L. W. BUXTON & J. P. GREELEY.

HEEL-PLATES FOR BOOTS AND SHOES.

No. 188,854. Patented March 27, 1877.

Fig. 1.

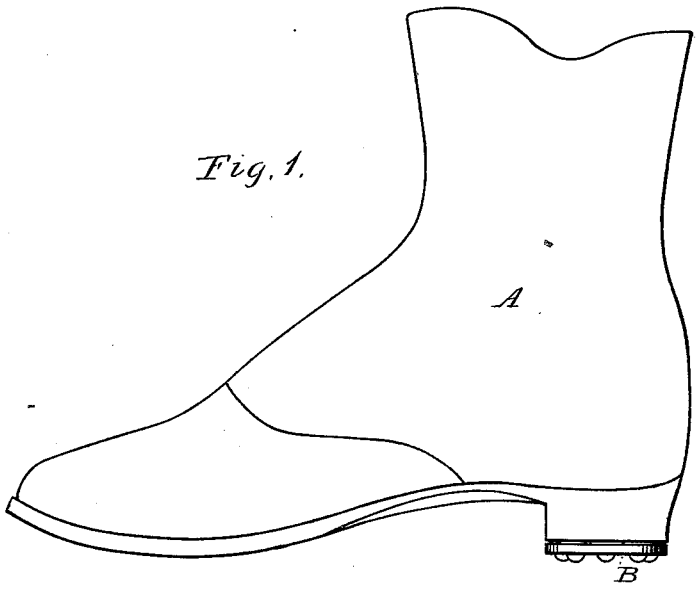


Fig. 2.

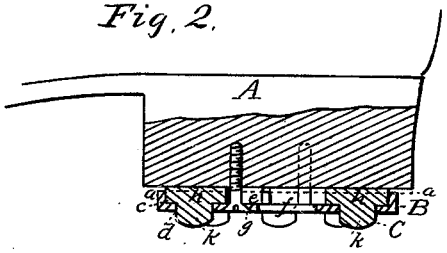


Fig. 3.

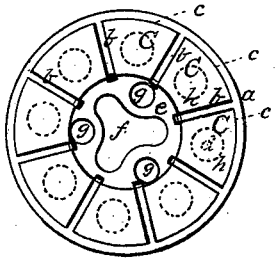


Fig. 4.

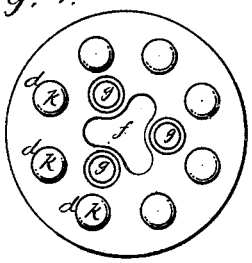
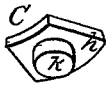


Fig. 5.



WITNESSES

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LEVI W. BUXTON AND JOHN P. GREELEY, OF NASHUA, NEW HAMPSHIRE.

IMPROVEMENT IN HEEL-PLATES FOR BOOTS AND SHOES.

Specification forming part of Letters Patent No. **188,854**, dated March 27, 1877; application filed October 14, 1876.

To all whom it may concern:

Be it known that we, LEVI W. BUXTON and JOHN P. GREELEY, of Nashua, in the county of Hillsborough and State of New Hampshire, have invented a new and valuable Improvement in Heel-Plates for Boots and Shoes; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a side view of a gaiter with this invention attached. Fig. 2 is a partial section of same. Fig. 3 is a top view of the heel-plate with the rubber cushions in place. Fig. 4 is a bottom view of the same. Fig. 5 is a perspective view of the rubber cushion.

This invention has relation to heel-plates for boots and shoes; and it consists in the construction and novel arrangement of the sector-shaped recesses in the upper surface of the plate, divided by radial ribs, the equidistant screw-holes triangularly arranged, the central aperture and the rubber-cushion studs having sector-shaped upper portions designed to fill the recesses referred to, and downward projections to extend through the series of holes provided for that purpose in the plate, as hereinafter shown and described.

In the accompanying drawings, the letter A designates a gaiter, to the heel of which our plate is represented as attached. B indicates the heel-plate, which is preferably circular in form, and of a diameter equal to or a little less than the breadth of the heels. Around its edge extends upward from the upper surface a short flange, *a*, to which are connected radial ribs *b*, of similar height, which extend inward toward the center of the plate, but terminate at about half the distance from the flanged margin to said center. The plate is thus divided in its outward portion into a number of sector-shaped recesses or compartments, *c*, each of which is provided with a central aperture, *d*, through the plate, so that this plate has an annular series of alternate ribs and perforations around its outward portion. Within the annular series of ribs the plate is provided with a plane circular space, *e*, the center of which is open, being occupied by an aperture, *f*, of trefoil form. Between the rounded angles of this opening, near the margin of the plane space *e* of the plate, are arranged at equal distances apart three screw-holes, *g*, whereby the plate is designed to be secured to the heel of the shoe.

C represents the rubber cushion, which is used in connection with this plate. It consists of a flat sector-shaped body, *h*, and a rounded stud or projection, K, which extends centrally from its under side. When the rubber section is placed in the recess *c* of the plate it is designed to fill the same neatly, and its stud to extend downward through the opening *d* and projects a short distance below the bottom of the plate. The annular series of projecting studs form the tread of the heel. The upper portion or body *h* of the cushion is somewhat thicker than the height of the marginal flange of the heel-plate, so that its upper surface is raised above the level of said flange. These sector-shaped bodies thus form a sectional ring or annulus of rubber, which is between the heel of the shoe and the plate, and when the latter is drawn toward said heel by means of the fastening series, these rubber bodies are condensed between the ribs by the pressure, and their density is communicated to the studs of the tread, so that the striking of the heel in walking produces a sound similar to that of an ordinary leather heel.

The rubber sections when worn down can be readily replaced, and can be readily interchanged in wearing, so that all will be worn down alike.

In order to afford still greater facility for adjusting the plate to the wear of the heel, the triangular arrangement of screw-holes is adopted, whereby the plate can be turned one-third around and fastened without boring new holes in the heel.

The central opening in the plate is mainly designed to admit the spike or heel-screw of a skate, and its shape is such that if the plate has been properly adjusted with one of its rounded angles in front or rear, it will always be in proper position to receive said spike, whether it be exactly in the middle of the heel, or a little in front or rear thereof.

What we claim as new, and desire to secure by Letters Patent, is—

1. A heel-plate for shoes and boots having the radial ribs *b* on its upper surface and the three equidistant screw-holes *g* in the central space *e*, substantially as specified.

2. The rubber cushion C for a heel-plate, consisting of the flat sector-shaped body *h* and the downwardly-projecting stud K, substantially as specified.

3. The combination, with the radially-ribbed heel-plate A, of the sectional ring of cushions C, having studs K projecting downward through an annular series of holes in said plate, substantially as specified.

In testimony that we claim the above we have hereunto subscribed our names in the presence of two witnesses.

LEVI W. BUXTON.
JOHN P. GREELEY.

Witnesses:
BERNARD B. WHITTEMORE,
FRANK A. GREER.