C. Nolan,

Brick Machine,

No. 76,504, Patented Apr. 7, 1868.

Fig: 1.

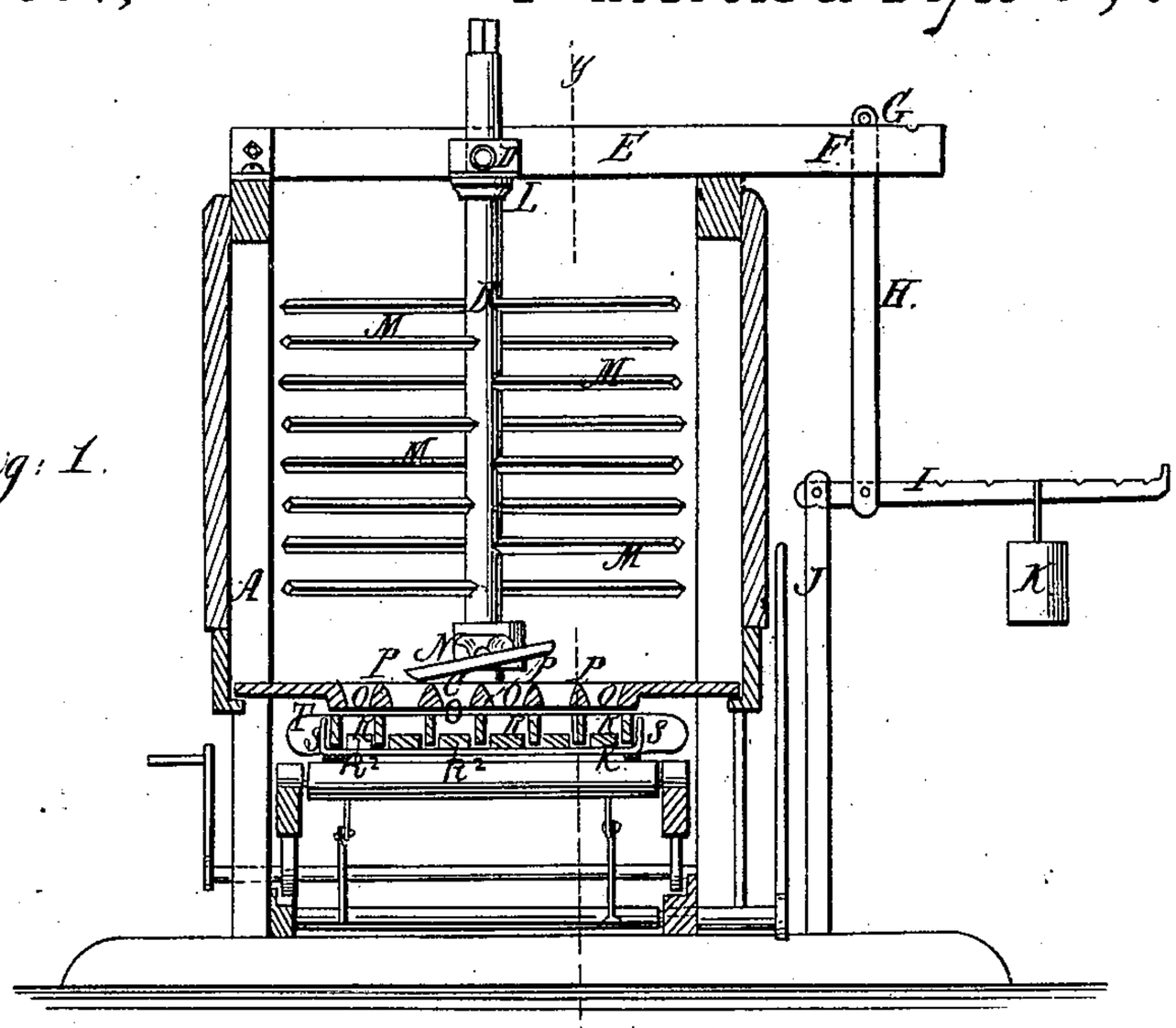
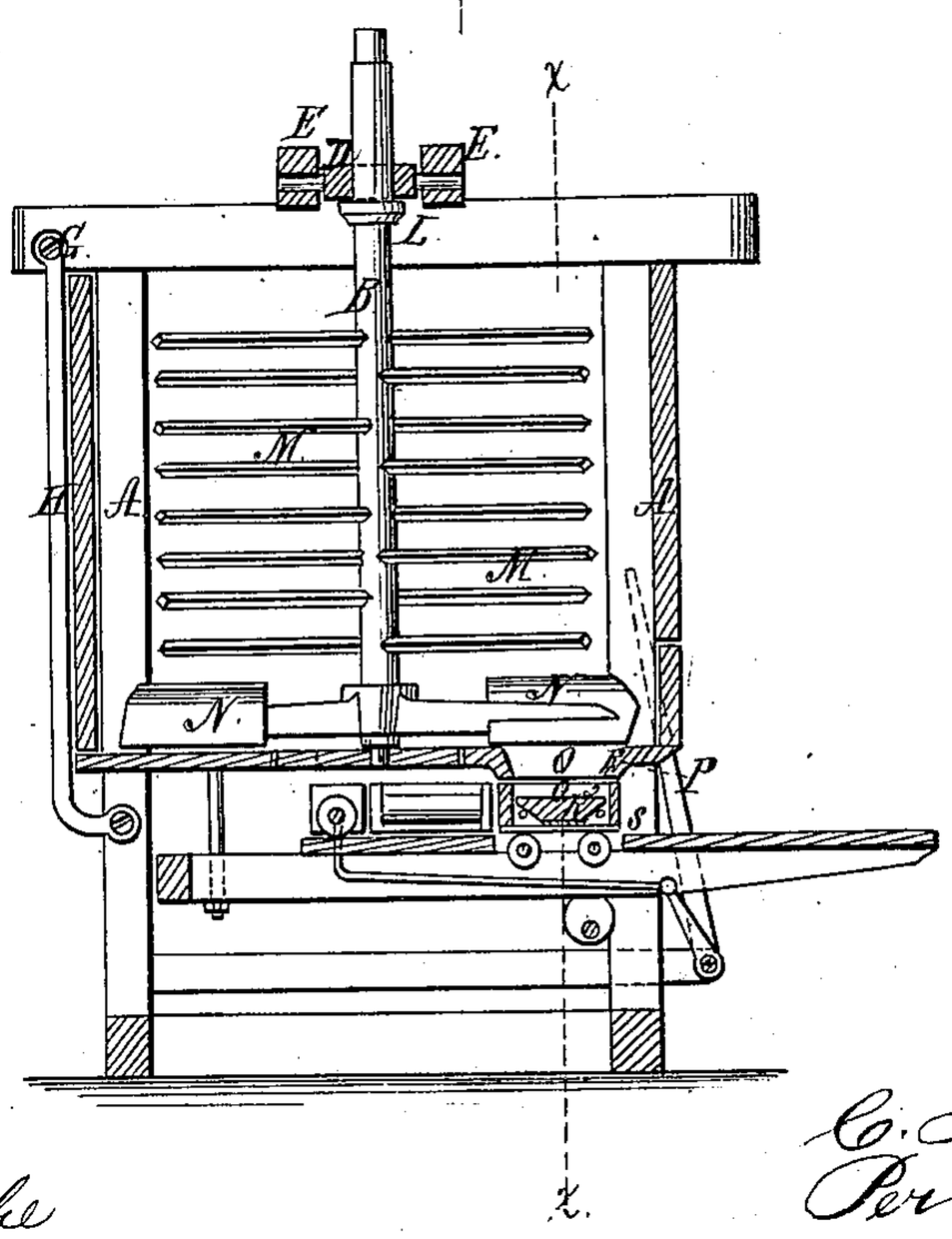


Fig: 2.



Witnesses:

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CLINTON NOLAN, OF NILES, MICHIGAN.

Letters Patent No. 76,504, *dated April* 7, 1868.

IMPROVEMENT IN BRICK-MACHINES.

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, CLINTON NOLAN, of Niles, in the county of Berrien, and State of Michigan, have invented new and useful Improvements in Brick-Machines; and I do hereby declare that the following is a full, exact and clear description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, and the letters of reference marked thereon.

The present invention consists—

First. In so constructing the press that it can be lifted over a stone or any other obstruction which may chance to pass in with the mud.

Second. In so governing the press by a lever carrying a weight or weights, as to impart a greater or lesser amount of pressure, according to the consistency of the mud, or as the case may require for the proper pressing of the mud or clay into the mould, and so that when the press meets with a hard substance or substances, it will and cannot crush it, but is susceptible of yielding thereto, and passing over it, and immediately resuming its original position and working condition.

Third. In so constructing a rack through which the mud or clay passes before entering the mould or moulds, with holes or openings narrower at their centre than at their ends, in order that a larger amount of clay or mud may be forced into the mould at its front end, and thus the defect of having the back part of the brick when in the mould pressed much greater than the front end, as in usual brick-presses, consequently producing a brick more equally and evenly pressed in all of its parts, and causing the mould to be more evenly filled.

Fourth. In so constructing and shaping the rack with an inclination from each side to the centre, as to afford the brick when pressed an easy egress from the machine, and to prevent the usual pressure upon the rear end as they are passing out of the machine, which in so many cases causes the front end to draw back or curve up; this inclination also preventing stone or other obstructions from catching on the back side of of the mould as it is passing and let from under the rack.

Fifth. A guide or bumper for the mould inserting into the machine to strike against, so constructed and arranged as to be susceptible of adjustment for receiving a mould of a greater or lesser length, or to be adapted for the same moulds as they become worn from use, and to bring them in the right place or position for the openings in the rack of the press.

Sixth. In constructing the mould or moulds to a brick-press, with a movable bottom or follower, whereby the bricks can be with greater facility discharged therefrom.

In the accompanying plate of drawings, my improvements in brick-presses are illustrated—

Figures 1 and 2 being vertical sections taken in the plane of the line *x x* of fig. 2 in the first instance, and in the plane of the line *y y*, fig. 1, in the other instance.

A, in the drawings, represents the box to the press or mill; B, a shaft, arranged vertically and centrally in such box, turning at its lower end in a bearing of the bottom, C, thereto, and at its upper portion above the press in a nut, D, hung between two parallel bars or rails E. These bars extend across the top of the press, and at one end are hung to one side of the same, so as to swing in a vertical plane. At their other end F, they project over the side, and are there secured by a cross-rod, G, from which straps H extend down the outside of the box, and have there hung to them a lever-beam, I. This lever-beam I is hung to the standards J of the case, and along its length is notched at suitable points for the hanging of a weight or weights, K, according to the amount of pressure required to be had upon the cross-bars E, for holding the shaft B down in the mill.

L, a collar on shaft B, under the rails E, for causing such rails to be lifted when the shaft is lifted, as will be hereinafter described.

The shaft B is provided with a series of radial arms, M, for mixing the mud or clay in the box or case A, and at its lower end has pressing or packing-arms N, for pressing the mud through the openings O to the rack P, secured in the bottom of the press, into the mould-rack Q placed below.

These openings O to the rack P are made narrower at their centre points than at either end, as and for the purpose hereinbefore stated.

The under side to the rack P is made with an inclination from each side to the centre, for securing an easy egress of the mould-rack carrying the bricks from the press.

The mould-rack Q has a series of moulds, R, the bottoms R^2 of which are movable, so as to be forced up through the moulds for forcing the bricks within the same out thereof, the several bottoms R^2 resting upon and being attached to a common bar or rail S, applied to the mould-rack.

T, the bumper or guide, against which the end of the mould-rack abuts, when slid into the press under the rack-openings to its bottom plate. This bumper T is secured at one end by a slot and set-screw, so as to be susceptible of adjustment, to compensate for the wear of the mould-rack, and thus enable it to be readily brought to the proper position under the press.

By the arrangement of the shaft B within the press, the press is allowed to yield should it in its action come in contact with a stone or stones, or other hard substance or substances.

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

The combination of the parallel hinged arms E, pivoted nut D, straps H, weighted lever I, and standards J, with the shaft B, arranged substantially as described for the purpose specified.

CLINTON NOLAN.

Witnesses:

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