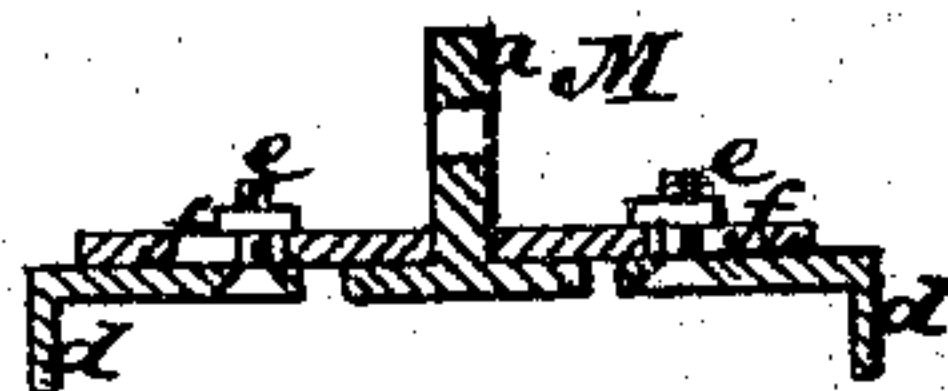
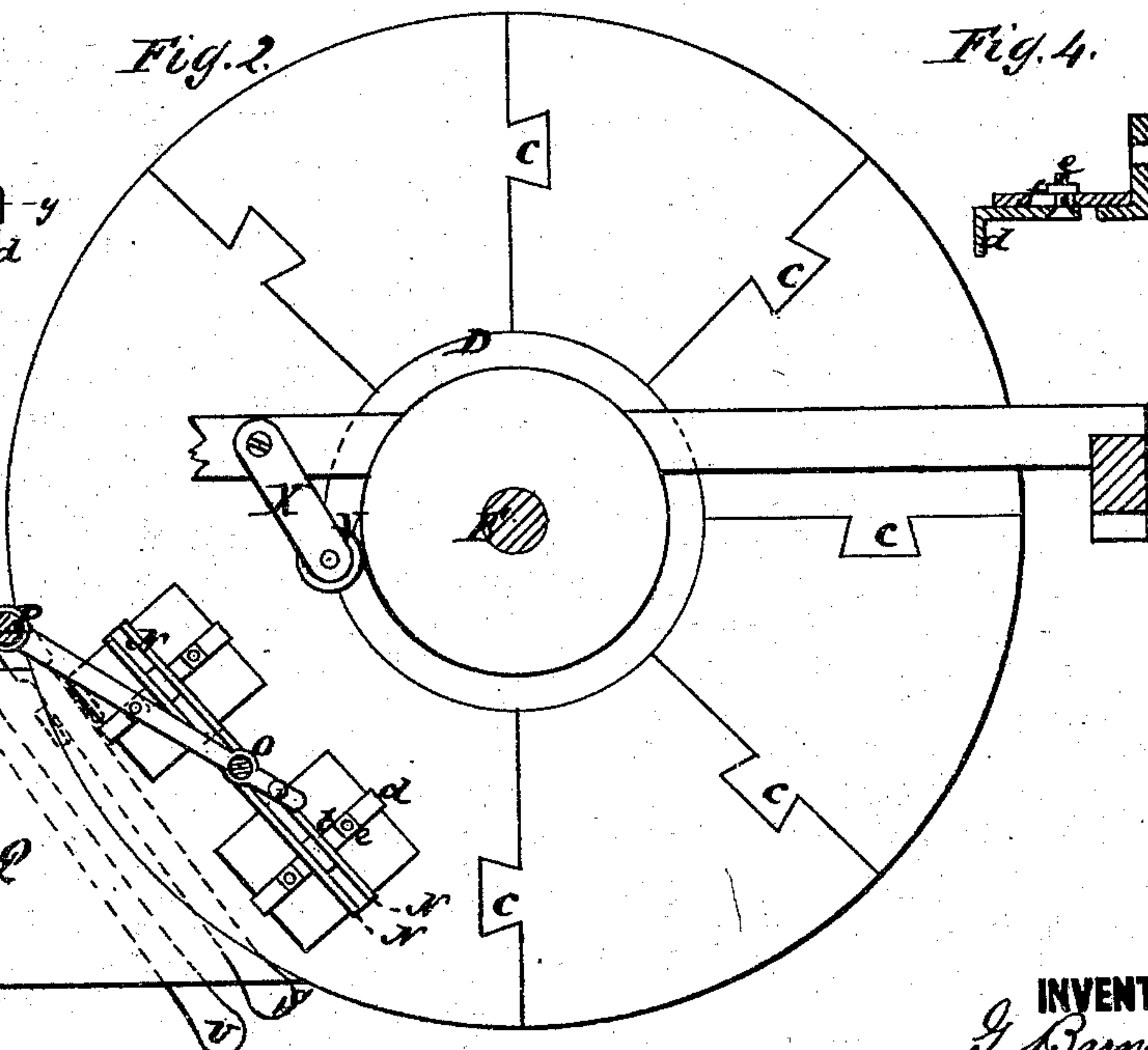


Machines for Facing Tiles.

Patented Aug. 11, 1874.



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UNITED STATES PATENT OFFICE.

GEORGE BARNEY, EDWARD P. PARSONS, AND RUFUS L. BARNEY, OF
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IMPROVEMENT IN MACHINES FOR FACING TILES.

Specification forming part of Letters Patent No. **153,925**, dated August 11, 1874; application filed
May 23, 1874.

To all whom it may concern:

Be it known that we, GEORGE BARNEY, EDWARD P. PARSONS, and RUFUS L. BARNEY, of Swanton, in the county of Franklin, Vermont, have invented a new and Improved Machine for Facing Tile, &c., of which the following is a specification:

The invention relates to the construction and arrangement of parts, as hereinafter described and specifically indicated in the claim.

Figure 1 is a side elevation of our improved tile-facing machine with a part of the rubbing device sectioned. Fig. 2 is a horizontal section taken on the line *x x* of Fig. 1. Fig. 3 is a plan view of one of the holders. Fig. 4 is a section of Fig. 3 on the line *y y*.

Similar letters of reference indicate corresponding parts.

A represents the rubbing-disk, which is like the rubbing-disk in common use, except it is cast in sections with a recess, B, in the center, and the sections are locked together by dovetail notches and projections C, to prevent them from throwing off by centrifugal force, and a vertically-adjustable center-piece, D, is fixed on the shaft E by a collar, F, and a set-screw over the central recess B for shifting down as the disk wears down, and be kept level with it. G is a friction-wheel on the upper part of the shaft E, and H is a pulley above for applying the driving-belt for turning the disk. The friction-wheel G is to turn a shaft, I, by a wheel, K, to revolve the tiles L upon the disk, the tiles being confined in holders M connected to the lower end of shaft I by the bars N, and the shaft being supported in bearings in the arms O of another shaft, P, on which the shaft I and the holders are swung from a platform or table, Q, after receiving the tiles onto the disk and back again for applying the stones to the disk and removing them. The shaft P is stepped in a bearing in the short arm of a foot-lever, S, so as to be lifted a little to take the weight of the tiles off from the table and disk, so that they will swing free in turning forward and backward. T is a rod, and V is a foot-lever, by which pressure can be added to the weight of the tiles for bearing them

hard on the rubbing-disk to increase the action. A weighted box, J, may also be employed on shaft P for regulating the pressure. An intermediate wheel, V, is arranged on a swinging frame, X, in such relation to the wheels G and K that it can, when required, be swung around between them to turn the tile-holders contrary to the way they are turned when the wheels G and K act directly on each other. The tile-holders are connected to the bars N by a short flat stem, *a*, rising up between the bars, and secured by a pivot-pin, which allows the holders sufficient vibration for the face of the stone to lie flat on the disk. These stems will be adjustable toward and from the shaft I to shift the holders for tiles of different size, and to adjust them so that the tiles will revolve across the whole of the annular grinding-surface of the disk, and thus wear it evenly. The bars N are pivoted to the shaft I at Y to allow the tiles to bear fair on the disk. The holders consist of four arms, *b*, radiating from the stem *a*, which connects with the bars N, and they have an adjusting angle-bar, *d*, with a bolt, and nut, *e*, working in a slot to be adjusted to and secured against the edges of the tiles, so as to hold them.

The table Q will be made slightly higher than the face of the disk, to allow of sliding the tiles off from it readily onto the disk, and it will be chamfered down to the level of the disk, to facilitate the moving of the tiles back onto the table again.

By having two holders for tiles to rotate around the axis of the shaft I, and by having the holders adjustable toward and from said shaft, the tiles can be revolved so as to work over the whole area of the disk and wear it evenly, whereas, when only one holder is used and the tile revolves on the axis of the holder, it will wear a groove in the disk.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. The combination of a tile-holder shaft, I, on a swinging support, and having a friction-wheel, K, with a rubbing-disk and a friction-wheel, substantially as specified.

2. The shaft P of the swinging support for the tile-holder shaft mounted on a foot-lever, S, in combination with table Q and the rubbing-disk, substantially as specified.

3. The combination, with the rubbing-disk provided with the circular recess B around the shaft, of the circular section or plate D having sleeve F, and made adjustable thereby,

as shown and described, for the purpose specified.

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E. P. PARSONS.
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Witnesses:

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G. W. BEEBE.