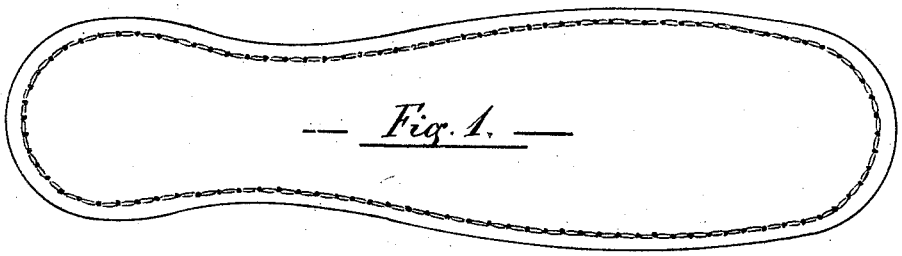
C. P. Johnson,

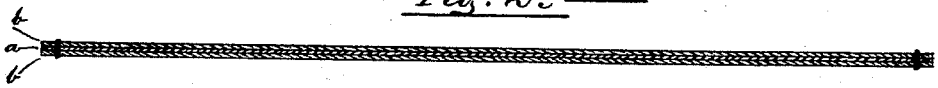
Mica Inner Sole.

No. 113,773. Patented Apr. 18. 1871.



— Fig. 1. —

— Fig. 2. —



— Witnesses: —

John Swalander

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— Inventor: —

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by his attorney Alban Andrew

United States Patent Office.

CHARLES P. JOHNSON, OF JAMAICA PLAIN, MASSACHUSETTS.

Letters Patent No. 113,773, dated April 18, 1871.

IMPROVEMENT IN INNER SOLES FOR BOOTS AND SHOES.

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

I, CHARLES P. JOHNSON, of Jamaica Plain, in the county of Norfolk and State of Massachusetts, have invented a new and useful Improvement on Inner Soles for Boots and Shoes, of which the following is a specification.

Nature and Objects of the Invention.

The nature of my invention relates to an improvement on inner soles for boots and shoes, for the purpose of keeping the feet warm and preventing the cold and dampness from the ground from being conducted to the soles of the feet, for which purpose I construct my inner sole as follows:

On the drawing—

Figure 1 is a top view, and

Figure 2 is a central longitudinal section of my inner sole.

The material I employ is a sheet of mica, or what is generally known as isinglass-stone, of greater or lesser thickness, inclosed between two or more sheets of some protecting material, such as leather, hair, wool, &c.

Mica being a substance that conducts heat or cold very slowly through itself, even though very thin sheets of this material are used, is pre-eminently the best material for the purpose of keeping external cold and dampness from conducting itself to the feet of persons who are exposed to cold and damp weather and sudden changes from warm and dry to damp and cold atmospheres.

The thin sheet of mica *a* on fig. 2 is shown as being inclosed on each side between sheets of leather *b b*, and attached thereto by stitches through the whole, as shown on fig. 1.

Any other protecting material instead of leather may be used for the same purpose, and the sheet of mica may be attached to the protecting materials in any other suitable way besides sewing together.

The mode in which I cut my mica for the above-named purpose is as follows:

Either I cut a block of mica of about one inch, more or less, thickness, to the shape of the sole desired, and split it horizontally in as many and thin sheets as may be needed, or I cut each separate sole out from sheets of mica of the thickness desired, and attach it between the protecting materials in the usual way. This, my improved inner sole, may be used attached to the boot or shoe, or may be made separate so as to be changed from one shoe to another, as the case may be.

The thin sheets of mica being elastic allow of any desired bending or curving of the soles of the boots or shoes during walking, riding, &c., and will last as long as the protecting materials hold out.

The sheets of mica can be sewed through as easily as leather of the same thickness, and in this manner affords great facility for stitching together to the protecting material that is used.

Having thus described the nature and construction of my invention,

I wish to secure by Letters Patent, and claim—

As a new article of manufacture, an inner sole for boots and shoes, consisting of a sheet or sheets of mica of greater or lesser thickness, inclosed between any protecting materials, such as leather, cloth, hair, &c., for the purpose and in a manner as herein fully set forth and described.

CHAS. P. JOHNSON.

Witnesses:

ALBAN ANDREW,

JOHN SWALANDER.