Lehr & Thun.

Brick Mach.

No. 86,423. Patented Feb. 2, 1869.

Fig: 1

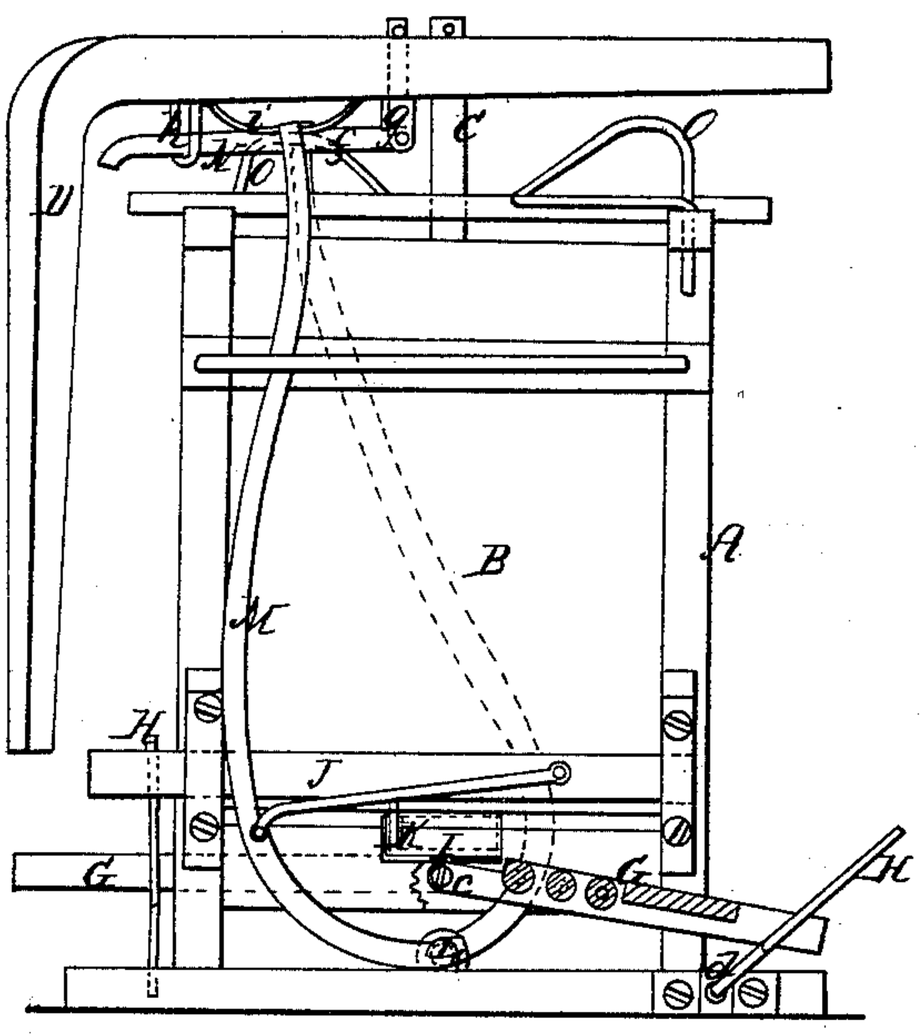


Fig: 2.

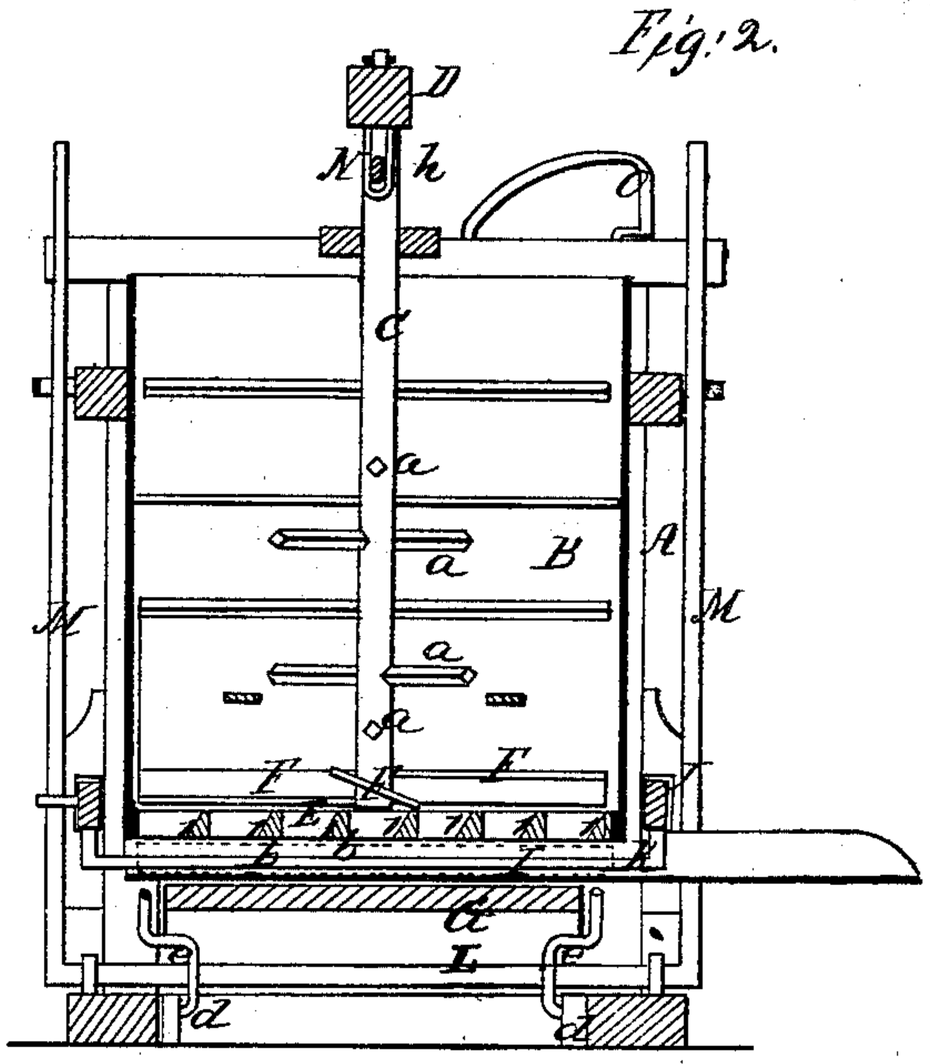
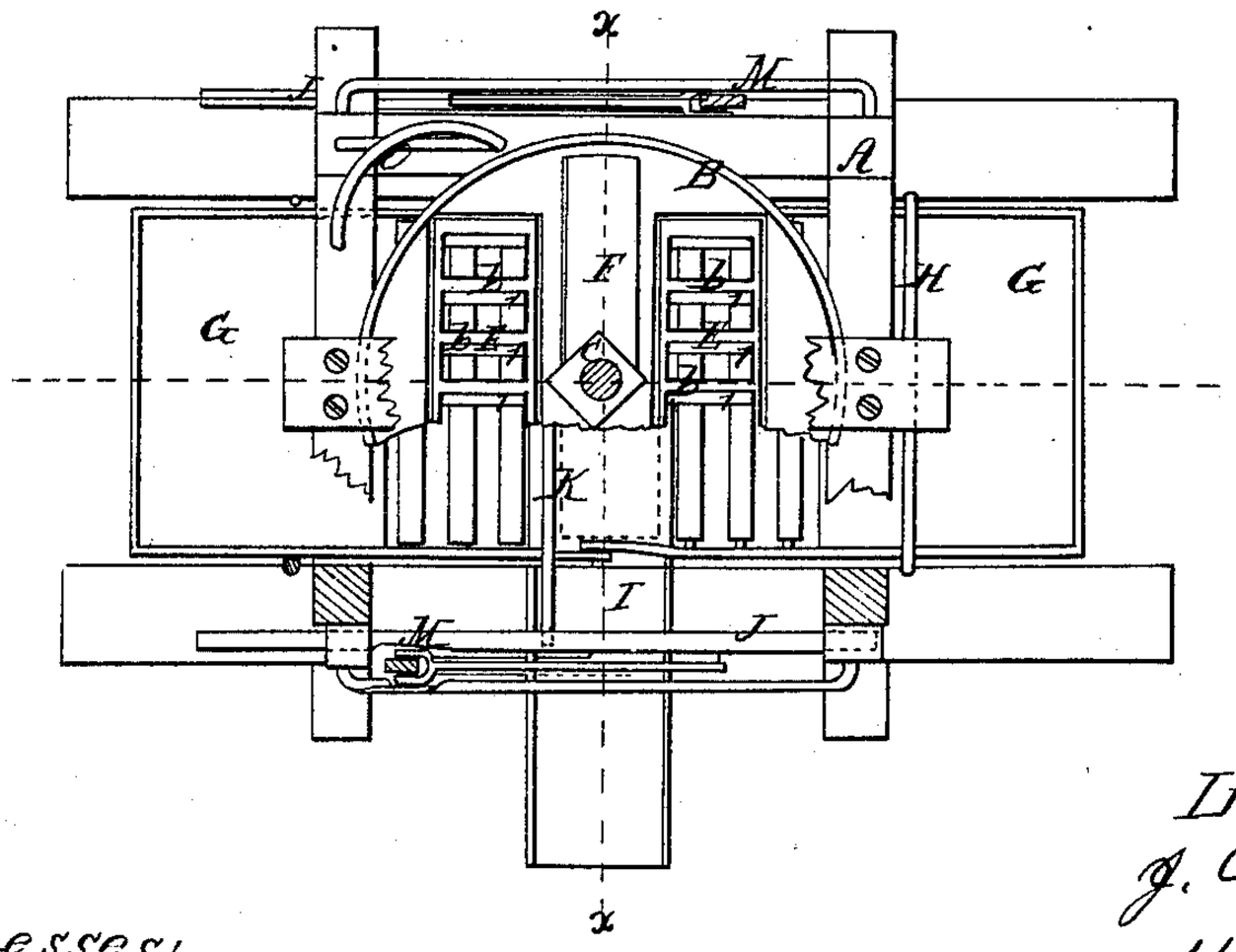


Fig: 3.



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J. G. LEHR AND H. D. THORP, OF HARLAN, INDIANA.

Letters Patent No. 86,423, *dated February* 2, 1869.

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 we, J. G. LEHR and H. D. THORP, of Harlan, in the county of Allen, and State of Indiana, have invented a new and useful Improvement in Brick-Machines; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view of our invention, partly in section.

Figure 2 is a vertical section of the same, taken in the line *x x*, fig. 3.

Figure 3 is a plan or top view of the same, partly in section.

Similar letters of reference indicate corresponding parts.

This invention relates to a new and improved machine for moulding and pressing brick.

It consists in a peculiar construction and arrangement of parts, as hereinafter fully shown and described, whereby a very simple, economical, and efficient machine for the purpose specified is obtained.

In the accompanying sheet of drawings—

A represents the frame of the machine, which may be constructed in any proper manner, to support the working-part; and

B is the case of the mud-mill, fitted in frame A, and having a shaft, C, placed centrally and vertically in it, to which arms *a* are horizontally attached, for grinding and tempering the clay.

To the upper end of the shaft C, a sweep, D, is attached, to which the animal which operates the machine is connected.

In the bottom of the mud-mill, there are fitted two metal gratings E E, the cross-bars *b* of which are vertical at one side, and inclined at the other side, as shown at 1 in fig. 2, and the clay is forced through these gratings, into the moulds underneath them, by means of wide pressers F F, which are somewhat inclined in their transverse section, said pressers being attached to the lower part of shaft C, so as to work quite closely to the gratings.

G G represent two tables, on which the moulds rest while being filled or having the clay forced into them.

These tables are attached, at their inner ends, to the frame A by joints *c*, which admit of the outer parts of the tables being raised and lowered, the tables being raised, and supported when in a raised state, by bail-shaped rods or bars H H, the lower ends of which are connected, by joints *d*, to the frame A.

The sides of these bail-shaped rods or bars are curved inward underneath the tables, to form horizontal portions *e*, on which the tables rest. (See fig. 2.) By turning up the bars H to a vertical position, the tables will be supported in a horizontal one, and, by turning said bars outward and downward, the outer parts of the tables will be lowered, as shown in fig. 1.

Between the inner ends of the two tables G G there is a fixed table, I, on which the empty moulds are placed from one side of the machine, and at the opposite sides of the frame there are horizontal slide-bars J J, at right angles with the fixed table I, and having a rod, K, attached, which is over the table I, and works from one side to the other of the same, under the motion of the slide-bars J J.

The slide-bars J J are operated from the sweep D, as follows:

L is a shaft, which is fitted in the lower part of the frame A, and has a lever, M, at each end.

These levers extend upward at the sides of the machine, so that they may be acted upon by a latch, N, attached to the sweep.

This latch N is constructed of a bar, *f*, pivoted, at one end, to a pendant, *g*, of the sweep, and passing through a guide, *h*, attached to the sweep, the bar being kept down in contact with the bottom of the guide by a spring, *i*.

As the sweep D is rotated, the bar *f* comes in contact with the upper ends of the levers M M, moving first one and then the other, the bar *f* being raised from the levers at the proper time, in consequence of coming in contact with curved rods O O on the top of frame A, the position of said curved rods O O determining the length of the vibration of the levers.

By this arrangement, a reciprocating movement is given the rod K, and the empty moulds moved under the gratings E E, where they are filled, or have the clay forced into them, under the action of the pressers F F. The filled moulds are shoved out from underneath the gratings by the passage of the empty ones underneath the same.

By having one side, 1, of the cross-bars *b* of the gratings E E inclined, the mud is forced through the gratings with the least possible degree of friction.

Having thus described our invention,

We claim as new, and desire to secure by Letters Patent—

The levers M M, slide-rods J J, with rods K attached, in combination with the latch N on sweep D, all being constructed and arranged for operating the brick-moulds, substantially as shown and described.

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Witnesses:
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