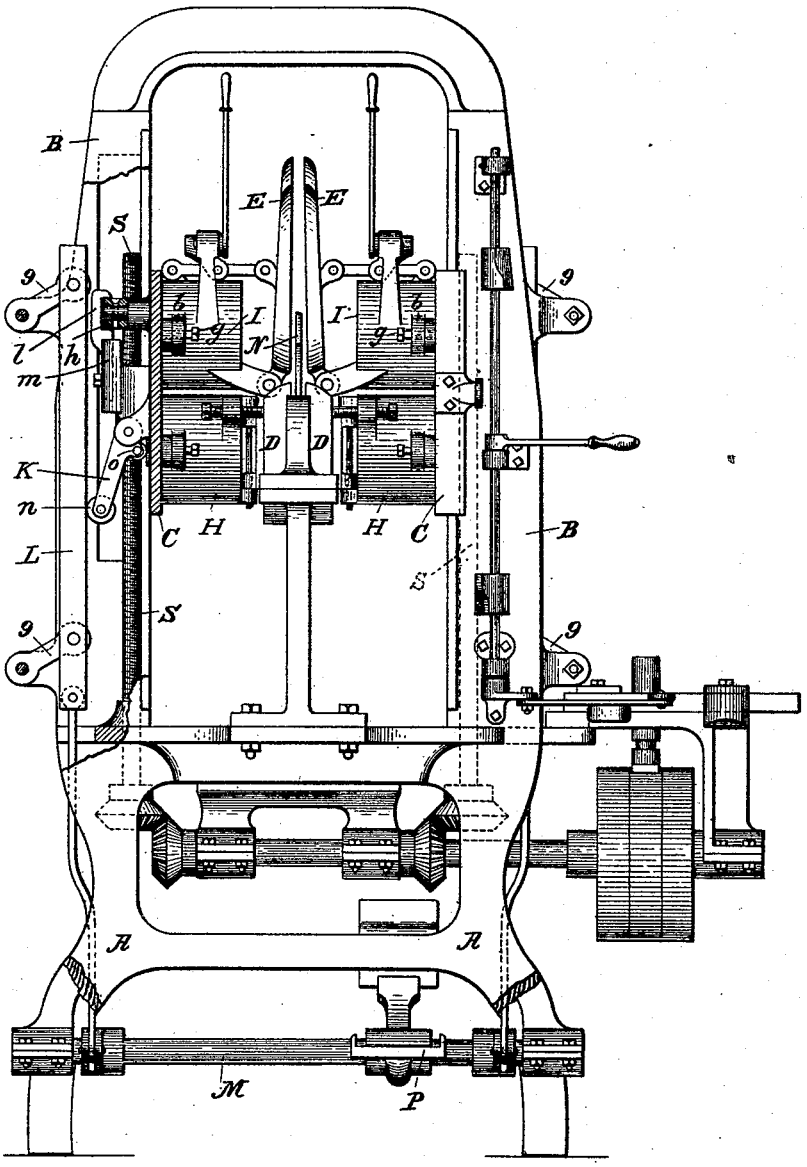
(No Model.) 2 Sheets—Sheet 1.

S. W. JAMISON.

LEATHER CRIMPING MACHINE.

No. 457,200. Patented Aug. 4, 1891.

FIG. 1.



Attest:
Geo. T. Smallwood.
Jno. B. Ellis

Inventor
Samuel W. Jamison
by Poole & Mann
his attorneys.

(No Model.) 2 Sheets—Sheet 2.

S. W. JAMISON.

LEATHER CRIMPING MACHINE.

No. 457,200. Patented Aug. 4, 1891.

FIG. II.

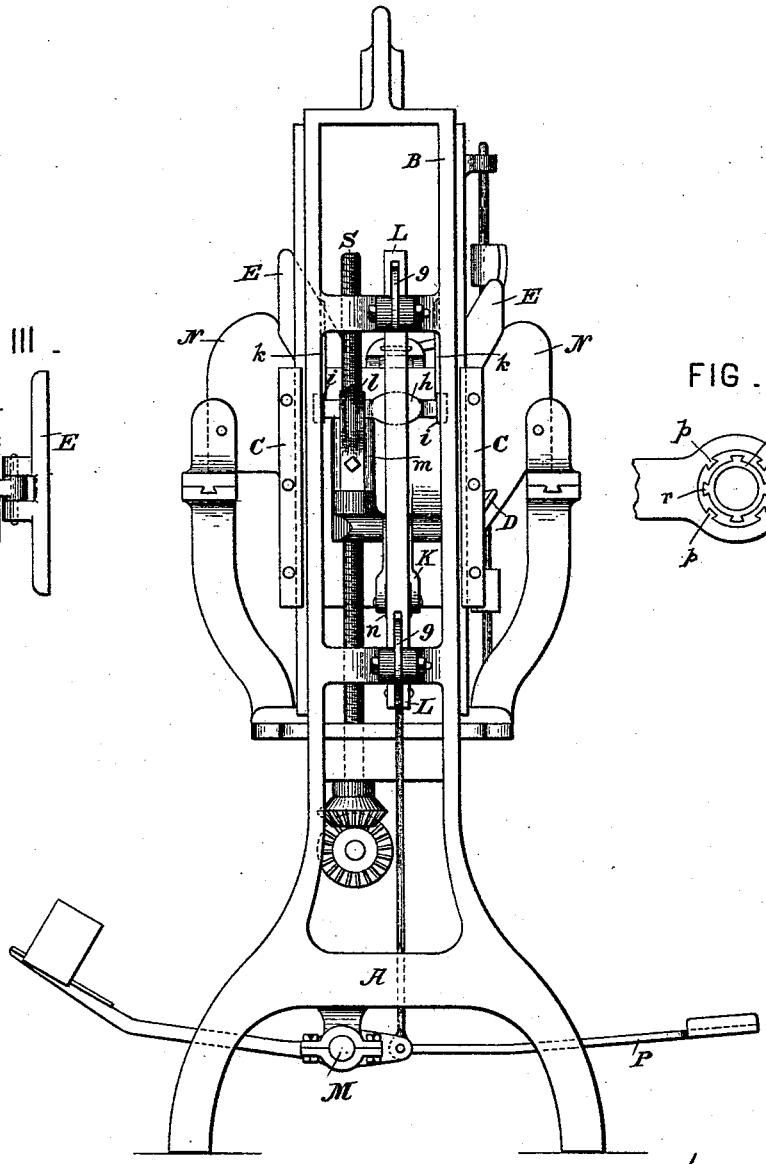


FIG. III.

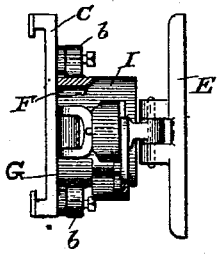
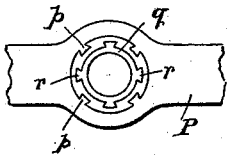


FIG. IV.



Attest:
Geo. T. Smallwood.
Jno. B. Gilbert.

Inventor
Samuel W. Jamison
by Pollock & Mauro
his attorneys.

UNITED STATES PATENT OFFICE.

SAMUEL W. JAMISON, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO THE S. W. JAMISON BOOT AND SHOE CRIMPING MACHINE COMPANY, OF NEW YORK, N. Y.

LEATHER-CRIMPING MACHINE.

SPECIFICATION forming part of Letters Patent No. 457,200, dated August 4, 1891.

Application filed May 4, 1891. Serial No. 391,482. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL W. JAMISON, a resident of Boston, county of Suffolk, and State of Massachusetts, have invented a new and useful Improvement in Leather-Crimping Machines, which improvement is fully set forth in the following specification.

This invention relates to the construction of machines for crimping leather to form the uppers of boots and shoes—such, for example, as shown and described in patents heretofore granted to me. It has particular reference to that form of machine which is described in Letters Patent No. 303,018, dated August 5, 1884.

The present invention comprises certain improvements in details of construction which have been found of practical value and which can most conveniently be described in connection with the accompanying drawings, in which—

Figure I is a front elevation of the entire machine, part of one of the side frames being broken away. Fig. II is a side view. Fig. III is a top view of one of the turrets and slides, and Fig. IV is a detail of the bushing for the screw-shafts.

A is the pedestal; B, the upright side frames supported thereon; C, the trucks sliding vertically on ways of said frame; D, crimping-jaws; E, the smoothing-jaws; F G, the turrets carried by trucks C; H and I, the slides or caps carrying the crimping and smoothing jaws, respectively; K, the levers for forcing out the lower or crimping jaws; L, the bars pivotally connected by means of links 9 with the side frames for acting on levers K when moved downward by pedal-lever P and rock-shaft M; N, the crimping form or tree, and S the screw-shafts for reciprocating the trucks. These parts, being in general constructed and operating as described in the above-mentioned Letters Patent, will require no detailed explanation.

Heretofore the caps H I, which slide on the turrets F G and carry the jaws D E, were held from turning on their turrets by means of a small pin passing through a lug or ear on the cap. The upper side I was actuated through a yoke or cross-piece sliding in grooves of the said frame and the lower slides H by the levers K, already referred to. In the working of these parts inconvenience was encountered by reason of the tendency of the slides to tilt or work one-sided, thus deflecting the jaw out of the proper plane and causing it to press unequally, and by reason, also, of the tendency of the yoke of the upper turrets to twist axially. These difficulties in the mounting and operation of the jaws are overcome by the present invention.

As shown in Fig. III, each cap or slide is provided with two ears *b*, projecting on opposite sides thereof, and through holes in these ears pass loosely the screw-pins or bolts *g*. By this arrangement the sliding motion of the caps is made even and regular.

The cross-bar H, Figs. I and II, which imparts motion to the upper or smoothing jaws E, has at each end a friction-roller *i*, which at the proper moment are moved outward to open the jaws by means of the stationary cams *k*. As the trucks move up and down, the caps I are likely to twist in case one roller *i* becomes dry and works harder than the other or in case the cams are not accurately set, or for some other reason. To prevent this, a grooved clamp *l* is secured to the upper lug *m* of the truck and embraces yoke *h* on one side of its center. It prevents the twisting of the latter without interfering with the freedom of its reciprocating motion. The actuating feed-lever K, which is pivoted to the truck and transmits to the slides H the motion of bar L, is now provided with a friction-roller *n*, whose width is equal to that of bar L. This construction is important for the reason that heretofore the roller cut into the bar and the wear on the latter was excessive and uneven, causing lost motion and uncertainty in the operation of the lower jaws. The said lever K has also another friction-roller *o*, which bears on the plunger of the slide, which further diminishes wear and lost motion in these parts and conduces to greater ease of movement.

I have found it necessary in this machine to enlarge the diameter of the screw, and to insure requisite steadiness in operation and prevent the bushing coming loose by the

back-and-forth movement of the screw I have constructed the bearing of the screw-shaft as shown in Fig. IV. P represents the casting of the frame, in which a chamber of proper size is formed. In this chamber, which is provided with ribs *p*, of dovetail form, is set the composition or other bushing *q*, also provided with dove-tail ribs *r*, which lie between the ribs *p*, leaving sufficient space to babbitt the bushing in the casting.

The improvements described herein may be used separately without departing from the spirit of the invention.

Having now fully described my said invention, what I claim is—

1. The combination, with the movable trucks and the jaws of the turrets on said trucks, slides carrying each one of the smoothing-jaws and working on said turrets, a yoke or cross-bar for each slide having at its ends friction-rollers working in grooves in the frame, stationary cams for actuating said slides, and a hook or grooved clamp embracing said yoke, but permitting it to move in and out, substantially as described.

2. The combination of a movable truck, the slides carrying the crimping and smoothing jaws and provided each with two lugs, holding-pins passing through said lugs and secured to the slide, the yoke and friction-rollers for the upper slide, the holding-clamp embracing said yoke, and means, as specified, for reciprocating both of said slides, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

S. W. JAMISON.

Witnesses:
CHARLES H. BUSH,
GEORGE H. NUTTS.