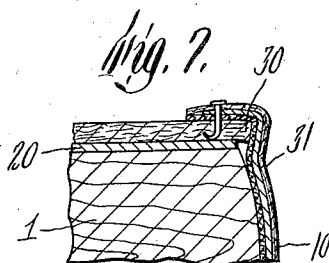
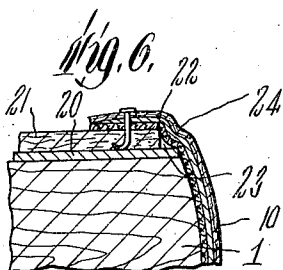
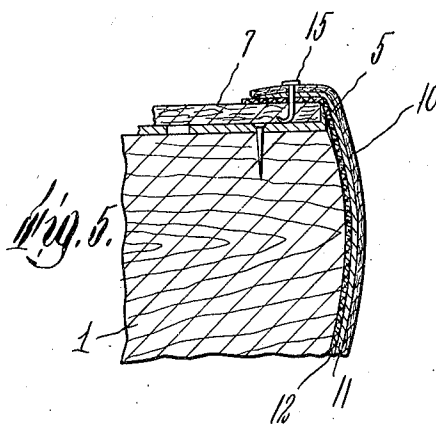
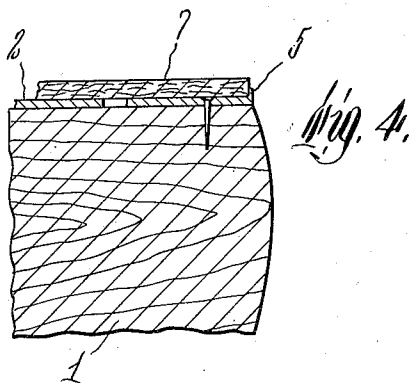
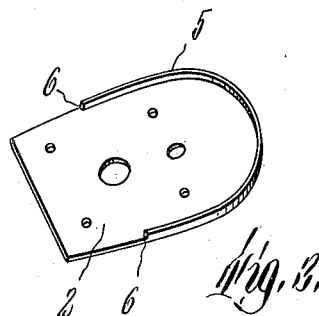
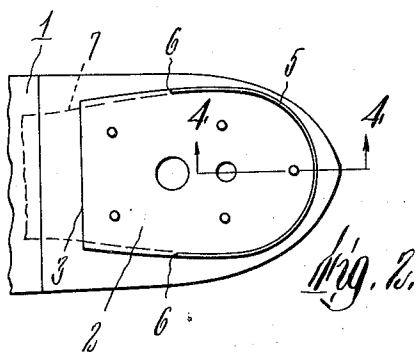
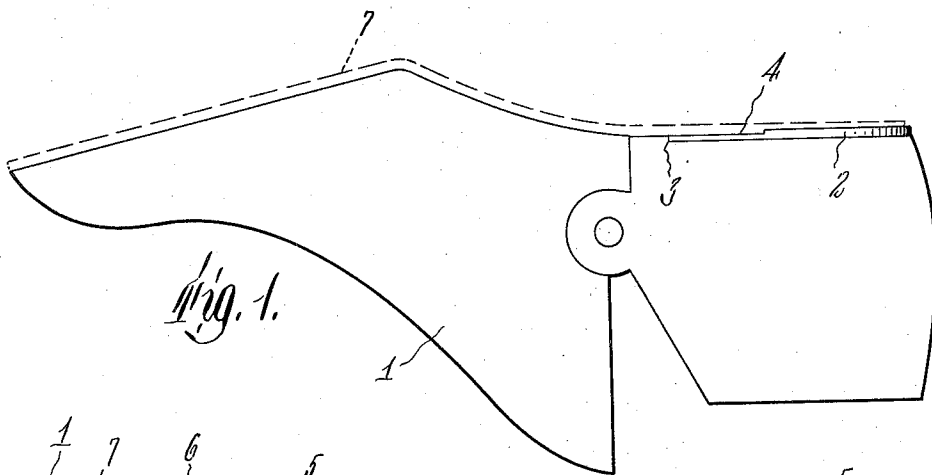


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F. L. AYERS

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MEANS FOR FACILITATING PLACING OF SOLE MEMBERS
AND THE SHAPING OF SHOE COUNTERS
Filed July 2, 1935



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MEANS FOR FACILITATING PLACING OF
SOLE MEMBERS AND THE SHAPING OF
SHOE COUNTERSFred L. Ayers, Watertown, Mass., assignor to
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Maine

Application July 2, 1935, Serial No. 29,478

1 Claim. (Cl. 12—141)

In the making of shoes it is the usual practice to tack a sole member to the bottom of the forepart and shank of a last, centering the sole member on the last forepart first, and by eye, without other aid than the skill and experience of the workman. The heel end of the sole member thus engages the last wherever it may fall, no attention being paid to this when the sole is tacked to the last. This sole is the innersole of a shoe of the two-sole type, such as a welt, McKay or cement process shoe. Particularly, when an initially soft counter stiffener is incorporated in the shoe upper and caused to become hard and stiff after the shaping of the shoe, an improper registry of the heel end of the sole member on the last, whether by reason of the use of an improper size of sole member or because of faulty centering of the forepart of the sole member on the forepart of the last, results in a poor counter contour which detracts from the appearance of the shoe.

In accordance with the present invention, means is provided for locating the sole member with reference to the heel end of the last. This means may, if desired, be used to initially gage the placing of the sole member, or if it is still desired to locate the sole member initially with reference to the last forepart, this means will indicate whether or not the sole member is of the proper size for the last and will aid in determining the proper lateral position of the heel end of the sole member with reference to the last. This heel locating means may, if desired, be a part of the usual metal heel seat plate of the last, against which the heel seat tacks are clinched during the lasting of the heel seat of the shoe.

For a more complete understanding of this invention reference may be had to the accompanying drawing, in which

Figure 1 is a side elevation of a last illustrating the invention.

Figure 2 is a fragmentary view of the heel end of the sole face of the last shown in Figure 1.

Figure 3 is a perspective of the last heel seat plate.

Figure 4 is a detail section on line 4—4 of Figure 2, and showing a sole member correctly related to the heel seat plate.

Figure 5 is a view similar to Figure 4 but showing the upper materials lasted over and tacked to the heel end of the sole member.

Figures 6 and 7 are views somewhat similar to Figure 5 but illustrating the undesirable effects of the heel end of the sole member terminating

short of or unduly extended, respectively, with reference to the heel end of the last, and when an initially soft counter is employed, a flat heel seat plate being shown.

Referring to the drawing, at 1 is indicated a conventional type of last to the sole face of which, at its heel end, is secured a metal heel seat plate 2. As shown, the heel end of the last on its sole face is recessed as at 3, to receive this plate with its upper face 4 forming a smooth continuation of the sole face of the last immediately forwardly thereof. This plate 2 is provided with a marginal flange 5 projecting from its outer face and extending about the rear edge of the plate and forwardly somewhat on opposite sides, terminating as at 6 on each side. This flange 5 is located at the extreme margin of the heel seat face of the last, is relatively thin and is of a height not exceeding the thickness of a sole member which is to be applied to the sole face of the last. The sole member, which is intended to be tacked to the last, is shown by dotted lines 7 in Figure 1, and may be seated at its heel end within the flange 5. It may, if desired, be initially located relative to the last with reference to this flange 5 and then is tacked to the forepart and shank of the last in the usual manner. If desired, however, the sole member may be engaged initially from the forepart of the last and tacked thereto, whereupon, when the heel end is brought into engagement with the heel seat portion of the last, it should fit nicely within this flange if the sole member is correctly related and centered with relation to the forepart and shank of the last and is of the proper size. If the workman finds that after the sole has been correctly located with reference to the forepart of the last, its heel end does not come into the right relation to the flange 5 he may know that the sole member is not of the proper size.

When it has been determined that the sole member is of the proper size and is correctly related to the last it may be secured in position for the lasting operation. During the lasting operation the outer 10, with or without a doubler, the initially soft counter 11, and the lining 12 are brought over the heel end portion of the last and are secured in position as by the usual nails or tacks 15, as shown in Figure 5. The flange 5 is so positioned that the upper materials are passed smoothly over it and the adjacent portions of the last and the sole member so as to produce the desired smooth contour over these parts. Thus a proper contour when the counter portion of the shoe is completely finished, and

the counter stiffener is rendered hard and stiff is automatically ensured without particular attention being paid to this part of the shoe.

5 The effects of improperly positioned heel portions of sole members on the last, particularly with initially soft stiffeners, is illustrated in Figures 6 and 7, where a flat heel seat last plate 20, such as commonly heretofore employed, is used. In Figure 6, the sole member 21 is shown as terminating at its rear end forwardly of its proper position, its end being located at 22. This leaves a re-entrant angle portion 23 between the outer rear edge of the sole member and the outer face of the last plate 20 into which the upper materials 10 are more or less crowded when they are lasted over the shoe, thus giving a flattened or even a re-entrant angle contour, as at 24, to the lower margin of the counter portion of the shoe. Where the sole member extends too far rearwardly it 15 may take the position shown in Figure 7, wherein the rear end portion 30 of the sole member extends back from the rear edge of the sole plate 20. When the upper materials are lasted about this projecting edge a flattened or even re-entrant portion 31 is formed on the counter portion of the shoe somewhat higher up on the shoe than is the case of the construction shown in Figure 6. Both of these faults detract materially from the appearance of the finished shoe and are easily 20 avoided by the use of this invention. The presence of the flange 5 of the heel seat plate of the last, even when the rear edge of the sole member is slightly too far forward, aids materially in

preventing the formation of a re-entrant angle portion, such as shown in Figure 6, and does much to cure an improper contour even though the fitting of the rear end of a sole member is somewhat imperfect. If the sole member extends too far rearwardly this flange 5 prevents the seating of the sole member on the heel seat plate and calls immediate attention of the operator to the fact that the sole member is improperly fitted for that particular last or improperly related thereto, so 10 that the operator can correct the difficulty, which is so noticeable that it will not be overlooked and the lasting of a shoe carried out with the parts improperly fitted.

From the foregoing description of one embodiment of this invention it should be evident to those skilled in the art that various changes and modifications might be made without departing from the spirit or scope of this invention as defined by the appended claim. 15 20

I claim:

A last having a recess at the heel end of its sole face and a heel seat plate seated in said recess with its outer face forming a smooth continuation of the sole face of the last immediately 25 forwardly thereof, said plate having a marginal flange projecting from its outer face and extending about the rear edge of said plate and forwardly on opposite sides, said flange being located at the extreme outer margin of the seat face of 30 said plate.

FRED L. AYERS.