

E. H. Lewis,
Polishing Stone.
No 32,776. *Patented July 9, 1861.*

Fig: 2.

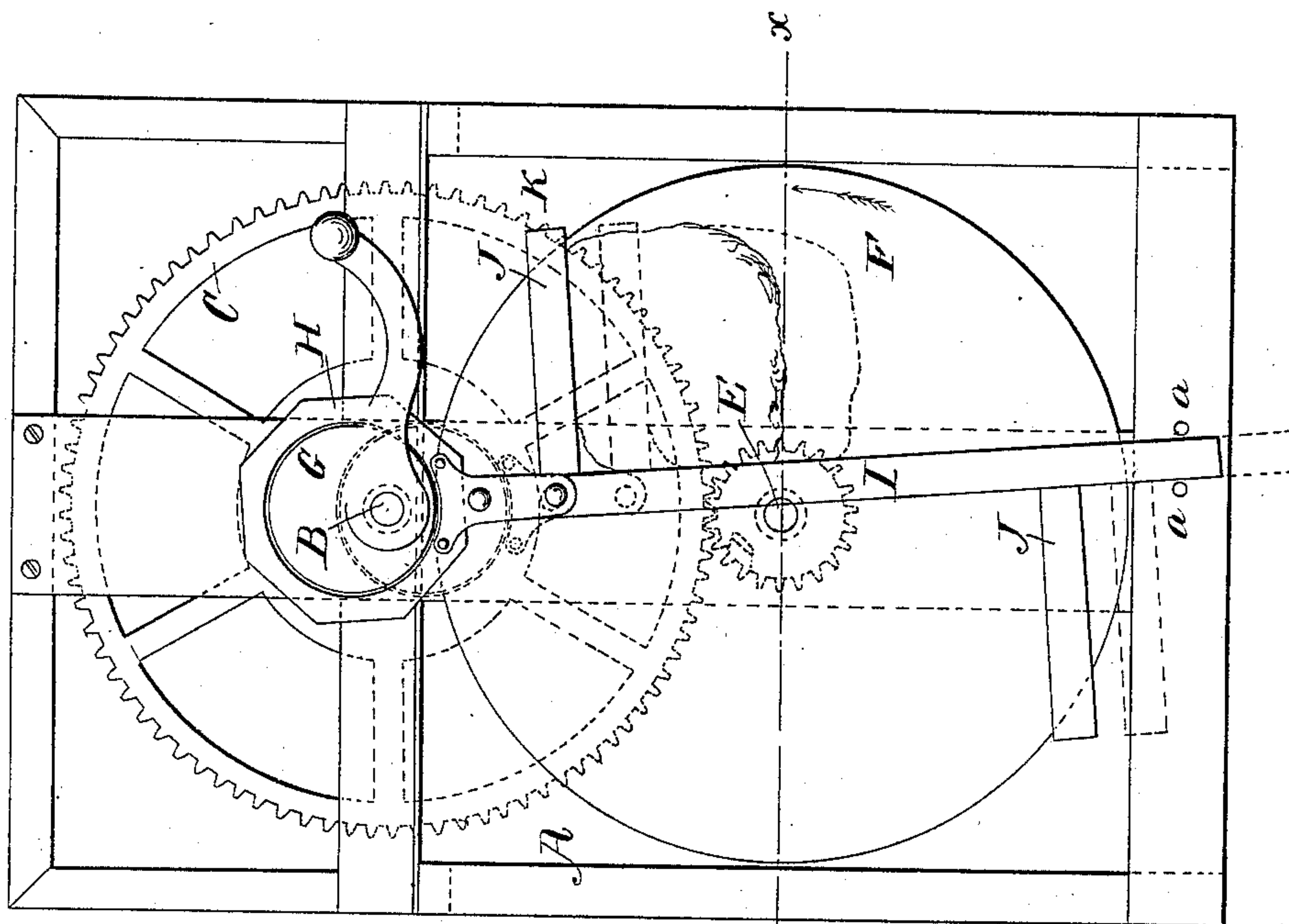
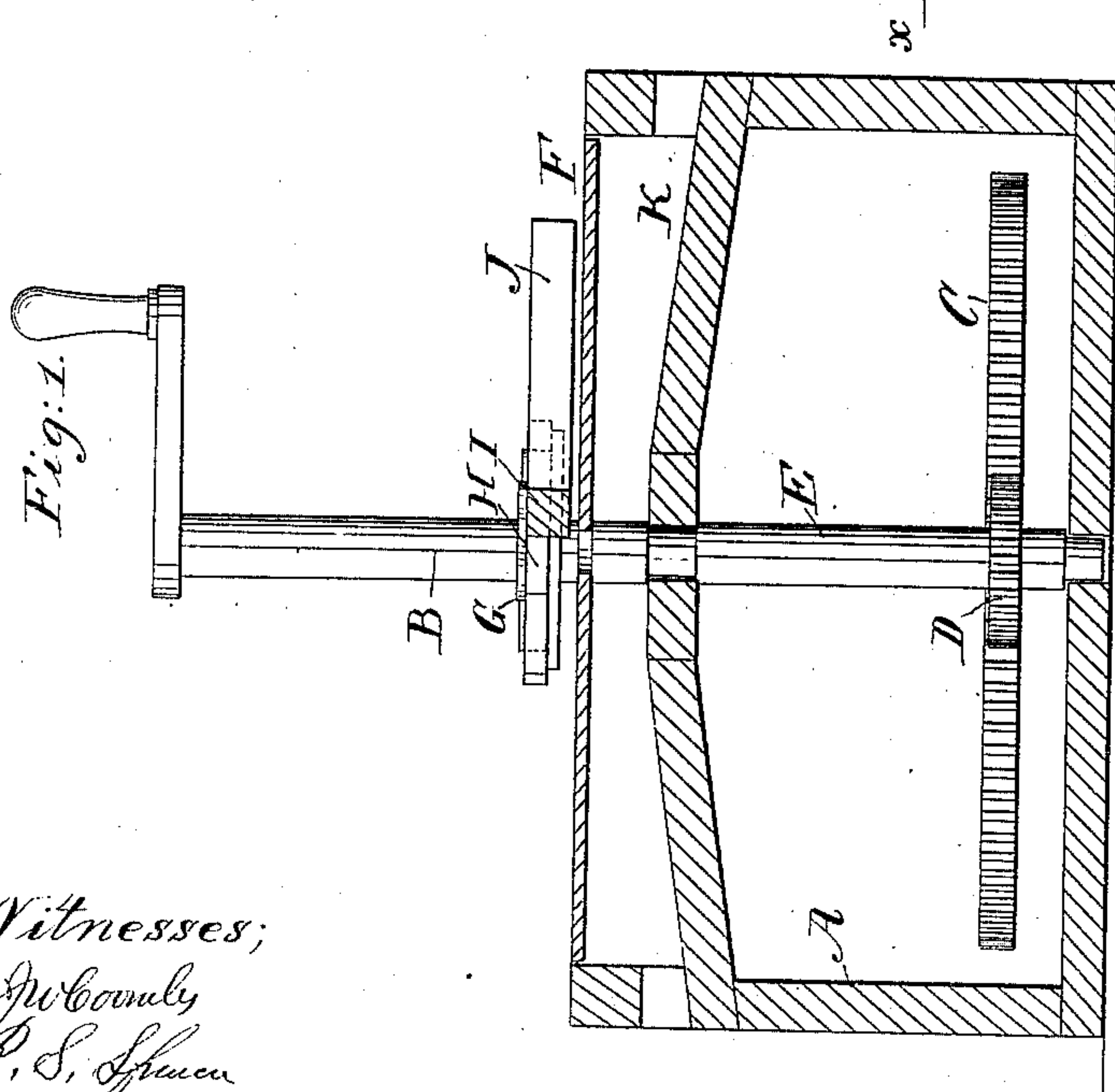


Fig: 1.



Witnesses;
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UNITED STATES PATENT OFFICE.

EZRA H. LEWIS, OF WILBUR, NEW YORK.

MACHINE FOR POLISHING STONE.

Specification of Letters Patent No. 32,776, dated July 9, 1861.

To all whom it may concern:

Be it known that I, EZRA H. LEWIS, of Wilbur, in the county of Ulster and State of New York, have invented a new and useful Improvement in Machines for Polishing Stone; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawing, making a part of this specification, in which—

Figure 1 is a vertical section of my invention taken in the line *x, x*, Fig. 2. Fig. 2 is a plan or top view of the same.

Similar letters of reference indicate corresponding parts in the two figures.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

A represents a framing or box in which a vertical driving shaft B, is placed, said shaft having a spur wheel C, on its lower part, which wheel gears into a pinion D, on a vertical shaft E, the latter extending up above the framing or box A, and having a circular plate F, keyed on it, and its top, the top of shaft E, being flush with the upper surface of plate F.

On the shaft B, there is secured an eccentric G, which is encompassed by a strap H, said strap having a bar I, attached to it which bar rests on the plate F, and extends entirely across it, as shown clearly in Fig. 2. The outer part of the bar I, is fitted between guide pins *a, a*, on the top of the framing or box A. To each side of the bar I, there is attached, at right angles, an arm J.

The circular plate F, is of metal (cast-iron). The framing or box may be of wood, and immediately beneath the plate F, there is an inclined board K, which prevents the "drip" (sand and water) from the plate F, coming in contact with the gearing in the framing or box A.

The stone to be polished is placed, face downward, on the plate F, and against one of the arms J, of bar I. If two stones are to be operated upon simultaneously, one is

placed against each arm. The shaft B, is then rotated by any convenient power and the plate F, rotates and acts upon the face of the stone, the plate being supplied with sand and water. The bar I, communicating a vibrating or reciprocating motion to the stone, and insures a smooth face being put thereon under the action of plate F. In the ordinary machines where the whole work is done by the plate F, only, the stone being at rest, the face of the stone will, when finished, show the action of the sand upon it, by curved ridges and cuts corresponding to the curved paths through which the grains of sand travel by the rotation of plate F. The vibrating or reciprocating motion of the stone obviates this difficulty, as two cutting actions of the sand are obtained, the circular one above alluded to, produced by the rotation of plate F, and one transversely therewith, produced by the reciprocating movement of bar I. These two cutting actions give a smoother and a more polished face to the stone than can be given by the ordinary machines, and by this reciprocating motion of the bar I, a longer stone can be polished than usual, as the reciprocating movement of the stone will cause all parts of its face to work on the plate F, whereas a stationary stone of the same size would have its outer end project over the edge of the plate F.

It will be seen that the movement of the plate F, will keep the stone against its arm J, and the bar I.

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

The arrangement of the double-armed, reciprocating bar I, eccentric G, shaft B, and gear wheel C, with the rotary plate F, shaft E, and pinion D, in the manner and for the purpose herein shown and described.

EZRA H. LEWIS.

Witnesses:

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