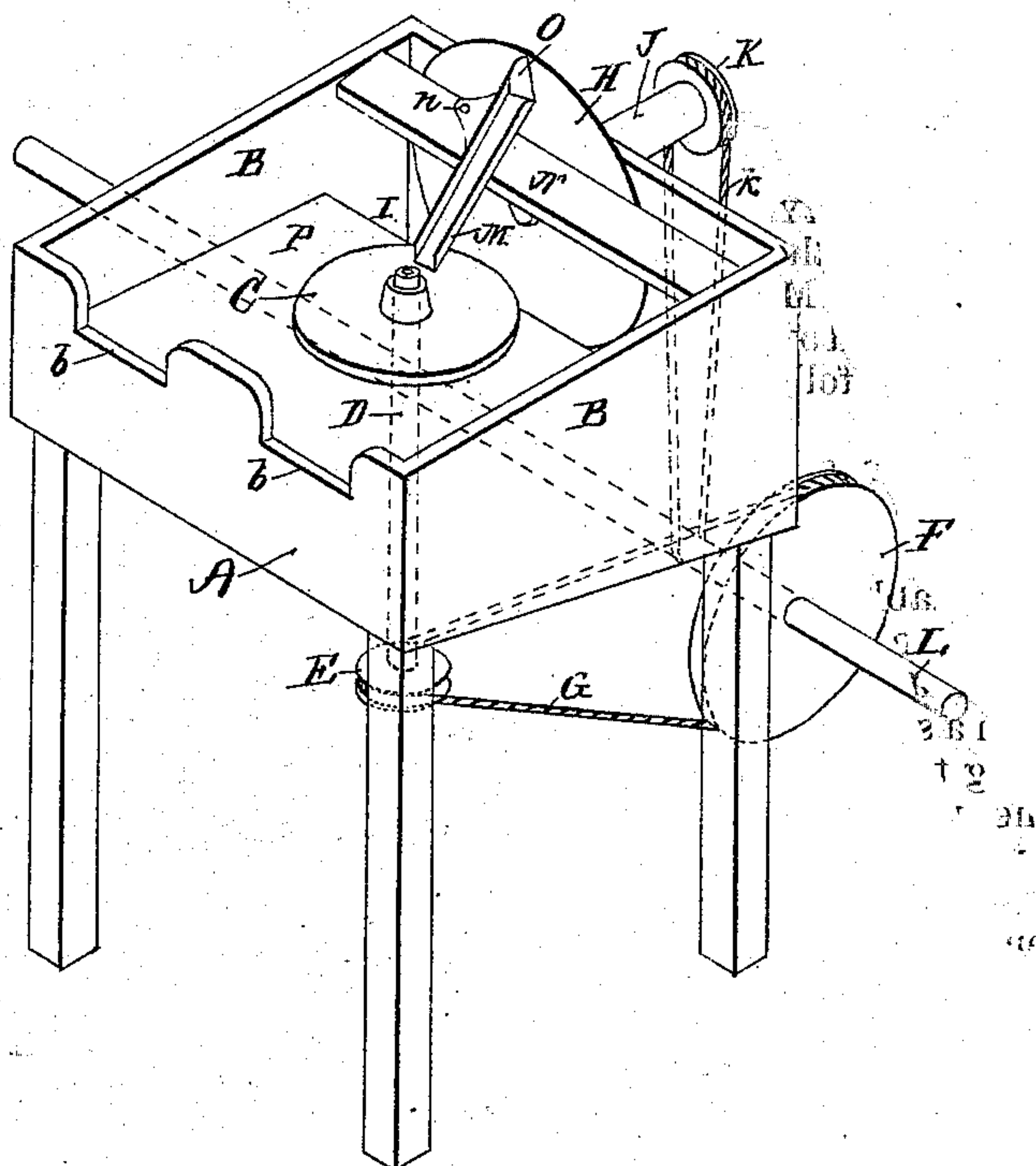


(No Model.)

H. C. LUTHER.  
Machinery for Automatically Delivering Sand to  
Grinding Wheels.

No. 237,563.

Patented Feb. 8, 1881.



Witnesses.

Joseph J. Scholfield.  
Socrates Scholfield

Inventor.

Henry C. Luther

# UNITED STATES PATENT OFFICE.

HENRY C. LUTHER, OF PROVIDENCE, RHODE ISLAND.

MACHINERY FOR AUTOMATICALLY DELIVERING SAND TO GRINDING-WHEELS.

SPECIFICATION forming part of Letters Patent No. 237,563, dated February 8, 1881.

Application filed December 20, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY C. LUTHER, of Providence, in the State of Rhode Island, have invented an Improvement in Machinery for Automatically Delivering Sand or Emery to Grinding-Wheels, of which the following is a specification.

My invention relates to suitable means for feeding the sand or emery to lap-wheels or grinding-surfaces automatically; and it consists in a disk of suitable diameter, made to revolve in a receptacle of sand or emery mixed with water or other material to form a paste, in combination with a scraper and conducting-trough for removing the grinding-paste from the surface of the revolving disk and conducting it, in proper quantity, to the grinding-surface.

My improvement is applicable to all grinding-machines where loose sand or emery is used as the cutting substance, and has to be constantly supplied to the work, thus rendering such grinding-machines, in some cases, entirely automatic, where at present a workman is employed; and it is also adapted to lapidary's work, where heretofore the workman has been required to feed the emery to the wheel with one hand, as occasion might require, while he also held the work upon the wheel with the other. Thus the care and skill required to produce first-class work were greatly increased.

In the accompanying drawing, A represents a lapidary's bench surrounded by the elevated sides B B, and provided on the front side with the notches *b b*, for the arms of the operator.

C is the horizontal lap-wheel secured to the upright shaft D, which is driven by means of the pulley E upon the shaft D, the pulley F upon the shaft L, and the band G.

The revolving disk H is made of sufficient

diameter to extend to near the bottom of the well I, and is secured to a horizontal shaft which is held in a journal, J, attached to the back of the bench, and is provided at its outer end with a pulley, K, driven by the band *k*, which passes around the shaft L, as shown by the dotted lines.

The trough M for delivering the emery paste to the lap-wheel C is pivoted to the cross-bar N at the point *n*, and is provided at its upper end with an inclined scraper, O, for scraping the emery paste from the face of the disk H, so that it may flow through the trough M to the lap-wheel in proper quantity, the pivot *n* being placed at one side of the trough so that by slightly swinging the end of the trough which is above the lap-wheel either to the right or left, as the case may be, a greater or less quantity of emery will flow to the lap-wheel.

The sides and bottom of the well I are beveled, in order to throw the emery to the deepest part in close proximity to the revolving disk H. The bench P is inclined toward the well I, so that the emery paste after leaving the lap-wheel may flow directly into the well, to be again raised by the revolution of the disk.

I claim as my invention—

In a grinding or polishing machine, the combination of a receptacle for the cutting material with a revolving disk having its lower edge embedded in the cutting material, with a scraping-edge at the side of the upper portion of the disk, and a trough for conveying the material removed from the disk to the grinding-surface by gravity, substantially as described.

HENRY C. LUTHER.

Witnesses:

JOSEPH J. SCHOLFIELD,  
SOCRATES SCHOLFIELD.