(No Model.)

A. J. JOHNSON.

INSOLE FOR SHOES.

No. 307,117. Patented Oct. 28, 1884.

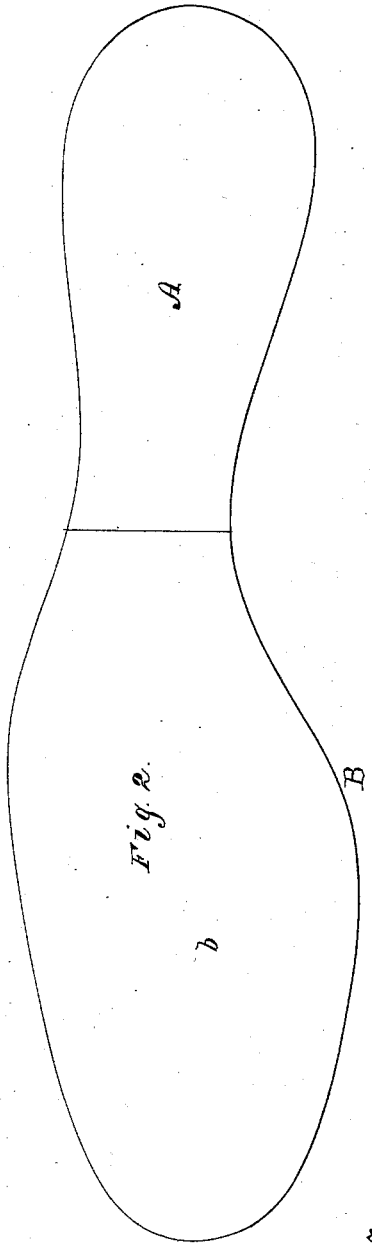

Fig. 2.

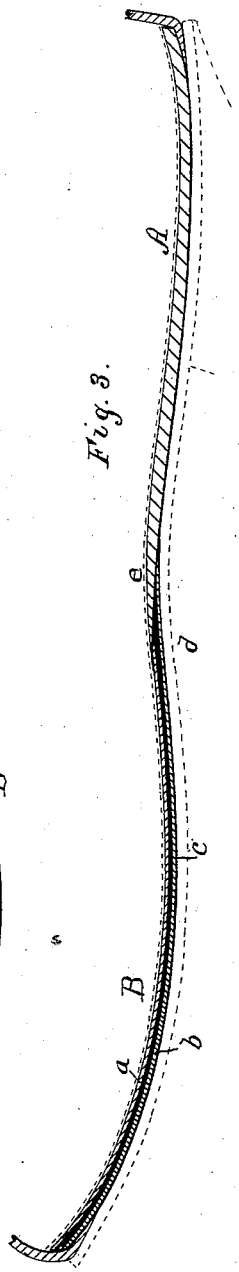

Fig. 3.

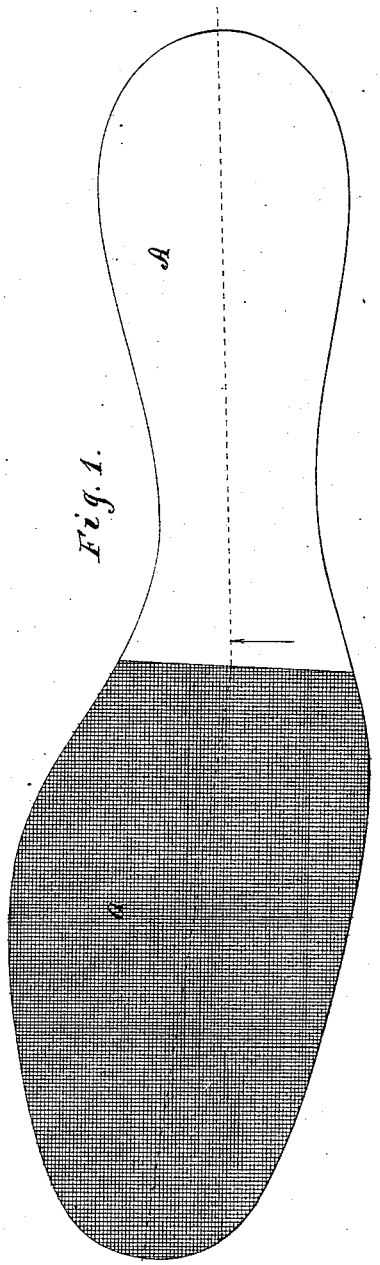

Fig. 1.

Attest:

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UNITED STATES PATENT OFFICE.

ALMERON J. JOHNSON, OF ROCHESTER, NEW YORK.

INSOLE FOR SHOES.

SPECIFICATION forming part of Letters Patent No. 307,117, dated October 28, 1884.

Application filed August 25, 1884. (No model.)

To all whom it may concern:

Be it known that I, ALMERON J. JOHNSON, of Rochester, in the county of Monroe and State of New York, have invented a new and useful Improvement in Insoles for Shoes, which improvement is fully set forth in the following specification and shown in the accompanying drawings.

It is desirable to make the fore part of the inner sole of a shoe, or that part that is under the ball and toes of the foot, flexible and easy to yield to a pressure of the foot, and at the same time have the back part of the same, or that part under the instep and heel, firm and solid, to assist to hold the shoe in shape. A shoe having the inner sole thus constituted is easy and comfortable on the foot, and easy to walk in, while it wears longer than a shoe with a more rigid insole. The object of my invention is to produce such an inner sole for a shoe—that is to say, an inner sole having a flexible fore part made, preferably, of equal sheets of thin leather and textile fabrics, solidly united with water-proof cement, and a firmer back part made of thick leather, to assist in supporting the upper of the shoe, at the sides and heel thereof.

Referring to the drawings, Figure 1 is a view of my improved inner sole for shoes, the surface shown being that within the shoe or next the foot of the wearer; Fig. 2, a view of the reverse side of the sole; and Fig. 3, a vertical longitudinal section of the same, sectioned along the dotted line in Fig. 1, and viewed as indicated by the arrow.

Referring to the parts, A is a solid piece of leather of sufficient thickness and firmness to stay the sides of the shoe, and assist to hold it in shape, reaching from the heel to a point under the instep or middle of the foot. This piece of leather is of uniform thickness, excepting at the forward end, where it is tapered or "skived" to an edge, as shown in Fig. 2, for the purpose of lapping onto the parts forming the fore part of the sole.

B is the fore part of the sole, made up of different parts cemented together, the said fore part being tapered at its rear end and cemented to the part A, as shown, to form a continuous and complete insole, the two parts A and B lapping upon each other at the tapering parts.

The upper part, *a*, of the fore part, B, of the insole I prefer to make of strong water-proof canvas or cotton duck, or other textile fabric, cemented to a thin sheet or shaving of leather or india-rubber, *b*, by a layer of water-proof cement, *c*. In making up the fore part, B, of the sole in this manner a very thin sheet of leather or india-rubber, *b*, can be used, while the firm hard-twist duck *a* gives strength to the part, and prevents the stitches with which the sole and upper are held together from pulling or cutting through, which is sometimes the case when leather alone is used. The duck is water-proof of itself, and I prefer to use a water-proof cement at *c* between the parts *a* and *b*—such, for instance, as pure para cement—rendering the fore part of the sole, or the part that comes in contact with the ground while upon the foot of the wearer, thoroughly water-proof. Leather of itself is in a degree absorptive—that is to say, it receives and conveys water or dampness by capillary attraction—on which account a purely leather sole of a shoe admits of dampness being conveyed from the ground to the foot, which is one objection I wish to overcome in my invention herein set forth.

An insole thus formed is thinner than one made wholly of leather in the usual way, is very pliable, and yields readily to the pressure of the foot. The edge is soft, bends readily outside of the row of stitches to any strain or pull upon the upper-leather of the shoe, and will not cut said upper-leather, or cause it to break or crack along the line where it comes in contact with the edge of the insole, which frequently occurs when a more rigid insole is used.

In producing this improved insole for shoes I first cement a thickness or layer of cotton duck or other fabric onto a thin sheet or shaving of leather of a size out of which to form the fore part of the insole; then attach to this, in the same plane therewith, preferably with cement, a strip of thicker leather sufficiently large out of which to form the back part of the

insole; then cut or trim this compound piece thus composed to the form of the sole required with a die or otherwise.

In constructing a shoe with this improved insole the upper-leather is lasted upon the insole in the usual manner, after which the outer sole and heel are secured in place in the usual way.

I do not claim, broadly, an insole for a shoe made in part of leather and part of textile fabrics cemented or otherwise joined together, such having been before known and described.

What I claim as my invention is—

An insole for shoes, consisting of a back or heel part, A, extending about half the length of the insole, made of thick leather, and a front part, B, made of thin leather faced with canvas cemented thereto, the said canvas and thin leather parts being both of the same outline, and rigidly secured to the heel part A at the middle of the foot, to form a continuous insole, substantially as shown and described.

A. J. JOHNSON.

Witnesses:
E. B. WHITMORE,
M. D. PHILLIPS.