

(No Model.)

T. BARRETT.
LASTING MACHINE.

No. 558,026.

Patented Apr. 14, 1896.

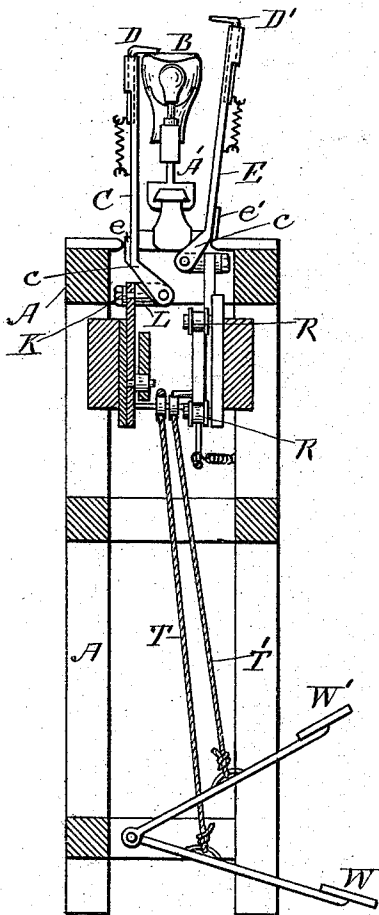


Fig. 2.

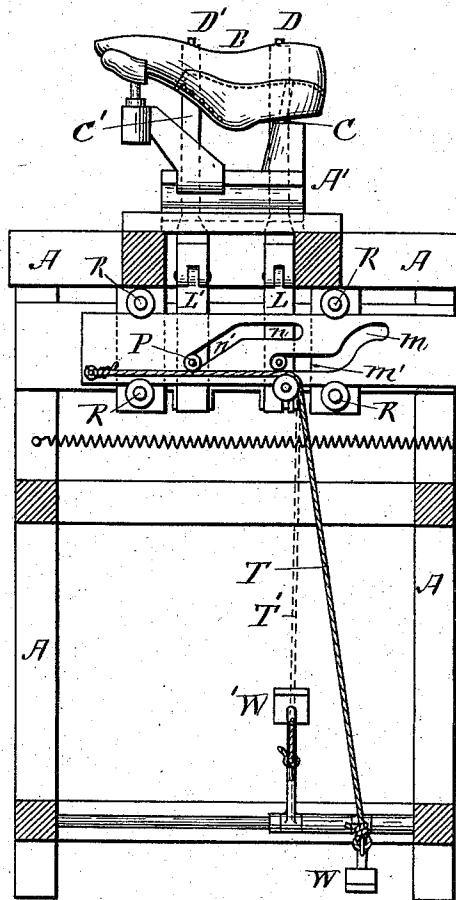


Fig. 1.

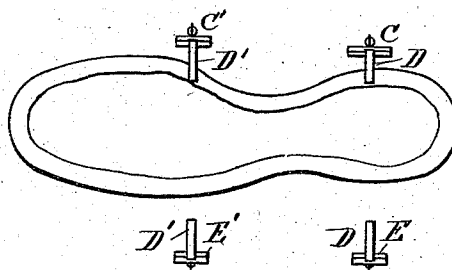


Fig. 3

WITNESSES
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UNITED STATES PATENT OFFICE.

THOMAS BARRETT, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO THE GOOD-YEAR SHOE MACHINERY COMPANY, OF PORTLAND, MAINE.

LASTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 558,026, dated April 14, 1896.

Application filed April 25, 1895. Serial No. 547,118. (No model.)

To all whom it may concern:

Be it known that I, THOMAS BARRETT, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Lasting-Machines, of which the following is a specification.

My invention relates to a machine which assists the lasting process by means of vamp-holding clamps operated by foot-levers; and it consists in combining with the last-holding devices a series of clamping-bars operated by foot-levers. The said clamping-bars serve to hold the vamp in place after the operator has drawn it, the vamp, into position upon the last until the operator has tacked or pegged the same to the inner sole. Two or more of these clamping-bars are made to operate in succession by a single foot-lever, as will be hereinafter described. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a view showing the last in vertical section and such of the operating devices as are located upon one side in elevation. Fig. 2 is a cross-section of the same. Fig. 3 shows a plan of the shoe and last and the upper parts of the clamping-rods.

In the drawings, A A A represent a frame to which the several parts of the devices are attached.

A' represents a jack for holding the boot or shoe B in position.

In the drawings there are shown four clamping-rods, C and C' upon one side and E and E' upon the other side of the last; but in practice several of these clamping-rods are used upon each side. These clamping-rods are all made in the same manner, so that a description of one set will answer for all. The clamping-rods C and C' have at their upper extremities clamping-pieces D and D', which serve to clamp the edge of the vamp down onto the inner sole, as shown at D, Fig. 2. The lower ends of the clamping-rods terminate in an inclined piece c, Fig. 2, which is pivoted to an arm K, attached to the vertical sliding rod L, Fig. 2. The lower ends of these rods C pass through openings in the upper part of the frame and are provided with cam-pieces e e', Fig. 2, which as the rods are brought

down from the position of the rod E, Fig. 2, to the position of the rod C, the upper ends of the rods will be thrown inward as well as downward, so as to come in contact with the vamp of the shoe shown at D, Figs. 1, 2, and 3. The downward motion is given to the rods by the following device:

M is a plate of metal arranged to slide between the grooved rollers R R R R, Figs. 1 60 and 2. This plate M has the cam-grooves m m' and n n'.

At the lower end of the rod C a pin P, Figs. 1 and 2, projects, so as to pass through the cam-slot m m' in the sliding plate M. Thus 65 when the sliding plate is moved in the direction of the arrow S, Fig. 1, the pin P is drawn down, taking with it the slide L and the clamping-rod C D.

The cam-slots m m' are so shaped and located that they do not act simultaneously, but successively—that is, while the first cam-slot m m' is acting to draw the pin P down the second slot n n', being horizontal for a fixed distance, as shown in Fig. 1, has no action on the pin P—that is, the slide L and the clamping-rod C' D is not moved; but a continued motion of the plate M will cause the inclined part of the cam-slot n n' to act upon the pin P' and thus draw down the slide L' 80 and the clamping-rod C' and D'.

From the above it may be seen that the cam-plate M may have a number of cam-slots like m m' and n n', arranged to act in succession upon a corresponding number of clamping- 85 rods.

The cam-plate M is caused to move by the cord or chain T, which is attached to a foot-lever W, and the opposite cam-plate is operated by the cord T' and the foot-lever W'. It will be understood that two of these plates are used. 90

To last a boot or shoe, the operator proceeds as follows: The inner sole is properly fitted to the last, the vamp is put onto the last and fastened at one or more places, and the last with the upper is placed on the jack A'. The vamp is then drawn over the inner sole by the use of the ordinary pincers at a point near the first-acting clamp. Said clamp is then brought 100 down by the foot-lever so as to hold the vamp in place. This operation of drawing the vamp

over by the pincers and clamping by the successive use of the foot-lever is continued until such parts of the upper as are necessary have been successively drawn over by the pincers and held till they are secured by the descending clamps, which respond to the successive depressions of the foot-treadle.

Of course the treadle connections with the clamps are so constructed that the operator will always draw over the upper at given points, and the depressed treadle will cause, by the medium of the cams, the several clamps to descend at the desired places, holding the vamp firmly till tacked or pegged or otherwise fastened.

Having thus described my invention, its construction and mode of operation, what I claim, and desire to secure by Letters Patent of the United States, is—

1. In a machine for lasting boots and shoes, the combination of a series of successively-operating clamping devices consisting of suitable devices for holding the upper against the last and insole, and sliding plates having cam-

grooves with suitable studs engaging said grooves and operating mechanism for moving the plates and successively operating the clamping devices, substantially as described.

2. In a machine for lasting boots and shoes, the combination of a series of successively-operating clamping devices, comprising rods C, C' , carrying clamping-pieces D, D' ; slides L, L' and actuating mechanism for successively operating the same, substantially as described and for the purpose set forth.

3. In a machine for lasting boots and shoes, the combination of a series of rods C, C' carrying clamping-pieces D, D' ; slides L, L' and cam-plates M provided with successively-operating cam-slots m, m', n, n' , substantially as described and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

THOMAS BARRETT.

Witnesses:

JOS. E. CRISP,

WILLIAM A. SARGENT.