

V. K. SPEAR.
Machines for Channelling the Soles of Boots and Shoes.

No. 149,538.

Patented April 7, 1874.

FIG. I.

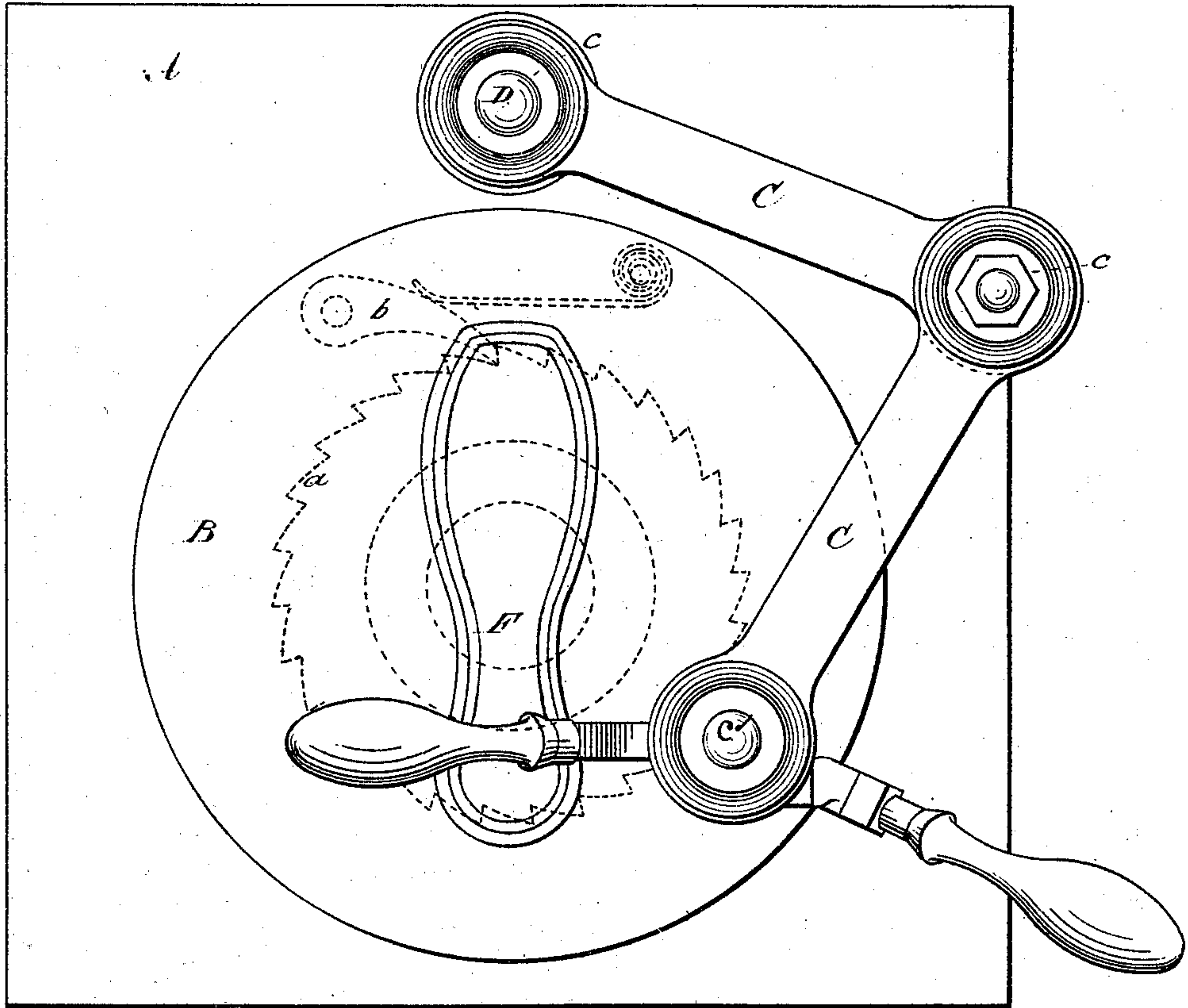


FIG. III.

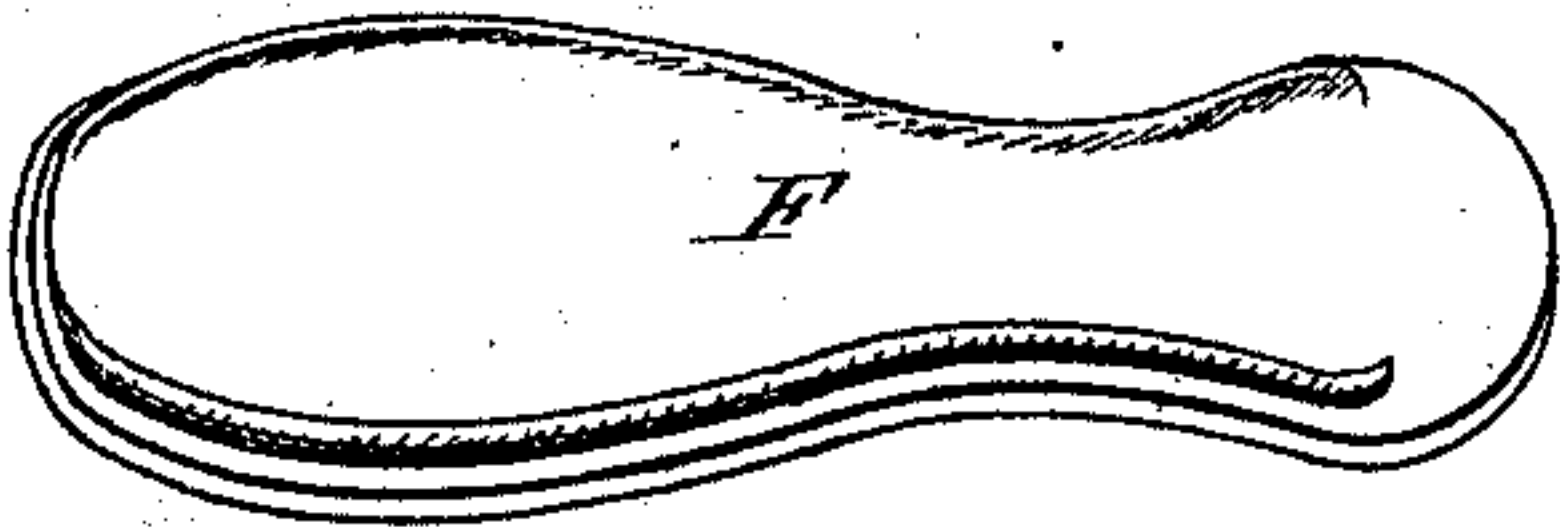
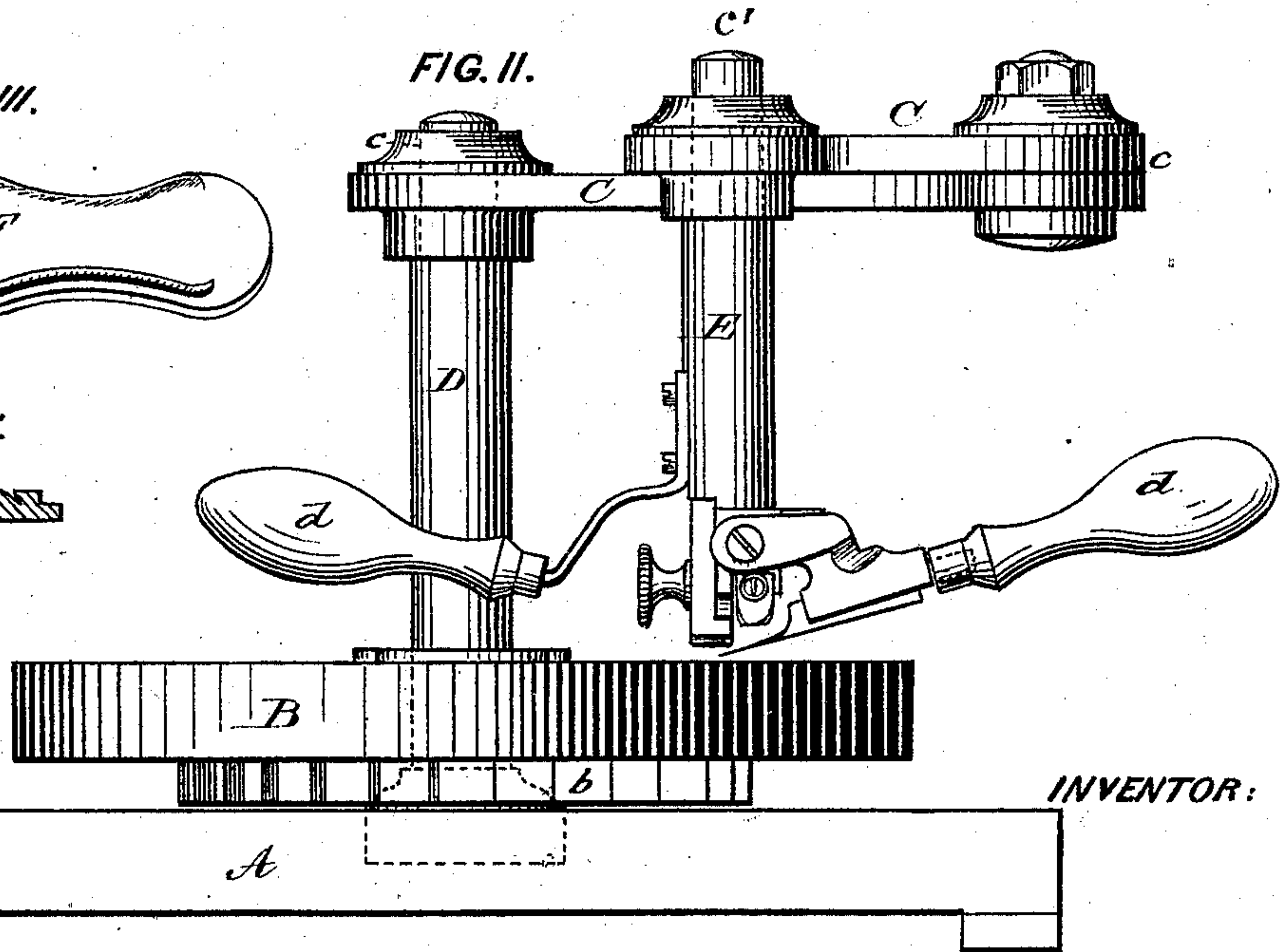


FIG. IV.



FIG. II.



WITNESSES:

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UNITED STATES PATENT OFFICE.

VIVIAN K. SPEAR, OF LYNN, MASSACHUSETTS.

IMPROVEMENT IN MACHINES FOR CHANNELING THE SOLES OF BOOTS AND SHOES.

Specification forming part of Letters Patent No. **149,538**, dated April 7, 1874; application filed April 1, 1874.

To all whom it may concern:

Be it known that I, VIVIAN K. SPEAR, of Lynn, in the county of Essex and State of Massachusetts, have invented a new and Improved Machine for Channeling and Beveling the Soles of Boots and Shoes; and I do hereby declare that the following, taken in connection with the drawing which accompanies and forms a part of this specification, is a full, clear, and exact description of my invention, and of the construction and operation of my said machine, sufficient to enable those skilled in the art to make and use the same.

The object of my invention is to rapidly cut channels and bevels in soles for boots and shoes without the danger or necessity of stretching or twisting the soles, as is unavoidably the case when channeling is done on machines in which feed-rollers are used, and I think I have attained simplicity and cheapness of construction.

Figure I is a plan or top view of my machine. Fig. II is an upright view of the same. Fig. III is a view of a sole with upturned channel. Fig. IV is a cross section of a sole, showing the "turn" channel.

A in the drawing represents a platform or table, into which is inserted and rigidly fixed the upright post D, and upon which is mounted the turn-table B. B is a turn-table, upon which the sole is laid preparatory to being channeled or beveled. The said turn-table is provided with a ratchet, *a*, and pawl *b* on the under side, as shown by the dotted lines *a*, the pawl being held in position by a spring. The particular direction of the movement indicated is not an essential in the successful working of the machine. C is an arm, so jointed at *c c* that a free horizontal movement may be attained. D is an upright post or standard, on which is mounted the arm C, as shown at *c*, Figs. I and II. E is a channeling-tool, with handles, by which it may be drawn or pushed to perform the operation of channeling or beveling, as the case may be, said tool-handle being inserted in the arm C at *c'*, with full horizontal play or movement. Any of the ordinary channeling and beveling tools now in common use can be used with it, and be substituted at pleasure. F is a sole for a boot or

shoe, secured to the turn-table by nails driven through the sole into the turn-table; but any mechanic will readily see that there are a great many ways by which it can be done—*i. e.*, by clamps, adjustable points, &c.—and I do not confine myself to any particular mode of holding the sole.

The manner of using and operating my machine is as follows: The sole being fastened to the turn-table, the tool to be used for channeling or beveling is slipped into the end of the jointed arm, which arm holds the tool in a perpendicular position. Then the operation of channeling or beveling is performed by drawing or pushing (with the hand or hands) the tool around the sole, using the edge of the sole as a guide to determine the cut of the knife or knives, the shoulder on the tool resting against the said edge of the sole as the tool is forced along, turning the table as is necessary.

I can vary the mode of operating by mounting the turn-table on the jointed arm, and moving the table against a stationary tool, and thus, by a reversal of the operation, accomplish the same result.

Having thus described my invention, I claim—

1. In a machine for channeling and beveling the soles of boots and shoes, the jointed arm C, mounted and turning upon the upright post, or its equivalent, and having a universal horizontal play, and operating as shown and described.

2. The turn-table B, or its equivalent, with ratchet and pawl, or their mechanical equivalent, and operating as shown and described.

3. In a machine for channeling and beveling the soles of boots and shoes, the combination of the turn-table B, upright post D, and jointed arm C, all operated substantially as shown and described.

4. The combination of the turn-table, upright post, jointed arm, and a channeling or beveling tool, substantially as described.

In testimony of which I have hereto set my hand this 31st day of March, A. D. 1874.

VIVIAN K. SPEAR.

Witnesses:

TH. C. CONNOLLY,
J. E. M. BOWEN.