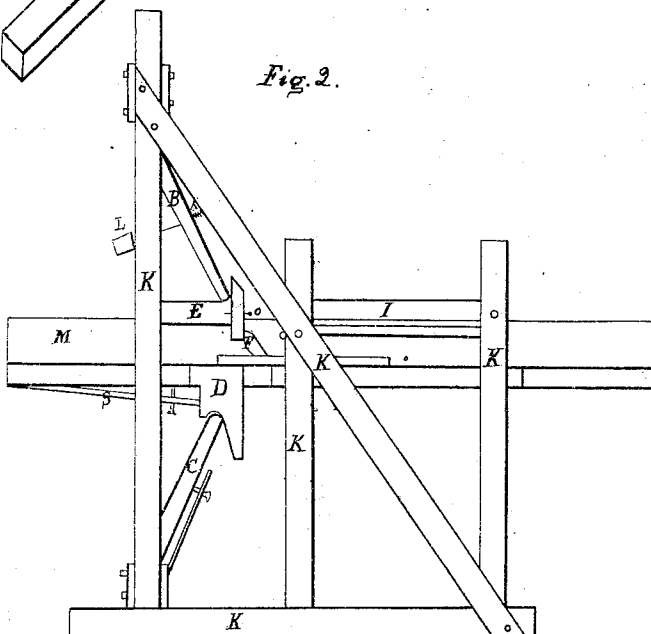
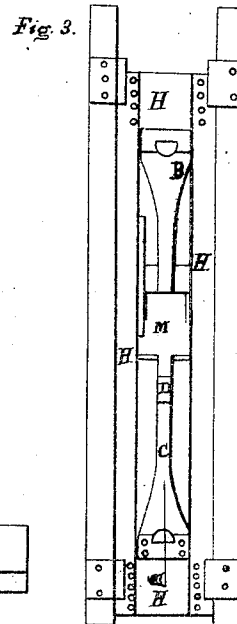
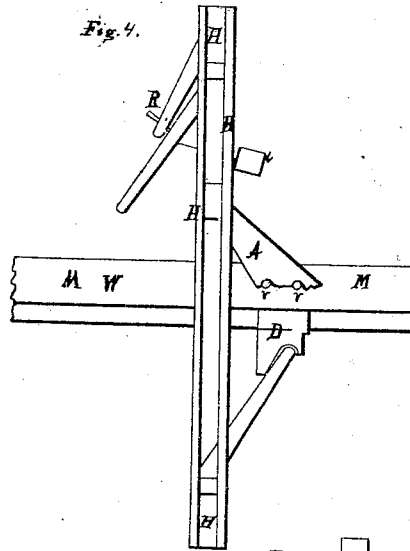
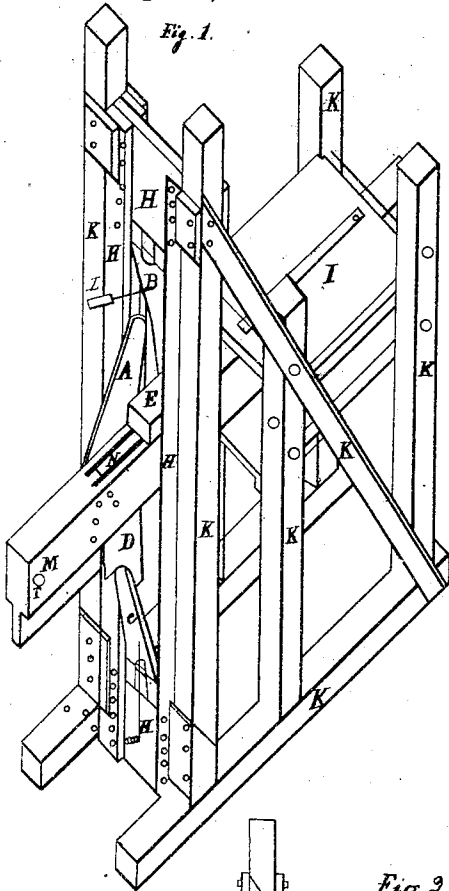


G. Metcalf.

Brick-Machine.

N^o 73741

Patented Jan. 28, 1868.



Witnesses.

E. S. Abbott.
James Hinkley.

Inventor.

Georg Metcalf.

United States Patent Office.

GEORGE METCALF, OF LELAND, ILLINOIS.

Letters Patent No. 73,741, dated January 28, 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 I, GEORGE METCALF, of the village of Leland, county of La Salle, and State of Illinois, have invented a new and useful Machine for the Manufacture of Bricks, entitled the Great-Western Brick-Press; and I do hereby declare that the following is a full, clear, and exact description of the operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view.

Figure 2, a side elevation.

Figure 3, an end elevation.

Figure 4, a side view of the self-adjusting frame H; also of the form of adjusting-lever A, and its mode of operation.

The machine consists of a frame, as shown in fig. 1; also, the self-adjusting frame or press H, as shown in figs. 1 and 3. The frame H consists of four upright pieces of wood or iron with cross-bars bolted together at the ends, as shown in fig. 3. The levers B and C, made of iron, are secured to an iron bar by straps of iron passing around said bar, and bolted to the lever, as shown at letters B and C, said bar passing between the upright pieces of frame H and secured in their places by blocks bolted under and over said bars, slots being cut in said blocks, permitting said bars and levers to be raised or lowered at pleasure. The adjusting-lever A, bolted to a block in such a manner as to move freely, as required, is secured to the frame H by placing said block between the upright pieces of said frame, and passing bolts through said frames and blocks, as shown in figs. 3 and 4, said block having slots cut in it, through which the bolts pass, permitting the block and lever to be raised and lowered at pleasure. The button F, fig. 2, is made of iron or other metal, and bolted to the reciprocating bar M in such a manner as to move freely on the bolt. The bar u, over which the button passes, may be made of wood, covered with iron or steel on top to prevent wear.

The machine is operated by pushing the reciprocating bar M backward until the mould N comes immediately under the slot in the top, I, when the pulverized material for making bricks will fill the mould. The bar M is then drawn forward, when the cover E is pushed forward and kept directly over the mould by the button F, fig. 2. The projection on the cover catches the lever B. Lever C is also caught by the press-block D. The bar M still moving forward, causes the lever B to raise the adjusting-frame H, which forces the press-block D into the mould, thereby condensing the clay or other material. By the forward motion of the bar M the levers B and C are brought to a vertical position, when the pressure ceases. At the same time the button F passes the end of the block u, which leaves the cover free to move backward on the bar M at the same time the adjusting-screw o strikes the frame, preventing the cover from moving forward. The bar M still continuing its forward motion, the mould passes forward of the cover and uncovers the brick. The lever A, as shown in fig. 4, now falls into its place, catching on the pins v v. The bar M now having a backward motion, the lever A raises the adjustable frame H, forcing the press-block upward flush with the surface of the mould, forcing the brick from the mould. The bar M continuing its backward movement, the brick strikes against the end of the cover, and is in effect carried forward to the end of the bar M, where it may be removed. The pressure is regulated by the bar S, which may be lowered or raised at pleasure by means of the adjusting-screws, as shown in fig. 2. The bar M may be made to reciprocate by any of known methods. A hopper is to be placed on the top, I, to receive the clay. The mould may be inserted so as to press the brick from its flat side. It may be inserted lengthwise or across the bar, as seen fit.

I am aware that reciprocating moulds have been used for the manufacture of brick, and therefore do not claim the reciprocal motion as such; but

I claim, and wish to secure by Letters Patent—

The vertically-oscillating frame H, with its levers A, B, and C, the mould-cover E, press-block D, and mould-bar M, with button and slide F and u, all combined and arranged to operate substantially as and for the purposes set forth.

GEORGE METCALF.

Witnesses:

A. H. DOLE,

H. B. GEORGE.