

J. L. JOYCE.

Improvement in Shaves and Burnishers for Heel-Finishing Machines.

No. 130,375.

Patented Aug. 13, 1872.

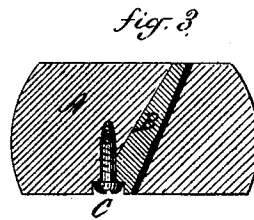
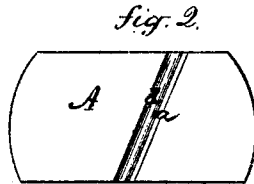
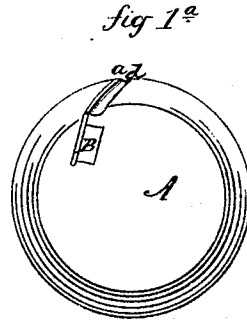
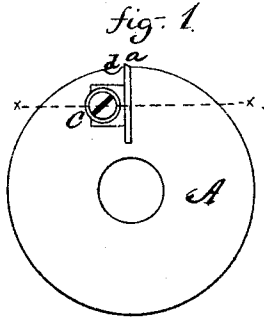
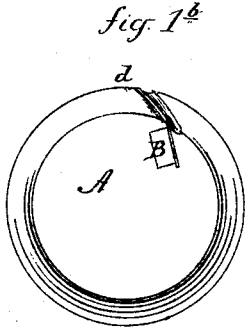


fig. 4.



fig. 5.



Witnesses.

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# UNITED STATES PATENT OFFICE.

JOSEPH L. JOYCE, OF NEW HAVEN, CONNECTICUT.

IMPROVEMENT IN SHAVES AND BURNISHERS FOR HEEL-FINISHING MACHINES.

Specification forming part of Letters Patent No. 130,375, dated August 13, 1872.

*To all whom it may concern:*

Be it known that I, JOSEPH L. JOYCE, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Revolving Shave and Buffing-Wheel for Forming and Finishing the Heels of Boots and Shoes; and I do hereby declare the following, when taken in connection with the accompanying drawing and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawing constitutes part of this specification and represents, in—

Figure 1, an end view; Fig. 1<sup>a</sup>, a reverse end view; Fig. 1<sup>b</sup>, the reverse end view as applied to the buffer; Fig. 2, a side view; Fig. 3, a longitudinal central section; Fig. 4, the cutter, full size; and in Fig. 5, the buffer, enlarged.

This invention relates to an improvement in cutter-heads for the "machine for finishing the heels of boots and shoes," patented to me the 9th day of February, 1864; the object being to prevent the cutter from running into the work, which the cutters, arranged as in ordinary cutter-heads, will sometimes unavoidably do; and the invention consists in a cutter-head the periphery of which is continuous, and longitudinally of the form required for the edge of the cutter—that is, the reverse of the heel to be dressed, and the arrangement of the cutter in such a cutter-head, so that the surface of the cutter-head takes a bearing upon the heel in advance of the cutter, thus governing the depth of cut and positively preventing the cutter from running into the work.

A is the cutter-head, constructed so as to be applied in any convenient manner to the cutter-shaft, the diameter of the cutter being immaterial, but the periphery being oval in longitudinal section; corresponding to the form of the heel to be dressed—that is to say, the reverse of the surface of the heel, as seen in Figs. 2 and 3. *a* is the cutter, formed from thin steel, and diagonally across the cutter-head a groove is formed to receive the cutter, and corresponding to the thickness of the cutter, so that it will fit closely therein. Immediately in front of the cutter I form a slight groove, *d*, the edge of the groove coming close up to the cutter, but yet preserving the oval form

of the cutter-head, so that the depth of the cut taken will be the projection of the cutter above the cutter-head. This groove is only sufficiently wide to serve as a throat into which the shaving cut will turn; the cutter-head upon the opposite side of the groove bearing upon the heel in advance of the cut, and the surface of the head in the rear of the cutter following, positively prevent the cutter from running into the work. To secure the cutter in place, I form a groove in one side of the cutter-seat, into which a wedge-shaped piece, B, is inserted and secured or adjusted by means of a screw, C, which securely holds the cutter in position and allows of its adjustment. After the heel has been dressed the buffer is brought into use, and in that the same form of head possesses the same advantages. The buffer is formed in the usual manner, seen in Fig. 5 much enlarged, and is inserted in the same seat as the cutter, but runs in the opposite direction, so that the edge of the buffer will scrape as when used by hand. To do this the throat should be on the opposite side, as seen in Fig. 1<sup>b</sup>, or the inclination of the cutter may be reversed, then the same throat and same direction of revolution will answer.

By this construction considerable expense is avoided in finishing boot-heels, because in the ordinary construction of cutter-heads experienced help only can be employed, because of the liability of the cutters to run into the work, and with the best of workmen this will frequently occur; whereas, by this form of cutter-head and arrangement of cutters such difficulty cannot occur.

I claim as my invention—

In a machine for finishing the heels of boots and shoes a cutter-head the periphery of which is the reverse in form to that of the surface of the heel, and having the cutter arranged relatively to such surface, in the manner described, so that the said surface bears both in front and in the rear of the cutter or buffer, as the case may be, substantially as set forth.

JOS. L. JOYCE.

Witnesses:

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