

(No Model.)

J. B. BENNETT & A. P. BOARDMAN.
POLISHER.

No. 441,635.

Patented Dec. 2, 1890.

Fig. 1.

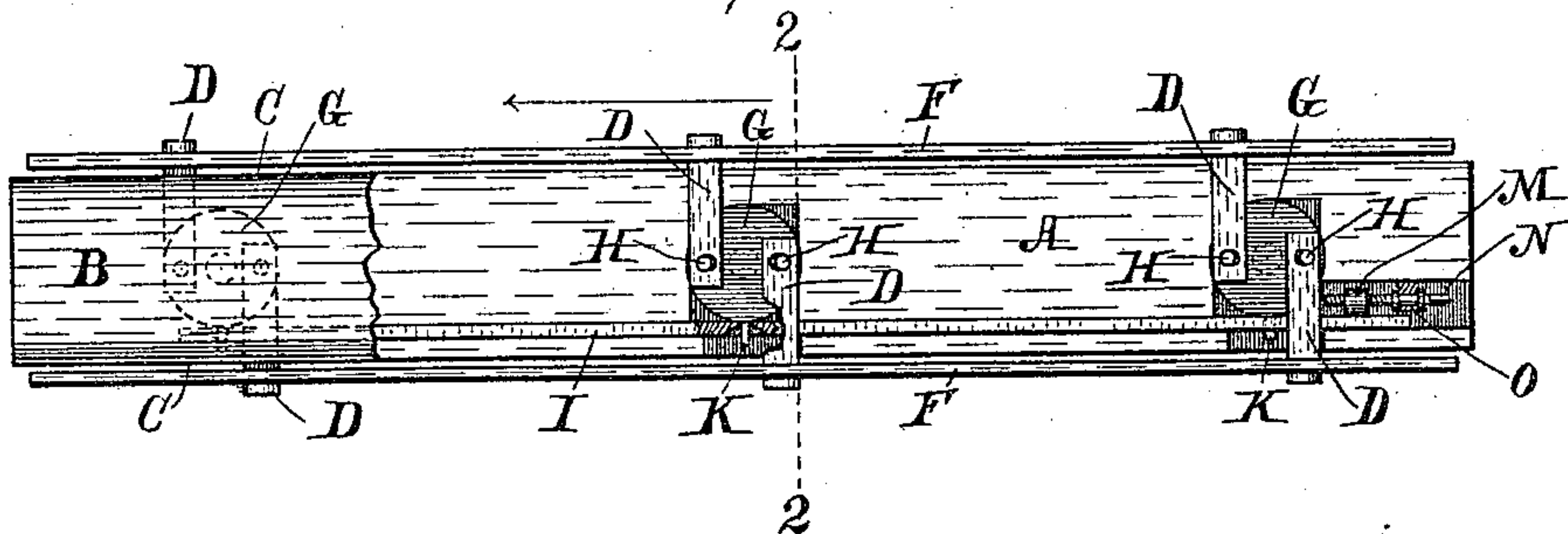
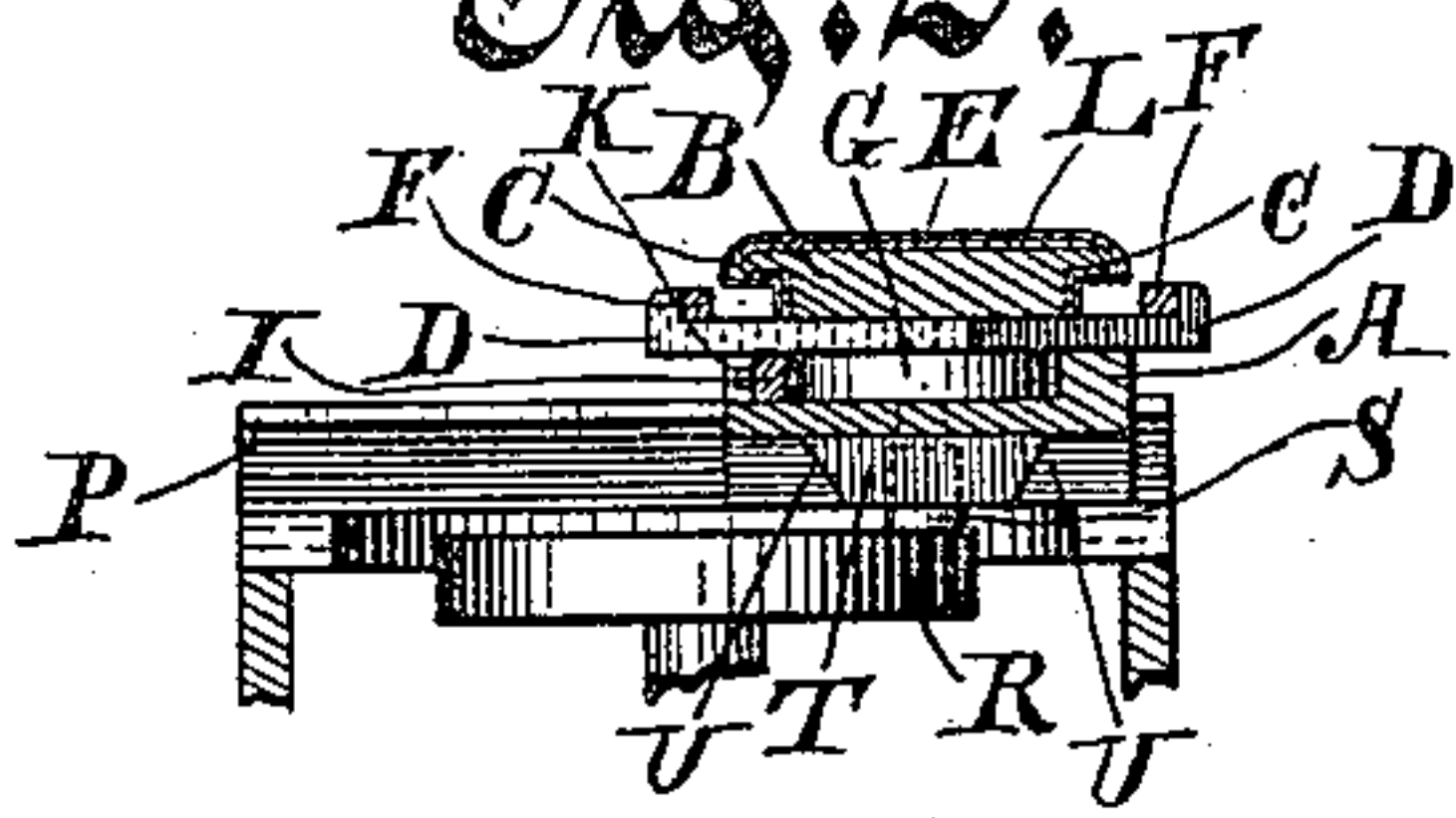


Fig. 2.



Witnesses.

W. Keeney.

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UNITED STATES PATENT OFFICE.

JOSEPH B. BENNETT AND ANSON P. BOARDMAN, OF WATERTOWN, ASSIGN-
ORS, BY MESNE ASSIGNMENTS, TO THE BERLIN MACHINE WORKS, OF
BELOIT, WISCONSIN.

POLISHER.

SPECIFICATION forming part of Letters Patent No. 441,635, dated December 2, 1890.

Application filed July 12, 1889. Serial No. 317,329. (No model.)

To all whom it may concern:

Be it known that we, JOSEPH B. BENNETT and ANSON P. BOARDMAN, of Watertown, in the county of Jefferson and State of Wisconsin, have invented new and useful Improvements in Polishers; and we do hereby declare the following to be a full, clear, and exact description of said invention, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Our invention relates to improvements in that class of vibrating polishers especially adapted to be used in wood-polishing machines.

The drawings illustrate the polisher in connection with so much of the frame and operative mechanism of a wood-polishing machine as is necessary to show its relation thereto.

In the drawings, Figure 1 is a top view or plan of the polisher, a part of the cap being removed to show the interior mechanism. Fig. 2 is a transverse section on line 2 2 of Fig. 1, showing also a part of the frame and operative mechanism of a polishing-machine.

In the drawings, A is a bed-piece, and B is a cap resting thereon, which cap is of about the same width and length as the bed-piece. The cap B is preferably constructed with overhanging lateral edges C C, and is covered with a lining of cloth or felt L, over which, on the outside, is placed the sand-paper E. The cap B, with the lining and sand-paper thereon, is clamped to the bed-piece A by clamping-arms D D, which extend outwardly laterally, and at their outer ends are slightly upturned, so as to engage the clamping-bars F F, which bars, when the clamping-arms are drawn inwardly, press the sand-paper and lining firmly against the sides of the cap B, clamping the cap B and its covering firmly to the bed-piece A. For reciprocating these clamping-arms D D in and out crank-wheels G G are pivoted centrally in the bed-piece A, one wheel being pivoted underneath the ends of each two oppositely-projecting arms D D, the arms being provided with pins or wrists H H, which severally enter an aperture therefor in the inner end of an arm D, the two oppositely-extending arms D D, that are pivoted

to one wheel, being pivoted on opposite sides of its axis, whereby by the rotation of the wheel the arms are both thrown outwardly or inwardly at the same time, but in opposite directions. For rotating all these crank-wheels simultaneously a connecting-bar I is located alongside the edge of the wheels, and pins K K—one fixed in the periphery of each of the wheels G—enter apertures therefor in the bar I, whereby by the reciprocation of the bar I the wheels G are all rotated limitedly. For reciprocating the connecting-bar I this bar I is provided with a bracket M, through which a screw-threaded bolt N turns, the bolt N being supported and having rotary but not endwise movement in a bracket O rigid on the bed-piece A, so that by rotating the screw-threaded bolt N the bar I may be moved endwise.

The polisher is supported in ways P P on the frame of the machine, and is made to vibrate by means of one or more rotating crank-wheels R, each having a wrist S, which enters a traveling block T, supported and traveling in ways U U in one direction on the under side of the polisher.

No claim is herein made for two flat polishers, one moving laterally and the other moving endwise, broadly, as those features have been described and claimed in application, Serial No. 317,007, filed by us on July 10, 1889.

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

1. A polishing device consisting of an elongated bed-piece and a cap affixed thereto, having a flat top and covered with a lining and sand-paper, in combination with laterally-movable clamping-arms arranged in sets projecting beyond the edges of the cap at each side, clamping-bars supported on the arms and adapted to be drawn against the paper, clamping it to the sides of the cap, and means, substantially as described, for operating the clamping-arms.

2. In a polishing device, the combination, with a bed-piece A and a thereon-supported cap B, of two sets of clamping-arms D D, projecting in sets beyond the edge of the cap and carrying a clamping-bar F on each set of

arms, and crank-wheels G G, to which the clamping-arms are connected at one end in pairs, and means, substantially as described, for rotating the several crank-wheels simultaneously and locking them in position.

3. In a polishing device, the combination, with a bed-piece A, of a cap B, provided with lateral overhanging edges C C, and clamping-bars F F, supported on laterally-moving arms and adapted to be drawn against the sides of the cap A underneath the overhanging edges C C, substantially as described.

4. In a polisher, the combination, with a bed-piece A, of crank-wheels G G, a bar I, con-

nected movably to the crank-wheels, a screw-threaded bolt N, having bearings in the bed-piece and turning by a screw-thread into a bracket on the bar I, clamping-arms D D, attached to the crank-wheels G G, and a cap B, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

JOSEPH B. BENNETT.
ANSON P. BOARDMAN.

Witnesses:

C. B. SKINNER,
M. A. BLUMENFELD.