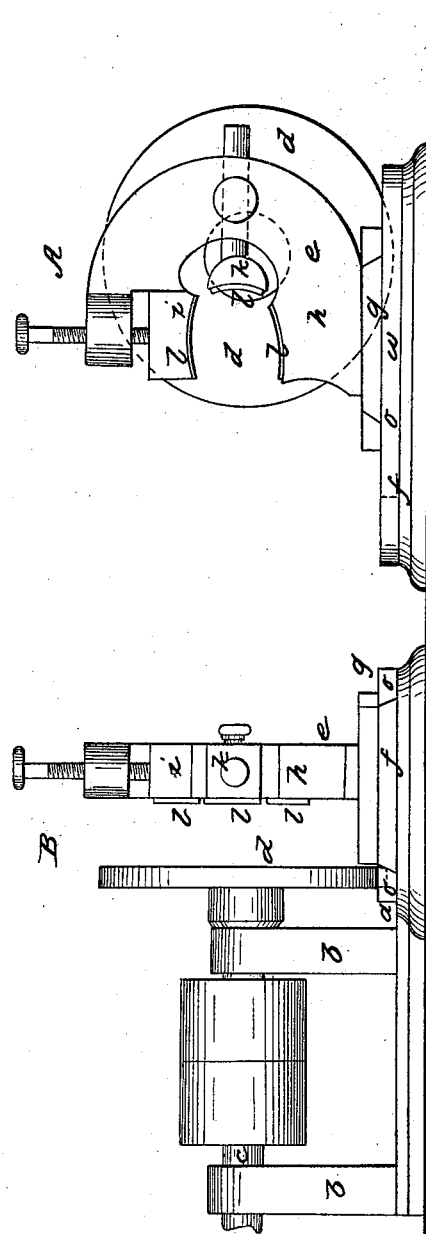


T. K. REED.
Shoe Heel Machine.

No. 52,883.

Patented Feb. 27, 1866.



Witnesses:
J. S. Gould
J. B. Hadden

Inventor:
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by his attys
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UNITED STATES PATENT OFFICE.

T. K. REED, OF EAST BRIDGEWATER, MASSACHUSETTS.

IMPROVED MACHINE FOR DRESSING HEEL-FACES OF BOOTS AND SHOES.

Specification forming part of Letters Patent No. 52,883, dated February 27, 1866.

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 Dressing Heel-Faces 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 construction or arrangement of parts of a mechanism for dressing or leveling the faces or tread-surfaces of boot and shoe heels; and it consists, primarily, in the combination, with a rotary surfacing or reducing disk-wheel, of a movable carriage for holding the boot or shoe and presenting the heel to the surface of the wheel, the reducing-wheel being provided with teeth of varying degrees of cutting action from its periphery toward its center, so that by movement of the carriage parallel with the face of the wheel the coarser teeth first act upon and bring the surface of the heel down to a general plane, while the finer teeth subsequently dress the said surface down to a smooth condition.

It also consists in the employment, in combination with the surfacing-wheel, of a compound carriage, by which the heel is not only moved across the cutting or reducing surface, but may be carried up against the same as the face of the heel becomes reduced; also, in combining with a rotary cutting or reducing wheel a rotary burnishing-face, by which a finish or polish is imparted to the heel-surface; also, in providing the carriage in which the boot is clamped with guides, by which the face of the heel is reduced to a plane parallel to the "rand," or the line of union between the upper and sole.

The drawings represent a machine embodying the invention, A showing a front and B a side elevation of the same.

a denotes a bed supporting housings *b*, in which a shaft, *c*, is mounted and rotates, such shaft carrying at one end a reducing disk-wheel, *d*, the front face of which is provided with a series of cutting-teeth, as seen at A, these teeth being coarse at and near the periphery and becoming finer as the teeth run

from the periphery toward the center. In front of this reducing-wheel is a standard, *e*, erected upon a carriage, *f*, which slides in ways *o* on the bed *a*, the standard being immediately supported, however, upon an auxiliary carriage, *g*, which slides on the main carriage *f*. This standard has jaws *h i k*, between which the boot or shoe is held, the jaw *h* being stationary with respect to the standard and the jaws *i k* movable in relation thereto, as will be readily understood by inspection of Fig. A.

Each of these jaws has a projecting lip or guide, *l*, and in clamping the boot between the jaws it is held in position for these guide-pieces to enter the rand or joint between the upper and sole, these guides being parallel to the face of the reducing-wheel, so that the action of the wheel upon the heel-tread will reduce said tread-surface to a plane parallel with the rand.

The boot or shoe being clamped in position between the jaws with the heel-face presented toward the wheel *d* and rotation given to the wheel, the carriage *g* is moved up toward the wheel so as to bring the heel-face against it, the carriage *f* being in position to bring said face opposite the outer portion of the wheel. The action of the outer rotary teeth reduces the surface of the heel to a plane, and as the carriage *f* is moved in, the heel-face being kept up to the surface of the wheel, the teeth toward the center of the wheel dress or smooth down such face, which will be left rough by the action of the teeth near the periphery. This operation dresses the heel-face very expeditiously and uniformly, and insures the parallelism of the tread to the sole.

In connection with this reducing-surface, the wheel may be provided with a burnishing or plain surface, *m*, projecting out from or flush therewith. When the heel has been dressed smooth by the teeth the carriage *f* is moved toward the center of the wheel, bringing the heel-tread against the burnishing-surface, by the action of which it is rapidly burnished or polished.

I claim—

1. The combination of the rotary reducing disk-wheel and a means for presenting the face or tread of the heel to the action of said

reducing-wheel, and for permitting it to be moved across the face of the wheel from the perimeter toward the center, substantially as and for the purpose set forth.

2. In combination with a reducing-wheel, the burnishing or polishing wheel, operating substantially as set forth.

3. The employment of the guides for enter-

ing the rand, and insuring the parallelism of the face or tread of the heel to the sole.

In witness whereof I have hereunto set my hand this 5th day of January, A. D. 1866.

T. K. REED.

Witnesses:

J. B. CROSBY,

FRANCIS GOULD.