V. K. SPEAR.

Improvement in Machines for Burnishing Boot and Shoe Heels.

No. 115,651. Patented June 6, 1871.

Fig. 1.

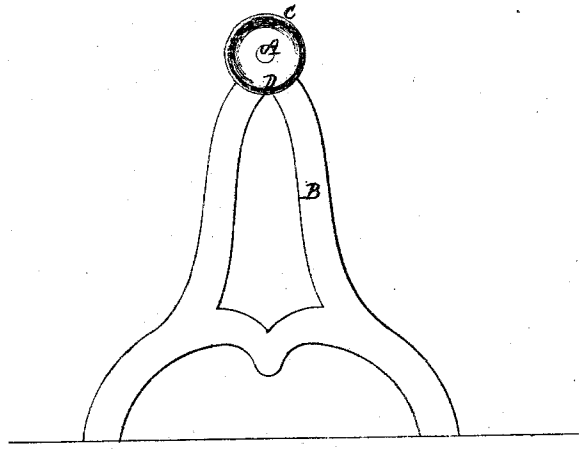
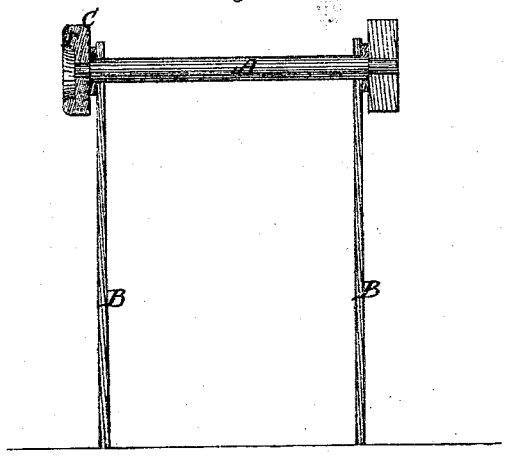


Fig. 2.



Witnesses.

Horace Saunders

Edmund Griffith

Vivian K. Spear.

by his Attorney.

Frederick Curtis

AM. PHOTO-LITHOGRAPHIC CO. N.Y. (OSBORNE'S PROCESS.)

UNITED STATES PATENT OFFICE.

VIVIAN K. SPEAR, OF LYNN, MASSACHUSETTS, ASSIGNOR TO TAPLEY HEEL-BURNISHER MACHINE COMPANY, OF SAME PLACE.

IMPROVEMENT IN MACHINES FOR BURNISHING BOOT AND SHOE HEELS.

Specification forming part of Letters Patent No. 115,651, dated June 6, 1871.

To all to whom these presents shall come:

Be it known that I, VIVIAN K. SPEAR, of Lynn, in the county of Essex and State of Massachusetts, have made an invention of a Machine for Burnishing Heels of Boots and Shoes; and do hereby declare the following to be a full, clear, and exact description thereof, due reference being had to the accompanying drawing making part of this specification, and in which—

Figure 1 is an end elevation, and Fig. 2 a vertical section of a machine embodying my improvements.

The object of this invention is to effect, in an easy and economical as well as expeditious manner, the operation of polishing or burnishing the heels of boots and shoes; and to secure this end, the invention consists in the employment of a revolving circular disk of steel, soap-stone, or other suitable substance, formed upon its outer corner with an annular concentric rib, the convexity of which corresponds or approximately so to the concavity of the edge of the heel with which it is to operate, the disk being mounted upon a horizontal shaft duly supported within or upon a suitable frame, and operating as herein explained.

The accompanying drawing represents, at A, a horizontal shaft, duly supported in boxes formed in or applied to two upright standards, B B. Upon one or each end of the shaft A I mount a circular disk, C, upon whose outer corner an annular rib, D, is formed, the convex outline or curve of which, in cross-section, approximates more or less closely to the concave curve of the edge of the heel which the disk is intended to burnish. This disk may be produced from hardened and polished steel, soap-stone, or other substance, but at present I prefer the latter material, as it preserves a smooth surface and performs the office required of it very effectively. The depth of the cavity E of the disk formed by the erection of the annular rib should be about equal to the depth of the heel which the latter is to polish, as the bottom of said cavity may serve as a guide or stop, against which the head of the heel is pressed by the operator, and lessens the labor required to hold such heel or its boot in proper position. The bottom of the cavity E should be a flat surface, and it may be found, in practice, desirable to abrade its surface by applying sand-paper to it or otherwise, in order that the finishing of the tread of the heel may be effected simultaneously with the polishing of its edge.

I am aware that a revolving disk having its outer periphery convex in cross-section, and of a form approximating to the curve of the heel-edge, has been employed for polishing such edge. It has been found, however, that, owing to the small extent of the bearing-surfaces of the disk and heel which come in contact in this case, both being convex longitudinally, and the difficulty of holding the heel steadily up to such disk, that a wavy and uneven surface is imparted to the heel, and much more time is consumed in the operation than by the employment of the disk I have originated, in which the edge of the heel is held against the inner circumference of a convex rib, by which I obtain practically the union of much greater surfaces, and avoid the evils attendant upon the method now practiced. In addition to this, however, I gain, by the use of my disk, a very important advantage over that heretofore employed, inasmuch as its outer face or the bottom of the inclosure E serves as a bearing or edge-guard to prevent the formation of a burr or lip about the boundary of the tread of the heel, which the pressure upon its edge would otherwise produce.

Claim.

I claim—

A revolving disk for burnishing the heels of boots and shoes, provided on one of its faces with a recess to receive the heel, the sides of the recess being convex and its depth being such as to allow its bottom to come in contact with the tread of the heel, substantially as and for the purposes set forth.

VIVIAN K. SPEAR.

Witnesses:

FRED. CURTIS,

EDW. GRIFFITH.