

(No Model.)

J. T. TURNER.  
STONE DRESSING MACHINE.

No. 281,211.

Patented July 10, 1883.

Fig. 3.

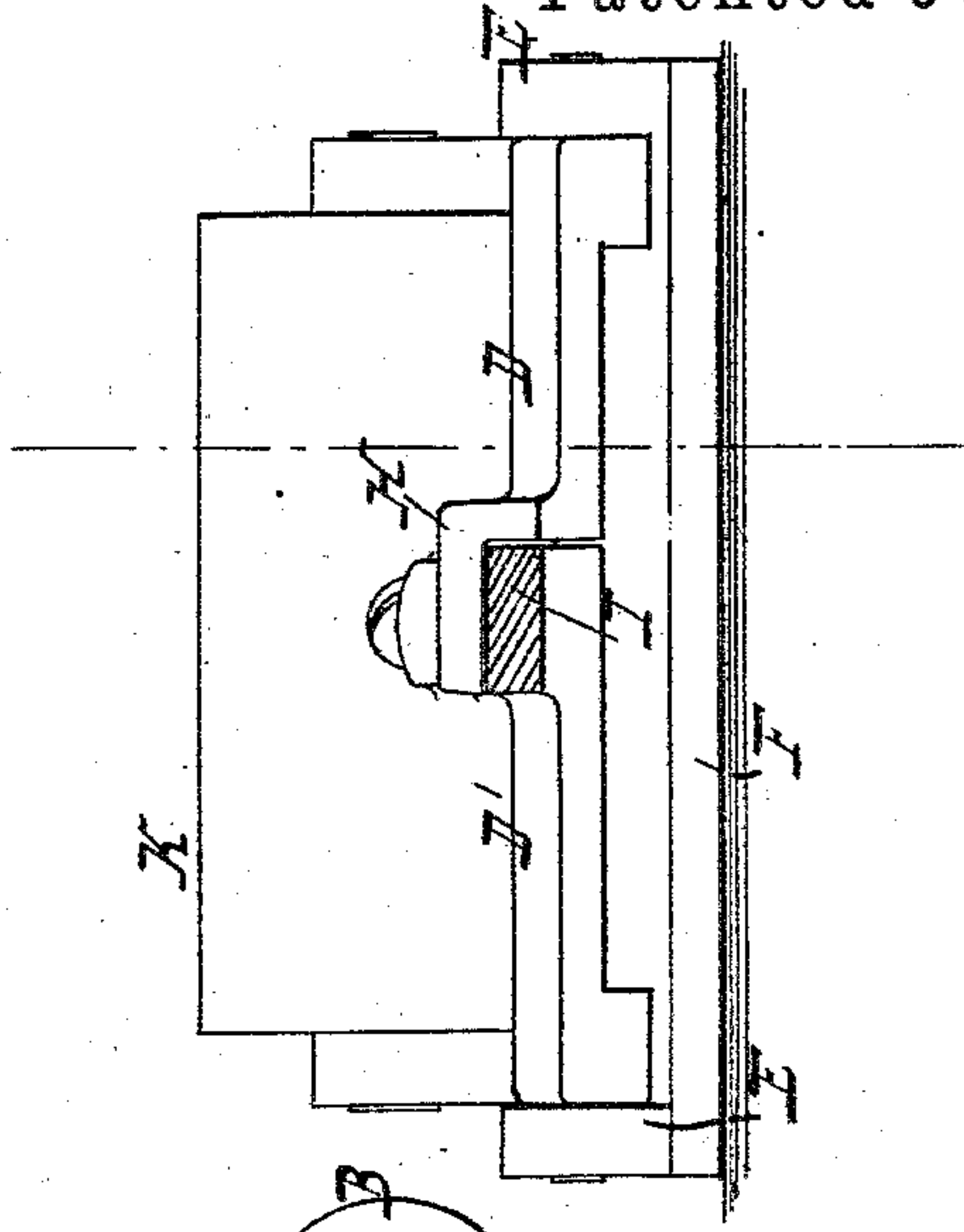


Fig. 2.

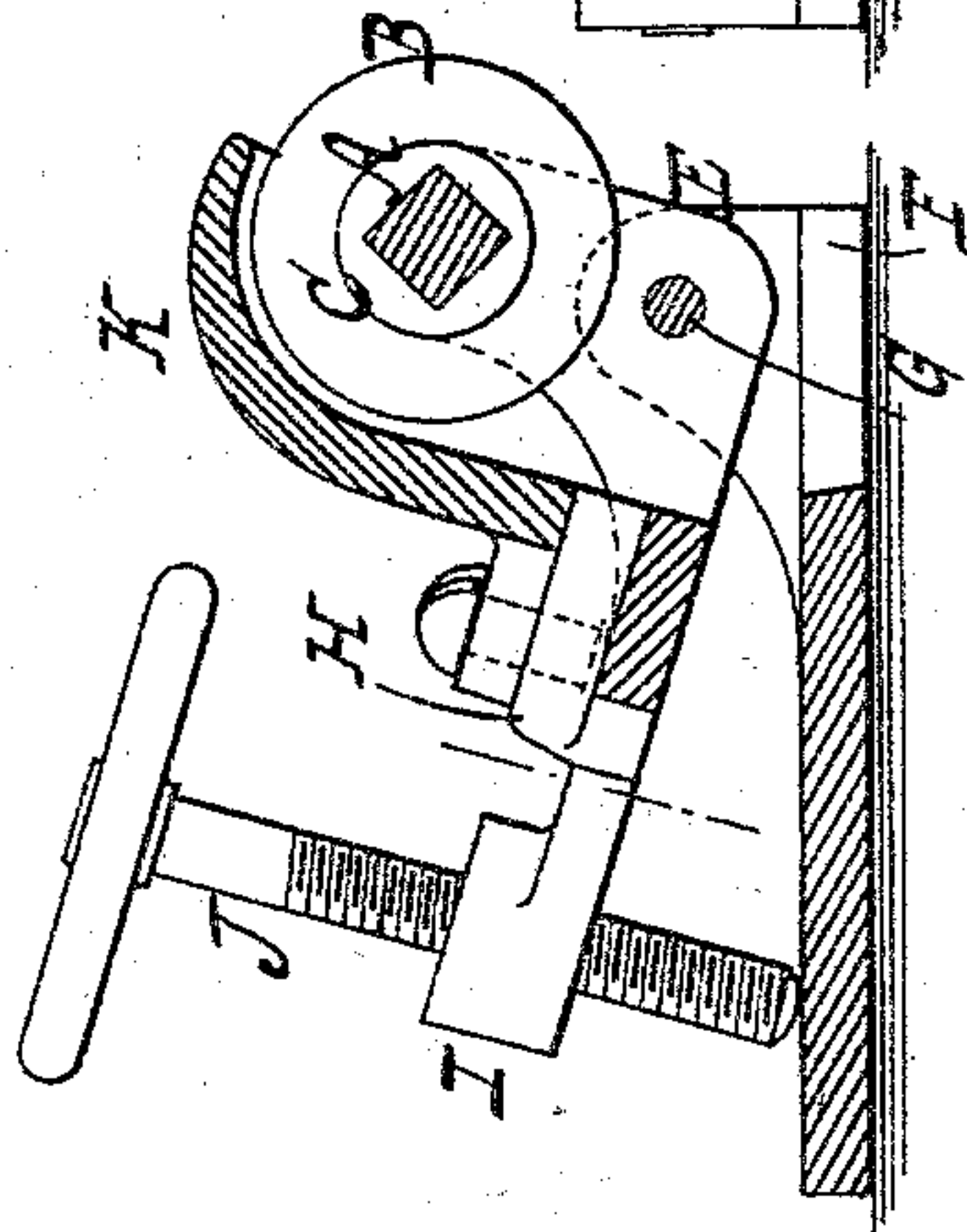


Fig. 1.

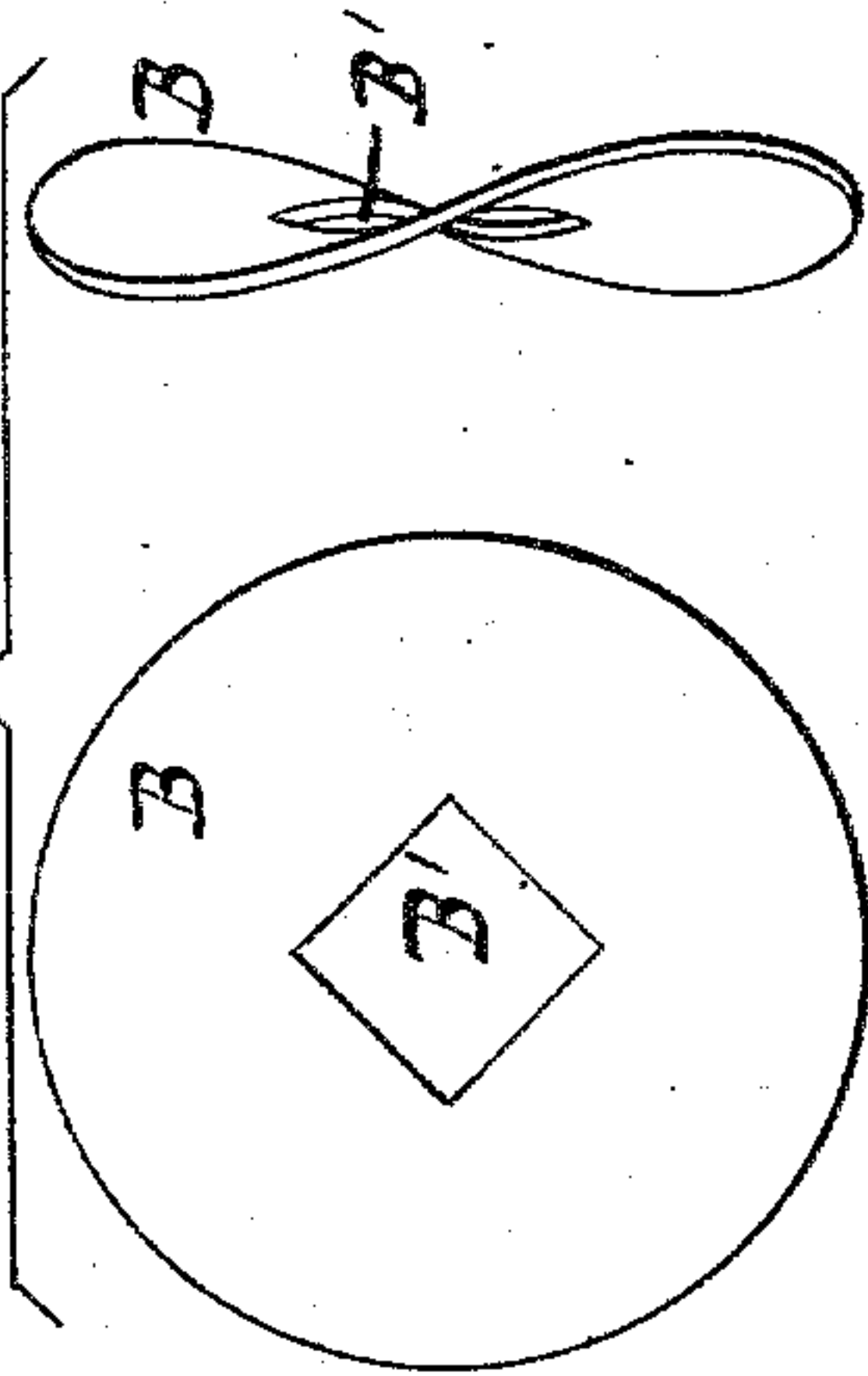
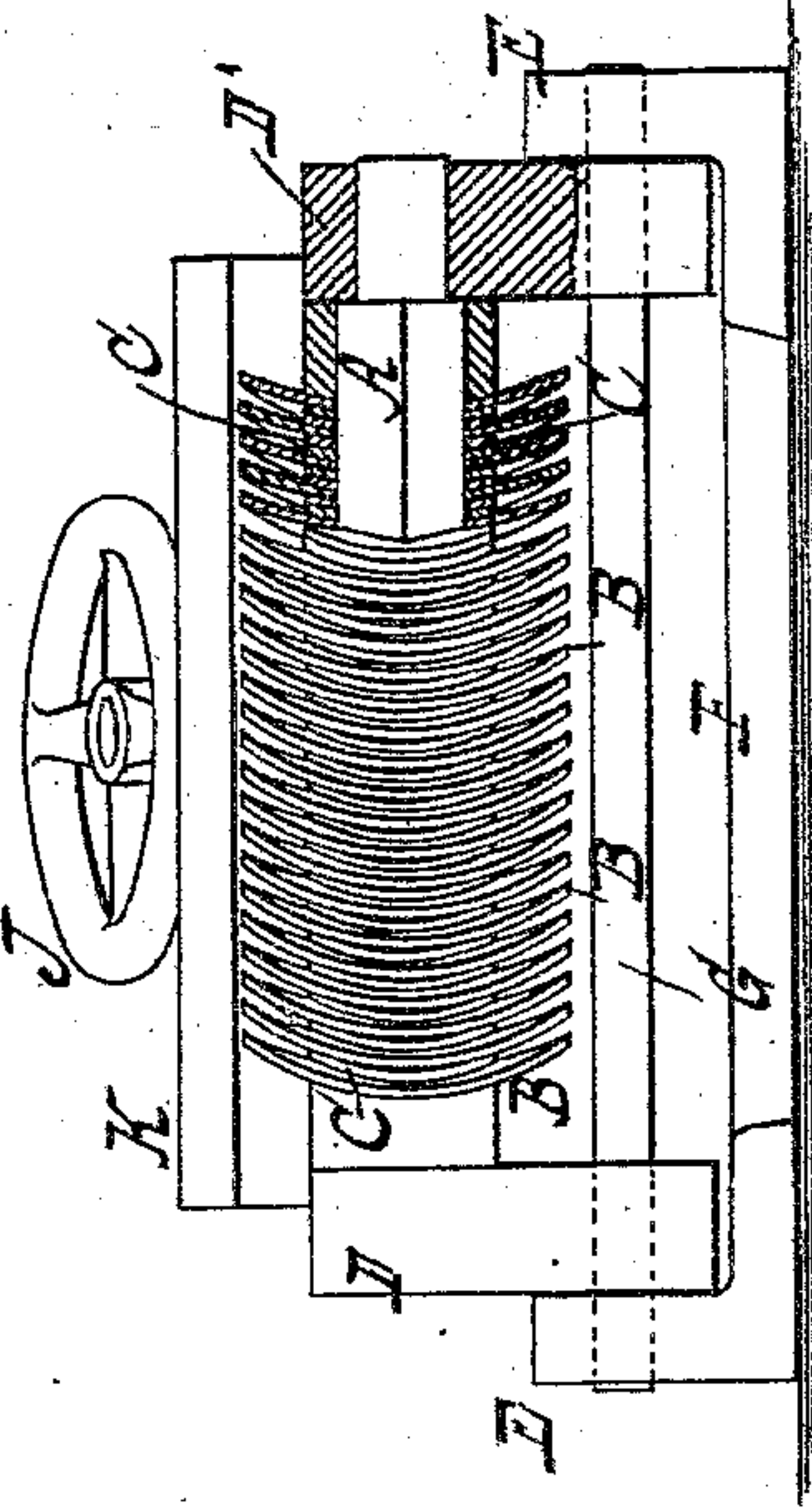


Fig. 4.

WITNESSES:

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ATTORNEYS



# UNITED STATES PATENT OFFICE.

JOHN T. TURNER, OF SING SING, N. Y., ASSIGNOR TO HIMSELF, JONATHAN T. TURNER, AND LEONARD R. TURNER, OF SAME PLACE.

## STONE-DRESSING MACHINE.

SPECIFICATION forming part of Letters Patent No. 281,211, dated July 10, 1883.

Application filed April 19, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN T. TURNER, a citizen of the United States, residing at Sing Sing, in the county of Westchester and State of New York, have invented new and useful Improvements in Stone-Dressing Machines, of which the following is a specification.

This invention relates to machines for dressing, truing, or shaping grindstones and stones in general, including emery-wheels; and it consists in a cutting-roll having undulating disks, a frame composed of two parts, in which the shaft of the roll is journaled, one part of the frame having an arm provided with an adjusting-screw, and a spindle on which the two parts of the frame are hung, all of which will be more fully hereinafter described in detail.

This invention is illustrated in the accompanying drawings, in which Figure 1 represents a sectional front elevation. Fig. 2 is a cross-section. Fig. 3 is a sectional rear elevation. Fig. 4 is a detail view.

Similar letters indicate corresponding parts.

The letter A designates an axial shaft, B a series of disks, and C a series of washers composing the cutting-roll. The shaft A is square or polygonal, and the disks B are provided with central holes, B', Fig. 4, corresponding in size and shape to the shaft, and said disks being thereby strung on the shaft, they are fixed in position. Each of the disks B is curved on the edge in a serpentine or undulating plane, this curvature being produced by bending the disks transversely in lines intersecting their axes, and it being in this example of such a nature that each disk presents the outline of the figure 8 in its revolution. Said disks B, moreover, are parallel with each other, as shown in Fig. 1, and by said curvature of the edges each disk obtains as many acting points as it has undulations, due to the fact that the disks cut on the convex or highest side of each undulation, and consequently each disk covers the greatest possible amount of surface or area lengthwise to the shaft, while by the parallelism of the disks each intersects at one or more points the plane of another disk, or of a series of disks, whereby a smooth surface is insured to the stone that is being dressed. The washers C are interposed between the disks B for the purpose of keeping the disks at the proper dis-

tance apart from each other, and they are fixed to the shaft A in a similar manner to the disks, while they are similar in shape to those portions of the disks with which they are in contact, thus accommodating themselves thereto and forming a compact roll. The shaft A has its bearings in a frame divided at about its mid-length into two parts or sections, D D', which are hung in lugs E on a bed-plate, F, by means of a spindle, G, which is parallel to said shaft, so that the cutting-roll is capable of swinging, together with the frame, on said spindle. The frame-section D overlaps the section D' at the junction of the sections by means of a lip, H, and in a rearwardly-projecting arm, I, on the underlying frame-section D' is arranged a set-screw, J, which impinges against the bed-plate F, and serves to regulate the position of the cutting-roll relatively to the work—namely, by adjusting the supporting-frame of the roll. By the construction of said supporting-frame of the cutting-roll in sections the bearings thereby afforded to the shaft A are movable, and hence such bearings accommodate themselves to any slight irregularity in the plane of the roll, so as to avoid binding.

To the upper or overlapping frame-section, D, is attached an ordinary shield, K, to cover the cutting-roll from a rear direction.

It should be remarked that my cutting-roll can be used for dressing or cutting stone-moldings and other irregular surfaces, as well as flat surfaces, the shape or outline of the disks being modified accordingly.

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

The stone-dressing machine herein described, consisting of the cutting-roll having undulating disks, the two-part frame D D', in which the shaft of said roll is journaled, the part D having the arm I, the adjusting-screw J, operating in said arm, and the spindle G, on which said two-part frame is hung, all combined and operating substantially as specified.

In testimony whereof I have hereunto set my hand and seal in the presence of two subscribing witnesses.

JOHN T. TURNER. [L. S.]

Witnesses:

D. E. PROVOST,  
L. A. MACBETH.