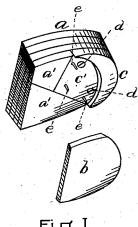
## L. RICHARDS.

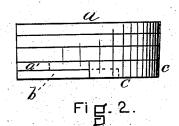
## BOOT AND SHOE HEEL PROTECTOR.

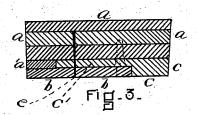
No. 192,839.

Patented July 10, 1877.



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WITNESSES

Lawy Richards INVENTOR

By his Attys

Henry Williams of

## UNITED STATES PATENT OFFICE

LEWIS RICHARDS, OF BRAINTREE, MASSACHUSETTS.

## IMPROVEMENT IN BOOT AND SHOE HEEL-PROTECTORS.

Specification forming part of Letters Patent No. 192,839, dated July 10, 1877; application filed May 18, 1877.

To all whom it may concern:

Be it known that I, LEWIS RICHARDS, of Braintree, in the county of Norfolk and State of Massachusetts, have invented a new and useful Improvement in Boot and Shoe Heel-Protector, which improvement is fully set forth in the following specification and accompanying drawing, in which-

Figure 1 is a perspective view of a heel having my improvement attached, and with the under lift represented as removed, the better to exhibit the invention. Fig. 2 is a side elevation of the heel. Fig. 3 is a vertical section of the same.

Similar letters of reference indicate corre-

sponding parts. The object of the invention is to furnish a

durable heel-protector, which is not liable to become loose, and whose fastenings or attaching-screws are protected by the under lift, so that they are not exposed to wear.

a represents the heel, and b the under lift or "tread" of the heel. cc' represent the metallic heel-protector. c is the thick portion or tread, and is the part exposed to wear. e' is the thin portion or shank, and is the part attached to the heel by means of screws or nails d d. The under lift or tread b, being shortened and placed flush against the tread c of the protector, lies under the thin portion

or shank c' of said protector, thus preventing it from coming in contact with the ground, and wearing off the heads of the screws d and loosening the plate. The protecting plate c c' occupies a large portion of the space belonging to the second lift a' and a part of the space belonging to the first or under lift. The shank is usually brought to a point, as seen in Fig. 1, as it facilitates putting together. Nails e e e are driven through the lifts and through openings in the shank c' prepared for the purpose, as seen in Figs. 1 and 3. Thus the protecting-plate is exposed where service is needed, and itself protected where it is attached to the heel.

The tread c may be roughened, to prevent slipping in winter, or smooth, as seen in the drawing, as desired.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is-

In a boot and shoe heel, the combination, with the protecting-plate c, having the shank c', of the shortened lift b, all arranged and united substantially as and for the purpose set forth.

LEWIS RICHARDS.

Witnesses:

HENRY W. WILLIAMS, JOHN E. FREUNING.