Jan. 14, 1936. F. E. MANN 2,027,601

INSOLE

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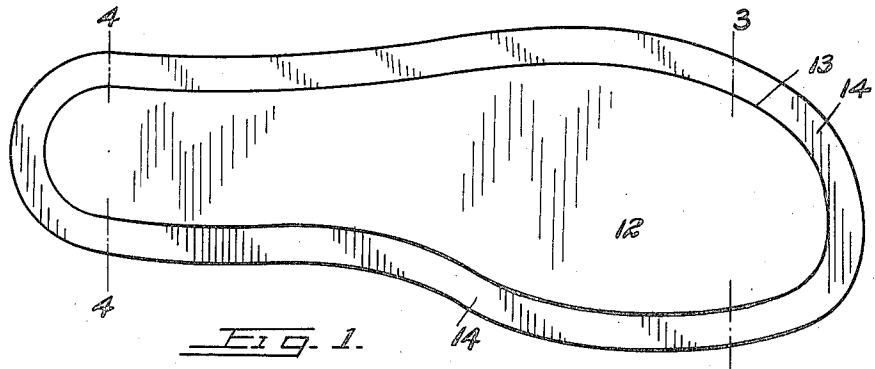


Fig. 1.

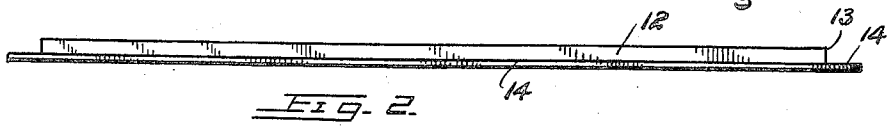


Fig. 2.

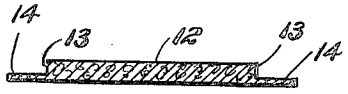


Fig. 3.

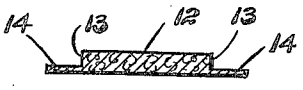


Fig. 4.

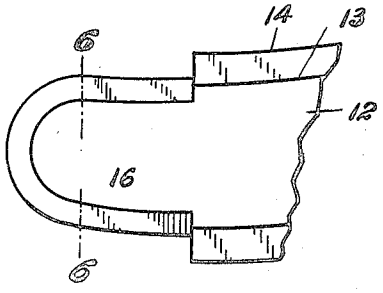


Fig. 5.



Fig. 6.

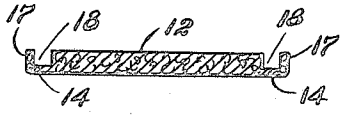


Fig. 7.

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Fig. 8.

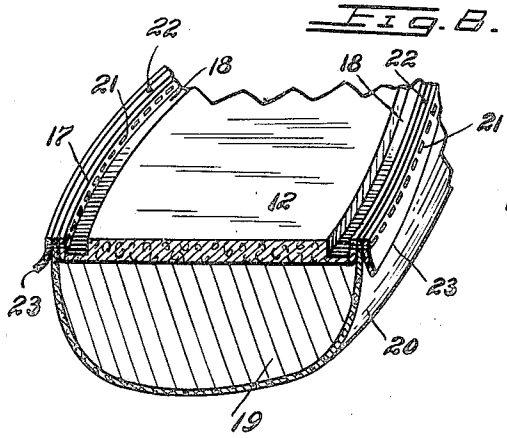
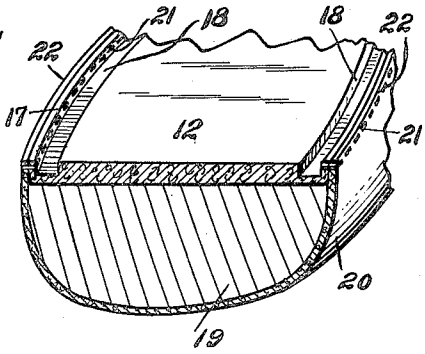


Fig. 9.



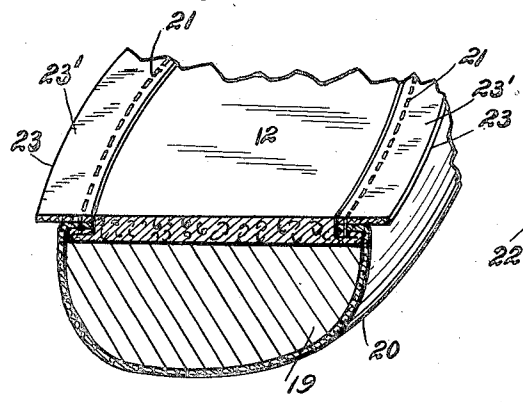


Fig. 10.

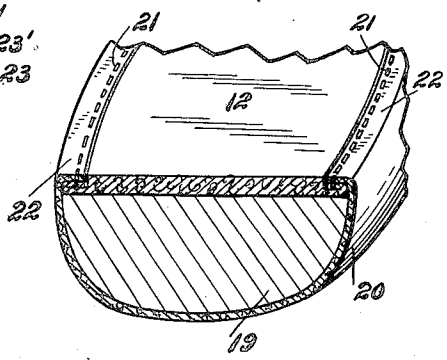


Fig. 11.

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UNITED STATES PATENT OFFICE

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INSOLE

Frank E. Mann, Preston, Ontario, Canada

Application September 29, 1934, Serial No. 746,159

2 Claims. (Cl. 36—22)

The invention has for its general object the production of a shoe of improved wearing qualities that is economical to manufacture in addition to presenting a sole portion that is susceptible of repair.

More particularly the invention aims to provide a rugged and sturdy shoe in which the customary filling between the insole and outsole is dispensed with. This is accomplished by employing an insole of leather or other suitable material of a thickness about equal to the combined width of an ordinary insole and the filler. The insole is cut-away at its marginal portion to reduce its thickness to that of an ordinary insole and a part of this cut-away portion is upturned to furnish a lip adjoining a groove or channel. The perpendicular lip is sewn to an upper while on the last and beaten or otherwise forced down flat together with the portion of the upper to which it is sewn so as to fill in the groove or channel. This makes it flush with the outer face of the insole. The outsole is then attached in conventional manner.

In the case of a welt shoe the welt is sewn to the upper and to the lip and beaten flat therewith in order that its bottom face may lie flush with the outer face of the insole. The outsole is then sewn to the welt as customary.

A distinct advantage of this construction is that the shoe not only retains its shape but that there are no exposed seams at the edge of the upper, consequently its wearing qualities are vastly improved. Further, the shoe is economical to manufacture on account of the lesser number of operations required and the saving of material on the upper.

Referring to the accompanying drawings; Figure 1 is a plan view of the insole showing its marginal portion cut away.

Figure 2 is an edge view thereof.

Figure 3 is a cross section along line 3—3 of Figure 1.

Figure 4 is a cross section along line 4—4 of the same figure.

Figure 5 is a fragmentary plan view of the insole showing the cut-away margin terminating at the heel.

Figure 6 is a cross section of the insole taken on line 6—6 of Fig. 5.

Figure 7 is a cross section of the insole depicting the marginal portion upturned to provide a lip adjoining a groove or channel.

Figure 8 is a sectional perspective view of the insole sewn to an upper and welt.

Figure 9 is a similar view showing the insole sewn to an upper only.

Figure 10 is a sectional perspective view depicting the lip, the upper and the welt beaten flat in the groove or channel.

Figure 11 is a similar view in which the welt is omitted.

Like numerals of reference indicate similar parts throughout the figures of the drawings.

In performing the invention an insole denoted at 12 has its underface cut away uniformly around its marginal portion as at 13 so as to reduce its thickness to that of an ordinary insole; while the part cut away is about equal to the thickness of the usual filler. The insole may be of leather or other suitable material, and the flange 14 resulting from thinning the margin may extend completely around as indicated in Figures 1 and 2. The flange may also terminate at the heel as shown in Figure 5. In this event the heel portion 16 is slightly beveled for attachment of the heel.

The next operation consists in upturning the peripheral portion of the flange so as to furnish a perpendicular lip 17 adjoining a groove or channel 18, as clearly shown in Figure 7. This lip is preferably fashioned on a machine adapted for this purpose.

The insole is then placed on a last 19 along with an upper 20 and the lip sewn at 21 to the edge portion 22 of the upper along with the welt 23—see Figure 8. The lip together with the edge portion of the upper and the welt is now beaten or otherwise pressed down flat in the groove or channel 18 with the outer face 23' of the welt flush with the bottom surface of the insole. This is clearly illustrated in Figure 10. In will be observed that the welt projects outwardly from the upper as customary ready for its attachment to the outsole. No filler is required because an even surface is presented for abutment with the outsole.

In the event of a shoe construction in which the outsole is nailed or otherwise attached directly to the insole without a welt, the lip 17 is sewn to the edge portion of the upper as depicted in Figure 9. The lip and the edge portion of the upper are then pressed in the channel so as to fill it and present an outer surface flush with the bottom surface of the insole, as shown in Figure 11.

What I claim is:—

1. An insole having its marginal portion reduced at its lower surface to provide a flange of reduced thickness, said flange having its outer edge bent downwardly perpendicular to the remainder thereof to provide a sewing lip and a

groove within which the sewing lip is adapted to be disposed.

2. A single layer insole having its marginal portion reduced abruptly at its lower surface to provide a flange of reduced and uniform thickness, said flange extending around the insole to the heel portion and having its outer edge bent downwardly perpendicularly to the remainder thereof to provide a sewing lip and a groove within which the sewing lip is adapted to be disposed.

FRANK E. MANN.