

No. 850,274.

PATENTED APR. 16, 1907.

G. B. STAPLES.

TILE.

APPLICATION FILED MAY 16, 1905.

Fig. 1.

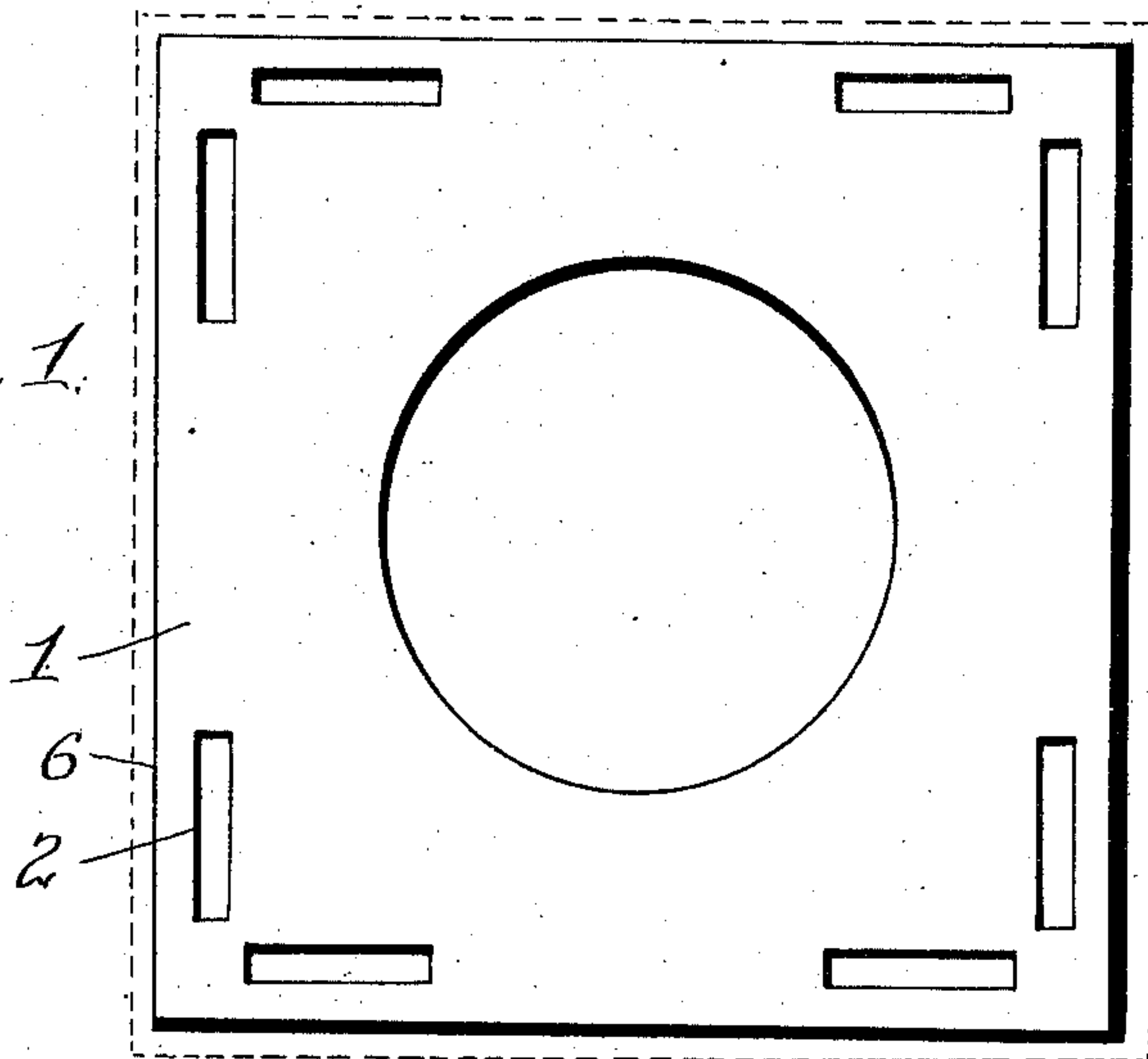


Fig. 2.

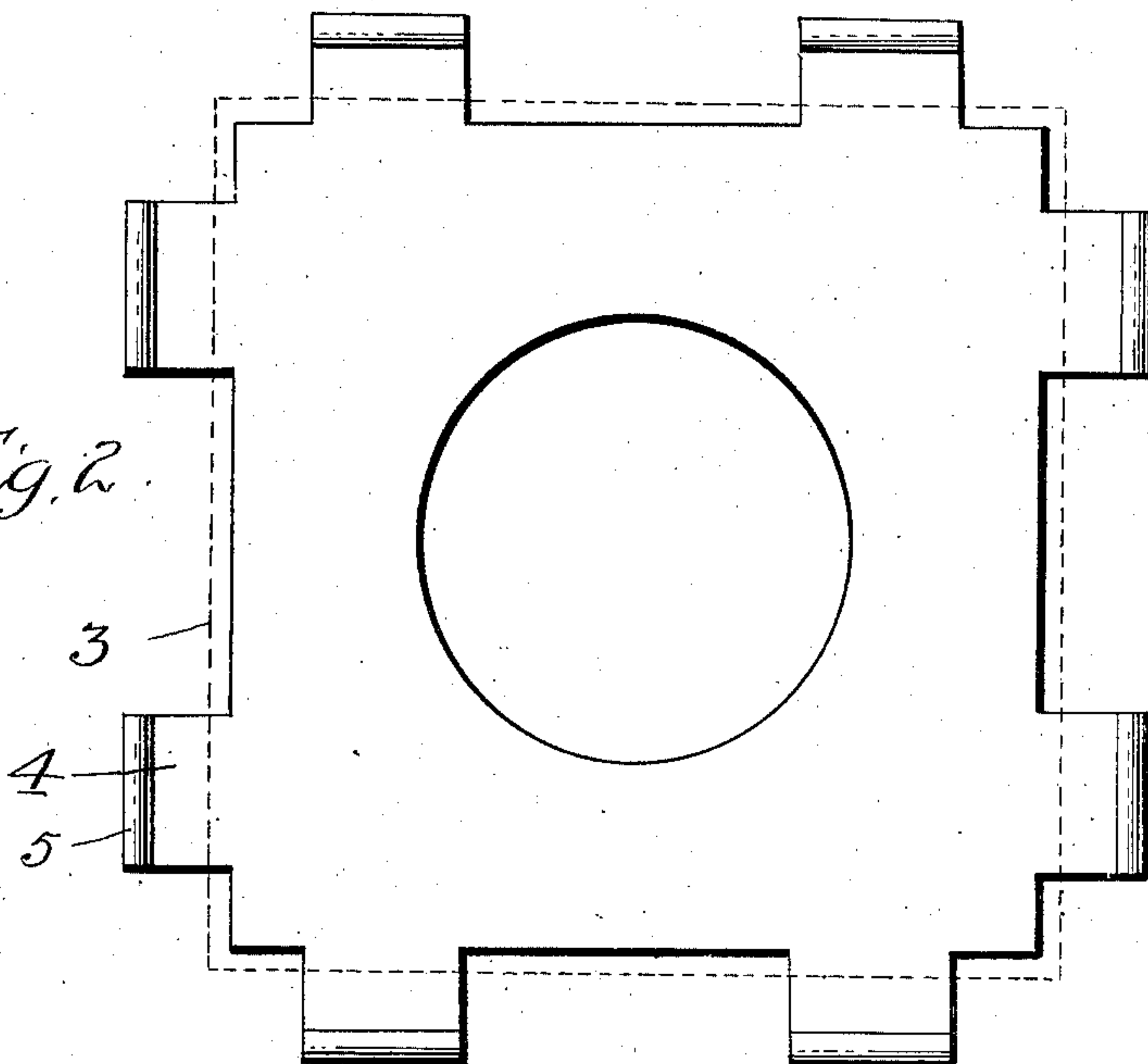
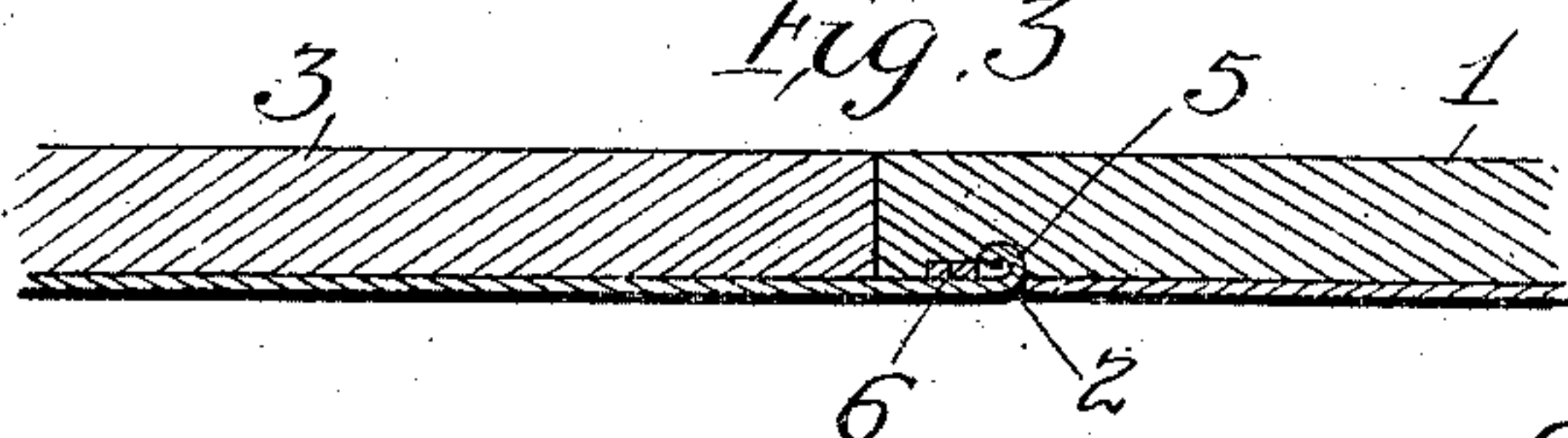


Fig. 3.



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Fig. 4.



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UNITED STATES PATENT OFFICE.

GEORGE B. STAPLES, OF PHILADELPHIA, PENNSYLVANIA.

TILE.

No. 850,274.

Specification of Letters Patent.

Patented April 16, 1907.

Application filed May 16, 1905. Serial No. 260,663.

To all whom it may concern:

Be it known that I, GEORGE B. STAPLES, a citizen of the United States, residing at No. 229 Market street, Philadelphia, Pennsylvania, have invented certain new and useful Improvements in Tiles, of which the following is a specification.

The invention consists in the features and combination and arrangement of the parts hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view of one of the tiles having the interlocking projections thereon. Fig. 2 is a bottom plan view of the tile adapted to interlock with that shown in Fig. 1, and Fig. 3 is a sectional view of the tiles of Figs. 1 and 2 interlocked. Fig. 4 is a view similar to Fig. 3, showing a different means from that shown in Fig. 3 for holding the tiles together.

In carrying out my invention I provide two sets of tiles, one set having only the interlocking recesses therein, while the other set has only the interlocking projections.

In the drawings, 1 indicates the tile having the recesses shown at 2, and it will be noticed that this tile is not provided with any of the interlocking projections, while the tile shown at 3 is provided with the projections illustrated at 4. Each tile is made up of a base or foundation plate, preferably of sheet-metal, and a facing of rubber or other suitable composition material of a resilient nature. The tile having the recesses has the composition material extending clear to the edge of the foundation-plate, so that said composition material overhangs the indents or recesses and nothing appears upon the upper or wearing face of the tile except the rubber facing. With the companion tile having the projections the rubber facing extends to the edge, as shown; but the metal projections extend beyond the edges of the rubber composition, so as to fit below the adjacent tile in order to enable the upwardly-projecting tongues 5 of the said projections to enter the recesses. From this it will be seen that the interlocking connection between the tiles is entirely concealed from view, and at any time the tile having the recesses may be lifted from connection with the tile having the projections, so that the flooring may be readily repaired at any point away from the edge of the flooring without disturbing the edge tiles.

The indents of the tile 1 are bounded at the

edge of the foundation-plate by a bridge-piece 6, slightly raised above the plane of the foundation-plate, so as to permit the tongue to pass thereunder. This provides a recess bounded by a continuous edge, and in order to secure and hold the tiles together I form the tongue on the adjacent tile so as to snap into and be securely held in the said recess and form an automatic lock. For this purpose the tongue of the projection is formed by rolling the metal inwardly and downwardly at the upper edge, so as to provide a rounded lip, which when sprung into the recess will be securely held therein during all the ordinary wear to which the tile is subjected, but when proper force is applied will permit the recessed tile to be lifted or pried up from the adjacent tiles.

I do not wish to limit myself to any particular shape of tiles.

In Fig. 4 I show another form of my invention in which instead of connecting the recessed tiles together by another tile I provide special interlocking clips, as indicated at 7. These are narrow strips of metal of a width equal to the length of the recess 2 and of a length sufficient to reach from the recess 2 of one tile to the recess of another tile arranged with its edge against the first. These uniting clips or keys have upwardly-turned portions rolled over or otherwise formed like those above described and adapted to snap into the recesses. The recessed tiles thus fit one against the other, and the whole floor may thus be made up of these recessed tiles held together by the interlocking clips. When it is desired to repair the floor, any one of the recessed tiles can be removed by drawing it vertically, so as to disengage the clips from the recesses of that tile. On the other hand, in placing a tile or building a floor it is simply necessary to press the tiles downwardly, so that the projections of the clips will engage the recesses.

It will be observed that in both forms of the invention the same principle is present in that in both cases the tiles having recesses are held by a member extending under the edges of the tiles to be connected and having means sprung into the recesses of said tiles. This connecting member in the first form of the invention consists of the tile having the tongues thereon, whereas in the second form the connecting member consists simply of the clips.

I do not claim herein specifically the independent clips, as such specific claims are included in an application, Serial No. 289,517, filed by me November 28, 1905.

5 I claim as my invention—

1. In combination, a pair of tiles, one having recesses and the other having resilient projections to engage the recesses and resist the upward movement of the recessed tile, 10 said projections and recesses being concealed beneath the tiles and the recessed tile being capable of withdrawal upwardly from said projections, substantially as described.

2. In combination, a pair of tiles, one having recesses and the other having interlocking 15 tongues provided with spring lips or projections to engage the said recesses and resist the upward movement of the recessed tile, said recesses being formed back from the 20 edge of the tile and said projections and recesses being concealed beneath the tiles and the recessed tiles being capable of withdrawal upwardly from said projections, substantially as described.

3. In combination, a pair of tiles, one having a recess or recesses on its under side and the other having a tongue with a turned-over 25 projection providing resiliency to engage the said recess, substantially as described.

4. In combination, a pair of tiles, each comprising a foundation-plate of sheet metal with facing material applied thereto, one of 30 said foundation-plates having recesses therein and the other having projections adapted to snap and hold in the said recesses, substantially as described.

5. In combination, the two tiles, each formed of sheet-metal foundation with a facing material applied thereto, one of said foundations 40 having a recess or recesses therein and the other having an interlocking projection with a tongue rolled or bent over and adapted to pass up through the recess and to

be held therein by its resilience, substantially as described. 45

6. In combination a pair of tiles having metal foundations and composition facings with recesses in the foundations concealed 50 beneath the tile, and resilient means for securing the tiles together sprung into recesses in the foundations and adapted to resist upward displacement until sufficient force is applied to the tile when it may be removed independently of the adjacent tiles, substantially as described. 55

7. A tile consisting of a foundation-plate and a facing material, said foundation-plate having an opening extending therethrough 60 near its edge to receive a tongue, substantially as described.

8. A tile consisting of a foundation-plate and a facing material, said foundation-plate having an opening therein to receive a tongue and the facing material having a recess forming an extension of the said opening in the 65 foundation-plate, substantially as described.

9. A tile consisting of a foundation-plate indented at its side and facing material applied to the face of the tile and overhanging 70 the indented side of the foundation-plate, said overhanging portion being recessed on its under side, substantially as described.

10. A tile consisting of a plate indented at its side, said indented portion comprising an opening extending up through the plate, and 75 a marginal bridge portion elevated in respect to the lower face of the plate, and means extending under said bridge portion and up into said opening to secure adjacent tiles together, substantially as described. 80

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE B. STAPLES.

Witnesses:

J. WALTER DOUGLASS,
WILHELM VOGT.