

F. RICHARDSON & F. HACKER.

Boot-Heels.

No. 126,490.

Patented May 7, 1872.

Fig. 1.

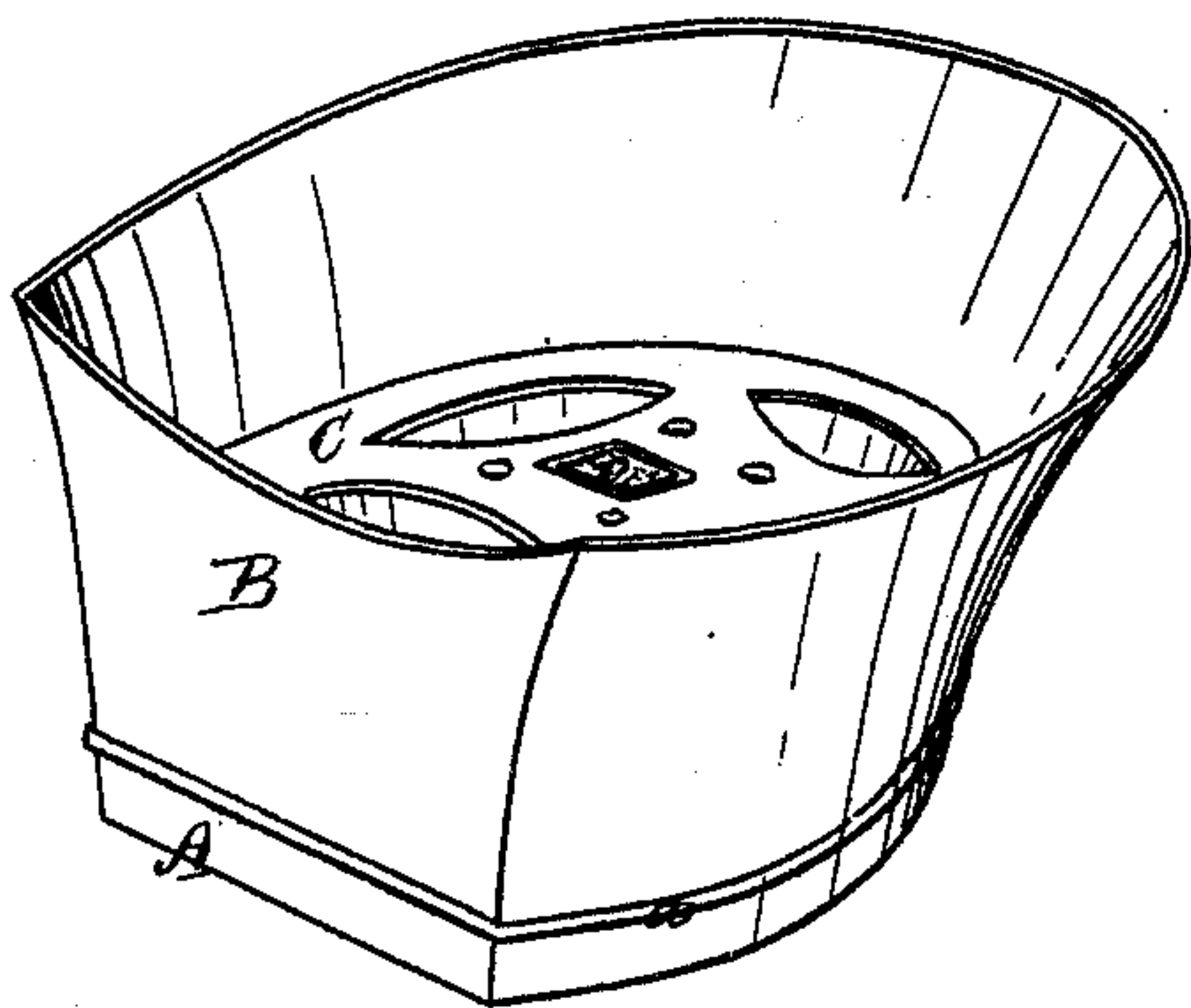


Fig. 2.

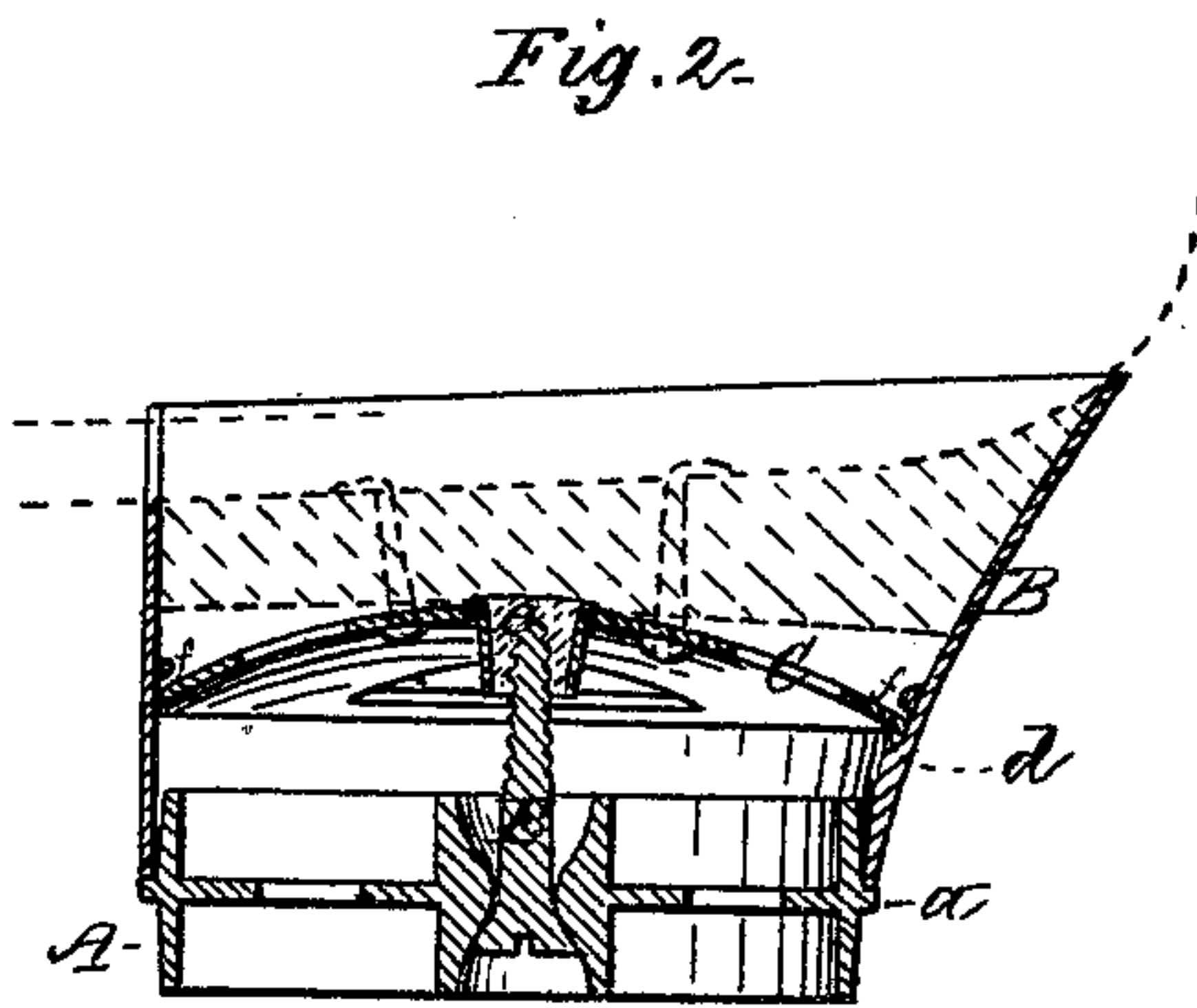
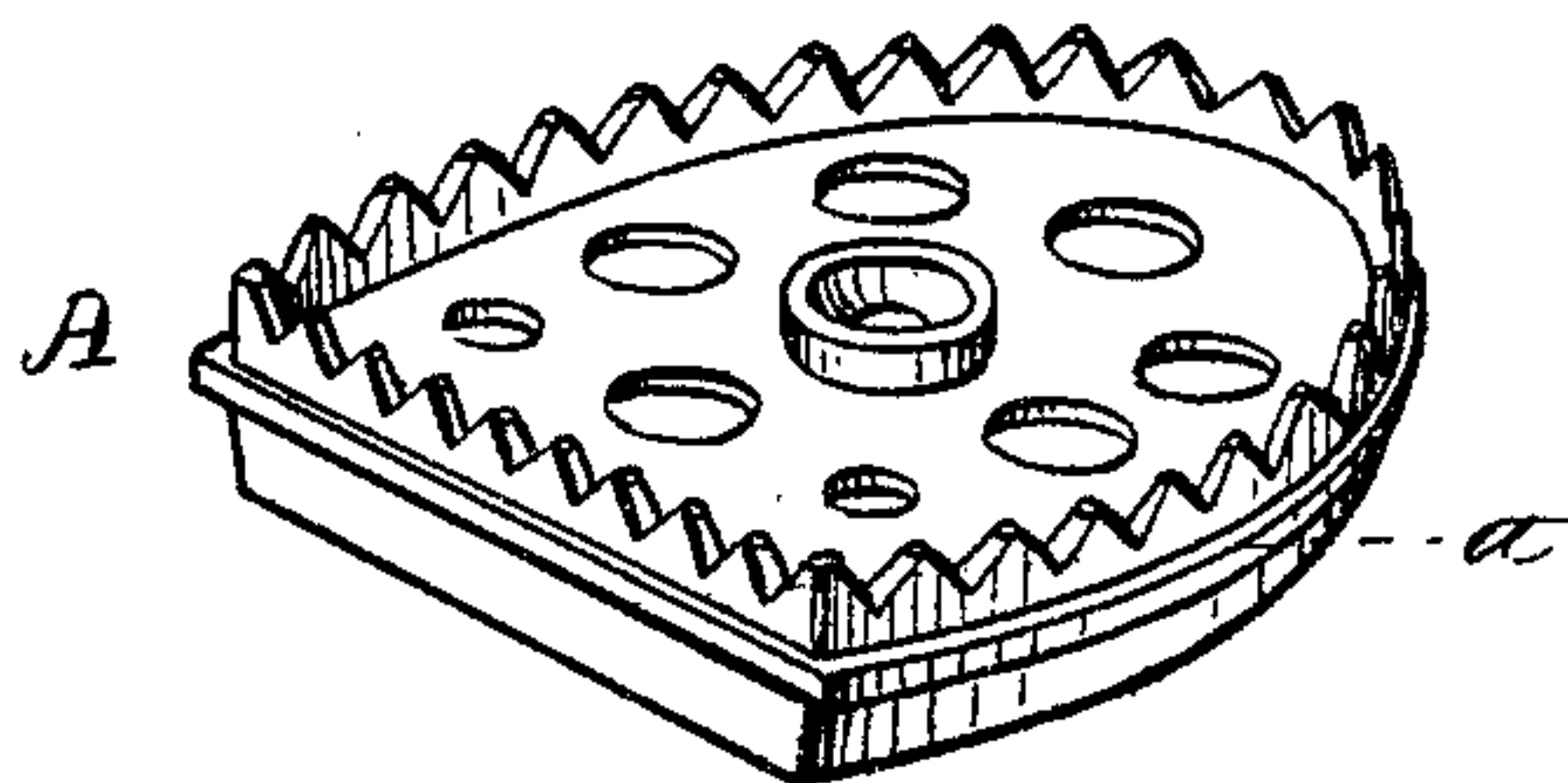


Fig. 3.



Witnesses:
Phil. Harper
Geo. F. Stenz.

Inventors:
Frederick Richardson
Francis Hacker.
By Wm. C. Wood
Attorney.

UNITED STATES PATENT OFFICE.

FREDERICK RICHARDSON AND FRANCIS HACKER, OF PROVIDENCE, R. I.,
ASSIGNORS TO REVERSIBLE BOOT-HEEL COMPANY, OF SAME PLACE.

IMPROVEMENT IN BOOT-HEELS.

Specification forming part of Letters Patent No. 126,490, dated May 7, 1872.

To all whom it may concern:

Be it known that we, FREDERICK RICHARDSON and FRANCIS HACKER, both of the city and county of Providence, in the State of Rhode Island, have invented a certain new and useful Improvement in Boot-Heels.

Our present improvement relates to that class of heels known as changeable or reversible; and it consists in combining a spring-plate with an exterior heel-shell and a changeable tap in such a manner that the shock of the tread upon pavements or frozen ground will be materially lessened, and, therefore, also render sharpened frictional surfaces, adapted to secure a foot-hold upon ice, &c., less liable to be blunted or dulled by ordinary use; and we do hereby declare that the following specification, taken in connection with the drawing furnished and forming a part of the same, is a true, clear, and exact description of a boot-heel involving our invention.

Referring to the drawing, Figure 1 represents in perspective one of our heels complete, ready for the manufacturer. Fig. 2 represents the same heel in longitudinal vertical section. Fig. 3 represents a changeable and reversible heel-tap, having a smooth face for ordinary wear and another face which is provided with sharp points for presenting a frictional surface for use on ice, &c.

A in the drawing denotes the changeable and reversible heel-tap; one side is plain and clothed or filled with wood, leather, or suitable composition. It is provided with a projecting lateral flange, *a*, and is the subject of Letters Patent already issued to us. B denotes a metallic heel-shell of the general form of a boot-heel. C denotes the spring-plate. It is loosely fitted to the interior of the heel-shell and engages with a lateral interior projection, *d*, therein.

Applied to a boot, and as exhibited in Fig. 2, the spring-plate is permanently, at or near its center, attached by screws or nails to an exterior heel-like structure, which is, in turn,

permanently attached to the bottom of the boot or shoe. The tap A is secured by a central screw, E, which engages with a tubular nut, *e*, projecting downward through the spring-plate, or which may as well engage direct with the interior heel-like structure.

It will be readily observed that in this case the entire exterior heel is secured to the boot by the central screw, although the heel-shell will be prevented from falling off when the central screw is removed by slight lugs or projections, *f*, which may be cast on the interior of the shell, if desired. In this latter event the spring-plate would be so cut as to allow of its being sprung into position between the lugs *f* and the projection *d*.

As incidental to its peculiar structure, the spring-plate in practice will keep the central screws at a constant bearing with the nut *e*, and in a manner prevent it from working free.

As adapted for gentlemen's wear, or for ladies' and children's use, it will be seen that whenever occasion requires it the tap A can be adjusted with its points presented for the wearing-surface, and be so worn until no longer needed when the plain smooth surface can be presented for use; and that, although the spring action of the heel will not prevent the frictional points from engaging properly with slippery surfaces, the shock of the tread will be obviated, and unnecessary wear of the points, when walking on frozen ground or pavements, be effectually prevented.

We are aware that spring-heels, broadly considered, are not new; and

We, therefore, claim as our invention, and desire to secure by Letters Patent—

The combination of the heel-shell, the changeable tap, and the intermediate spring-plate C, substantially as and for the purposes specified.

FREDERICK RICHARDSON.

FRANCIS HACKER.

Witnesses:

CHARLES SELDEN,

JOHN C. PURKIS.