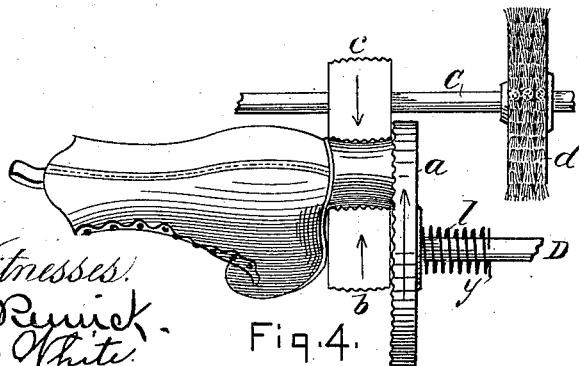
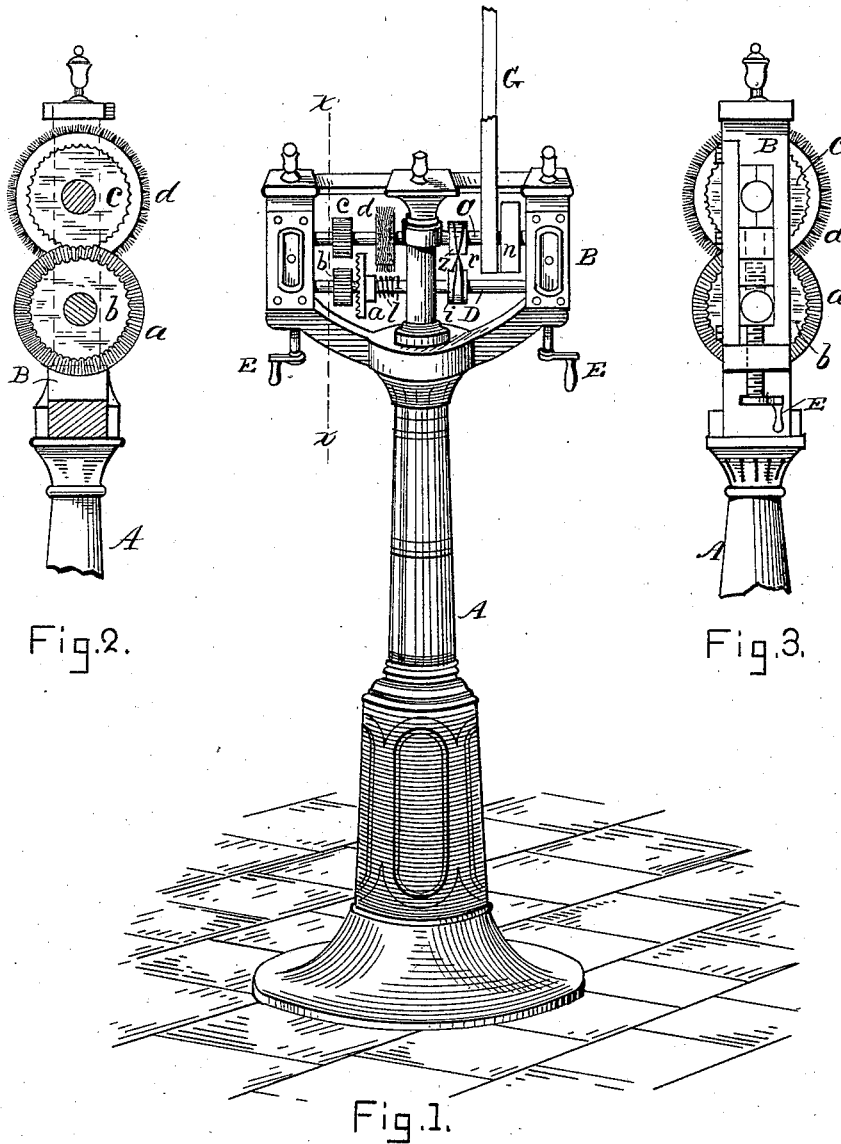


(No Model.)

T. NOLAN.  
HEEL BURNISHING MACHINE.

No. 307,134.

Patented Oct. 28, 1884.



Witnesses:  
N. E. Rynick,  
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# UNITED STATES PATENT OFFICE.

THOMAS NOLAN, OF BROCKTON, MASSACHUSETTS.

## HEEL-BURNISHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 307,134, dated October 28, 1884.

Application filed June 9, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS NOLAN, of Brockton, in the county of Plymouth, State of Massachusetts, have invented a certain new and useful Improvement in Burnishers, of which the following is a description sufficiently full, clear, and exact, to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side elevation of my improved burnishing-machine; Fig. 2, a vertical transverse section, taken on line *x x* in Fig. 1; Fig. 3, an end elevation, and Fig. 4 an enlarged sectional view.

Like letters of reference indicate corresponding parts in the different figures of the drawings.

My invention relates more especially to that class of burnishing-machines which are employed for burnishing the heels of boots and shoes; and it consists in a novel construction and arrangement of the parts, as hereinafter more fully set forth and claimed, by which a more effective device of this character is produced than is now in ordinary use.

The nature and operation of the improvement will be readily understood by all conversant with such matters from the following explanation:

In the drawings, A represents the standard or body of the machine; B, the head-stock; C, the main driving-shaft, and D the counter-shaft. The shafts are journaled horizontally in the head-stock in parallelism with each other, the counter-shaft D being provided at either end with a screw, E, and other suitable appliances for rendering it vertically adjustable.

Mounted on the shaft C there is a driving-pulley, *m*, a small pulley, *z*, a circular brush, *d*, and a stone-polishing wheel, *c*. A pulley, *i*, corresponding with the pulley *z*, is mounted on the shaft D, these pulleys being connected by a crossed belt, *r*. Disposed on the shaft D there is also a stone-polishing wheel, *b*, corresponding with the wheel *c*, and arranged directly under the same, and also a stone-polishing disk, *a*, the polishing-surface of which

is on its side adjoining the wheel *b*. The disk *a* is considerably larger in diameter than either of the polishing-wheels *a b*, and is provided with a coiled spring, *l*, which acts expansively against a stud or pin, *y*, in the shaft D, to force said disk in the direction of the polishing-wheels, with which it is prevented from coming into contact by a thin washer (not shown) disposed on the shaft D between the disk and wheel *b*. The wheels *b c* are slightly convex on the surface, corresponding obversely with the contour or shape of the heel to be polished.

In the use of my improvement, power is applied to the belt G, causing the polishing-wheels to revolve inwardly or in opposite directions, as indicated by the arrows thereon. The heel of the boot to be polished is then pressed into contact with both of the polishing-wheels, and also with the disk, as shown in Fig. 4, being turned back and forth, or partially revolved by the workman, thereby causing the disk *a* to burnish the top lift or bottom of the heel, and the wheels *b c* to burnish its sides simultaneously, and in a manner which will be readily obvious without a more explicit description.

By employing two burnishing-wheels the heel may be burnished more evenly and with much greater rapidity than is possible where but one wheel is used. A great deal of time is also saved and equally good work performed by the use of the disk *a* in conjunction with the wheels.

The brush may be used for finishing the work, or for any of the purposes to which a rotary polishing-brush is adapted in the manufacture of boots and shoes.

I do not confine myself to the use of both of the wheels *b c*, as the wheel *c* may be dispensed with, if desired, and good work performed on the machine. Neither do I confine myself to the use of the wheel *a*, spring *l*, or brush *d*, although I deem it preferable to employ them as shown and described.

Having thus explained my invention, what I claim is—

1. In a heel-burnishing machine for boots and shoes, substantially such as described, two burnishing or polishing wheels adapted to act on the sides of the heel, and a burnishing or pol-

ishing disk adapted to act on the bottom of the heel simultaneously therewith, in combination with operative mechanism, substantially as specified.

5 2. In a heel-burnishing machine for boots and shoes, substantially such as described, the disk *a*, provided with the spring *l*, in combination with the wheel *b*, shaft *D*, and operative mechanism, substantially as set forth.

10 3. In a heel-burnishing machine for boots and shoes, substantially such as described, the disk *a*, provided with the spring *l*, in combination with the wheel *b*, shaft *D*, wheel *c*, shaft

*C*, and operative mechanism, substantially as specified.

15 4. The improved burnishing-machine herein described, the same consisting of the body *A*, head-stock *B*, shafts *C D*, pulleys *m z i*, wheels *b c*, disk *a*, belt *r*, and adjusting-screws *E*, constructed, combined, and arranged to operate substantially as specified. 20

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Witnesses:

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