J. F. NICKERSON.
Insole of Boots and Shoes.

No. 209,184. **Patented Oct. 22, 1878.**

Fig. 2.

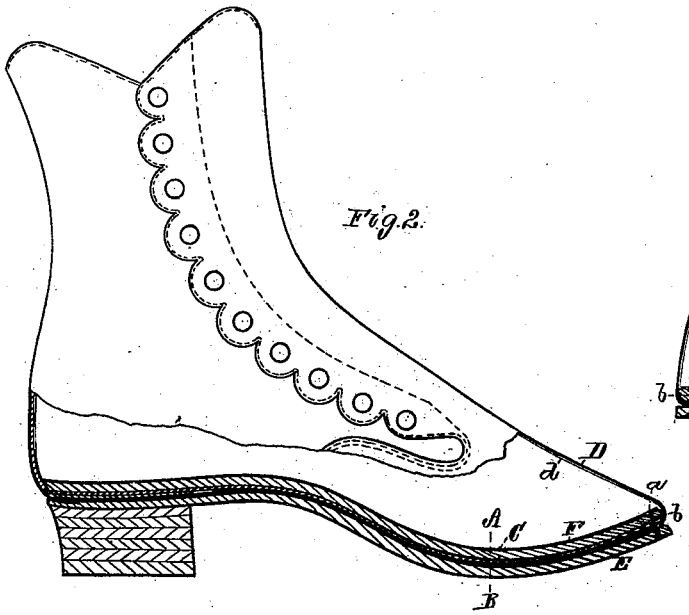


Fig. 1.

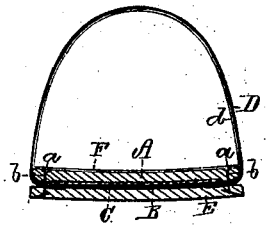


Fig. 3.

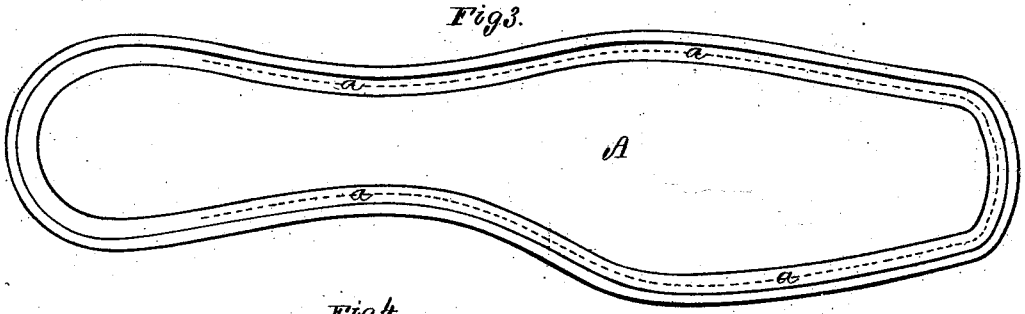


Fig. 4.

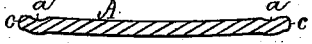


Fig. 5.

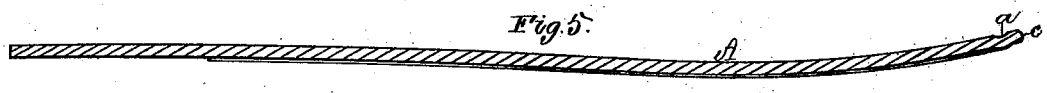


Fig. 6.

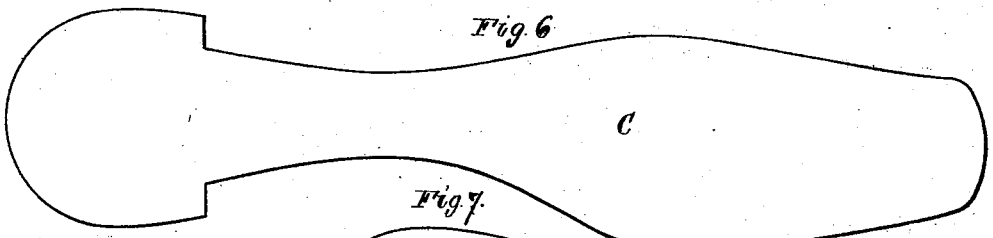
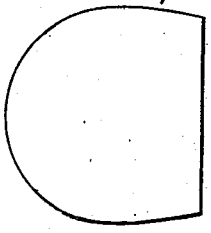


Fig. 7.



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L. M. Willes

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by his attorney
R. H. Eddy

UNITED STATES PATENT OFFICE.

JOHN F. NICKERSON, OF LYNN, MASSACHUSETTS.

IMPROVEMENT IN INSOLES OF BOOTS AND SHOES.

Specification forming part of Letters Patent No. **209,184**, dated October 22, 1878; application filed February 15, 1878.

To all whom it may concern:

Be it known that I, JOHN F. NICKERSON, of Lynn, in the county of Essex and State of Massachusetts, have invented a new and useful Improvement in Insoles for Boots or Shoes; and do hereby declare the same to be described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a transverse section, and Fig. 2 a longitudinal section, of a shoe made in accordance with or having my invention, which consists, first, in an insole composed of a sheet of metal and two layers of leather or other suitable material, arranged with it as set forth, and having the upper of said layers grooved on its upper side and rounded at its edge, all substantially as explained; second, the combination of one or more re-enforce metallic plates arranged in the heel of the insole with the metallic plate and the two layers arranged and composing such insole, as described.

In the drawings, Figs. 1 and 2, A and B denote the two leather layers of the insole, C being the metallic plate arranged between them.

Fig. 3 is a top view, Fig. 4 a transverse section, and Fig. 5 a longitudinal section, of the upper layer, A. Fig. 6 is a top view of the metallic plate C, that goes between the two layers A B. Fig. 7 is a top view of the heel re-enforce plate.

The two layers A B, I usually make of leather, though cloth may be substituted, and I arrange the metallic plate C between them, it being formed so that they may extend beyond it at its edge or edges and lap on each other, the laps being fastened together by cement or by stitches passing through them. The upper, which is the thicker of the two layers, I channel or groove around it and near its edge, except in the heel portion, such groove being shown at *a*, and being for the purpose of receiving the sewing used in connecting the layers, and also that (shown at *b*) employed in connecting the insole, the upper D, and the outer sole, E. This groove is to prevent the stitches from projecting above the upper surface of the insole to cause the lining F of the insole to bulge upward more or less over the sewing.

The outer edge of the layer A is rounded, as shown at *c*, in order to prevent it from cutting the cloth lining *d* of the upper when the shoe may be in use.

The metallic plate arranged in the insole, as described, is to serve as a means of clinching the tacks used in lasting the upper upon the insole. It prevents their points from being driven entirely through the insole, so as to cause them or parts of the tacks to project above the upper surface of the insole, as they usually do when the insole is made of one single piece or layer of leather.

The outer sole is to be channeled or grooved in the usual way to receive the stitches, and it is to be fastened to the upper and the insole by stitches *b* passing through them and into the channels of the insole and outer sole, such sewing being accomplished by a McKay sewing-machine.

Besides the metallic plate C, arranged between the two layers A B of the insole, I re-enforce the heel part of such insole by one or more metallic plates, F, arranged within such heel, in manner as shown.

Sometimes I extend the re-enforce forward more or less into the shank of the insole. The re-enforce is to prevent the nails used in fixing the heel to the shoe from being driven through the insole, they, while being driven, being clinched by the re-enforce.

The metallic plate used should be thin, so as to be sufficiently flexible or elastic.

I do not broadly claim an inner sole composed of two layers of leather or other like material and a sheet of metal interposed between them, and arranged so that the two layers may extend beyond its edge and lap on each other, as set forth.

I claim as my invention as follows:

1. An insole composed of a sheet of metal and two layers of leather or other suitable material, arranged as set forth, and having the upper of said layers grooved or creased on its upper surface and rounded on its edge, as specified.

2. The combination of one or more re-enforce metallic plates, F, arranged in the heel of the insole, with the metallic plate C and the two layers A B, arranged and composing such insole, substantially as specified.

JOHN F. NICKERSON.

Witnesses:
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