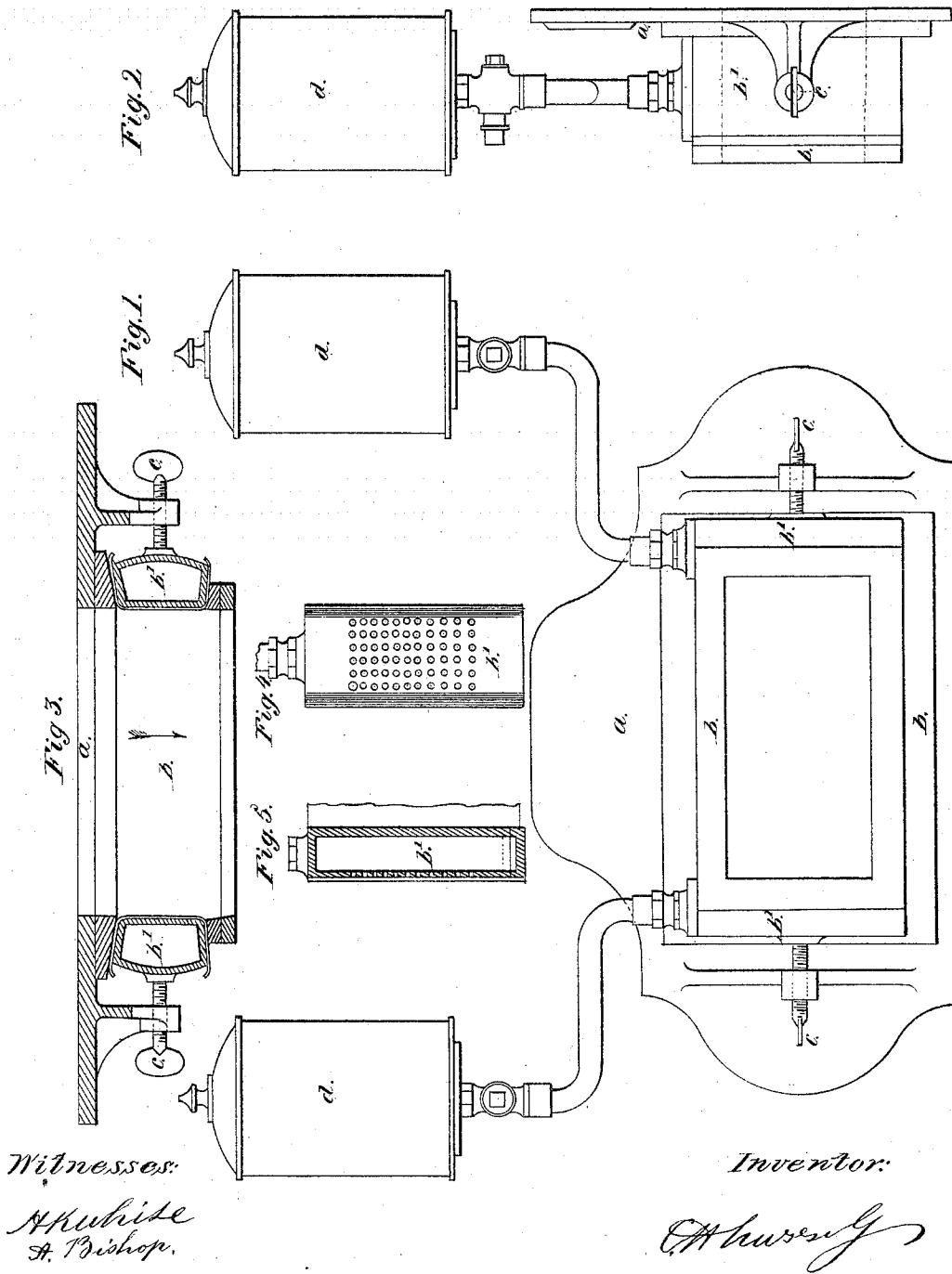


C. H. MURRAY.

Dies or Mouths for Brick-Machines.

No. 140,297.

Patented June 24, 1873.



UNITED STATES PATENT OFFICE.

CHARLES HENRY MURRAY, OF SOUTHWARK, ENGLAND.

IMPROVEMENT IN DIES OR MOUTHS FOR BRICK-MACHINES.

Specification forming part of Letters Patent No. **140,297**, dated June 24, 1873; application filed June 20, 1872.

To all whom it may concern:

Be it known that I, CHARLES HENRY MURRAY, of Loman street, Southwark, in the county of Surrey, England, machinist, have invented certain Improvements in Machinery for Molding Clay for making Bricks, Tiles, and other analogous articles from plastic substances, of which the following is a specification:

My invention of improvements in machinery for molding clay for making bricks, tiles, and other analogous articles from plastic substances has for its object to so construct the die through which the clay or other plastic substance is delivered, and to lubricate the faces thereof, that the clay will be delivered with less friction, and consequently with a smoother and more even surface, than heretofore.

The apparatus which I employ for the purposes of my invention, and the mode of applying the same, are shown in the accompanying drawing, in which—

Figure 1 is a front elevation of the mouth or die of a brick-making machine, showing my improvement adapted thereto. Fig. 2 is a side view thereof, and Fig. 3 is a horizontal section. *aa* is the front plate of the machine, and to which my improved die *b b* is attached in any convenient manner. The sides *b¹ b¹* of the die *b* are made hollow, or in the form of boxes, and are removable. These boxes *b¹*, which are shown detached in front elevation at Fig. 4, and in section at Fig. 5, are supplied with water, oil, or other liquid lubricating material or compound, which is caused to exude from the hollow vessels or boxes *b¹ b¹*, through saw-cuts, slits, or holes made in the face of the vessel, as shown at Fig. 4. The perforated faces of the boxes *b¹* are covered with felt, woolen, or other porous material, as indicated at Fig. 5. This fabric will prevent the water, oil, or other lubricant, from running out too quickly, and the water or oil will perfectly saturate the fabric. These hollow vessels which form the sides of the die, as shown in Fig. 3, are fitted in their places, and are secured by means of screws *c c*, which pass through lugs secured to or

fixed onto the stationary part *a*. By loosening the screws *c c* the boxes or vessels *b¹ b¹* may at any time be removed, cleaned, and replaced without deranging any of the other parts of the machine.

In order to cause the lubricating liquid to pass through the felt or porous fabric with which the faces of the boxes or hollow vessels *b¹* are covered, the reservoirs *d d* which supply these vessels with the lubricating fluid are placed at any convenient distance above them. The felt or porous covering of the boxes, or hollow vessels *b¹*, is compressed by the clamps and tightening-screws *e*, between the fixed and stationary parts of the die, so as to pack these joints and render them perfectly water-tight.

It will now be understood that the clay in passing out of the machine and in exuding from the die, in the direction of the arrow in Fig. 3, will rub up against the felt or woolen covering of the boxes or hollow vessels *b¹*, and will carry away with it a very thin film of lubricating material, and will, therefore, be delivered with a perfectly smooth and even surface.

In practice it has not been found necessary to adapt the lubricating arrangement to either the top or bottom of the die, but it will be evident that, if desired, this may be done in the manner shown, with relation to the sides.

Having now described my invention of improvements in machinery for molding clay for making bricks, tiles, and other analogous articles from plastic substances, and having explained the manner of carrying the same into effect, I claim—

A mold or aperture in brick-making machines, through which the plastic material is delivered, with movable hollow boxes provided with perforated sides, forming the sides of the mold or aperture, substantially as and for the purpose set forth.

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