

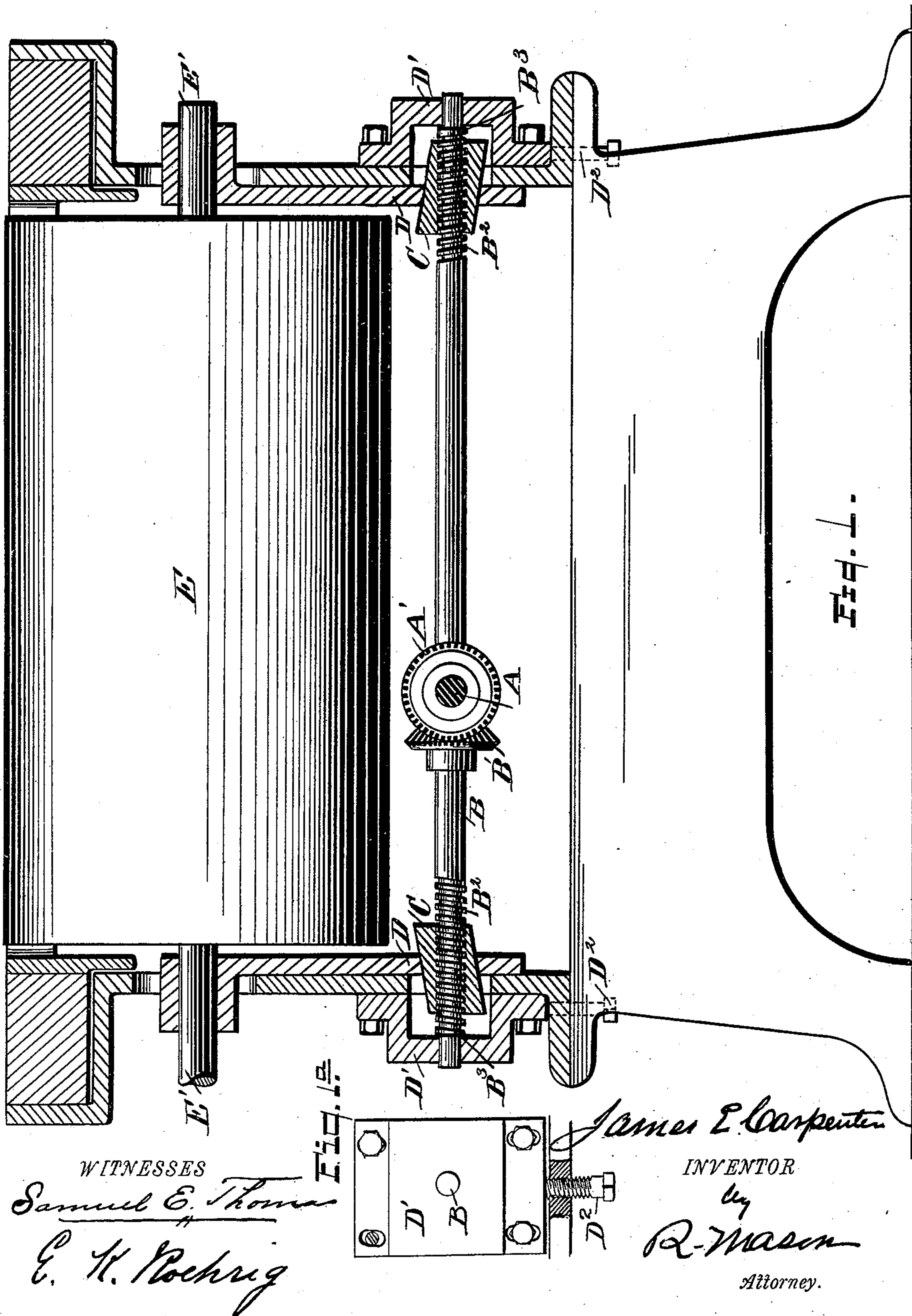
(No Model.)

3 Sheets—Sheet 1.

J. E. CARPENTER.
WOOD POLISHING MACHINE.

No. 449,666.

Patented Apr. 7, 1891.



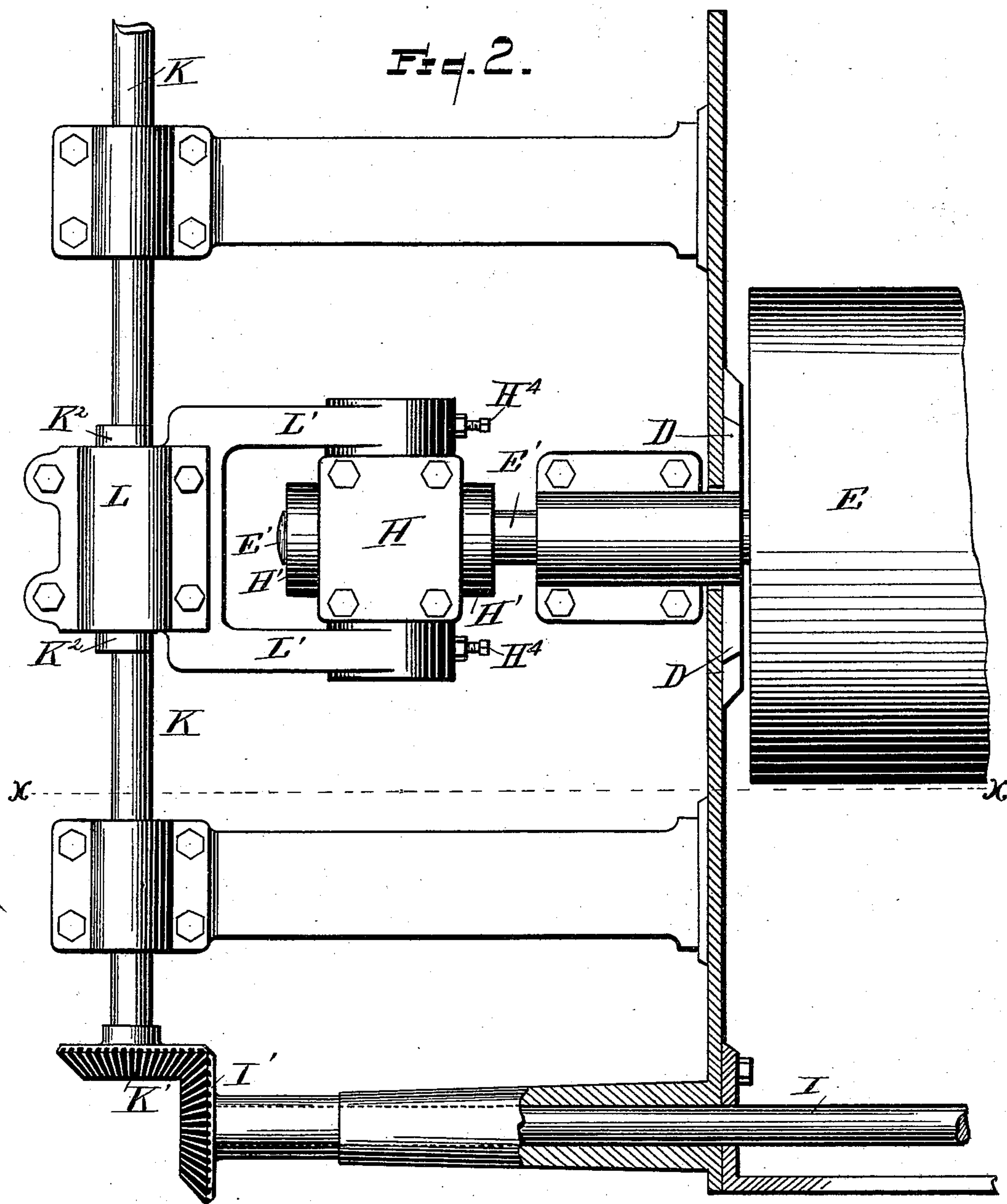
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3 Sheets—Sheet 2.

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WOOD POLISHING MACHINE.

No. 449,666.

Patented Apr. 7, 1891.



WITNESSES
Wm. S. Shugette
E. H. Rocking

INVENTOR
James E. Carpenter
by
R. Mason
Attorney.

(No Model.)

3 Sheets—Sheet 3.

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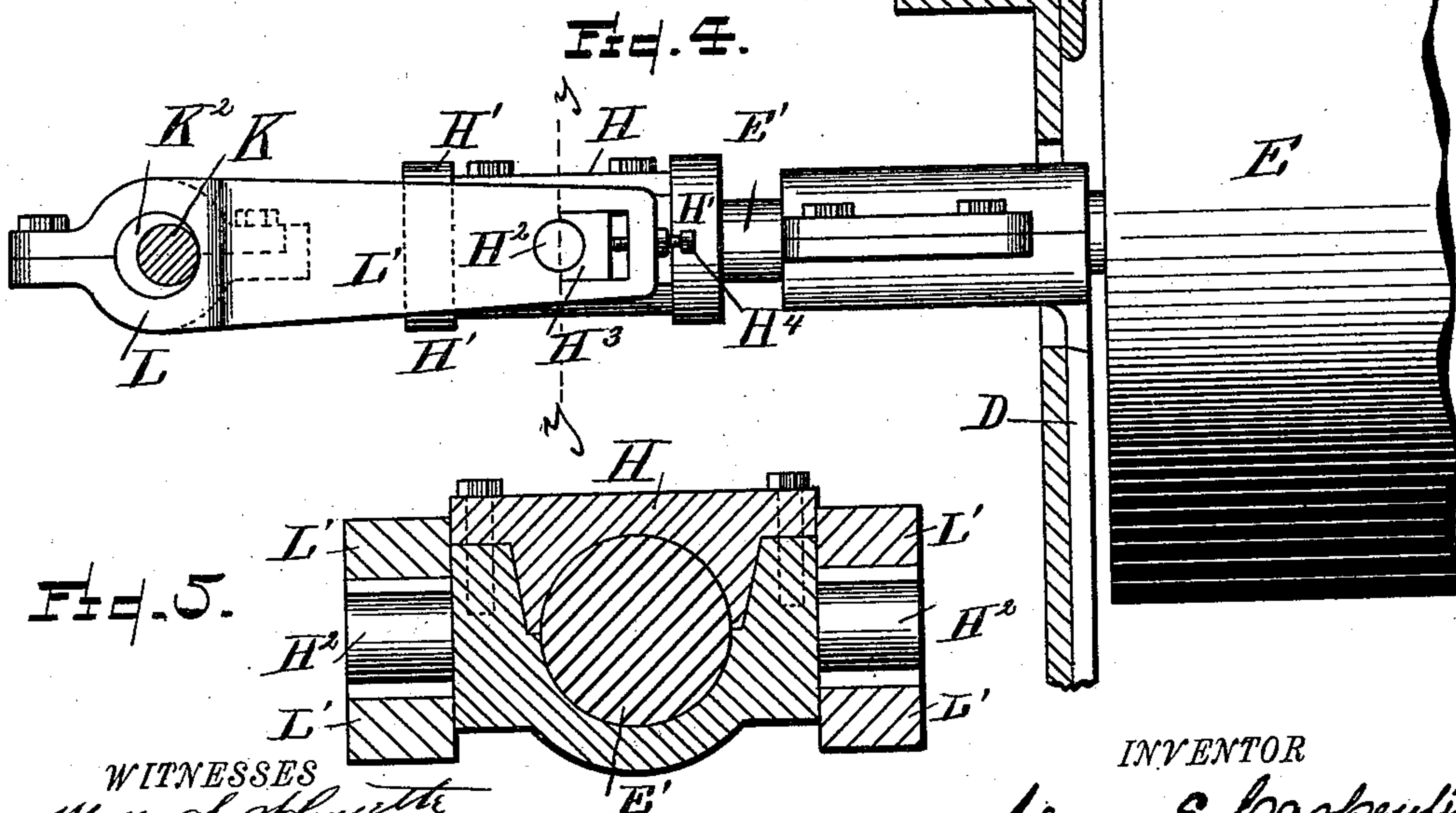
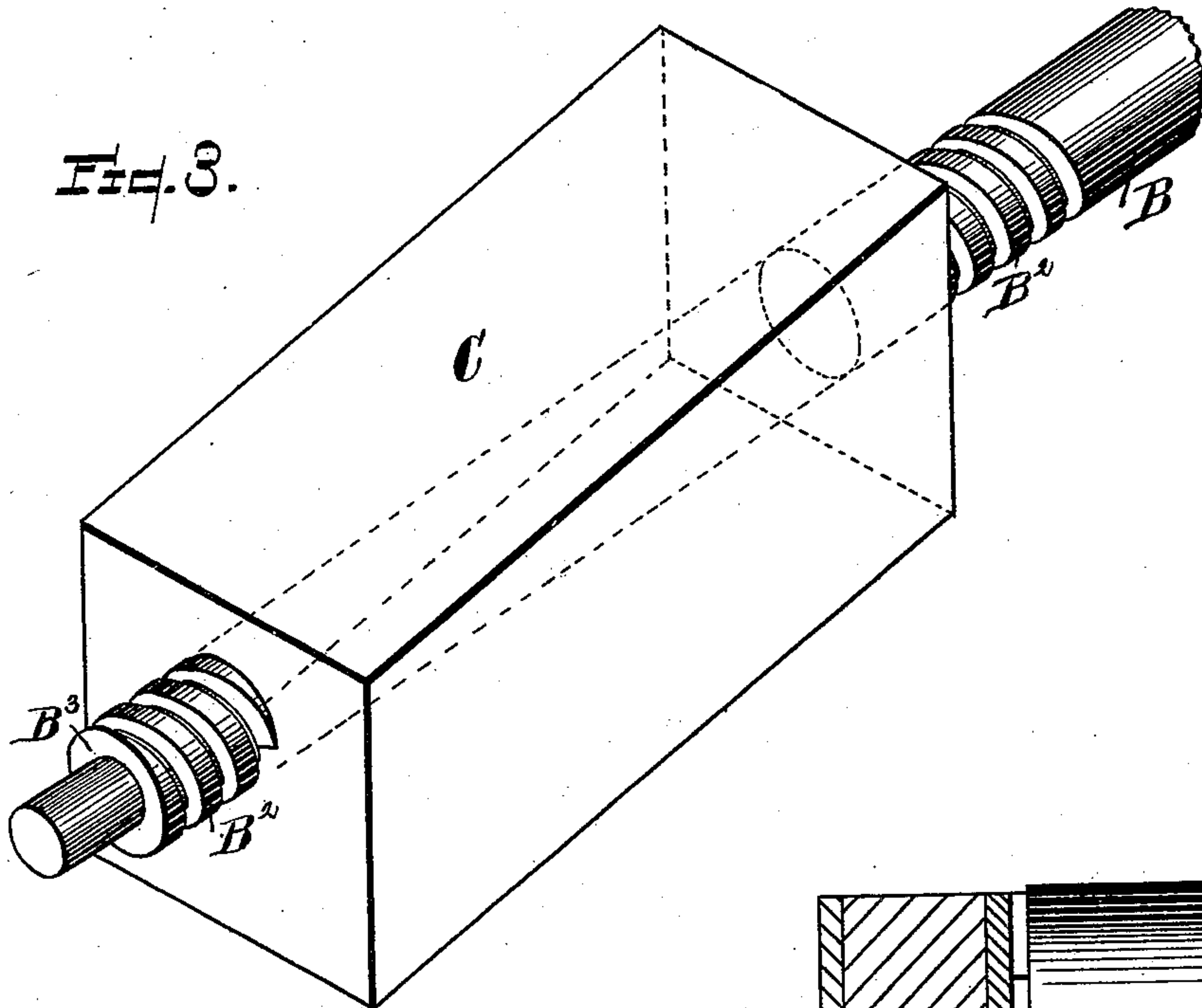
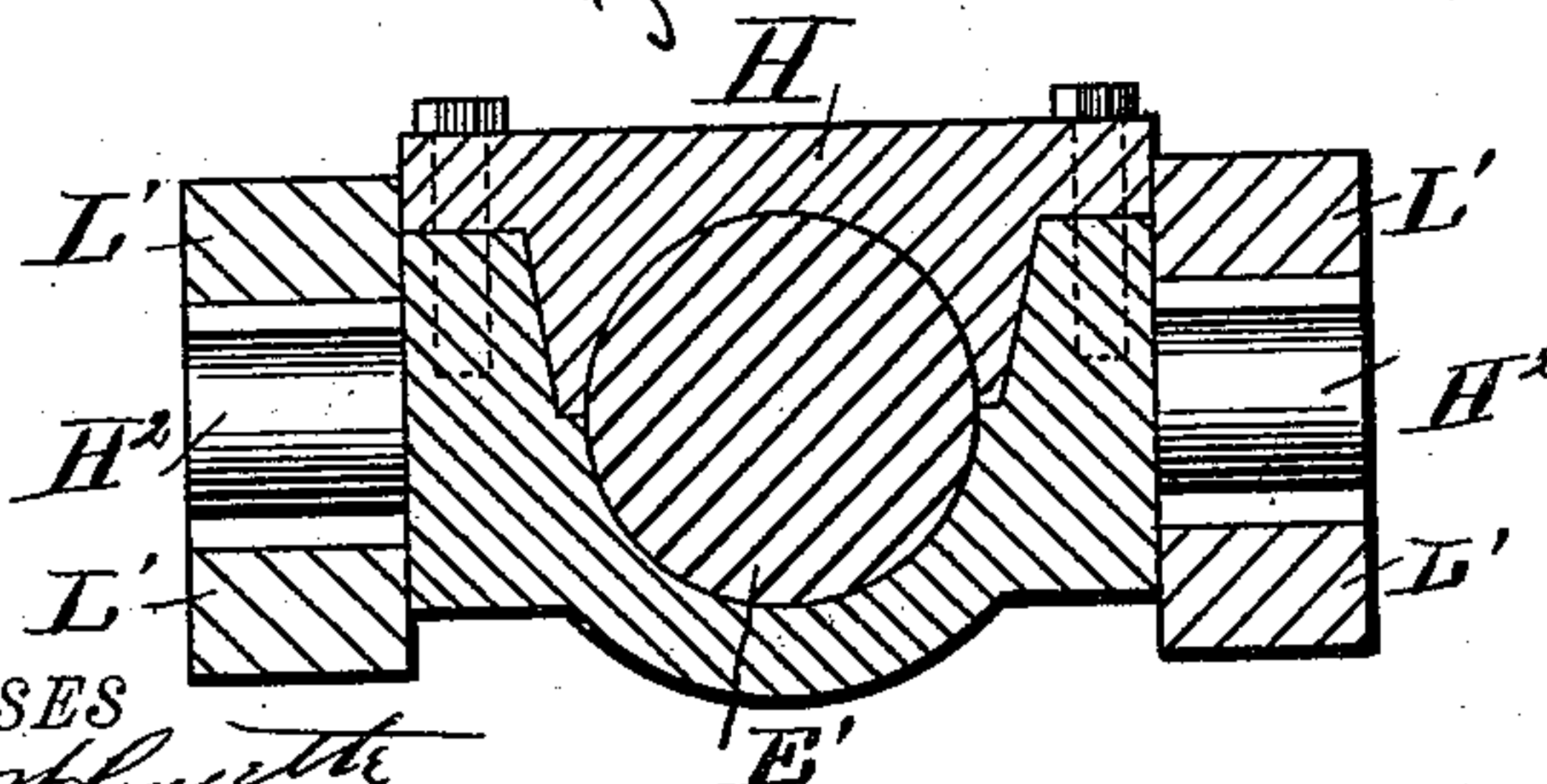


Fig. 5.



WITNESSES

Wm. S. Hays
E. K. Roehrig

INVENTOR

James E. Carpenter
by
R. Mason
Attorney.

UNITED STATES PATENT OFFICE.

JAMES E. CARPENTER, OF BELOIT, WISCONSIN, ASSIGNOR TO THE BERLIN MACHINE WORKS, OF SAME PLACE.

WOOD-POLISHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 449,666, dated April 7, 1891.

Application filed November 19, 1889. Serial No. 330,917. (No model.)

To all whom it may concern:

Be it known that I, JAMES E. CARPENTER, of Beloit, in the county of Rock and State of Wisconsin, have invented new and useful
5 Improvements in Wood-Polishing Machines, of which the following is a specification.

This invention relates to improvements in such a machine as I have heretofore patented, in which a rotary cylinder covered with sand-
10 paper is used for polishing surfaces of wood caused to pass over the bed in such manner as to come into contact with the sand-cylinder; and it consists, first, in a novel device for simultaneously adjusting the height of
15 both journals of the sand-cylinder, and, second, in a novel device for giving a longitudinal reciprocating movement to the sand-cylinder, and in the matters to be indicated in the following description and claims.

20 In the annexed drawings, making a part of this specification, Figure 1 is a vertical transverse section of the machine; Fig. 1^a, an end view of the shaft-supporting bracket. Fig. 2 is a plan view, partly in section, of the mechanism for giving a reciprocating movement
25 to the sand-cylinder. Fig. 3 is a perspective view of the device for vertically adjusting the sand-cylinder. Fig. 4 is a section on the line *xx* of Fig. 2. Fig. 5 is a vertical section on
30 line *yy* of Fig. 4.

The same letters are employed in all the figures in the indication of identical parts.

35 The machine is mounted on a heavy cast-iron frame which sustains inflexibly the working parts.

The following is a description of the mechanism used for vertically and simultaneously adjusting the standards which carry the journals of the sand-cylinders.

40 A is a shaft passing inward through the end of the frame, and with a hand-wheel for turning it in the bearings by which it is supported, having on its inner end a bevel-wheel A', meshing into a corresponding miter-wheel
45 B' on the shaft B, which lies across the frame and parallel with the axis of the roll. The shaft B is threaded near each end by right and left screws B².

50 C C are two blocks, each a four-sided prism in the case illustrated; but other forms may be used. These blocks are bored with diag-

onal holes, as shown, crossing the axis of the prism. These holes have the threads of female screws cut in them, corresponding with the threads B² on the shaft B. 55

D is a vertically-adjustable standard supporting a journal of the sand-cylinder. They have holes with beveled faces cut through them or formed in them at a proper angle to receive the inclined faces of the blocks C. 60 The shaft B has its bearings at each end in brackets D', bolted to the frame by bolts passing through slots in the brackets to permit their vertical adjustment by turning the set-screws tapped through the frame. By this 65 means either end of the sand-cylinder may be vertically adjusted to level it.

E is the sand-cylinder, and E' the journals thereof passing through proper boxes carried on the standards D. The operation of this 70 cylinder-adjusting device is as follows: When the ends have been adjusted properly by turning the shaft A by means of the hand-wheel, the shaft B will be rotated, and this will cause both blocks to simultaneously 75 travel along the respective right and left threads, out or in and in opposite directions.

Horizontal reciprocating movement is given to the sand-cylinder as follows: The journal E' at one end of the cylinder is extended be- 80 yond the box on the standard D and connected with the shaft K. This shaft is driven by miter-wheels I' and K' from the shaft I and has an eccentric or crank-formed portion at K² in the plane of the axis of the roll clamped 85 by the box L, forming an eccentric-strap, to which the connecting-bar L' is fastened. This bar is bifurcated, as shown in Fig. 2, and extending horizontally toward the cylinder past the outer end of the shaft E' receives 90 the box H, formed with trunnions H², Figs. 4 and 5, which pass through holes in the two branches of the connecting-bar. The trunnions are held by boxes H³, pressed against them by set-screws H⁴ to compensate for wear. 95 Collars H' on the journals E' on each side of the box H hold it in position on the shaft and take the strain of the reciprocating connecting-bar and transmit it to the journal and sand-cylinder. The reciprocating movement 100 of the latter is thus derived from the prime mover through the shafts I and K, the eccen-

tric K^2 , the box or strap L, connecting-bar L' , box H, collars H' and journals D' .

I do not claim, broadly, to be the first inventor of any means of simultaneously adjusting the height of the sand-cylinder at both ends or for giving a longitudinal reciprocating motion to the latter, which has been done by an oscillating arm standing in a substantially vertical position; but by transmitting the power to move the cylinder-shaft horizontally in the line of the length of the connecting-bar its size may be greatly diminished and the connection simplified. It is only necessary that it shall be connected to the shaft flexibly, and means for doing that are familiar.

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

1. In combination with the sand-cylinder A, the standards D, right and left screw-threaded shaft B, and the correspondingly internally-screw-threaded and eccentrically-bored prismatic blocks C, substantially as set forth.

2. In combination with the longitudinally-

movable pieces D and screw-threaded shaft B, the correspondingly internally-screw-threaded eccentrically-bored prismatic block, substantially as set forth.

3. In combination with the sand-cylinder and elongated journal, a revolving eccentric or crank in line with the journal and a horizontal connecting-piece extending between the two and transferring the power directly in the line of its length, substantially as set forth.

4. In combination with the sand-cylinder and its journal, a shaft K and eccentric or crank K^2 , the eccentric box or strap L, a bifurcated connecting-bar L' , box H, with trunnions H^2 , and collars H' for securing it on the journal, substantially as set forth.

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

JAMES E. CARPENTER.

Witnesses:

WILLIS ARTHUR McCOMMONS,
O. B. OSBORN.