

J. A. STOCKWELL.
MACHINE FOR MAKING SHOE-TIPS.
No. 170,128. Patented Nov. 16, 1875.

Fig. 1.

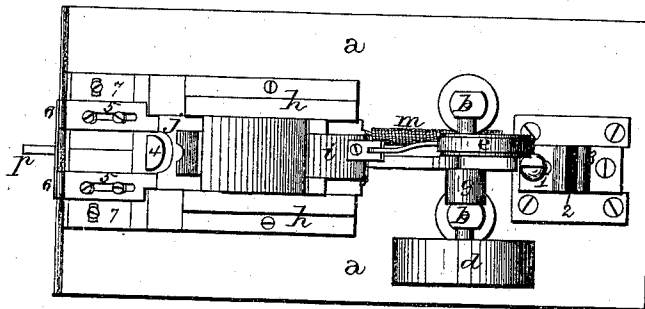


Fig. 2.

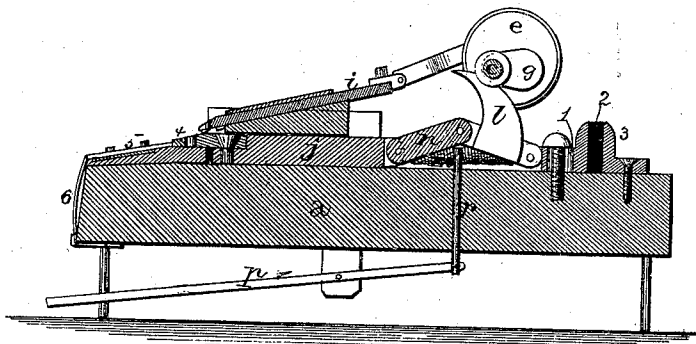


Fig. 3.



Fig. 4.



WITNESSES.

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UNITED STATES PATENT OFFICE.

JOHN A. STOCKWELL, OF LYNN, ASSIGNOR TO THE STOCKWELL SHOE-TIP COMPANY, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN MACHINES FOR MAKING SHOE-TIPS.

Specification forming part of Letters Patent No. **170,128**, dated November 16, 1875; application filed October 20, 1875.

To all whom it may concern:

Be it known that I, JOHN A. STOCKWELL, of Lynn, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Machine for Making Shoe-Tips; 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.

My invention relates to an improvement in machines for making shoe-tips; and it consists in the arrangement and combination of devices that will be more fully described hereinafter, whereby tips for boots and shoes are pressed and molded into shape.

The accompanying drawings represent my invention.

a represents a suitable base-plate, upon which are mounted the two standards *b*, in which is journaled the shaft *c*, carrying the driving-pulley *d* on one end. Secured to or formed on this shaft *c* are the eccentric *e* and cam *g*. Secured to the base-plate *a* are the two guides *h*, between which work the two reciprocating formers *i j*, the upper one, *i*, being operated by the eccentric *e*, and the lower one by the action of the cam *g* on the projection *l* of the jointed connecting-rod *n*. Fastened to the rear end of the former *j* is the coiled spring *m*, which draws it back into position after having been moved forward. In case the rod is pressed downward beyond the center of motion, so that the spring cannot draw the former back, the rod may be made to spring up by means of the pivoted rod *p*, which passes under the bed-plate, and has the short vertical rod *r* attached to its inner end, which rod *r* passes up through the plate *a*, and bears against the under side of the jointed rod *n*. The rear end of this rod *n* is pivoted to the slotted slide *1*, which moves back and forth between suitable guides, and abuts against a rubber cushion, *2*. This cushion is held between a stop, *3*, and the slide, and serves to start the rod into motion, so as to rise upward after it has been depressed by the cam. Placed in front of the

ends of the two formers is a semicircular tip-mold, *4*, which has its inner edge beveled away, and around which the strip of leather or other fibrous material is bent, for the purpose of being molded and pressed into shape. The strip of material, after having its edge folded upon itself, is placed around this mold, when the lower former, *j*, is moved forward, so as to clamp and hold the strip firmly in position. After the lower former has taken hold of the strip the upper one, *i*, advances at an angle, and presses or irons down all the material that projects up above the mold *4*. Both of the formers have their front ends circularly grooved out, as shown, while the upper one, *i*, has suitable projections formed on its under side, to gather the material together and press it toward the center. Placed on a slight decline, at the front end of the machine, with their rear ends overlapping past the mold *4*, and abutting against the end of the lower former, are the two slotted plates *5*, which form guides to keep the sides of the tip straight while the toe is being molded. Pressing against the front ends of these guide-plates are the flat springs *6*, which keep the plates pressed forward against the end of the lower former, and thus they move back and forth with the former. These plates are attached to other plates, *7*, which may be laterally adjusted, so that the guide-plates can be moved back and forth to suit different-sized tips.

Of course the two formers may be reciprocated either by the devices here shown or by any other means that may be desired, the essential features of my invention being a mold, a former to clamp the strip of leather around this mold and form the tip, together with a former to press down the surplus leather.

Having thus described my invention, I claim—

1. The combination of the mold *4*, having a beveled edge, in combination with a clamping-former, *j*, and a smoothing-down former, *i*, the two formers being made to operate substantially as shown and described.

2. The smoothing-former *i*, having projections on its under side for pressing the material toward the center, substantially as specified.

3. A mold, 4, having its front edge beveled away, substantially as described.

4. The combination of the connecting-rod *n*, cam *g*, projection *l*, with a slide, 1, and spring 2, substantially as set forth.

5. The combination of the jointed connecting-rod *n*, cam *l*, and the rods *p r*, substantially as specified.

In testimony that I claim the foregoing I have hereunto set my hand this 14th day of October, 1875.

JOHN A. STOCKWELL.

Witnesses:

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SAML. R. BOND.