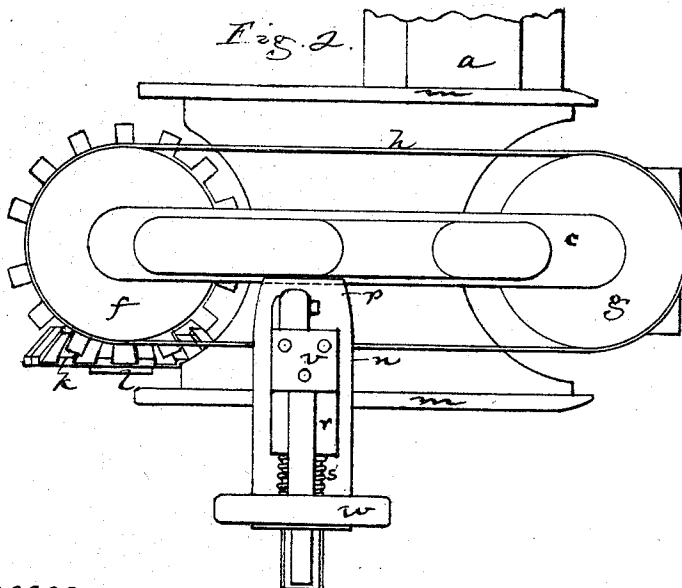
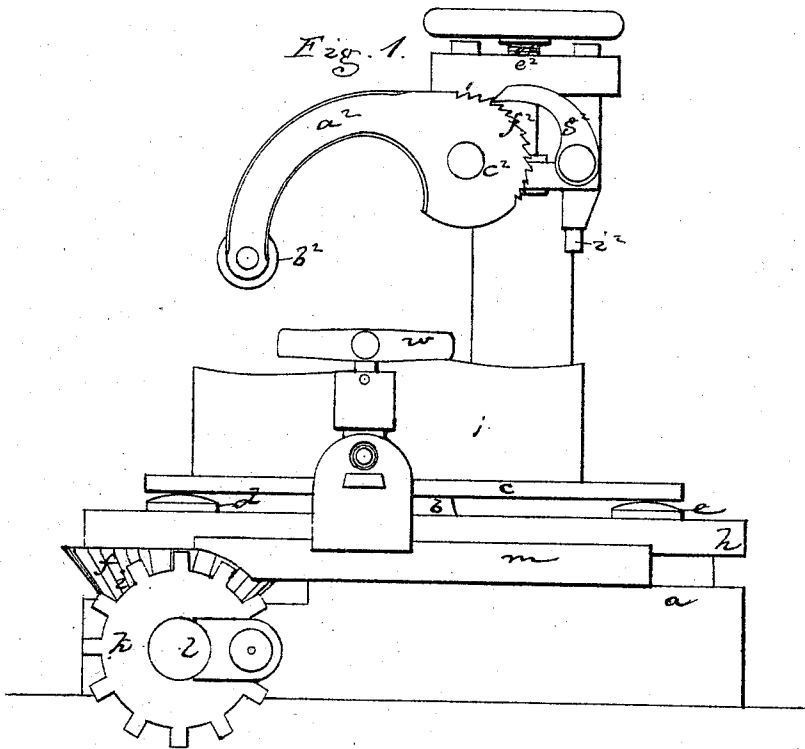


R. C. LAMBART.

Machinery for Trimming the Sole-Edges of Boots and Shoes.

No. 142,029.

Patented August 19, 1873.



Witnesses.
 W. M. Frothingham.
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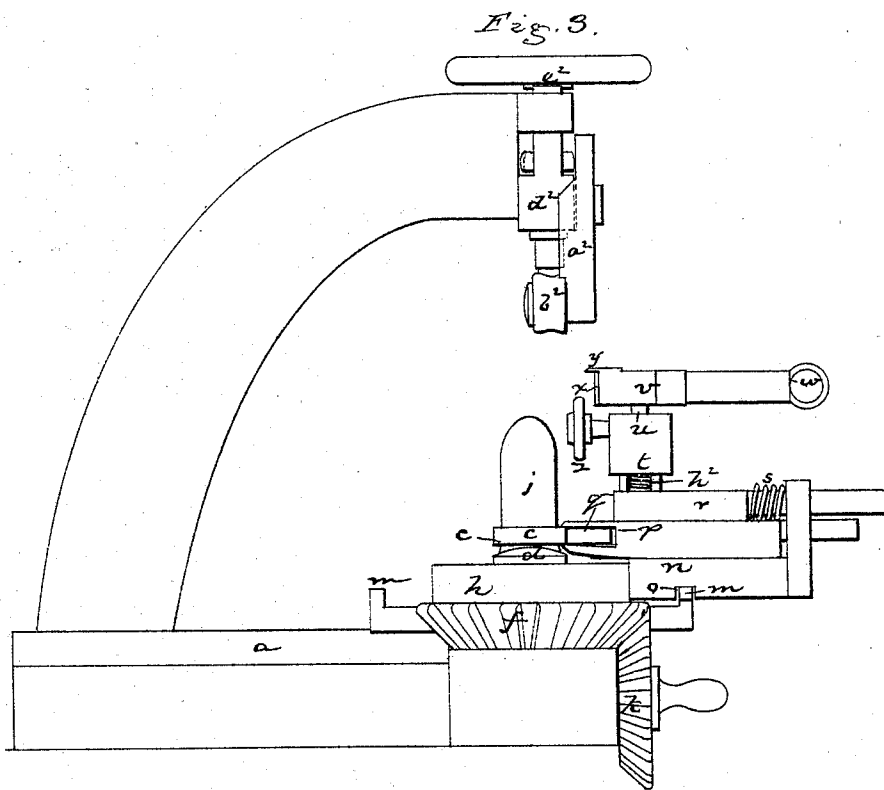
Inventor
 Richard C. Lambart.
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UNITED STATES PATENT OFFICE.

RICHARD C. LAMBART, OF QUINCY, MASSACHUSETTS, ASSIGNOR TO THE
SHOE MACHINERY MANUFACTURING COMPANY.

IMPROVEMENT IN MACHINERY FOR TRIMMING THE SOLE-EDGES OF BOOTS AND SHOES.

Specification forming part of Letters Patent No. 142,029, dated August 19, 1873; application filed
July 10, 1873.

To all whom it may concern:

Be it known that I, RICHARD C. LAMBART, of Quincy, in the county of Norfolk and State of Massachusetts, have invented an Improved Machine for Trimming the Edges of the Soles of Boots and Shoes; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

The invention relates to a new organization of mechanism for trimming the edges of the soles of boots and shoes.

In my machine the shoe is jacked upon a suitable block with its sole-face upon the block, said block being stationary, and standing upon a guide-plate, and the last being held in position by a suitable clamp. Under each end of this guide-plate is a pulley, and the two pulleys are connected by a band or chain, to which is fixed a carriage, having at its inner end a fork that straddles the edge of the guide-rail, and a roll moving against said edge, this carriage having upon it a yielding slide that is pressed inward by a suitable spring, and there being upon the slide a pin or post, to the top of which is jointed a universally-moving cutter-stock that carries the trimming-tool, and is guided by hand to present the cutting-edge properly to the edge to be trimmed, a roll turning on a horizontal pin extending from the post, (the projecting edge of the sole riding upon this roll,) the roll serving as a guide and gage. It is in an organization such as is thus generally described that my invention consists.

The drawing represents a machine embodying the invention. Figure 1 shows the mechanism in front elevation. Fig. 2 is a plan of it. Fig. 3 is an end view of it.

a denotes a suitable bed-piece, upon which stands a post, *b*, that supports a long plate, *c*, upon which stands the last-holding block *j*. *d* *e* denote two shafts or pins extending from or into the bed *a*, under the opposite ends of the plate *c*, one of said shafts forming a journal-pin for a driving wheel or pulley, *f*, and the other a journal-pin for a wheel or pulley, *g*, belted to the pulley *f* by a band, *h*. The wheel

f may have bevel-teeth *i* meshing into and driven by the teeth of a bevel-wheel, *k*, on a winch or driving-shaft, *l*. At opposite sides of the bed *a* are guide-rails *m*, and sliding and supported upon these rails is a carriage, *n*, (into a groove, *o*, in which each rail enters as the carriage reaches such rail,) this carriage having at its inner end a fork, *p*, that embraces the edge of the guide-plate *c*, a guide-roll, *q*, running against the edge of the plate. Upon this carriage is mounted a slide, *r*, pressed forward by a spring, *s*, and yielding against the stress of the spring. *t* denotes a post extending from this slide, and having jointed to a pin, *u*, extending from its top, a cutter-stock, *v*, the connection of the stock and pin being such that the stock may be turned freely in every direction by hand application to a handle, *w*. At the front end of the cutter-stock is the cutter *x*, having over it a flange, *y*, to rest upon the sole. Turning upon a pin projecting from the front of the post *t* is a guide-roll, *z*, upon which the opposite surface of the sole, beyond the upper, rides.

The shoe is placed upon the block *j* with its sole-face down, and an arm, *a*², is then thrown down against the last, a roll, *b*², at the foot of the arm bearing against the top of the last. This arm is hung at its top to a pin, *c*², extending from a vertical slide, *d*², said slide being raised and lowered by a screw, *e*². The arm bears ratchet-teeth *f*², with which engages a stop-pawl, *g*², and, the arm being first pressed down by hand and then held by the pawl *g*², the slide is forced down by the screw *e*², thereby tightly clamping the last in position upon the block for the action of the cutter against the edge of the sole. From the slide extends a last-pin, *i*², that enters the hole in the top of the last, and prevents end movement of the last. The post *t* is supported upon a spring, *h*², that permits it to yield vertically, the spring pressing the roll and cutter mechanism upward, but enabling them to move freely downward in accordance with the vertical curvature of the sole-edge, while the spring *s* enables them to move laterally in accordance with the lateral curvature of the sole-edge.

I claim—

1. The combination and arrangement, sub-

stantially as shown and described, of the stationary last-holding block j with its guide-rail c , and the movable cutter-carriage n with its guide and cutter mechanism.

2. In combination with the stationary block j , the clamping-arm a^2 , and its roll b^2 , and the vertical slide d^2 , to which said arm is pivoted, and from which the last-pin e^2 extends.

3. In combination with the cutter-carriage n , the stationary guide-rails m and the mechanism for imparting to the carriage a contin-

uous and combined rectilinear and rotative movement, substantially as described.

4. In combination with the carriage n , the slide r , spring s , post t , spring h^2 , roll z , cutter x , and flange y , the whole arranged to operate substantially as shown and described.

Executed this 24th day of May, A. D. 1873.

R. C. LAMBART.

Witnesses:

FRANCIS GOULD,
M. W. FROTHINGHAM.