

J. F. SEVERANCE.

Machinery for Making Box-Toes for Boots and Shoes.

No. 150,438.

Patented May 5, 1874.

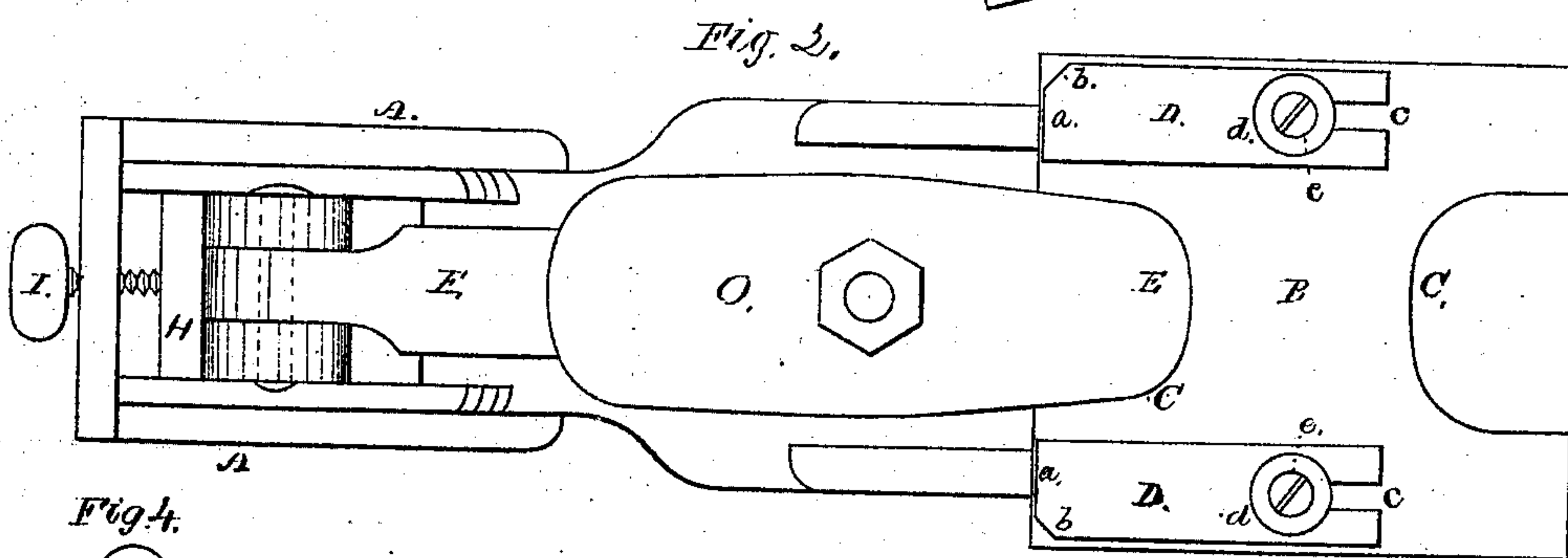
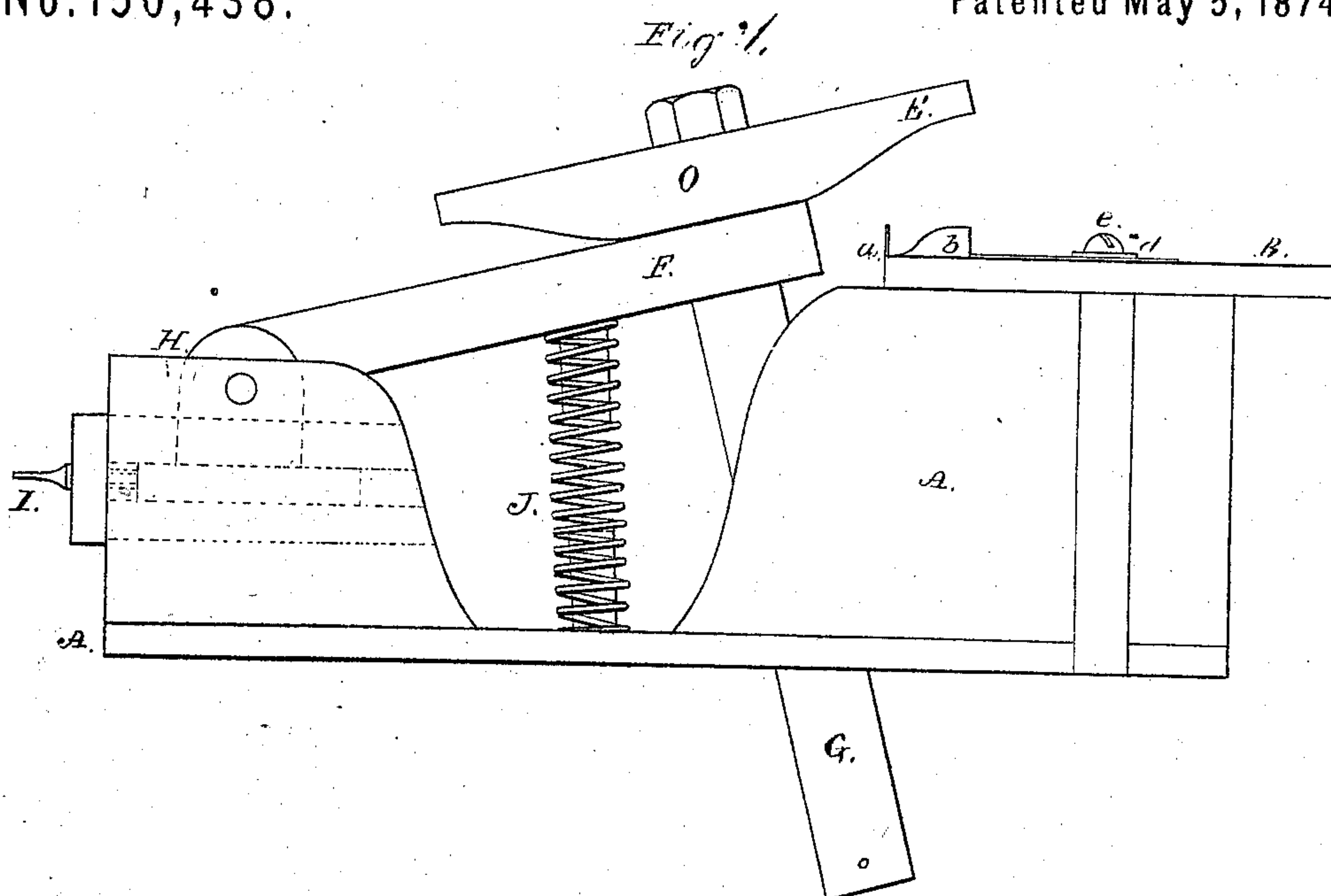
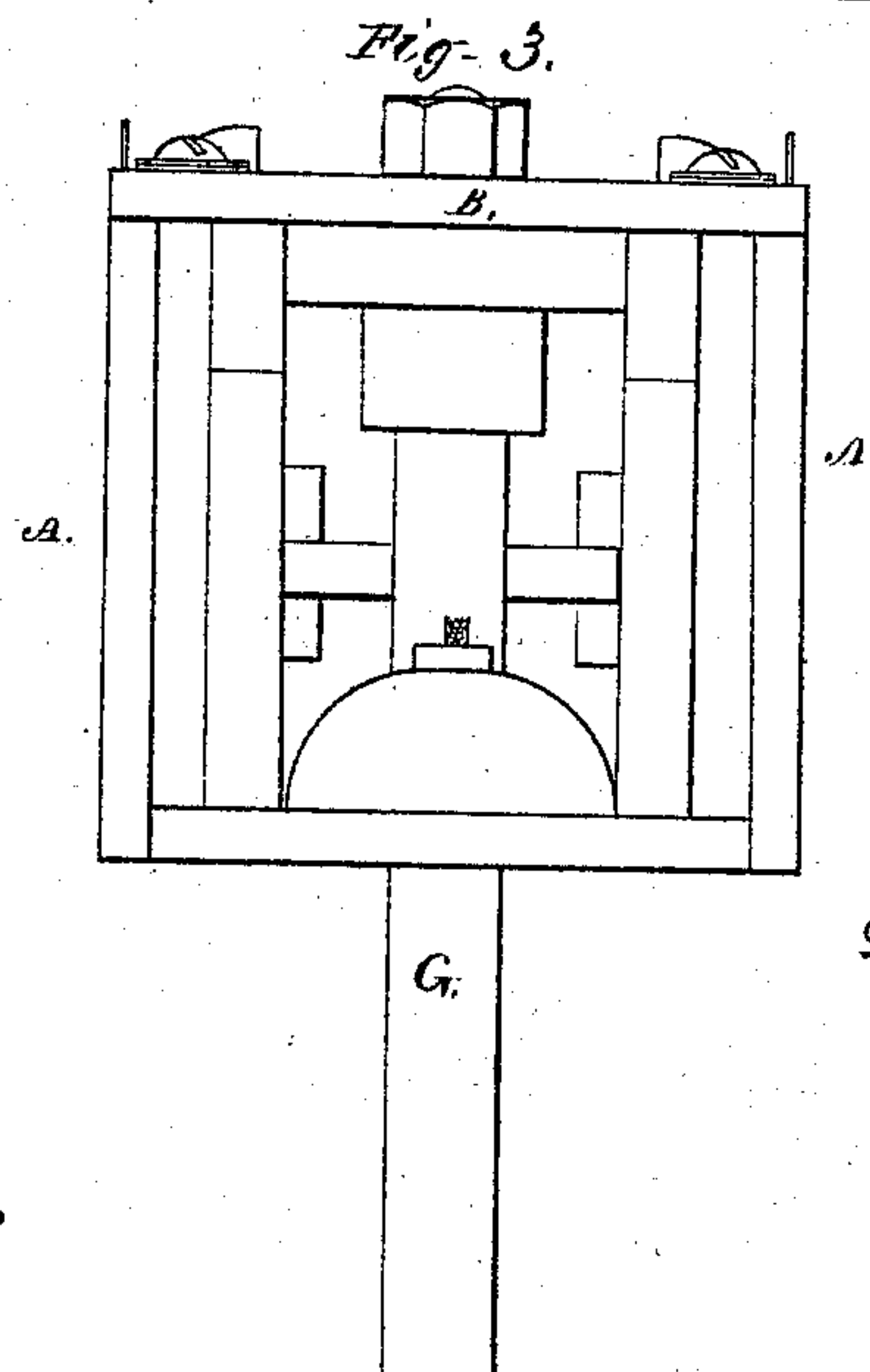
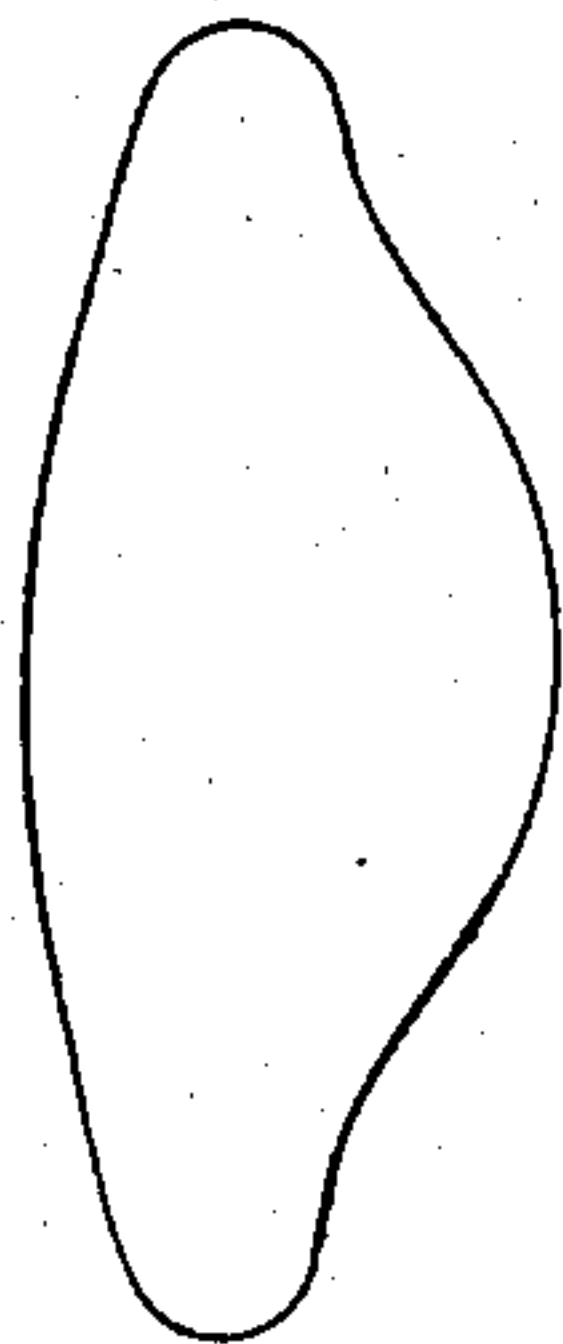


Fig. 4.



Witnesses

Geo Gray
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UNITED STATES PATENT OFFICE.

JAMES F. SEVERANCE, OF NORTH BRIDGEWATER, MASSACHUSETTS,
ASSIGNOR TO DAVIS H. PACKARD, OF SAME PLACE.

IMPROVEMENT IN MACHINERY FOR MAKING BOX-TOES FOR BOOTS AND SHOES.

Specification forming part of Letters Patent No. **150,438**, dated May 5, 1874; application filed March 25, 1874.

To all whom it may concern:

Be it known that I, JAMES F. SEVERANCE, of North Bridgewater, in the county of Plymouth and State of Massachusetts, have invented certain new and useful Improvements in Machinery for Making Box-Toes for Boots and Shoes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

In such drawing, Figure 1 is a side elevation, showing the male die raised; Fig. 2, a top view, and Fig. 3 an end view, of an apparatus embodying my invention.

The object of my invention is to produce a simple, cheap, and effective apparatus to be used in forming or molding box-toes for boots and shoes; my invention being especially designed for the production of such articles from leather-board.

In the drawing, A denotes a strong metallic frame, for supporting the main operating parts of the apparatus, such frame, when the apparatus is in use, being affixed to the top of a table or other suitable support. B is a metallic plate disposed on the top of the frame A, such plate having a female die, C, formed in one end thereof. If desirable, such plate may have a die of different size formed in each end thereof, and so applied to the frame as to be reversible. D D are two adjustable gage-plates, disposed on the top surface of the plate B, each of such plates being turned upward at its front end to form an abutment or stop, *a*. It also has an ear or flange, *b*, projecting up therefrom at a right angle to the plate. Furthermore, each of such plates D is formed with a long and wide slot, *c*, through which and a washer, *d*, passes a clamp-screw, *e*, the said slots being of such length and width as to enable the plates D to be moved both end-wise and laterally, in order to receive and hold blanks of different sizes, and to properly locate the blanks to receive the action of the male die, which is a metallic block, O, having a die, E, formed on one or both ends thereof, of different sizes, and corresponding in contour with the female die or dies before men-

tioned. The die-block is mounted upon a lever, F, a rod or shaft, G, provided with a screw and nut at its upper end, passing vertically through the die and the lever, the latter being pivoted at one of its ends to a sliding block or carriage, H, affixed to the frame, as shown in Figs. 1 and 2. I is a set-screw, which screws against or into the sliding lever-carrier H; the object of such screw being to enable the male die to be adjusted, in accordance with the thickness of the material to be molded, at the requisite distance from the female die, and to relieve the clamping action of the male die after the box-toes have been formed, and enable the latter to be removed from the die. J is a suitable spring disposed between the base of the frame and the lever F, the object of such spring being to elevate the male die into a position to enable the blank to be readily inserted in, or the article, when formed, to be removed from, the apparatus. In order to depress the male die, an ordinary treadle is to be connected with the rod G, by means of a pitman or its equivalent. The male and female dies may be heated by means of a lamp located underneath the same, as shown in Fig. 3; or the male die may be removed and otherwise heated, as may be desirable.

Having described the construction of my invention, its operation is as follows: If we suppose the parts to be in the position as shown in Fig. 1, and the die or dies to have been heated, and the box-toe blank to have been stamped out in the proper form, or as shown in Fig. 4, the blank is to be laid upon the plate B, with the parts to form the fastening-flanges resting against the abutments *a a* and ears *b b*. The male die is next to be moved downward by the treadle, which, acting upon the blank, will force it in contact with the female die, which will give the desired form to the main portion of the box. The two fastening-wings of the box are next bent over the edge of the male die, and the article is completed, when, by turning back the set-screw I, the male die will be moved back, the resilient action of the spring forcing it up into the position as shown in Fig. 1, and thus enable the box-toe to be readily removed.

What I claim as my invention is—

1. In an apparatus for forming box-toes for boots and shoes, the combination of the block O, reciprocating both vertically and longitudinally, and provided with one or more male dies, E, with the plate B, having one or more stationary female dies, G, and the adjustable gages D D, the whole being arranged and operating substantially as shown and described.
2. The combination, with the die-plate B, of

the adjustable gage-plates D D, provided with the abutments *a a* and ears *b b*, as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 25th day of February, 1874.

JAMES F. SEVERANCE.

Witnesses:

F. P. HALE,

F. C. HALE.