

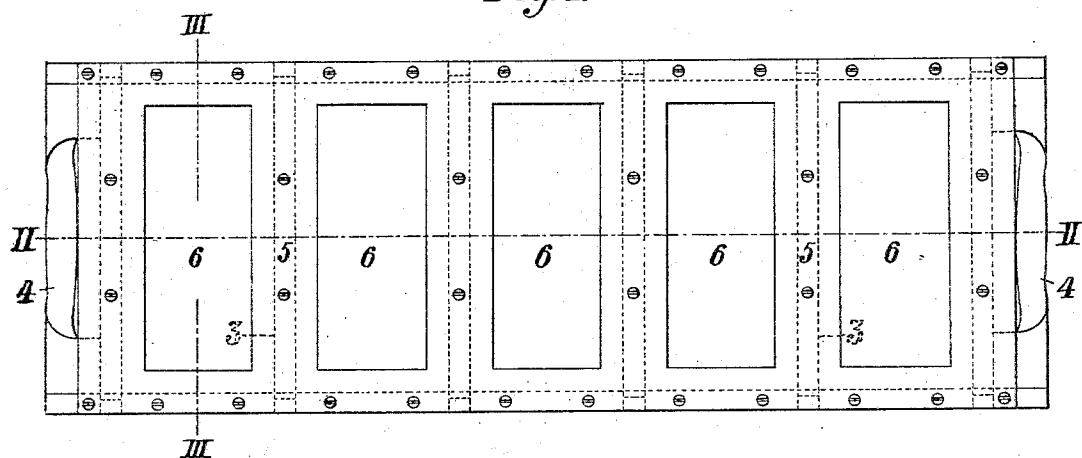
(No Model.)

E. C., G. W. & H. L. McGRAW.  
BRICK MOLD.

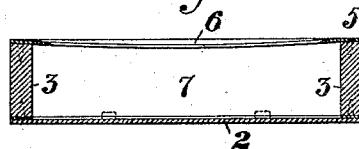
No. 490,160.

Patented Jan. 17, 1893.

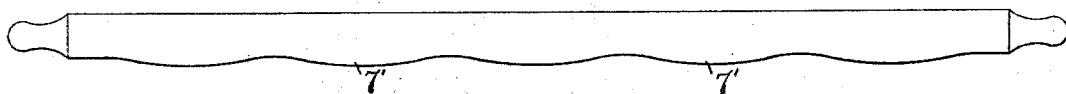
*Fig. 1.*



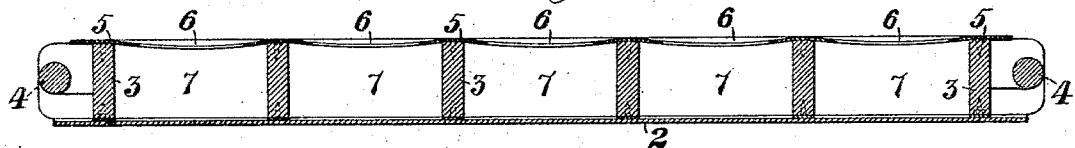
*Fig. 3.*



*Fig. 4.*



*Fig. 2.*



WITNESSES:

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# UNITED STATES PATENT OFFICE.

EDWIN C. McGRAW, GEORGE W. McGRAW, AND HENRY L. McGRAW, OF PITTSBURG, PENNSYLVANIA.

## BRICK-MOLD.

SPECIFICATION forming part of Letters Patent No. 490,160, dated January 17, 1893.

Application filed April 11, 1892. Serial No. 428,575. (No model.)

*To all whom it may concern:*

Be it known that we, EDWIN C. McGRAW, GEORGE W. McGRAW, and HENRY L. McGRAW, all of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in the Manufacture of Bricks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a top plan view of our improved mold. Fig. 2 is a longitudinal section of the same on the line II—II of Fig. 1. Fig. 3 is a cross-section on the line III—III of Fig. 1; and Fig. 4 is a side elevation of the striker employed.

Our invention relates to the molds employed in the formation of bricks and also the method of forming said bricks. In the present method of molding bricks, when the mold is drawn out from under the die-box, the entire upper surface of the bricks is roughly scraped off by the edge of the die-box or a plate provided for the purpose. The scraping is then finished by an attendant with a suitable striker or knife and the molds are then taken to the drying sheds and the bricks removed. This scraping of the top of the bricks makes their upper edges rough and uneven, as particles of the rough material get between the knife and the edge of the mold, a sharp ragged edge being thereby produced.

Our invention is designed to produce a brick which is molded upon all its edges in contradistinction to one which is scraped upon part of its edges, and to that end it consists in a mold made in two separable portions, one of said portions, viz., that through which the clay is forced having filling apertures of less area than the faces of the molds which they enter and being centrally located in regard to such faces, a molded edge being thus imparted to this face of the brick as well as to the other faces.

It also consists in the construction and arrangement of the parts as hereinafter more fully described and set forth in the claims.

In the drawings, in which similar numerals indicate corresponding parts, 2 is the bottom

plate of the mold, this plate being a plain 50 faced plate preferably of steel, and unattached to the other part of the mold which sets thereon. The second part of this mold consists of a skeleton frame-work 3, which forms the sides of the molds, and is provided with end handles 4, 4, and to which frame-work is secured, by screws or other suitable fastenings, a filling plate 5. This plate 5 is provided with a series of filling apertures 6, which register with and are slightly smaller than the mold 60 cavities 7 beneath. It will be observed that the flanges of the plate 5 surrounding the filling apertures are bent downwardly or beveled. This is to prevent the raised portion or boss of the thickness of the plate which would otherwise be present in the brick if a flat plate and the ordinary striker were employed. With this beveled edge plate is employed the striker of Fig. 4, which is provided with a series of convex or bevel-edged projections 7', 70 which fit into the filling apertures and scrape off the clay or other plastic material upon a level with the under surface of the plate, giving also a slight concavity to the upper surface of the brick, when the striker is moved 75 across the top of the plate.

By the words "plastic material" in the claims we intend to cover any materials which require forcing into a mold.

The operation is as follows:—The frame 80 and filling-plate being placed upon the bottom plate, they are shoved in beneath the die-box of the ordinary machine. The press then descending forces the clay through the filling apertures into the molds, the clay rising up 85 in the molds and forming a molded upper edge against the plate 5. The mold is then removed being roughly struck off as it is withdrawn, and the striker of Fig. 4 is then applied. The mold is then carried to the drying-sheds and the upper portion lifted off, leaving the bricks upon the lower flat plate where they remain until dry.

The advantages of the device are apparent. Bricks are produced having smooth molded 95 edges on all sides and with an upper central rough surface for the mortar when applied, this surface being slightly concaved if de-

sired. The bricks not being tilted or removed from the plate upon which they are formed are of perfectly uniform thickness and consistency, there being no "pitch" or packing 5 of the clay upon one side.

It is evident that many changes may be made in the form and arrangement of the various parts without departure from our invention. Thus the filling plate may be separable 10 from the skeleton frame-work; the framework may be secured to the bottom plate; apertures may be made in the bottom-plate which shall register with the edges of the molds and allow escape of air; and devices 15 may be employed to center the mold upon the bottom-plate and hold it in position if desired. These and many other modifications which will readily suggest themselves to those skilled in the art we regard as within the scope of 20 our invention, since

What we claim is:—

1. A two part mold for plastic materials, one part having a filling aperture of smaller size than the mold, and downwardly bent or

beveled flanges surrounding said aperture; 25 substantially as described.

2. The combination with a mold having a top-plate provided with a filling aperture of smaller size than the mold-cavity, of a striker having a projecting portion arranged to fit 30 within the aperture; substantially as described.

3. The method of molding bricks, consisting in forcing the clay into the mold through an aperture of smaller size than the mold-cavity, scraping off the clay within the aperture, thereafter separating the parts of the mold and removing the brick from the mold; 35 substantially as described.

In testimony whereof we have hereunto set 40 our hands this 5th day of April, A. D. 1892.

EDWIN C. McGRAW.  
GEORGE W. McGRAW.  
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Witnesses:

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