

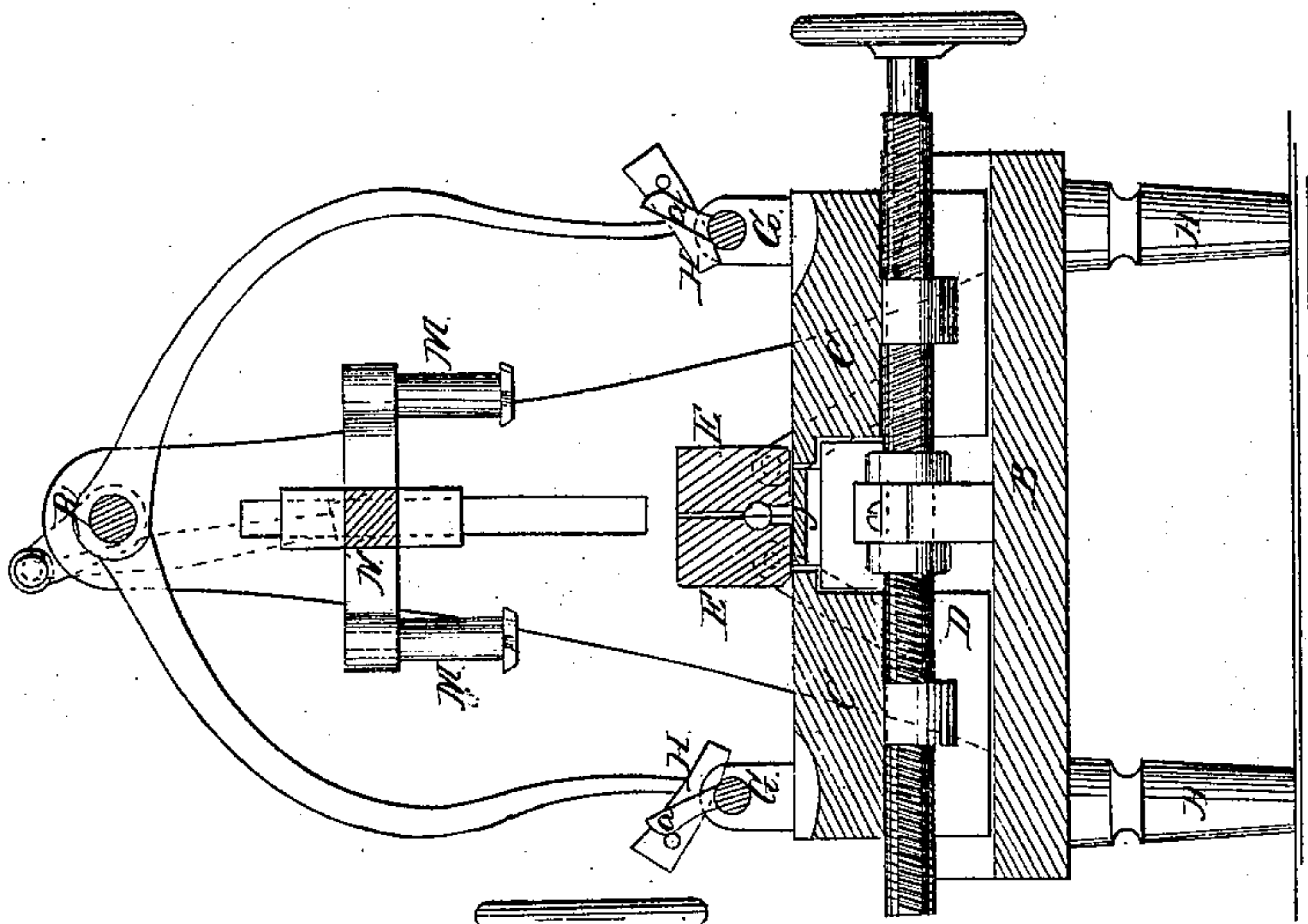
*S. J. Peet.*

*Casting Tool.*

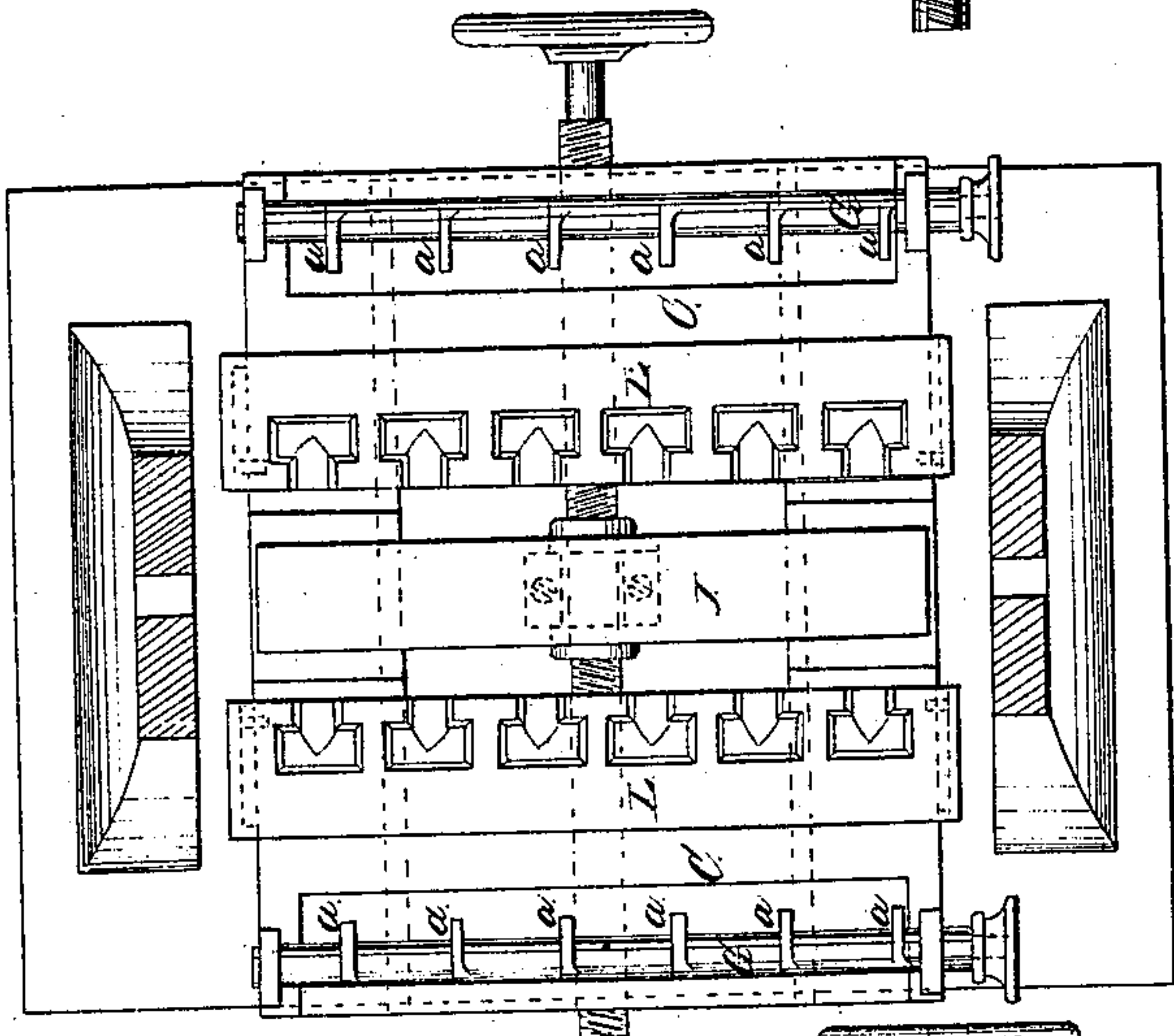
*N<sup>o</sup> 100,320.*

*Patented Mar. 1, 1870.*

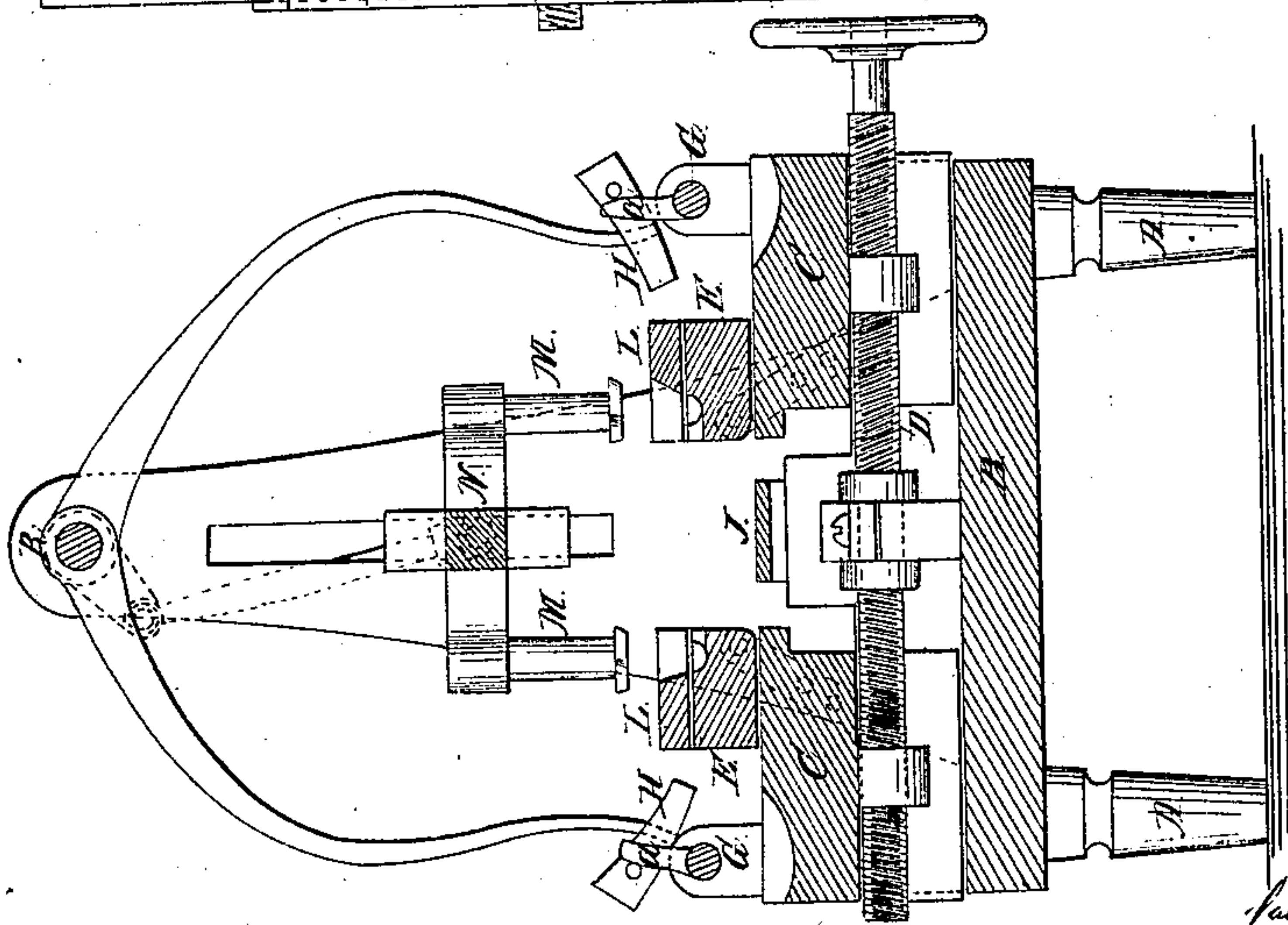
*Fig. 3.*



*Fig. 2.*



*Fig. 1.*



*Witnesses:*  
*to Mahlers*  
*E. F. Hastings.*

*Inventor:*  
*S. J. Peet*

*per Sanford & Hauff*  
*attys.*



# United States Patent Office.

S. J. PEET, OF NEW YORK, N. Y.

Letters Patent No. 100,320, dated March 1, 1870; antedated February 16, 1870.

## IMPROVEMENT IN MACHINE FOR PRODUCING CORES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, S. J. PEET, of the city, county, and State of New York, have invented a new and improved Machine for Producing Cores; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which drawing—

Figure 1 represents a transverse vertical section of this invention, when the machine is in position to receive the sand.

Figure 2 is a horizontal section of the same.

Figure 3 is a transverse vertical section of the same, when the machine is in position to discharge the finished cores.

Similar letters indicate corresponding parts.

This invention relates to a machine for making such cores which have to be molded in halves, said machine being composed of two semi-core plates, which are hinged to slides receiving a reciprocating motion toward and from each other by a screw-spindle, with a right-and-left-banded thread, or any other equivalent means. The semi-core plates are charged with sand through funnel-shaped hoppers, and the sand is stamped down by suitable rams or stamps. After the semi-cores are finished the semi-core plates are turned up so that they face each other, and the semi-cores are united by moving the semi-core plates close together. The finished cores are then loosened by rapping the core-boxes with suitable automatic hammers, and by separating the semi-core plates the cores are deposited upon a movable plate, which, being loose, can be readily removed, together with the finished cores, to the oven.

In the drawings—

The letter A designates the pillars, standards, or posts which form the supports for the different parts of my machine.

On these posts rests the platform or table B, which is grooved out to form guide-ways for two slides, C C, to which a reciprocating motion toward and from each other may be imparted by means of a screw-spindle, D, with a right-and-left-handed thread.

The slides C C form the supports for the semi-core plates E E, which are connected to the same in such a manner that they can be turned up from a horizontal to a vertical position, and *vice versa*, and each of which contains a series of semi-core boxes, best seen in fig. 2 of the drawing.

These semi-core boxes are supplied with sand through hopper-plates L L, each of which contains a number of funnel-shaped apertures or hoppers corresponding in shape and position to the semi-core boxes, and the sand is rammed down into the hoppers and semi-core boxes by means of a series of rams or stamps, M M, which are secured to a cross-head or follower, N, to

which a rising and falling motion is imparted by the action of a crank-shaft, R, the cranks of which connect with said follower by rods or pitmen, and which receives a revolving motion by a belt, gear-wheels, crank, lever, or any other simple device.

When each box is properly filled with sand the stamps M M are brought down with a force which may be regulated by a gauge, so that it shall always be uniform without depending upon the judgment of the operator.

When the cores are thus prepared the surplus sand in the hoppers is shoved off from the semi-core boxes, by a single motion on the movable plate J, which being laid loose on the table, is removed with the sand.

After disposing of the surplus sand the movable plate J is replaced, the core-plates E E are turned up to a vertical position, which brings each half of each core exactly facing its counterpart, when, by the operation of the screw-spindle D, they are brought firmly together, and held until they adhere, and then, by a few raps on the boxes, the sand is liberated, and by moving the core-plates gently apart the finished cores are deposited upon the movable plate J, on which they are conveniently carried to the oven.

The raps on the core-boxes are produced by a series of hammers, H, which are suspended from the shaft R, and to which the required motion is imparted by a series of tappet arms, a, extending from shafts G, which have their bearings in suitable boxes secured to the slides C, and to which the required motion is imparted by hand or any other suitable power. By this arrangement all the core-boxes are rapped simultaneously, and the power of the blows can be easily regulated by increasing or decreasing the stroke of the hammers or their weight, or, if desired, the power of the blows may be regulated by suitable gearings.

By this arrangement a machine is produced which enables me to produce a large quantity of cores by the aid of children or unpracticed operators.

Having thus described my invention,

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

1. The slides C C, receiving a reciprocating motion in opposite directions, and carrying the semi-core plates E E, substantially as shown and described.

2. The combination of slides C C, core-plates E E, hopper-plates L L, plate J, and rams M M, substantially as described.

3. The arrangement with the above of the automatic hammers H, substantially as described.

This specification signed by me this 17th day of June, 1869.

S. J. PEET.

Witnesses:

C. BONSOR,  
W. H. WATSON.