A. Warner,

Boot Heel.

No. 110,701. Patented Jan. 3. 1871.

Fig. 1.

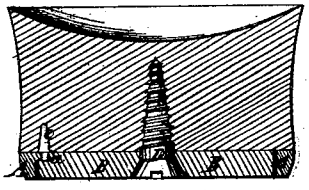


Fig. 2.

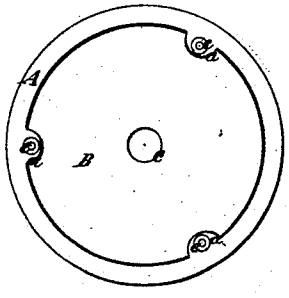
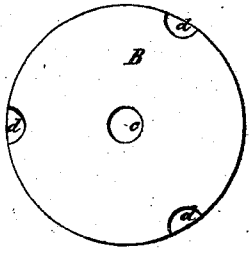


Fig. 3.



Witnesses:

Fred. Haynes

Fred Gleech

Alexander Warner

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UNITED STATES PATENT OFFICE.

ALEXANDER WARNER, OF BROOKLYN, E. D., NEW YORK.

IMPROVEMENT IN HEEL-TAPS FOR BOOTS AND SHOES.

Specification forming part of Letters Patent No. **110,701**, dated January 3, 1871.

To all whom it may concern:

Be it known that I, ALEXANDER WARNER, of the Eastern District of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Revolving Heel-Tap for Boots and Shoes; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, forming a part of this specification.

This invention consists in a leather disk and a metal ring of peculiar construction, combined in a novel manner, and secured to the heel of the boot or shoe by means of a simple screw, and forming a revolving heel-tap of a very secure and durable character, in which the greatest facility is afforded for turning it to present new surfaces to the position where the greatest wear occurs.

In the accompanying drawing, Figure 1 is a central transverse section of my heel-tap, showing it attached to the heel of a boot or shoe. Fig. 2 is a top or plan view of the same, and Fig. 3 is a similar view of the leather disk of the heel-tap.

Similar letters of reference indicate corresponding parts in the several figures.

To enable those skilled in the art to make and use my invention, I will proceed to describe its construction and operation with reference to the drawing.

A is the metal ring, having formed on the upper portion of its interior a series of projections, *a a*, at equal distances apart. These projections are flush with the upper surface of the ring, and from each one of them there projects upward one of a corresponding number of pins, *e e*, said pins being either formed on the ring or rigidly secured thereto by riveting, or in any other suitable manner.

B is the leather disk, of circular form, fitting snugly into the interior of the ring A, and being of the same thickness therewith, so as to be flush with its upper and lower surfaces, but having provided in its upper surface, at equal distances apart, around the outer edge, a series of cavities, *d d*, each of a form and depth to receive within it one of the above-mentioned projections *a a*. It is also provided with a central hole, *c*, through which the shank of a screw, D, passes.

To prepare the heel for the reception of this heel-tap a number of holes is bored in it, at equal distances, for the reception of the pins *e e*. The heel-tap is then applied with its pins in these holes, and the screw D, being inserted through the disk B and screwed into the heel, secures the leather disk thereto, and the disk, by bearing against the projections *a a*, secures the ring, which is prevented from turning by the pins *e e* fitting in the holes in the heel, while the projections *a a*, entering the recesses *d d*, prevent the disk from turning.

When the tap shall be so worn in one place as to render it desirable to present a new surface thereat, the screw D is unscrewed sufficiently to allow of the pins *e e* being withdrawn from the heel. The tap may then be turned as desired, and the pins inserted into other holes, and the screw D screwed into the heel again.

A revolving heel, I am aware, is not new, and therefore I do not claim such, broadly; but

What I claim as my invention, and desire to secure by Letters Patent, is—

The heel-tap composed of the metal ring A, with equidistant internally-projecting bearings *a a* and pins *e e*, the leather disk B, fitting within the said ring and recessed for the reception of the said bearings, and the central attaching-screw, D, the whole constructed and arranged as herein shown and described.

ALEXANDER WARNER.

Witnesses:

FRED. HAYNES,

FERD. TUSCH.