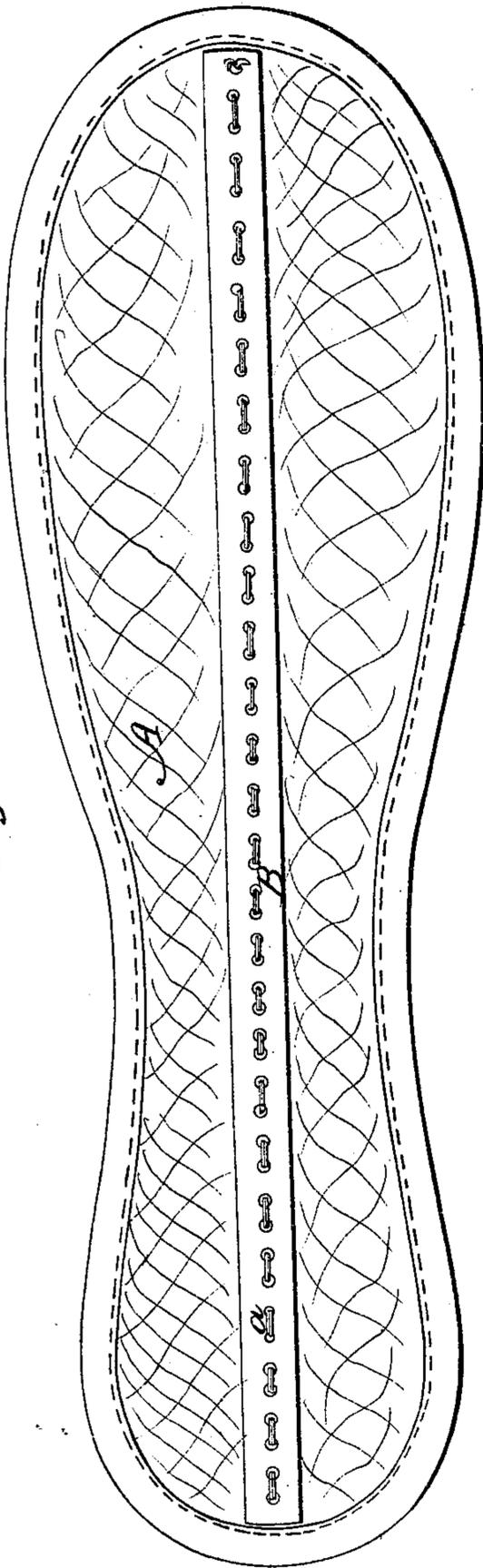


*Johnson & Sibley.*

*Sole for Boots.*

*No 87,942.*

*Patented Mar. 16, 1869.*



*Fig. 1.*



*Fig. 2.*

*Witnesses.*

*A. Keller*  
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*G. H. Sibley*  
*per Amos Combs & Gutter*

# United States Patent Office.

CHARLES P. JOHNSON, OF JAMAICA PLAIN, AND FREEMAN K. SIBLEY, OF AUBURNDALE, MASSACHUSETTS.

Letters Patent No. 87,942, dated March 16, 1869.

## IMPROVED INNER SOLE FOR BOOTS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, CHARLES P. JOHNSON, of Jamaica Plain, in the county of Norfolk, and State of Massachusetts, and FREEMAN K. SIBLEY, of Auburndale, in the county of Middlesex, and same State, have invented a new and useful Improvement on Inner Soles for Boots and Shoes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming part of this specification, and in which—

Figure 1 represents an inverted plan or under-face view of an inner sole for boots and shoes in accordance with our invention, and

Figure 2, a longitudinal section of the same.

Similar letters of reference indicate corresponding parts.

Our invention consists in an inner sole for boots and shoes, either fixed or detachable, made of knitted hair-cloth, and stiffened with a strip of sheet-metal, sewed to it with wire of a different metal, such sole possessing numerous advantages over other inner soles, as hereinafter set forth.

Referring to the accompanying drawing—

A represents an inner sole, made of knitted hair-cloth, and which may either be inserted or attached as a permanent sole within the boot or shoe, or be of a detachable character, and slipped into the latter as required or desirable. It will suffice here, however, to refer to it as a detachable sole.

By making such inner sole of hair-cloth, formed by knitting, a strong and compact, but open-work sole is produced, which possesses the following peculiarities, or advantages, viz:

It admits of every provision for ventilation, and is not liable to become matted, or felted, or saturated with perspiration, having its cellular character pre-

served till worn out, and so, while it retains its ventilating-properties, having its warmth-retaining properties preserved by the retention of air in its interstices between its yarns and fibres. Such a sole, too, in the use of it, produces friction, or acts as a slight irritant to promote circulation in the foot, and is of so elastic a character as to greatly ease the fatigue in walking. It likewise is very durable.

To prevent the buckling of the sole, in putting on or pulling off the boot, when the sole is made detachable, that is, so that it can be put in or taken out of the boot or shoe at pleasure, we run, down the centre of it, on its one side, or face, a stiffener, B, formed of a narrow strip of zinc, sewed or stitched to the sole by copper wire *a*, so that the same not only serves as a stiffener, but also as a galvanic battery, whereby the health of the wearer is promoted.

This is in no way analogous to a metallic sole, as the strip B only occupies a very small portion of the width of the sole, while the stitching of it to the inner sole by copper wire answers not only to secure it to said sole, but at the same time to give to the sole its galvanic character.

We are aware that galvanic soles, or inner soles, have heretofore been made. We do not, therefore, claim this feature *per se*; but

What is here claimed, and desired to be secured by Letters Patent, is—

An inner sole, composed of horse-hair, and stiffened by a strip of metal, sewed on with wire, as shown and described, as a new article of manufacture.

CHAS. P. JOHNSON.  
FREEMAN K. SIBLEY.

Witnesses:

GEO. L. HOWARD,  
ALONZO F. JOHNSON.