

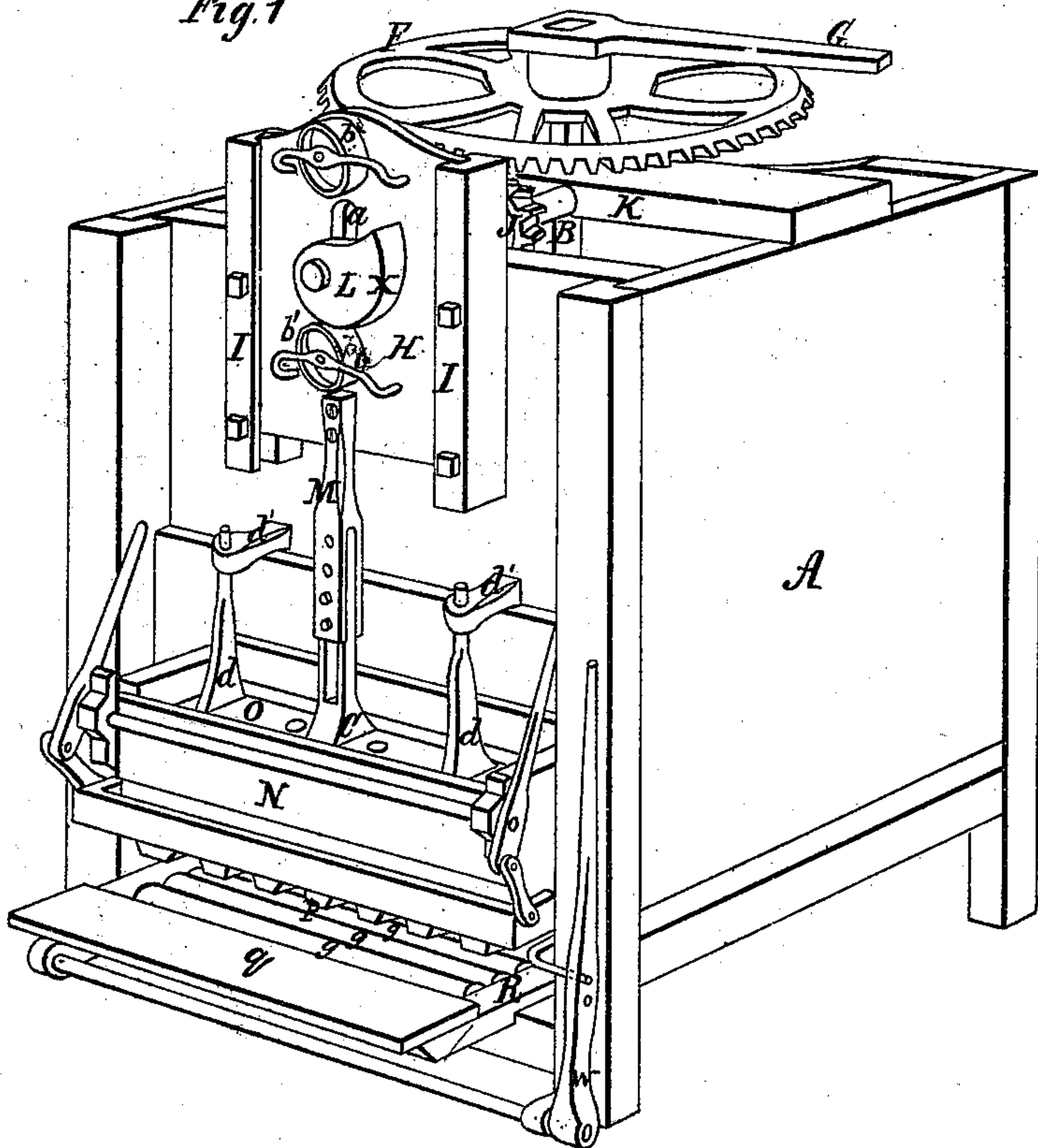
*W. G. White.*

*Brick Mach.*

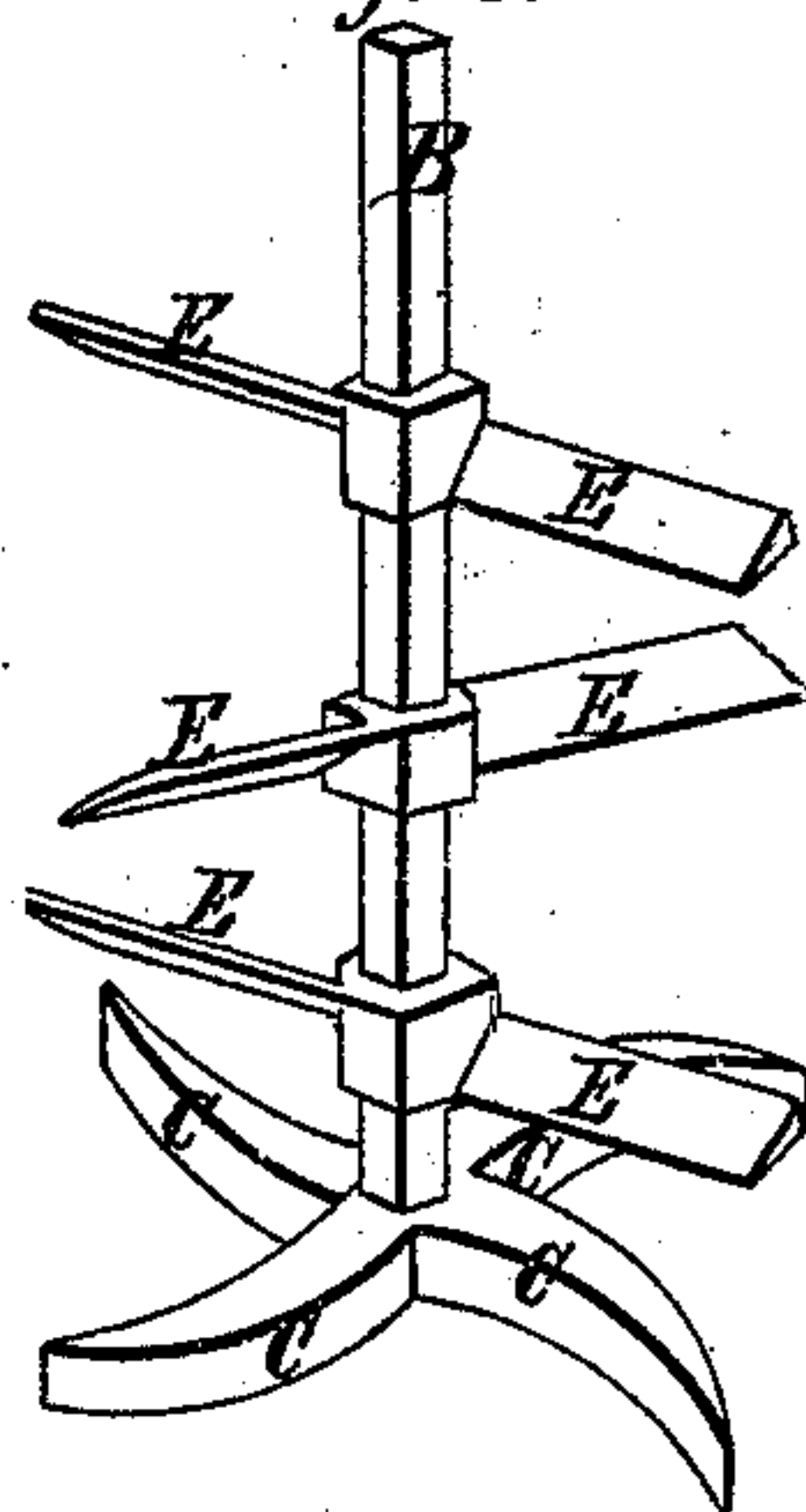
*N<sup>o</sup> 88,353.*

*Patented Mar. 30, 1869.*

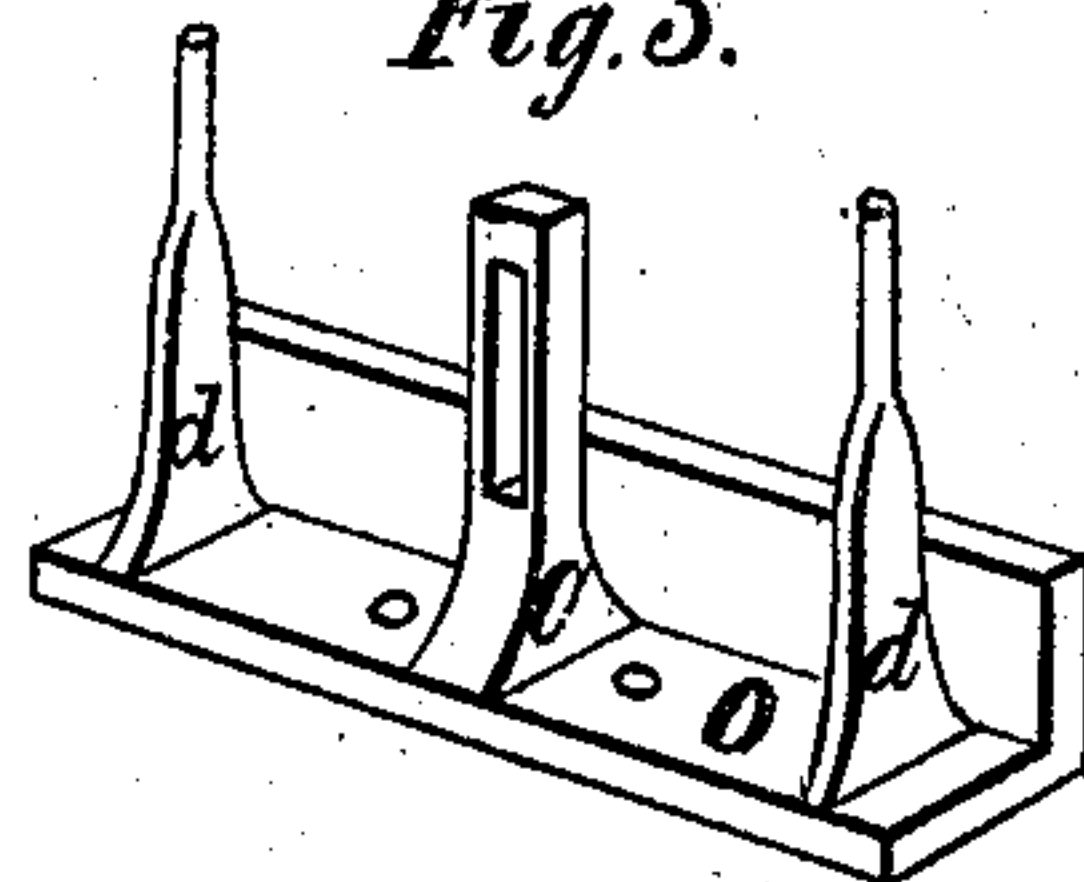
*Fig. 1*



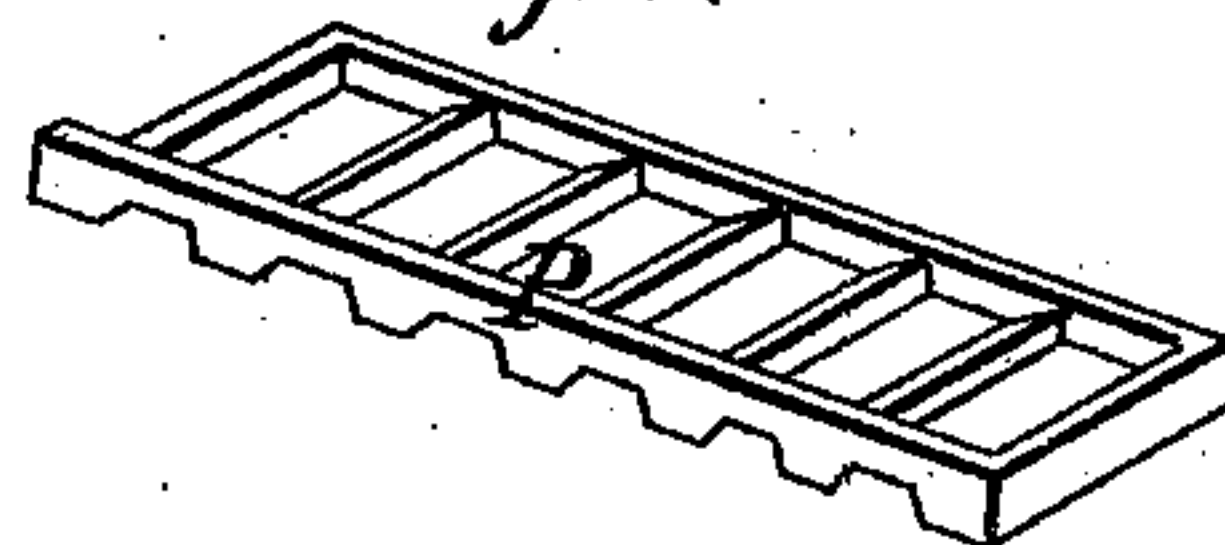
*Fig. 2.*



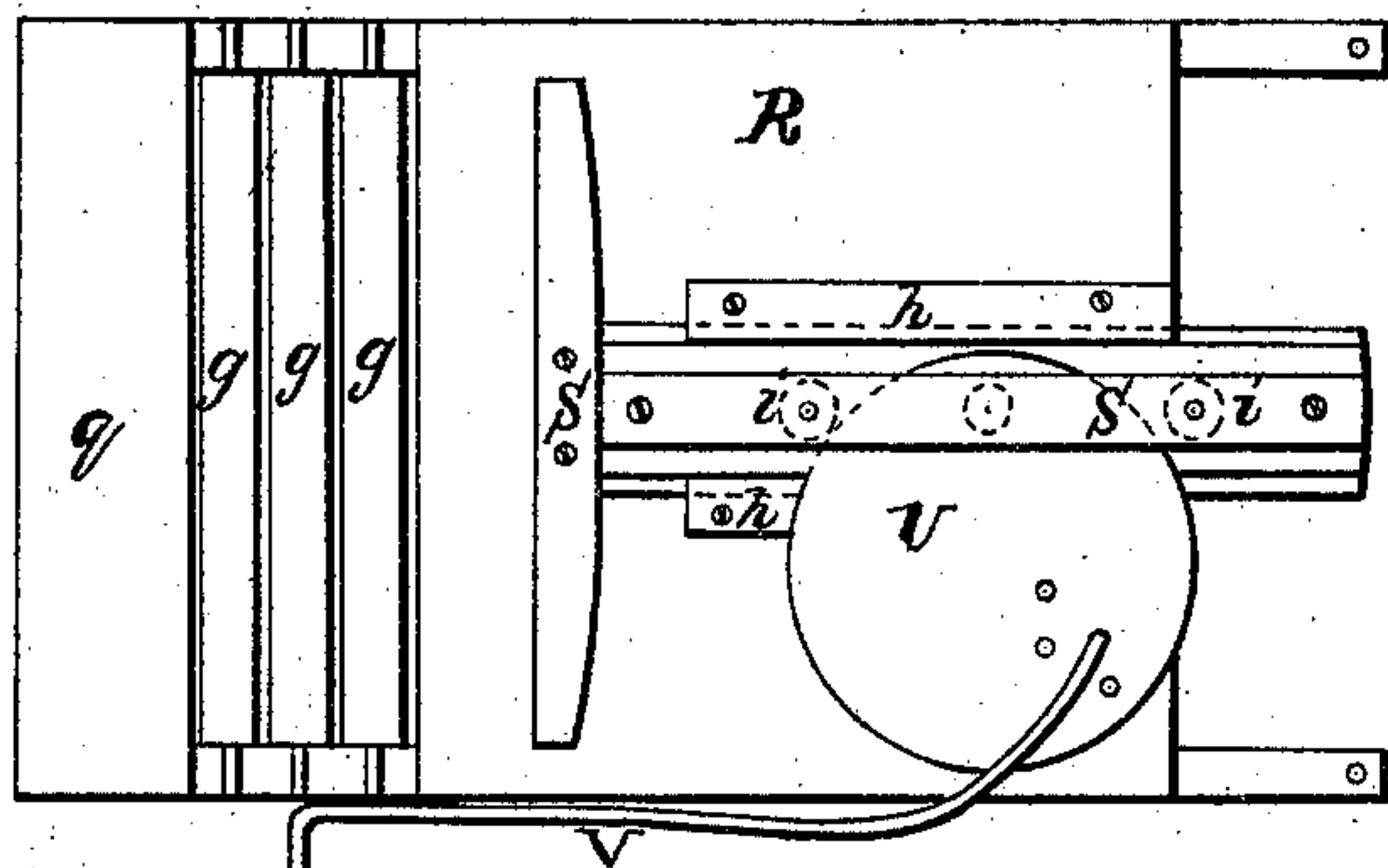
*Fig. 3.*



*Fig. 4.*



*Fig. 5.*



*Witnesses.*

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# United States Patent Office.

WILLIAM G. WHITE, OF BEDFORD, OHIO.

Letters Patent No. 88,353, dated March 30, 1869.

## IMPROVED METHOD OF PRESSING BRICKS

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, WILLIAM G. WHITE, of Bedford, in the county of Cuyahoga, and State of Ohio, have invented a new and improved Brick-Machine; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in operating a brick-machine by a cam, so formed that two-thirds of it does no pressing, by reason of which the press-board of the machine is made to stand still, alternately, during two thirds of the revolution of the cam, one-third on its upward movement, and one-third on its downward movement, giving a chance, by the rest occurring on its upward movement, for the moulds to be easily withdrawn, and preventing any sudden suction of the moist clay from them, and giving the packer sufficient time to fill the press-box, by the rest that occurs on its downward movement.

In the accompanying drawings—

Figure 1 represents a perspective elevation of the brick-machine complete;

Figure 2 is a view of the main shaft, to which are attached the kneading-knives and mud-packers;

Figure 3 is a perspective view of the press-board;

Figure 4 is a perspective view of the clod-cutter; and

Figure 5 is a plan of the mould-carriage.

Similar letters of reference indicate corresponding parts.

A is the mud-chest, in the centre of which is fixed the shaft B; provided, at its base, with the packers C, on its shank, with the kneading-knives E, and at its top, with the spur-wheel F and sweep G.

H is a sliding board, and

I I are the slides, in which it moves up and down.

J is a pinion-wheel, operating in the spur-wheel F, one end of the pinion of which works in the bearing K, while the other end, which runs out through the slot a, in the sliding board H, is provided with the cam L, the principal point of the invention.

The sliding board H is provided with the upper and lower friction-wheels, b and b', and the adjustable press-shaft M.

N is the press-box, into which the clay is forced, by the packers C, through an opening in the bottom of the mud-chest A.

O is the press-board, which presses the clay, from the press-box N, down through the clod-cutter P, in its bottom, into the brick-moulds beneath;

c, its adjustable shaft, by means of which it is attached to the press-shaft M; and

d d are its guide-rods.

d' d' are guides, attached to the mud-chest, in which the guides d d play up and down, and by means of which the press-board O is held steady in position.

R is the mould-carriage, by means of which the brick-moulds are moved.

This carriage, or slide is placed underneath the machine, and consists of an immovable horizontal frame, in the front end of which are placed, laterally, the three rollers, g g g, over which the moulds move.

Behind these rollers is fixed the T-shaped pusher S, which moves back and forward in the slides h h, fastened upon the frame R.

In the shank of the T-shaped pusher S, is a horizontal groove, in which are placed the axle of the large operating-wheel U, and the small friction-wheels i i.

To the side of the operating-wheel U, farthest from its axis, is attached the inner end of the crank V, the other end of which extends out to the front of the machine, where it is attached to the lever W, by means of which it is operated.

The machine is operated as follows:

The clay being placed in the mud-chest A, the operating-shaft B is put in motion, by means of the sweep G, causing the knives E to cut and knead the clay in the chest, the packers C to push it from the chest into the press-box N, and the spur-wheel F to put in motion the pinion-wheel J, and, through it, the cam L, by means of which the sliding board H is raised or lowered, the downward movement of the cam on the friction-wheel b', causing it to sink, and its upward movement on the friction-wheel b, causing it to rise.

The sinking of the sliding board H, to which are attached the adjustable shafts M and c, presses the clay from the press-box N, by means of the press-board O, through the clod-cutter P, into the brick-moulds beneath, and the rising of the sliding board H, clears the press-box N, and leaves it ready to be refilled by the packers C.

The cam L is of peculiar construction, its circumference being curtailed, from the place marked X, to its point, so that no pressing is done by it while that portion of it is passing over the friction-rollers b and b'.

The rest occasioned by this curtailment, gives sufficient time, on the upward movement of the cam, for the brick-moulds to be easily withdrawn, and to prevent any sudden suction of the moist clay from them; while the rest occurring on the downward movement of the cam gives the packers C sufficient time to refill the press-box N.

The brick-moulds are run in under the machine from its left side, on that part of the platform of the carriage R, between the head of the T-shaped pusher S and the rollers g. The lever W is then drawn forward, which causes the operating-wheel U to revolve on its axis, thereby moving the pusher S forward, and, consequently, pushing the brick-mould on the rollers g, under the press-box N, when the lever W is moved back again, and another mould inserted, which, on being pushed forward in the same manner, pushes the full mould out on the front of the platform, marked q, from whence it is removed.

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

The cam L, sliding board H, friction-wheels b and b', adjustable press-shaft M, and press-board O, when constructed, combined, and operating, in the manner and for the purposes herein set forth and described.

WILLIAM G. WHITE

Witnesses:

RUFUS W. SMITH,  
FORD W. WHITE.