(Model.)

O. LONG.

INSOLE.

No. 283,407. Patented Aug. 21, 1883.

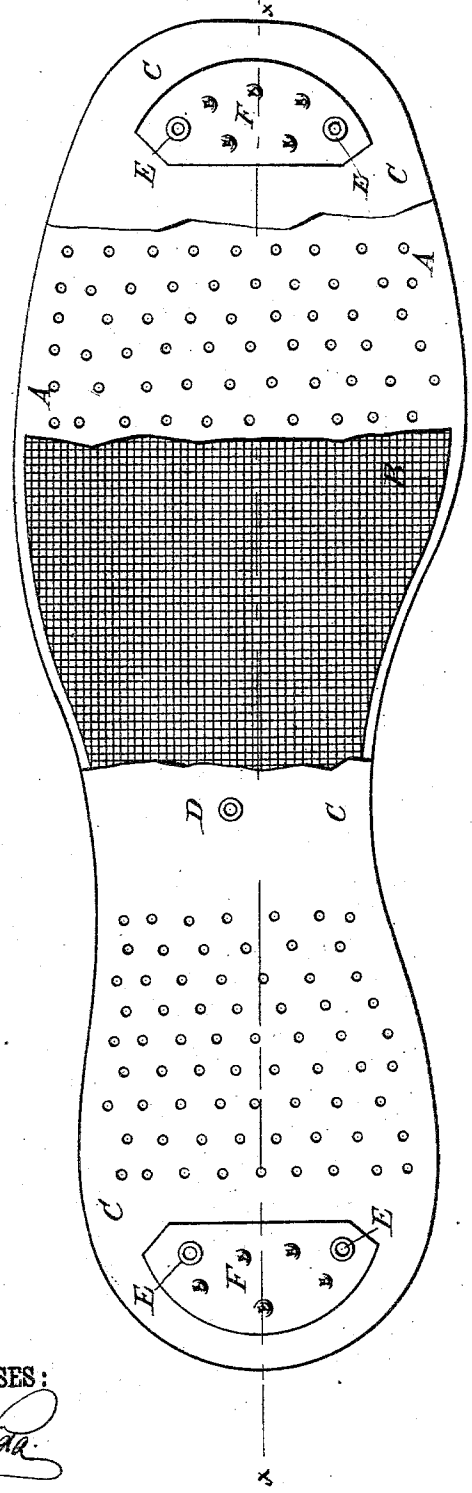

Fig. 1.

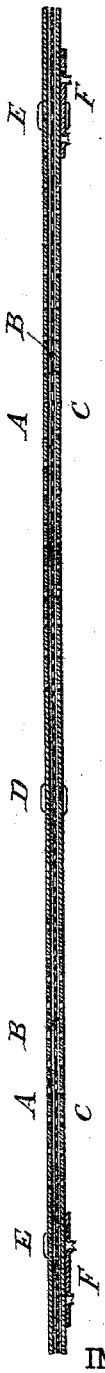

Fig. 2.

WITNESSES:

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UNITED STATES PATENT OFFICE.

OLIVER LONG, OF BROOKLYN, NEW YORK, ASSIGNOR OF ONE-HALF TO ANNA M. BROWN, OF SAME PLACE.

INSOLE.

SPECIFICATION forming part of Letters Patent No. 283,407, dated August 21, 1883.

Application filed January 3, 1883. (Model.)

To all whom it may concern:

Be it known that I, OLIVER LONG, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Insoles, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a plan view of the under side of my improved insole, parts being broken away. Fig. 2 is a sectional elevation of the same, taken through the line *x x*, Fig. 1.

The object of this invention is to promote the efficiency of insoles, and also to prevent insoles from slipping at the toe and heel.

The invention consists of an insole constructed of a pair of outer sheets of perforated material, with an interposed woolen sheet, whereby the insole is made a non-conductor of heat, while allowing perspiration to escape freely.

The invention further consists in providing insoles at the toe and heel with roughened plates to prevent slipping, as will be hereinafter fully described.

The insole is formed of two sheets, A C, of perforated waterproofed paper, wood veneer, or other suitable material, and an interposed sheet, B, of flannel or other suitable woolen fabric. The outer sheets A C are perforated with numerous small holes, to allow the perspiration from the foot to pass to the sole of the shoe, while the interposed woolen sheet B prevents heat from being conducted from the foot in cold weather and to the foot in warm weather. The three sheets A B C are secured to each other by rivets D, or other suitable means. To the under side of the end parts of the insole A B C are secured, by rivets E or other suitable means, small plates F, of metal, which plates are punctured from the side next the insole, so that the burrs thus formed will project, as shown in Fig. 2, or are serrated or otherwise roughened, to engage with the inner sole of the shoe, and thus prevent the insole from slipping at the toe or heel.

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

1. An insole constructed substantially as herein shown and described, and consisting of a pair of outer sheets of perforated material, with an interposed woolen sheet, and roughened metal plates, as set forth.

2. The combination, with the heel and toe of an insole, of roughened plates F, substantially as herein shown and described, whereby the heel and toe of the insole are kept from slipping, as set forth.

OLIVER LONG.

Witnesses:

JAMES T. GRAHAM,

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