

A. N. HADLEY.

TILE MILL.

No. 177,829.

Patented May 23, 1876.

FIG. 1.

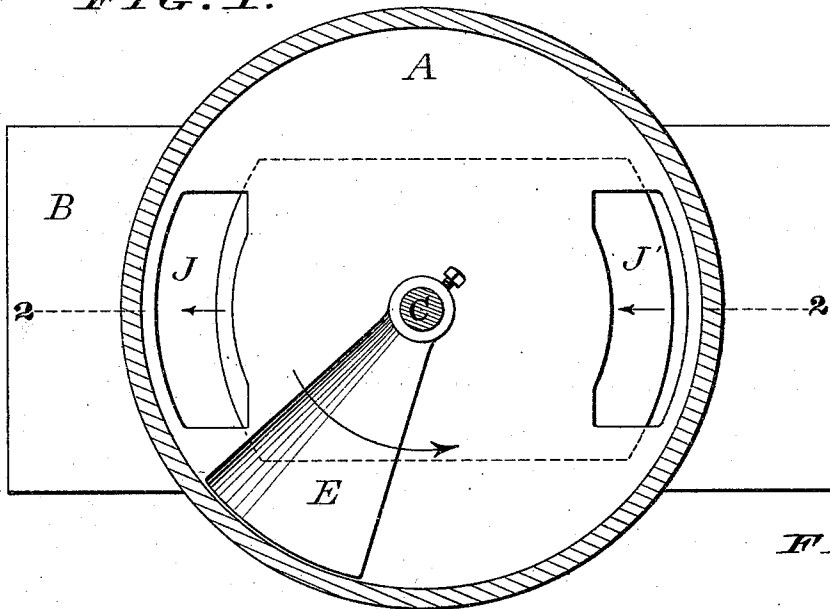


FIG. 4.

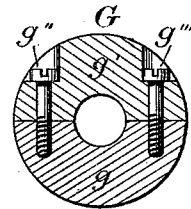


FIG. 2.

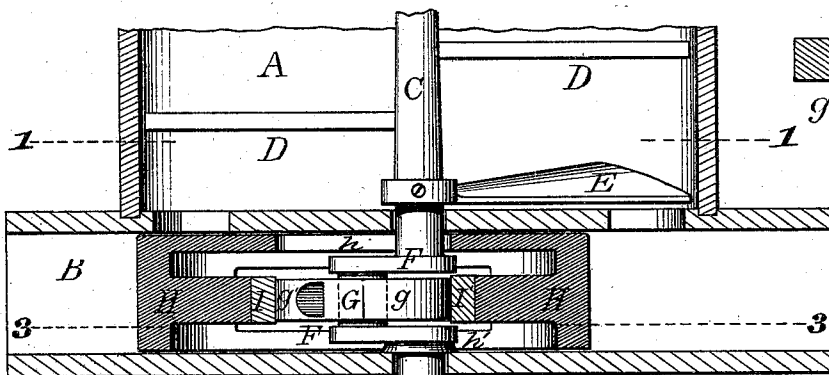


FIG. 5.

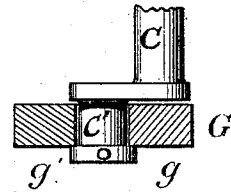


FIG. 6.

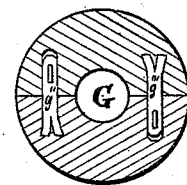
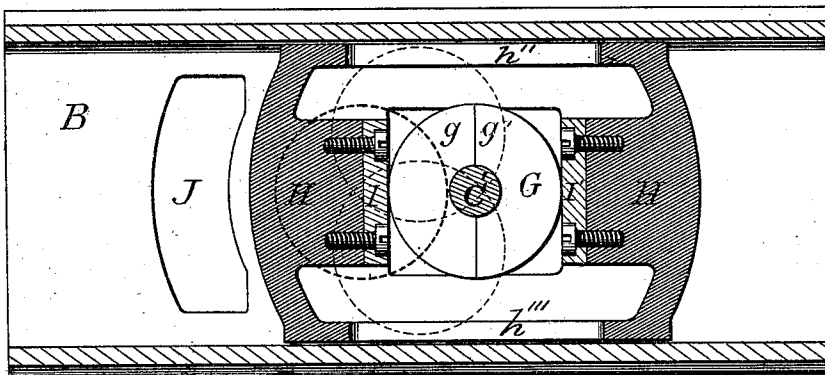


FIG. 3.



A. N. Hadley
By Knight Bros.
Att'ys.

Attest.
Jas. H. Layman
Harry B. Spright

UNITED STATES PATENT OFFICE.

ARTEMUS N. HADLEY, OF INDIANAPOLIS, INDIANA.

IMPROVEMENT IN TILE-MILLS.

Specification forming part of Letters Patent No. **177,829**, dated May 23, 1876; application filed March 10, 1876.

To all whom it may concern:

Be it known that I, ARTEMUS N. HADLEY, of Indianapolis, Marion county, Indiana, have invented a new and useful Tile-Mill, of which the following is a specification:

My invention relates to improvements in the class of tile-mills in which the clay passes from the tempering-tub alternately into the two extremities of the tube from whose remote ends the clay is expelled through suitable dies by the operation of a double-acting piston or plunger; and my invention consists in certain improvements in the construction of the double-headed piston and operating-crank customarily employed in such mills.

The accompanying drawings represent the middle portion of the tube and the tub resting thereupon, Figure 1. being a section at the line 1 1; Fig. 2, a section at the line 2 2; and Fig. 3, a section at the line 3 3. Figs. 4 and 5 represent my roller by horizontal and vertical sections respectively. Fig. 6 illustrates another mode of constructing the roller.

A may represent any suitable tempering tub or hopper, resting upon and secured to a customary double-ended box, tube, or case, B. C is a shaft, to which the tempering-blades D and sweep E, of any approved form, are fastened. The shaft C extends down through the box B, in whose floor its lower extremity is journaled. The portion of the shaft C that is included within the box B has the form of a double crank, F, whose wrist C' is inclosed in a sheave or roller, G, composed of two semi-cylinders or semi-cylindrical segments, *g g'*, to adapt them for application, and which are secured to each other and to said wrist by means of bolts *g'' g'''*, which may either be screwed in, as in Fig. 4, or keyed in, as in Fig. 6. In the latter form the periphery of the

roller is left wholly intact. The shaft C extends entirely through the double-headed piston H, of the form represented, the same being open from top to bottom, as at *h* and *h'*, and at its sides, as at *h''* and *h'''*, for the traverse of the shaft C and of the roller G. Bolted to the interior walls of my hollow piston are lining-plates I I', of chilled cast-iron or other suitable material, to save wear and reduce friction. J J' are two customary throats for the passage of the tempered clay into the box.

There is, of course, at each end of the box, a die or mouth-piece, to impart the desired form to tile; but inasmuch as such molding devices are well-known and are not concerned in my present invention, I have deemed it unnecessary to represent any in the present illustration.

I claim as new and of my invention—

1. The combination of double-headed piston or plunger H, constructed with top and bottom slots *h h'*, for the passage of the shaft C, and side slots *h'' h'''*, for the passage of the roller G, with the shaft C, double-crank F, and wrist C' as and for the purpose set forth.

2. The roller G, composed of segments *g g'*, having fastenings *g'' g'''*, in combination with the double-headed piston or plunger H, and double crank-shaft F C', as and for the purpose set forth.

3. The combination, with the double-headed piston or plunger H, crank F, and roller G, of the facing or lining plates I I'.

In testimony of which invention I hereunto set my hand.

ARTEMUS N. HADLEY.

Attest:

GEO. H. KNIGHT,
JAMES H. LAYMAN.