

L. Montgomery,
Brick Machine.

N^o 3,167.

Patented July 8, 1843.

Fig. 1.

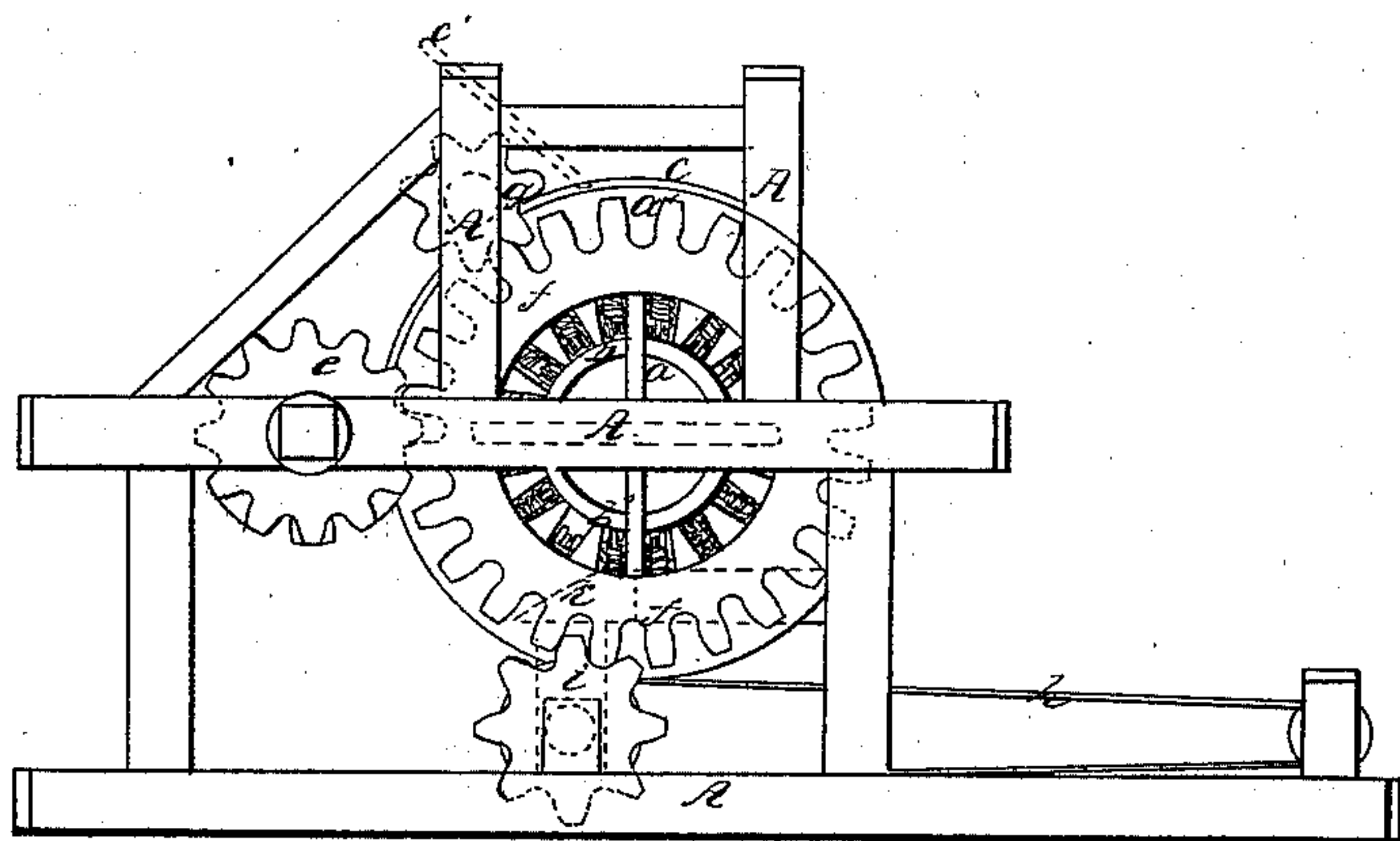


Fig. 2.

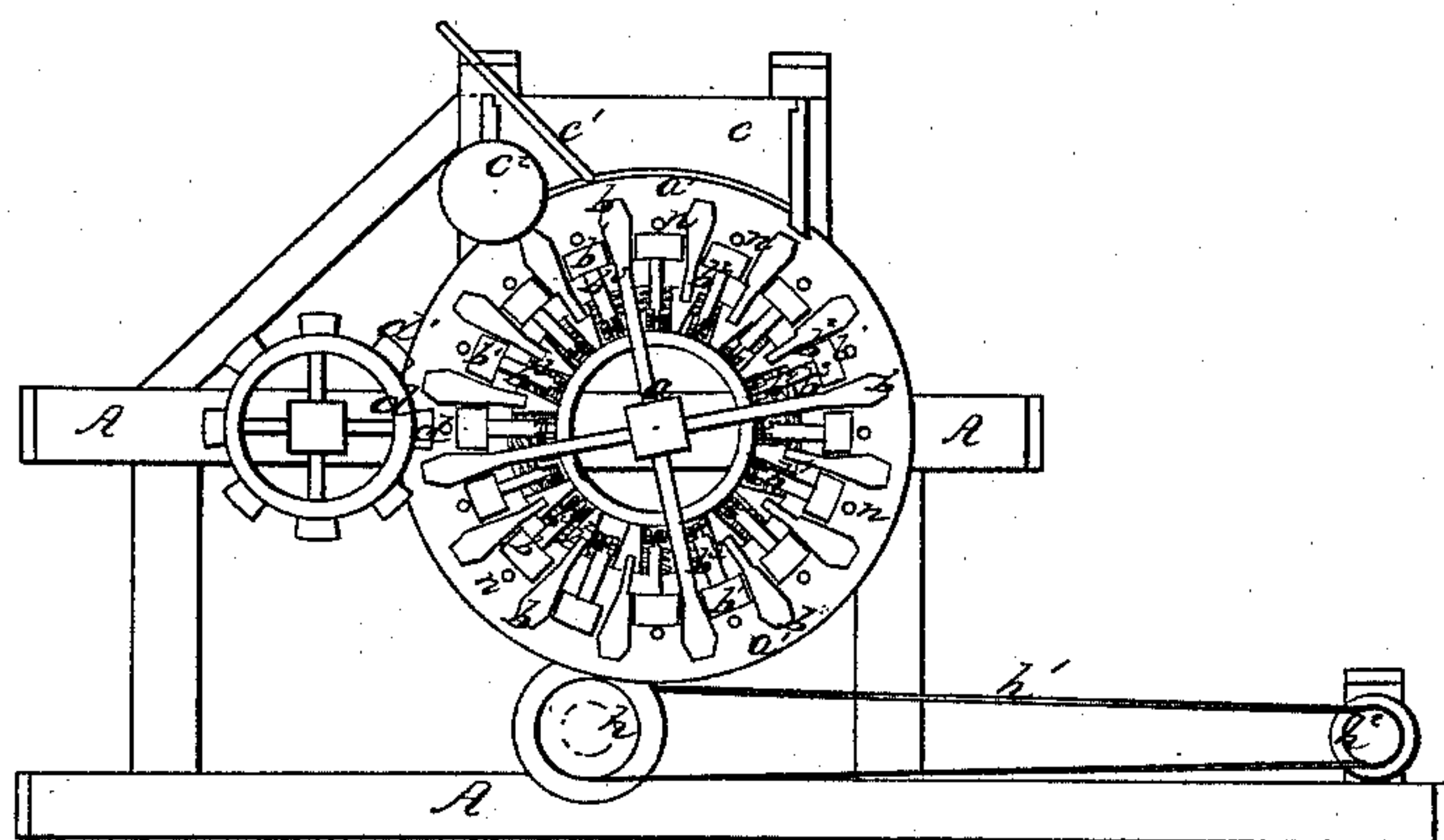


Fig. 3.

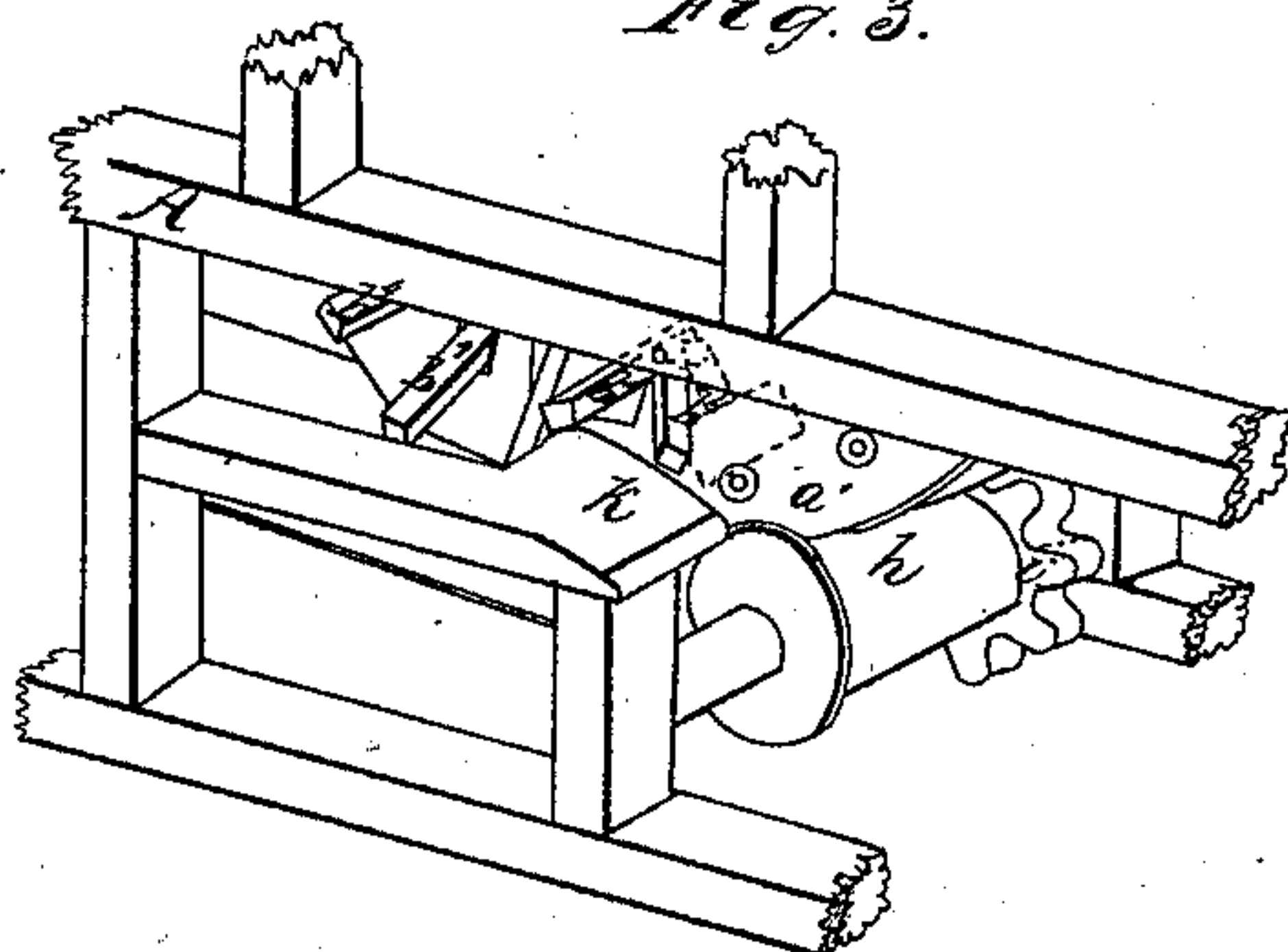
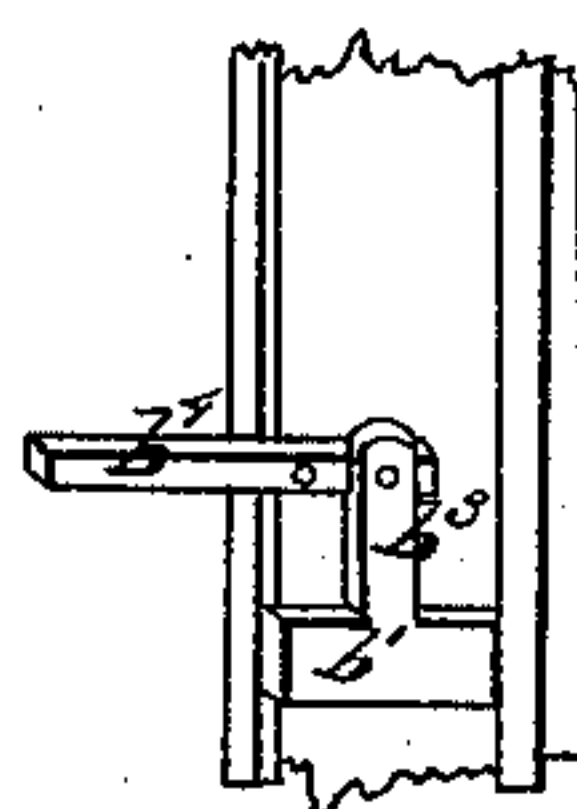


Fig. 4.



UNITED STATES PATENT OFFICE.

LEE MONTGOMERY, OF TUNNELL, MARYLAND.

BRICK-MACHINE.

Specification of Letters Patent No. 3,167, dated July 8, 1843.

To all whom it may concern:

Be it known that I, LEE MONTGOMERY, of Tunnell P. O., in the county of Allegany and State of Maryland, have invented a new and useful Improvement in Machinery for Making Bricks; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, which forms a part of this specification, in which—

Figure 1, is a geometrical side elevation showing the gearing. Fig. 2, is a vertical section through the center of the molds; Fig. 3, section in perspective of levers (b^4) and cam k ; Fig. 5, mold separate in section showing the lever (b^4) and bottom (b')

The nature of my invention consists in combining a wheel, the periphery of which is indented with a series of brick molds, with an antagonist wheel having projections on it, which shall force the clay into the molds; said projections being sufficiently convex to make the face of the brick next it straight.

To enable others to construct my machine I will describe its different parts.

A, A, is a suitable frame to contain the machinery, and should be braced and strengthened to suit the purposes of the builders. In this frame is suspended a vertical wheel (a), the width of which should be such, as to admit a brick lengthwise and have a flange (a') project up on each side, all around; between the spaces allowed for the width of the bricks to be made, are divisions (b), these divisions do not extend out as far as the flanges, and the outer part of each is chamfered off on each edge, the rest (which is the thickness of the brick) being straight, and parallel with the side of the mold and above, or outward, a flange mouth to it. The bottom of these molds (b') is made movable and rests, when the mold is full, on a solid ring (b^2), through a hole in which, a piston rod (b^3) runs, that the bottom is fixed to; this rod is connected with a lever (b^4) the end of which projects beyond the frame, for a purpose hereafter described the inner ends of these levers are shown. Over the center of the mold wheel (a) there is a hopper (c) of the same width, and covering about one eighth of the periphery, for holding the clay, one end of this hopper is a firmly fixed board, the other, a movable board (c') made to slide up and

down, and in an angular direction; just behind this slide, outside the hopper, a smooth cylindrical roller (c^2) is placed, of a proper length to work between the flanges (a') and down, nearly to touch the divisions between the mouths of the molds. On a horizontal line with the axle of the mold wheel, there is another wheel (d) having projections (d') from its periphery that just fit into the mouths of the molds on the wheel (a); these projections are sufficiently convex on their face, to form a straight line on the surface of the brick when it has passed on it. These wheels are geared together; a pinion (e) on the axle of wheel (d) working into a spur wheel (f), on the mold wheel (a), and another pinion (g), also gearing into the wheel (f) which is on the axle of roller (c^2). Under the lower part of the mold-wheel there is a roller (h) over which an endless apron (h') passes and extends out to another roller (h^2). These are turned by a pinion (i) on the axle of roller (h) which meshes into wheel (f). The driving power is connected with the axle of wheel (d), by which the machine is put in motion. At a point below the axle of the bold wheel, an inclined plane (k) (shown in dotted lines in Fig. 2) is fixed to the frame; that the levers (b^4) before named strike, as they come round, and by lifting the outer end of them, the bottom of the mold attached to them is forced forward to the mouth of the mold which flares each way and consequently the brick is released, and falls onto the apron. After the lever (b^4) passes the cam a spiral spring, which is wound around the rod (b^3) affixed to the bottom (b') brings it into place again; the levers are steadied by passing through mortises in the rim of the mold-wheel, which is extended inward for that purpose. In one end of each mold there is a hole (n), through which any superfluous amount of clay can be disgorged, and the action of the machine remain unimpeded.

Having thus fully described my invention I wish to have it understood that I do not claim placing molds around the periphery of a wheel. But

What I claim as my invention and desire to secure by Letters Patent is—

1. The molds, having flaring mouths so as readily to admit the projections on the wheel (d), to work into it, and deliver the bricks freely, placed around the periphery

of the wheel, constructed and arranged as herein set forth

2. I also claim the combination of the wheel (d) having projections (d') on it, with convex surfaces with the molds constructed, arranged, and combined, in the manner and for the design above described.

3. Lastly I claim in combination with the above, the sliding board (e') and roller (e^2) in the manner herein made known.

L. MONTGOMERY.

Witnesses:

J. J. GREENOUGH,
JOHN HITE.