No. 708,471. Patented Sept. 2, 1902.

A. L. FLOOD.

TILE.

(Application filed Feb. 26, 1902.)

(No Model.)

Fig. 1.

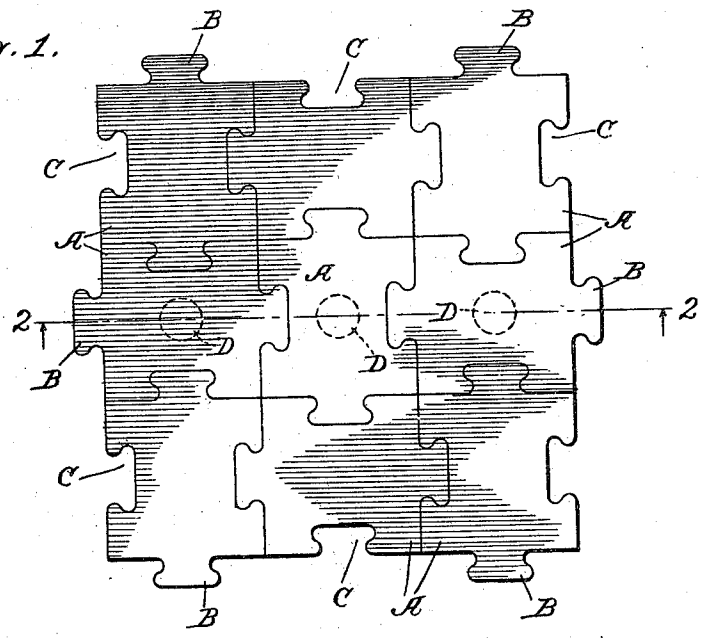


Fig. 2.

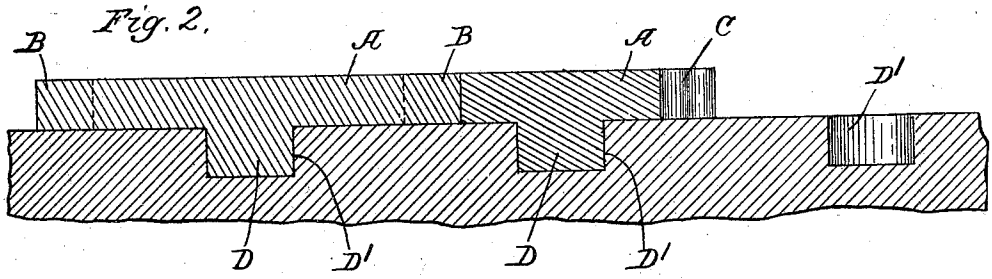


Fig. 4.

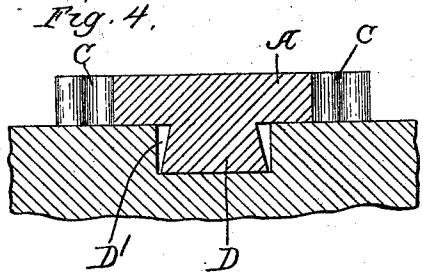
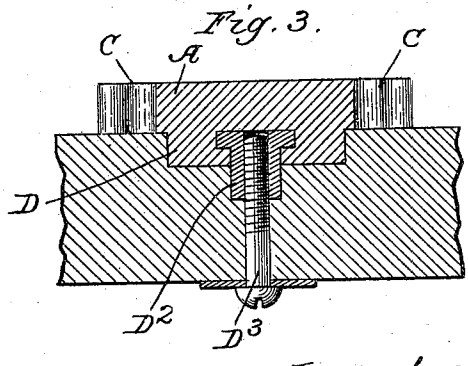


Fig. 3.



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UNITED STATES PATENT OFFICE.

ALFRED L. FLOOD, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO WILLIAM L. WEBER, OF CHICAGO, ILLINOIS.

TILE.

SPECIFICATION forming part of Letters Patent No. 708,471, dated September 2, 1902.

Application filed February 26, 1902. Serial No. 95,648. (No model.)

To all whom it may concern:

Be it known that I, ALFRED L. FLOOD, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Tiles, of which the following is a specification.

My invention relates to improvements in tiles, and has for its object to provide a new and improved tile, of which the following is a description, reference being had to the accompanying drawings, wherein—

Figure 1 is a view showing a series of tiles in position. Fig. 2 is a section on line 2 2, Fig. 1. Figs. 3 and 4 are sections through tiles, showing modified constructions.

Like letters refer to like parts throughout the several figures.

My present invention relates to tiles for covering floors, walls, steps, and other surfaces, and particularly such surfaces as are inclined. In the use of such tiles one of the difficulties presented is that of holding the tiles in their proper position, and this is particularly true when the tiles are placed on an inclined surface, for in such event the pressure of the feet of people passing over the tiles tends to displace them.

As herein shown, the tiles A are provided with interlocking projections B, which fit into recesses C, adapted to receive them, the tiles being locked together when in proper position. Some or all of the tiles are provided with suitable projecting parts D, which are preferably integral with the tile and project beyond the lower face thereof, forming what may be termed "retaining-lugs." These lugs may be of any desired shape, and the foundation upon which the tiles are laid is formed so as to receive the retaining-lugs. These retaining-lugs therefore hold the tiles in proper position and relation with respect to the foundation or support upon which they are laid. It is of course evident that the form or size or shape of the tiles may be greatly varied, as well as the form, size, and shape of the retaining-lugs, and the tiles may be interlocking or not, as desired, and may be made of any suitable material which is elastic or non-elastic, although I prefer to use elastic material.

In Fig. 2 I have shown the tiles in position, the foundation or support being provided with suitable recesses or depressions D′, into which the lugs D fit. The tiles may be laid with or without cement, filling, or adhesive material. Ordinarily I do not provide all of the tiles with these retaining-lugs; but the retaining-lugs are so distributed among the tiles as to secure the desired effect, and this distribution will of course depend upon the conditions met and the particular uses to which the tiles are put. It will be seen that when the tiles are suitably supplied with these retaining-lugs they are fixed in position and cannot become displaced under ordinary wearing conditions.

Under some conditions it may be desirable to add to the retaining-lug feature a removable holding device. I have shown one form of such construction in Fig. 3, wherein the lug D of the tile is provided with a screw-threaded opening, preferably lined with a metal bushing D^2. A bolt or screw D^3 passes through the foundation upon which the tile is laid and engages the tile, so as to insure its being held in position.

By making the retaining-lug integral with the tile I greatly facilitate and cheapen the manufacture and handling of the tiles and yet obtain a device by means of which the tiles are fixed in their proper position upon the support. When the bushing D^2 is used, it is preferably enlarged at its inner end, as shown, and is inserted when the tile is formed.

In Fig. 4 I have shown the retaining-lug as having an inclined face or faces, the lug being larger at the end farthest from the tile. When such a lug is used, the recess in which it is inserted may have straight faces, as indicated, and the wedge-shaped space between the lug and the face of the depression may be filled with some suitable material, such as cement.

When the tiles are made of such material as elastic material, for example, it is found that after they have been in use for a while there is a tendency for the tiles to creep and to buckle, so as to become distorted. The retaining-lug prevents anything of this kind, for any tendency of the tiles to creep presses the lug tightly against the side of the recess

in the support, and thus insures the holding of the tiles in proper position.

I claim—

1. A floor-covering consisting of a series of flat tiles with edges at right angles with the floor-surface and provided with interlocking marginal projections and recesses to prevent them from separating one from another in response to lateral strain and supplementary projections from the under side of some of said tiles and a floor to receive the extended lower surfaces of such tiles, said floor provided with recesses to receive such supplementary projections, the parts related so that the pressure exerted by the expansion of the tiles which are not provided with the supplementary projections is exerted in a plane parallel with the surface of the floor-covering.

2. The combination of a floor having a series of recesses therein with a series of flat tiles which rest upon such floor some of them having projections to be received into such recesses, said flat tiles provided with edge faces at right angles to the floor-surface and provided with interlocking marginal projections and recesses to prevent them from separating one from another in response to lateral strain, the parts arranged so that the lateral strain due to the expansion of the tiles which have no supplementary projections is exerted in a line parallel with the surface of the floor-covering and the under surface of the tiles about their edges resting firmly upon the floor-body, the supplementary projections being dovetailed and filling material in the space within the recesses about the dovetailed projections.

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