

(No Model.)

W. P. CORSON.

MILLING TOOL FOR HEELS OF BOOTS AND SHOES.

No. 347,689.

Patented Aug. 17, 1886.

Fig. 1.

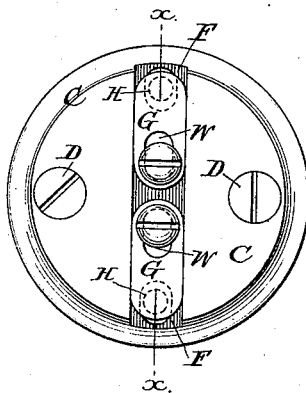


Fig. 2.

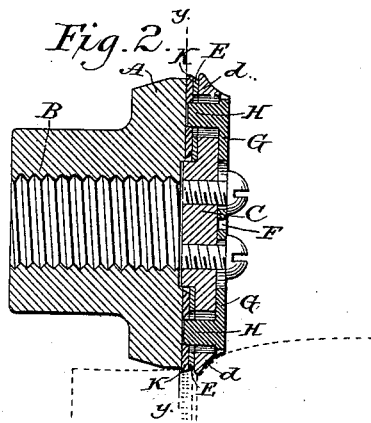
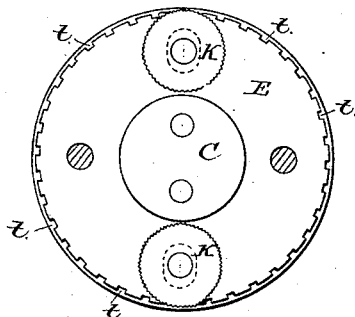


Fig. 3.



Attest:

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UNITED STATES PATENT OFFICE.

WILLIAM P. CORSON, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO
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MILLING-TOOL FOR HEELS OF BOOTS AND SHOES.

SPECIFICATION forming part of Letters Patent No. 347,689, dated August 17, 1886.

Application filed June 12, 1886. Serial No. 205,009. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM P. CORSON, of the city, county, and State of New York, have invented a new and useful Improvement in Milling-Tools for Heel-Seats; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification, in which—

Figure 1 is a front elevation showing face of the improved heel-seat-milling head. Fig. 2 is a central section in line *x x* of Fig. 1; Fig. 3, a transverse section on line *y y* of Fig. 2.

My invention relates to an improved tool for milling and burnishing heel-seats, and has for its object to save time and labor in producing the milled finish on the upper edge of a shoe-heel.

It consists in the combination of a pair of milling-wheels with a rotating head and burnisher, and in the formation of the rotating burnisher with a notched edge, to prevent it from burning the leather when rapidly revolved thereon.

In the accompanying drawings, A, Fig. 2, represents the circular head by which the heel-seat-milling wheels are carried. This head is constructed with an internally-threaded recess, B, whereby it may be fitted upon any suitable rotating spindle.

C is a circular face-plate, slightly larger in diameter than the face of the head A, and adapted to be made fast thereon by the screws D D. The outer edge of the rim of this face-plate is beveled, as shown at *d* in Fig. 2, to adapt it to enter and be guided by the recess between the heel and counter of the boot or shoe. (See dotted lines, Fig. 2.) Upon the inner side or face of this face-plate C a thin disk, E, is placed, having a diameter somewhat less than that of the beveled rim of the face-plate, so that its periphery shall come into contact with the extreme edge of the top or seat of the heel, (see dotted lines, Fig. 2,) and by a rapid rotation in contact therewith will serve to impart a smooth surface and a high polish thereto. The rim of this disk is notched or cut away at intervals, as shown at *t t t* in Fig. 3, the effect of these notches in the

rim being to prevent the burning of the leather by the friction of the burnishing-rim upon it. A diametric recess, F, is cut in the outer face of the face-plate C, and bearing-plates G G are fitted to slide closely therein on each side of the center. Stud-pins H H are secured to said plates, to project from the inner face thereof through radial slots *w w* in the bottom of the recess F of the face-plate, and through the disk G under the face-plate brought into register therewith. These stud-pins serve as pivots each for a wheel, K, whose diameter is less than the radius of the head, and whose periphery, when the wheel is fitted upon its axial pin H, will project slightly beyond the periphery of the burnishing-disk E. The wheels K K turn idly upon their axes, and the periphery of each is milled or serrated to produce, when rolled over the face of the heel, a milled band or border. When the face-plate C, carrying upon its inner face the burnishing-disk E, and the peripheral milling-wheels K K are fitted upon the face of the circular head A and secured thereto by the screws D D, the milling-wheels are interposed between the disk E and the head, and thereby confined in place upon their stud-axes, although left free to rotate loosely thereon, while by the rotation of the head which carries them they are made to revolve with great rapidity about a common axis.

In the use of the tool the head is rotated at a high speed. The heel-seat is then brought into contact with the edge of the tool. The periphery of the face-plate entering the groove between the heel and counter (see dotted lines, Fig. 2) serves to guide the heel while the latter is so turned as to bring the entire edge of the heel-seat into contact with the edge of the burnishing-disk and with the peripheries of the milling-wheels. The rapid rotation of the head causes the successive contacts of the milling-wheels with the heel to follow so rapidly as to produce a continuous milled edge along the heel-seat, in contrast with the narrow highly-polished proximate bead produced by the action of the burnishing-disk. Injury to the leather by reason of burning, in consequence of the excessive friction due to the high speed at which the head revolves, is

prevented meanwhile by the notches in the rim of the burnishing-disk and by reason of the intervals separating the wheels.

By means of this single tool boot and shoe heels may be finished far more rapidly than with the more complicated machines heretofore employed.

I claim as my invention—

1. The combination, in a heel-seat-finishing tool, of a rotating head and one or more milling-wheels of a diameter less than its radius pivoted eccentrally to the face thereof, to rotate freely thereon, with the rim of the wheel or wheels projecting slightly beyond the rim of the head, substantially in the manner and for the purpose herein set forth.

2. A heel-seat-finishing tool constructed of a rotating head, one or more milling-wheels of a diameter less than the radius of the head and pivoted eccentrally to the face thereof, to rotate freely and independently thereon, with the rim of the wheel or wheels projecting beyond the periphery of the head, an outer circular face-plate whose diameter exceeds that of the head to which it is made fast, and

whose periphery serves as a guide for the tool, and a peripheral burnishing-disk interposed between the outer face-plate and the milling wheel or wheels, and whose periphery projects out into line with that of the milling-wheel, all substantially in the manner and for the purpose herein set forth.

3. The combination, in a heel-seat-finishing tool, with the head A and face-plate C, of the radially-adjustable plates G G, fitted on the face-plate, studs projecting inwardly from said adjustable plates, and milling-wheels pivoted upon said studs to rotate freely between the face-plate and the head, with the periphery of each projecting beyond the periphery of the head, all substantially in the manner and for the purpose herein set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM P. CORSON.

Witnesses:

A. N. JESBERO,

S. A. STAVERS.