W. B. MOORE.

MACHINES FOR CASTING MEDALS.

No. 182,589. Patented Sept. 26, 1876.

Fig. 1.

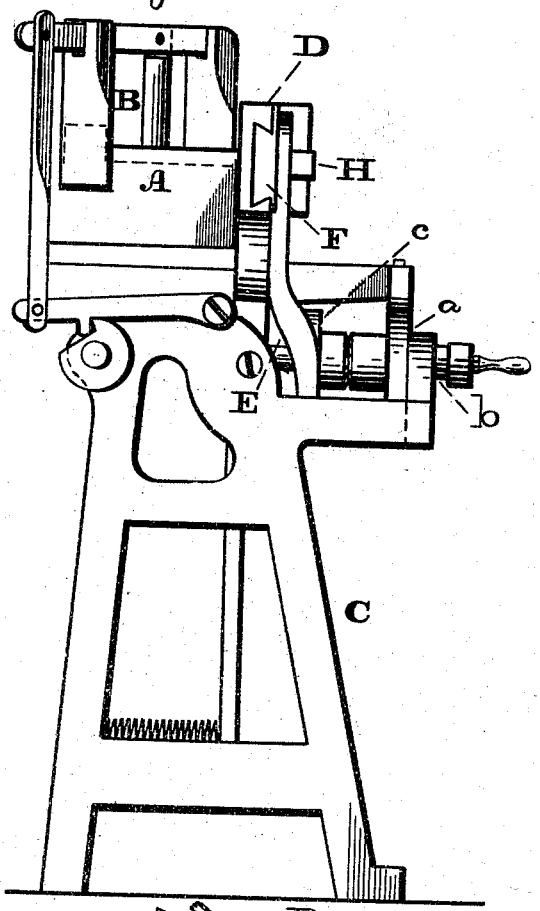

Fig. 2.

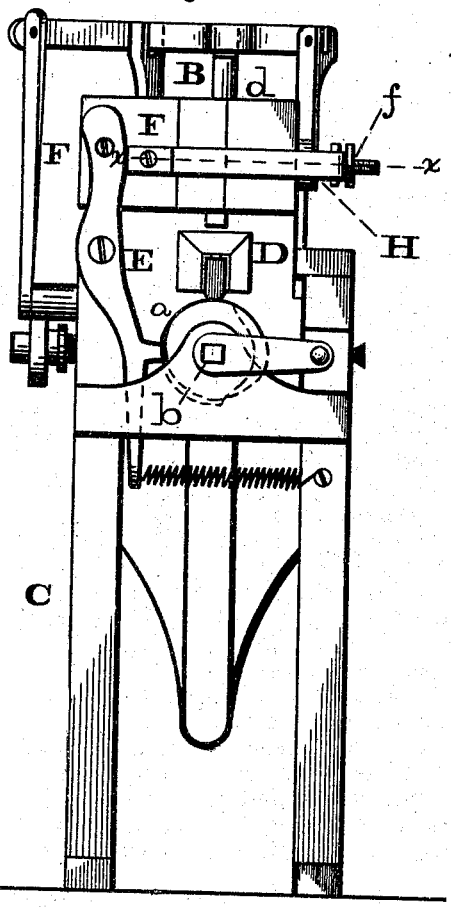

Fig. 3.

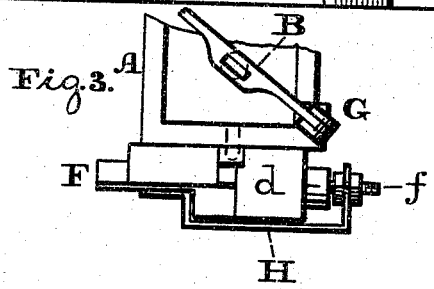

Fig. 4.

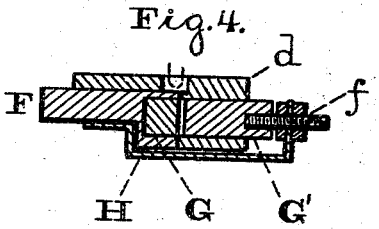

Fig. 5.

Witnesses:

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UNITED STATES PATENT OFFICE.

WILLIAM B. MOORE, OF CAMDEN, NEW JERSEY, ASSIGNOR OF ONE-HALF HIS RIGHT TO E. LUCIEN RICHIE, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN MACHINES FOR CASTING MEDALS.

Specification forming part of Letters Patent No. **182,589**, dated September 26, 1876; application filed February 16, 1876.

To all whom it may concern:

Be it known that I, WILLIAM B. MOORE, of the city and county of Camden, and State of New Jersey, have invented a new and useful Improvement in Machines for Casting Medals, Coins, Toys, &c.; and I do hereby declare the following to be a clear and exact description of the nature thereof, sufficient to enable others skilled in the art to which my invention appertains to fully understand, make, and use the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a side view of the device embodying my invention. Fig. 2 is a front view thereof. Fig. 3 is a top view of a portion thereof. Fig. 4 is a horizontal section of a portion in line *x x*, Fig. 2. Fig. 5 is a face view of one of the dies.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists in means for readily closing and opening the matrix, whereby the article will be cast and discharged. It also consists in rendering the matrix adjustable relatively to the thickness of articles to be cast.

Referring to the drawings, A represents a furnace, and B the pump thereof, which parts are mounted on a support, C, and operate in a manner similar to that in machines for casting type and other articles. D represents a frame, which is hinged to the support C, and receives an oscillating motion to and from the discharge side of the furnace by means of a cam, *a*, on the main shaft *b*, or otherwise.

To the oscillating frame D there is hinged a lever, E, which receives swinging motion in a direction transverse to the frame D through the medium of a cam, *c*, on the shaft *b*, or other appliance. F represents a carrier for one portion or side, G, of the die. This carrier is fitted to, and guided in, the upper end of the frame D, and receives reciprocating motion from the lever E, pivoted thereto. To the carrier there is secured one end of a transversely-extending yoke, H, whose other end is attached to the outer end of the other portion or side, G′, of the die, which is fitted to, and guided in, the flap *d* at the upper end of the frame D, and receives reciprocating motions by means of the yoke H, attached to the carrier F, which is operated by the lever E.

It will be seen that when the two parts of the die move toward each other to full extent, a space or matrix, *e*, will be left in the flap *d*, between the working-faces of the die, as seen in Fig. 4, and in said matrix the casting will be accomplished.

When the dies are in position, or closed, then, at the proper time, the frame D moves toward the furnace, so that a quantity of molten metal may enter the matrix *e*, the dies being securely held. The frame now moves away from the furnace, the carrier F draws the die G from the flap *d*, and, owing to the yoke H, the die G′ will be forced through the matrix *e*, toward the die G, whereby the cast article will be discharged. Then the frame advances, the carrier moves the die G toward the flap, the yoke carries back the die G′ so as to leave the matrix open or clear, and a fresh quantity of metal flows into the latter, so as to cast another article, and the discharge thereof and subsequent casting and discharge will continue as long as desired, the operations being rapidly performed by simple means.

It will be seen that both dies are simultaneously operated, so as to close the matrix, and in opening the matrix the cast article will be discharged by one of the dies.

In order to regulate the depth of the matrix relatively to the thickness of articles to be cast, the connection of the die G′ and yoke H consists of a screw or screw and nut, or both, as at *f*, so that the said die G′ will have a longer or shorter throw, and thus the space or matrix will be made shallower or deeper, the article cast being thereby of corresponding depth.

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

1. The dies G G′, connected by the yoke H, and operating substantially as and for the purpose set forth.

2. The adjustable connection *f* of the die G′ and yoke H, substantially as and for the purpose set forth.

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