

No. 651,839.

Patented June 19, 1900.

A. D. ERB.
POLISHING MACHINE.

(Application filed Jan. 2, 1900.)

(No Model.)

2 Sheets—Sheet 1.

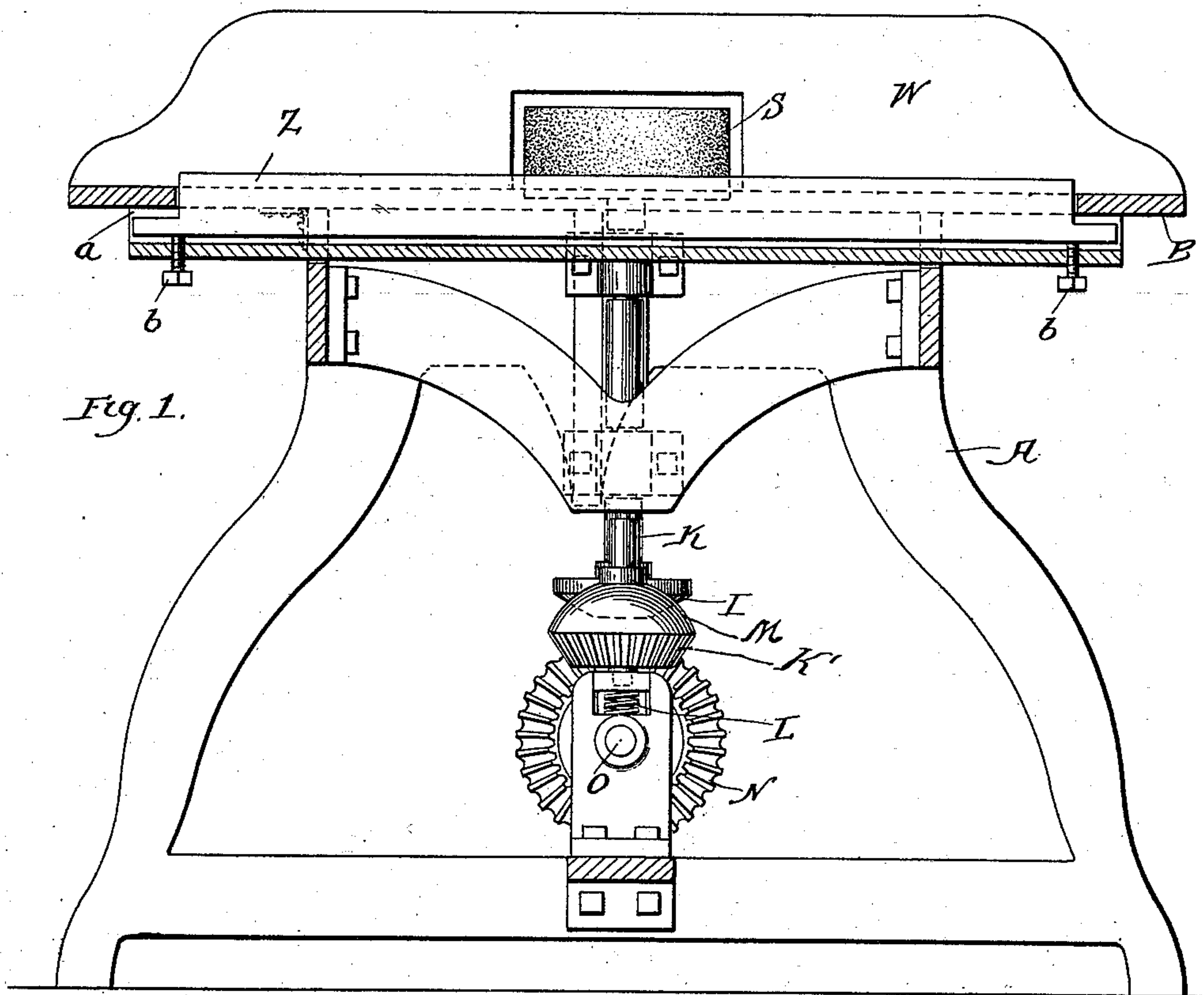
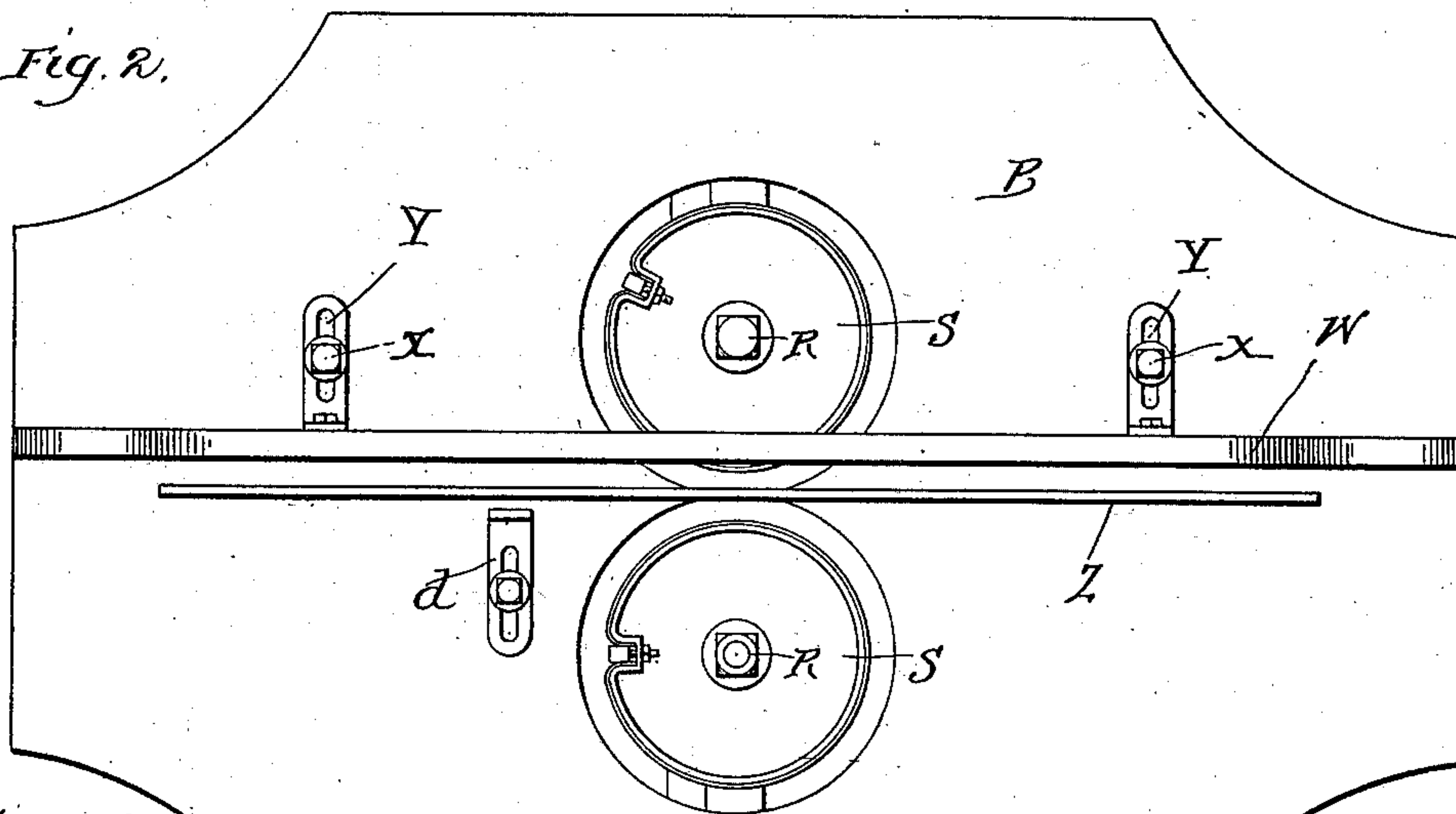


Fig. 2.



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By *Quole Haydon* Atty.

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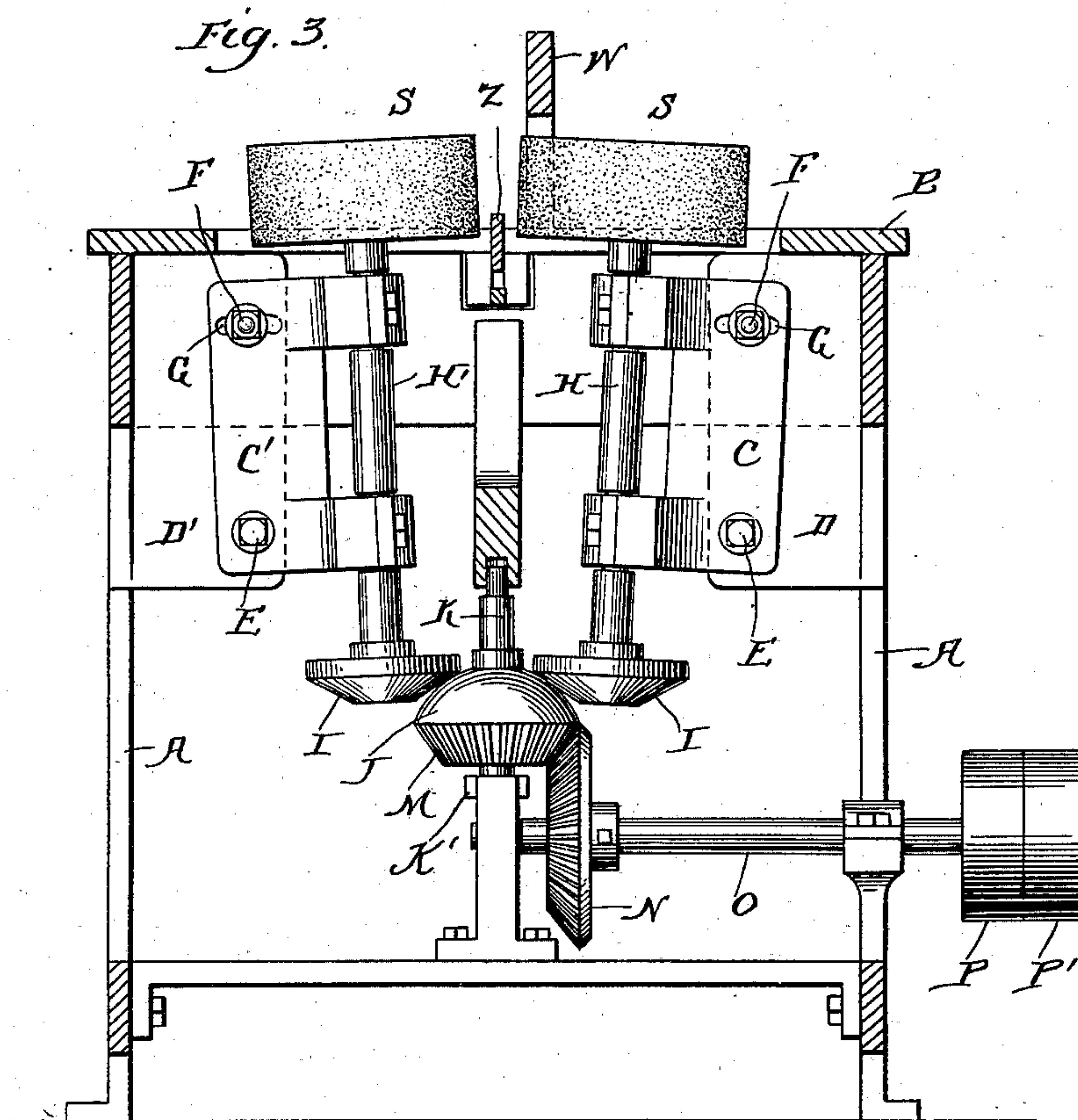


Fig. 5.

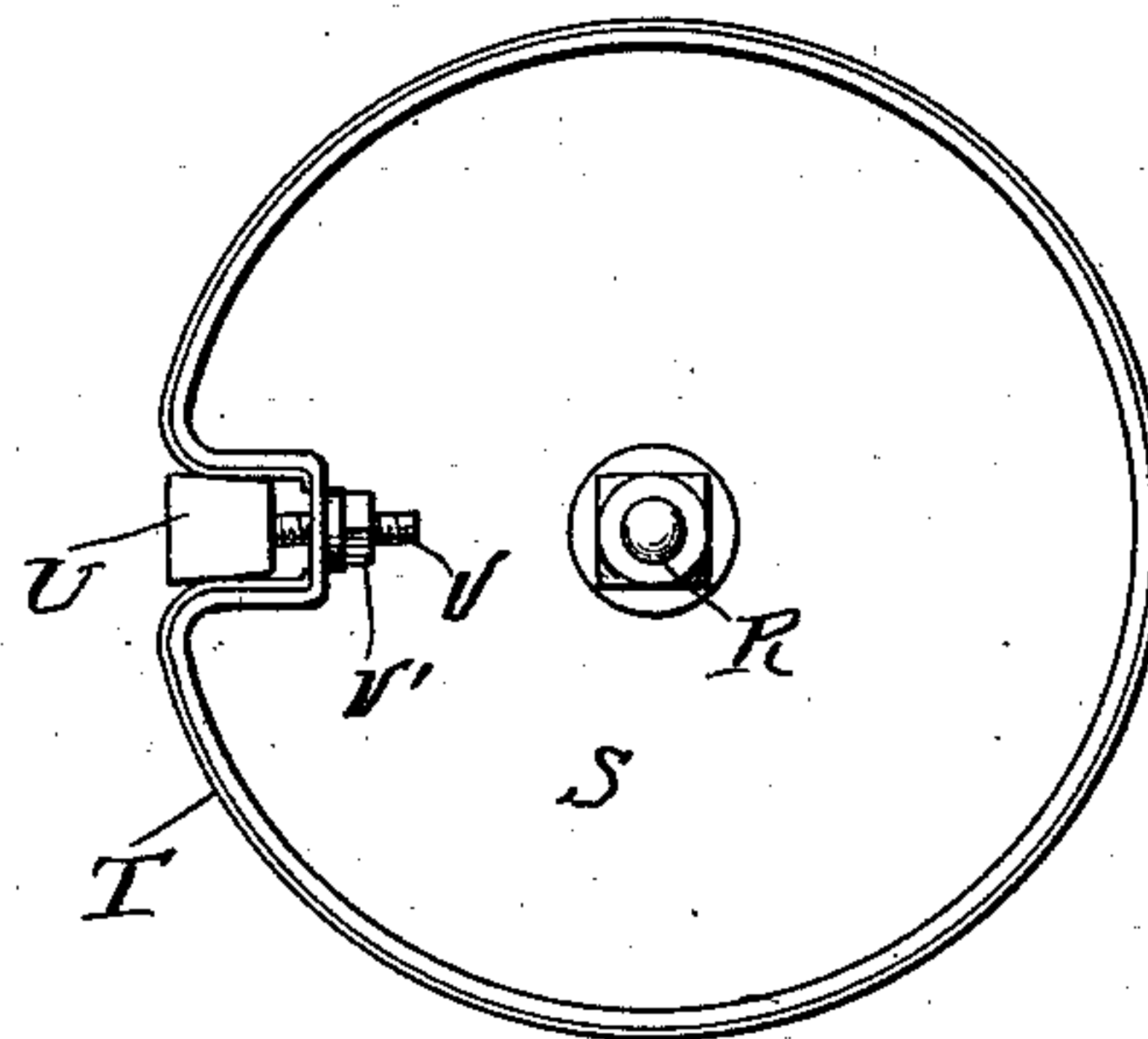
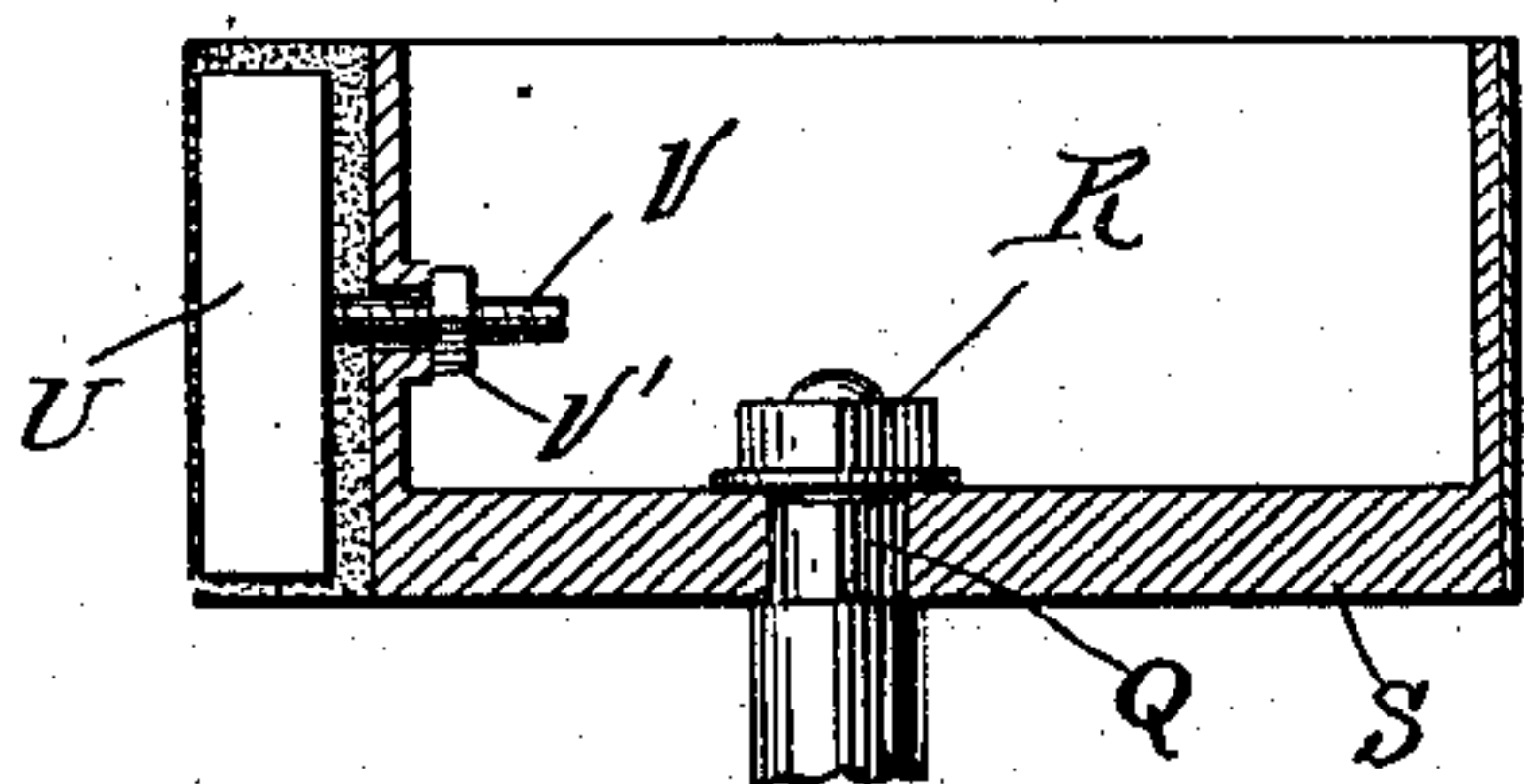


Fig. 4.



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UNITED STATES PATENT OFFICE.

AMENDAS D. ERB, OF PENNSBURG, PENNSYLVANIA.

POLISHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 651,839, dated June 19, 1900.

Application filed January 2, 1900. Serial No. 153. (No model.)

To all whom it may concern:

Be it known that I, AMENDAS D. ERB, a citizen of the United States, residing at Pennsburg, county of Montgomery, and State of Pennsylvania, have invented a certain new and useful Improvement in Polishing-Machines, of which the following is a specification.

My invention relates to a new and useful improvement in polishing-machines, and has for its object to construct an exceedingly simple and effective machine of this description which is adapted to use strips of sandpaper, emery-cloth, or other abrading material secured upon rolls, said rolls being so mounted as to be adjusted relative to each other so as to cause them to fit the angles of panels for doors and the like.

With these ends in view this invention consists in the details of construction and combination of elements hereinafter set forth, and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, the construction and operation will now be described in detail, referring to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a longitudinal section of the machine; Fig. 2, a plan view; Fig. 3, a section taken at right angles to Fig. 1; Fig. 4, an enlarged section of one of the polishing-rolls, and Fig. 5 a plan view of the roll.

In carrying out my invention as here embodied, A represents the framework of the machine, which is of such design as to accommodate the operating parts thereof, and B is a table supported by this frame. Two brackets C and C' are so bolted to the flanges D and D' of the frame as to be adjustable to and from the perpendicular, and this is accomplished by the bolts E acting as pivots to the lower portion of the brackets, while the bolts F pass through slots G, so as to permit the upper ends of the brackets to be swung from the center of the bolts E, and after the proper adjustment is had the bolts are set, so as to securely fasten the brackets in their adjustment.

H and H' are vertical shafts journaled in boxes formed in the brackets, and these shafts

carry at their lower ends the friction-pulleys I, adapted to bear against the semispherical friction-pulley J, the latter being secured upon the short shaft K, the lower end of which is journaled in the sliding boxes K', and these boxes are normally held in an elevated position by the spring L. By this arrangement the friction-pulley J is constantly held in firm contact with the friction-pulleys I, so as to transmit the proper rotation thereto. A beveled gear M is also secured upon the short shaft K and meshes with the beveled gear N, which latter is secured upon the horizontal shaft O. A tight and loose pulley P and P', respectively, are secured upon the shaft O, so as to connect the machine to any suitable source of power.

The upper ends of the shafts H and H' are squared, as indicated at Q, and have the nuts R threaded thereon, so as to conveniently attach the polishing-rolls S thereto or detach them therefrom, by which means various-sized rolls may be used. Each of the rolls is hollow and has a groove formed in the periphery thereof into which the ends of the strip of sandpaper T may be drawn, and these ends are then firmly secured by the block U, being drawn into this groove by the threaded bolt V and the nut V' run thereon. This provides for the application of other strips of sandpaper when those previously placed upon the rolls have become worn, and as the block U lies below the surface of the roll it in no wise interferes with the action of said roll.

A gage W is adjustably secured upon the table by means of the bolts X passed through the slots Y. A strip Z is located in the slot a in the table and is made adjustable vertically by the set-bolts b, the object of this strip being to support the work when being passed between the rolls, and by its adjustment the extent of the surface to be acted upon is determined. A suitable stop d is adjustably secured upon the table and serves to guide the work when being passed through the machine.

In operation the rolls are revolved at a high rate of speed and the work is placed against the gage W and passed between the rolls while resting upon the strip Z, during which time the rolls act upon both sides of the work and polish the same.

While my improved machine is adapted for use in connection with various classes of work, it is especially designed for polishing the beveled edges of panels for doors and the like, and, as shown in Fig. 3, the rolls are adjusted so as to stand at the angle of the bevel upon the work, thus only requiring that the work be held against the gage.

Having thus fully described my invention, what I claim as new and useful is—

1. A sandpapering and polishing machine consisting of two adjustable brackets, two shafts journaled in said brackets, rolls carried by the upper ends of said shaft, friction-pulleys carried by the lower ends of the shaft, a semispherical friction-pulley adapted to bear against the first-named pulleys, means for revolving the last-named pulleys, as specified.

2. In combination, a suitable frame, flanges formed with the frame, brackets pivoted to the flanges and adjustably bolted at their

upper ends, shafts journaled in said brackets, rolls detachably secured to the upper ends of the shaft, means for securing strips of abrading material upon said rolls, gages for guiding the work to the rolls, an adjustable supporting-strip upon which the work rests, friction-pulleys secured to the lower ends of said shafts, a short shaft journaled in a spring-pressed box whereby it will be forced against the first-named friction-pulleys, a beveled gear secured upon said short shaft, a beveled gear meshing with the first-named, and means for revolving the last-named gear, as shown and described.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

AMENDAS D. ERB.

Witnesses:

E. W. SCHOLL,
M. E. XANDER.