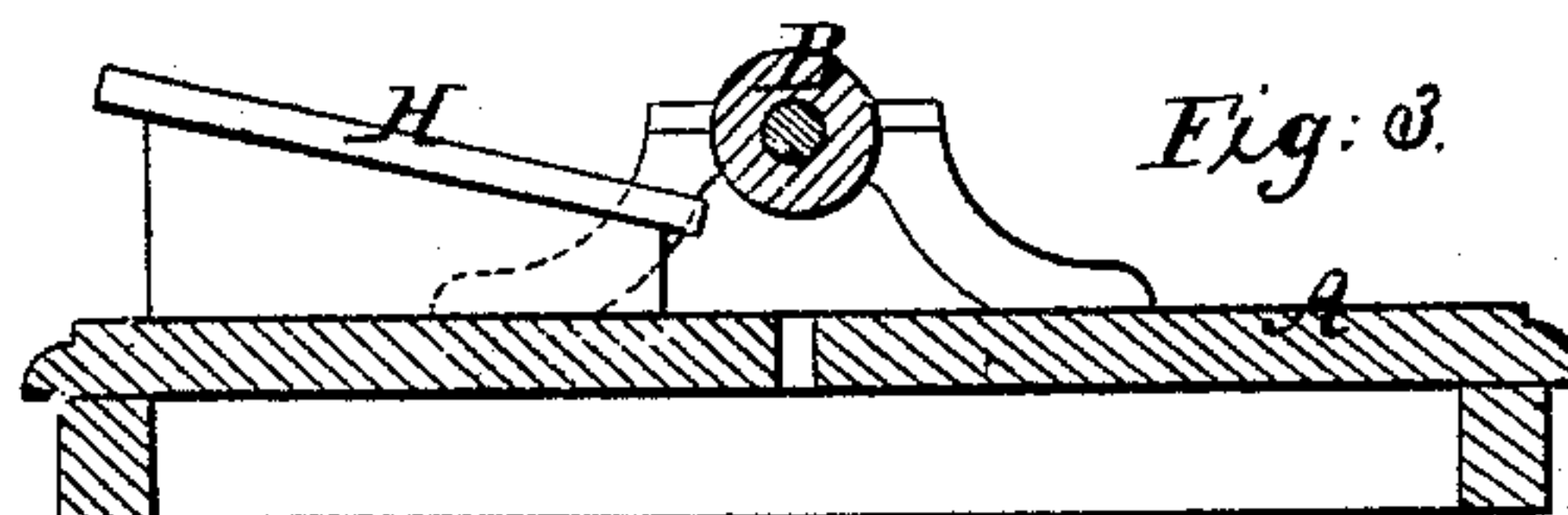
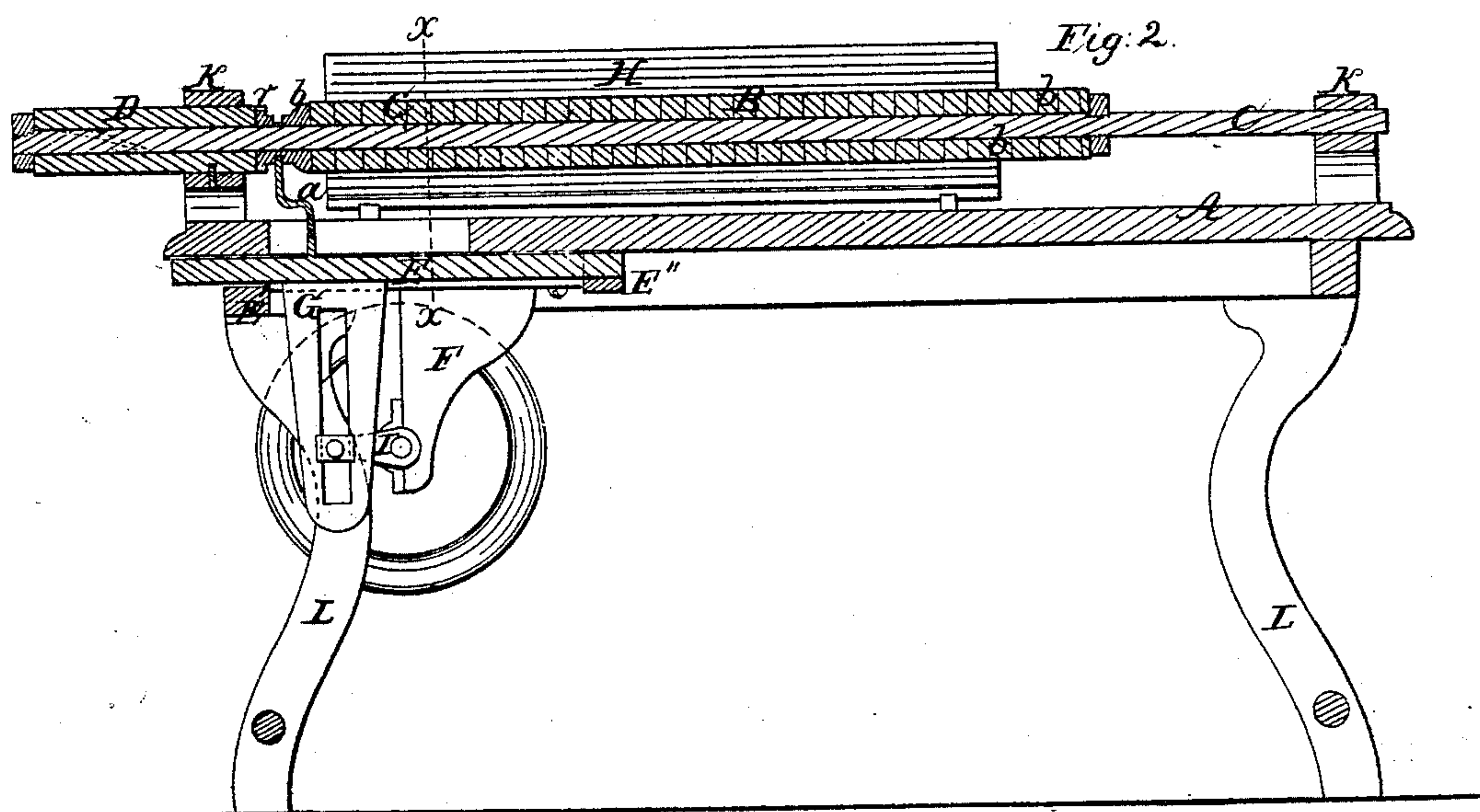
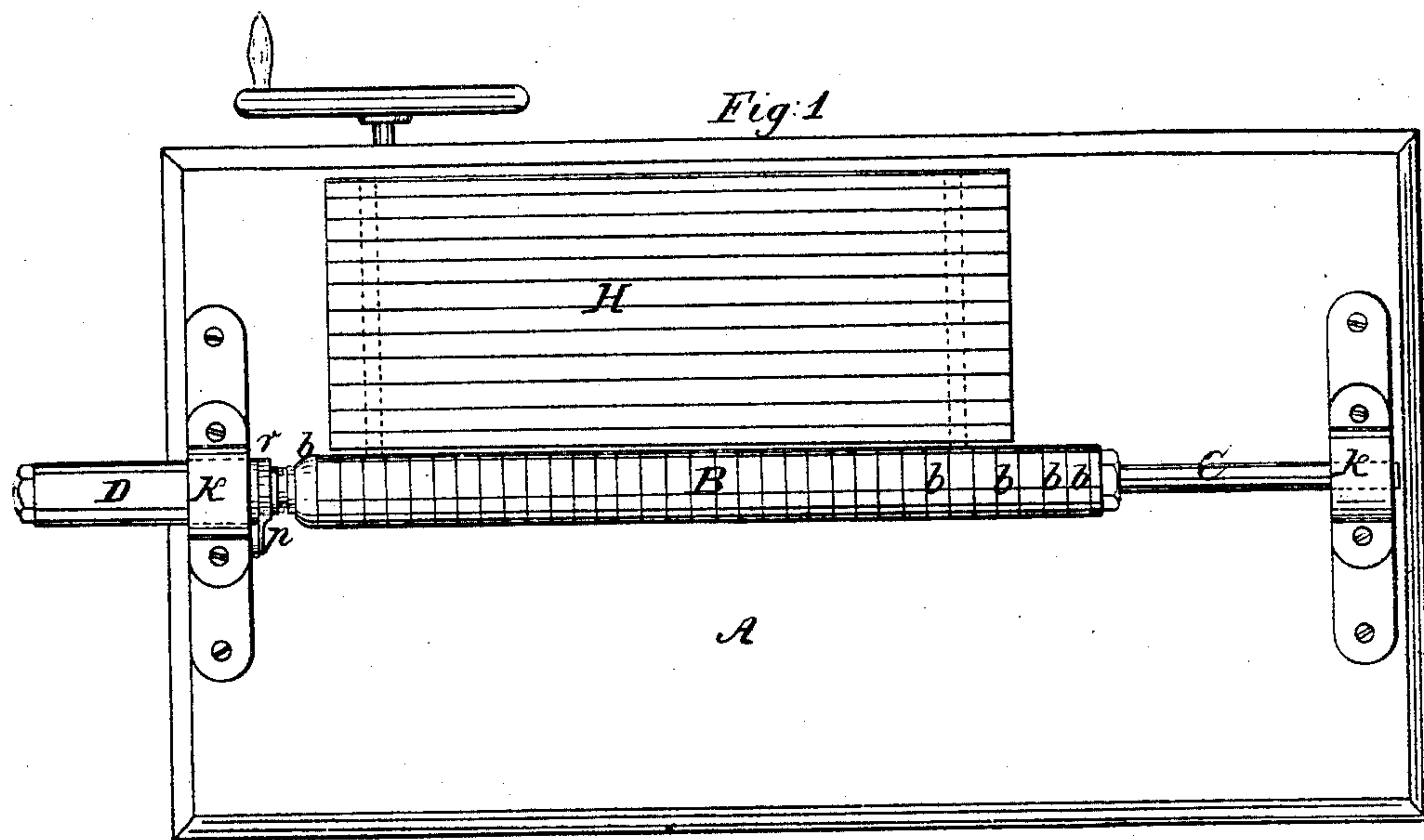


*J. W. Maloy.*


*Marble Polishing Mach.*

*N<sup>o</sup> 58852*

*Patented Oct. 16. 1866.*



Witnesses;  
J. H. Adams  
G. A. Smith

 *Inventor;*  
*James W. Maloy*



# UNITED STATES PATENT OFFICE.

JAMES W. MALOY, OF BOSTON, MASSACHUSETTS.

## IMPROVED MARBLE-POLISHING MACHINE.

Specification forming part of Letters Patent No. 58,852, dated October 16, 1866.

*To all whom it may concern:*

Be it known that I, JAMES W. MALOY, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Machines for Polishing and Finishing Marble, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a plan view; Fig. 2, a longitudinal vertical section, and Fig. 3 a transverse section of Fig. 2 on the line *x x*.

Similar letters indicate like parts in the several figures.

My invention consists of a longitudinally-reciprocating and intermittently-rotating cylinder formed of one piece, or of a series of collars or disks placed upon a shaft, in connection with an inclined table or platform, which holds the marble or other material to be operated upon.

A in the drawings represents a table, properly supported on legs L. Upon each end of the table is secured a bearing, K. In the bearing, at one end of the table A, is journaled a shaft, C, to which the cylinder B is attached, the other end of the shaft passing loosely through a sleeve, D, at the other end of the table, which sleeve is fitted in a bearing at that end of the table.

The cylinder may be formed of one piece, or of a series of collars or disks secured to the shaft C and revolving with the same.

To one end of the cylinder B is rigidly attached a metallic grooved shoulder, *b*, which fits upon a forked arm, *a*, and turns freely in the same. One end of this shoulder is provided with teeth and serves as a ratchet, *r*.

The arm *a* is represented as bent at right angles, and, passing downward, is secured to a narrow bar, E, supported in a slot in the cross-bar E' at the end of the table and a slotted bracket, E'', attached to the under surface of the table. The bar E is allowed a free longitudinal movement in the said bar and bracket.

To the under side of the bar E is attached a slotted link, G, in which is fitted a wrist of a crank-shaft, which may be operated by hand or other power. The crank-shaft is supported in a hanger, F, attached to the under side of the table.

The sleeve D, which is fitted loosely on the

shaft C, is provided with a spiral groove, which fits over a pin in the bearing K, so that in moving longitudinally it will also be partially rotated. To the inner end of the sleeve D is hinged a pawl, *p*, so that it may be readily thrown in and out of gear with the ratchet *r* on the shoulder *b*.

Upon one side of the table A is a movable inclined table or platform, H, its lower edge coming in close proximity with the cylinder B. This table or platform may be arranged at any desired angle, and supports the material to be operated upon, so that its edge will, by its own weight, bear upon the cylinder B.

The cylinder B may be made of iron or other metal, or of lead or copper having a coating of emery; and in polishing the marble the cylinder may be covered with felt or other similar material.

When the cylinder B is formed of a series of collars or disks, the latter may be moved or interchanged upon the shaft C, in case their surfaces should be worn away more upon one part of the cylinder than upon another.

The operation is as follows: The crank I, being put in motion by any convenient power, imparts to the cylinder B, through the medium of the slotted link G and forked arm *a*, a longitudinal reciprocating motion when the pawl *p* is not engaged with the ratchet *r* on the shoulder *b*.

When it is desired to impart to the cylinder B a partially-rotating motion in connection with the longitudinal motion, the pawl *p*, attached to the sleeve D, is thrown into gear or connection with the ratchet *r* on the shoulder *b*, which is rigidly connected with the cylinder B; and as the sleeve D is rotated by the pin in the bearing K, fitting in the groove in the said sleeve, the pawl *p* will force the ratchet *r*, and consequently the cylinder B, to move round with the sleeve D to the extent permitted by the groove in the sleeve, and by continuing the motion of the crank the sleeve D will move in the opposite direction and allow the pawl *p* to slip over the teeth of the ratchet *r* until the next forward movement of the sleeve causes the pawl to impart a similar partially-rotating movement to the cylinder B.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The reciprocating cylinder B, when con-

structed and operating as and for the purpose described.

2. The grooved sleeve D, provided with a pawl, *p*, or its equivalent, as described.

3. The combination of an inclined table or platform, H, with the cylinder B, substantially as described.

4. The combination of cylinder B, grooved sleeve D, and the means of connecting the

same for joint operation, substantially in the manner and for the purpose specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES W. MALOY.

Witnesses:

J. H. ADAMS,

DAVID KELLEHER.