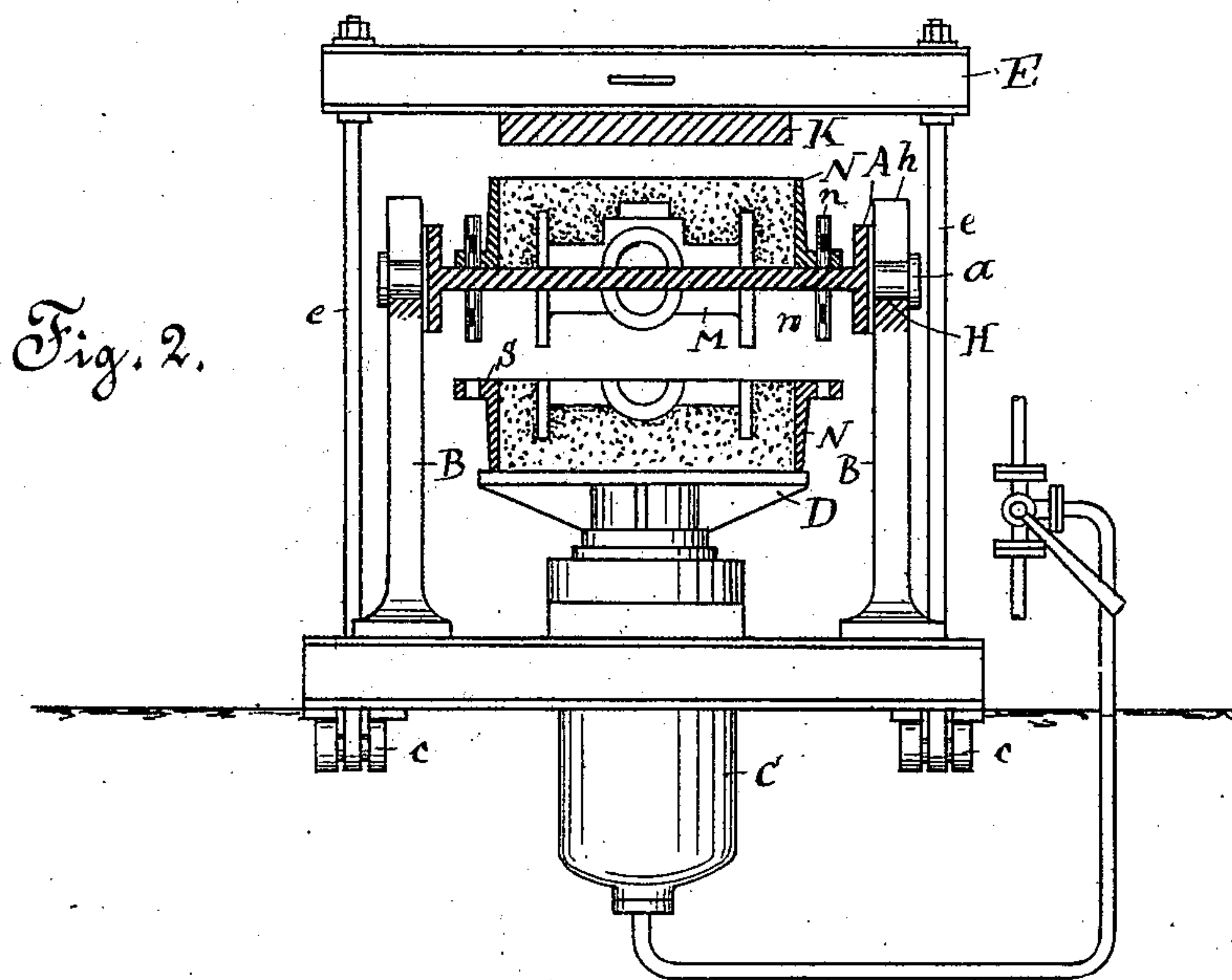
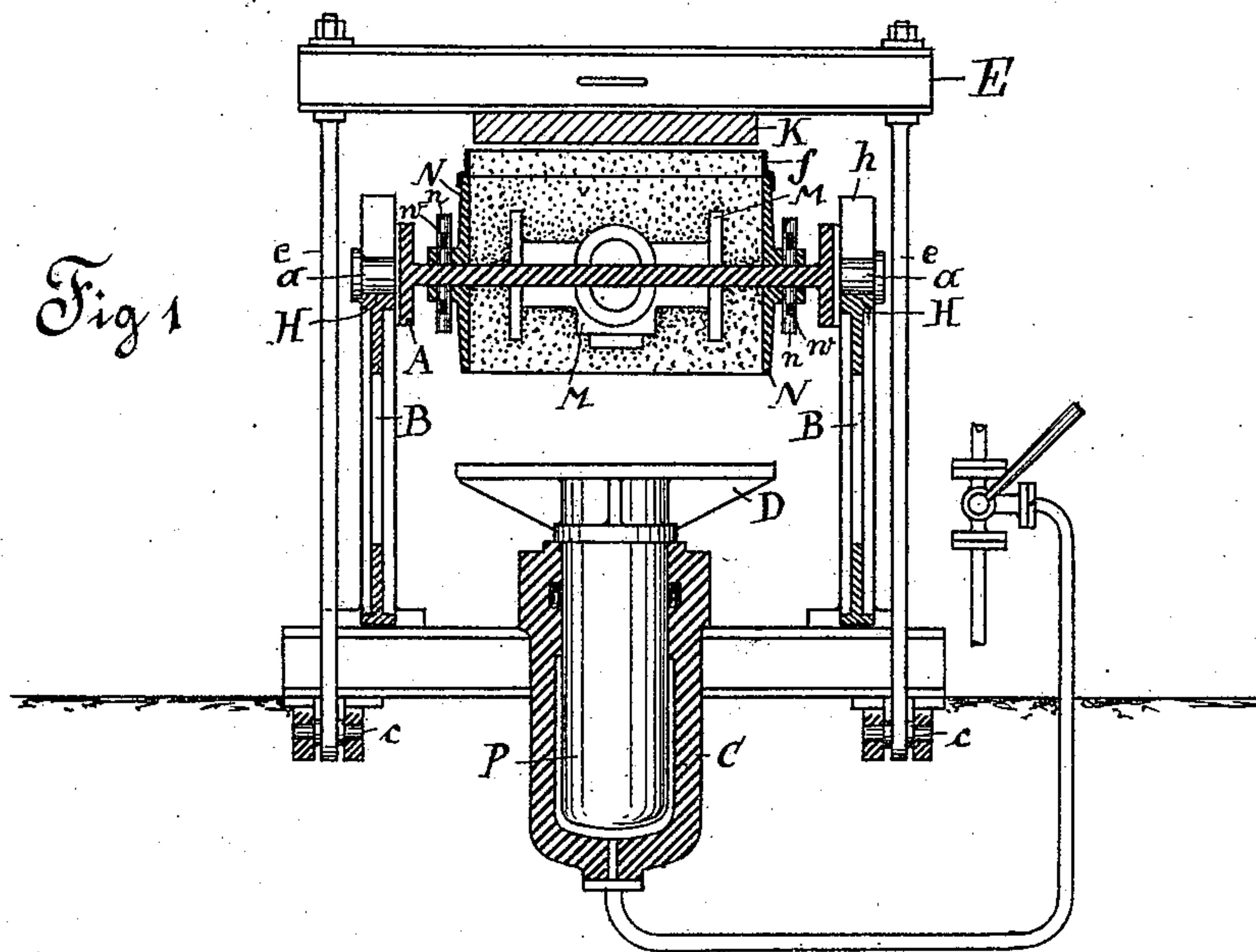


(No Model.)

H. BEEG.
MOLDING MACHINE.

No. 575,022.

Patented Jan. 12, 1897.



Witnesses:
L. M. Hackenschlager,
Geo. A. Morse.

Inventor
Hans Beeg
By Briesen Knauth
his Attorneys.

UNITED STATES PATENT OFFICE.

HANS BEEG, OF DURLACH, GERMANY.

MOLDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 575,022, dated January 12, 1897.

Application filed April 28, 1896. Serial No. 589,376. (No model.)

To all whom it may concern:

Be it known that I, HANS BEEG, mechanical engineer, of Durlach, in the Grand Duchy of Baden, Germany, have invented new and useful Improvements in Molding-Machines, of which the following is a specification.

This invention relates to that kind of molding-machines wherein a reversible pattern-plate is employed having the two corresponding patterns on its two surfaces, respectively.

The invention consists in several improvements by which a hydraulic press is adapted for compressing or ramming the sand into the boxes.

The new machine is represented in the affixed drawing, partly in section, showing two different positions of the mechanism.

C is a hydraulic press, the piston P of which carries a table D.

B B are side frames or standards supporting the pattern-plate A in bearings H H, which consist of a half-cylindrical supporting-surface at the bottom and two vertical guides h h, which allow the trunnions a a of the plate A to be lifted vertically.

M M are the two corresponding patterns, rigidly fixed to or integral with the plate A.

N N are the corresponding molding-boxes, which are fixed to the plate A by bolts n and wedges w.

E is a cross-bar supported by the legs e e, which are hinged at c c. A presser-block K is fixed to its under side.

f is a frame adapted to fit over the edges of the molding-boxes N N.

The mode of operation of the machine is the following: A molding-box N is fixed to the upper side of the pattern-plate A by the bolts n and wedges w. The frame f is placed on the box and sand filled in. Then the cross-bar E is swung over the molding-box and the piston P with the table D is raised, preferably with a second molding-box fixed to the under side of the pattern-plate from the preceding operation. The upward movement of the table D causes the plate A and the mold-boxes to be lifted from the bearings H H, and

by the action of the presser-block K the sand is rammed in so as to be about flush with edge of the molding-box. Then the piston is lowered and withdraws from the plate A, when the bearings H H are reached and the plate is prevented from further descending. Then the plate A is turned on its trunnion and the piston is raised far enough to support it. The wedges w may then be withdrawn and the piston lowered again to withdraw the mold in the box from the molding-plate; but in most cases it is preferable not to withdraw the under molding-box now, but first to raise the plate A again and to withdraw it after the next pressing operation by one stroke together with the withdrawing of the upper box from the cross-bar.

Now, what I claim, and desire to secure by Letters Patent, is the following:

In a molding-machine, the combination of a double-faced reversible pattern-plate, trunnions formed integral with said plate, vertically-elongated bearings in which the trunnions are adapted to move vertically and to rotate, mold-boxes and detachable means for connecting and supporting one of said mold-boxes on each face of the pattern-plate, a frame adapted to fit on said mold-boxes, a cross-bar pivotally mounted and carrying a presser-block which is adapted to swing with said cross-bar over and into the path of the mold-boxes in their upward movement and a hydraulic press beneath said mold-boxes and adapted to bear upon the sand in the lower mold-box and at the same time to move the mold-boxes and pattern-plate to cause the sand in the upper mold-box to be compressed by the presser-block, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HANS BEEG.

Witnesses:

JOHANNES SCHMIDT,
FRANZ MAYER.