

J. B. McCUNE.

MOLDING-MACHINE.

No. 189,245.

Patented April 3, 1877.

Fig. 1.

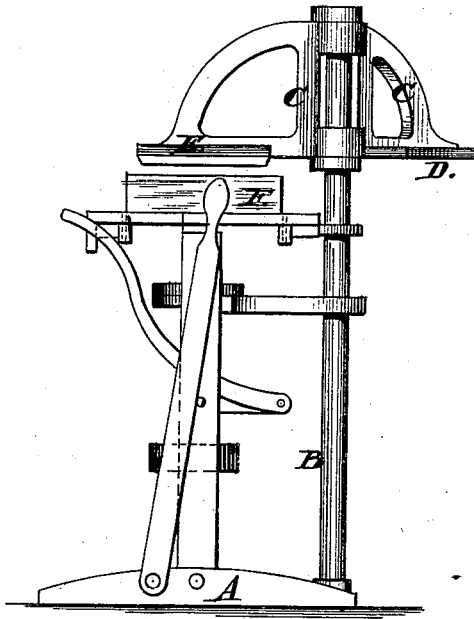


Fig. 2.

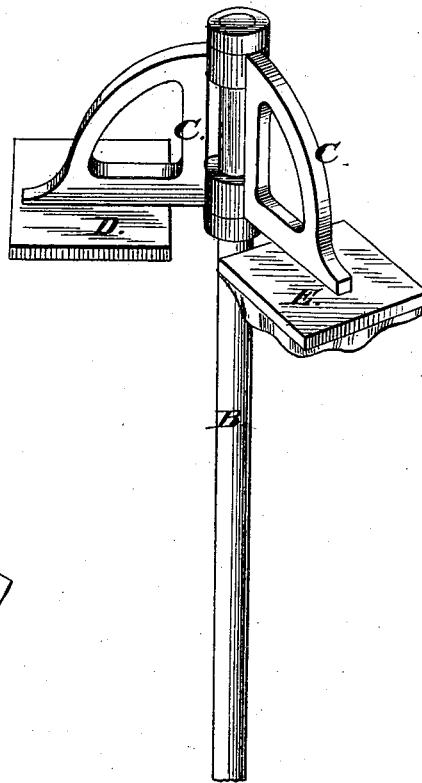
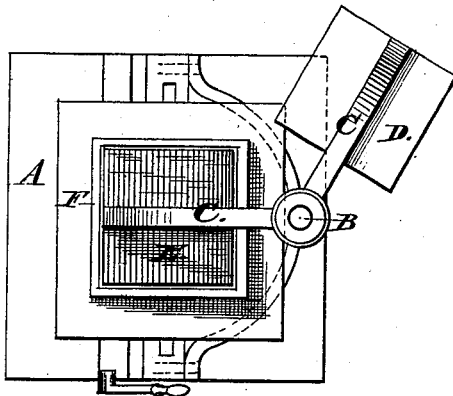


Fig. 2.



Attest:
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By James L. Norris,
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UNITED STATES PATENT OFFICE.

JOSEPH B. McCUNE, OF HAMILTON, ONTARIO, CANADA, ASSIGNOR OF ONE-HALF HIS RIGHT TO RICHARD M. WANZER, OF SAME PLACE.

IMPROVEMENT IN MOLDING-MACHINES.

Specification forming part of Letters Patent No. **189,245**, dated April 3, 1877; application filed February 20, 1877.

To all whom it may concern:

Be it known that I, JOSEPH B. McCUNE, of Hamilton, in the Province of Ontario and Dominion of Canada, have invented certain new and useful Improvements in Machines for Casting Metals, of which the following is a specification:

This invention relates to certain improvements in apparatus for forming sand molds for casting metals, and is an improvement upon the invention upon which Letters Patent of the United States were granted to me January 11, 1876, and numbered 172,044, its object being to provide for tucking the sand uniformly around the pattern previously to finally ramming the mold.

In apparatus of this class in which a tucking-plate is employed no provision is made for finally leveling the face of the mold, which renders it necessary to employ a bottom board, having a face similar in configuration to that of the tucking-plate, to support the sand in the flask during the subsequent process of casting. This necessitates the use of a bottom board for every variation of pattern, which, in large founderies, is an item of great expense.

The object of my invention is to obviate this objection, and provide an apparatus by which a sand mold may be so formed in a flask that it can be backed by a plain or flat bottom board by ramming in and smoothing off the sand in the flask, as more fully hereinafter described.

My invention consists in substituting for the single bracket which carries the ramming-plate a double bracket, one arm of which carries a ramming-plate, as usual, and the other a tucking-plate, the lower face of which is made of proper configuration, to correspond to the pattern from which the mold is to be made, the bracket being arranged to swing loosely upon the supporting-standard, so that either the tucking or ramming plate can be brought over the flask, as may be desired.

In the drawings, Figure 1 represents a side elevation of an apparatus for forming molds with my improvement attached thereto, and Fig. 2 a top view of the same.

The letter A represents the base of the machine, and B an upright standard secured thereto, to the upper part of which is attached a loosely-swinging double bracket, C, which takes the place of the single bracket, as described in the Letters Patent granted to me as above mentioned. To one arm of said bracket is secured the horizontal ramming-plate D, as usual, the other arm carrying a horizontal tucking-plate, E, the lower side of which is formed of a configuration the inverse to that of the pattern-plate from which the mold is to be produced, so that when the flask F, with the sand properly filled in, is forced upward toward said tucking-plate, the sand will be properly tamped and tucked around the pattern, the tucking-plate being in position directly over the flask, thus dispensing with the tedious process of hand tamping or tucking.

After the sand has been properly tucked or tamped in the flask, an additional quantity is then filled into the flask, and the ramming-plate, which has a flat or plain face, is brought over the flask, the usual flat bottom board having been inserted in the ordinary manner by swinging the double bracket on its support, and the flask is then moved toward said ramming-plate, forcing the sand uniformly into the flask and leveling the sand to conform to said flat bottom board.

Any suitable devices for supporting and moving the flask to and from the ramming or tucking plate may be employed; but I prefer the arrangement shown and described in my above-mentioned Letters Patent, which, as they do not form any part of my present invention, it is not necessary to more particularly describe.

What I claim, and desire to secure by Letters Patent, is—

1. The combination of the double swinging bracket, carrying a tucking-plate and a ramming-plate, with a flask adapted to be moved to and from said plates, the whole so arranged that the sand can be first tucked into the flask and afterward leveled for the reception of a plain bottom board, substantially as described.

2. In combination with the upright stand-

and, a double bracket secured loosely there-
to, and provided with a tucking-plate and
ramming-plate, so arranged in relation to a
reciprocating flask that either may be brought
over the same at will, substantially as de-
scribed.

In testimony that I claim the foregoing I

have hereunto set my hand in the presence
of the subscribing witnesses.

JOSEPH B. McCUNE.

Witnesses:

JOHN BARRY,

CHAS. E. FREEMAN.