

June 2, 1942.

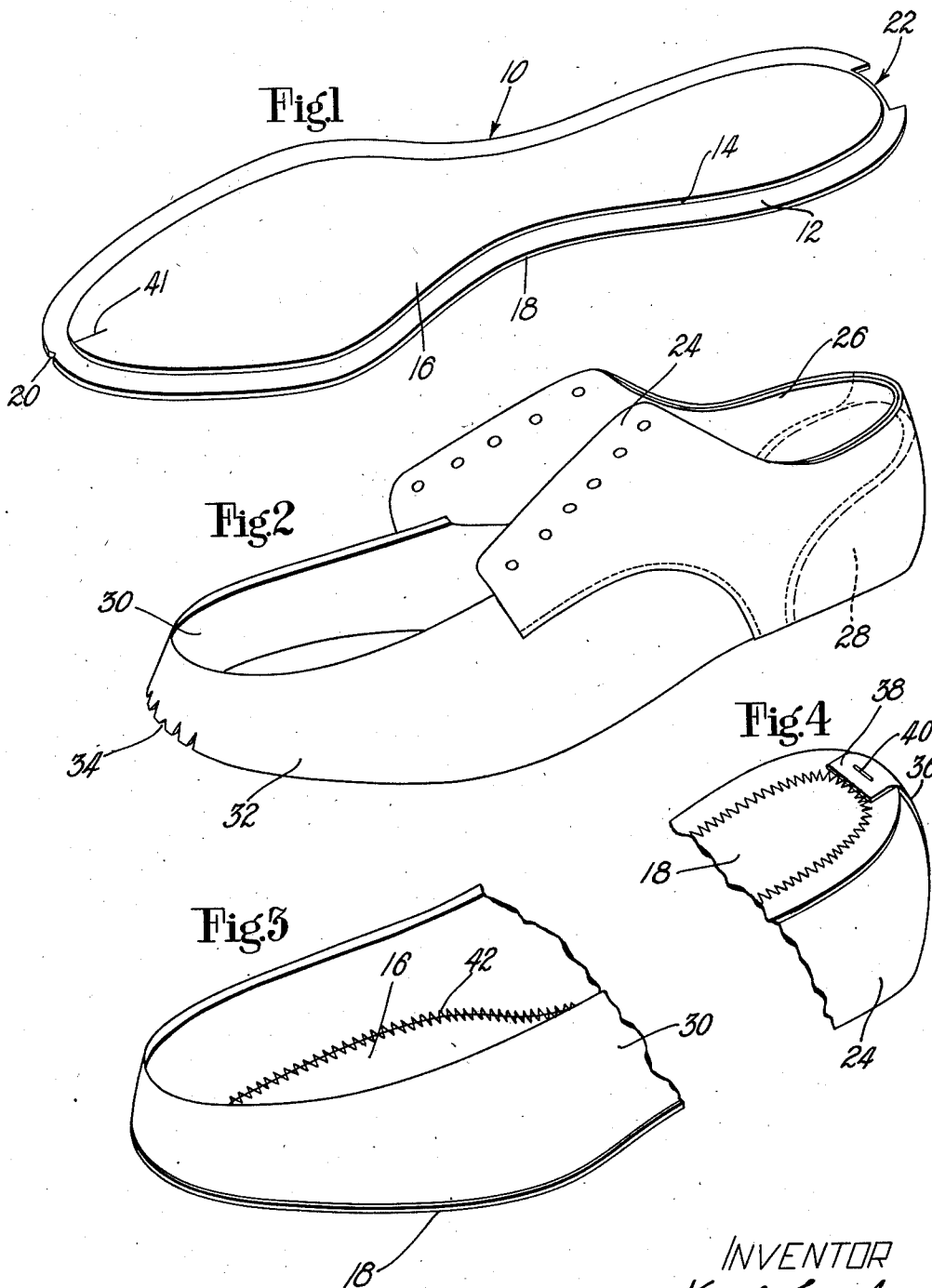
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2,284,810

SHOE AND METHOD OF MAKING THE SAME

Filed May 6, 1940

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

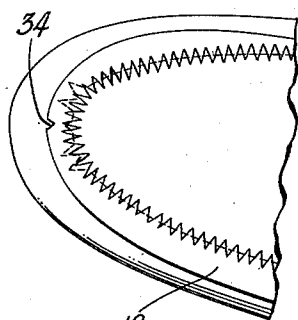


Fig. 5

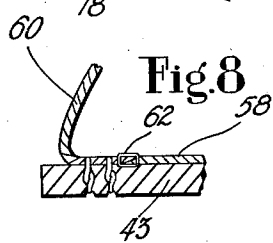


Fig. 8

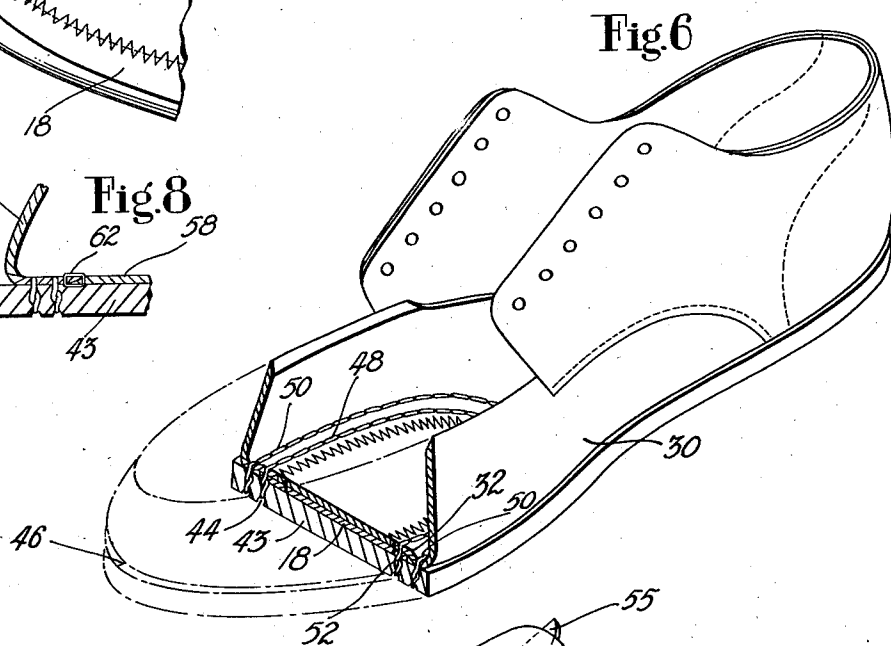


Fig. 6

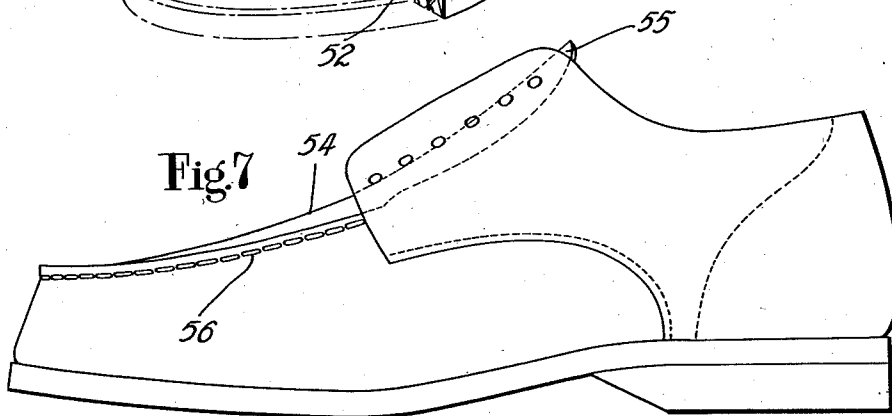


Fig. 7

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UNITED STATES PATENT OFFICE

2,284,810

SHOE AND METHOD OF MAKING THE SAME

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Application May 6, 1940, Serial No. 333,450

3 Claims. (Cl. 12—142)

This invention relates to shoes and methods of shoemaking and is herein illustrated in connection with a moccasin type shoe having a separate toe piece or plug which forms the covering for the top part of the foot. A shoe of this type is disclosed in United States Letters Patent No. 2,212,514, granted August 27, 1940, upon an application filed in my name.

It is an object of the present invention to provide a shoe which is easy and inexpensive to manufacture and which will have good wearing qualities. It is a further object of the invention to provide an improved method of making shoes of this type off the last. With these objects in view, the invention provides a shoe comprising an insole member, the peripheral portion of which is of less thickness than the central portion, an upper secured to the thin peripheral portion of the insole, and an outsole fastened, preferably by stitches, to the upper at the edge of the insole member. In one form of the invention, the insole member is provided with a shouldered recess about its periphery and in this recess the margin of the upper is secured, preferably with its edge face abutting the shoulder of the recess. In an alternative form of the invention, the insole member is beveled and the margin of the upper is reversely beveled, these beveled portions being secured together in overlapping relation to one another.

In another aspect, the invention comprises an improved method of making the above-described shoe. According to this method, an upper, cut to exact size and preferably having a top opening extending from the toe end to the heel end, is assembled off the last with its inwardly turned bottom margin overlapping the thin peripheral portion of an insole member of the type above-described and secured to the latter in this relation. An outsole is then attached to the shoe by stitching, at least one line of which passes through the upper and the outsole at the periphery of the insole member.

The invention will be better understood when considered with relation to the accompanying drawings, in which—

Fig. 1 is a perspective view of the insole member used in one embodiment of the invention;

Fig. 2 illustrates an upper provided with a lining and a molded counter;

Fig. 3 shows the forepart of the shoe after the insole member and the upper have been fastened together;

Fig. 4 illustrates the under side of the heel end

of the shoe after the insole member and the upper have been assembled;

Fig. 5 is a view of the under side of the shoe forepart illustrated in Fig. 3;

Fig. 6 illustrates the shoe after an outsole has been attached, the toe end of the shoe being cut away to show a cross section thereof;

Fig. 7 shows the completed shoe; and

Fig. 8 is a fragmentary cross section of a modified form of the invention.

In manufacturing the shoe, there is first provided an insole member generally designated at 10. This insole member is preferably of a rather light material and has about its periphery a recess or channel 12 defined at its innermost limit by a square shoulder 14. As illustrated, this insole member is composed of two laminations, the upper or foot-facing layer 16 being made preferably from a thin leather and the lower lamination 18 being composed of some light and relatively inexpensive material such as canvas or thin fiberboard. Together, these two laminations form a shouldered insole, the edge of the layer 16 forming the square shoulder 14 and the periphery of the lower layer making up the lip of the recess 12. It will be obvious that this insole member may be obtained by channeling a single thickness of stock. A notch 20 at the toe end of the insole and a second notch 22 at the heel end of the insole are also provided for a purpose later to be described.

The upper 24 is prepared in the usual manner with a quarter lining 26 and a counter 28 fastened therein in any convenient manner. The forepart of the upper, if the shoe is of the moccasin type, comprises a band-like member 30 stitched to the quarter portion of the upper in the usual fashion. The upper is cut to exact size, that is, with no excess allowance on its bottom margin 32 so that the completed shoe will have the proper size measurements without having to be stretched over a last. If the shoe is of the moccasin type, the upper margin of the forepart band 30 will preferably be beveled as is customary in the manufacture of moccasins, the stitching of the plug or toe piece of the moccasin being left until a later stage in the manufacture of the shoe. At the toe end of the moccasin in the center of its bottom margin 32 a notch 34 is formed. A backstay 36 is also secured to the heel end of the moccasin, its bottom end being allowed to extend downwardly beyond the margin of the upper thereby to form

a tab 38 which assists in locating the insole and the upper in proper relation to one another.

The upper and the insole having been prepared in accordance with the above steps, they are now ready to be assembled with one another. To this end, the tab 38 of the upper is inserted in the notch 22 of the insole member and fastened there by any convenient means such as a staple 40. Further to insure proper registration of the insole member and the upper, the bottom margin of the upper at the toe end is turned inwardly and inserted in the recess 12 of the insole member, with the notch 34 in the upper in alinement lengthwise of the insole member with the notch 20 in the insole member, or with a mark 41 thereon, and temporarily fastened by cement. It will be noted that the toe end of the forepart band 30 is notched so that when the bottom margin is turned inwardly it will not wrinkle and thus cause unevenness on the bottom of the shoe. The upper and the insole having been brought together in proper relation to one another, the rest of the bottom margin of the upper is turned inwardly and inserted in the shouldered recess 12 of the insole member preferably with its edge face abutting the shoulder 14 of the recess. If desired, a coat of cement may have previously been applied either to the insole or to the upper to provide a temporary fastening when the two parts are brought together. By the provision of the shouldered recess 12 and by cutting the upper to exact size, the shoe may be easily assembled without the use of a last and without any danger that the completed shoe will not meet the specified size measurements.

In order to secure the upper and the insole together permanently, a line of zig-zag stitches 42 is formed across the seam made by the abutting edges of the margin of the upper and the shoulder 14. Preferably, this line of stitches extends about the entire periphery of the shoe and in such case it will pass through the bottom margin of the counter 28 and the lining 26. If the shouldered recess in the insole member is very narrow, it may be found that the tab 38 will interfere with the formation of the zig-zag seam 42 and if this is the case, the tab may be eliminated and the upper assembled in proper relation to the insole by means of the notches 20 and 34 and similar notches at the heel ends of the upper and insole members.

The shoe is now ready to receive an outsole 43. This outsole is slightly larger than the lower lamination 18 of the insole member 10 and, preferably, has formed on its tread surface stitch-receiving grooves 44 adapted to receive sole attaching stitches. In assembling the outsole with the shoe, the latter is laid upon the outsole in such a position that the distance from the edge of the insole member 10 to the edge of the outsole 43 is equal at all points about the periphery of the outsole. Further to insure that the outsole will be properly located, the notch 20 in the insole member may be alined with a mark 46 of any convenient sort on the toe end of the outsole 43. If desired, some markings may also be made at the heel end of the sole. Sole attaching is preferably effected by means of lockstitches 48 which pass through the upper and the periphery of the outsole. While in some instances a single row of lockstitches may be found to be sufficient, it has been found preferable to make a double row in order to guard against any danger that the stitches may, under the strains of wear, tear through the relatively thin upper material.

It will be noted that the outer row 50 of stitches is located outwardly of the edge of the lower layer 18 of the insole. By this means the stitches pull the upper down tightly against the outsole and cover the raw edge of the lower layer 18 of the insole member which would otherwise be left exposed. The inner row 52 of stitches passes through the margin 32 of the upper, through the periphery of the lower lamination 18 of the insole, and through the outsole 43, binding these three parts securely together. It is to be noted that all the operations on the shoe up to this point are performed without the aid of a last.

The outsole 43 having been attached, the shoe is now in condition to receive the plug or toe piece 54. This toe piece which may, and as illustrated does, extend rearwardly to form a tongue 55 is fastened on in the usual manner by stitches 56 and the shoe is then ready for completion in any suitable manner. It may be found preferable to fasten the plug 54 to the forepart band 30 before the outsole 43 is attached.

An alternative construction is illustrated in Fig. 8. In this modification of the invention an insole member 58 has its peripheral portion skived or otherwise reduced in thickness so as to form an edge portion which is of less thickness than the central part of the insole. Preferably, this bevel will be toward the bottom side of the insole, that is, the margin of the insole will be tapered to a thin edge at its bottom face. The margin 60 of the upper is also beveled in the opposite direction so that when the upper and the insole are brought together in the manner hereinbefore described, these beveled portions will overlap and form a neat scarfed joint which may be made permanent by means of zig-zag stitches 62 or, if preferred, by a single line of some other type of stitch or by cement. The outsole 43 may be attached in the manner already described.

By following the above described method, a neat shoe with good wearing qualities may be easily and efficiently produced. The shoe has a flat foot-facing surface and will be found to have a high degree of flexibility. Although in its illustrated form the invention is embodied in a moccasin type shoe, it will readily be recognized that the invention may be applied to other types of shoes.

Having thus described my invention what I claim as new and desire to secure by Letters Patent of the United States is:

1. A shoe comprising a laminated insole member, the laminations of said insole member being of different sizes thereby to form a shouldered recess about the periphery of the insole member, an upper, a line of zig-zag stitches securing said upper in the recess, an outsole, and two rows of stitches securing said outsole to the upper inwardly and outwardly respectively of the edge of said insole member.

2. That improvement in methods of making moccasin type shoes off the last which comprises providing an upper cut to exact size, the forepart of which is composed of a band-like member, said upper being open at the top from the toe end to the heel end and having a tab at its heel end, positioning said upper relative to an insole member by inserting said tab in a marginal notch in the heel end of the insole member, securing said insole member and said upper together with the margin of the upper in a shouldered peripheral recess in said insole member, and stitching an

outsole to the upper at points outwardly of said insole member.

3. That improvement in methods of making moccasin type shoes off the last which comprises providing an upper cut to exact size, the forepart of which is composed of a band-like member, said upper being open at the top from the toe end to the heel end and having a tab at its heel end, positioning said upper relative to an insole mem-

ber at the heel by inserting said tab in a marginal notch in the heel end of the insole member, positioning said upper relative to the insole member at the toe end by bringing marks on the upper and on the insole member into proper registration with one another, and securing said insole member and said upper together.

KARL ENGEL.