

(No Model.)

O. B. NORTH.  
HEEL PROTECTOR.

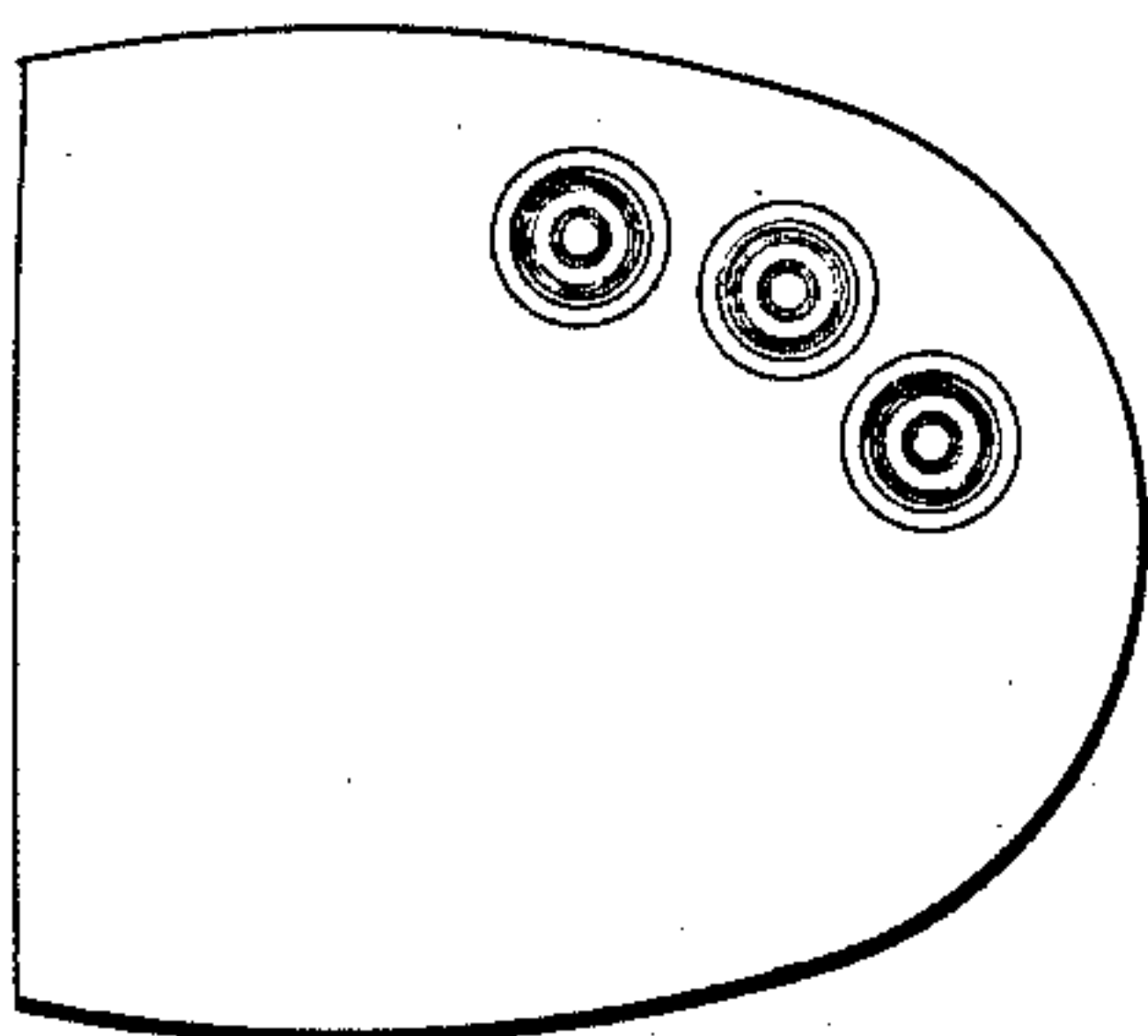
No. 354,340.

Patented Dec. 14, 1886.

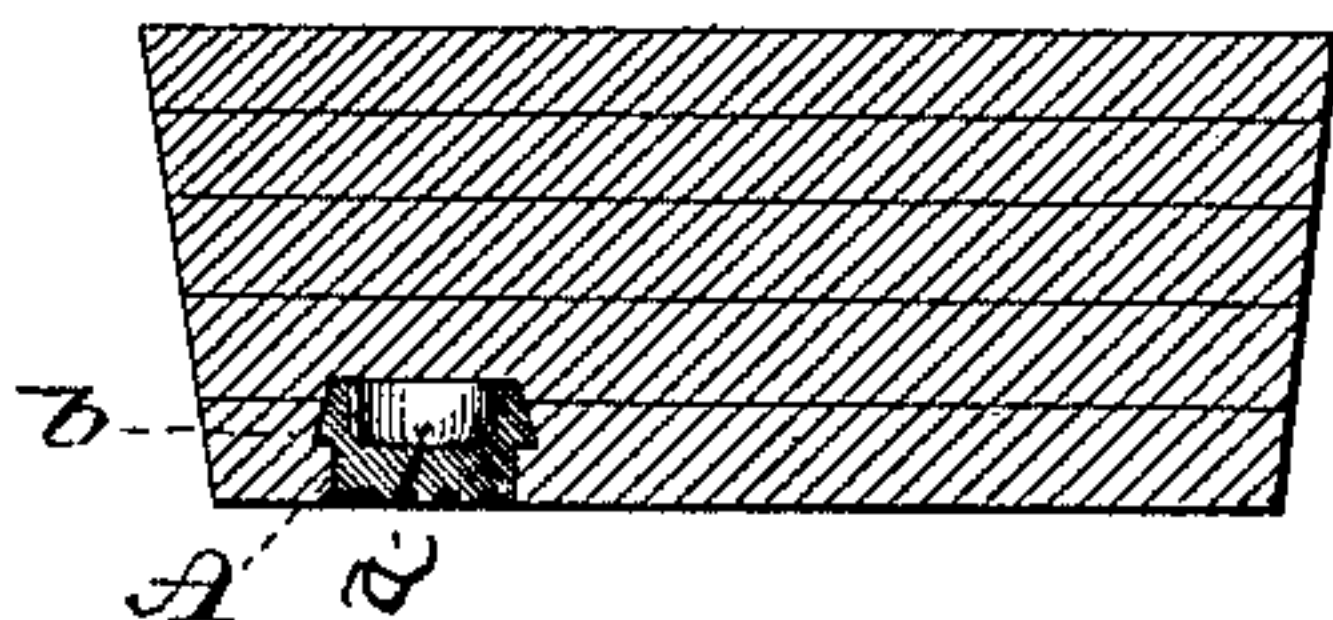
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



Witnesses.

*J. D. Sumnerway*  
*Edw. C. Earle*

*Oliver B. North*  
By Atty. *Inventor*

*John P. Earle*

# UNITED STATES PATENT OFFICE.

OLIVER B. NORTH, OF NEW HAVEN, CONNECTICUT.

## HEEL-PROTECTOR.

SPECIFICATION forming part of Letters Patent No. 354,340, dated December 14, 1886.

Application filed August 9, 1886. Serial No. 210,389. (No model.)

*To all whom it may concern:*

Be it known that I, OLIVER B. NORTH, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Heel-Protectors; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a perspective view of the protector; Fig. 2, a face view of the heel with protector inserted; Fig. 3, a vertical section through the heel and protector inserted therein; Fig. 4, a modification.

This invention relates to an improvement in heel-protectors, and particularly to that class which consists of a piece or pieces of metal adapted to be driven into the heel, and so as to expose the face of said metal pieces flush with the wearing-surface of the heel, said pieces being introduced at points where the greatest wear comes on the surface of the heel, and so as to prevent uneven wear of the heel.

A represents the protector, substantially circular in transverse section, and is constructed with a recess, *a*, in its upper side, the diameter of said recess being nearly equal to the diameter of the body, and so as to present a sharp edge, as seen in Fig. 3. Around the outside of the body is an annular shoulder, *b*, the body from the shoulder tapering upward toward the top. Below the shoulder the body is substantially cylindrical. The under side or face may be plain or ribbed.

To insert the protector, a hole is first made in the heel-cap, the diameter or shape of the hole corresponding to the diameter or shape of the body at its face end, and the depth of

the hole need only be through the first lift or cap. The protector is then inserted open end first and driven into the hole. The sharp edge cuts its way into the heel until the bottom of the protector is flush with the surface of the heel. In forcing the protector into the heel the conical sides above the rib compress the leather, which, after driving, will expand below, and so as to engage the shoulder, and thereby securely hold the protector in place.

Several shoulders may be formed on the protector like the shoulder *b*, but one is sufficient for practical purposes.

The shoulder preferably extends entirely around the body; but it may be in the shape of short segments, as seen in Fig. 4.

While I prefer to make the protector with the recess in its upper side, for the reason that it facilitates its introduction, (for if the first lift be thinner than the depth of the protector the removal of the piece cut from the first lift permits the proper introduction of the protector, and the sharp edge cuts its way into the second lift, whereas if the inner or upper face of the protector be flat it would necessitate the cutting of the hole the full depth of the protector, and this would be difficult to do should the lift not correspond in thickness to the thickness of the protector,) I do not wish to limit my invention to the recess.

I claim—

The herein described protector for heels, consisting of the body *A*, constructed with the annular shoulder *b* around its outside and the surface of conical shape above the shoulder, substantially as and for the purpose described.

OLIVER B. NORTH.

Witnesses:

LUCIUS H. PRINDLE,  
ARTHUR H. JACKSON.