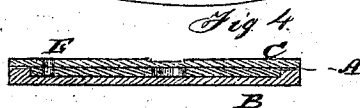
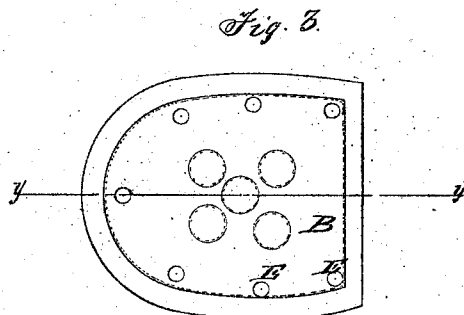
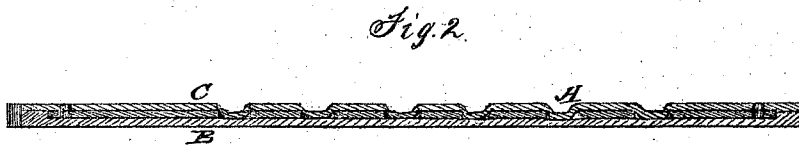
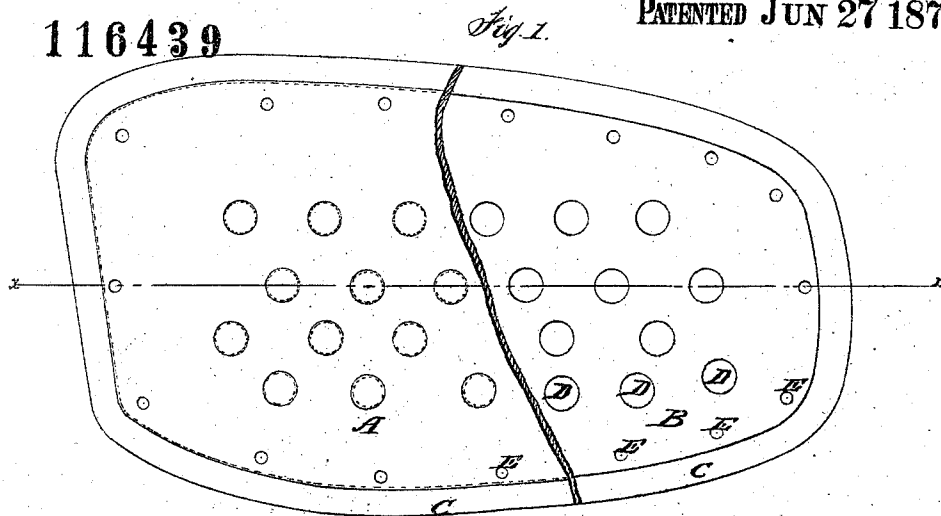


*J.C. Hancock,
J.C. Richardson, Boot & Shoe Tap.
E.P. Richardson.*

116439

PATENTED JUN 27 1871



Witnesses:
P. C. Dietrich,
Wm H. C. Smith,

Inventors:
J. C. Hancock,
J. C. Richardson,
E. P. Richardson.
PER *Munn & Co.*
Attorneys.

UNITED STATES PATENT OFFICE.

JOHN C. HANCOCK, OF CHARLESTOWN, AND JOSIAH C. RICHARDSON AND EDWARD P. RICHARDSON, OF SOMERVILLE, MASSACHUSETTS.

IMPROVEMENT IN BOOT AND SHOE TAPS.

Specification forming part of Letters Patent No. 116,439, dated June 27, 1871.

To all whom it may concern:

Be it known that we, JOHN C. HANCOCK, of Charlestown, in the county of Middlesex and State of Massachusetts, and JOSIAH C. RICHARDSON and EDWARD P. RICHARDSON, of Somerville, in the county and State aforesaid, have invented a new and useful Improvement in Boot and Shoe Taps; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

Our invention consists in improving heel and sole-taps, as hereinafter fully described and subsequently pointed out in the claim.

Figure 1 is a plan of a sole-tap with one of the India-rubber plates broken off to show the metal plate. Fig. 2 is a section on the line *x x*. Fig. 3 is a plan of the heel-tap, and Fig. 4 is a section of Fig. 3 on the line *y y*.

Similar letters of reference indicate corresponding parts.

We propose to employ a thin plate of metal, A, between the two plates B and C, of India rubber, securing it by making the rubber pieces broader than the metal and uniting the overlapping margin, as shown. The bottom plate of rubber will be thicker than the upper one, as it is subjected to the greatest wear. The metal plate will preferably have numerous large perforations D in the central part, so that the two

plates of rubber may be connected through them for uniting them more permanently and preventing any looseness of the rubber on the metal between the margins. These metal plates are to be provided with a row of screw-holes, E, near the edges, for fastening the taps to the soles, and they are intended mainly for holding the screw-heads better than the rubber, which is liable to tear and stretch and become loose. We provide both sole and heel taps in this way. These taps possess the principal advantages of India-rubber shoes, without being so heavy or clumsy, or interfering with the circulation by cramping and binding the feet. They keep the feet warm and dry, prevent slipping on the ice, are noiseless, easy, light, elastic, and do not detract from the dressy appearance of the boot or shoe.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

A heel or sole tap for boots and shoes, formed of cup-piece B and plain disk C, made of rubber, and the metal plate A, perforated at D and E, the whole being relatively arranged and united together in the manner and for the purpose described.

JOHN C. HANCOCK.
JOSIAH C. RICHARDSON.
EDWARD P. RICHARDSON.

Witnesses:

CHAS. RAYMOND,
HERBERT H. HATHAWAY.