No. 29,958. PATENTED SEPT. 11, 1860.

M. ELDER.

BRICK MOLD.

Fig. 1

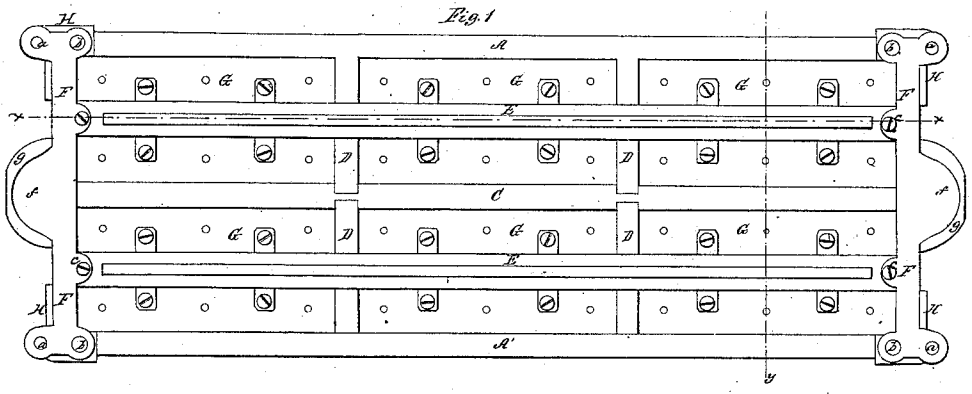


Fig. 4

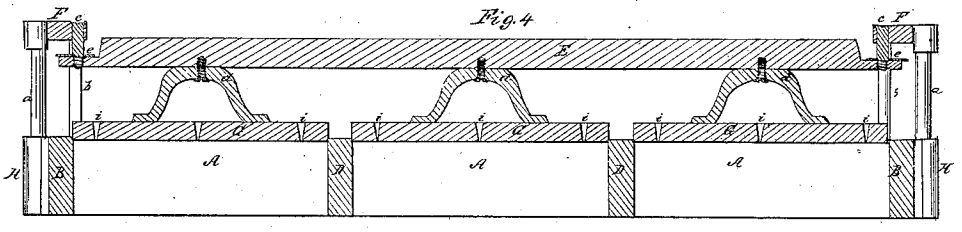


Fig. 2

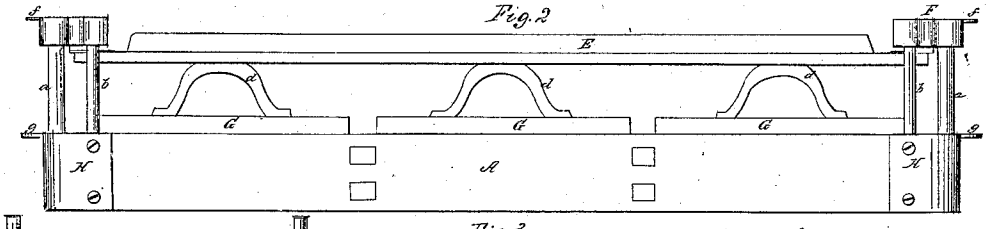


Fig. 5

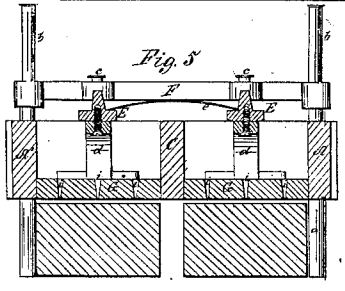


Fig. 3

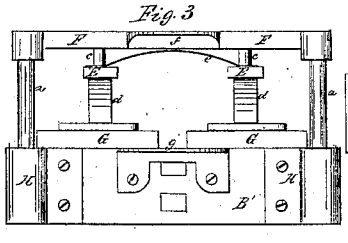
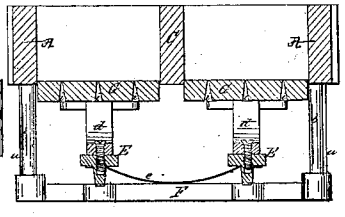


Fig. 6



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MATTHEW ELDER, OF LANSING, MICHIGAN.

BRICK-MOLD.

Specification of Letters Patent No. 29,958, dated September 11, 1860.

To all whom it may concern:

Be it known that I, MATTHEW ELDER, of Lansing, in the county of Ingham and State of Michigan, have invented a new and Improved Brick-Mold; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification, Fig. 1, being a top view of said brick-mold; Fig. 2, a side view of the same; Fig. 3, an end view; Fig. 4, a longitudinal vertical section, in the line *x*, *x*, of Fig. 1; Fig. 5, a transverse section in the line *y*, *y*, of Fig. 1, and Fig. 6, a transverse section in the same line, representing the respective parts of said mold in a different position from that shown in the other drawings.

Similar letters indicate the same parts in each of the drawings.

I generally construct my improved brick-mold of such a size as to give it six molding compartments; but do not intend to limit myself to that particular size. The compartment-frame of my improved brick-mold, may be formed by the union of two outside longitudinal strips A, A′, and a central longitudinal strip C, with the end-pieces B, B′, and transverse dividing strips D, D, in the manner represented in the drawings, or any other that may be preferred.

The metallic clamps H, H, which embrace the outer corners of the said compartment-frame, add materially to its stiffness and strength; and they also serve other important purposes in the construction of my improved brick-mold, which will be hereinafter pointed out.

Through perforations near the outer angles of the corner clamps H, H, loosely receive the vertical rods *a*, *a*, whose opposite ends are rigidly united to the ends of the metallic cross-heads F, F, while the length of said rods must be a little more than twice the depth of the molding compartments.

One end of a rod *b*, is rigidly secured in an aperture in each of the corner clamps H, H; and the shanks of these rods work freely in apertures in the ends of the cross-heads F, F; but are prevented from being drawn out said apertures by means of enlarged heads, as represented in the drawings.

A pair of light and stiff bars E, E, which pass longitudinally over the centers of each side series of molding-compartments, when the compartment-frame is in the position shown in Fig. 4, have their ends connected with the cross-heads F, F, by means of the short bolts *c*, *c*, whose shanks work longitudinally in apertures which are formed in offsets on the inner edges of said cross-heads. The springs *e*, *e*, which are so arranged as to press the ends of the bars E, E, outwardly from the cross-heads F, F, serve the purpose of holding the followers G, G, in their normal position until after the compartment frame has been elevated entirely free and clear of the sides and ends of the molded bricks, during the process of discharging the same from the molding compartments.

The followers G, G, which work in the respective molding compartment of the compartment-frame, must be rigidly connected to the bars E, E; and this may be done by means of the cross-headed arms *d*, *d*,—shown in the drawings,—or by any other suitable means. The said followers (G,) fit as closely within the sides and ends of the compartments of the compartment-frame, as is practically consistent with the free working of said followers through the said compartments; and a suitable number of conical apertures *i*, *i*, are formed in the said followers, to allow the air to escape freely from the molding compartments during the process of filling the same with tempered clay.

Fig. 6, of the accompanying drawings represents my improved brick-mold as in the proper position for receiving tempered clay into the respective compartments of said mold; and when thus placed, it should rest upon a molding-board, or upon some other firm and level surface. The compartment-frame, when the brick-mold is in the aforesaid position, rests firmly upon the corner-rods *b*, *b*; and the series of followers G, G, rest upon the short bolts *c*, *c*. After the respective compartments of the brick-mold have been evenly filled with properly tempered clay, the said mold is removed to the brick-yard and placed, in a reversed position, upon the hard, smooth, and sanded floor of the same. Then, the bearer rests the palms of his hands upon the offsets *f*, *f*, of the cross-heads F, F, and at the same time places his fingers beneath the handles *g*, *g*, that project outwardly from the ends, B, B′, of the compartment frame: and then,

by bearing down with the palms of his hands, he causes the cross-heads F, F, the bars E, E, and the followers G, G, to rest firmly and immovably upon the rods *a*, *a*, while, by the action of his fingers, he raises the compartment-frame entirely free and clear from the sides and ends of the molded bricks: and then, by a slightly increased additional exertion of force upon the said compartment-frame, he overcomes the action of the springs *e*, *e*, and thereby draws the followers G, G, smoothly from the upper surfaces of the said molded bricks. By following the aforesaid directions in using my improved brick mold, it will be perceived that, without the exercise of any art or skill on the part of the operator, it will be impossible for him to injure a molded brick by the operation of discharging the same from its molding compartment; as he is compelled to draw the sides and ends of the molding compartments from the molded bricks in a line which is at right angles to the top and bottom of each brick; and he is also compelled to entirely remove the sides and ends of the said molding compartments, from the sides and ends of the molded bricks, before he draws the followers from the upper sides of said bricks.

The principle of this, my improved brick-mold, may also be applied in the molding of tiles and other similar articles.

Having thus fully described my new and improved brick-mold, what I claim therein as my invention and desire to secure by Letters Patent, is—

1. The arrangement of the compartment-frame and the respective followers G, G, with the pairs of rods *a*, *a*, and *b*, *b*, the cross-heads F, F, the short bolts *c*, *c*, the longitudinal-bars E, E, and the connecting-arms *d*, *d*, in such a manner that the said compartment-frame can be entirely withdrawn from the sides and ends of the molded-bricks, while the followers remain stationary, substantially in the manner herein set forth.

2. The interposition of the springs *e*, *e*, or their equivalents, between the cross-heads F, F, and the ends of the longitudinal-bars E, E, when the said parts bear such a relation to the other parts of my improved brick-mold, that the followers G, G, will remain stationary, while the compartment-frame is being drawn past them, and then, the said followers and frame, may be simultaneously elevated a short distance, while the cross-heads F, F, remain in a stationary position upon the rods *a*, *a;* by which I effect a clear and clean separation of the compartment frame and the followers from the molded bricks substantially in the manner herein set forth.

MATTHEW ELDER.

Witnesses:
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RANDOLPH COYLE, JR.