Dec. 16, 1924. 1,519,637

C. L. SHANNON, JR

APPARATUS FOR ATTACHING TILE TO A VERTICAL WALL

Filed Nov. 27, 1922

Fig. 1

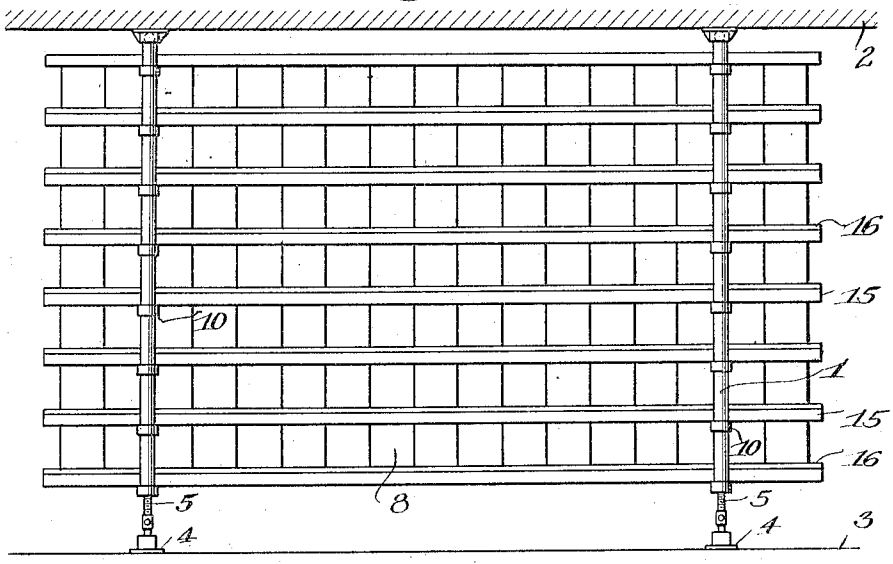


Fig. 2

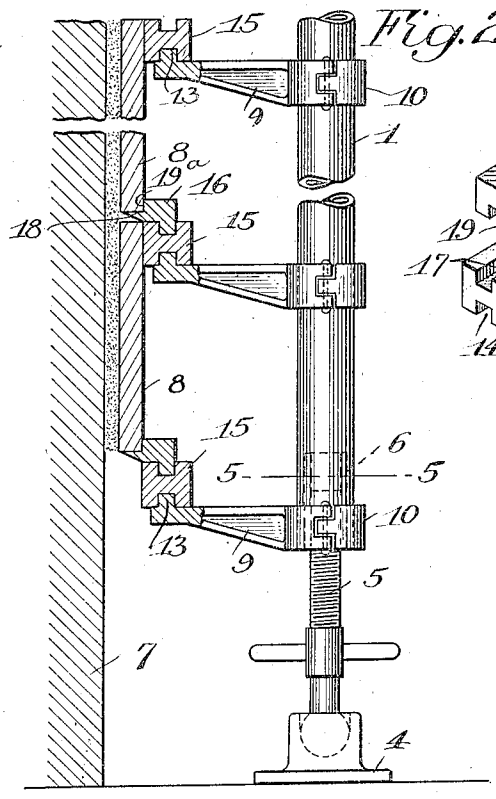


Fig. 3

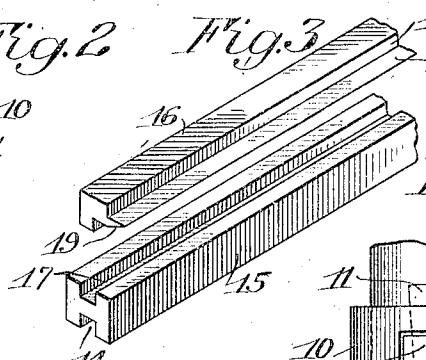


Fig. 4

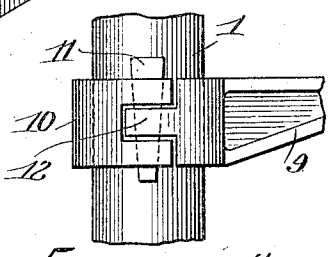
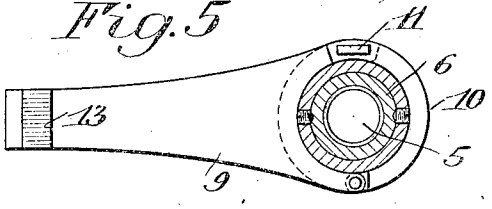


Fig. 5



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UNITED STATES PATENT OFFICE.

CHARLES L. SHANNON, JR., OF CINCINNATI, OHIO.

APPARATUS FOR ATTACHING TILE TO A VERTICAL WALL.

Application filed November 27, 1922. Serial No. 603,574.

To all whom it may concern:

Be it known that I, CHARLES L. SHANNON, Jr., a citizen of the United States of America, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Apparatus for Attaching Tile to a Vertical Wall, of which the following is a specification.

My invention relates to apparatus for attaching tile to a vertical wall, and it has for its principal purpose to provide mechanism whereby a tile wall facing can be attached quickly and economically, and in a manner that insures maintaining accurate alinement of the tile.

A further purpose of the invention is to provide apparatus which enables first positioning tile in spaced relation to a wall, and thereafter inserting or pouring cement between the tile and wall, while at the same time holding the tile in fixed relationship until the cement is hardened.

An additional object of the improvement is to provide mechanism which makes it possible for a tile facing to be set in position and attached to a wall by unskilled labor, and which entirely eliminates the necessity of depending upon the skill of a workman for properly positioning the tile, or maintaining a smooth and level exterior surface.

Another object of the invention is to afford apparatus of a knock-down character, which can be used repeatedly, and which can be quickly set in proper relationship to a wall for holding tile vertically in spaced relationship thereto and permitting cement to be inserted or poured between the wall and tile.

The invention also comprehends certain other improved features and advantages, all of which will appear clearly from the following description in conjunction with the accompanying drawing, the novel characteristics being pointed out in the claims following the specification.

In the drawing:

Figure 1 is a front elevation illustrating a preferred construction for carrying out my improved method, showing the mechanism in operative position and with a series of tile supported thereon;

Figure 2 is a transverse vertical sectional view through the wall and tile supporting structure, with a portion of the apparatus appearing in elevation;

Figure 3 is a detail perspective view partially broken away, showing one of the positioning H-bars and the cooperating tile-supporting angle bar removed from the H-bar;

Figure 4 is a side elevation of one of the bracket clamping means, and

Figure 5 is a horizontal sectional view on the line 5—5 of Figure 2.

The invention may be carried out in a variety of ways, and the procedure consists essentially in supporting the tile, preferably one row at a time starting at the bottom and working upwardly, in fixed, spaced relationship to a vertical wall, pouring or inserting cement between the tile and the wall, and maintaining the tile in such position until the cement is sufficiently hardened to permit removal of the tile supporting structure.

In carrying out the invention, I preferably employ supporting means embodying two or more columns or standards 1, which constitute the main supports for the framework, and are firmly secured between a top surface 2 and bottom surface 3. In order to permit of readily positioning and rigidly securing the columns 1, the latter include top and bottom plates 4 having a ball and socket joint with the rest of the column, and 5 designates an adjustable screw at the base of each column engaging a threaded bushing 6 within the column and thereby making it possible to effect adjustment of the column for height.

After the columns 1 have been fixedly positioned at proper distances from the vertical wall or foundation 7, to which the facing tile 8 are to be secured, brackets 9 are attached to the columns 1. Each bracket 9 includes a hinged portion 10, which embraces the column 1 and is brought into clamping relationship therewith by a wedge member 11 engaging cooperating openings in the clamping portion 10 and the stationary lug 12 on the bracket. Each bracket 9 is provided with a tongue 13 that engages the bottom groove 14 in a removable positioning H-bar 15, while 16 designates a removable tile-supporting angle bar, the bottom portion of which lies in the upper groove 17 of the H-bar 15.

The angle bar 16 is provided with an in-

tegral laterally extending flange or ledge 18 upon which rests the bottom edges of the tile, and said flange 18 is beveled on its lower surface as at 19, to permit easy insertion and removal of the supporting bar, and to prevent chipping or breaking the edges of the tile when the bar is inserted, or removed after hardening of the cement. The lowermost positioning H-bar and its cooperating tile-supporting angle bar are first placed in operative position, as shown in Figure 2, then the next higher positioning H-bar is brought into operative relationship. After this, the lowermost row of tile are inserted with their bottom edges resting upon the ledge 18 of the tile-supporting bar, and their front faces resting against the vertical wall 19 of the angle bar and the adjacent surface of the next higher H-bar 15 which engages the front face of the tile at the top. Thereupon, the cement is poured or inserted behind the tile, between the latter and the wall 7, and packed or tamped.

When the lowermost row of tile have been thus secured, the next higher tile-supporting bar 16 is arranged upon the positioning H-bar 15 which is already in place. Thus, the tile-supporting bar 16 performs a double function, first to support one row of tile at a proper distance above the next lower row, and also to present a clean surface or ledge upon which the tile can be positioned, since the supporting bar 16 is not inserted until after the row of tile beneath and the cement therefor have been positioned. The procedure just described is followed for each successive row until the uppermost row of tile has been laid, and the framework is left in place until the cement has sufficiently hardened to retain the tile in place. Thereafter, the parts can be removed by first loosening the brackets 9 on the standards and lowering them with or away from the H-bars. The H-bars can then be lowered and the positioning bars 16 removed from between the tile.

While I have described the invention with reference to a particular mechanism, it is not to be understood as limited to any of the details disclosed, since the apparatus described may be modified in many ways and this application is intended to cover any departure or modification of the structure that may come within the intended purpose of the invention, or the scope of the following claims.

I claim:

1. Apparatus for attaching tile to a vertical wall comprising supporting means, positioning bars removably arranged horizontally on the supporting means and extending parallel to the wall, and tile supporting bars removably positioned on the positioning bars and also extending parallel to the wall.

2. Apparatus for attaching tile to a vertical wall comprising supporting means consisting of vertical columns and a series of horizontal brackets mounted on said columns, positioning bars removably arranged on said brackets and extending parallel to the wall, and tile-supporting bars removably positionable on the positioning bars, and also extending parallel to the wall.

3. Apparatus for attaching tile to a vertical wall comprising supporting means consisting of vertical columns and a series of horizontal brackets mounted on said columns, positioning H-bars removably arranged on said brackets and extending parallel to the wall, and tile-supporting angle-bars removably positioned on the H-bars and also extending parallel to the wall.

4. Apparatus for attaching tile to a vertical wall comprising supporting means consisting of vertical columns and a series of horizontal brackets mounted on said columns, each bracket embodying a hinged clamping portion embracing the column and a wedge member for adjustably securing the clamping portion, tongues on the brackets, positioning H-bars removably engaging said tongues, tile-supporting angle bars engaging the grooves in the upper surfaces of the H-bars and removably supported therein, and ledges extending laterally from the supporting bars and engaging the bottom edges of the tile.

5. Apparatus for attaching tile to a vertical wall comprising supporting means consisting of vertical columns and a series of horizontal brackets mounted on said columns, each bracket embodying a hinged clamping portion embracing the column and a wedge member for adjustably securing the clamping portion, and means removably positionable on said brackets for supporting tile on their bottom edges in spaced relation to the wall.

In witness whereof, I have hereunto signed my name.

CHARLES L. SHANNON, JR.