No. 725,364. PATENTED APR. 14, 1903.

C. H. PULS.

FLOORING OR PAVING TILE.

APPLICATION FILED SEPT. 5, 1902.

NO MODEL.

Fig. 1

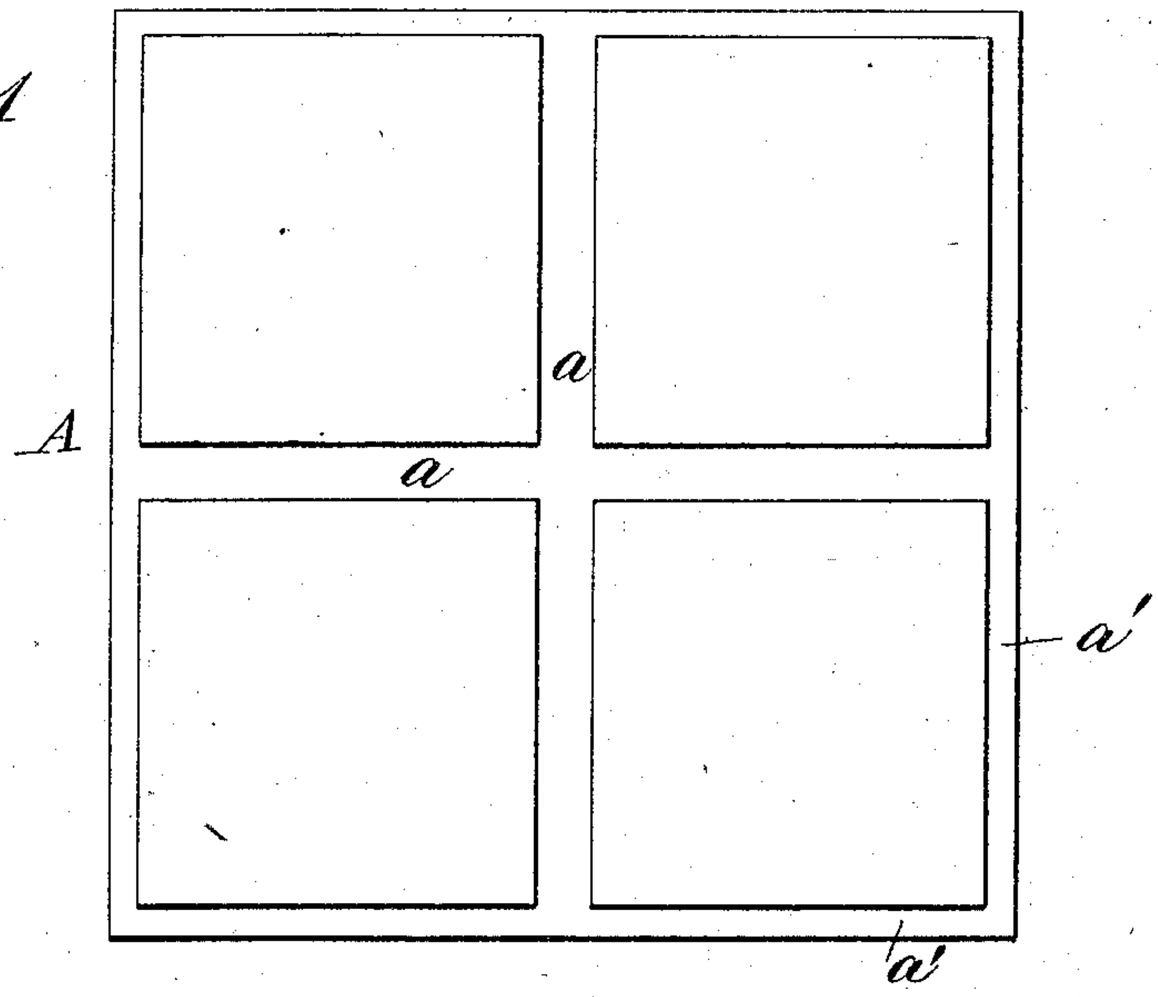


Fig. 2

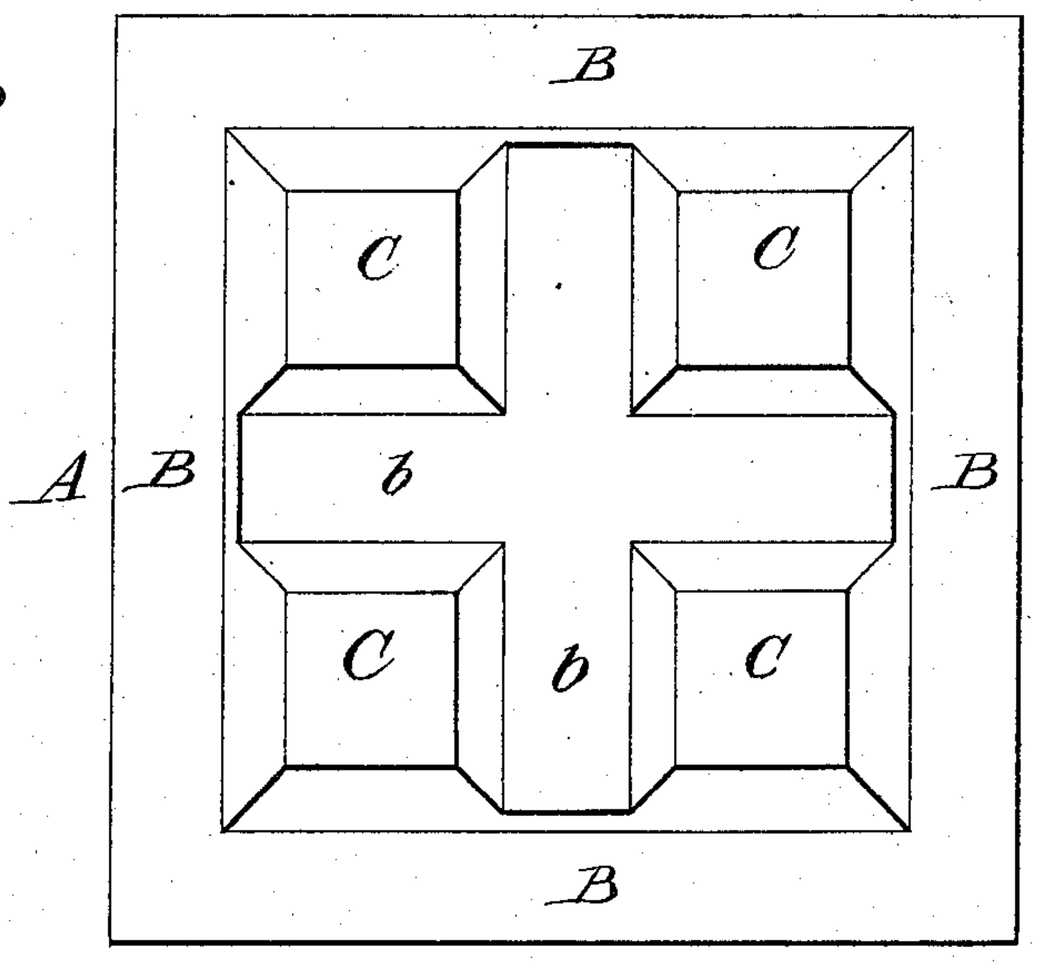
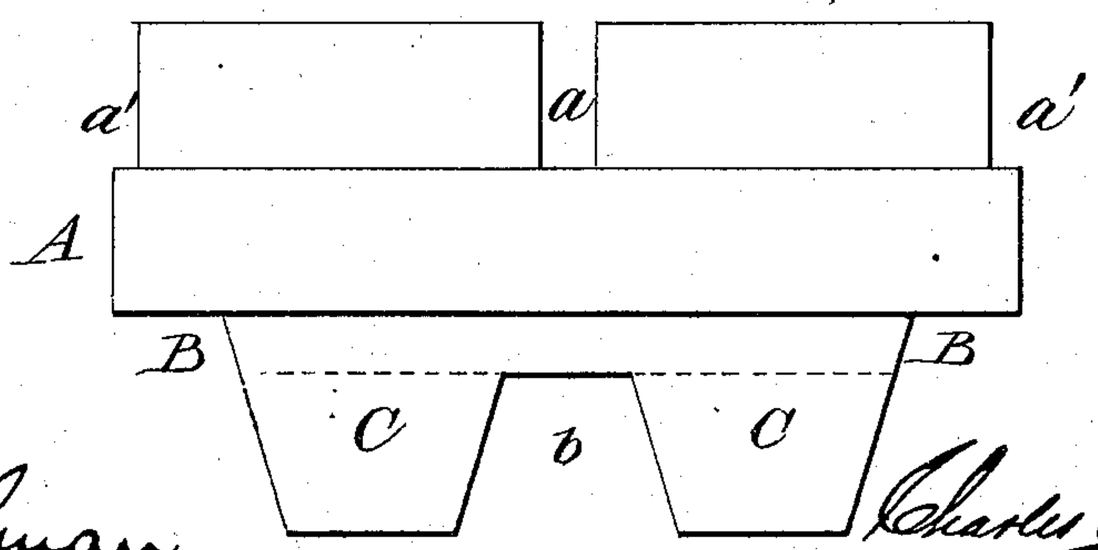


Fig. 3



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UNITED STATES PATENT OFFICE.

CHARLES H. PULS, OF HOBOKEN, NEW JERSEY.

FLOORING OR PAVING TILE.

SPECIFICATION forming part of Letters Patent No. 725,364, dated April 14, 1903.

Application filed September 5, 1902. Serial No. 122,200. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. PULS, a citizen of the United States, residing at Hoboken, in the county of Hudson and State of New Jersey, have invented a certain new and useful Improvement in Flooring or Paving Tiles, of which the following is a description.

This invention relates to that character of tiling in which a multiplicity of unitary structures are employed, arranged, preferably, in predetermined and definite relation to each other and permanently fixed in that relation by embedding either in cement, mortar, concrete, or similar material.

The object of the invention is to provide one of these unitary structures which may be cheaply and expeditiously made, which in connection with other similar tiles shall be capable of such use as to produce pleasing effects and designs, which shall be durable in operation, and which may be permanently secured in position as against the tendency of use to loosen the same, permitting it to be separated from its foundation or altering its relation to other adjacent blocks or tiles.

A further and important object of the invention is to provide a tile the under side whereof shall be so constructed as that by simple pressure the same may be readily and expeditiously forced into place in its foundation of cement or other material and permanently held therein as against not only the tendency to loosen as a whole, but also as against the tendency to be turned upon itself and to thereby alter its relation to adjacent tiles.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a top plan view of my improved flooring or paving tile. Fig. 2 is an inverted view of the same, and Fig. 3 is an edge view illustrating any one of the four sides of the tile, as shown in Figs. 1 and 2.

Referring to the drawings, in which similar letters denote corresponding parts, it will be observed that I have here illustrated and shall therefore herein describe a tile the various parts whereof are formed integral. This is desirable, since it permits the block to be readily formed by a single operation from approved materials—such as asphaltum, clay, artificial stone, &c. It is, however, not strictly essential, as where the increased cost of manufacture is not of importance the tile may be formed in two or more parts, one, preferably consisting of the lower portion, containing the spurs or projections hereinafter described, designed to coact with the foundation-bed of cement or other plastic foundation material.

The block comprises a preferably rectangular body A, the upper surface whereof is subdivided by channels *a*, arranged at right angles to each other and forming thereby four separated rectangular surfaces raised apparently above the main portion of the block. These channels are of such dimensions as that after the entire series of blocks have been placed in position they may be filled with cement or other suitable material, preferably plastic when applied but hardening afterward, so as not only to contribute to the strength of the wearing-surface of the tiling, but also to conduce to the artistic effect thereof. It will of course be understood that, if desired, I may give the tile a form other than rectangular, and that the channels *a* may be arranged so as to produce other and different effects from that above referred to.

The under side of the block is provided with a series of spurs or projections, here shown as four in number and each projection separated from the others. This construction is clearly illustrated in Fig. 3, from which it will be seen that the under surface of the tile on all four edges thereof is cut away at B on oblique lines, leaving the smallest dimension of the block at the extreme lower edge thereof. The under surface is further divided by deep recesses *b*, extending across such under surface at right angles to each other, thereby forming (in this case) four subjacent but preferably integral spurs or projections C, the sides whereof slope outwardly and upwardly until they meet the main body of the tile. Preferably to give maximum strength to the tile the recesses *b* will be of less depth than the cut-away portions B, as clearly illustrated in Fig. 3.

In laying tiling it is customary to first provide the foundation of asphaltum, cement, or other foundation material in a plastic or semiplastic condition. In putting the tile of this invention in place in such foundation it

is only necessary to press said tile into the same in such manner that the projections C shall sink to the proper depth therein, preferably to a line adjacent to the upper part of the cut-away portions B of the tile. This can be readily and easily effected by reason of the beveled form of the projections C, and in addition permanency of the relation between the tile and its plastic or semiplastic foundation is assured because of the relatively large surface area of the under side of the block which is engaged by such foundation material. After an entire series of tiles such as are herein described have been laid the surface-channels *a* thereof may be filled with cement or other suitable material and the top of the tiling polished or dressed in the usual manner to produce a smooth and handsome surface.

It will be obvious that I may, if desired, recess the edges *a'* of the upper portion of the block to an extent approximately equal to one-half the width of the channels *a* in order that when laying the tiles in position one tile may be caused to abut against another at that portion of its edge below such recessed portion *a'*, leaving, however, a channel between each two adjacent tiles corresponding in size to the channels in the surface of each tile.

I attach importance to the construction and arrangement of the spurs or projections upon the under side of the tile, as hereinabove referred to, by reason whereof the tile may be readily placed in position and when so placed will coact permanently with the foundation material in which the tiling is laid.

What I claim is—

A tile having an upper or wearing surface provided with channels and a lower portion recessed around its external edges, the under surface of such lower portion being divided by beveled recesses crossing each other substantially at right angles, forming such under surface thereby into a series of separated projections having beveled sides and substantially square ends, such ends being of smaller dimensions than the bases of said projections, substantially as set forth.

This specification signed and witnessed this 26th day of August, 1902.

CHARLES H. PULS.

Witnesses:
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