

958,013.

Patented May 17, 1910.

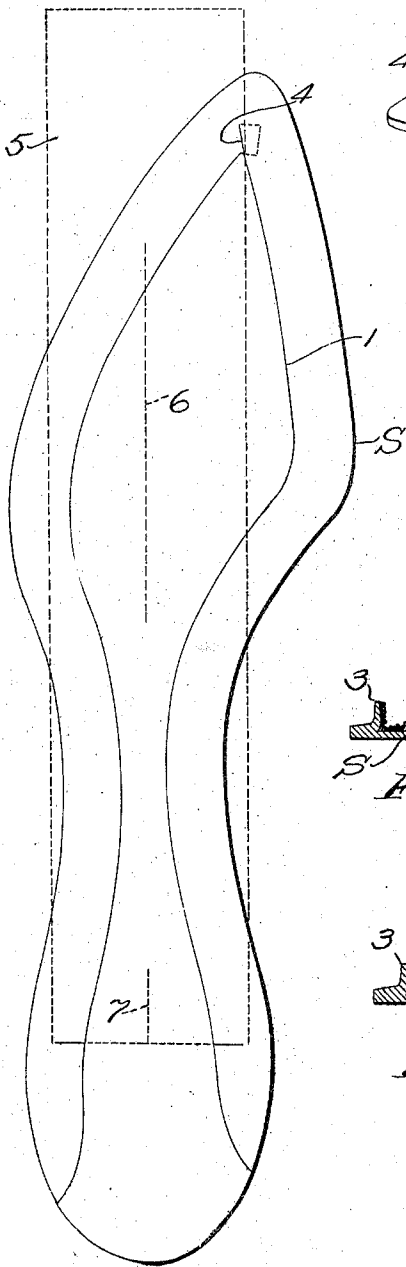


Fig. 1.

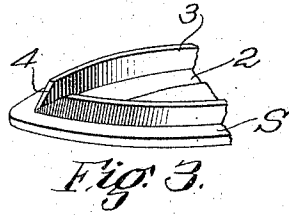


Fig. 3.



Fig. 4.

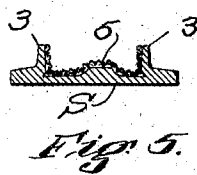


Fig. 5.

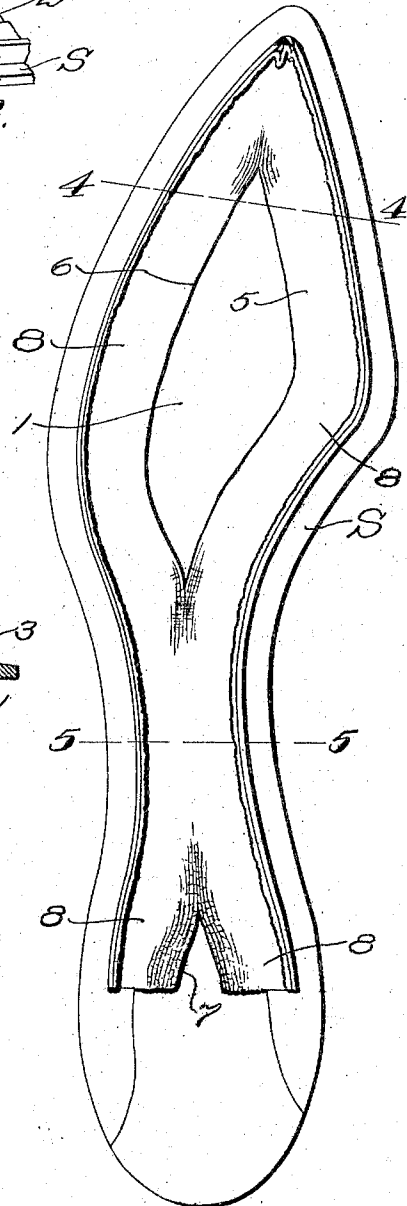


Fig. 2.

Witnesses:
 Fremont F. Hatch.
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UNITED STATES PATENT OFFICE.

THOMAS J. RYAN, OF ROXBURY, MASSACHUSETTS, ASSIGNOR TO THOMAS G. PLANT,
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INSOLE FOR BOOTS AND SHOES.

958,013.

Specification of Letters Patent.

Patented May 17, 1910.

Application filed April 15, 1909. Serial No. 490,160.

To all whom it may concern:

Be it known that I, THOMAS J. RYAN, a citizen of the United States, residing at Roxbury, in the county of Suffolk and State of Massachusetts, have invented an Improvement in Insoles for Boots and Shoes, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts.

The invention to be hereinafter described relates to insoles which form part of the structure of boots and shoes. As well known by those skilled in the art, it is usual to provide insoles with a channel lip which is raised or turned up in order that subsequent operations, such as sewing the insole to other parts, may be performed properly; and it is likewise usual in some kinds of insoles to reinforce the insole by a layer of fabric, canvas or the like, cemented or otherwise secured thereto. When the channel lip is produced by cutting diagonally into the material of the insole around and toward the sole edge, it becomes difficult to turn the lip up from the channel, especially at the toe portion, because the perimeter of the lip edge or top is less in length than the base of the lip for any given extent of channel lip, so that as one side portion is upturned it will act to pull down or relay the lip on the opposite side. This condition is very marked in the pointed toe insoles. Assuming, however, that the lip has been upturned, the layer of reinforcing fabric or canvas, which usually has one surface coated with an adhesive substance or cement, is placed upon the channeled surface of the insole, tucked into the channel, and the projecting edge portions are then trimmed off. Where a sheet of fabric or canvas has been thus applied, its dimensions have been such as to practically cover the entire surface of the insole, although the more essential function of the fabric is to reinforce that portion designed to receive the sewing loops which unite the insole to other portions of the shoe structure. Much waste and expense has attended the manufacture of reinforced insoles thus formed, owing to the size of the reinforcing fabric or canvas and the fact that the cement or adhesive, itself an expensive item, has necessarily been applied to the entire surface of the fabric even at portions where its reinforcing qualities were not

needed, as for instance near the central portion of the sole especially at the forepart thereof.

With the above matters in view the aims and purposes of the present invention will be best understood and made clear by the following description and accompanying drawings of one embodiment of the present invention, which, in its true scope is definitely set forth by the claims.

In the drawings: Figure 1 is a plan or face view of an insole provided with a cut extending diagonally into the surface toward the sole edge to produce the channel lip, the reinforcing fabric or canvas of the present invention and its relation to the insole being indicated in dotted lines; Fig. 2 is a plan or face view of a reinforced insole constructed in accordance with the present invention, showing the reinforcing fabric or canvas secured thereto; Fig. 3 is a detail perspective view of the toe portion of an insole, showing the slit through the channel lip to permit the lip to be upturned; Fig. 4 is a section on the line 4—4, Fig. 2; and Fig. 5 is a cross section on the line 5—5, Fig. 2.

The insole S is formed with a cut or slit 1, extending diagonally into the surface of the insole toward the edge thereof to form the channel 2 and lip 3, Fig. 1, showing the outline of the cut or slit 1 and the channel lip prior to being turned up.

In order that the lip 3 may be readily turned up from the position indicated in Fig. 1 to that indicated in Fig. 3, the channel lip 3 at the toe end thereof is provided with a slit 4 extending substantially from the base portion of the lip to the edge thereof. This slit 4 is preferably made in a direction diagonally through the top surface of the lip toward the side edge of the sole before it is upturned, as indicated in Fig. 3 and by dotted lines in Fig. 1, the construction being such that the channel lip may be upturned at either side of the toe portion without one side drawing down or relaying the other and, at the same time, by the diagonal character of the slit, obviating an abrupt opening through which the channel guide might pass during the sewing operation, as will be readily understood by those skilled in the art.

Heretofore the reinforcing fabric or canvas which is to be tucked into and reinforce

the channeled portion of the insole has been formed of a width sufficient to extend over the entire surface of the insole at its widest dimension, into the channel and up the inner face of the lip, so that much waste has occurred not only by reason of the large and unnecessary size of the reinforcing fabric itself and the great amount of edge trimming essential in bringing it into conformation with the channel lip or edge of the insole, as the case may be, but also by reason of the cement or adhesive with which these waste portions of the reinforcing fabric were coated. In the present invention, however, the reinforcing fabric or canvas is made narrower than the widest portions of the insole, and slitted or cut so that the portions on either side of the slit or cut can be spread apart and tucked into the channel and, if desired, up the inner face of the channel lip.

As one embodiment of this feature of the invention, the reinforcing fabric 5, shown by dotted lines Fig. 1 and full lines Fig. 2, is formed of a width substantially the same as the insole at the shank portion between the bases of the channel lips plus the height of the lips, as indicated in Fig. 5. Manifestly this width, which for identification may be referred to as the shank width of the insole, would not permit the reinforcing fabric or canvas to be carried into the channel and up the lips at wider portions of the insole, as for instance at the forepart or heel. To meet this condition and enable the reinforcing fabric or canvas to extend into the channel and up the lips at these wider portions of the insole, the reinforcing fabric is provided with a slit 6 or 7, where it is to be applied to these wider portions, so that the sides 8 of the reinforcing fabric may be separated or spread apart, as indicated in Fig. 2, and carried into the channel and against the channel lip. At the separated portions of the fabric the insole will not be covered, but this is not material, as it is not necessary to reinforce the insole at such portions.

The fabric is preferably provided on one face with a coating of cement or adhesive, and when it has been applied, as indicated, the edge portions may be trimmed to conform to the top of the channel lip, although, as will be obvious, the amount of waste by reason of such trimming will be minimized, and yet the benefits of a continuous reinforcing fabric extending onto the surface of the insole between the channel lips be secured.

While the invention has been described with respect to a reinforcing fabric applied to an insole having a channel lip turned upward and toward the sole edge, it will be manifest that the invention is not confined to this character of insole; and while the

narrow reinforcing fabric or canvas has been described as having the particular slits 6 and 7, it is obvious that these slits may be variously formed, either wholly within the edges of the fabric or canvas, either centrally thereof or not, as the slit 6, or extending from an edge portion, as the slit 7, the invention being generic in these respects, as I believe I am the first to reinforce an insole by a reinforcing fabric or canvas applied to the surface of an insole and of less width than the distance between the channel lips, said fabric being slit to enable portions to be spread apart to reinforce the channel lip.

What is claimed is:

1. An article of manufacture comprising an insole having a channel and channel lip, and a strip of reinforcing material corresponding substantially in width to the shank width of the insole and applied to the shank and ball portions thereof, said strip of reinforcing material having a slit between the shank and toe portions and spread apart and tucked into the channel of the insole.
2. An insole for boots and shoes having an upwardly extending lip or projecting portion, and a reinforcing fabric corresponding substantially in width to the shank width of the insole and applied to the shank and ball portions thereof, said reinforcing fabric having a slit extending longitudinally at the forepart of the sole and spread or separated at the slit and secured to the sole in such separated or spread condition to reinforce the sole for the reception of fasteners.
3. An insole for boots and shoes having a channel lip slit at the toe portion and turned upward, and a strip of reinforcing material corresponding substantially in width to the shank width of the insole, applied to the shank and ball portions and having a slit, said strip of reinforcing material being spread apart at the slit and the portions at each side of the slit being tucked into and secured to the channel formed by the upturned lip to reinforce the insole for the reception of fasteners.
4. An insole for boots and shoes having an upturned channel lip, and reinforcing fabric of a width corresponding substantially to the shank width of the insole and applied to the shank and ball portions thereof, said reinforcing fabric having a slit forward of the shank portion and spread apart at the slit to extend to the sides of the insole into the channel.
5. An insole for boots and shoes having a lip, and a strip of reinforcing material of a width less than the width of the insole at the forepart and provided with a slit, the parts of the reinforcing material being spread or separated at the slit to extend to the sides of the insole to reinforce the sole

for the reception of fasteners, and said reinforcing material being applied to the shank and ball portions.

6. As an article of manufacture, an insole
5 for boots and shoes having a channel lip, and a strip of reinforcing fabric or canvas of substantially the same width as the narrowest dimension of the sole and completely covering the surface of the insole at such
10 narrow portion, and having a slit at that part of the fabric or canvas strip which overlies the wider portions of the sole, said slitted portion of the fabric or canvas strip being spread apart and tucked into the channel
15 of the sole to reinforce the sole at such channeled portion.

7. As an article of manufacture, an insole

for boots and shoes having a channel and lip, and a strip of reinforcing fabric of substantially the same width throughout as the
20 shank of the insole and completely covering the surface of the sole at the shank, said reinforcing strip having a slit in front and rear of the shank portion and spread apart and into the channel of the sole at the said
25 slit portions.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

THOMAS J. RYAN.

Witnesses:

A. H. HANDLEY,
WILHELMINA SCHUERCH.