

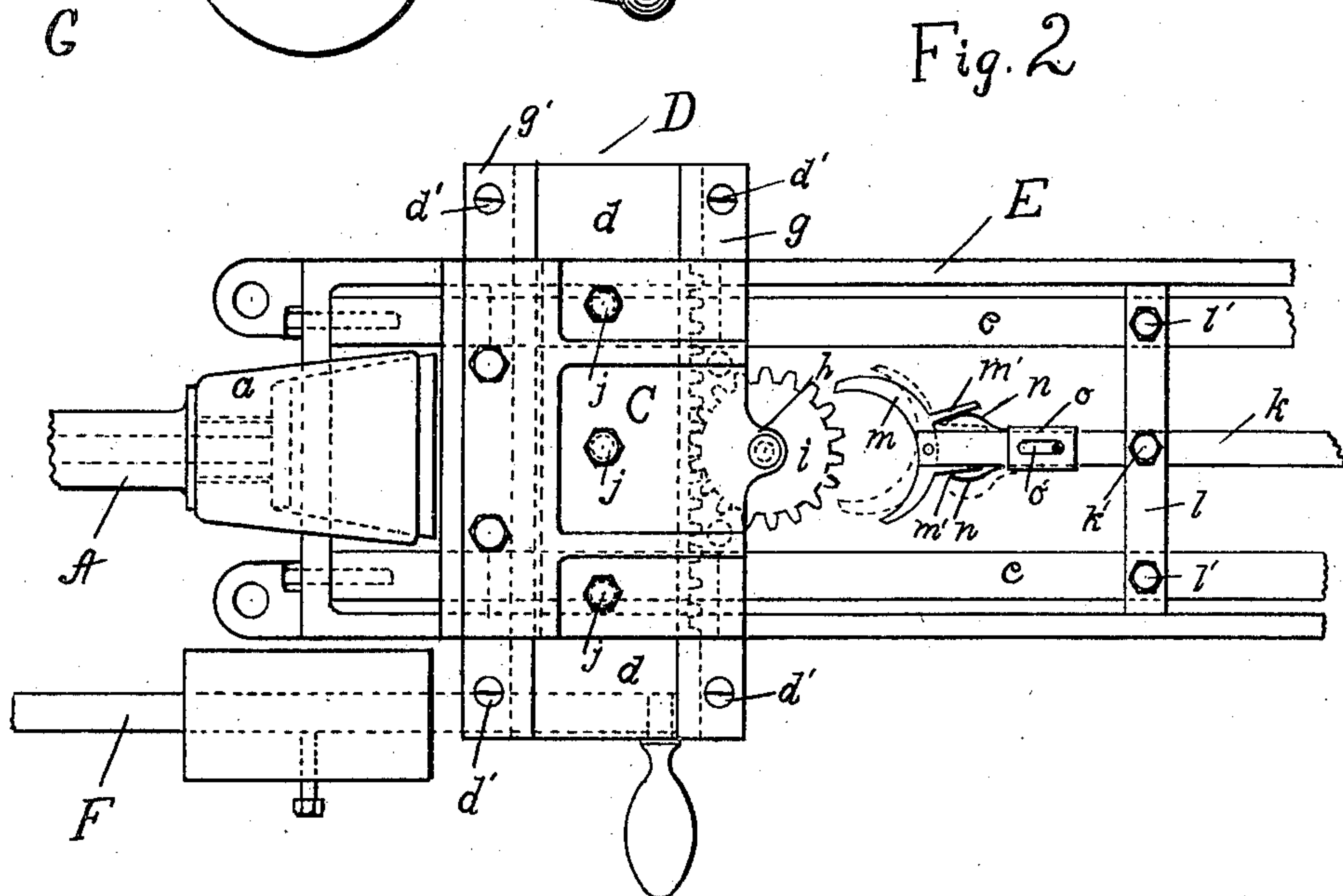
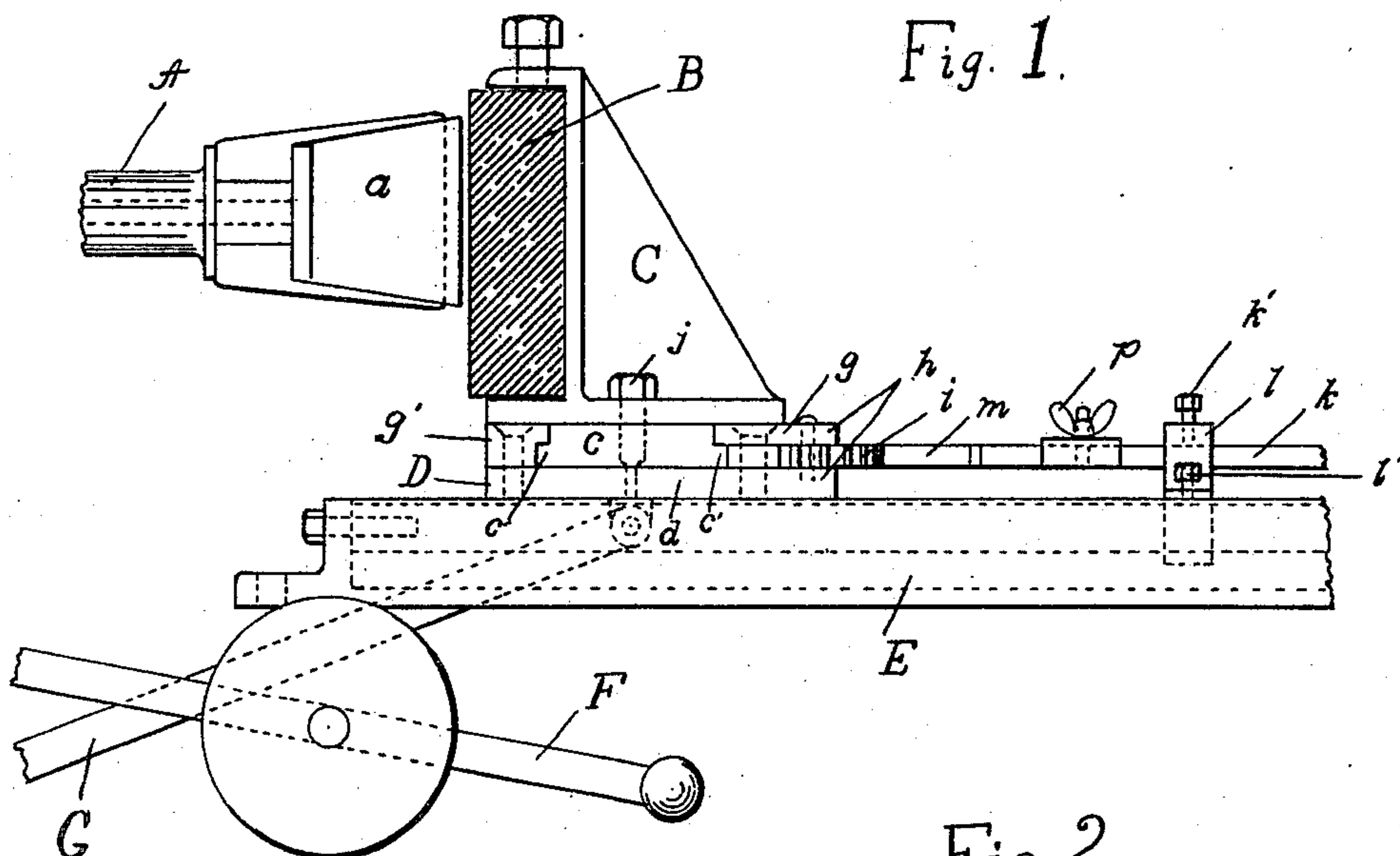
No. 754,878.

PATENTED MAR. 15, 1904.

J. B. LOBET.
GRINDING AND POLISHING MACHINE.

APPLICATION FILED NOV. 18, 1903.

NO MODEL.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN B. LOBET, OF TOLEDO, OHIO.

GRINDING AND POLISHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 754,878, dated March 15, 1904.

Application filed November 18, 1903. Serial No. 181,599. (No model.)

To all whom it may concern:

Be it known that I, JOHN B. LOBET, a subject of the King of Belgium, residing at Toledo, in the county of Lucas and State of Ohio, have invented certain new and useful Improvements in Grinding and Polishing Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates especially to improvements in machines of the class adapted for grinding and polishing the rough edges of light blown glassware or other analogous articles, and has particular reference to improvements on the machine described and claimed in Letters Patent No. 742,688, granted to me October 27, 1903.

The object of my invention is to provide simple and efficient means whereby the polishing medium or stone employed in machines of this class may be caused to have a slight automatic movement on its carriage after each polishing operation, thus causing the wear occasioned by the thrust of the object being polished to be evenly distributed over its polishing-surface.

While the essential features of my invention are necessarily susceptible of modification, the preferred embodiment thereof is illustrated in the accompanying drawings, in which—

Figure 1 is a longitudinal vertical side elevation of a portion of the polishing-machine described in my aforesaid Letters Patent, showing my invention in connection therewith; and Fig. 2 is a plan view of the parts shown in Fig. 1.

Referring to the drawings, A represents the rotatable and longitudinally-movable shaft, having the object-carrying chuck *a* secured to one end thereof; B, the polishing medium, which is carried by and adjustably secured in the bracket C; D, the carriage on which the bracket C is mounted; E, the base or track on which the carriage D is longitudinally

movable; F, the crank or lever for causing a longitudinal movement of the shaft A, and G the connecting-rod which is adapted to cause an opposite simultaneous movement of the carriage D when said shaft is moved by said lever, all of which elements form parts of the machine covered by my said former Letters Patent, No. 742,688, the operation and minor details of construction thereof being fully described in said patent. The said carriage D, which is movably secured by sliding sleeves or other suitable means (not shown) to the longitudinal members *e* to prevent its displacement from the base E while in operation, comprises the base *d* and the internally flanged or shouldered retaining-strips *g* and *g'*, which are secured to said base *d* by means of the screws *d'*, the said strip *g* and base *d* being provided at their rear edges with the centrally-disposed rearwardly-extending bosses *h h*, between which is pivotally mounted the pinion or ratchet-wheel *i*.

A transverse strip or member *c* is secured to the under side of the bracket C by means of the bolts *j* or other suitable means and is provided on its front and rear edges with the flanges or shoulders *c'*, which engage the flanges of the said strips *g* and *g'*, thus adapting said bracket to be retained in engagement with said carriage and have a movement transverse to said chuck *a* and supporting-base E. The shoulder *c'* adjacent to the pinion *i* is provided with teeth, as shown by dotted lines in Fig. 2, to form a rack the entire width thereof for meshing with the teeth of the pinion *i*, thus causing a transverse movement of the bracket *c* with the polishing medium B thereon when said pinion is rotated.

A rod *k*, which is located at the rear of the pinion *i* and in horizontal alinement therewith, is adjustably secured, by means of the binding-bolt *k'*, within an opening provided in the bridge *l*, the said bridge *l* being slidably mounted on the longitudinal members *e* and adapted to be held in proper adjustment there to by means of the binding-bolts *l'*. A segment *m*, which is adapted to form pawls for engaging and rotating the pinion *i*, is pivotally secured to the end of the rod *k* adjacent to the pinion *i* and is held in proper adjust-

ment with relation to said pinion *i* by means of the springs *n*, which project from the sliding sleeve *o* and engage the rearwardly-extending fingers *m'*, as shown in Fig. 2, the said fingers being so arranged as to permit of a limited oscillatory movement of said segment with relation to said rod *k*. The sleeve *o* is made adjustable on the rod *k* by reason of a bolt carrying the winged nut *p* thereon passing through an elongated slot *o'*, provided therein.

It will be understood that in the operation of my machine the segment *m* is secured in proper position with relation to the pinion *i* by means of the adjusting-bolt *k'*, so that one of the arms of said segment is caused to engage one of the teeth of the pinion *i* and impart a slight rotary movement thereto at each rearward or reciprocatory movement of the carriage D, which occurs after each polishing operation, thus causing an intermittent transverse movement of the bracket C and polishing-stone B and preventing the objects being operated on from twice coming in contact with the same portion of the surface of said stone. When the pinion *i* has traversed the entire distance one way of the rack provided on the strip *c*, the position of the segment-arms is reversed, as shown by dotted lines in Fig. 2, the sleeve *o* being moved rearwardly for that purpose, thus causing the rotation of said pinion and the movement of said bracket C to be likewise reversed.

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

1. In a machine of the class described, a carriage adapted to have a reciprocatory movement therein, a stone-carrying bracket mounted on and transversely movable of said carriage, a rack on said bracket, a member in engagement with said rack, and means for imparting motion to said member and bracket at each reciprocatory movement of said carriage.

2. In a machine of the class described, a carriage adapted to have a reciprocatory movement, a movable polishing medium mounted thereon, a member adapted to engage and impart movement to said medium, and adjustable means for engaging and imparting motion to said member at each reciprocatory movement of said carriage.

3. In a machine of the class described, a longitudinally-movable carriage, a bracket mounted on said carriage and adapted to carry a polishing-stone and to have a transverse movement, a pivotally-mounted member adapted when moved to impart motion to said bracket, and means for engaging and moving said member when said carriage is moved, said means adapted to have its position changed to

reverse the movement of said member, substantially as described.

4. In a machine of the class described, a longitudinally-movable member, a transversely-movable element carried by said member, a pinion mounted on said carriage and adapted to engage said element, and means secured in adjacent position to said pinion and adapted to rotate same and cause a transverse movement of said element when said member is moved.

5. In a machine of the class described, a reciprocatory carriage, a transversely-movable element thereon, a member meshing with a rack on said element, adjustable means mounted in the line of movement of said carriage, and reversible means carried thereby and adapted to have engagement with and impart motion to said member when said carriage is reciprocated, substantially as described.

6. In a polishing-machine, a reciprocatory carriage having a transversely-movable polishing element thereon, a rack on said element, a pinion mounted on said carriage and meshing with said rack, an adjustable member secured in alinement with said pinion, arms pivotally mounted on said member and adapted to engage said pinion and impart intermittent motion thereto as said carriage is reciprocated, and means for reversing the position of said arms, substantially as described.

7. The combination, in a machine of the class described, of a movable carriage having a polishing medium movably mounted thereon, a movable element in engagement with said medium and adapted when moved to impart motion thereto, a member mounted in adjacent position to said element and adapted to engage and move the same when said carriage is moved, and means for reversing the movement of said element, substantially as described.

8. The combination in a polishing-machine, of a reciprocatory carriage, a bracket movably mounted thereon and carrying a polishing medium, a rack on said bracket, a pinion mounted on said carriage and engaging said rack, a member adjustably mounted in alinement with said pinion, an element carried by said member and adapted to engage and impart motion to said pinion and cause a movement of said bracket when said carriage is reciprocated, and means for reversing the position of said element and movement of said pinion, substantially as described.

In testimony whereof I have hereunto signed my name to this specification this 13th day of November, 1903.

JOHN B. LOBET.

Witnesses:

JOSEPH FENETTE,
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