from between the tile without altering their position.

With the above and other objects in view, as may appear hereinafter, reference is directed to the accompanying drawings in which:

FIGURE 1 is a plan view of the aligning apparatus;

FIGURE 2 is an enlarged, fragmentary, sectional view taken through 2—2 of FIGURE 1, shown fragmentarily in an adjacent pair of tile;

FIGURE 3 is an enlarged, fragmentary, sectional view taken through 3—3 of FIGURE 1;

FIGURE 4 is an enlarged, fragmentary, sectional view taken through 4—4 of FIGURE 1;

FIGURE 5 is an enlarged, fragmentary, sectional view showing an adjacent pair of tile and an aligning rod therebetween in its normal or spacing position;

FIGURE 6 is a similar view showing the aligning rod turned 90° for removal from between the pair of tile.

The aligning apparatus for tile includes an L-shaped square 1, preferably having a long leg 2 and a short leg 3. The legs of the square 1 are channel-shaped in cross section, and thus include a web or base portion 4, adapted to rest on an underlying surface, and a pair of upright flanges or walls 5.

The walls 5, which form the included or 90° angle of the square 1, are provided with sets of slots 6 and 7. The slots 6 are contiguous to the web 4 of the longer leg 2, whereas the slots 7 of the shorter leg 3 are spaced upwardly a slight distance. The slots 6 and 7 are equally spaced, and represent approximately the dimension of the square floor tile T which is to be laid.

Two sets of aligning and spacing bars 8 and 9 are provided. The bars of set 8 have a length approximately equal to the short leg 3, whereas the bars of set 9 have a length corresponding to the long leg 2. Each bar is provided with a short laterally or right angularly extending hook end 10, which is adapted to be inserted through the corresponding sets of slots 6 and 7. Each aligning bar is circular in cross section except for a flat upperside 11.

The aligning apparatus for tile is employed as follows:

The square 1 is placed in position to delineate a unit of area in which a group of tile T is to be placed. The hook ends 10 of the set of short aligning bars 8 are inserted in the slots 6, and the bars are turned so that the hook ends 10 lie in a horizontal position behind the flange 5. The set of bars 8 are arranged in essentially parallel relation with each other and with the short leg 3 of the square 1.

The hook ends 10 of the set of aligning bars 9 are inserted in the slots 7, and turned to an essentially horizontal position to allow the set of aligning bars 9 to overlie the set of aligning bars 8 in parallel relation with each other and with the long leg 2. The two sets of aligning bars, when so positioned, define a plurality of squares dimensioned to receive the tile T. The slots 6 and 7 allow a lateral adjustment of the aligning bars 8 and 9 to accommodate variations in the dimensions of the square floor tile.

Each floor tile T is placed in a square formed by the aligning bars 8 and 9 and are bonded to the underlying floor surface by suitable mastic, adhesive, or cementitious material. The tile, of course, is not secure in place until the bonding material has set.

In order to remove the aligning bars 8 and 9 before the bonding material has set, each aligning bar is turned 90° from the position shown in FIGURE 5 to the position shown in FIGURE 6, which permits the aligning bar to be pivoted about the root end of the laterally extending hook end 10 and slid from the corresponding slot 6 or 7. By reason of the flat upper sides 11, the aligning bars 8 and 9 may be readily rotated without disturbing the tile; for, as the bars are turned, added clearance space is provided as shown in FIGURE 6.

The set of aligning bars 9 are first removed, then the set of aligning bars 8 are removed. After the initial bonding material has been set, the space between the tile formerly occupied by the aligning bars may be filled with cementitious material or the like.

While a particular embodiment of this invention has been shown and described, it is not intended to limit the same to the exact details of the construction set forth, and it embraces such changes, modifications, and equivalents of the parts and their formation and arrangement as come within the purview of the appended claims.

What is claimed is:

1. (a) An aligning apparatus for tile, comprising:

(b) an L-shaped square including right angularly related walls, said walls having a plurality of equally spaced openings;

(c) and a plurality of aligning and spacing rods having offset ends for insertion through said openings for retention by said square, said rods adapted to be disposed in right angularly arranged sets to define a plurality of the receiving squares.

2. (a) An aligning apparatus for tile, comprising:

(b) an L-shaped square including right angularly related legs, said legs including base portions adapted to rest on an underlying surface, and wall portions at the mar-

gins of said base portions which define the included right angle of the square;

(c) each of said walls having a series of horizontal slots adjacent said base portions defining approximately the width of the tile to be aligned;

(d) and sets of right angularly aligning and spacing rods adapted to be disposed at right angles with one set overlying the other to define a plurality of tile-receiving squares;

(e) each rod having a right angularly extending end insertable through said slots, said rods having limited lateral adjustment to accommodate tile having limited variation in its dimensions.

3. (a) An aligning apparatus as set forth in claim **2**, wherein:

(b) said rods are circular in cross section except for a

flattened upperside whereby, on turning each rod ninety degrees, clearance space is created between the rod and confronting tile to facilitate extraction of the rod.

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ISAAC LISANN, *Primary Examiner.*