(No Model.)

G. S. ANGUS.

TILE PARTITION OR WALL.

No. 558,755. Patented Apr. 21, 1896.

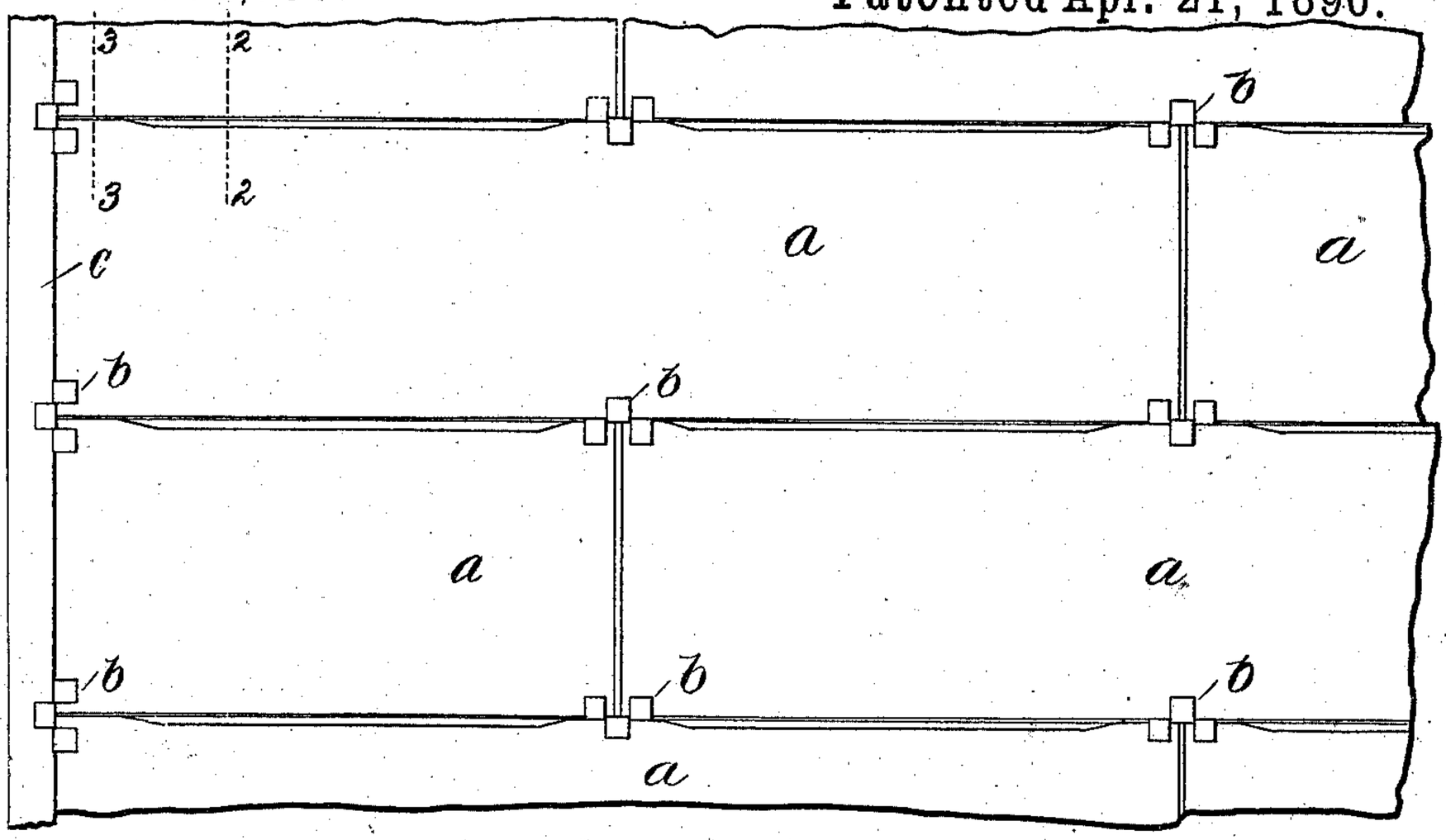

Fig. 1

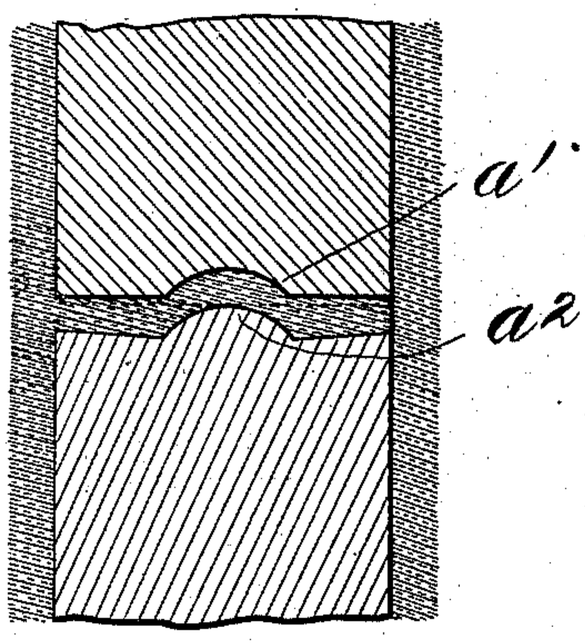

Fig. 2.

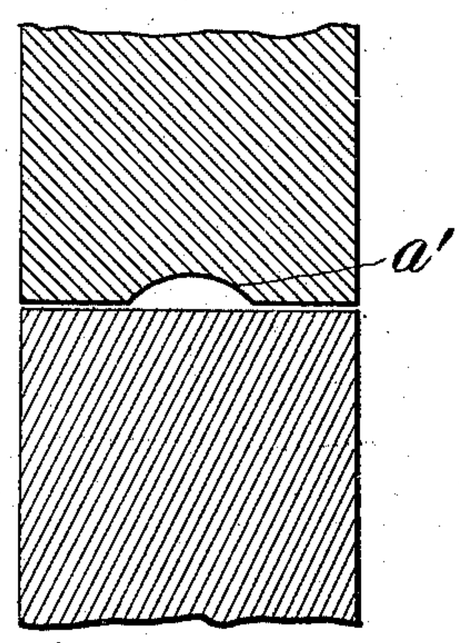

Fig. 3.

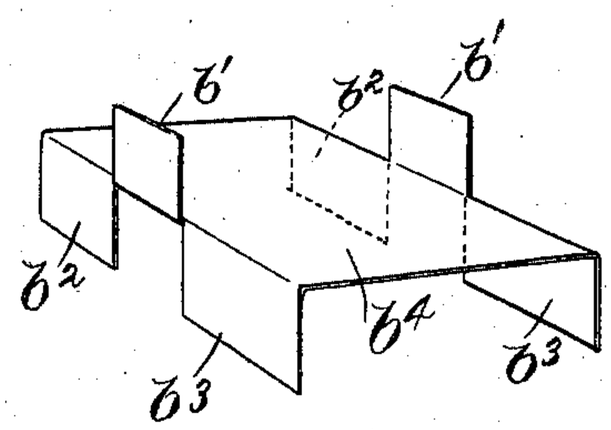

Fig. 4

Witnesses:
De Witt C. Tarbell.
W. Clyde Jones.

Inventor:
George S. Angus
By Burton Brown,
Attorneys.

UNITED STATES PATENT OFFICE.

GEORGE S. ANGUS, OF CHICAGO, ILLINOIS.

TILE PARTITION OR WALL.

SPECIFICATION forming part of Letters Patent No. 558,755, dated April 21, 1896.

Application filed August 20, 1895. Serial No. 559,926. (No model.)

To all whom it may concern:

Be it known that I, GEORGE S. ANGUS, 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 Tile Partitions or Walls, (Case No. 1,) of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to a plaster-board or tile partition or wall, my object being to provide a wall or partition that may be readily and cheaply constructed without the employment of skilled labor, that will be free from the objectionable results of settling in walls as heretofore constructed, and, furthermore, to provide a construction whereby the wall may be more accurately alined than has been possible heretofore.

It has been the practice in forming walls or partitions from tiles of that class designated as "plaster-boards" to provide a layer of mortar between each row or course of tiles, one row or course being first laid, after which mortar is spread upon the upper edges of the tiles comprising the first course and a second row of tiles is laid upon the first. By this construction, in which a layer of mortar is interposed between the tiles, objectionable results follow the settling of the wall as the mortar dries. The settling of the wall is particularly objectionable where the wall is employed as a partition and is provided upon the surface with a coat of plaster, as in this case the settling of the wall cracks the plaster.

In accordance with my invention, the wall is built from tiles which are laid together without the interposition of mortar joints, metallic clips being provided which hold the tiles together and lend rigidity to the structure. The tiles are laid so that they break joint, and I employ a clip adapted to grasp the ends of two adjacent tiles of one row and to grasp the middle of an intermediate portion of a tile of an adjacent row, a single clip thus serving to secure three tiles together. The edges of the tiles are cut away at points intermediate between the location of the clips, a space being thus left between the edges of the tiles which will be filled with mortar when the plaster coating is placed upon the surface of the wall. A key is thus formed between the tiles, which prevents their lateral displacement, and, furthermore, an anchor is formed to prevent the peeling off of the plaster coating. The clips may also be employed for securing the ends of the tile to the jambs of the doors and windows against which the partition may abut. By thus constructing the wall or partition from tiles or plaster-boards laid edge to edge without the interposition of mortar joints immunity from settling is obtained, and by the employment of the clips the tiles are rigidly locked together to form a wall of truer alinement than can be obtained when mortar joints are employed, while the provision of the spaces between the edges of the tiles permits the employment of a thin layer of mortar as a key, the mortar, however, not being required to support any portion of the weight of the wall, the mortar key also serving to prevent the peeling off of the plaster.

I have illustrated my invention in connection with a vertical wall or partition; but it is equally applicable to a partition occupying a horizontal position—as, for instance, in the construction of a ceiling.

I will describe my invention by reference to the accompanying drawings, in which—

Figure 1 is a view in elevation of a portion of a wall or partition embodying my invention. Fig. 2 is a sectional view thereof on line 2 2 of Fig. 1. Fig. 3 is a sectional view on line 3 3, Fig. 1. Fig. 4 is a detailed view of the form of clip which I preferably employ.

Like letters refer to like parts in the several figures.

The tiles *a a* are laid together in rows and held in position by means of the clips *b*, which are preferably made from sheet metal, the edges of the sheet metal being cut and the middle portions bent in one direction, as illustrated in Fig. 4, to form leaves *b' b'*, extending at right angles to the body of the clip, while the end portions of the edges are bent in the opposite direction to form leaves b^2 b^2 and b^3 b^3. The clip is placed between the tiles with the flat or body portion b^4 resting between the edges of the tiles, the intermediate leaves *b' b'* straddling and grasping a tile at the middle or intermediate portion,

while the leaves b^2 b^2 grasp the end of a tile of an adjacent row and the leaves b^3 b^3 grasp the end of another tile. By this arrangement the clip serves to lock the three tiles in position.

In building the wall the tiles of one row are laid in position, after which the clips are placed upon the tiles of the row thus formed and then a second row is formed by inserting the tiles between the upwardly-extending leaves of the clips. The plaster-boards, as usually employed, are made mainly of plaster-of-paris, and are thus soft enough to permit the metallic leaves of the clips to cut into the surfaces of the tiles, so that when in position the leaves of the clips rest practically flush with the surfaces of the tiles.

The tiles are usually constructed about four feet in length and twelve inches high, and vary in thickness in accordance with the desired thickness of the wall from three inches upward, and for tiles of these dimensions I place a clip at the middle and one at each end of each tile, while the upper edge of the tile at portions between the middle and the ends is cut away to leave narrow spaces between the edges of the tiles, say, three-eighths of an inch in width.

When the coating of plaster is placed upon the face of the wall, the mortar will flow into the spaces thus left between the tiles and form a lock to prevent the lateral displacement of the tiles at the points intermediate between the clips. Furthermore, I preferably form along the lower edge of each tile a shallow channel a' and provide upon the upper edge of each tile a ridge a^2, extending along the portion of the edge that is cut away, for the purpose of leaving a space for the entrance of the mortar. As illustrated more clearly in Fig. 2, the upper edge slants from the edge inward toward the ridge a^2, and the opposed edges of the tiles thus fashioned produce a space which, when filled with mortar, forms an effective key to prevent the lateral displacement of the tiles.

I may also employ the clips for securing the ends of the tiles to the jambs c of a door or window against which the wall may abut, the clips being placed so that the leaves b^2 b^2 and b^3 b^3 engage contiguous tiles, while the leaves b' b' engage the jamb. In constructions as heretofore employed it has been the practice to drive a nail or spike through the end of the plaster-board into the jamb; but this tends to throw the wall out of alinement, and I find that a much more desirable structure can be obtained by the employment of clips.

While I have illustrated a clip of a form which I preferably employ, the clip may, if desired, be made with a greater number of leaves, or may be otherwise constructed; but for practical purposes I consider it desirable to construct the clip so that it will be unnecessary to saw into the plaster-boards or otherwise adjust and fit the clips into the plaster-boards through the agency of tools.

When forming a ceiling from plaster-boards or tiles, the tiles may be held together by clips, as above described, the ends of the tiles being secured to the adjacent tiles at intermediate points, so that a ceiling of considerable rigidity and unity is produced. The ceiling as thus formed is supported at intervals by hangers secured to the joists or I-beams, such hangers being well known in the art.

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

1. A wall or partition formed from tiles laid together without the intervention of mortar joints, narrow spaces being formed along portions of the edges of the tiles for the reception of mortar; whereby mortar joints and settling of the wall are avoided while mortar keys and anchors are provided, substantially as described.

2. The combination with tiles laid together, said tiles being cut away on the edge at points intermediate between the middle and the ends thereof, of clips interposed between the tiles and adapted to grasp the middle of one tile and the ends of tiles of an adjacent row; substantially as described.

In witness whereof I hereunto subscribe my name this 16th day of August, A. D. 1895.

GEORGE S. ANGUS.

Witnesses:
JOHN W. SINCLAIR,
W. CLYDE JONES.