

F. P. NALE.
MOLD BOX FOR SETTING TILES AND BRICKS.
APPLICATION FILED OCT. 17, 1911.

1,053,635.

Patented Feb. 18, 1913.

2 SHEETS-SHEET 1.

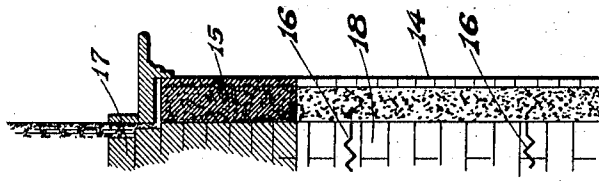


Fig 2

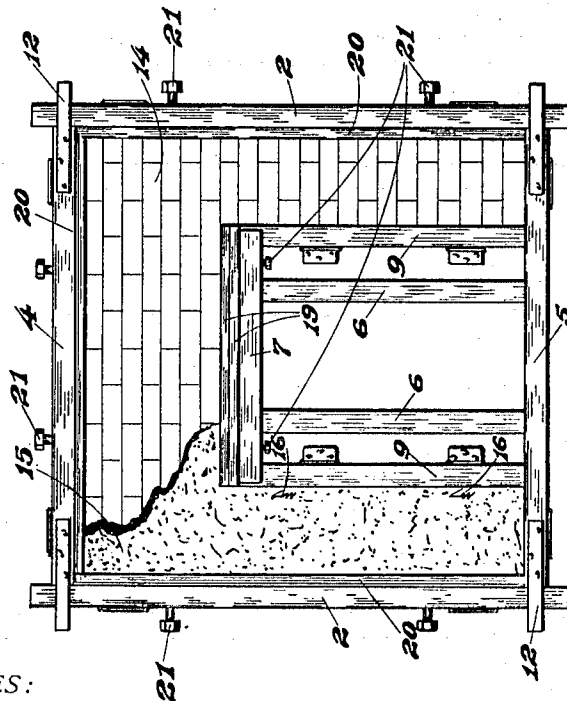


Fig 1

WITNESSES:

E. Sanford Evans

Thomas Kehel

INVENTOR

Franklin P. Nale

BY

Wm. S. Winston
Attorney

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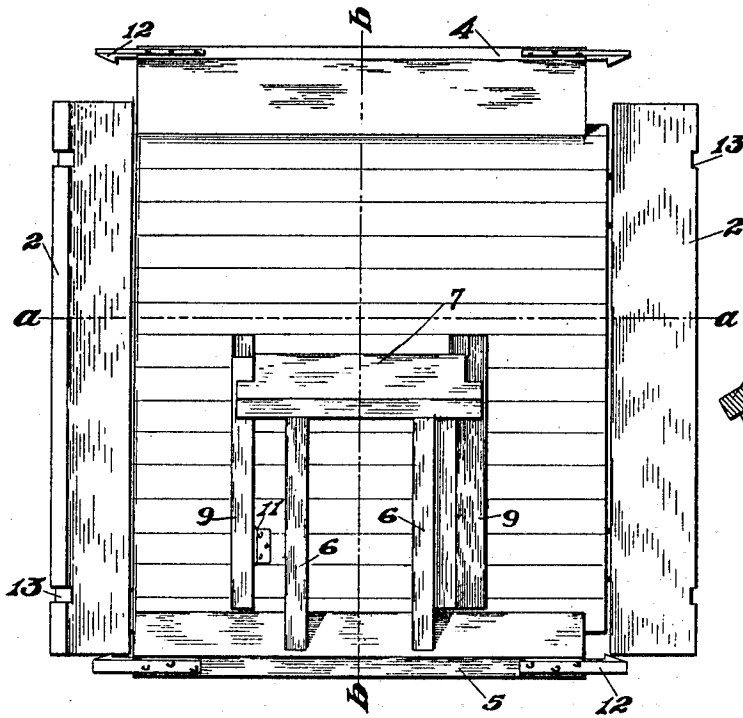


Fig 3

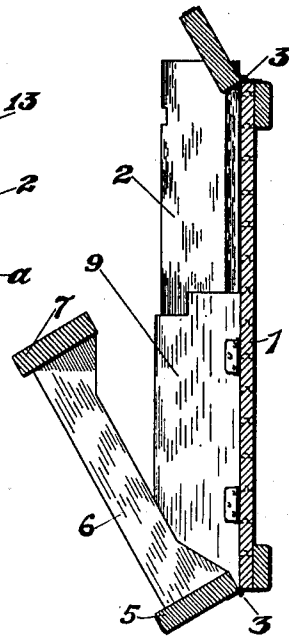


Fig 4

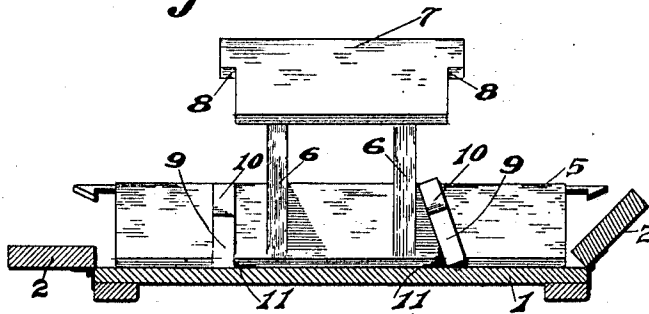


Fig 5

WITNESSES:

Danford Evans.

Thomas H. H. H.

BY

INVENTOR
Franklin P. Nale

Wm. H. H. H.
Attorney

UNITED STATES PATENT OFFICE.

FRANKLIN P. NALE, OF BIRMINGHAM, ALABAMA.

MOLD-BOX FOR SETTING TILES AND BRICKS.

1,053,635.

Specification of Letters Patent.

Patented Feb. 18, 1913.

Application filed October 17, 1911. Serial No. 655,248.

To all whom it may concern:

Be it known that I, FRANKLIN P. NALE, a citizen of the United States of America, residing at Birmingham, in the county of Jefferson and State of Alabama, have invented certain new and useful Improvements in Mold-Boxes for Setting Tiles and Bricks, of which the following is a specification.

10 My invention relates to an improvement in apparatus for quickly and cheaply setting tile fire places and brick, block or tile mantels, and consists primarily in providing a mold or form in which the tiles or brick
15 are placed face down and arranged by means of filler blocks and forms to present the desired external appearance, cement, grout, mortar, or plaster of Paris being spread over the backs of the tiles or brick to fill the mold and set the whole form with the tiles or brick embedded therein ready
20 to be moved into an upright position and set against the chimney, suitable anchoring means being employed to securely attach same to the brick work.

One object is to provide an adjustable form for the fire place opening and to hinge all parts of the mold (except the filler blocks) together so that the mold may be
30 readily withdrawn from the molded article and to further enable the mold to be collapsed for convenient shipment or storage.

A further object of my invention is to provide a novel means for effectively maintaining the parts of the mold which form the fire place opening in proper position to keep the walls of the opening at right angles to each other and to the floor line.

My invention further comprises the details of construction and arrangement of parts hereinafter more particularly described and claimed, reference being had to the accompanying drawings, in which:—

Figure 1 presents a plan view of the molding apparatus in operating position partially filled with cement to form a setting for mantel tiles. Fig. 2 is a vertical sectional elevation showing the completed article held in position by its attaching means. Fig. 3 is a plan view of the molding apparatus with some of the side walls opened out. Fig. 4 is a vertical sectional view along the line *b—b* of Fig. 3, and Fig. 5 is a similar view along the line *a—a* of Fig. 3.

Similar reference numerals refer to similar parts throughout the drawings.

My apparatus, as illustrated, embodies a flat bottom 1 which is rectangular in shape and when used for setting mantel tiles is given proportions equal to the maximum width and height of any mantel tiling. When used for making the mantel itself from brick the size of the bottom will be proportionately increased. To each side of the bottom I attach side walls 2 preferably by means of hinges 3 so arranged that the inner bottom edges of the side walls will swing outwardly from the molded article without binding. In like manner an end wall 4 is hinged to the part of the bottom corresponding to the upper end of the finished article and at the opposite end of the bottom I hinge an end wall 5, which has attached thereto a pair of parallel brace bars 6 disposed at right angles to the inner wall of the end 5 and rigidly attached at their outer end to a cross board 7 adapted to form the upper edge of a fire place opening for a fire place of minimum height. The side edges of the cross board 7 are beveled and cut away at 8 to form a lock joint with the ends of two boards 9 which have notches therein and are hinged to the bottom in parallelism by hinges 11 so arranged as to permit the said boards to swing inwardly, as seen in Fig. 5, without binding against the molded article. The two boards 9 are spaced apart the minimum width desired for a fire place opening and being hinged in true parallelism and at right angles to the bottom board 5 they act, when held by interlocking engagement with the cross board 7 in perpendicular relation to the base 1, to provide a true rectangular mold for a fire place opening of minimum size.

The end boards 4 and 5 are provided at each end of their top edges with a spring fastener 12, having a beveled detent at its outer end which is adapted to engage and slide up over a beveled notch 13 in the sides 2 and to catch the same so as to lock the sides and ends in assembled position, as shown in Fig. 1.

When the apparatus is used for setting the tiles for a mantel, the mold box is adjusted to the position shown in Fig. 1 with the side and end walls 2, 4 and 5 held in upright position by the catches 12 and with the boards 9 held in vertical position by the

cross board 7. If the boards 7 and 9 provide the desired fire place opening and the space between the walls 2 and 9, on each side of said opening, gives the desired width of tiling to be used, then the tiles 14 (Fig. 1) are laid face down on the bottom 2 of the mold and arranged to cover the bottom, whereupon grouting, cement or plaster of Paris 15 is spread over the backs of the tiles and allowed to set after first embedding the ends of anchoring strips 16 in the concrete. The cement is allowed to harden with the tiles embedded therein after which the walls 2, 4 and 5 are swung outwardly, the cross board 7 is raised which permits the boards 9 to be folded inwardly, thus leaving the molded body lying free on the base 1 and ready to be moved in upright position against the brick work 17 of the chimney and be securely attached in place by attaching the free ends of the anchor strips 16 in any suitable way to the side walls 18 of the fire place opening (Fig. 2).

When it is desired to vary the width between the walls 9 and 2 or 4 and 7, spacer blocks 19 may be placed above the cross board 7 to give the desired height of opening, and like filler strips (not shown) may be inserted adjacent to the boards 9 or along the side boards 2 or end board 4, which latter filler strips 20 are shown in Fig. 1. In this manner the shape of the concrete molded article may be varied to suit different conditions and yet the true shape of the article preserved by reason of the relative fixed position of the boards 2, 7 and 9. When adapted to the manufacture of brick mantels the same construction is used only slightly enlarged and the bricks are laid face down in the same manner as the tile in Fig. 1. In this construction the external contour of the mantel is obtained by the insertion of bottom filler strips so as to off-set the brick, but these are not illustrated as my invention contemplates that filler strips of any desired size or shape may be inserted at any desired place in the mold box according to the design contemplated for each article to be molded.

Under the present practice tiles are set by hand which requires considerable time and expensive labor. With my apparatus the tiles for fire places or brick mantels can be prepared as a finished article by cheap labor and at a nominal expense and set in position, as shown in Fig. 2, with no more expense or trouble than mantels are now set.

In order to hold the tiles more securely in position during the application of the cement, the sides 2 and 4 and also the cross

board 7 may be provided with set screws 21 adapted to engage the filler strips 19 or 20 and force them against the tile.

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

1. An apparatus for the manufacture of brick and tile composite articles, comprising a base, side and end boards hinged thereto and adapted to fold outwardly, boards extending in parallelism inwardly from one end board and which are hinged to the base and adapted to collapse toward each other, and a cross piece connected to said latter board and adapted to swing with it to engage and fit over the ends of said intermediate boards and lock them in position at right angles to the base with meeting joints at right angles to said cross board, substantially as described.

2. An apparatus for the manufacture of brick and tile faced composite structures for mantels having a bottom board, outwardly movable side walls surrounding the marginal edges of said board and at least one of which is hinged to said bottom board, a collapsible form having external dimensions corresponding to the minimum fire place opening to be formed in the structure, said form abutting against said hinged wall and comprising side boards hinged to the bottom board and adapted to fold inwardly, a top member connected to said hinged wall and adapted to engage between and hold said side boards in upright position, there being a continuous space left between the form, on three sides, and said movable side walls which is adapted to receive filler strips and the material for forming the mantel, substantially as described.

3. In an apparatus for the manufacture of composite tile mantels, a base; top, bottom and side boards hinged thereto at their outer bottom edges; a cross board disposed parallel to the hinged bottom board, means to rigidly connect said cross board to said hinged bottom board, and boards interposed between the sides of the box and adapted to swing inwardly on their hinges and adapted to be held by said cross board in upright position to form a box mold extending around three sides of the space inclosed by the intermediate boards and cross board, as and for the purposes described.

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

FRANKLIN P. NALE.

Witnesses:

R. D. JOHNSTON,
NOMIE WELSH.