

(No Model.)

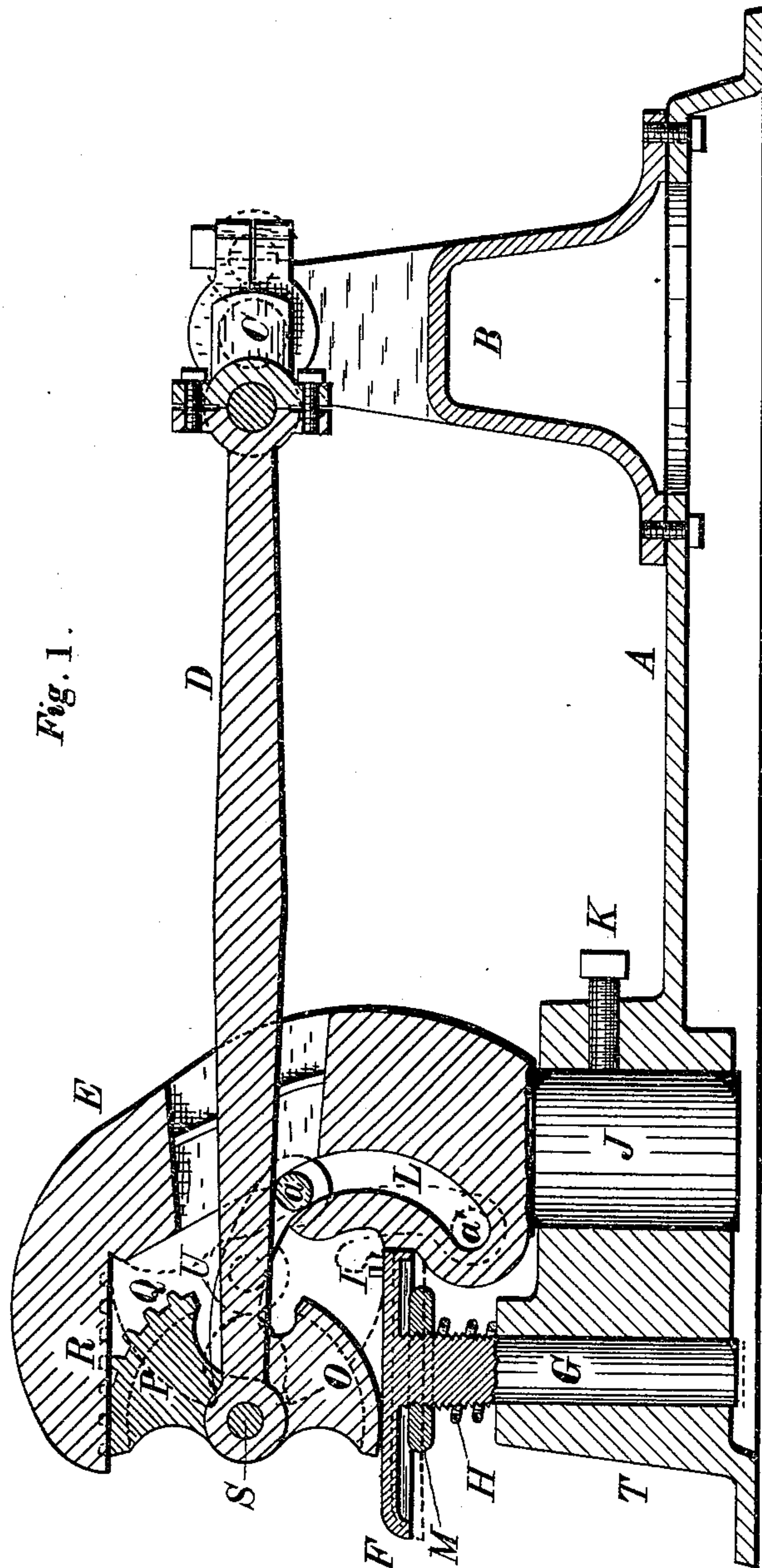
2 Sheets—Sheet 1.

C. B. HATFIELD.

MACHINE FOR BEADING SHOE UPPERS.

No. 354,188.

Patented Dec. 14, 1886.



Witnesses

H. G. Phillips.
A. S. Gorge, Jr.

Charles B. Hatfield^{Inventor}

By his Attorney
Geo. B. Selden —

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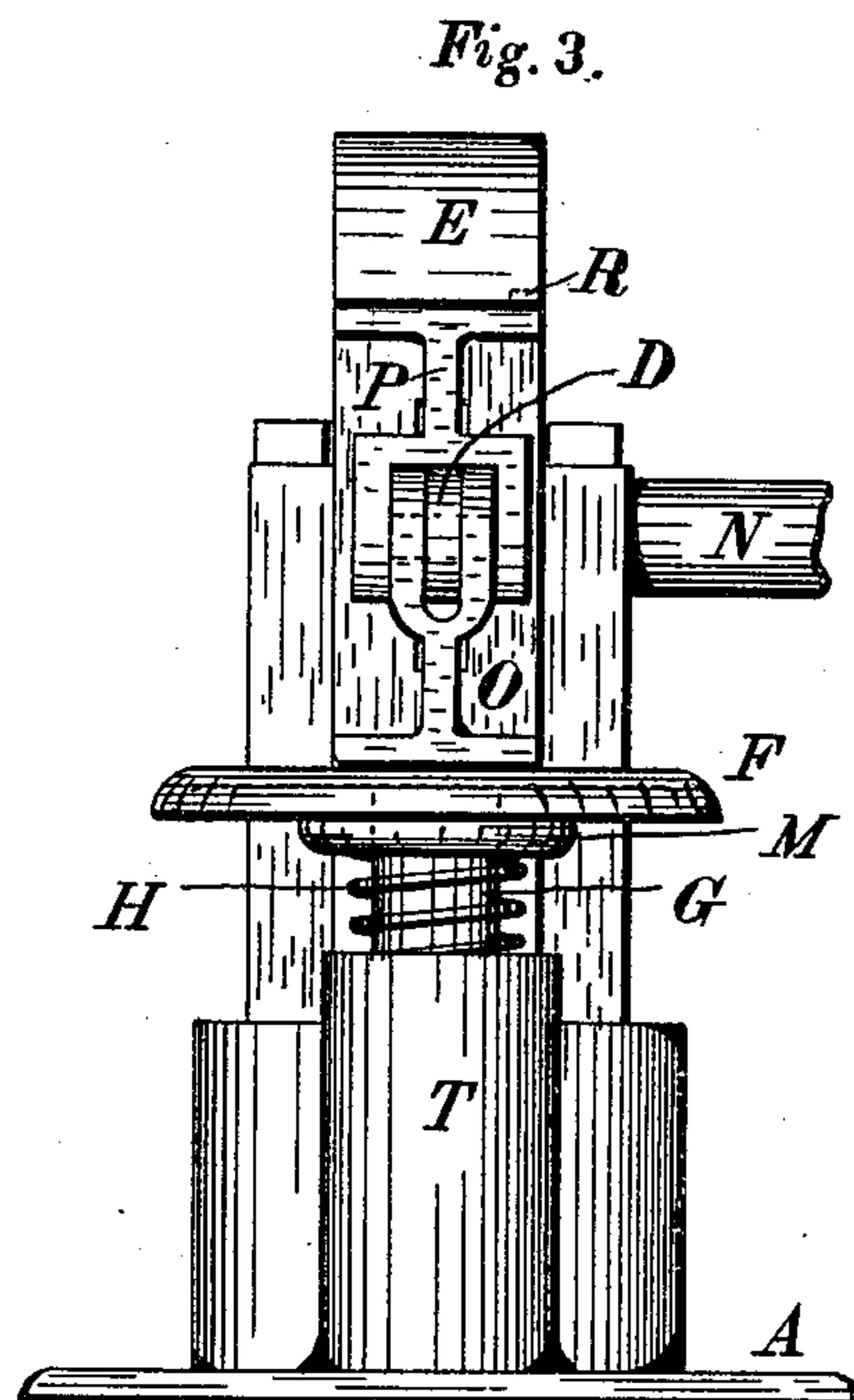
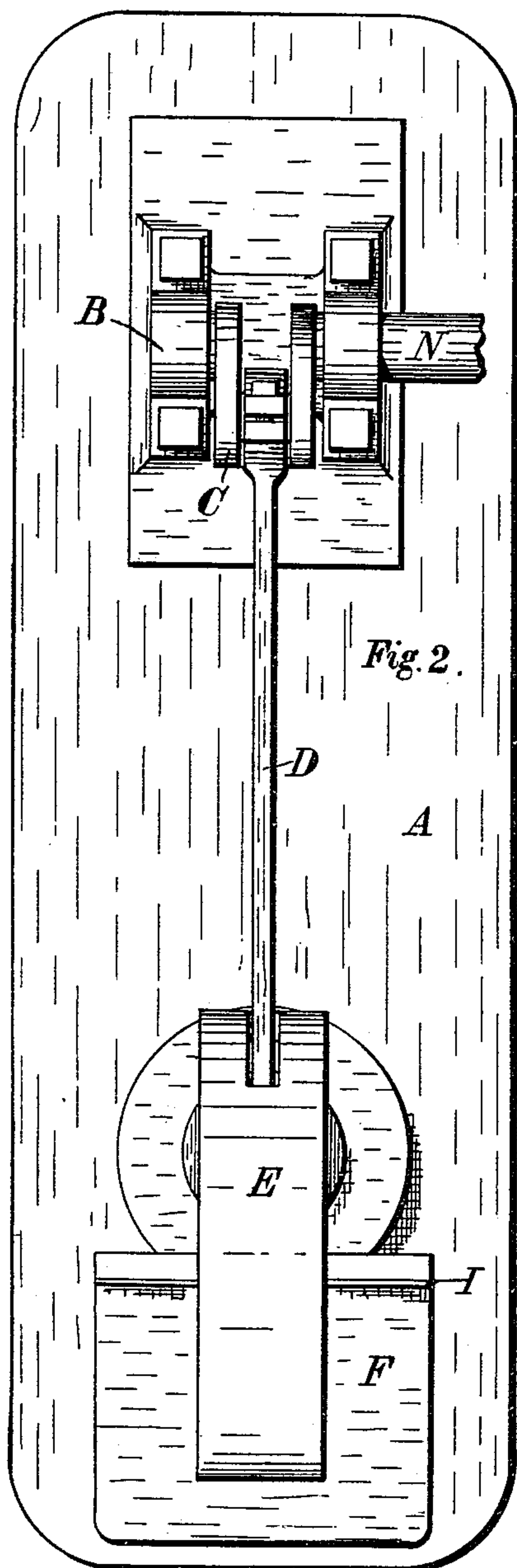
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UNITED STATES PATENT OFFICE.

CHARLES B. HATFIELD, OF ROCHESTER, NEW YORK, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO FRANK S. UPTON AND CHARLOTTE HATFIELD, BOTH OF SAME PLACE.

MACHINE FOR BEADING SHOE-UPPERS.

SPECIFICATION forming part of Letters Patent No. 354,183, dated December 14, 1886.

Application filed August 10, 1886. Serial No. 210,509. (No model.)

To all whom it may concern:

Be it known that I, CHARLES B. HATFIELD, a citizen of the United States, residing at Rochester, in the county of Monroe, in the State of New York, have invented an Improved Machine for Beading Shoe Uppers, of which the following is a specification, reference being had to the accompanying drawings.

My present invention relates to an improved machine for beading shoe-uppers, which is fully described and illustrated in the following specification and accompanying drawings, and the novel features thereof specified in the claims annexed to the said specification.

My improved machine for beading shoe-uppers is represented in the accompanying drawings, in which Figure 1 is a central longitudinal section. Fig. 2 is a plan view. Fig. 3 is an end elevation.

In the accompanying drawings, A represents the base of the machine; F, the plate upon which the leather is compressed; O, the rocking jaw by which the beading or compression is effected, and C the crank by which a rocking movement is imparted to the jaw through the connection D.

The bed is provided with a suitable standard or upright, B, in which the crank-shaft N rotates in suitable boxes. Power is applied to rotate the shaft N in any convenient manner.

The connection D is pivoted on a pin, S, which forms a joint between the rocking jaw O and the rocking segment P. The oscillating movement of the jaw and the segment, received from the crank C through the connection D, is represented by the full and dotted lines in Fig. 1. The bed is provided with a socket-plate, T, in which the stem G of the work-plate F is fitted, and which also receives the stem J of the arm E, which extends over the rocking segment P and sustains the thrust caused by the compression of the work on the plate F. The rocking segment P is provided with teeth Q, which mesh with the corresponding teeth of the rack R on the arm E. The rack is preferably made narrower than the width of the arm, as indicated by the dotted

lines in Fig. 3, leaving a smooth wearing-surface between the segment and the arm.

The rocking jaw is provided with an arm, U, which projects inward and carries a roller, *a*, which reciprocates in a curved guideway, L, formed in the arm E. The roller *a* descends through the curved guideway to the position indicated by the dotted circle *a'* when the jaw O travels inward. On the outward movement the jaw compresses or beads the folded edges of the shoe-upper placed on the work-plate F.

Provision is made for adjusting the arm E vertically by means of the set-screw K, inserted in the socket of the bed. The work-plate F is allowed to yield downward on the spring H, the tension of which may be adjusted by the nut M, fitting the threaded portion of the stem G. This spring holds the work-plate in contact with the lower surface of the rocking jaw O and takes up all lost motion, so the reciprocating movement of the parts takes place without the slightest noise.

It is obvious that an eccentric may be substituted for the crank C.

In the practical operation of my improved beading-machine, after the work is turned right-side out the edges of the uppers are compressed by placing them on the work-plate F and allowing the jaw O to rock over the edges, thus beading or finishing the seams, making smooth edges and leaving the work in proper shape for subsequent operations.

It is obvious that instead of providing the work-plate F with a spring, H, so that it can yield from the pressure of the jaw on the edges of the shoe-uppers, the arm E may be allowed to yield upward on a suitably-arranged spring, the plate F being rigidly secured to the bed.

I is a guide for the edge of the work. It may be attached rigidly to the work-plate or secured thereto so that it can be adjusted.

I claim—

1. In a shoe-upper beading machine, the combination, with the bed A, of the standard B, crank C, connection D, yielding work-plate F, rocking jaw O, segment P, and arm E, substantially as described.

2. The combination, in a shoe-upper-beading machine, of the work-plate F, arm E, provided with slot L, rocking-jaw O, having the arm working in the slot L, and segment P, substantially as described.

3. The combination, in a shoe-upper-beading machine, of the work-plate F, arm E, provided with slot L and rack R, rocking-jaw O, having the arm guided in the slot L, and segment P, having teeth Q, substantially as described,

4. In a machine for beading shoe-uppers, the combination of a yielding work-support, a rocking, beading, or pressing iron for operating upon the work on the support, and means, substantially as described, for rocking the said iron, as set forth.

5. The combination of the work-support, a rocking, beading, or pressing iron for operating upon the work on the support, a link or guide operating against a portion of the main frame for receiving the upward thrust of the iron as it rocks over the work, and means, substantially as described, for rocking the iron, as set forth.

6. The combination of the work-support, the sector-shaped rocking iron, mounted on a pivot, a corresponding sector-shaped portion pivoted on the same pivot, said last-named portion working against a portion of the main frame, and means, substantially as described, for moving the central pivot of the sectors back and forward in a manner to cause the pressing-sector to be rocked over the work on the support.

7. The combination of the work-support,

the rocking sector-shaped pressing-iron mounted upon a pivot, the sector-shaped portion pivoted upon the same pivot and provided with the teeth on its periphery, the gear-teeth on the main frame engaging with those on the last-named portion, and means, substantially as described, for reciprocating the pivot on which the two sectors are mounted backward and forward, whereby the two sectors will be rocked, the former over the work on the support and the latter over the gear on the frame, as set forth.

8. The combination of the work-support, the two sector-shaped sections mounted on the same pivot, one operating against a portion of the main frame and the other on the work on the support, the latter sector having an arm operating in a groove in the main frame, constituting a guide for it, and means, substantially as described, for reciprocating the pivot of the sections, substantially as described.

9. The combination of the work-support, the two sector-shaped sections mounted on a common pivot, the upper section provided with gear-teeth engaging with corresponding teeth on the frame, and the latter operating upon the work on the table, an arm secured to the latter, a groove on the main frame with which said arm engages, the pitman connected to the pivots of the sector-sections, and means, substantially as described, for reciprocating it, as set forth.

CHARLES B. HATFIELD.

Witnesses:

GEO. B. SELDEN,
A. SORGE, Jr.