R. & A. P. Campbell,

Brick Machine.

No. 79,633. Patented July 7, 1868.

Fig. 1.

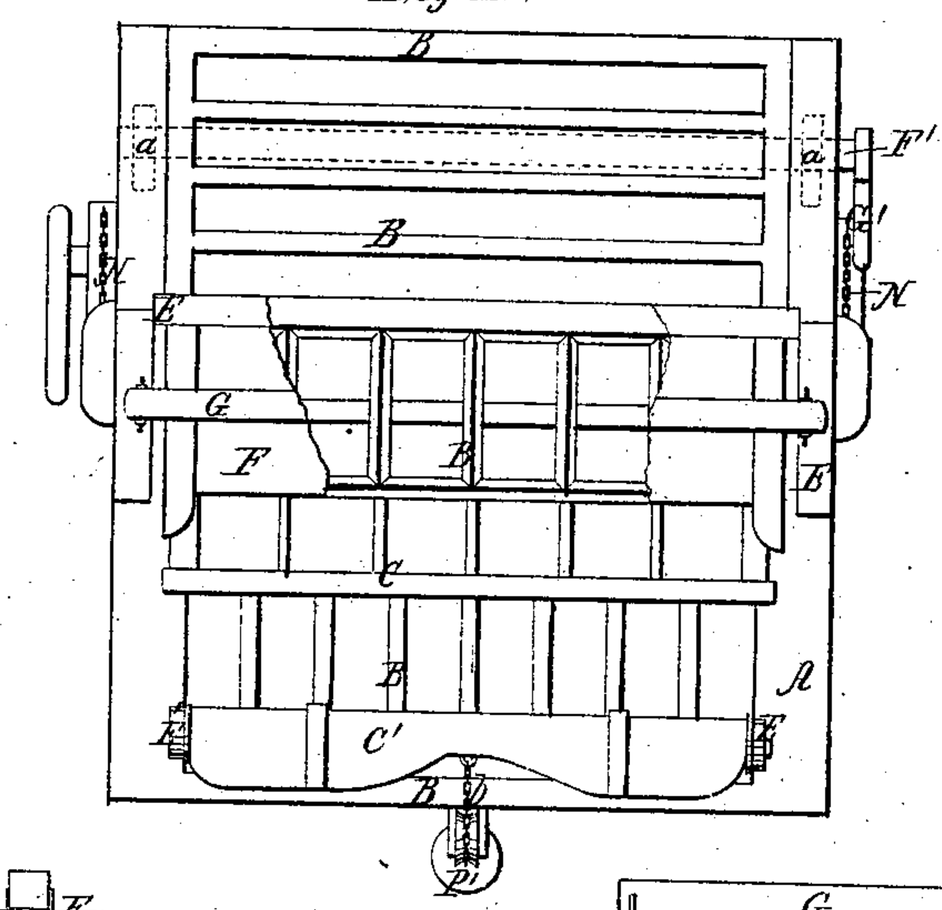


Fig. 2.

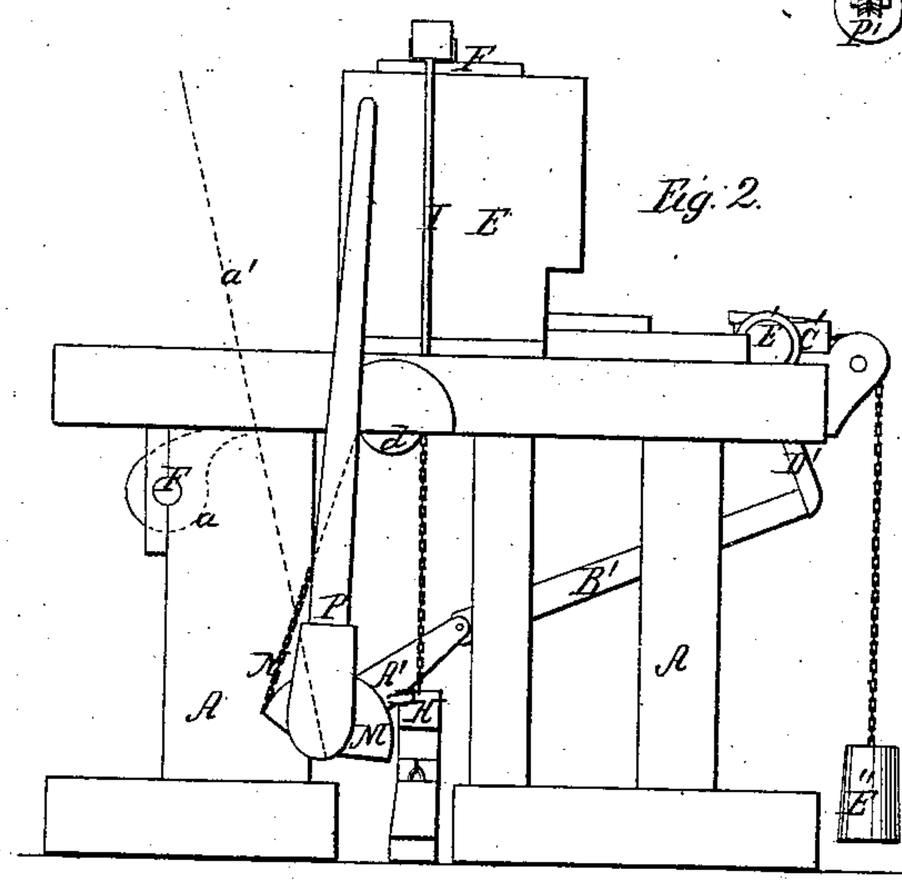
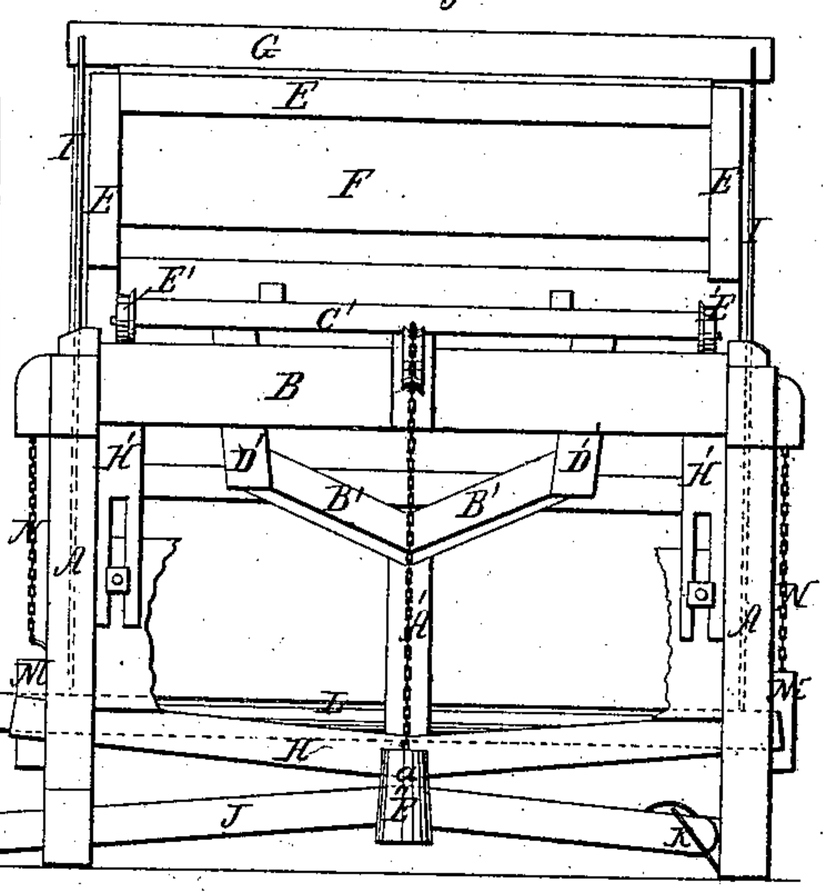


Fig. 3.



Witnesses;
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RUFUS CAMPBELL AND ALBION P. CAMPBELL, OF HILLSDALE, MICHIGAN.

Letters Patent No. 79,633, *dated July* 7, 1868.

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, RUFUS CAMPBELL and ALBION P. CAMPBELL, of Hillsdale, in the county of Hillsdale, and State of Michigan, have invented certain new and useful Improvements in Brick-Machines; and we do hereby declare that the following is a full and complete description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a top view of the machine.

Figure 2 is a side view.

Figure 3 is a rear end view.

Like letters of reference refer to like parts in the several views.

In fig. 2, A is a frame, in the top of which is fitted an adjustable mould-bed, B, fig. 1, which forms the top of the machine, and on which the mould C is placed, in order to be pushed under the jack-mould D, as will hereinafter be shown.

Fixed to the top of the frame is a supplementary frame, E, in which is fitted a weight, F, which, together with the frame, constitutes the press.

G, fig. 3, is a beam, extending lengthwise across the weight. H is also a beam, and which is connected to the beam G by means of the links I, whereby the two beams and weight are operated conjointly, by means of the lever J, to which it is connected at the point *a*, fig. 3, said lever being attached to the lower side of the frame by a yoke, K.

L is a shaft, to the outer end of which is keyed a wheel, M, to the periphery of which is attached one end of a chain, N, fig. 2, whereas the opposite end is attached to the beam H, by first being passed over the sheave *d*. A corresponding wheel and chain are arranged on the opposite side of the machine, as shown in fig. 3.

P is a lever, whereby said shaft is operated, as and for a purpose hereinafter shown.

Proceeding from the centre of the shaft L is an arm, A′, to the upper end of which is pivoted the bifurcated arms B′, the outer ends of which are connected to the slide C′ by the intervention of the dependent arms D′, and whereby said slide is moved backward and forward on the wheels E′.

F′, fig. 1, is a shaft, journalled transversely across the front of the frame, immediately under the bed. On said shaft are secured the cams, indicated by the dotted lines *a*, fig. 2, on the finger of which the bed rests, whereby said bed may be raised upward and downward, for a purpose hereinafter shown.

Having thus described the construction and arrangement of the machine, the practical operation of the same is as follows:

The rear end of the machine, as shown in fig. 3, is placed close to the mud-mill, and in such a position as to bring the space immediately above the jack-mould in open relation to the mouth of said mill, so that the clay, as it passes from the mill, falls directly into the jack-mould, and upon which the weight is made to fall by treading upon the lever J, which will bring the weight down upon the clay, forcing it down through the jack-mould, into the mould immediately below. This being done, the mould and its contents are pushed from under the jack to the front by placing another mould upon the bed, between it and the edge of the slide C′; then, on pushing the lever P back in direction of the line *a*′, fig. 2, will turn the shaft L, to which the arms A′ and B′ are attached, the result of which will be to draw the slide forward, thereby crowding the mould C out from under the jack to the front part of the table or bed, from which it is taken, the bricks removed, and the mould again laid upon the bed, to be pushed under the jack-mould for refilling, as before. Thus the empty mould is made to displace the filled one following it, and at the same time pushing it from under the jack-mould, for the reception of the clay as it may be forced down through the jack.

E″ is a weight, attached to the slide by a cord or chain, *b*, passing over a sheave, the purpose of which is to assist in drawing back the slide from the jack-mould to the position shown in fig. 1.

The lever G′, fig. 1, secured to the shaft F′, is for the purpose of working the cams *a*, referred to, and on which the mould-bed rests, as above said. Thus, should a stone or other obstruction get into the jack, and

prevent the mould from being pushed out, the bed can be lowered by means of the cams, and thereby allow the mould to pass freely out.

The rear end of the bed is adjusted by means of the slotted stays H′, by loosening the nuts by which they are secured to the machine. Also, by this means, the bed may be adjusted for making thin or thick bricks.

We are aware that the devices herein described, taken separately, are not new, but

What we claim, is—

The wheels M, chain N, lever J, and beam H, constructed and arranged to operate in combination with the weight F, in the manner as and for the purpose set forth.

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ALBION P. CAMPBELL.

Witnesses:
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