

(No Model.)

2 Sheets—Sheet 1.

E. M. KNIGHT.
KNIFE CLEANING MACHINE.

No. 285,278.

Patented Sept. 18, 1883.

FIG 1

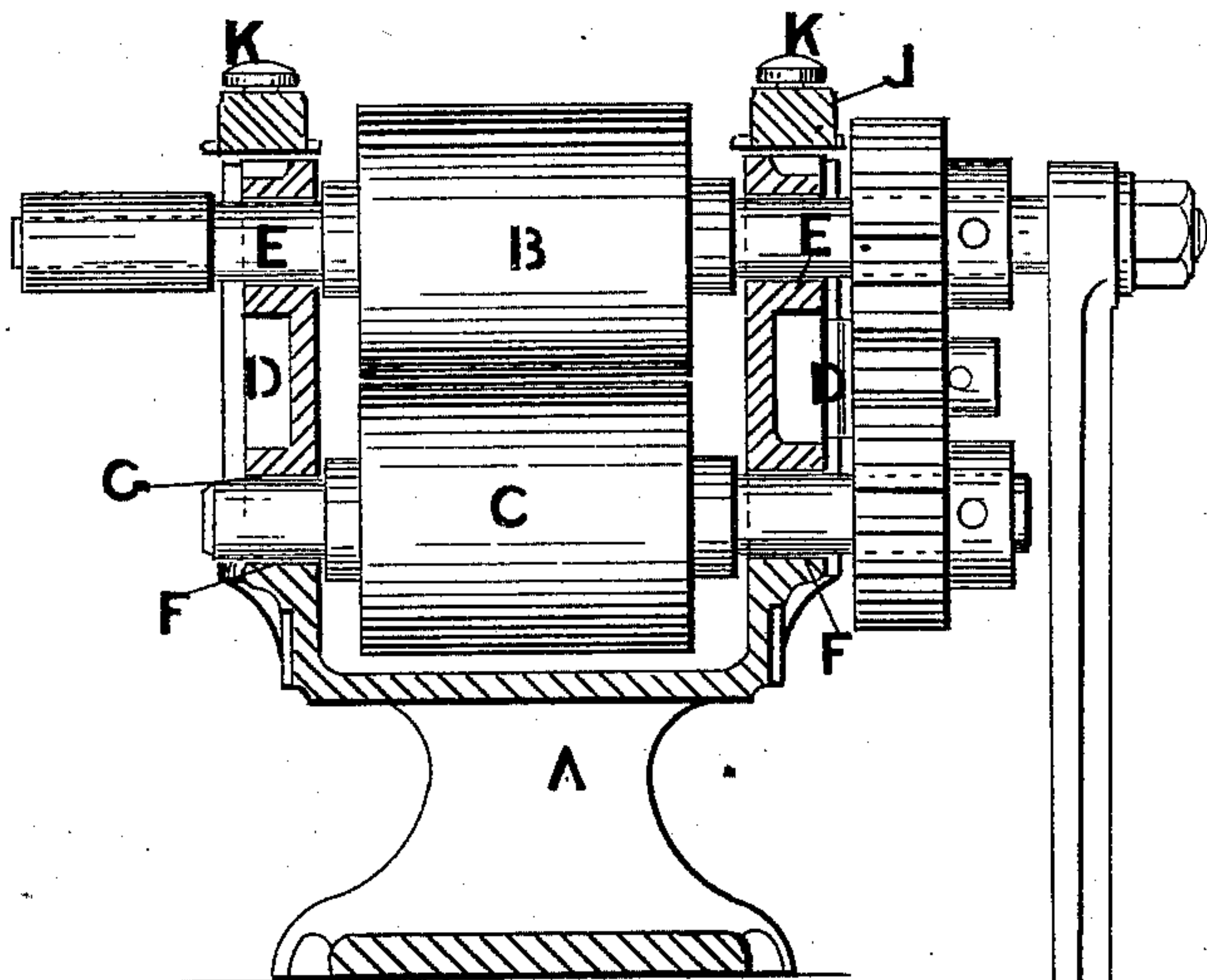


FIG 3

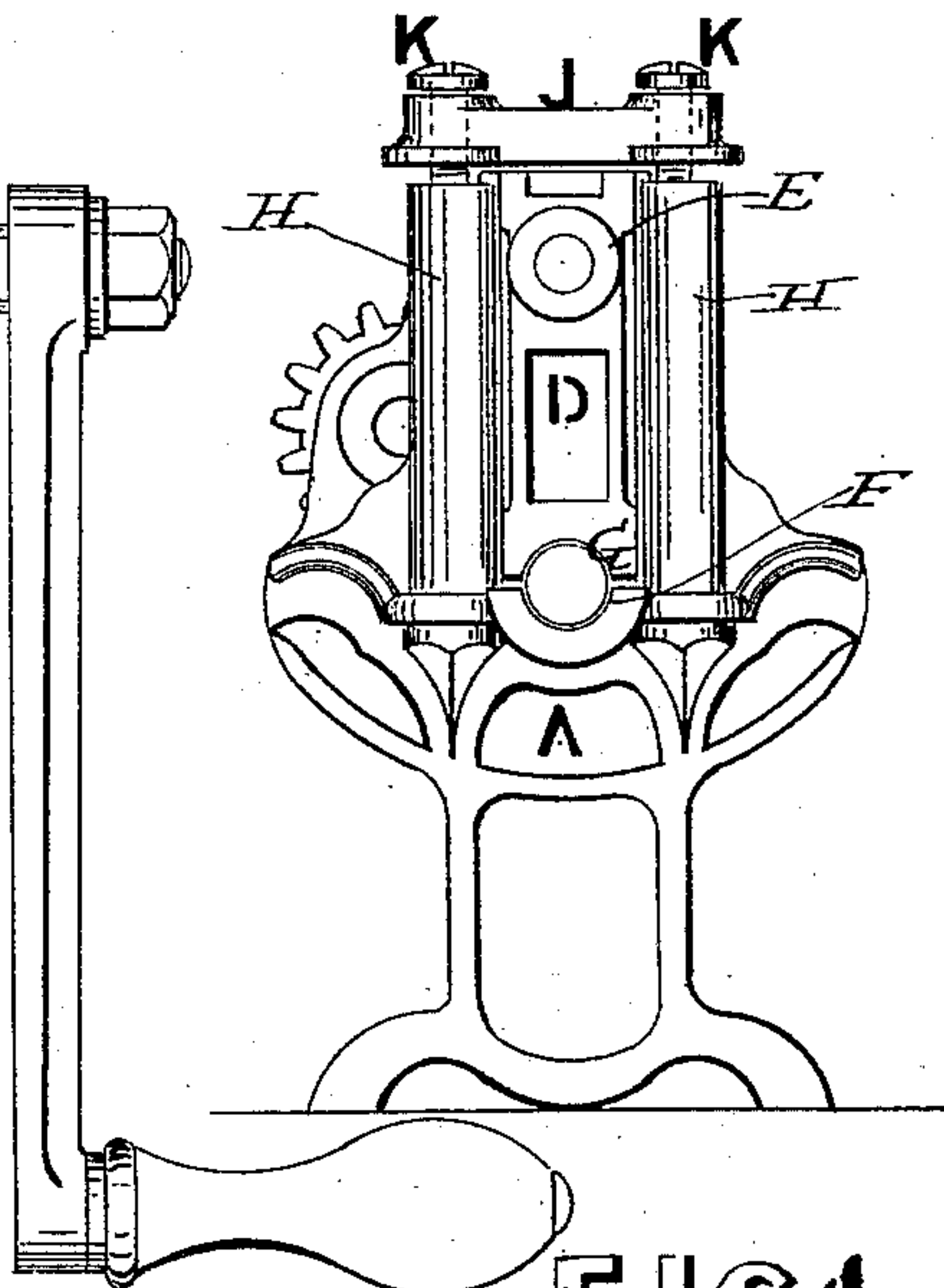


FIG 2

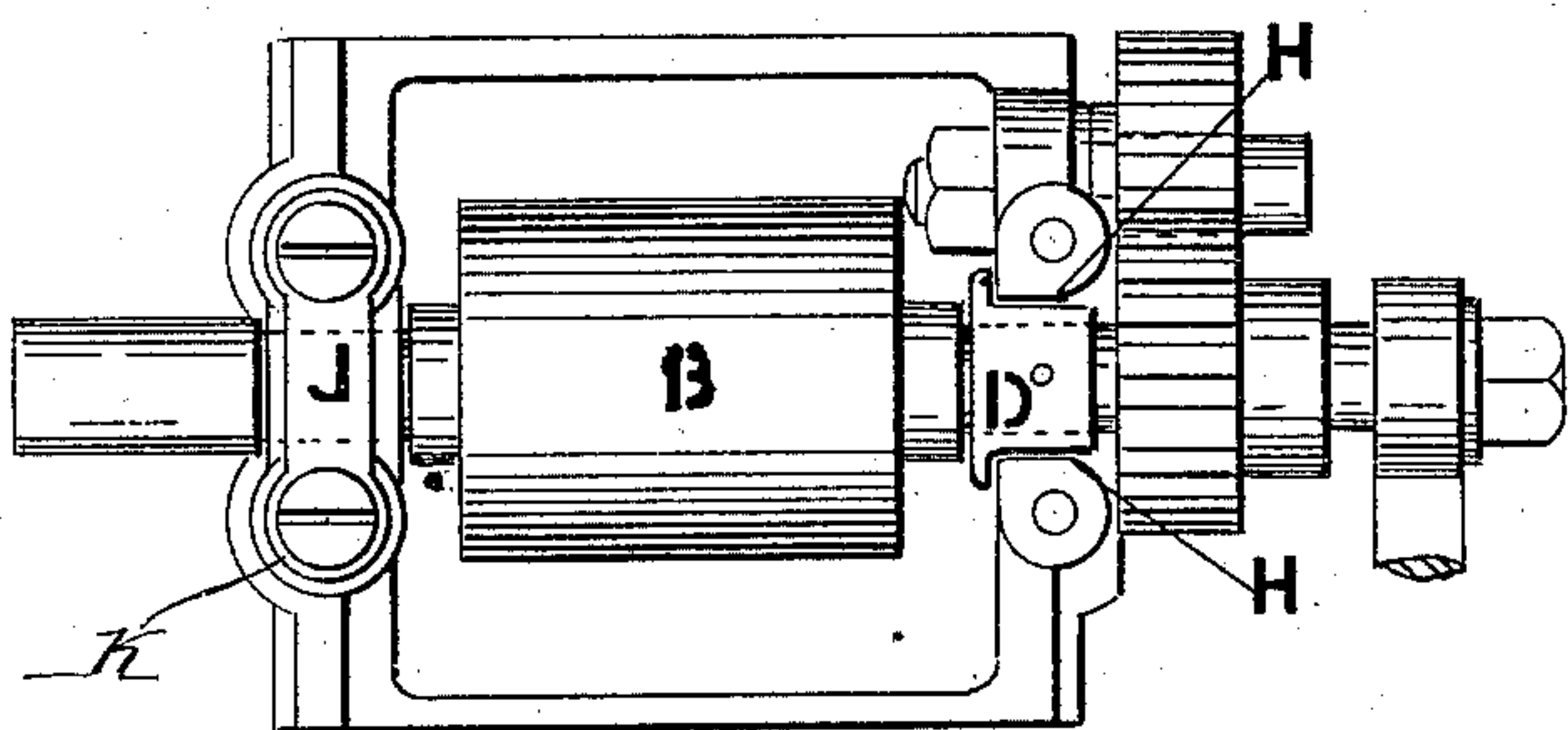


FIG 4

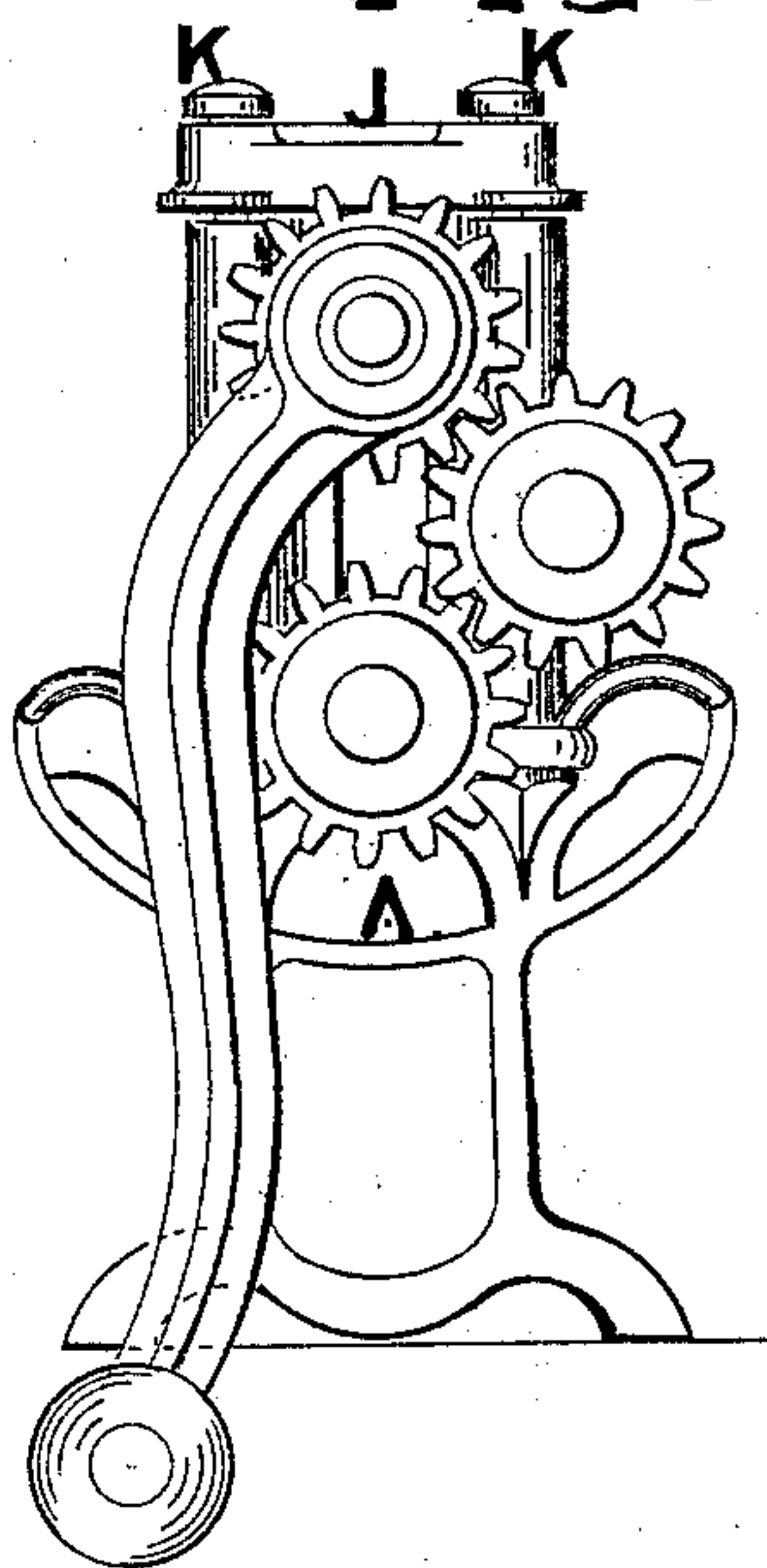
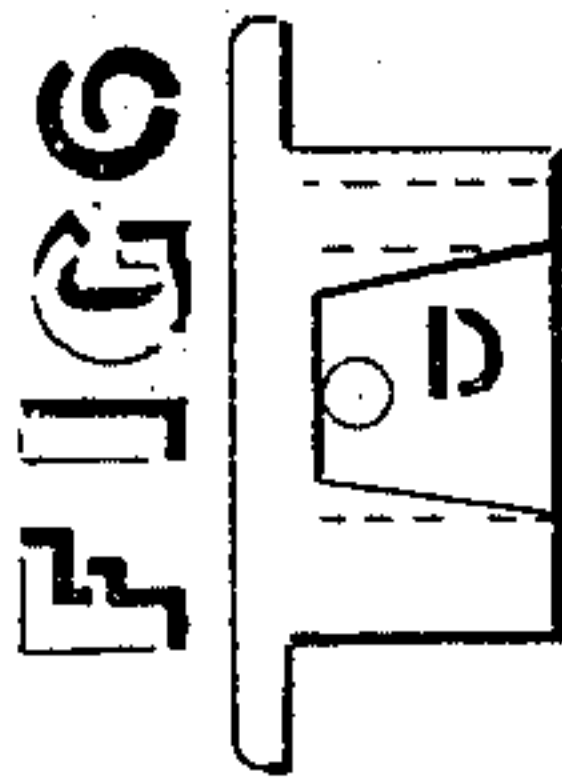
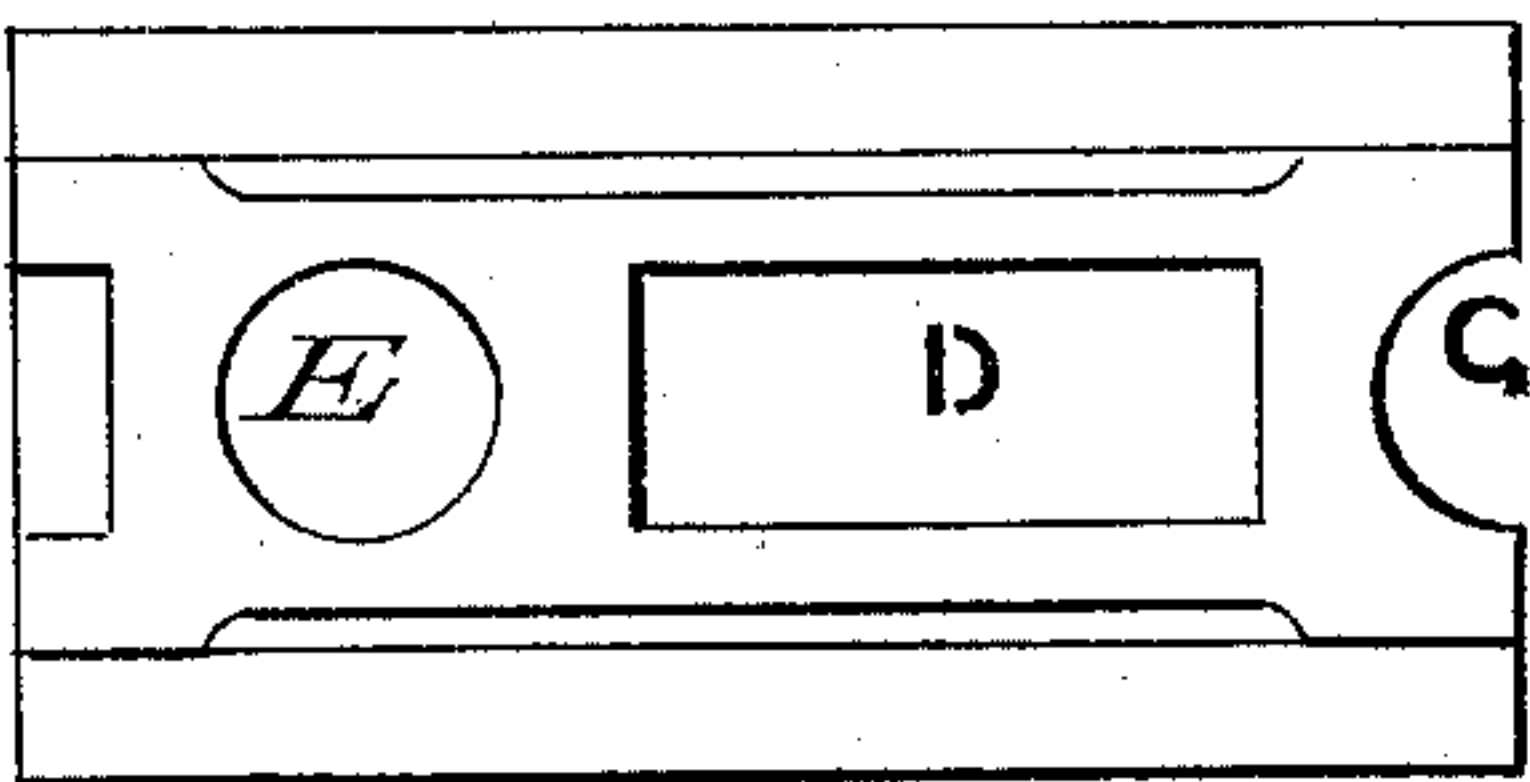


FIG 5



Witnesses

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(No Model.)

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FIG. 7.

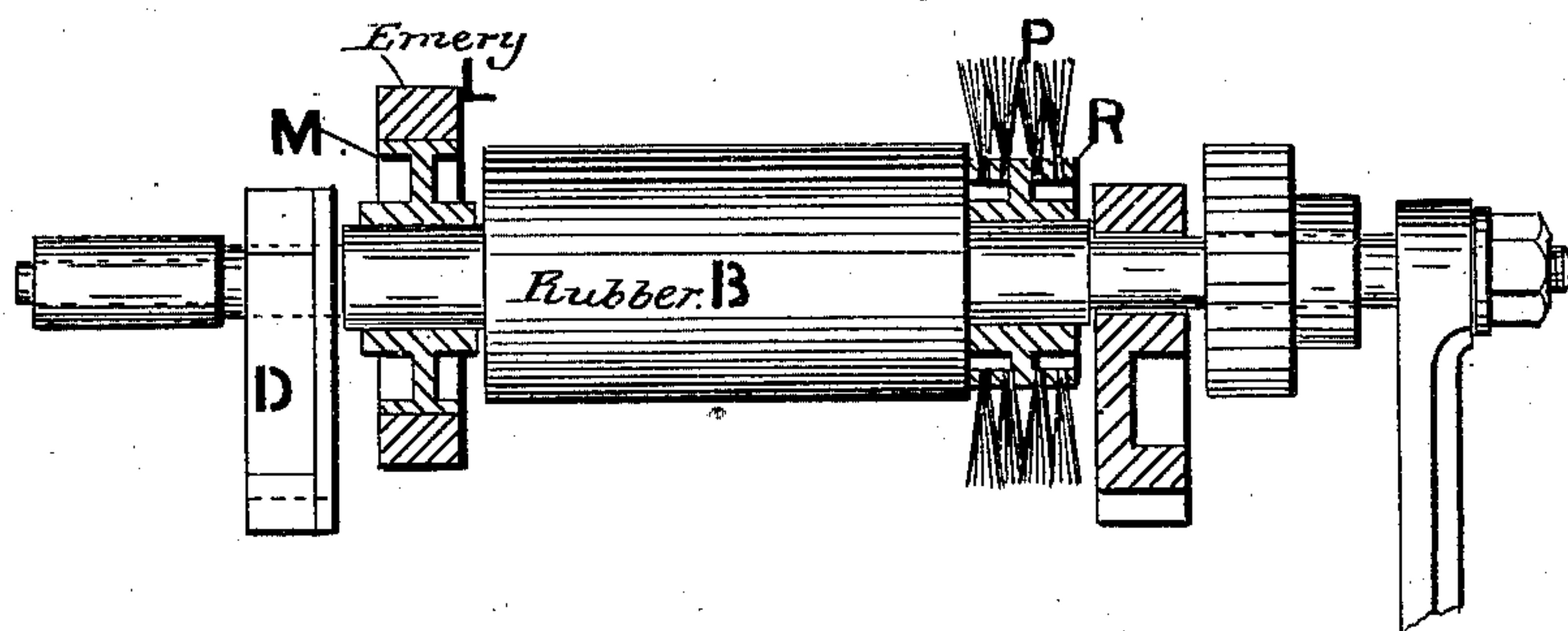


Fig. 10.

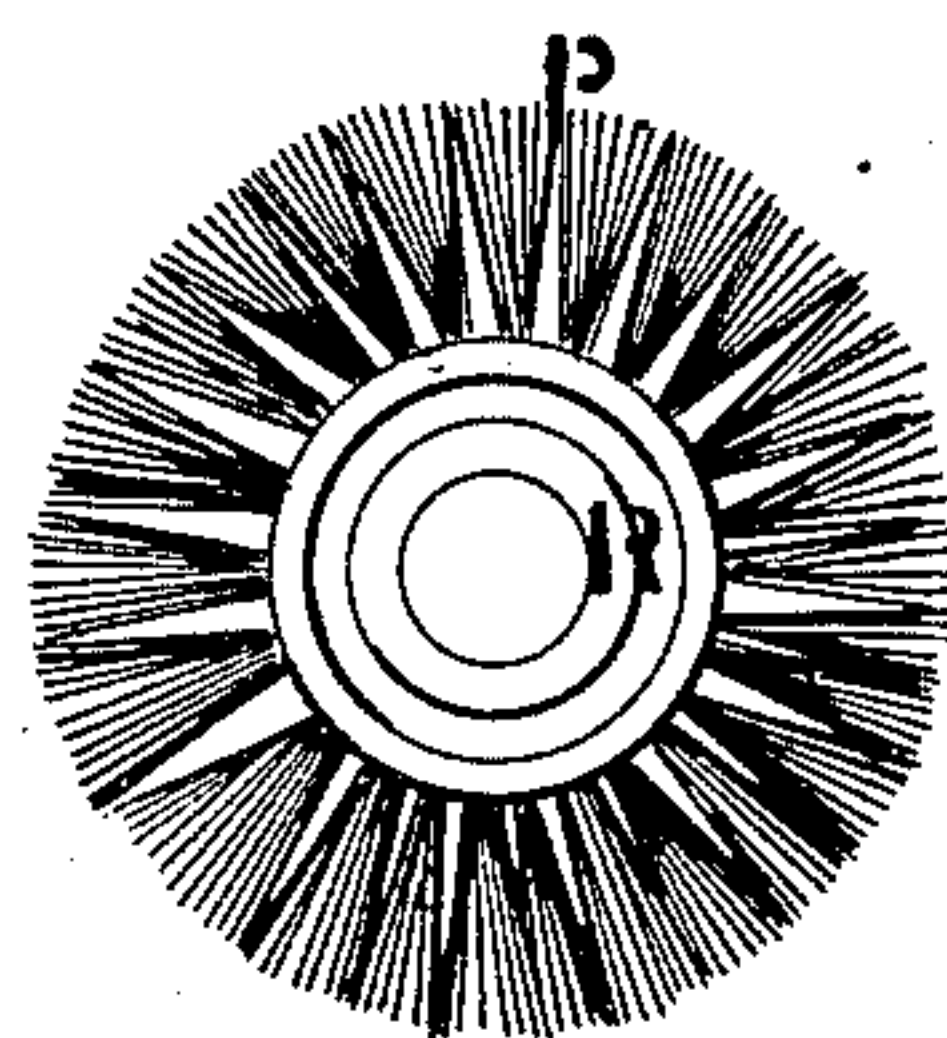


FIG. 8.

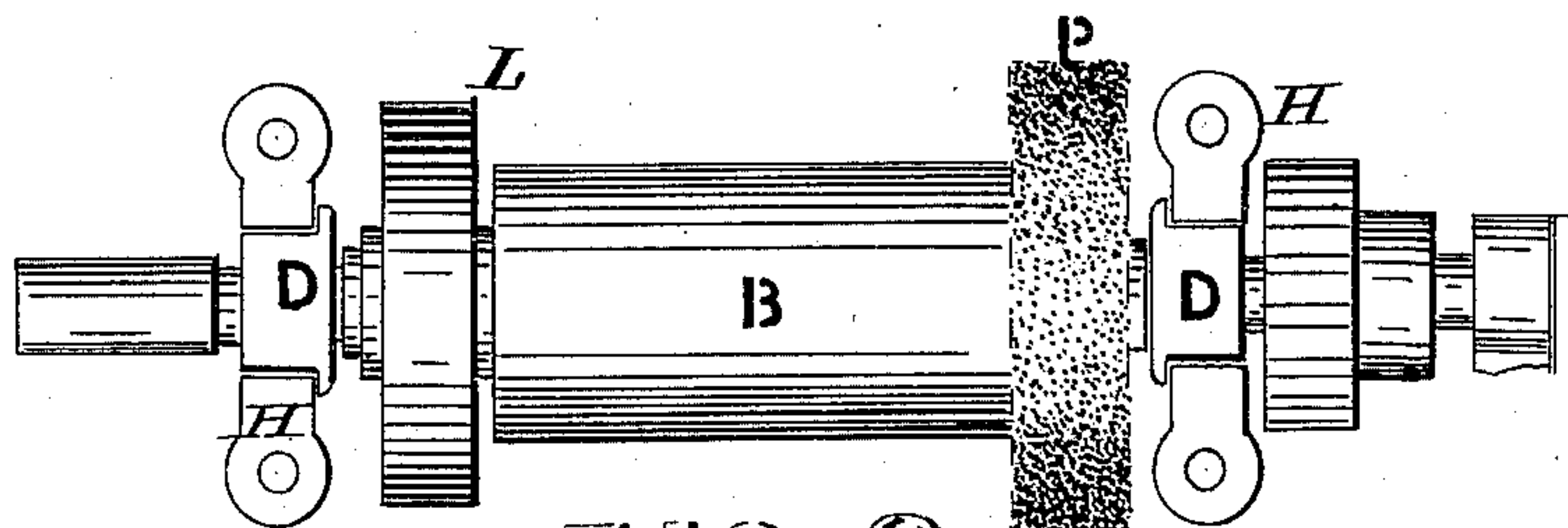
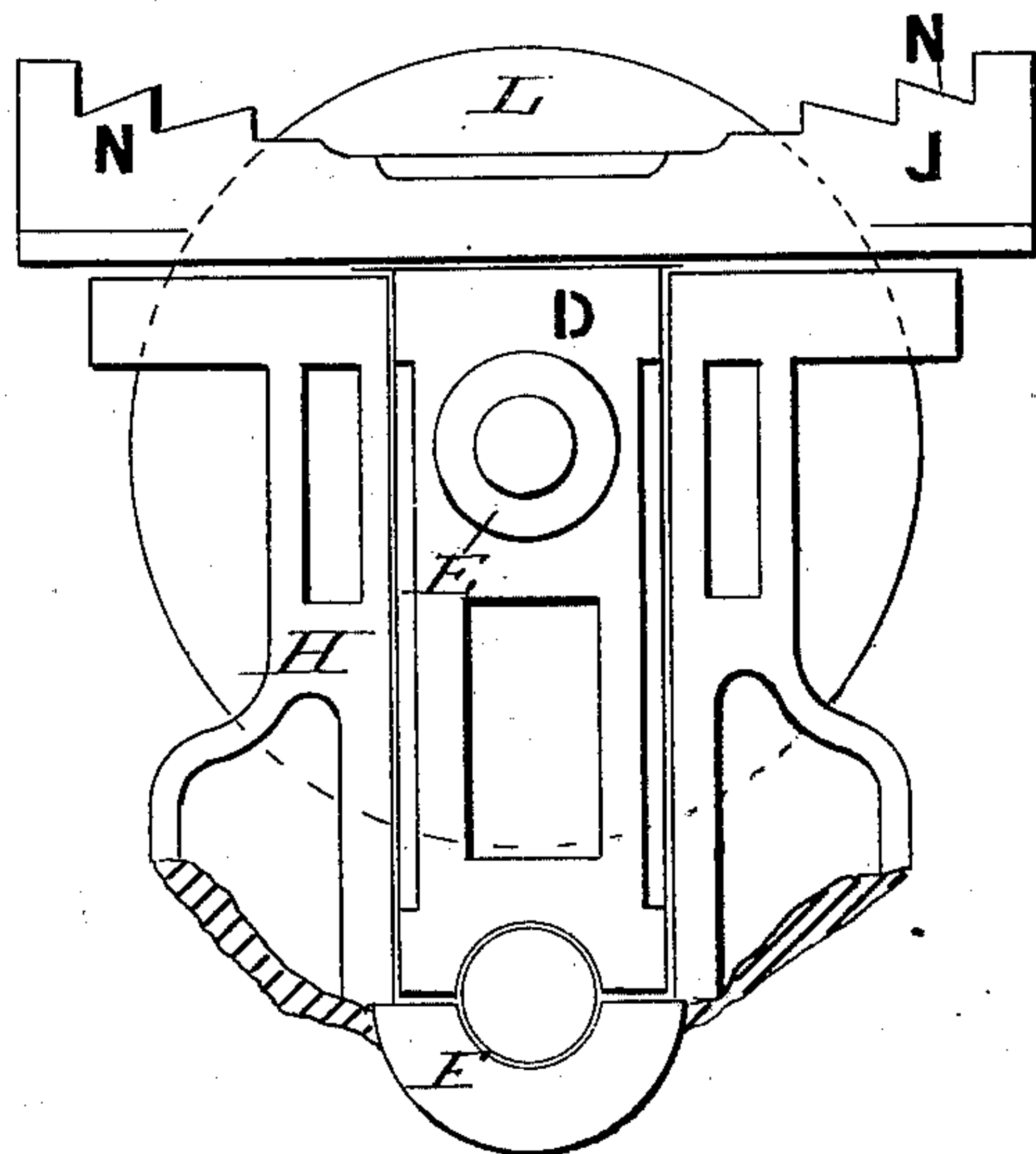


FIG. 9.



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UNITED STATES PATENT OFFICE.

EDWARD M. KNIGHT, OF LIVERPOOL, COUNTY OF LANCASTER, ENGLAND.

KNIFE-CLEANING MACHINE.

SPECIFICATION forming part of Letters Patent No. 285,278, dated September 18, 1883.

Application filed May 8, 1882. (No model.) Patented in England January 9, 1882, No. 116.

To all whom it may concern:

Be it known that I, EDWARD MARTIN KNIGHT, a subject of Her Majesty Queen Victoria, residing at Liverpool, in the county of Lancaster, England, have invented a new and useful Improvement in Knife-Cleaning Machines, (for which I obtained patent in Great Britain, No. 116, bearing date January 9, 1882,) of which the following is a specification.

10 This invention relates to knife-cleaning machines in which india-rubber rollers are employed; and the objects of my improvements are, first, to provide improved bearing-blocks or end frames for the axles of the rollers, where-
15 by all springs and screw adjustments are dispensed with; secondly, to apply an improved emery-wheel, polishing-roller, and cleaning-brush on one axle. I attain these objects by mechanism illustrated in the accompanying
20 drawings, in which—

Figure 1 is an elevation, the framing and roller-bearing blocks being in section. Fig. 2 is a plan view with right-hand cap of bearing removed. Fig. 3 is a left-hand end elevation, showing bearing-blocks and axles of rollers
25 therein. Fig. 4 is an opposite end elevation, showing gearing. Figs. 5 and 6 are elevations and plan of bearing-block detached. Fig. 7 is an elevation of top polishing-roller, the emery-wheel and cleaning-brush being in section,
30 and the right-hand bearing in section, that at the left in elevation. Fig. 8 is a plan view of Fig. 7; Fig. 9, an enlarged view, about full size, of emery-wheel and part of end of machine. Fig. 10 is an end view of the brush.

A is the frame-work of the machine; B, the top polishing-roller; C, the bottom polishing-roller. D D are bearing-blocks. The axle of the top roller is passed through the holes E E.
40 The axle of the bottom roller rests in the hollows F F of the frame, and is held down by the concave parts G G of the blocks D. The bearing-blocks are filed, so as to fit between the upright parts H H of frame A. Over the
45 whole is the cap J J, having holding-screws K K. The cavity G and bottom of bearing-

blocks are filed until the top roller, B, touches and slightly bears on the lower roller, C, the cap J securing the whole. In practice it is found that elasticity of the india-rubber
50 rollers is sufficient to compensate for variation in thickness of knife-blades without any screw adjustment or springs applied to the bearing-blocks.

In Figs. 1 and 2 I have only given an indication of the position of the roller B. Its construction is shown in Figs. 7 and 8—that is to say, it carries near one end the emery-wheel L, mounted on a cast-iron pulley, M, on the axle of the roller B. At N N are notches
60 formed in the cap J, which form a rest for the back of blade when sharpening the blade on the emery-wheel. At or near the other end of the roller B is mounted upon it the brush P, for cleaning grooves or ornamental part of
65 the bolster or shoulder of a knife. The bristles of the brush P are affixed in the circular wooden block R, Fig. 10, the latter being fixed or driven tight upon the axle of the roller. Figs. 7 and 8 illustrate apparatus, as aforesaid, suitable for larger and wider machines.

I am aware that prior to my invention knife-cleaning machines have been made having india-rubber rollers and the same system of gearing as illustrated by the drawings annexed
75 thereto, to which I make no claim.

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

1. The combination of bearing-blocks D, having aperture E and cavities G, with the
80 frame A, having recesses F F, with the caps J J, and two rollers, B C, substantially as herein shown and described.

2. The combination of india-rubber roller B, emery-wheel L, and cleaning-brush P, on
85 one shaft, with the counter-roller C, as and for the purpose herein shown and described.

EDWARD MARTIN KNIGHT.

Witnesses:

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H. J. CHISHOLM.