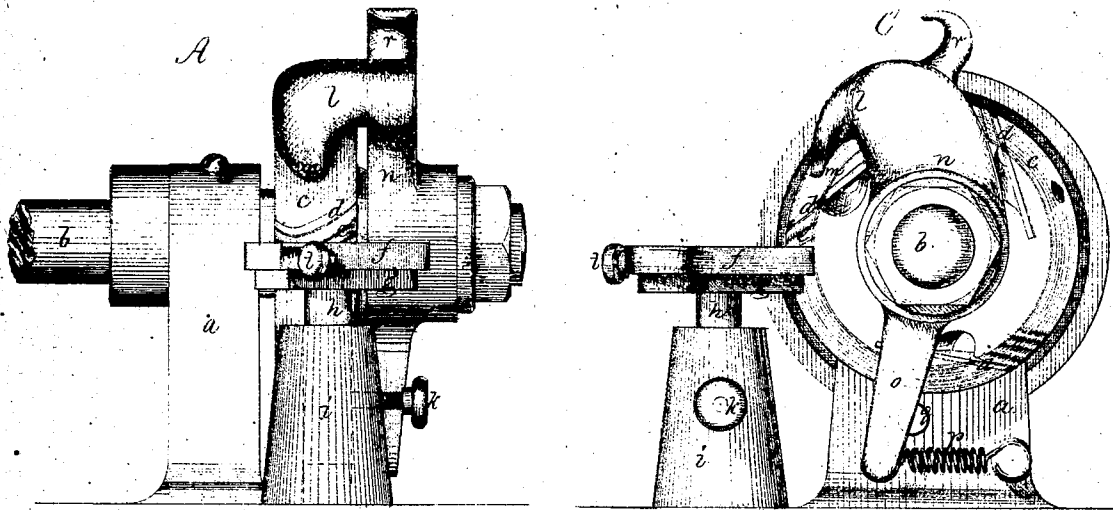


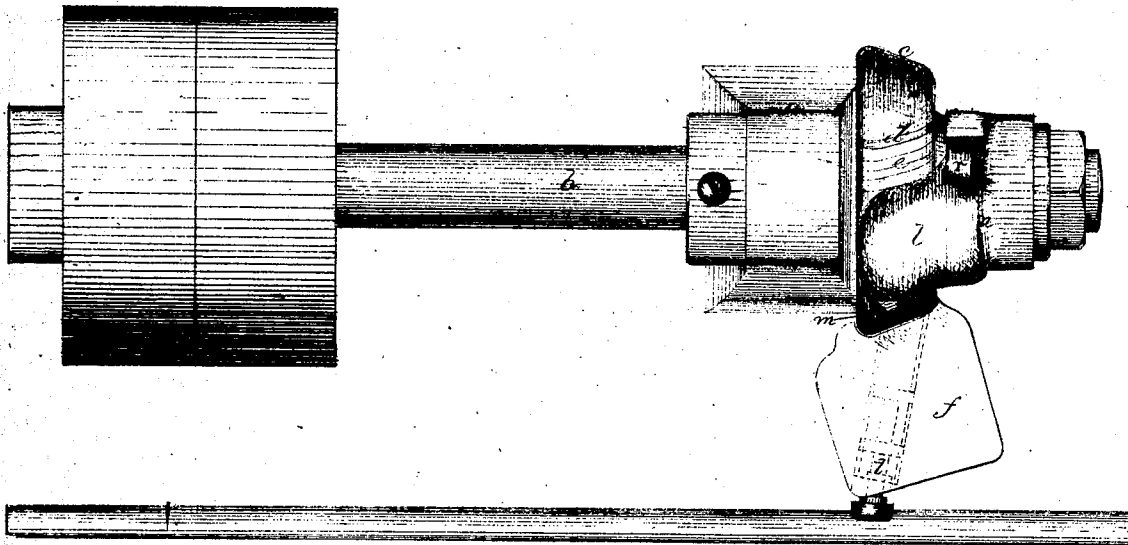
T. K. Reed.
Imp'd Machine for Trimming and Burnishing
the Heels of Boots and Shoes.

116867

PATENTED JUL 11 1871.



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Witnesses { *S. B. Kiddle*
W. W. Nottingham.

T. K. Reed
By his Attys
Crosby, Halsted & Gould

UNITED STATES PATENT OFFICE.

TIMOTHY K. REED, OF EAST BRIDGEWATER, ASSIGNOR TO ARZA B. KEITH, OF NORTH BRIDGEWATER, MASSACHUSETTS.

IMPROVEMENT IN BOOT AND SHOE-HEEL TRIMMING AND BURNISHING-MACHINES.

Specification forming part of Letters Patent No. 116,867, dated July 11, 1871.

To all whom it may concern:

Be it known that I, TIMOTHY K. REED, of East Bridgewater, in the county of Plymouth and State of Massachusetts, have invented an Improved Machine for Trimming and Burnishing the Heels of Boots and Shoes; and I do hereby declare that the following, taken in connection with the drawing which accompanies and forms part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

My invention relates to the organization and method of operation of a machine for trimming and burnishing the edges of heels of boots and shoes, the improvement having particular reference to the arrangement of a stationary but adjustable table or stand, upon which the boot is held by hand and supported under the operation of the trimming or burnishing-wheel, and also to the arrangement of a self-adjusting gauge that projects into the rand-crease and keeps the counter off from the cutters, and also gauges the trimming of the heel or the depth to which the wheel cuts with reference to the rand-crease or counter. My invention consists in the combination, with a rotary trimming or burnishing-wheel, formed to work upon the edge of a heel, across the same or at right angles with the tread, of an adjustable table, upon which the heel-tread rests, said table being so arranged relatively to the wheel-periphery that by its adjustment heels may be trimmed to different inclinations and curvatures of edge vertically; and the invention also consists in combining, with a table which forms a rest for the heel-tread in holding the heel to the action of the wheel, a self-adjusting gauge that enters the crease between the heel and counter, and is self-adapting to heels of varying thickness.

The drawing represents a machine embodying the invention. A shows the machine in front elevation. B is a plan of it. C is an end elevation of it.

a a denote two standards, in which is journaled a shaft, *b*, carrying near its front end the wheel *c*, on the edge of which wheel are shown peripheral trimming-knives or cutters *d* and burnishing-teeth *e*, the wheel being made of metal and having the burnishing-teeth formed by grooving its periphery. At the front side of the wheel is a rest or table, *f*, mounted upon a plate, *g*, at the top of a pin, *h*, that slides in a post, *i*, the

rest being brought to position vertically by raising or lowering the post, and being fastened in position by a screw, *k*, that works in a nut-thread in the post and presses against the pin. The top of the rest is horizontal, and upon its surface the tread of the heel of the boot is held, with the edge of the heel to be trimmed or burnished pressed up against the wheel by hand, the boot being turned and manipulated by hand to bring all parts of its edge successively to the action of the wheel. *l* denotes a gauge, the point *m* of which is slightly out-turned that it may enter the crease between the boot-counter and heel. The gauge is fixed to or extends from a rocker-lever, *n*, turning loosely on the shaft *b*, and this lever has an arm, *o*, extending down below the shaft, to which arm a spring, *p*, is attached, the stress of the spring bringing the arm *o* toward a stop, *q*, and forcing down the gauge. The distance from the top of the rest *f* to the point of the gauge (when the rest is at its lowest position) is less than the minimum thickness of boot-heels, and to bring the gauge-lip into the rand-crease it is raised by a thumb-piece, *r*, and when it enters the crease it is kept there by the stress of the spring. The gauge keeps the boot-heel at such distance from the wheel-periphery as to insure the trimming off of only the parts necessary to be trimmed to give the heel the requisite contour, and also insuring the parallelism or concentricity of the contour with the contour of the counter at the crease. When the surface of the rest *f* is in the plane of the horizontal diameter of the wheel *c* it will be obvious that the heel will be trimmed to a vertical curvature, retreating or diminishing from the rand to the tread of the heel, this curvature being modified by raising the rest more or less above such plane. By lowering the rest below such plane the heel will be trimmed to a curvature, at first diminishing and then enlarging. To keep the rest up to the wheel so as to support the heel-tread out to its edge the rest is made movable laterally or toward and from the wheel, this movement or adjustment being effected and controlled by an adjusting-screw, *t*, the screw-threaded shank of which works in nut-threads in pieces projecting up from the plate *g*. The trimming-wheel is shown as made with both cutters and burnishing-teeth, but it may (as before remarked) be made with only cutters or burnishing-teeth.

The machine thus organized enables me to readily and accurately trim the heel of a boot or shoe by hand-presentation of the boot or shoe, or without jacking or confining it in a machine.

I claim—

1. In combination with a rotary trimming or burnishing-wheel, an adjustable rest, *f*, upon which the tread of the heel of a boot or shoe is supported horizontally while the edge of the heel is held up to the periphery of the wheel by hand, substantially as described.

2. In combination with the wheel *c* and heel-rest *f*, the spring-gauge *l*, having a point, *m*, to enter the crease between the counter and heel, and made self-adjusting to heels of varying thickness, substantially as described.

Executed October 27, A. D. 1870.

T. K. REED.

Witnesses:

J. B. CROSBY,
FRANCIS GOULD.