No. 621,100. Patented Mar. 14, 1899.

W. W. KNOWLES.

TILE FOR PARTITIONS.

(Application filed Dec. 1, 1898.)

(No Model.)

Fig. 4.

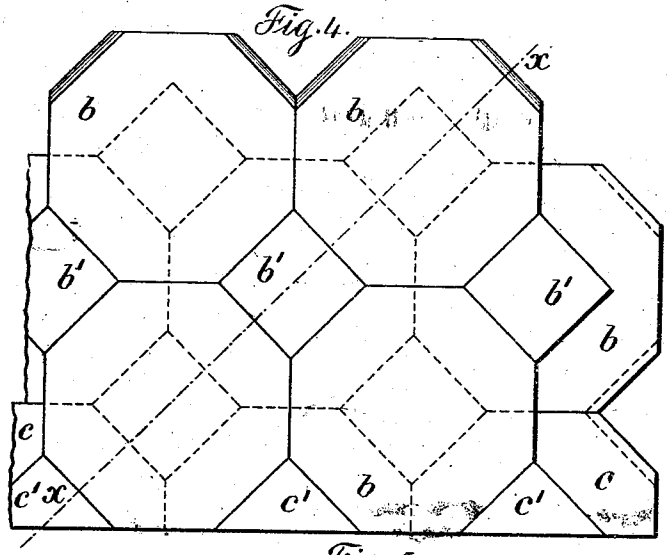


Fig. 6.

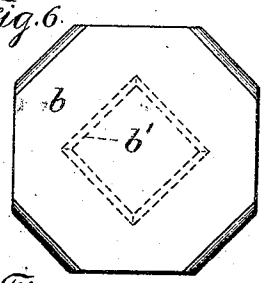


Fig. 7.

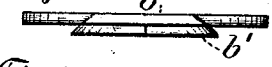


Fig. 8.

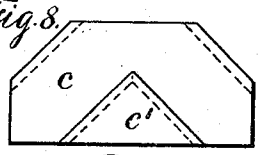


Fig. 5.

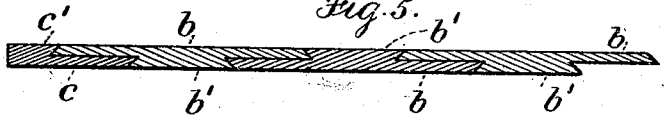


Fig. 9.

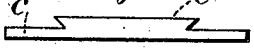


Fig. 1.

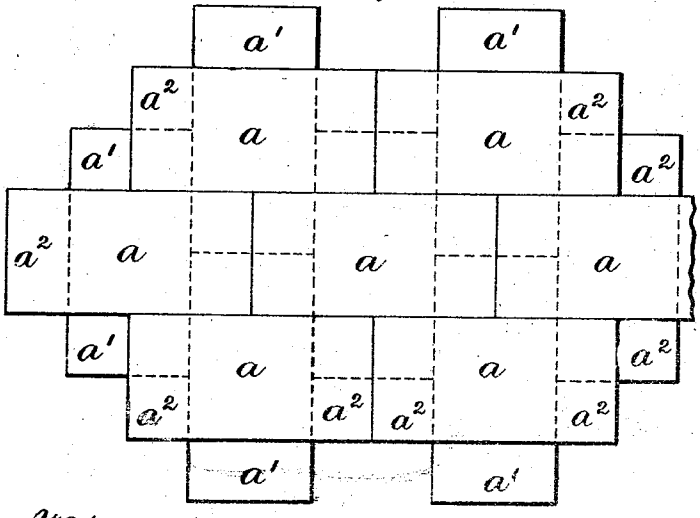


Fig. 2.

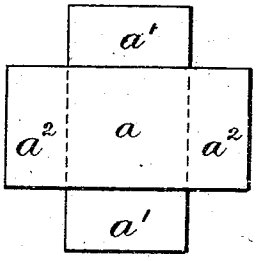
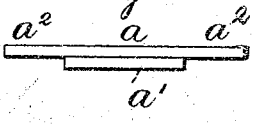


Fig. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM W. KNOWLES, OF NEW YORK, N. Y.

TILE FOR PARTITIONS.

SPECIFICATION forming part of Letters Patent No. 621,100, dated March 14, 1899.

Application filed December 1, 1898. Serial No. 697,971. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM W. KNOWLES, a citizen of the United States, residing at New York, in the county and State of New York, have invented a new and useful Improvement in Tiles and Blocks for Partitions, &c., in Buildings, of which the following is a specification.

In partitions that have heretofore been constructed difficulty has been experienced in employing locking-slabs, because such slabs, all interlocking in one direction, have permitted the wall or partition to bulge or buckle at one side, the other side assuming a concave condition. My improvement prevents this, because the blocks have to be reversed in position as they are laid up.

My invention relates to blocks or slabs adapted for use in buildings for forming partitions, for surfacing walls, and for floors. The material employed may be of any desired and suitable character and of any degree of hardness, that used for walls and floors in the form of tiles being of any desired color and plain or ornamented and being necessarily harder than that used for partitions.

In the present improvement the layers or slabs interlock in opposite directions—that is to say, each block or tile has a flange or slab projection coming behind a slab or projecting flange of the adjacent block and one cannot separate from the other, and hence the blocks are interlocked equally in one direction as much as in another and form a strong flat layer independent of any cementatious materials.

When the blocks are set up edgewise, as in partitions and wall-surfacing, the horizontal edges are flat and at right angles to the faces and come squarely together to carry the weight of the superposed blocks, and it is preferable to make other edges beveled, so as to assist in bringing the respective blocks into intimate contact and cause them to firmly interlock as laid together.

It is preferable to secure the blocks together by cement between their meeting surfaces and edges, and to roughen such surfaces so that the cementing material may get a better hold.

In the drawings, Figure 1 is a plan of a group of blocks of simple construction. Fig. 2 is a plan of one of the blocks shown in Fig. 1. Fig. 3 is an edge view of the same. Fig. 4 is a plan of a group of blocks of preferred form. Fig. 5 is a section at $x\ x$ of Fig. 4. Fig. 6 is a plan of one of the blocks shown in Fig. 4, and Fig. 7 is an edge view of the same. Fig. 8 is a plan of a half-block, and Fig. 9 is an edge view of the same.

In the groups of slabs shown in Figs. 1 and 4 the slabs $a\ b$ interlock in opposite directions—that is to say, each block or tile has a flange or slab projection coming behind a slab or projecting flange of the adjacent blocks in the groups. The blocks a are made with the projections a' from one surface and with the projections a^2 from the reverse surface, the projections each being about half the thickness of the center of the block. When these blocks are laid up or grouped, the projections a' of one block pass behind the projections a^2 of the adjacent blocks, the blocks interlocking in opposite directions. The opposing surfaces and edges are preferably thinly surfaced with adhering material, such as cement, and when the group is set up edgewise, as in a partition, the horizontal edges come squarely together and carry the weight of the superposed blocks.

The blocks b are octagonal, with a square center b'. The center is of full thickness, while the octagonal part becomes a surrounding flange of about half the thickness. In laying these blocks up into the form shown in Fig. 4 they are placed in opposite directions or reversed—that is, the part b of half of the blocks is shown upon one side and the part b of half of the blocks is on the other side. Likewise the part b' of half of the blocks is on one side, fitting the octagonal edges of the adjacent blocks, and the part b' of the adjacent blocks is on the other side, so that the meeting edges of all the blocks conform and fit closely to one another, the surfaces b overlapping and being united by cement or other adhesive material to one another, and the edges come one to another and to the edges of the square central portion b'. I prefer to make half of the edges of the portion b straight and half beveled, and I prefer to undercut or inwardly bevel the edges of the portions b', so that the beveled edges of b, when the blocks are brought together, will

fit the undercut edges of b' and produce a binding action in setting up the blocks that will compel the overlapping surfaces to come closely together, and will also assist in effecting a firm union of the parts. These blocks may be made in any desired manner or process and of any desired material, and may have the meeting surfaces of the overlapping portions scratched or roughened so that the cement may have a better hold in uniting the blocks. The blocks for forming partitions can be made of the material usually employed for such blocks.

The tile-blocks can be made of vitrifying material in suitable colors, and either plain or ornamented and glazed in whole or in part and of suitable sizes for surfacing a wall or floor.

The half-blocks shown in Figs. 8 and 9 are employed at and to complete the top and bottom or respective edges of the group of blocks, Fig. 4. The triangular portion c' is of full thickness, and the half-octagon c is a flange of about half-thickness, the parts fitting and interlocking with the blocks b.

I claim as my invention—

1. The herein-described slab or block having flanges in one plane extending in opposite directions at one side of central body portion, whereby slabs or blocks have to be laid together in reverse positions, with the flange portions of one block lapping behind the flange portions of the adjacent blocks and coming up against the edges of the body portions of such adjacent blocks and in opposite directions, substantially as set forth.

2. A block for partitions, tiles, &c., comprising a body portion, a flange extension or projection to the body portion upon one side and of about half the thickness of the body portion, the body portion having square outlines or edges and the flange extension being eight-sided and overlapping and interlocking the similar portions of adjacent blocks when the blocks are laid together, substantially as set forth.

3. A block for partitions, tiles, &c., comprising a body portion, a flange extension or projection to the body portion upon one side and of about half the thickness of the body portion, the body portion having square outlines or edges, and the flange extension being eight-sided and overlapping and interlocking the similar portions of adjacent blocks when the blocks are laid together, the horizontal edges of the flange extension being at right angles to the surface to carry the weight, the other edges being beveled, and the edges of the square central portion being undercut and interlocking with the beveled edges of the flange extension, substantially in the manner and for the purposes set forth.

Signed by me this 28th day of November, A. D. 1898.

WILLIAM W. KNOWLES.

Witnesses:

GEO. T. PINCKNEY,

E. E. POHLÉ.