Crighton & Roesler,

Brick Machine.

No. 76,405. Patented Apr. 7, 1868.

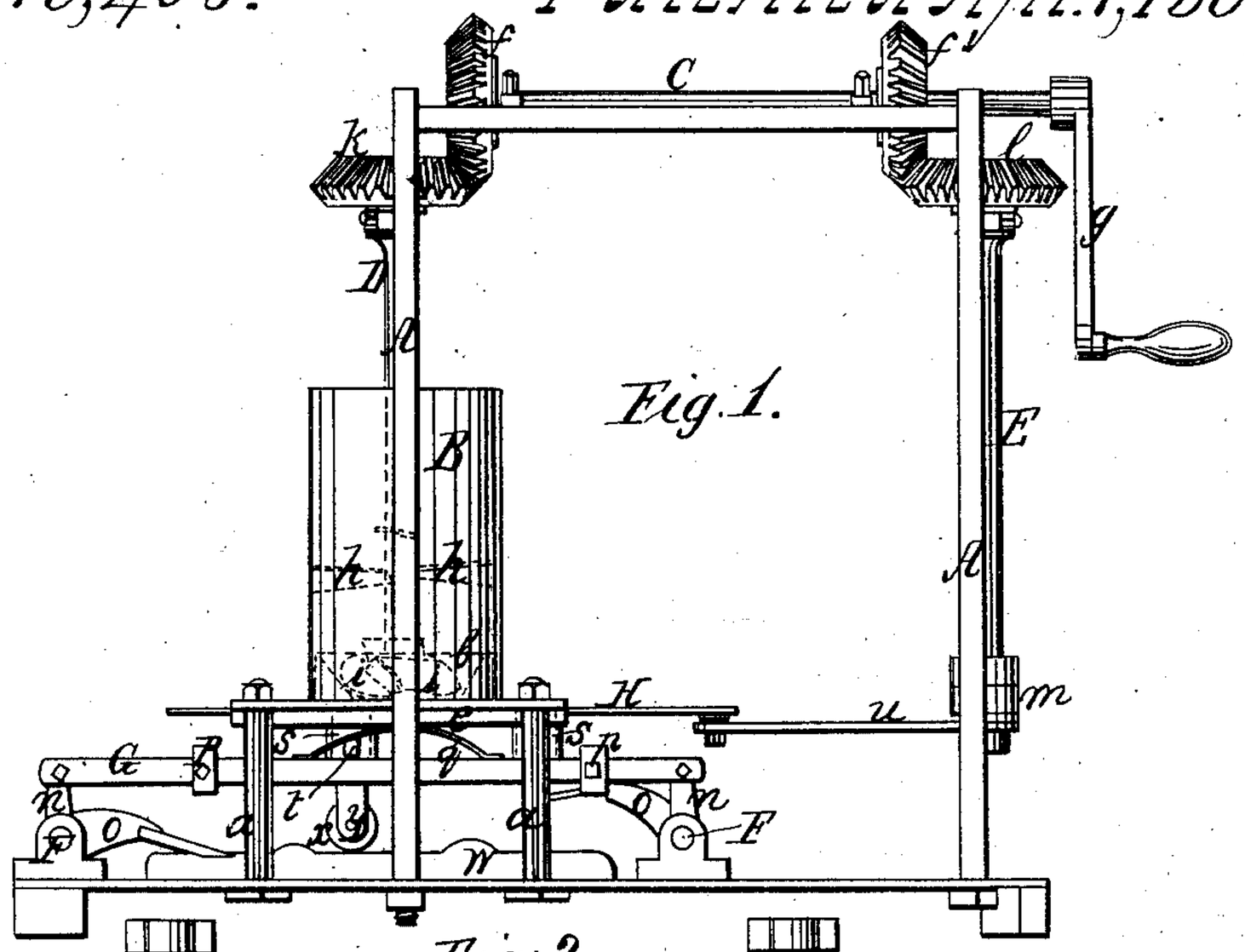


Fig. 1.

Fig. 2.

Fig. 3.

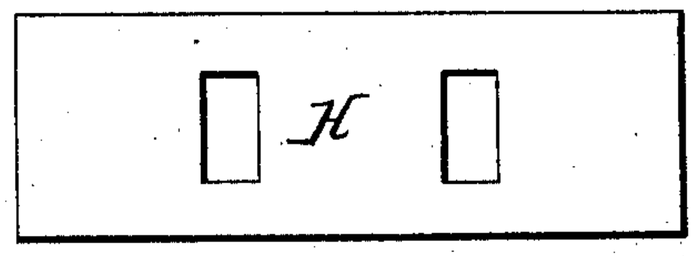


Fig. 4.

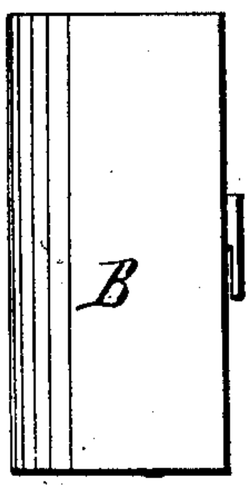


Fig. 6.

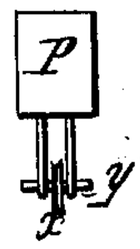
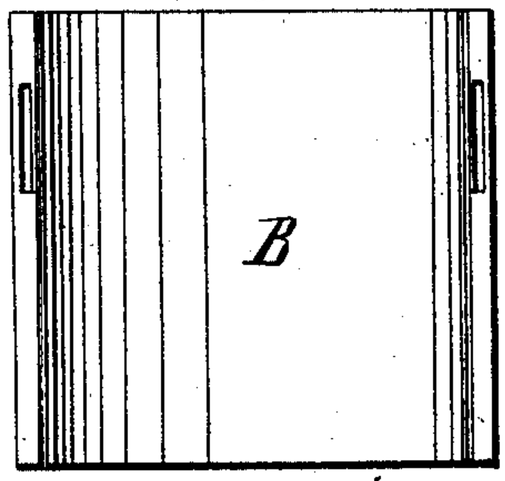


Fig. 5.



Witnesses;
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United States Patent Office.

WILLIAM CRIGHTON AND HENRY ROESLER, OF FORT WAYNE, INDIANA.

Letters Patent No. 76,405, *dated April* 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, WILLIAM CRIGHTON and HENRY ROESLER, of Fort Wayne, in the county of Allen, and State of Indiana, have invented certain new and useful Improvements in Brick-Machines; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification, in which—

Figure 1 is a side elevation.

Figure 2 is a plan of the rocking-shafts, and the parts attached thereto.

Figure 3 is a plan of the moulding-slide.

Figures 4 and 5 are elevations of the two parts which form the clay-mill; and

Figure 6 is a view of one of the rolling-plungers.

To enable others skilled in the art to make and use our invention, we will now describe its construction and operation.

A represents the framework of our machine, and *e* a table or platform supported by means of uprights or bolts *a a*. This table is provided at its centre with an opening about the size and shape of a brick, (represented by dotted red lines, fig. 1.) Immediately over this opening is the stationary clay-mill *b*, shown also by red lines, fig. 1. The interior portion of this mill is tapering, while its bottom is provided with a similar opening to that described in the table. B represents the adjustable clay-mill which sets over the other, as clearly indicated in fig. 1, and should be made in two equal parts, the edges of which are turned out, as shown in figs. 4 and 5. One of these parts is provided with slots, and the other with clasps, as seen in the figures alluded to above. Thus the two may be readily adjusted or taken apart. C represents a horizontal shaft, upon which are the two bevel-wheels *f f'* and crank *g*. D is a vertical hanging shaft provided with stirrers *h h* and spiral wings *i i*. Said wings are for the purpose of forcing the clay into the moulds. At the top of the shaft D is the bevel-gear wheel K, which is operated by gear-wheel *f*. E is also a vertical shaft, with bevel-gear *l* working in wheel *f'*, as clearly seen in fig. 1. At the bottom of this shaft is the crank, *m*, the object of which will be more fully seen presently. F F represent two rocking-shafts, upon which are the arms *n n* and lifters O O. The arms *n n* are connected by means of the rocking-bar G. *p p* are two slides on the bar G, which are provided with thumb or set-screws, as seen in fig. 1. It should be observed that, while the machine is in operation, the slides *p p* are immovably fixed or secured on the bar. *q* represents a spring fastened to the under side of the table *e*, its ends resting upon bar G. H is the mould-slide, which is provided with the moulds S S. On the end of these moulds are the projections *t t*, as partly seen in fig. 1. The slide H slides in grooves on the under side of table *e*, and is connected to crank *m* by means of rod *u*. P represents one of the plungers. Said plungers are made to fit accurately yet easily in the moulds, and to them are attached the grooved rollers *x x* by means of the elongated axles *y y* more fully shown in fig. 6. These rollers rest and travel upon the rail W, which is provided with two rounding elevations, as seen in fig. 1, the object of which is to force the plungers upward, and thus press the clay in the moulds.

The operation of our machine is as follows: The mill being supplied with clay, motion is imparted to the machine by means of the crank, or such other way as may be preferred. The spiral wings force the clay into the moulds, and, as they are coming from under the table, the elevations on the rail W force the plungers upwards and press the brick. As soon as the moulds are out from under the table, the projections on the plungers strike against the slides on bar G, which operates the rocking-shafts. The lifters are thus thrown up against the elongated axles and force the plungers upward, which relieves the moulds from the brick which has been pressed.

What we claim, and desire to secure by Letters Patent, is—

1. The rocking-shafts F F, in combination with bar G, as and for the purpose described.
2. The lifters O O, operating as and for the purpose set forth.
3. The combination of rocking-shafts F F with lifters O O, bar G, and spring *q*, substantially as set forth.
4. The plungers P P, provided with rollers *x x*, rail W, slides *p p*, rocking-shafts F F, and lifters O O, all combined and arranged as and for the purpose set forth.

In testimony that we claim the foregoing as our own, we affix our signatures in presence of two witnesses.

WILLIAM CRIGHTON,
HENRY ROESLER.

Witnesses:
H. H. BOSSLER,
JAS. E. GRAHAM.