

Dec. 14, 1937.

E. QUINN

2,102,333

SHOE AND METHOD OF MAKING SAME

Filed Dec. 17, 1935

3 Sheets-Sheet 1

Fig:1.

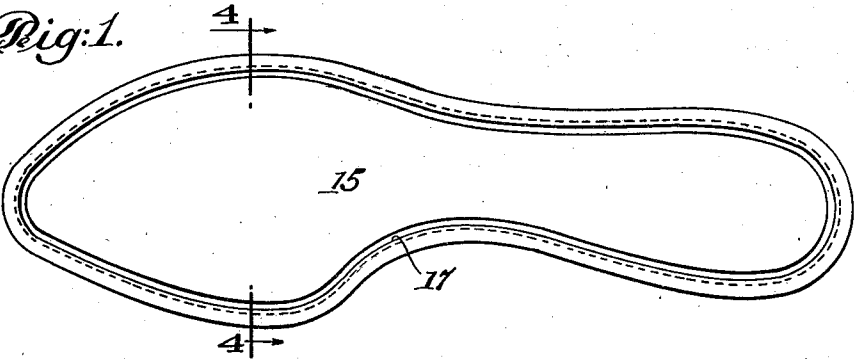


Fig:2.

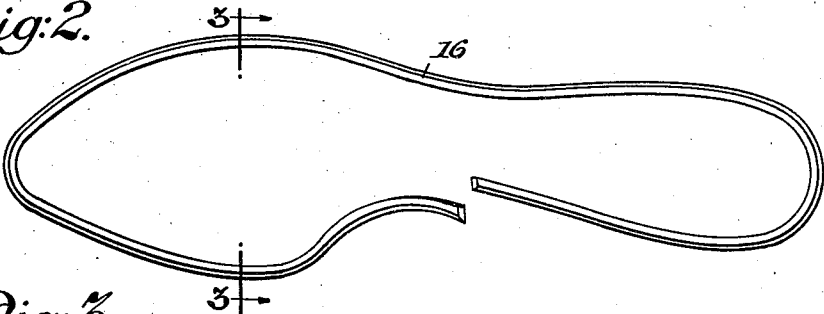


Fig:3.



Fig:4.

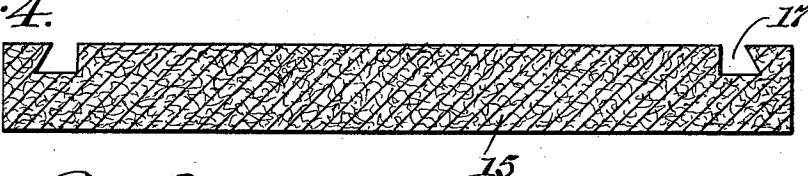
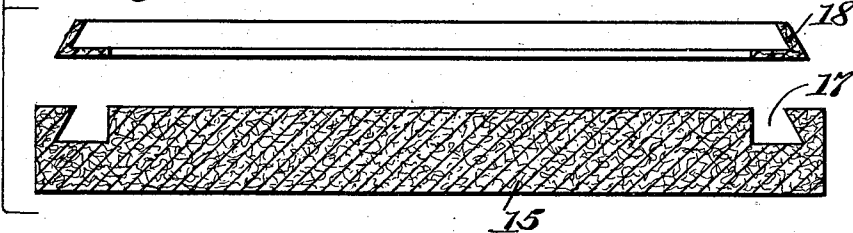


Fig:5.



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Fig. 6.

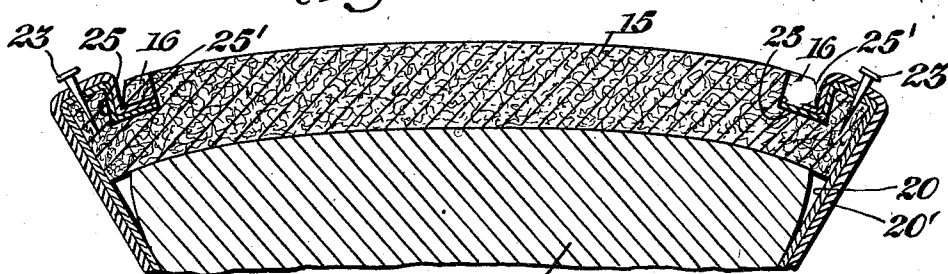
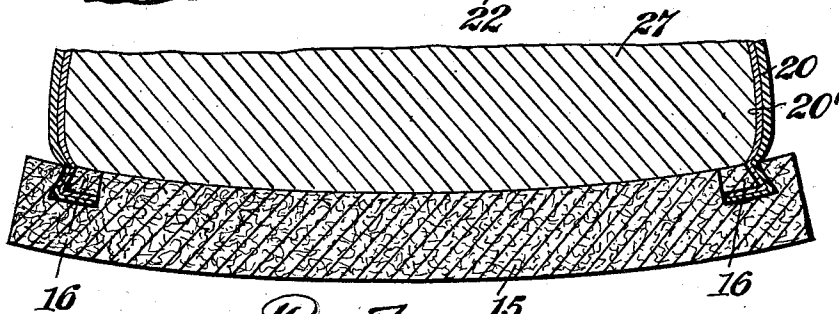
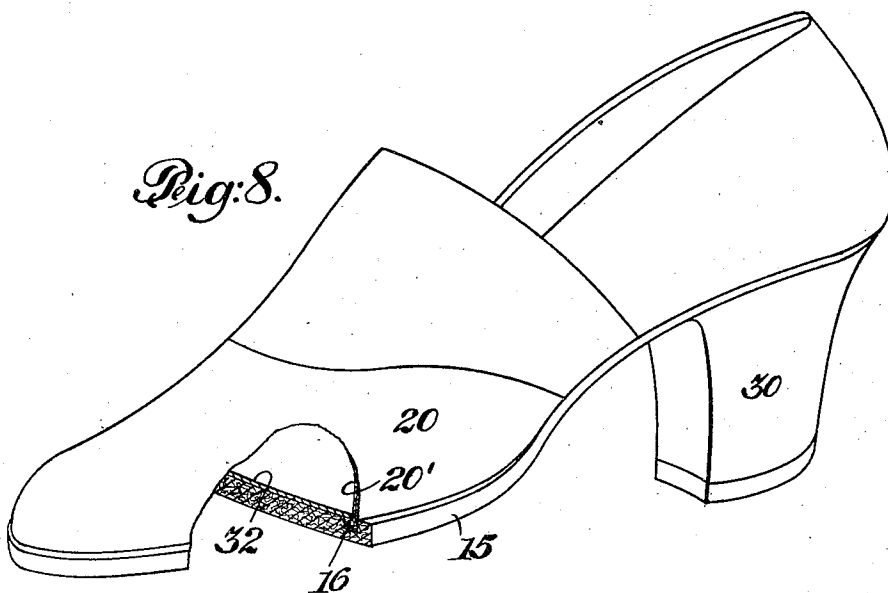


Fig. 7.

Fig. 8.



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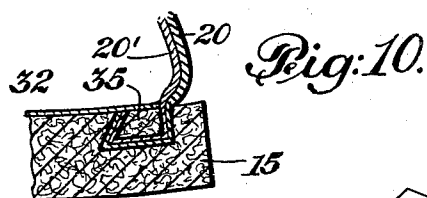
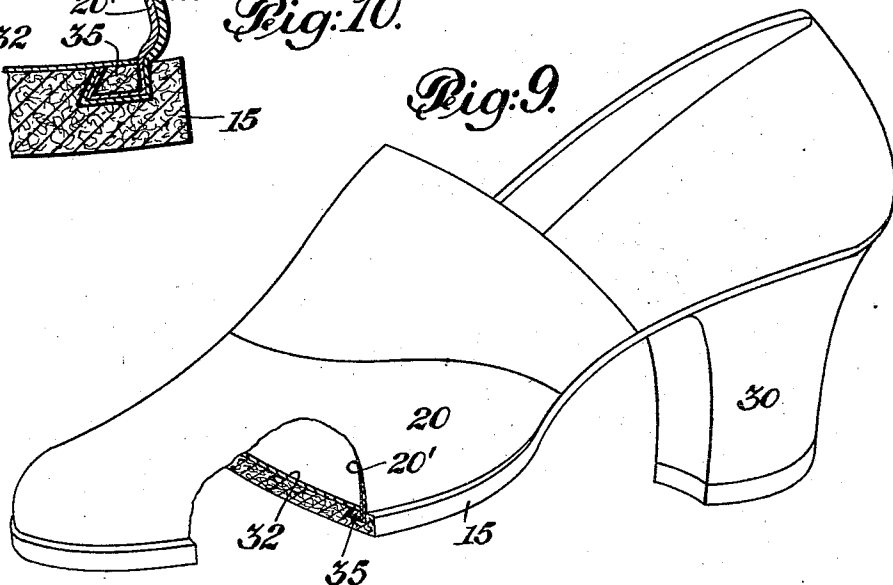
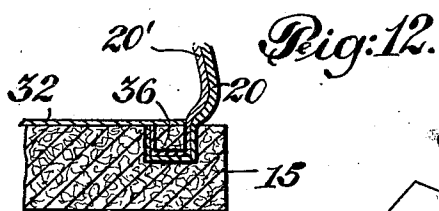
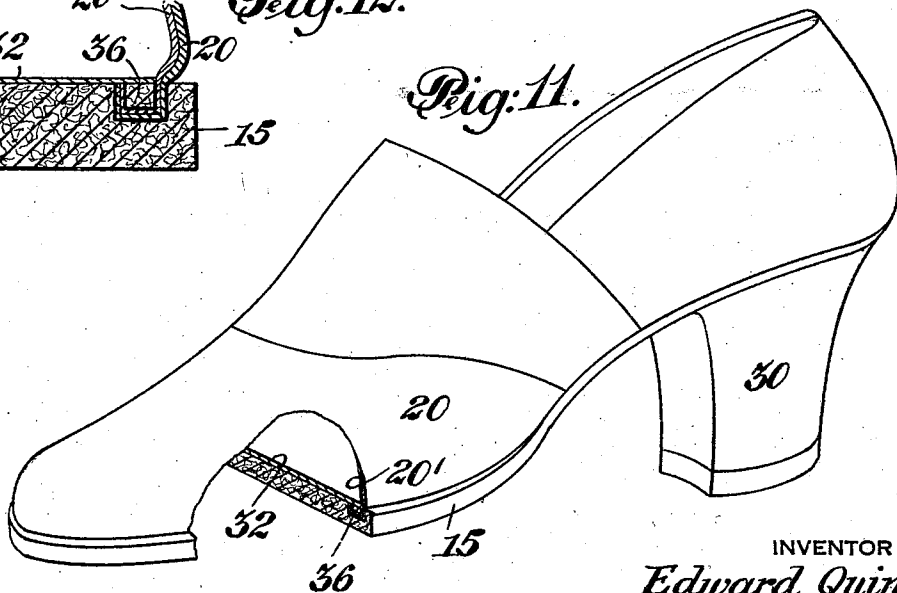
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3 Sheets-Sheet 3



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UNITED STATES PATENT OFFICE

2,102,333

SHOE AND METHOD OF MAKING SAME

Edward Quinn, Brooklyn, N. Y., assignor to The
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York, N. Y.

Application December 17, 1935, Serial No. 54,798

5 Claims. (Cl. 12-142)

My invention relates to shoes and shoemaking.

A principal object of my invention is to provide an improved shoe in which the upper parts are securely attached to the sole without stitching or tacks, staples or other metallic devices. Another principal object of my invention is to provide an improvement in shoemaking methods by which shoes embodying my novel construction may be simply, efficiently and economically produced. Other and further objects will appear from the following specification.

Referring to the drawings which form a part of this specification:

Figure 1 is a plan view of a rounded sole member having a groove or channel formed in the surface thereof inwardly of its edge.

Figure 2 is a plan view of a strip removed in forming the sole channel.

Figure 3 is a cross sectional view of the strip shown in Figure 2.

Figure 4 is a cross sectional view of the sole member taken on line 4-4 of Figure 1.

Figure 5 is a view of the sole similar to Figure 4 showing a second strip removed from the walls of the sole channel.

Figure 6 is a cross sectional view showing the shoe and upper assembled wrong side out on a last.

Figure 7 is a sectional view showing the shoe turned and second lasted.

Figure 8 is a perspective view of my completed shoe, shown partly in section to disclose the in-seam construction.

Figure 9 is a view similar to Figure 8 illustrating a modification of my improved shoe and

Figure 10 is a fragmental section showing the in-seam construction thereof on a larger scale.

Figure 11 is a perspective view, partly in section, of another modified construction, and

Figure 12 is a fragmental section showing the in-seam construction on a larger scale.

In making my improved shoe, I provide a rounded sole member 15 of leather or other suitable sole material, from the marginal portion of the flesh surface of which I remove an angular clincher strip or welt 16, thereby forming an angular groove or channel 17 inwardly of the edge of the sole. As shown, the strip is preferably of less breadth at the top than at the bottom thereof, its outer edge angling upward, and the groove 17 has the cross sectional shape of the removed strip.

When the strip 16 has been cut free of the sole, the sole edge may be flexed downwardly to spread the channel, moving the outer under-

cut wall thereof away from the strip, whereupon the strip may be freely removed.

The channel is then enlarged by removal of a waste strip 18 from the bottom and outer walls thereof, said strip having a thickness approximately equal to the thickness of the upper 20, the upper preferably comprising a lining 20'.

Prepared as above, the sole member is tacked onto a last 22, grooved side out, and the upper of the shoe is assembled on the last wrong side out, pulled over, and temporarily secured in lasted relation to the sole member by tacks 23-23. Adhesive cement 25, such as pyroxylin, may then be applied in the channel and the sole assembly margin of the upper is wiped into the channel, any surplus upper material extending beyond the bottom inner corner of the channel being trimmed away.

Next, the clincher strip 16 is inlaid in the channel, where it may be secured by a second adhesive application 25'. After the cement has set the lasting tacks 23 are removed, after which the shoe may be removed from the last and turned in the usual manner of making turned shoes. After turning, a second last 27 is driven into the shoe, the usual shank-piece being first inserted. The sole and the strip are then preferably levelled against the last in a standard cement sole attaching machine or sole levelling machine.

The shoe may be completed by attaching a heel 30, and by the usual trimming and finishing operations, including the removal of the last 27 and the insertion of a sock lining 32.

It will be noted, Figure 6, that the insertion of the upper end of the strip 16 into the sole channel is facilitated by the condition that the sole edge margin, conformed to the rounded last bottom, is arched to spread the channel during the first lasting operation, and that the bottom of the second last 27 (Figure 7) is similarly rounded so that the sole conformed thereto is arched in a reverse direction, tending to close the channel and to squeeze the upper margin and the strip 16 therein.

In the construction shown in Figures 9 and 10, the upper margin is held against all three channel walls and may be trimmed after insertion of the clincher strip 35. Also, the outer wall of the channel is substantially perpendicular to the surface of the sole and the inner channel wall angles inwardly downward, the sides of the strip 36 being substantially parallel to the walls of the channel.

Figures 11 and 12 disclose a modified construc-

tion in which the channel and the clincher strip 30 are both rectangular in cross section, permitting the shoe to be assembled on a flat bottomed last, as will be readily understood.

- 5 However constructed, the outer edge of the clincher strip is held in abutment with the upwardly extending portion of the upper, reenforcing the upper at the joint or seam similarly as does an insole in a welt or McKay shoe, or as
10 does a shoulder in conventional shoulder turned constructions. The finished shoe comprises a highly flexible shoe having a smooth interior and a strong and waterproof seam construction.

- In setting forth my invention I have described
15 a turned shoe. However, inasmuch as the novel features of my invention relate entirely to the seam construction, it will be apparent that similar ways and like means may be used to join the soles and uppers in shoes of other types. I there-
20 fore desire to have it understood that the foregoing description is merely illustrative of my invention and that such changes and adaptations may be made as fall within the scope of the following claims.

- 25 I claim:

1. A turned shoe comprising a sole member having a channel of angular cross section extending about the surface margins inwardly of the edge thereof, a strip of angular cross section inlaid in said channel and an upper clinched
30 between said strip and the outer wall of the channel, the inlaid sides of said strip being substantially parallel to the channel walls and the surface of the strip lying flush with said margins of the sole member.

- 35 2. A shoe comprising a leather sole member having a groove extending about the surface margins inwardly of the edge thereof, a wall of

said groove being undercut, a strip substantially conforming to the cross sectional shape of the groove inlaid therein, and an upper clinched between said strip and said undercut wall, said strip having a surface substantially flush with
5 said margins of the sole member.

3. In shoemaking, the method of attaching an upper to a sole member which includes: providing a sole member having a marginal groove on its flesh side, assembling the sole member on a
10 last flesh side up, assembling an upper on said last wrong side out and extending the lasting allowance of the upper into said groove, securing a filler strip in the groove in engagement with the lasting allowance of the upper, remov-
15 ing the last and then turning the shoe.

4. In shoemaking, the method of attaching an upper to a leather sole member which includes: providing a rounded sole member having a channel of angular cross section about the sur-
20 face margins inwardly of the edge thereof, extending the lasting allowance of the upper into said channel and against the outer wall thereof, providing a filler strip having the cross sectional shape of said channel, and squeezing said strip
25 into the channel against said upper margin.

5. In shoemaking, the method of attaching an upper to a sole member which includes: removing an angular strip from about the surface margins
30 of the sole member inwardly of the edge thereof to form an angular marginal channel, removing material from walls of the channel whereby the channel is uniformly enlarged, adhesively securing the lasting allowance of the upper into the channel against the outer wall thereof, and ad-
35 hesively securing said strip into the channel against said upper margin.

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