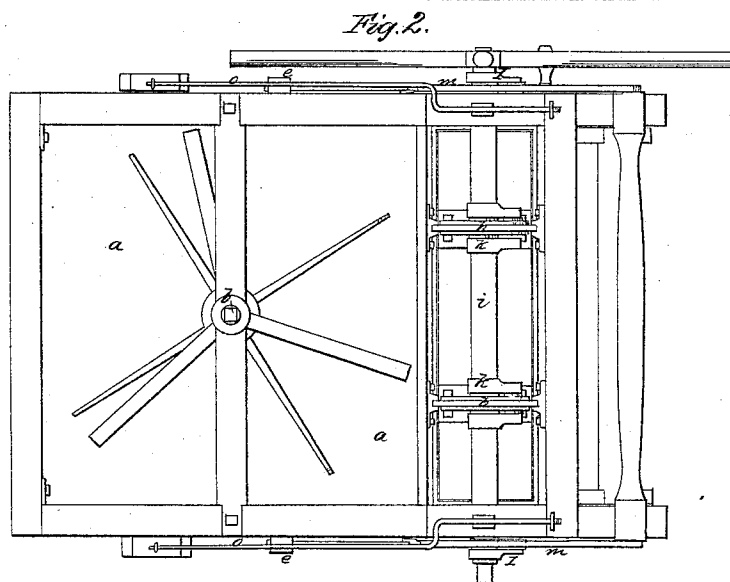
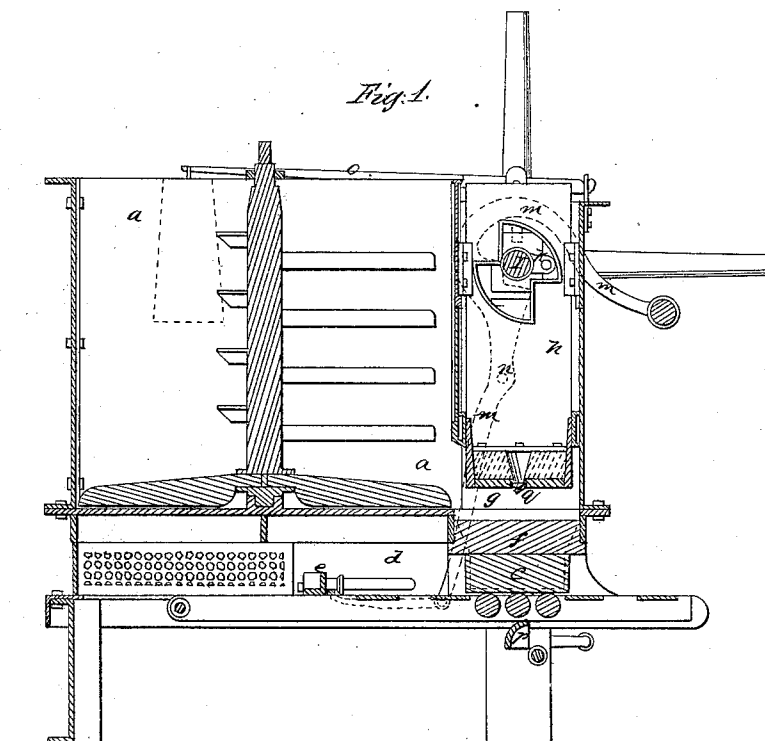


L. Brown,

Brick Machine.

N^o 8,269.

Patented Aug. 5, 1851.



UNITED STATES PATENT OFFICE.

LUTHER BROWN, OF CANANDAIGUA, NEW YORK.

BRICK-MACHINE.

Specification of Letters Patent No. 8,269, dated August 5, 1851.

To all whom it may concern:

Be it known that I, LUTHER BROWN, of Canandaigua, in the county of Ontario and State of New York, have invented certain
5 Improvements in Brick-Machines, and that the following is a full, clear, and exact description of the principle or character which distinguishes them from all other things before known and of the usual manner of making, modifying, and using the same, reference being had to the accompanying drawings, of which—

Figure 1, is a section; Fig. 2 a plan.

The object of my improvements is to produce a portable brick machine which can be worked either by hand or horse power, and one which will require but few hands to manage and at the same time do its work rapidly and well.

20 The machine consists of a chamber (*a*) into which the moistened clay is thrown and is then stirred and mixed up by the shaft (*b*) which has a number of radial arms projecting from it. The mold boxes containing each a row of 6 or 8 molds (*c*) are pushed into the side of the machine through the opening (*d*) and at the proper time they are pushed forward by the piece (*e*) which places them accurately under the series of
30 hoppers (*f*) corresponding with them. The clay enters a cavity (*g*) above the hoppers (*f*) from the chamber (*d*) and is forced down through the hoppers into the molds beneath by the pressure of an oblong piston working up and down in a corresponding chamber. The piston rises to allow the admission of a fresh charge of clay into the chamber (*g*) from the chamber (*a*), and the filled mold is forced forward by an
40 empty mold placed behind it, by means of the piece (*e*); and the lower side of the hopper and the upper side of the molds being in contact the bricks are cut off from the clay in the hoppers. The filled mold when
45 pushed out to the front is removed to the drying ground. The several parts receive motion from the revolving shaft (*i*) having cams furnished with anti-friction rollers. Two of these cams (*h*) give motion to the

piston (*h*) by means of two vertical yokes 50 having a peculiar shaped opening as seen in Fig. 1, in which opening the cams revolve, and lift the yoke and with them the piston during one half of their revolution, and force them downward during the other 55 half. Two other cams (*l*) are placed on the shaft (*i*) outside of the bearings and give motion to the levers (*m*) (shown in red lines in Fig. 1,) which have their fulcrums at (*n*) and their other ends connected by 60 short bars with the piece (*e*) and by their reciprocating motion force the molds under the hoppers as they are successively placed in the machine. The upper bearings of the shaft (*i*) have liberty to slide up and down 65 in the frame, and two weighted levers (*o*) are made to press upon them. The object of this arrangement is that in case of any unyielding substance being interposed between the piston and the hoppers, or the 70 surplus clay being too stiff to find a ready escape from the chamber (*g*) the bearings of the shaft by yielding to the upward pressure preserve the machine from breakage. The amount of pressure given to the brick is 75 also regulated by the same means. (*p*) is a cam shaft for adjusting the height of the platform on which the molds slide. In the bottom of the piston (*h*) is a hole closed by a valve (*q*) opening downward for the purpose, when the piston rises of allowing the 80 air to pass through, and cause the clay to be detached, which would otherwise adhere by suction to the piston and resist its upward motion. 85

Having thus described my improvements what I claim as new therein and desire to secure by Letters Patent is—

The arrangement of the apparatus for moving the molds and the pressing apparatus all constructed substantially as herein described and worked by the revolving shaft in the manner and for the purpose set forth.

LUTHER BROWN.

Witnesses:

WILLIAM H. ELLIS,
HERMAN METCALF.