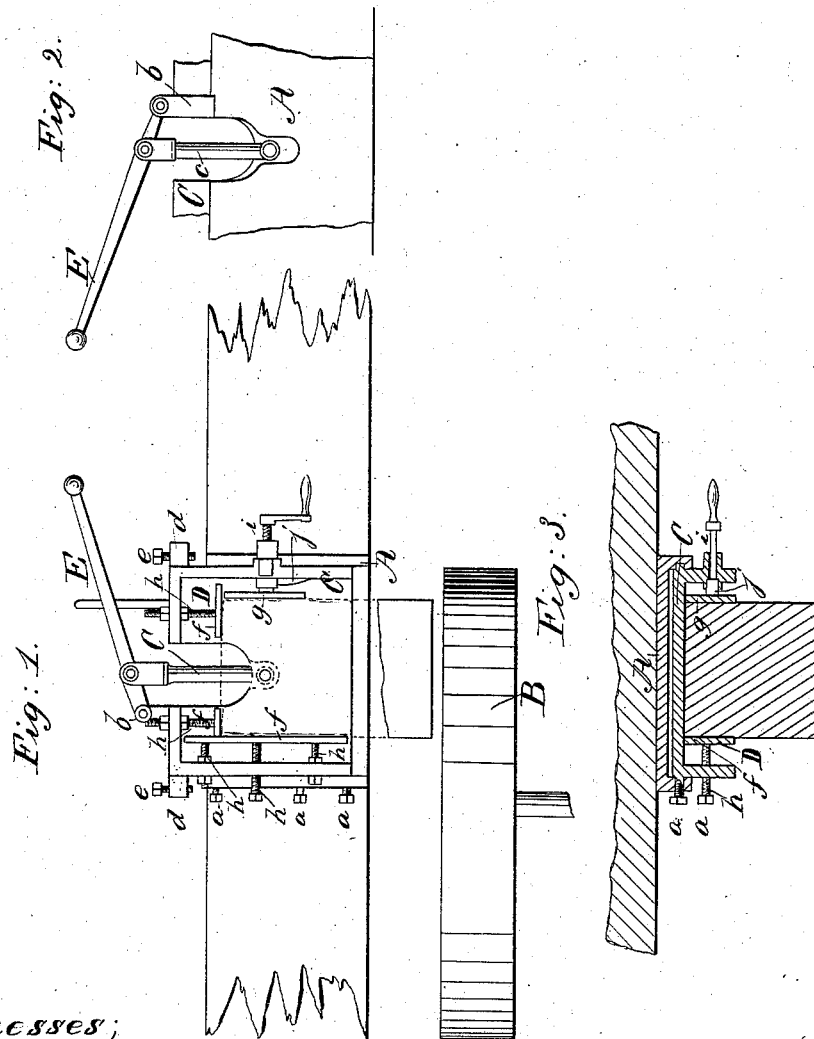


E. H. Lewis,
Polishing Stone.

No 47,900.

Patented May 23, 1865.



Witnesses;
J. M. Connelley
Wm. Dean Overell

Inventor;
E. H. Lewis
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UNITED STATES PATENT OFFICE.

E. H. LEWIS, OF KINGSTON, NEW YORK, ASSIGNOR TO HIMSELF AND N. BALDWIN, OF SAME PLACE.

IMPROVED MACHINE FOR POLISHING AND DRESSING STONE.

Specification forming part of Letters Patent No. 47,900, dated May 23, 1865.

To all whom it may concern:

Be it known that I, E. H. LEWIS, of Kingston, Ulster county, State of New York, have invented a new and Improved Machine for Dressing and Polishing Stone; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a front elevation of this invention. Fig. 2 is a rear elevation of the same. Fig. 3 is a horizontal section of the same.

Similar letters of reference indicate like parts.

This invention relates to certain improvements in that class of machines for dressing and polishing stones on which a patent was granted to me July 9, 1861.

This present invention consists in the employment or use of a slide provided with suitable clamps to receive and hold the stone to be dressed or polished, and with adjustable stops which limit its motion toward the grinding or polishing disk, in such a manner that the stones ground, dressed, or polished by means of this frame are all made of a uniform size, and after the clamps and the adjustable stops in the frame have once been set, no further measuring is required.

A represents a plate of cast iron, which is secured to the oscillating beam to which motion is imparted by an eccentric or other mechanism over the grinding-wheel B. Said plate forms the guide for the slide C, which moves up and down in suitable ways, being kept tight by means of set-screws *a*, which pass through the rim of the plate A and bear on the side of the slide C, or on a strip of metal interposed between said side and the points of the screws. A hand-lever, E, serves to move the slide up and down. This lever has its fulcrum on a standard, *b*, rising from the plate A, and it connects by a rod, *c*, with the slide, as clearly shown in Figs. 1 and 2. The up-and-down motion of the slide is lim-

ited by means of stops *d*, which strike the upper edge of the plate A when the slide has arrived in its lowest position, and said stops are adjustable by means of set-screws *e*, inserted in the same, so that they can be made to strike the edge of the plate sooner or later. The interior of the slide is occupied by a clamp, D, which is composed of three adjustable gage-plates, *f*, and a clamping-plate, *g*. The position of the gage-plates *f* is regulated by means of set-screws *h*, which are secured in the rim of the slide, and the clamping-plate is operated by a hand-screw, *i*, and by a spring, *j*. The screw serves to force the plate up against the stone to be clamped, and when the screw is unscrewed the plate is withdrawn from the stone by the action of the spring.

If it is desired, for instance, to grind a quantity of tiles to a uniform size, the gage-plates *f* are adjusted to suit the size of the tiles, and one tile after the other is secured in the clamp and the slide C is depressed until the stops *d* arrest its motion. By setting the stops the motion of the slide is increased or diminished and more or less of the edge of the tile is taken off. If the stops are not disturbed until all the tiles are finished, they will all be of a uniform size.

The operation of grinding, dressing, or polishing stone can thus be effected with little loss of time, and after the clamp and the stops have once been adjusted no particular attention is required as long as the machine is used for stones of a uniform size.

The plate *a* may be attached to the oscillating beam at an angle giving any desired bevel to the stone dressed or polished.

I claim as new and desire to secure by Letters Patent—

The slide C, with adjustable clamp D and stops *d*, in combination with the plate A and hand-lever E, or its equivalent, constructed and operating substantially as and for the purpose set forth.

E. H. LEWIS.

Witnesses:

C. W. BUDINGTON,
LUKE BOONE.