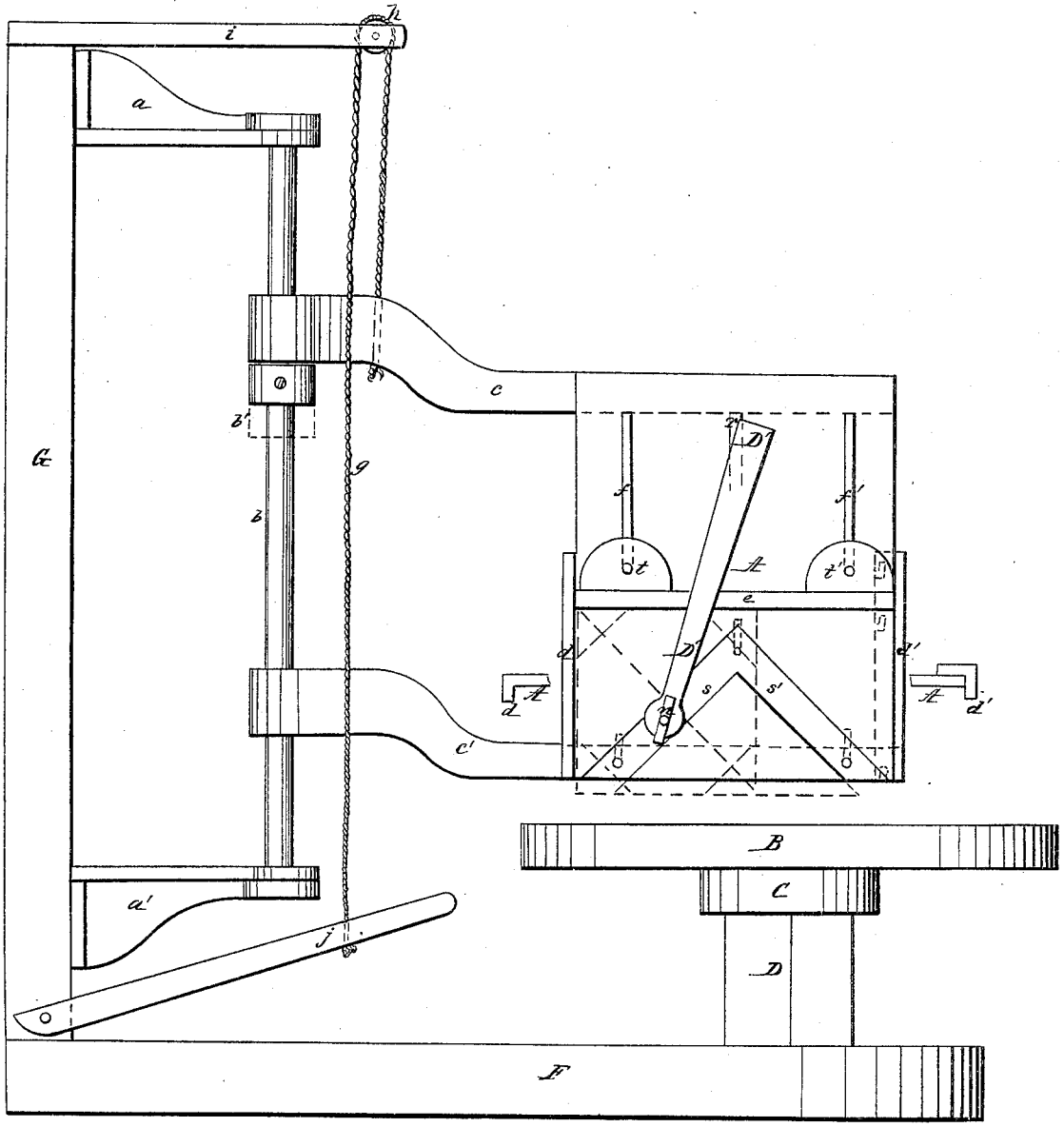
J. Reilly,

Tile Machine.

No. 51,219. Patented Nov. 28, 1865.



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UNITED STATES PATENT OFFICE.

JOHN REILLY, OF BALTIMORE, MARYLAND.

IMPROVED MACHINE FOR DRESSING TILES.

Specification forming part of Letters Patent No. **51,219**, dated November 28, 1865.

To all whom it may concern:

Be it known that I, JOHN REILLY, of the city and county of Baltimore, in the State of Maryland, have invented a new and Improved mode of Dressing-Tiles and other Stones; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in the peculiar construction of a holding and swinging adjustable clamp, in which tiles of various forms can be easily secured and brought over a revolving wheel to have their edges ground or dressed down to a certain line marked thereon.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

In the drawings, A represents the holding, swinging, and adjustable clamp, the several parts of which will be explained hereinafter. B is a revolving wheel below it, upon which the lower edges of the tiles bear, and upon which they are dressed or ground. On the upper surface of this wheel sand and water are put. It can be revolved in any of the usual ways—say by a pulley, C, underneath. Eighty revolutions per minute will suffice; D is a supporting stand for wheel. F is the floor or foundation; G, an upright, to which are attached two metal brackets, *a a'*, which hold a round vertical iron bar, *b*.

c and *c'* are two metal arms swinging upon and around bar *b*. They are connected by a metal plate, A, to which they are securely attached.

d is a square edge projecting in front of plate A, forming a ledge or bearing for one side of the tiles.

e is a second and movable or adjustable strip, at right angles to *d*. It can be moved up and down parallel to the lower edge of A, thus forming a second bearing for another edge or side of a tile, and it is secured to A by means of screw-bolts passing through ears *t t'* and slots *f f'*, having tightening-nuts on the rear side. For larger sized tiles this strip *e* must be raised.

The edge of a tile to be dressed or ground should extend some two inches below the lower edge of A, and the adjustable sleeve *b'*, just below the hinge of upper arm, acts as a kind of gage, for when the upper arm, *c*, rests upon *b'* the lower edge of tile held on A, over revolving bed, will no longer be ground. *g* is a rope attached to upper arm, *c*. It passes over a pulley, *h*, on a projecting arm, *i*, (or otherwise secured to a ceiling or other suitable place) down to a treadle, *j*, by pressing upon which the clamp A can be raised and a tile removed therefrom or be put in. The weight of this clamp is equal to some seventy-five pounds pressure upon the tile, and may be increased at pleasure by adding additional weights. It can be swung off or over the revolving bed at pleasure, and to different positions over it, in this way gaining an advantage of all the sand on the bed. The lower edge of tile is kept squarely or evenly down—an impossibility in grinding by hand—the guage and square are always on the machine, and delay or stoppage rendered unnecessary, thus gaining much time and saving much trouble.

By means of the two edges *d* and *e* square and octagon tiles can be dressed, as also the two sides of triangular ones, making an angle of ninety degrees between them. For dressing the third side of such I use an elbow-strip, *s s'*, the legs at right angles to each other. These legs are secured to face-plate A, and can be made adjustable the same as strip or edge *e*, so as to be raised or lowered according to size of tile, and they are only necessary in order to dress the third or longest edge of such triangular tiles.

The different tiles are securely held up against A by means of a bent adjustable arm, D', secured to A by screw-bolt, which can slide in slot *r*, having a nut on the rear side of A. This arm has a motion of rotation from one side of A to the other, and on its lower end there is a jamming-screw, *n*, which presses the tiles up against the face of A. The lower end of this arm D' being bent inward toward face of A, the pressure from screw *n* will tend to keep the tiles up against edge *e* or elbowed strip *s s'*.

d' is a removable angular strip on right-hand side of A, projecting in front of it like *d*, but bearing against its back. By means of slots on back part of strip, and pins projecting from that part of A which enter these slots, *d'* can be removed or put in place at pleasure. It is

removed when a tile is put in place, (after raising the swinging clamp by means of treadle *j*,) which is done by entering the tile from the right-hand side, slipping it along the face of A to the left against strip *d*, and up against edge *e*, when it should be jammed by screw *n*.

The drawings illustrate how three different-shaped tiles can be dressed on my swinging clamp—an important labor-saving device.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The holding, swinging, and adjustable clamp A, constructed and operating substantially as described, for the purpose set forth.

2. The combination of arm D with the face-plate of A.

3. The combination of adjustable strip with the face-plate of A.

4. The combination of removable angular strip *d'* with the same plate.

JOHN REILLY.

Witnesses:

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