

L. P. HAWKINS.

Machinery for Finishing the Heels of Boots and Shoes.

No. 137,304.

Patented April 1, 1873.

Fig. 1.

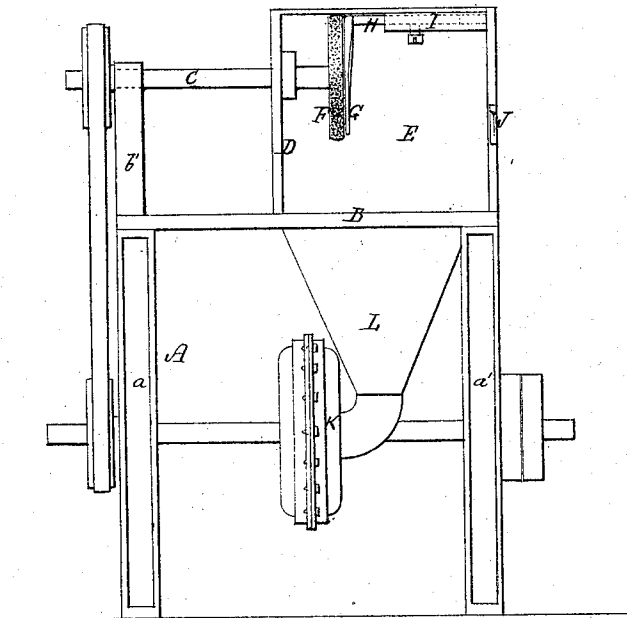
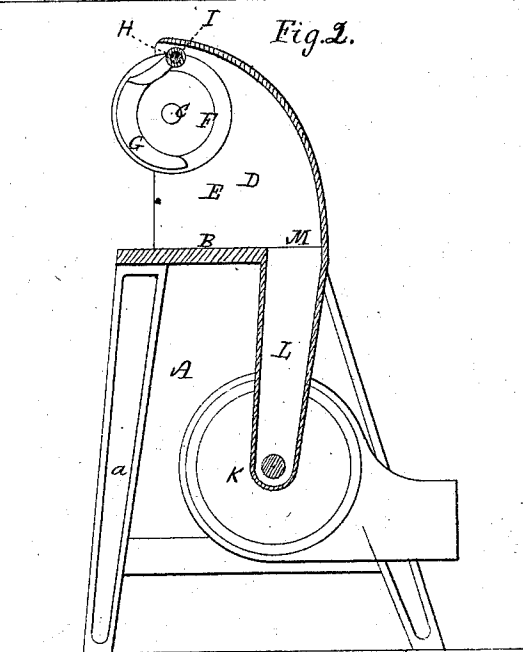


Fig. 2.



Witnesses.

Wm. H. Alder.
H. E. Boardman

Lorenzo P. Hawkins.

by F. Curtis, Att'y.

UNITED STATES PATENT OFFICE.

LORENZO P. HAWKINS, OF LYNN, MASSACHUSETTS, ASSIGNOR TO WILLIAM F. MORGAN AND BENJAMIN DORE, OF SAME PLACE.

IMPROVEMENT IN MACHINERY FOR FINISHING THE HEELS OF BOOTS AND SHOES.

Specification forming part of Letters Patent No. 137,304, dated April 1, 1873; application filed September 12, 1872.

To all whom it may concern:

Be it known that I, L. P. HAWKINS, of Lynn, in the county of Essex and Commonwealth of Massachusetts, have invented certain Improvements in Machinery for Finishing the Heels of Boots and Shoes, of which the following is a specification:

This invention relates to improvements in machinery for scouring or reducing the edges of boot and shoe heels; and consists in the combination, with a reducing-wheel and its supporting-frame, of an adjustable guard, which lies alongside the said wheel, and travels along the rand seam of the boot or shoe to protect the upper from abrasion and injury, the same being hereinafter explained.

The drawing accompanying this specification represents in Figure 1 a front elevation, and in Fig. 2 a vertical section, of a machine embodying my improvements.

In the drawing, A denotes the frame of the machine, of a suitable size and form to support the operative parts; and in this instance consists of two upright end standards, *a a'*, surmounted by a horizontal shelf or table, B. One end standard, viz., *a*, is prolonged, and rises above the table, as shown at *b'*, and forms one support or bearing of a horizontal shaft, C; the other bearing of this shaft being an upright plate, D, which constitutes one end of a hood, E, which is erected upon the opposite end of the table, such hood partially surrounding the reducing-wheel F, which is secured to the inner end of the shaft-C, and rotates with it. Alongside of the free or unencumbered face of the wheel F I dispose a thin pendent plate, G, suspended from a horizontal rod or bar, H, which slides in a socket or bracket, I, affixed to the upper part of the hood E, and fixed therein at any suitable distance from the wheel by a set-screw.

The lower end of the guard-plate G enters the rand seam of the boot, and serves to protect the upper from injury by the wheel F.

The circumference of the wheel F is, preferably, composed of elastic rubber; and its outer surface is to be covered with a suitable substance for abrading and reducing the

edge of a heel, such substance being applied by the use of glue or its equivalent. When this abrading substance becomes worn off or injured in any manner, the wheel is immersed in hot water, and the glue and such abrading material as may adhere washed entirely off, leaving the periphery of the wheel perfectly clean and smooth for another application.

By the employment of an elastic periphery for the reducing-wheel I gain very beneficial results, as the wheel accommodates itself to all the inequalities of the heel-edge, and allows its periphery to act closely and effectively upon the leather at all times, while the ease with which its abrading-surface may be renewed is another important point in its favor.

J in the drawing represents a rest or arm projecting from the outer end of the hood E for the support of the arm of the workman as he applies the edge of a heel to the periphery of the wheel F. K in the drawing represents a suction-blower, disposed at the lower part of the frame A, and communicating, by means of a chute, L, with an opening, M, in the floor of the hood E, by which means dust caused by the action of the wheel F will be drawn from the hood and from the vicinity of the workman.

The arm-rest serves a very useful purpose, as it supports or upholds the right arm of the workman, and enables him to steady the boot with his right hand, while with his left he turns it about to present the heel-edge to the action of the scouring or reducing wheel. I thus dispense with the necessity of a jack for holding the boot, and economize the cost of the same, as well as the time required to jack and remove the boot.

A machine organized as explained will effect the labor of reducing a heel, which is now effected in complicated and expensive machines, called heel-trimming machines, in which the reduction is effected by a knife, which passes about the heel-edge.

In my machine considerable latitude is left the workman, by which he may vary somewhat in reducing a heel, which is oftentimes very desirable, owing to variations in the size of uppers. In machinery in which the reduc-

ing-knife cuts to a given pattern this is not possible.

Claim.

The combination, with the reducing or finishing wheel, of a guard-plate, adapted to enter the rand seam, and attached to a sliding bar or support, arranged to be moved more

or less, as desired, toward or away from the wheels, and there fixed in such position, substantially as shown and described.

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Witnesses:

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