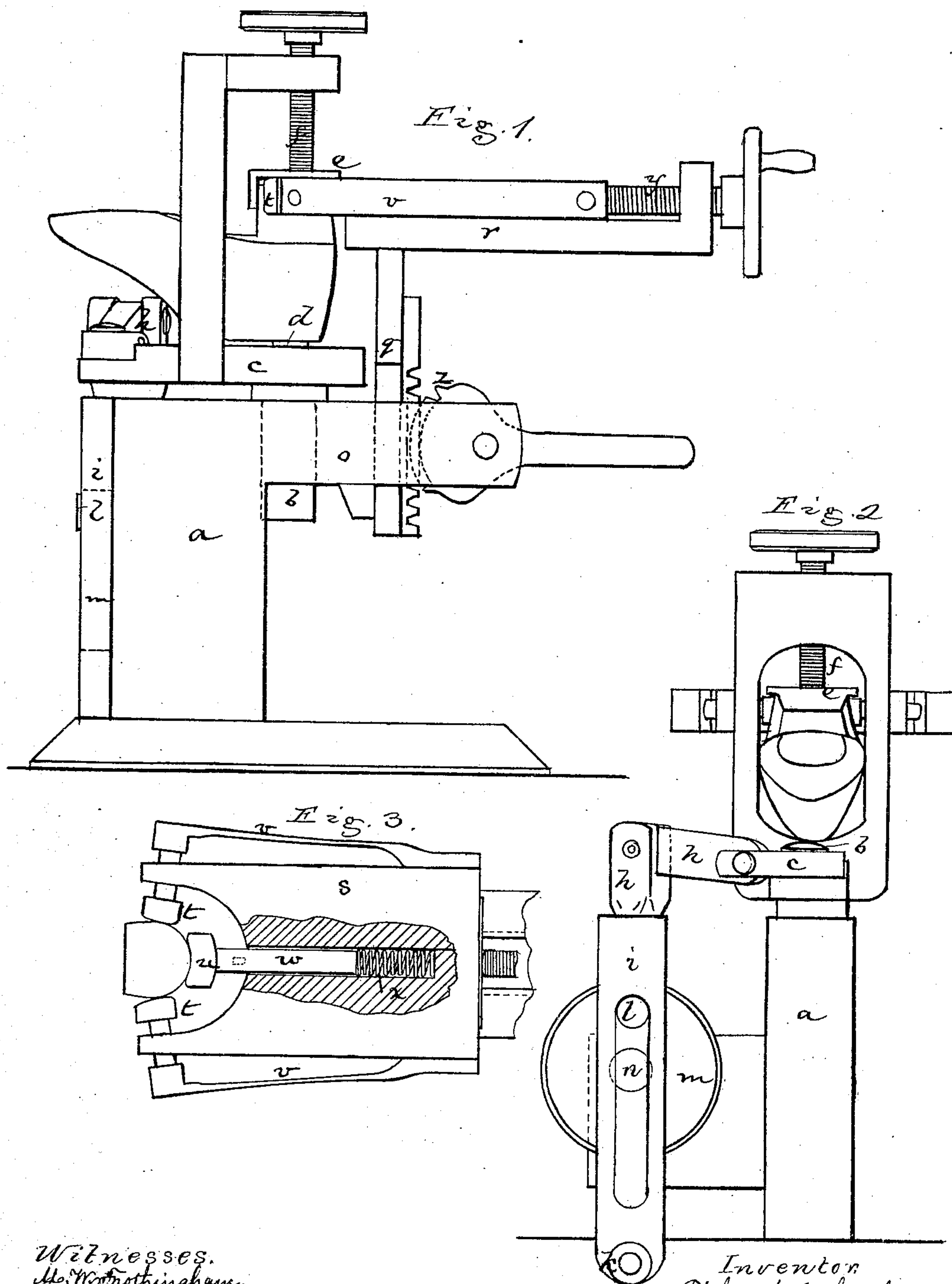


R. C. LAMBART.
Machines for Burnishing the Heels of Boots and Shoes.
 No. 145,430. Patented Dec. 9, 1873.



Witnesses.
Wm. W. Nottingham,
Edw. L. Lattimer

Inventor
Richard C. Lambart.
By his attys.
Crosby & Gould.

UNITED STATES PATENT OFFICE.

RICHARD C. LAMBART, OF QUINCY, ASSIGNOR TO TAPLEY HEEL-BURNISHING-MACHINE ASSOCIATION, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN MACHINES FOR BURNISHING THE HEELS OF BOOTS AND SHOES.

Specification forming part of Letters Patent No. **145,430**, dated December 9, 1873; application filed November 1, 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 Burnishing the Heels 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 the specific organization and details of organization of a machine for burnishing the curved edges of the heels of boots and shoes. In such organization, I jack the shoe upon a pivoted arm or lever, to which a reciprocating rotative movement is imparted, the shoe being stationary with relation to said arm, and in the plane of the heel-edge I place a slide or frame, with which are connected a series of yielding burnishers, that clasp or bear against the heel-edge on three sides, or so that, by the reciprocating rotative movements of the shoe, the whole curved length of the heel-edge is brought to the action of the burnishing-faces. This slide has provision for movement toward and away from the heel, and for movement vertically, or in a plane to bring the burnishers against the whole width of heel-edge. The invention consists in the organization thus generally described, and in details of construction and arrangement pertaining to such organization.

The drawing represents a machine embodying the invention.

Figure 1 shows the machine in side elevation. Fig. 2 is a front view thereof.

a denotes an upright, into the top of which enters a pivot-pin, *b*, projecting from an arm, *c*. Extending up from this arm in the line of the pivot *b* is a last-pin, *d*, upon which is placed the last that carries the boot or shoe to be heel-burnished, the shoe being otherwise held in position by a suitable clamp-plate, *e*, and clamp-screw *f*. The outer end of the arm *c* has jointed to it links *h*, that connect the arm with a slotted lever, *i*, pivoted at *k*, and having extending through it a crank-pin, *l*, projecting from a crank-wheel, *m*, on a shaft, *n*, rotation

of this shaft imparting a reciprocating rotative movement to the arm *c*, and the boot or shoe jacked thereto. From the standard *a* extends an arm, *o*, through which passes a bar, *q*, that bears a horizontal plate, *r*, and upon this plate is mounted and slides a plate, *s*, that carries the burnishers, the plate *s* being in the plane of the heel-edge, and the yielding burnishers being arranged as seen in Fig. 3, which shows the burnisher-carrier in plan.

Three burnishers, *t*, *t*, and *u*, are shown, *t t* denoting side burnishers, acting against the opposite curved edges of the heel, and *u* being a center burnisher, operating against the curved rear edge of the heel, and each being yielding, the side burnishers being at the ends of plate or bar springs *v*, and the center burnisher at the end of a rod, *w*, thrown forward by a spring, *x*.

The carrier-plate *s* may be moved up to and back from the heel by a screw, *y*, and the bar *q* is made a gear-rack, to be moved up and down by a gear-lever, *z*, the vertical movement of the rack imparting such movement to the burnishers as will move their operating-faces across the whole width of heel-edge face, while by the reciprocating movements of the jack the whole length of curved heel-edge is subjected to the burnishing action of the burnisher-faces.

The burnishing-faces of the yielding burnishers *t t u* may be made of such length that they will cover the entire length of the curved surface of the heel, in which case a reciprocating vertical movement of the burnishers will suffice to burnish the whole curved surface of the heel without imparting reciprocating movement to the jack; or, instead of a series of burnishers, one burnisher-face may thus extend around the whole length of curved edge of heel, so that, by imparting a vertical reciprocating movement to the burnisher or to the jack, the whole heel-edge will be burnished.

I claim—

1. The combination of a series of burnishers connected with a normally stationary plate or holder, and pressed inward by suitable springs, with a rotatively-reciprocating jack, which brings the whole length of curved heel-edge under the action of the burnishing mechanism.

2. In combination with the series of yielding burnishers and reciprocating jack, the support-plate *r*, made vertically adjustable, substantially as described.

3. In combination with the series of yielding burnishers and reciprocating jack, a carrier-plate, *v*, made adjustable horizontally, substantially as described.

4. In combination with a boot or shoe jacking mechanism, the burnisher or burnishers

upon a stock or carrier arranged to reciprocate in a right line in a direction across the edges of the lifts, substantially as described.

Executed this 27th day of September, A. D. 1873.

R. C. LAMBART.

Witnesses:

FRANCIS GOULD,
M. W. FROTHINGHAM.