No. 652,995. Patented July 3, 1900.

S. H. CALKINS.

TILE.

(Application filed Mar. 28, 1900.)

(No Model.)

Fig. 1.

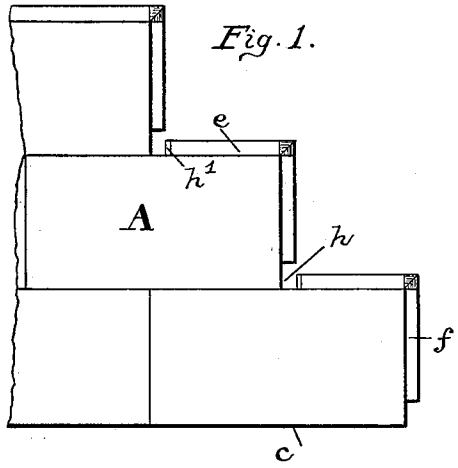


Fig. 2.

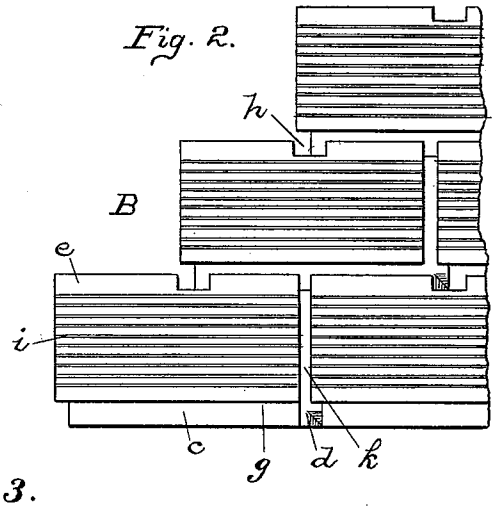


Fig. 3.

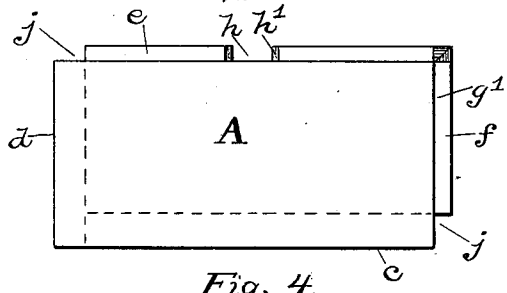


Fig. 4.



Fig. 5.

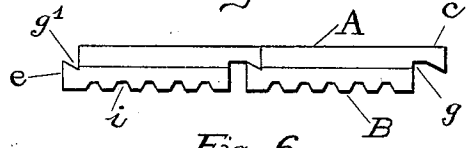
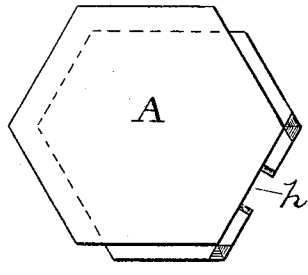


Fig. 6.



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SEWARD HOMER CALKINS, OF BALTIMORE, MARYLAND.

TILE.

SPECIFICATION forming part of Letters Patent No. 652,995, dated July 3, 1900.

Application filed March 28, 1900. Serial No. 10,451. (No model.)

To all whom it may concern:

Be it known that I, SEWARD HOMER CALKINS, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Tiles, of which the following is a specification.

This invention relates to an improved tile for floors, walls, and roofs.

One object of the invention is to produce a tile having improved flanges whereby when the tiles are in place the flanges of each tile will overlap or underlap with those surrounding it, so that every tile will help to retain in place the surrounding tiles.

Another object of the invention is to construct the under projecting flanges of the tile with beveled notches or cut-outs, whereby the material in which the tile is set may work into the notch in full view of the person setting it before he hides the notch by placing another tile.

With these objects in view an illustration of the invention is shown in the accompanying drawings, wherein—

Figure 1 is an outer or exposed surface view of several tiles as they appear when being placed in position. Fig. 2 is a back view showing the concealed surface of several tiles. Fig. 3 is a front view of one tile on a larger scale. Fig. 4 is an edge view of two tiles jointed end to end. Fig. 5 is an edge view of two tiles jointed side to side. Fig. 6 is a view of a hexagon-shaped tile made according to this invention.

Where the tile is rectangular, the exposed surface A forms on one long side an overlapping flange *c* and on one end an overlapping flange *d*. The concealed or back surface B forms on the other long side an underlapping flange *e* and on the opposite end an underlapping flange *f*. The tile thus has four flanges—two, *c d*, which are on a plane with the outer surface A, and two, *e f*, which are on a plane with the concealed surface B. These latter or underlapping flanges *e f* are narrower than the former or overlapping flanges *c d*. Viewing the tile-block from the exposed surface, as in Fig. 3, two rectangular notches *j* appear, each being at a diagonally-opposite corner of the block. All the flanges are made dovetail-shaped—that is, the outer rim edge of each flange is thicker than the part immediately adjoining the body of the block. This dovetail shape is produced by forming a V-groove *g* on the under surface of the overlapping flanges *c d* and a like V-groove *g'* on the upper surface of the underlapping flanges *e f*. The two sets of flanges are thus formed with reverse dovetails, which serve as interlocking hooks. About midway of its ends the long underlapping flange *e* has a notch or cut-out portion *h*, whose ends are beveled, as at *h'*. Thus this notch in the flange is broader at the upper surface than at the concealed or back surface. The concealed or back surface has numerous grooves *i* to facilitate contact and adherence with the plastic cement in which the tiles are set.

Figs. 1, 2, and 4 illustrate the manner of setting the tiles. It will be seen that the edges of the exposed surface A of one block abut closely against and in contact with the edges of the exposed surface of the adjoining blocks. Also that the broader overlapping flanges *c d* rest upon and interlock with the narrower underlapping flanges *e f*, thereby forming concealed channels *k*, extending entirely around each block.

It is only necessary now to describe the operation or manner of setting the tile-blocks and explain how the plastic cement acts with respect to the features of construction that have been described.

The floor, wall, or other surface whereon the tiles are to be set must first be coated with the cement in proper condition. The back surface B of a tile is then pressed into the cement and some cement will come into the beveled notch or cut-out portion *h* and form a key, which when hard will serve to retain the tile to its position. A second tile may then be set, say end to end with the one first named. In this case the wider dovetail flange *d* of the second tile will lap over onto the narrow dovetailed under flange *f* of the first tile, and the rectangular notch *j*, that was exposed at one corner of the first tile, will thereby be concealed. A third tile may then be set, say at the long side of the first and second tiles and so as to "break joints." In this case the wider overlapping flange *c* of the third tile will lap over onto the alined narrow under flanges *e*, the lower corner

notch *j* of the third tile will have position coincident with the middle beveled notch *h* of the second tile, as seen in Fig. 1, and these notches will be concealed by adding another tile.

As already stated, the effect of the broader flanges overlapping the narrower flanges is to form channels *k* at the back around each tile, and the cement is forced into said channels, and each tile is thus securely surrounded by cement.

Fig. 6 shows a modified shape of tile, a hexagon, with interlocking lap-joints.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A tile-block having an exposed surface and a concealed surface—the concealed surface having at certain sides a flange which projects beyond the exposed surface said flange having an inclined top surface forming a V-groove, and the exposed surface provided at sides opposite from those of the concealed surface with an overlapping flange which on its under side has a V-point or dovetail that takes in said V-groove.

2. A tile-block having an exposed surface and a concealed surface the exposed surface having at certain sides a flange which projects beyond the concealed surface, and the concealed surface having at other sides a flange which is narrower than the flange on the exposed surface and said narrower flange provided with a beveled notch.

3. A tile-block having an exposed surface, A, and a concealed surface, B, and provided with two overlapping flanges, *c*, *d*, at right-angled sides and on the same plane as the exposed surface, and two underlapping flanges, *e*, *f*, at opposite right-angled sides on the same plane as the concealed surface—and all the flanges being dovetail-shaped by the formation of a V-groove, *g*, on the under surface of the overlapping flanges, a like V-groove, *g'*, on the upper surface of the underlapping flanges.

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

SEWARD HOMER CALKINS.

Witnesses:

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