Dec. 26, 1933. C. B. LANSING 1,941,404

TILE SETTING MACHINE

Filed Nov. 12, 1931

Fig. 1.

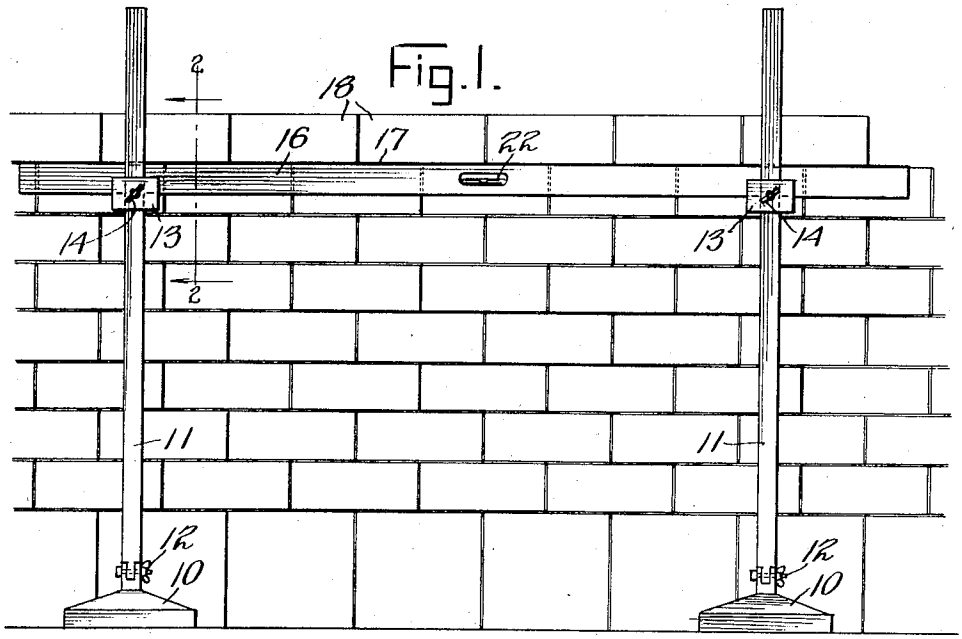


Fig. 2.

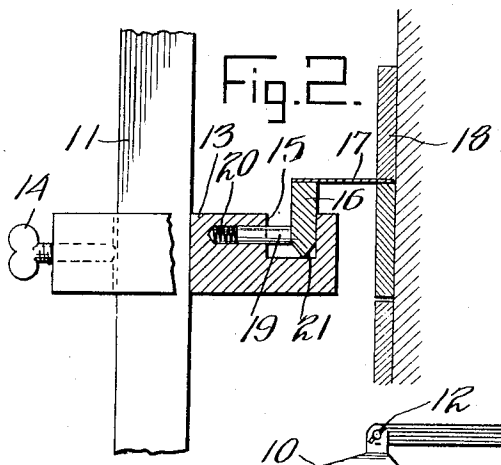
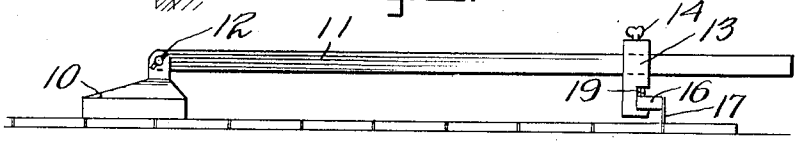


Fig. 3.



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Patented Dec. 26, 1933 1,941,404

UNITED STATES PATENT OFFICE

1,941,404

TILE SETTING MACHINE

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Application November 12, 1931
Serial No. 574,659

2 Claims. (Cl. 72—128)

As at present practiced the setting of floor and wall tile in buildings, swimming pools, etc. is slow and costly due principally to the time required to align the tile with parts of the structure and with other tile. In general either of two methods of setting tile is followed. One method is to cover the surface to be tiled with cement or mortar and then press the tile into place. The other is to cover the surface to be tiled with cement or mortar and also to cover the back of the tile with some mortar and then place the tile in position and press it firmly against the wall until it is in proper position. My invention is applicable to either of these methods.

This invention relates to machines for setting wall and floor tile and its object is to provide means whereby tile may be set more rapidly and more accurately than may be done by hand or with machines heretofore in use.

A further object is to provide a machine which aids in the rapid aligning of the tile.

A still further object is to provide means for insuring that the tiers of tile shall be perfectly horizontal when placed in position on a wall.

Referring to the accompanying drawing, which is made a part hereof and on which similar reference characters indicate similar parts,

Figure 1 is a view in elevation of the device showing it in use in setting wall tile,

Figure 2, a section on line 2—2 of Figure 1, and

Figure 3 a view of the machine as used when setting floor tile.

In the drawing numeral 10 indicates bases to which upright supports 11 are hinged at 12. The hinge may include a bolt which may be tightened to hold the supports in any position to which they are moved. Brackets 13 are vertically adjustable on the posts and may be secured in adjusted vertical position by means of manually operable screws 14. The forward ends of the brackets 13 are provided with slots 15 for receiving the vertical side 16 of a tile supporting bar which is L-shaped in cross section and has a relatively thin top plate 17 upon which a row of tile 18 is placed. The edge of the plate 17 that lies against the wall may be made tooth shaped instead of continuous so as to allow the cement to squeeze through and hold the tile in position. The slot 15 is somewhat wider than the thickness of the member 16 and the member 16 is held against the forward side of the slot by means of plungers 19 seated in bores in the block 13 and pressed outwardly by springs 20. In order to assure the proper placing of the element 16, the lower edge thereof may be beveled as at 21 in the bracket 13.

In operation the device is positioned adjacent the wall to which the tile are to be attached. A row of tile 18 is placed on the plate 17 and is cemented against the wall. When the tile have adhered to the wall sufficiently to be supported by the cement, plate 17 is withdrawn leaving the tile in position with a narrow horizontal space between rows of tile which space may later be filled with cement. The supporting plate 17 may be withdrawn from between the tile against the tension of the springs 20. Or if desired the posts 11 might be tilted back to withdraw the supporting plate from between the tile. I prefer, however, to allow the posts to remain in the position at which they are set and to withdraw the plate 17. It should be noted that the element 16 is held in place by friction only. When desired, this element may be moved endwise so as to place the end of the plate 17 in a corner or to permit movement of a post 11 in case some obstacle should be in the way adjacent the wall.

The machine may be used without any alterations whatever to place floor title as shown in Figure 3. In this case the posts 11 are positioned substantially parallel with the floor and are locked in position. The plate 17 is placed in position against the edge of the last row of tile laid. The next row is then placed on the floor with the edges of the tile in engagement with the surface of the plate 17. The plate 17 insures that the tile will all be correctly aligned and evenly spaced from each other. In order to insure mounting the tile in exact horizontal position the plate 17 or the element 16 may be provided with a spirit level 22.

It will be obvious to those skilled in the art that various changes may be made in my device without departing from the spirit of the invention and therefore I do not limit myself to what is shown in the drawing and described in the specification, but only as indicated by the appended claims.

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

1. An apparatus for aligning tile comprising a pair of weighted bases, a square support hinged to each base, means for locking said hinge, brackets adjustable on said supports, a rigid bar detachably carried by said brackets, and a flat plate secured to said bar at right angles thereto for supporting the tile, substantially as set forth.

2. An apparatus for aligning tile comprising a pair of weighted bases, a square support hinged to each base and adapted to be positioned either vertically or horizontally, brackets adjustable on said supports, a rigid bar carried by said brackets, pressure means for retaining said bar in said brackets, and a flat plate secured to said bar for supporting or aligning said tile, substantially as set forth.

CHARLES B. LANSING.