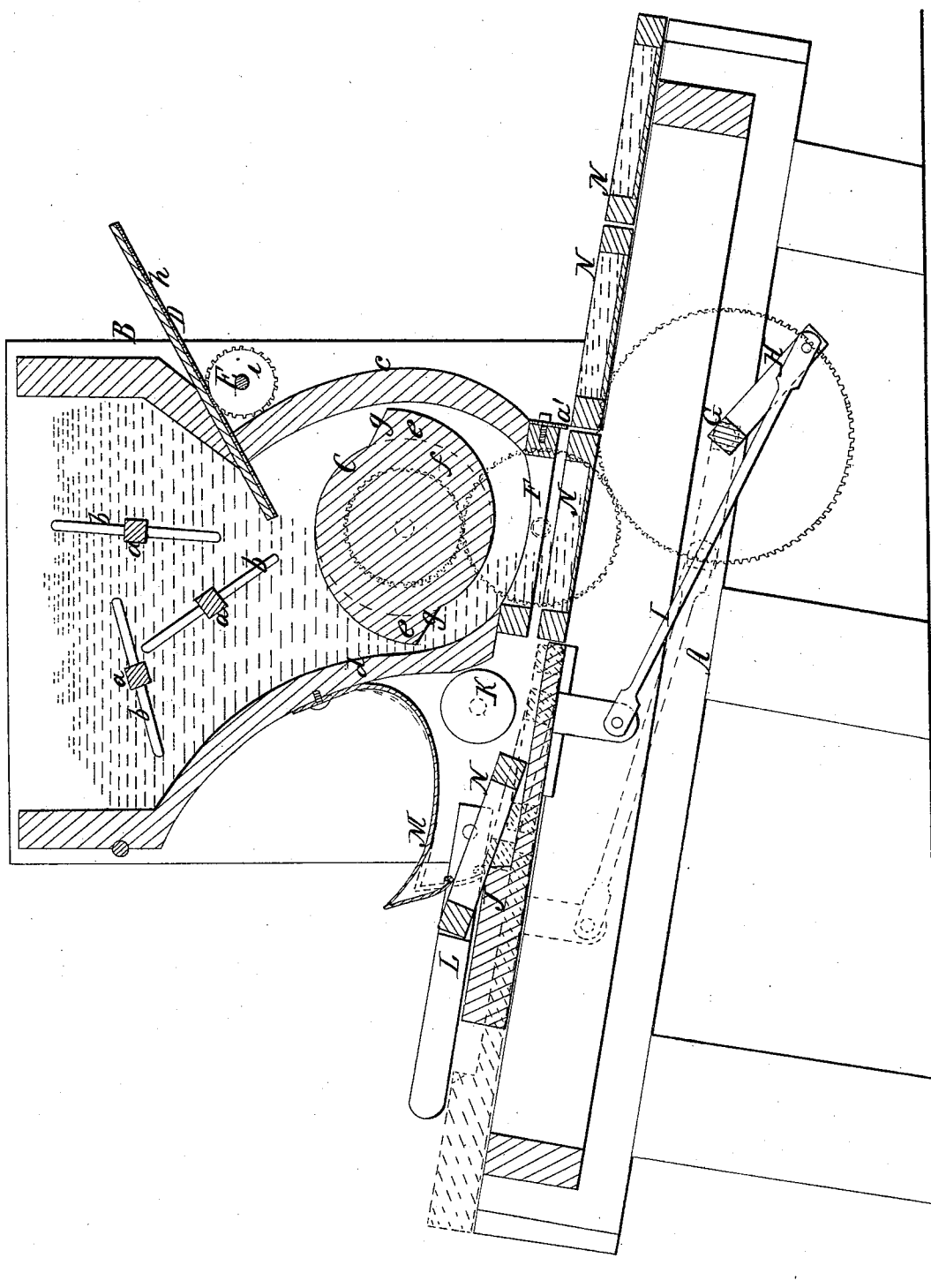


R. W. Jones,
Brick Machine.

N^o 14,100.

Patented Jan. 15, 1856.



UNITED STATES PATENT OFFICE.

R. W. JONES, OF GREEN CASTLE, INDIANA.

BRICK-MACHINE.

Specification of Letters Patent No. 14,100, dated January 15, 1856.

To all whom it may concern:

Be it known that I, RICHARD W. JONES, of Green Castle, in the county of Putnam and State of Indiana, have invented a new and
5 Improved Machine for Making Bricks; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawing, making a part of this specification, said
10 drawing being a longitudinal vertical section of my improvement, the plane of section passing through the center.

The nature of my invention consists in a peculiar means employed for feeding the
15 molds, underneath the press and discharging them therefrom.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

20 A, represents a framing the upper surface of which is inclined as plainly shown in the drawing.

On the upper part of the framing A, and at about its center, there is placed a box
25 B, which has three shafts (a) (a) (a) passing transversely through its upper part, said shafts having teeth or arms (b) passing transversely through them, and projecting from opposite sides of the shafts at equal
30 lengths. The shafts are placed at equal distances apart at the points of an equi lateral triangle, and the teeth or arms (b) are so arranged that as the shafts rotate, the teeth or arms of one shaft will not interfere with
35 those of the others. The shafts (a) are connected at one end by gear wheels. The upper part of the box B, has vertical and parallel sides, but the lower part of said box has its front and back sides curved, as
40 clearly shown in the drawing, the front side (c) being curved outward, and the back side (d) inward corresponding inversely with the front side. Between the two curved sides (c) (d) a pressing roller C, is placed.
45 This roller is equal in length to the width of the box B, and is formed of a cylinder having two projections (e) (e) attached to opposite sides of its periphery. The dotted circle (f), in the drawing indicates the cylinder. This pressing roller and projections
50 may be formed of cast iron, cast in one piece, the projections extend the whole length of the roller, shoulders or ledges (g) are formed by the projections (e), (e), and the
55 outer ends of these as the roller rotates, just

clear the inner surfaces of the front and back curved sides of the box B.

D, is an inclined slide which is fitted in the box B, between the shafts (a) and the pressing roller C. This slide is moved out
60 and in by racks (h) and pinions (i) one at each side of the slide, the pinions being placed upon a transverse shaft E, on the outer side of the box B. At the bottom of
65 the box B, there is placed a grate F, having the usual bars, the spaces between which correspond with the width of the molds. The grate F, is a short distance above the upper surface of the framing A, so that the
70 molds may pass underneath the grate.

G, represents a shaft which is placed transversely in the framing A. This shaft has a crank H, at its center to which a pitman I, is connected, and the outer end of
75 this pitman is attached to the under side of a carriage J, which is fitted on the upper part of the framing A, directly back of the box B.

K, is a roller placed transversely over the upper part of the framing A, and back of
80 the lower part of the box B.

L, L, are two spring catches, one only is shown, which are attached one to each side of the box B, at its back part and near its
85 lower end. These spring catches project over the sides of the carriage J.

M, is a spring catch attached to the back side of the box B. The use of this spring will be presently shown.

N, represents the molds which are of
90 usual construction, and therefore do not require to be described minutely.

The upper part of the box B, which contains the shafts (a) is the "pug" or mud
95 mill.

The operation of the machine is as follows: The slide D, is forced into the box B, and the clay properly moistened is thrown into the upper end of the box B, motion is then given the shafts (a) and the arms (b)
100 as they rotate grind up and properly temper the clay. The slide D, is then withdrawn so that the mud or tempered clay will fall upon the pressing roller C. As the roller C, rotates, the shoulders (g)
105 carry around a certain quantity of clay and force it into the molds N, and as there are two shoulders on the rollers two molds will be filled at each revolution of the roller. It will be seen that the shoulders (g) will
110

carry at all times the same quantity of clay for each mold, and consequently the box B, and roller C, cannot become clogged, as the ends of the shoulders as they rotate just
5 graze the front and back sides of the box B, and form a cut off, thereby preventing a superabundance of clay passing below the pressing roller. The shoulders (g) on the
10 pressing wheel are placed at such an angle as to force the mud nearly vertically with the molds. The inclination of the molds also assists to produce this effect. The surplus clay is taken off the molds by a knife or scraper (a') attached to the lower end
15 of the front side of the box B.

The molds N, are placed one at a time by hand upon the back part of the carriage J, at the termination of its inward stroke, the molds are caught by the springs L, L,
20 as shown in black Fig. 1, and as the carriage is forced backward by the crank H, and pitman I, the mold placed in the carriage will be retained or held by the springs L, and the mold will drop down upon the
25 upper part of the framing A, in front of the carriage J, and will be retained by the spring M. The spring M, serves as a catch and holds the mold in proper place till forced forward by the return motion of the
30 carriage. Upon the return motion of the carriage the mold will be forced under the roller K, and underneath the grate F, and

will be filled by the pressing roller C, while a succeeding mold is placed upon the carriage J, the latter mold as it is operated
35 forcing out the filled mold in front of the box B, and so on. The roller K, prevents the mold from being forced up against the grate F.

The above invention is simple, not liable
40 to get out of repair, and will operate rapidly without becoming clogged.

The pressing roller C, shafts (a) and G, are connected by gear wheels so that they
45 operate simultaneously.

I do not claim the pug mill or mode of tempering the clay for that has been previously used. Neither do I claim the reciprocatory carriage J, in itself considered,
50 but,

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

I claim feeding the molds N, underneath the grate F, and pressing roller C, and discharging them therefrom, by means of the
55 reciprocating carriage J, springs L, catch spring M and roller K, when combined, arranged, and operated as shown and described.

RICHARD W. JONES.

Witnesses:

JOS. GEO. MASON,
S. H. WALES.