

*D. Murtha,
Brick Machine.*

N^o 42,680.

Patented May 10, 1864.

Fig. 1.

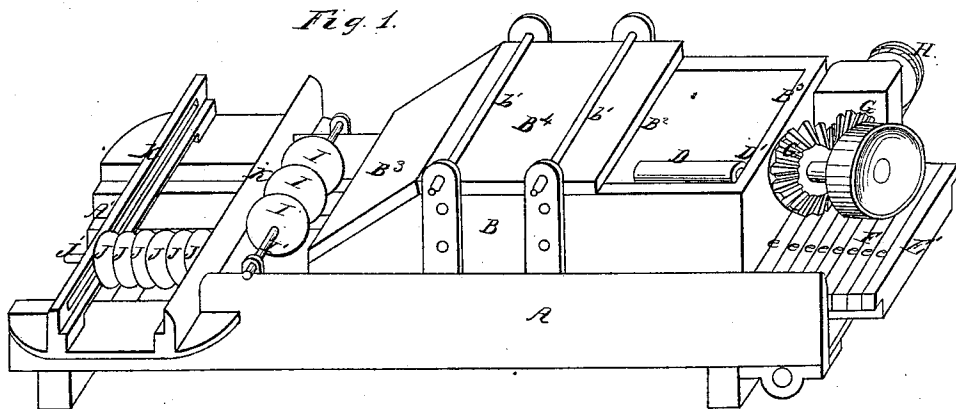
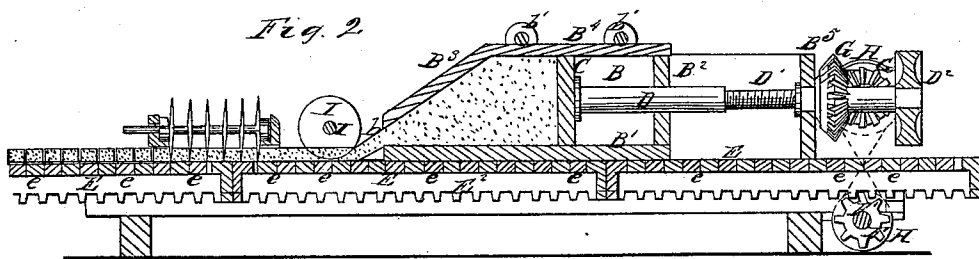


Fig. 2.



Witnesses.

*C. P. Smith,
C. Du Bois,*

Inventor.

*D. Murtha,
By Attorneys.*

UNITED STATES PATENT OFFICE.

DAVID MURTHA, OF PHILADELPHIA, PENNSYLVANIA.

BRICK-MACHINE.

Specification forming part of Letters Patent No. 42,680, dated May 10, 1864.

To all whom it may concern:

Be it known that I, DAVID MURTHA, of the city and county of Philadelphia, in the State of Pennsylvania, have invented a new and Improved Brick-Machine; and I do hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of my improved brick-machine, and Fig. 2 is a vertical longitudinal section of the same.

Similar letters of reference indicate corresponding parts in both figures.

This invention consists, first, in a peculiar construction of feeding-table, which, besides conveying the clay to the action of the cutting apparatus, facilitates the removal of the bricks; second, in a novel arrangement of rotating disks, whereby the clay is severed into pieces of the proper dimensions and shape to constitute bricks.

In order that others skilled in the art to which my invention appertains may be enabled to fully understand and use the same, I will proceed to describe its construction and operation.

In the accompanying drawings, A may represent a frame which supports the various operating parts, and upon which is constructed a box or apartment, B B' B² B³, into which the clay is deposited. Within this box is placed a follower, C, which is attached to and moved by a hollow rod or sleeve, D, which in turn is advanced and retracted by a screw or threaded shaft, D'. This shaft D' has its bearing in the transverse piece B⁵, and on its end is secured a band-pulley, D², through the medium of which the shaft D' may be rotated, and thereby made to operate the follower C. The pulley D² may be turned by means of a suitable connection with a steam-engine, by horse-power, or in any other desirable manner.

E' represents the frame of a feeding-table, E, which moves upon ways A', formed on the frame A. The table E occupies a position beneath the box in which the clay is placed, and is composed of a series of transverse sections, e, which may be removed and replaced, for the purpose to be hereinafter referred to. On the under side of the table E is a rack, E², in connection with which is employed a pinion, F, whereby the feeding-table E is propelled or

advanced. The pinion F is mounted upon a transverse shaft, F', which receives rotation from the screw D' through bevel cog-wheels G G and band-pulleys H H simultaneously with the movement of the follower C. The form of the box B B' B² B³ is clearly shown in the drawings. Between the lower end of the sloping piece B³ and the bottom B' is an opening, b, which may extend entirely across the box, the vertical width of the said opening being such that when the clay is forced through the same it will be molded or compressed into a sheet of the thickness of which the bricks are to be made.

I may represent a series of knives or disks secured upon a transverse shaft, I', which, with the disks I, is mounted and rotated in suitable proximity with the aperture b. These disks I are arranged at such distance with relation to each other as to adapt them to divide the clay into pieces or strips, whose transverse width shall correspond with the length of the bricks. J represents another series of disks, which are mounted upon a shaft, J', and placed at right angles to the disks I, the rotating shaft J' with the disks J being made to move transversely in ways K K. The disks J sever into bricks the pieces or strips formed by the disks I, and may be operated by hand or through the medium of suitable gearing.

After the clay has been deposited in the box B B' B² B³ the latter is closed by a lid, B⁴, which may be firmly secured in position by rods b' b'.

The operation of the machine will be readily understood from the preceding description. When the box B B' B² B³ has been filled with clay, the follower C is advanced in the manner described, and the table E simultaneously moved forward beneath the opening b and the cutting apparatus I J. As the clay passes out at the opening b, it is received onto the table E, and thereby conveyed to the action of the disks I J. As soon as the clay reaches a proper position to be severed by the disks J, the movement of the table E is arrested by a gage, which may be so adjusted as to cause the sections e to occupy positions directly between and beneath the disks J, so that when the bricks are formed they may be removed in separate quantities upon the several sections e.

It may be remarked that two, three, or more feeding-tables E may be employed in connec-

tion with the machine, so as to render the operation thereof continuous, as represented in Fig. 2.

Having thus described my invention, the following is what I claim as new and desire to secure by Letters Patent:

1. The rotating disks I, arranged and operating in the described combination with the aperture *b*, and employed to sever the sheet of clay into strips of width equal to the length of the bricks, as set forth.
2. The rotating and transversely-moving disks

J, operating to sever the strips into widths for bricks, as explained.

3. The sectional feeding-table E E' *e*, constructed, operated, and employed substantially as and for the purpose specified.

The above specification of my improved brick-machine signed this 10th day of March, 1864.

DAVID MURTHA.

Witnesses:

JAMES H. GRIDLEY,
CHAS. L. DU BOIS.