

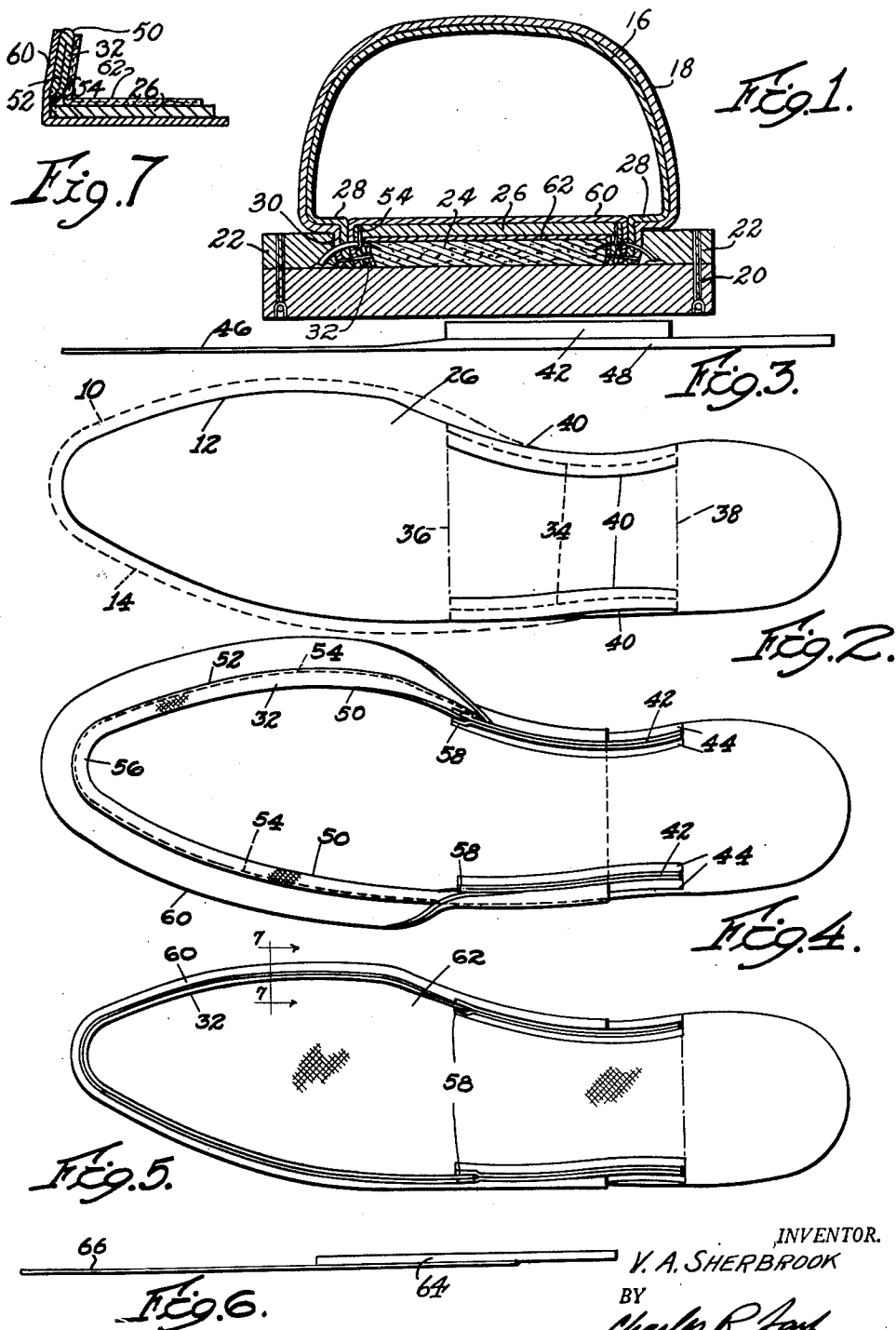
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INSOLE HAVING SEPARATE ATTACHED SEWING RIBS

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INSOLE HAVING SEPARATE ATTACHED
SEWING RIBS

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3 Claims. (Cl. 36—22)

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This invention relates to a new and improved welt-type insole and the principal object of the invention resides in the provision of an insole of the class described having an outline smaller in area and particularly in width than the corresponding last with which the insole is intended to be assembled.

A further object of the invention resides in the provision of a new and improved sewing rib or lip; the provision of a new and improved sewing rib or lip formed by channeling the insole at the shank only and by securing a fabric tape to the forepart of the insole, the tape being joined and cemented to the channel-formed lip and the tape being secured to the insole forepart at the extreme edge thereof; and the provision of an insole as aforesaid including a cover which is applied to the side of the insole opposite the rib, said cover being turned up and cemented to the tape around the forepart so as to provide an upstanding rib or lip.

Another object of the invention is the provision of a forepart for an insole which is greatly reduced in thickness and increased in flexibility, this thinner forepart being obtained by splitting the insole or by securing or splicing a thin sheet of suitable material to a blank which consists only of the heel and shank part of the insole conformation. This case is a division of my co-pending case Serial No. 19,379, filed April 6, 1948, which has matured into Patent No. 2,571,299 granted October 16, 1951.

Other objects and advantages of the invention will appear hereinafter.

Reference is to be had to the accompanying drawings in which

Fig. 1 is a cross section through a conventionalized last and illustrating the invention;

Fig. 2 is a top plan view of an insole showing the first step in the process of making insoles according to the present invention;

Fig. 3 is an edge view showing the thin forepart;

Fig. 4 is a view similar to Fig. 2 but showing the next step in making the insole;

Fig. 5 shows the finishing steps in making the insole;

Fig. 6 is an edge view showing a modified insole with a thin forepart; and

Fig. 7 is a section on line 7—7 of Fig. 5.

Reference is hereby made to my co-pending application, now abandoned, S. N. 666,349, filed May 1, 1946, in which there is disclosed an insole having an area less than the corresponding dimensions of a last with which the insole is in-

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tended to be assembled. The usual insole will have an outline as indicated by dotted lines 10 in Fig. 2; in the present case, however, the insole will have an outline as at 12 in this figure and it will be seen that there is a strip 14 removed in the present insole from the usual insole for exactly the same style and size of shoe.

The result of this construction has been indicated in Fig. 1, wherein the reference numeral 16 indicates the last, the upper being shown at 18, the outsole at 20, the welt at 22, and the filler at 24. The new insole is shown at 26 and it will be seen that there is a distance at 28 at the lateral sides of the insole 26 overlapped by the last and that, therefore, the upper margin as at 30 is brought in under the last, as at 28, and is secured to the rig generally indicated at 32 in the usual manner, leaving a portion of the inside of the shoe at the edges thereof completely free of the insole.

In the present invention the first step in the operation of making the insole is to cut the same out on line 12. The second step is to score or mark the insole along the lines 36 and 38. The lines 34 indicate the location of the sewing rib or lip in the shank of the shoe; the line 36 indicates the forward termination of these ribs and the line or score 38 indicates the heel breast line.

After the marking, the insole is channeled at lines 40 and as is well known in the art, such channeling operation will result in ribs or lips 42 after the two plies thereof have been lifted up and cemented together. The result of the channel is shown by the depressions 44.

The next step in the operation of making the insole is to split or cut away a portion of the forepart as indicated at 46 in Fig. 3, so as to provide a very thin forepart with a conventionally sized shank and heel part 48. This results in a much more flexible shoe but does not reduce the strength thereof because of the fact that any strength or wearing quality of the shoe does not depend on the thickness of the forepart of the insole.

The next step in the operation is to sew a tape forming the rib 32 all around the forepart of the insole, as clearly shown in Fig. 4, the tape having a free, folded edge 50 and a combined edge at 52 comprising a pair of plies secured together by a line of stitching 54 which line of stitching also, of course, secures the tape 32 to the insole at the extreme edge thereof. The tape originally lies down more or less flatwise on the insole except perhaps at 56, where it necessarily is bunched a little.

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The tape 32 is brought in between the two plies of each lip 42 at the shank portion as at 58 to be spliced into the lip 42 and the tape and the lip 42 are cemented together so that one forms a continuation of the other.

A cover generally indicated at 60 is cemented to the opposite side of the insole and is provided with laterally extending margins which are turned up and cemented to the tape 32, thus providing that the tape stands up in the correct position with a natural inward incline, see Fig. 7, to receive the duck 62.

It will be seen that this invention provides a new and improved welt-type insole having a flexible forepart and having a new and improved rib or lip construction.

It is also pointed out that it would be impossible to have a split or extra thin forepart and a channel type of sewing rib or lip; and, therefore, this invention provides for all the advantages to be derived by the thinner forepart and by the use of an attached rib.

Fig. 6 shows a modified insole according to the invention wherein the shank and heel portion is indicated at 64 and is of normal or usual thickness, but the forepart 66 comprises a thin sheet of any suitable material spliced or cemented to the shank portion, the latter being channeled as before and the tape rib being sewn to the thin forepart 66 as before.

This invention is a unique approach to the construction of a welt-type insole because of the fact that all previous welt-constructed insoles revolved around a feather, which is that margin of the insole from the edge of the last bottom to the upstanding rib. Whether this rib was channeled, cemented on, or sewed on, all of these methods had to contend with a feather and machine design was confined to insoles with feather margins.

This new insole could not be constructed without this conception of eliminating the feather around the forepart from the very beginning by cutting out the blank insole with the forepart area smaller than the last bottom.

The size of the forepart area depends on marginal dimensions which in turn are determined by thickness of box toe material, upper, etc.

The main benefits to be derived from this invention are as follows:

(1) Extreme flexibility without sacrifice of strength in insole construction.

(2) Forepart is very thin and devoid of channeling and, therefore, will at all times stay flat and not gutter.

(3) Since there is no feather there will be added wearing comfort and additional flexibility.

(4) Due to this type of insole construction closer insewing to the last bottom is possible and less bottom filler is needed, adding to the flexibility.

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(5) Saving material due to smaller area to begin with.

Having thus described my invention and the advantages thereof, I do not wish to be limited to the details herein disclosed otherwise than as set forth in the claims, but what I claim is:

1. An insole for welt shoes comprising a body having a featherless forepart, a pair of spaced channel shaped ribs adjacent the outer edges of the body only at the shank portion thereof, and an upstanding folded over fabric rib rising from the extreme edge of the body and extending from the shank portion about the forepart of the insole and connected at its ends to the respective channel ribs, the body being thinner and more flexible within the general area bounded by the fabric rib forward of the shank area than throughout the remainder of the insole.

2. An insole for welt shoes comprising a body having a featherless forepart, a pair of spaced channel shaped ribs adjacent the outer edges of the body only at the shank portion thereof, and an upstanding rib rising from the extreme edge of the body and extending from the shank portion about the forepart of the insole, said last named rib being connected at its ends to the respective channel ribs, the rib bounding the fore portion of the insole being a fabric strip.

3. An insole for welt shoes comprising a body having a featherless forepart, a pair of spaced channel shaped ribs adjacent the outer edges of the body only at the shank portion thereof, and an upstanding rib rising from the extreme edge of the body and extending from the shank portion about the forepart of the insole, said last named rib being connected at its ends to the respective channel ribs, the rib bounding the fore portion of the insole being a fabric strip, and a cover secured to the rib at its edges, covering the insole, and aiding the rib to stand out from the body portion.

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