

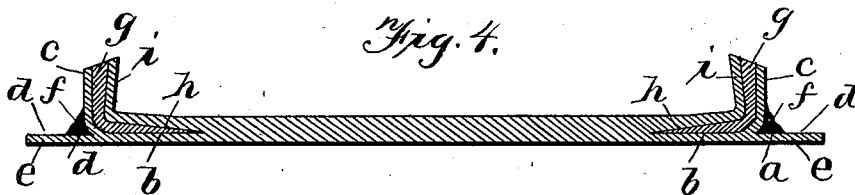
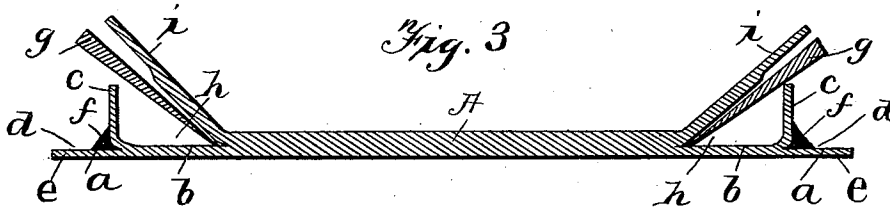
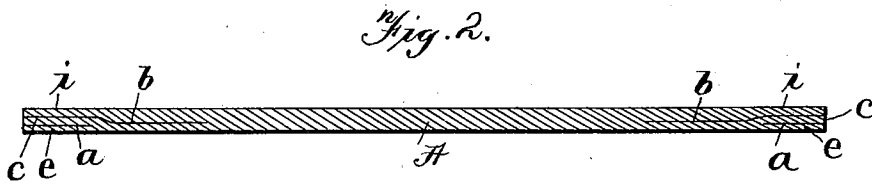
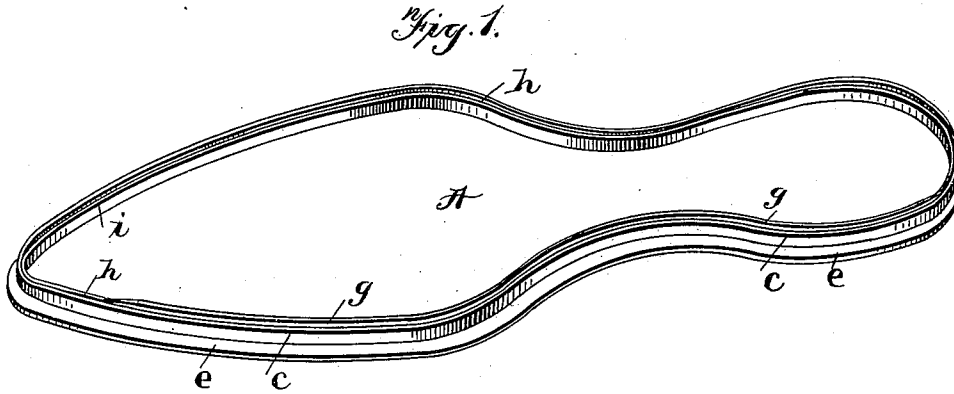
No. 635,559.

Patented Oct. 24, 1899.

W. LAWES.
INSOLE.

(Application filed Dec. 2, 1898.)

(No Model.)



WITNESSES

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INSOLE.

SPECIFICATION forming part of Letters Patent No. 635,559, dated October 24, 1899.

Application filed December 2, 1898. Serial No. 698,097. (No model.)

To all whom it may concern:

Be it known that I, WALTER LAWES, a citizen of the United States, residing at New Bedford, in the county of Bristol and State of Massachusetts, have invented new and useful Improvements in Insoles for Boots and Shoes or Soles for Turned Shoes, of which the following is a specification.

My invention relates to improvements in insoles for boots and shoes, and pertains to an insole provided with a plurality of channels, which provides a plurality of flanges, all of which will be fully described hereinafter and particularly pointed out in the claims.

The object of my invention is to provide the insole with a plurality of flanges formed by channels in the material of which the sole is formed, between which a reinforcement is placed and secured, whereby a substantial sewing basis is provided and the sole having a flexible center, whereby I provide a firm and smooth surface to the inside of the boot or shoe, making it pleasant and easy for the wearer, whereby the operator may trim off the inner seam perfectly smooth and level without injury to the reinforcement, whereby manufacturers can use a lighter stock for the insole and at the same time obtain a substantial and flexible insole and also a sole for turned shoes, and whereby a sole is produced having certain desirable characteristics not heretofore obtained by any other method so far as I am aware.

In the accompanying drawings, Figure 1 is a perspective view of a sole embodying my invention, one side of the sole showing the flanges and channels without the reinforcements and the other side showing it with the reinforcement cemented or fastened therebetween. Fig. 2 is a cross-sectional view showing the slits in the edge of the sole, which by turning up the separated portions forms the channels and flanges. Fig. 3 is a cross-sectional view showing the flanges turned up and the outer flange held in position by gutta-percha or similar material and the reinforcement being placed in position. Fig. 4 is a cross-sectional view showing the sole completed with the reinforcement in position and ready to be trimmed.

Referring to the drawings, A indicates the stock or body of the sole, which has an un-

der slit *a* around its edge and an upper slit *b*, also around its edge, as illustrated in Fig. 2. By means of these slits a lower flange *c* is formed, and when this flange is turned up, as illustrated in Figs. 3 and 4, a channel *d* is formed around the edge of the sole, which forms the feather-edge *e*. Placed in the channel *b* is a suitable quantity of gutta-percha or suitable material *f* for supporting the flange *c* in the proper position while being lasted and sewed. A reinforcement *g* is situated in the channel *h*, formed by the upper flange *i* when it is turned in the position shown in Fig. 3 for the reception of the reinforcing-strip *g*. The slits for forming the inner flange *i* and the inner channel *h* gradually increase in depth from their outer edges for the purpose of increasing the strength of the inner flange *i* and making it more substantial independent of the reinforcing-strip *g*.

In making a sole of this character I slit the edge of the sole, as illustrated in Fig. 2, turn up the upper or inner flange *i*, and then turn up the lower flange *c* and place around it the gutta-percha or similar material *f* for holding it permanently in the position shown in Figs. 3 and 4. The reinforcing-strip *g* is then placed between the flanges *d* and *i* and cemented in position by the use of ordinary leather cement or glue and the parts forced into the position shown in Fig. 4. The insole is then completed, and the sewing-flange, composed of the two flanges *d* *i* and the reinforcing-strip *g*, can then be trimmed to suit the character of work desired without injury to the insole or the sewing-flange and also leaves a perfectly smooth seamless surface for the foot of the wearer, aside from its being exceedingly strong and durable.

I am aware that insoles have heretofore been provided with a ridge pressed or embossed in them, that heretofore a piece of tape has been cemented around the feather-edge, and also that it is old to have an ordinary channel cut around the edge and the flange turned up and covered with canvas. Each of these, however, essentially differs from my invention, which involves the idea of having a plurality of slits around the edge of the insole extending inward in the same direction, and by turning the flanges up two channels

are produced, the outer one forming the usual feather-edge and an upwardly - extending flange, which, together with the flange formed by the inner channel, forms two walls, between which the upper portion of the reinforcing-strip is placed, and the upper slit being longer for extending in beyond the lower slit forms a space or channel between the upper flange and the body or stock of the sole, between which the inner edge of the reinforcing-strip is also clamped and fastened.

It will be noted that the inner edge of the reinforcing-strip *g* is cut away to a tapering edge to fit in and correspond with the shape of the channel formed by the upper slit and by means of which no ridges or bulges are formed on the inner surface of the insole, thus making a perfectly smooth inner surface for the foot of the wearer.

It will be noted that the upper slit, as just stated, extends considerably beyond the outer slit or channel, which provides two horizontal parallel walls, between which the inner edge of the reinforcing-strip is secured, and this construction produces a projecting sewing-flange which is equally as strong as the insole itself, thus making a most durable construction.

An insole constructed as hereinbefore described and shown avoids the difficulties heretofore existing in prior constructions in that there is no seam or bulge upon the insole, in that it can be trimmed as much as desired without injury or weakening the inner seam

and without detriment to the strength of the sewing-flange, and avoids discomfort to the wearer.

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

1. A sole for boots and shoes having its edge provided with two inwardly-extending slits one above the other, the upper slit extending inward beyond the inner edge of the lower slit, the upper walls of the slits being turned upward to form two parallel extending walls, and a reinforcing-strip situated between the walls and extending inward beyond the inner edge of the lower slit, substantially as described.

2. An improved sole for boots and shoes provided with two inwardly-extending slits forming two separate upper walls, the upper walls of the slits turned upward to form a channel between them, whereby the upper walls of the slits have separate and independent points of connection with the sole and a reinforcing-strip situated and secured between the upturned walls of the slits, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

WALTER LAWES.

Witnesses:

LESTER W. JENNEY,
OLIVER PRESCOTT, Jr.