

J. Keller,

Brick Machine.

No 106490.

Patented Aug. 16. 1870.

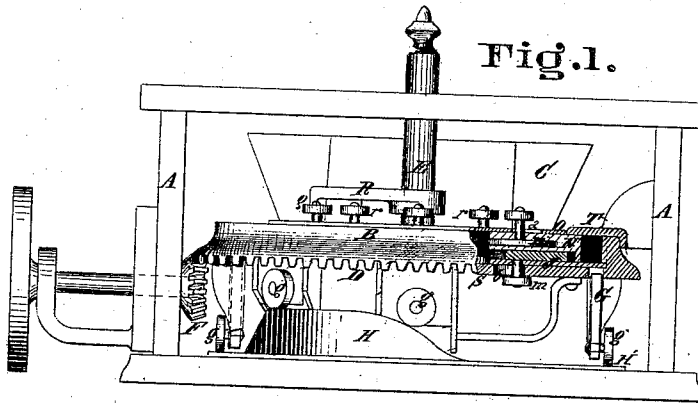


Fig. 1.

Fig. 2.

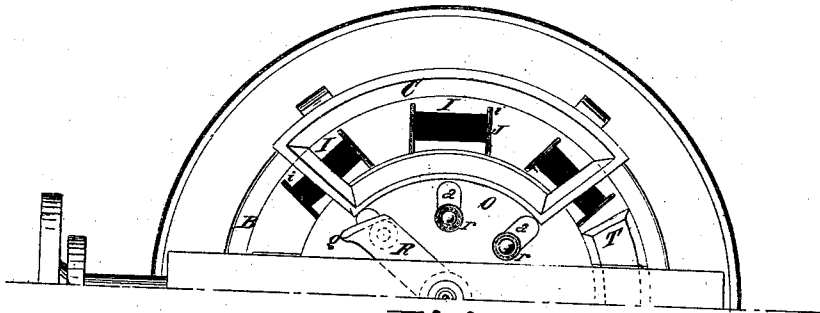
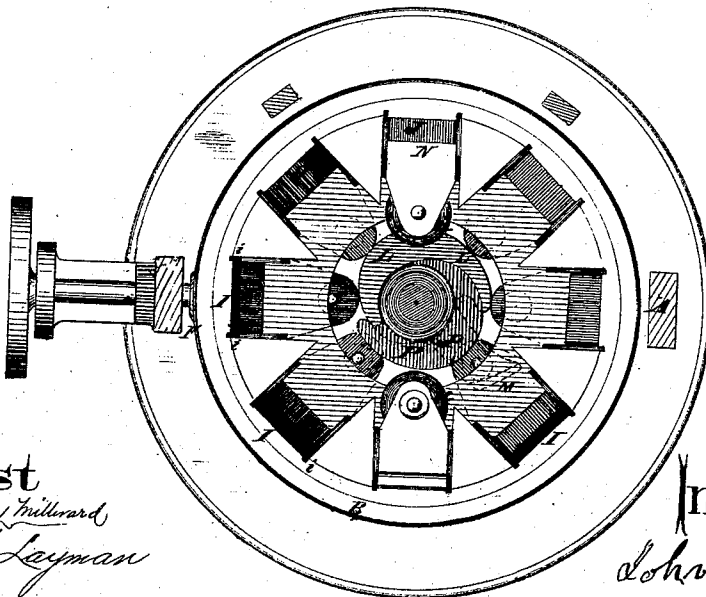


Fig. 3.



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JOHN KELLER, OF PADUCAH, KENTUCKY.

Letters Patent No. 106,490, dated August 16, 1870.

IMPROVED BRICK-MACHINE.

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, JOHN KELLER, of Paducah, county of McCracken, State of Kentucky, have invented certain new and useful Improvements in Brick-Machines; and I do hereby declare the following to be a sufficiently full, clear, and exact description thereof to enable one skilled in the art to which my invention appertains to make and use it, reference being had to the accompanying drawing making part of this specification.

Nature and Objects of Invention.

My invention relates to the class of brick-machines which embody a revolving mold-table and clay-hopper for feeding the molds; and consists—

First, in the combination with a horizontal revolving mold-table, of certain devices for operating the pressing-plungers.

Second, in the provision and peculiar device for operating a three-sided box, which, when the clay is fed into the molds, and during the operation of pressing by the plungers, forms the bottom and two ends of the mold, and which, when the pressure is completed, is withdrawn in such a way as to form smooth, sharp corners on the brick, and relieve it from contact with the mold, so that it can be thrown out by suitable devices for this purpose.

Third, in the combination and arrangement of parts composing the entire machine.

Description of the Accompanying Drawing.

Figure 1 is an elevation, partly in section, of a machine embodying my invention.

Figure 2 is a top view of one side of the machine.

Figure 3 is a plan with the top plate removed, showing the sliding molds and pressing-plungers.

General Description.

A is the frame of the machine, and

B, the revolving mold-table.

C is the hopper for receiving and feeding the clay to the molds.

The table B is rigidly secured or cast to the bevel-driving wheel D, and it revolves upon the central fixed shaft E, which is secured within the frame A in the manner shown. The central shaft is necessarily fixed, in order that it may support cams which operate the pressing-plungers and sliding mold-boxes of the revolving table.

F is the pinion of the driving-shaft. It gears into and drives the bevel-wheel D of the mold-table.

The plungers G, which force out the bricks when the pressure is completed, are provided with rollers g, which rest upon the track H of the frame A.

The cavities I of the mold-table B are fitted with mold-boxes J, which form the bottom and ends of the brick.

The sides of the boxes J extend sufficiently outward to enter the small recesses i in the corners of the cavities I, in order that the brick may be perfectly formed on these outer corners.

When the clay is being fed to the molds, these boxes occupy the extreme outer position, that is, the sides occupy the recesses i, and continue so to do, until the brick is pressed by devices hereinafter explained.

After the brick has been so pressed, the boxes are drawn inward, so as to relieve three sides of the brick from contact with the mold, and provide for its being easily thrown out by the plungers G, which, in traveling round the curved track H, are elevated in the manner necessary for forcing the brick out of the mold by means of the cam-shaped elevation or projection H' of the track.

The boxes J are operated by the cams L M, the cam L serving to force the box outward by pressure upon the end of the box, and the cam M to force it inward, the cam portion of the piece M projecting upward and engaging the projections m from the bottom of the box. These cams are both rigidly secured to the shaft E.

The pressing-plungers N are fitted snugly between the sides of the boxes J, and provided with anti-friction rollers n, against which the cam-pressure is exerted.

These plungers are forced outward, to press the brick by the cam P, and returned inwardly by the downwardly-projecting cam-lip Q of the cam R, which engages the roller projections r of the plungers.

The cams P R are both rigidly secured to the shaft E. The plungers N are kept in place by the covering-plate O, through the slots a of which the projections r pass.

The boxes J rest upon the plate S, through the slots b of which the roller projections m pass.

The plungers G are fitted to slide snugly up and down between the downwardly-projecting slide-brackets of the table B.

The plate T, which is rigidly secured to the frame A, is provided to cover the top of the mold during the time the clay in the mold is receiving the pressure of the plungers N, and thus prevents the escape of clay.

The hopper C can be fitted with any preferred apparatus for pressing the clay into the molds.

It will be seen that, owing to the provision of the sliding boxes J, when the brick is ready to be removed from the mold, there is but two faces of it in contact with the mold, and, as the pressing-plungers N are

at this time at liberty to retreat from contact with the brick, the brick is easily removed by the action of the plungers G.

The effect of the removal of the boxes by sliding inward while the brick is held between the plungers N and mold-table B is, that the brick is perfectly formed at the corners, and is smooth-faced on every side.

Claims.

I claim—

1. In the described connection with the revolving mold-table B, hopper C, and plat T, the sliding plungers N, cam, P, and cam Q R, combined and arranged substantially as described for the purpose specified.

2. In the described connection with the mold-table B and plungers N, the sliding boxes J, operating substantially in the manner and for the purpose set forth.

3. The combination and arrangement of revolving mold-table B, hopper C, plate T, plungers N, plungers G, cam-track H H', sliding-boxes J, and cams L M P Q R, operating substantially in the manner and for the purpose described.

In testimony of which invention I hereunto set my hand.

JOHN KELLER.

Witnesses:

FRANK MILLWARD,
J. L. WARTMANN.