(No Model.)

D. R. B. KENYON.

Polishing and Grinding Machine.

No. 239,389. **Patented March 29, 1881.**

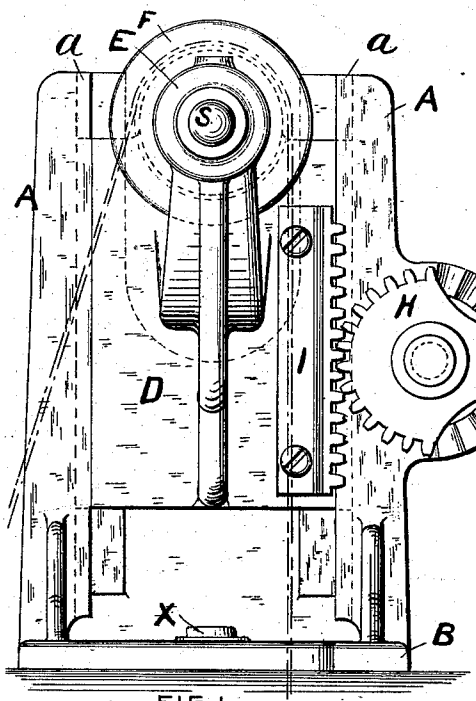


FIG. 1.

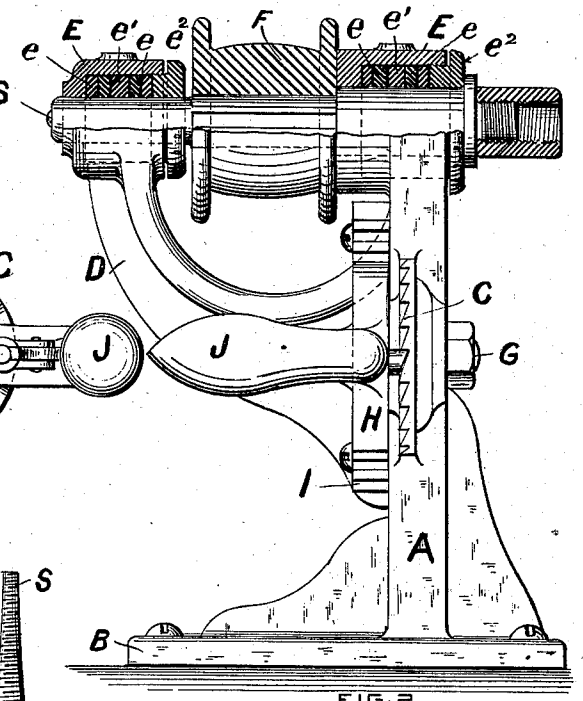


FIG. 2.

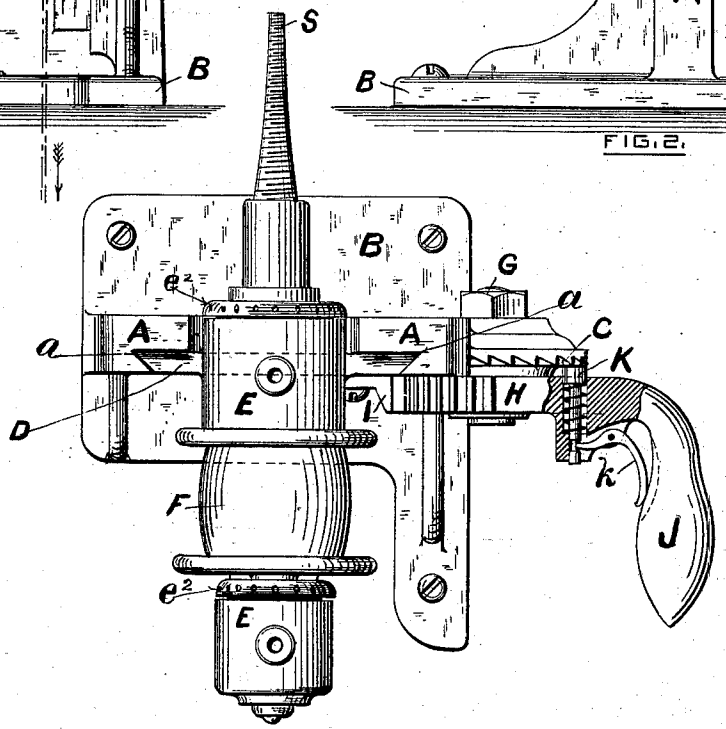


FIG. 3.

WITNESSES.

Geo. H. Remington.

James Tod Curtis

INVENTOR.

David Robinson Brayton Kenyon

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

DAVID R. B. KENYON, OF PROVIDENCE, RHODE ISLAND.

POLISHING AND GRINDING MACHINE.

SPECIFICATION forming part of Letters Patent No. 239,389, dated March 29, 1881.

Application filed January 17, 1881. (No model.)

To all whom it may concern:

Be it known that I, DAVID R. B. KENYON, of the city and county of Providence, in the State of Rhode Island, have invented certain new and useful Improvements in Polishing and Grinding Machines, of which the following is a specification.

The object of my invention is to produce a machine susceptible of adjustment, whereby different degrees of belt-tension may be obtained; and it consists of a stationary frame or standard, an adjustable bearing having its boxes provided with anti-friction washers, in which revolves an ordinary spindle; also, device for vertically adjusting said bearing.

In the accompanying drawings, in which similar letters of reference indicate like parts, Figure 1 represents an end elevation of the machine, showing the adjusting device. Fig. 2 is a front view, with upper portion of the boxes in section, showing the anti-friction washers in position. Fig. 3 is a top view, partly in section, showing the spring-catch for locking the adjustment.

The standard A, which is secured by bolts or otherwise to the bench, has vertical grooves *a a* planed therein to receive the U-shaped casting D. The grooves in the former and the edges of the latter are so formed as to admit of vertical motion only to said piece D. To the standard is attached the ratchet C, which, in connection with the spring-catch K, prevents the bearing from yielding to the pressure of the belt. To the standard is pivoted a toothed lever, H, having loosely attached thereto the spring-catch K. (Shown in Fig. 3.) The U-shaped casting D has its vertical edges planed to correspond with the grooves *a*. Boxes E E are cast upon the upper portion of the piece D, and are counterbored to receive the rawhide and bronze washers *e e'*, said washers being held in position and compressed by means of the threaded followers e^2. Oil is admitted through proper openings in the top of the boxes. The rack I is secured to the casting D at a proper position to engage with the toothed lever H. The spindle S is suitably formed to receive the various kinds and sizes of polishing-brushes, buffs, emery-wheels, &c., used in polishing, grinding, &c.

The operation of my device is as follows: Assuming the spindle to be revolving, and desiring to decrease the tension of the belt, the spring-catch K is released from the ratchet C by depressing the small lever *k*, and the handle J of the toothed lever H moved upward. This motion, by means of the rack I, depresses the U-shaped piece D, and with it the spindle, &c., thereby decreasing the distance between the spindle and driving-shaft and diminishing the tension of the belt, thus admitting of the spindle being held by the hand while the brushes or buff, &c., can be changed. By depressing the handle of the lever H any degree of tension may be maintained, and variations of temperature and stretch of the belt are thereby compensated.

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

In a polishing or grinding machine, the combination, with the frame or standard A, having vertical grooves *a a*, of the sliding spindle-bearing support D and adjusting means H I, substantially as and for the purpose specified.

DAVID R. B. KENYON.

Witnesses:
JONATHAN CADY,
GEO. H. REMINGTON.