

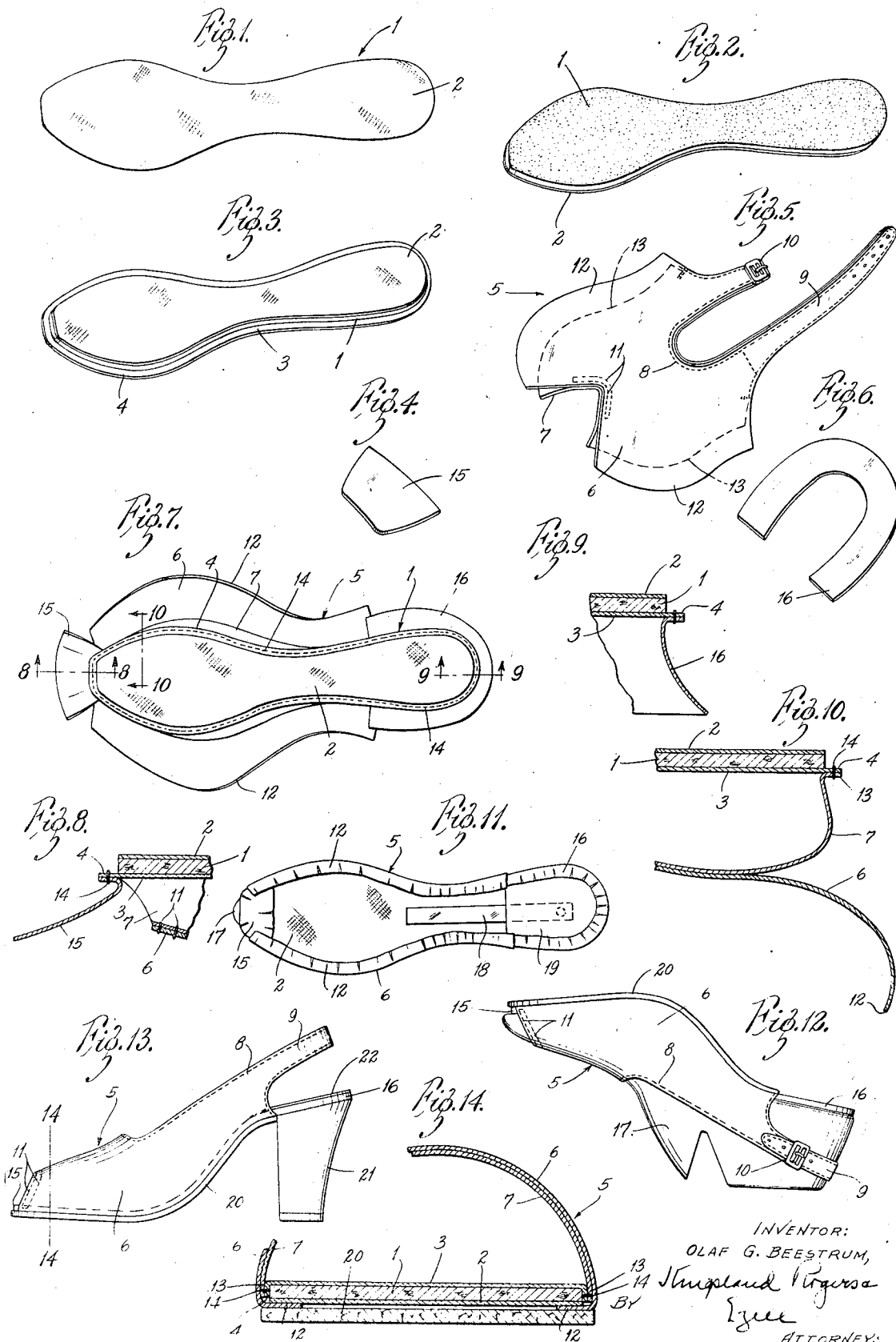
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SHOE CONSTRUCTION

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SHOE CONSTRUCTION

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This invention relates to shoes, and more particularly to a shoe of the type which can be made by the insertable last method of construction.

One of the objects of the invention is to produce an improved flexible, light and comfortable shoe by simple operations.

Another object is to so construct a shoe by the insertable last method that a cushioned member can be embodied therein in such a manner as to provide a cushioned insole for the shoe.

A further object is to so construct a shoe having a lined upper that the lining can serve as the connecting means between the sock lining, secured to the insole, and the upper and an integral extending part of the lower marginal portion of the outer part of the upper can be employed to encase the insole.

Another object is to produce a shoe lasted by an insertable last, using an improved method of manufacture.

Other objects of the invention will become apparent from the following description taken in connection with the accompanying drawing in which:

Fig. 1 is a bottom view of the cushion insole member embodied in the improved shoe construction;

Fig. 2 is a top view slightly in perspective of the cushion insole member with adhesive applied thereto;

Fig. 3 is a view of the cushion insole member with the sock lining attached thereto;

Fig. 4 is a view of the tab which is employed to cover the toe end of the insole member of the shoe;

Fig. 5 is a perspective view of the upper prior to its attachment to the sock lining and the insole member;

Fig. 6 is a view of the cover strip for the heel portion of the insole member;

Fig. 7 is a view of the parts shown in Figs. 3, 4, 5 and 6 after being sewed together;

Figs. 8, 9 and 10 are sectional views showing details of construction, said views being taken on the lines 8—8, 9—9 and 10—10, respectively, of Fig. 7;

Fig. 11 is a bottom view of the shoe showing its construction prior to the application of the outsole;

Fig. 12 is a view after the outsole has been applied;

Fig. 13 is a side view of the completed shoe; and

Fig. 14 is a sectional view of the completed

shoe, said view being taken on the line 14—14 of Fig. 13.

Referring to the drawing in detail, and first to Figs. 1 to 3, 1 indicates an insole member which is preferably made of a yieldable material, such as cork, rubber, or the like, in order that the shoe may be given a cushion upon which the foot of the wearer can rest. This insole member 1 has adhered to one side, by a suitable adhesive, a piece of fabric 2 which is relatively non-stretchable in order to give support to the member and prevent its spreading in a lateral direction. This fabric member is preferably on the bottom side of said member, which side is shown in Fig. 1. The top side of the insole member 1 is shown in Fig. 2, and this side is given a coat of adhesive material so that it can have secured thereto a sheet or sock lining 3 of the shoe. This sock lining may be made of any suitable material, such as fabric, leather, or the like. The sock lining, if made of fabric, may comprise two sheets of material adhered together preferably with the upper sheet of a color and texture to blend with the shoe upper and present a pleasing appearance. The sock lining is cut to be of slightly larger size than the insole in order to provide an extending marginal portion 4, as best seen in Fig. 3.

As shown in Fig. 5 the upper 5 of the shoe comprises an outer part 6 and an inner part or lining 7. These two parts are die cut of any suitable material, and the upper marginal edges secured together by stitching 8. The upper shown is for an open-heel type of shoe which may have a heel strap extension 9 and a buckle 10 to provide for adjustment. The upper shown is also formed to provide an open toe and the outer part of the upper and the lining are secured together by stitching 11 at the toe end. The size of the upper, particularly the lining as cut out by the die, will determine the size of the shoe. The outer part of the upper is cut so as to be larger than the lining part in order that the lower marginal portions 12 of the upper may extend beyond the lower marginal edges 13 of the lining. It is to be particularly noted that the lower marginal portions of both the outer part and the lining part of the upper are in unsecured relation to each other.

The upper of the shoe, after having been sewed together in the manner shown in Fig. 5, is next attached to the sock lining which as previously described has secured to it the cushion insole member. The attaching of the upper to the sock lining is preferably performed by stitching 14.

In addition to the upper being stitched to the sock lining, there is also stitched to it at the same time a toe tab 15 and a heel strip 16, said toe tab being shown per se in Fig. 4, and the heel strip being shown per se in Fig. 6. The same stitching 14 employed to secure the upper to the sock lining is also employed to secure the tab 15 and the strip 16 to this member. The upper, the tab and the strip are all attached to the extending or marginal portion 4 of the sock lining which as noted projects beyond the edge of the insole. In attaching the upper 5 to the sock lining, only the marginal portion of the lining 7 of the upper adjacent to the edges 13 is stitched to the marginal edge or the extending part of the sock lining. The heel strip 16 is of such length that when attached to the sock lining it will overlap the rear ends of the lower marginal portion of the upper lining part 7 and extend beneath the rear ends of the lower marginal portion of the outer part of the upper, as shown in Fig. 7. The toe tab 15 is also of such length that when sewed to the insole it will overlap the toe ends of the lining part 7.

After the upper, the toe tab and the heel strip are sewed to the sock lining, the resulting construction will be that shown in detail in Figs. 7, 8, 9 and 10, this construction also having the insole 2 since it and the sock lining were secured together prior to the attachment of the upper, the toe tab and the heel strip. Into the stitched together sock lining and upper is inserted a suitable last 17 shown in Fig. 12. With the last in place the outer marginal portion of the fabric on the bottom side of the insole is given a coating of adhesive preparatory to pulling over the lower marginal portion of the outer of the upper, the toe tab and the heel strip. However, before this is done, the shank piece 18 is associated with the bottom side of the insole together with a shank brace 19 of suitable fibre or other material in order to present a proper arch construction for the shoe, together with a firm and rigid heel seat. The toe tab and the heel piece are first pulled over their connecting seams and adhered to the bottom of the insole, thus providing an encasing or cover strip for the toe and heel edges of the insole. Next the lower marginal portions 12 of the outer part of the upper are pulled down and over the edges of the insole and adhered to the bottom surface of the same. In pulling over the lower marginal portions of the upper, the seam produced by the stitches 14 in connecting the marginal edges of the lining and the sock lining is forced into a vertical position, as shown in Fig. 14, and firmly confined between the edge of the insole and the outer part of the upper, thus making a compact construction at the edge of the insole.

The shoe is now complete with the exception of the attachment of the outsole and the heel. These two parts are attached in the usual manner. The outsole 20 is preferably cemented to the bottom of the insole and to the surface of the lower marginal portions of the upper, which are secured to the bottom of the insole. The outsole is attached while the last is in the shoe, and this may be accomplished with the usual lasting machine which firmly holds the outsole against the insole during drying of the cement. The heel 21 may be attached in any suitable manner, such as by a screw which extends through the shank piece and shank brace into the heel. The heel portion of the sock lining may also be provided with a heel seat piece 22 which can be

glued to the heel portion of the sock lining. If desired, this piece can also be sewed to the sock lining, the sewing being done before the sock lining and insole are secured together to form the construction shown in Figure 3.

From the foregoing description, it is seen that the improved shoe is constructed by means of very simple operations, yet the shoe when finished is sturdy, while at the same time being very flexible and comfortable on the foot. All the operations in making the shoe are easily performed by relatively unskilled workers as they comprise nothing more than sewing and cementing. The insole in the construction described is so embodied in the shoe as to be encased in the upper, thus producing a very neat appearing shoe. The shoe construction is particularly suited for employing yieldable material in making the insole, since it is to be noted that the insole extends completely across the shoe and every part of the foot of the wearer will have the same degree of cushioning. Thus there is no possibility of the foot being supported by yieldable material at its center and by more rigid material at its edges as would be the case in constructions where a yieldable piece of material is inserted in a cut out part of an insole. It is to be noted further that with the particular construction shown the yieldable insole also extends beneath the heel of the wearer, thus giving a complete cushion support for parts of the foot of the wearer which rest upon any part of the shoe.

What is claimed is:

1. In a shoe construction, an upper having an outer part and a lining part with said parts being in unsecured relation at their lower marginal portions, a sock lining having its marginal portion stitched to the lower marginal portion only of the lining part of the upper, an insole positioned beneath the sock lining and of a size to lie within the seam formed by the stitching of the sock lining to the lining, the lower marginal portion of the outer part of the upper extending over the seam and the edge of the insole to encase the same and being secured to the bottom surface of the insole, and an outsole secured to the bottom of said insole.

2. In a shoe construction, an upper having an outer part and a lining part with said parts being in unsecured relation at their lower marginal portions, a sock lining having its marginal portion stitched to the lower marginal portion only of the lining part of the upper, an insole positioned beneath the sock lining, said insole being made of yieldable material of uniform thickness throughout its dimensions and being of a size to fit within the seam formed by the stitching of the sock lining to the lining, the lower marginal portion of the outer part of the upper extending over the seam and the edge of the insole to encase the same and being secured to the bottom surface of the insole with the edges forming the seam firmly confined between the edge of the insole and the outer part, and an outsole secured to the bottom of the insole.

3. In a shoe construction, an upper having an outer part and a lining part with said parts being in unsecured relation at their lower marginal portions, a sock lining having its marginal portion stitched to the lower marginal portion only of the lining part of the upper, an insole positioned beneath the sock lining, the lower marginal portion of the outer part of the upper extending over the seam between the sock lining and upper lining and being secured to the bottom

surface of the insole, said insole being of a size to lie within the stitching connecting the sock lining and upper lining and the stitched marginal portions of the sock lining and upper lining being confined between the edge of the insole and the lower marginal portion of the outer part of the upper which encases the insole, and an outsole secured to the insole.

4. In a shoe construction, an open backed upper having an outer part and a lining part with said parts being in unsecured relation at their lower marginal portions, a sock lining having its marginal portion forward of the heel part stitched to the lower marginal portion of the lining part of the upper, a heel strip stitched to the marginal portion of the heel part of the sock lining and of a length to extend beneath the rear ends of the marginal portion of the outer part of the upper, an insole positioned beneath the sock lining and of a size to lie within the seam formed by stitching both the lining and heel cover strip to the sock lining, the heel strip and the lower marginal portion of the outer part of the upper extending over the seam and the edge of the insole to encase the same and being secured to the bottom surface of the insole, an outsole secured to the forward part of the insole, and a heel secured to the rear of the insole.

5. In a shoe construction, an open toe upper having an outer part and a lining part with said parts being in unsecured relation at their lower marginal portions, a sock lining having its marginal portion stitched to the lower marginal portion of the lining part of the upper, a toe tab stitched to the marginal portion of the toe part of the sock lining and of a length to extend beneath the forward ends of the outer part of the upper and overlap the forward ends of the upper lining part, an insole positioned beneath the sock lining and of a size to lie within the seam formed by stitching both the upper lining part and toe tab to the sock lining, the toe tab and the lower marginal portion of the outer part of the upper extending over the seam and the edge of the insole to encase the same and being se-

cured to the bottom surface of the insole, and an outsole secured to the insole.

6. In a method of making a shoe, the steps which comprise securing to the top of an insole a sock lining of a size to have marginal portions extending beyond the edge of the insole, constructing an upper to provide an outer part and a lining part with the lower marginal portions of said parts in unsecured relation and with the lower marginal portion of the outer part extending beyond the lower marginal edge of the lining part, stitching the lower marginal portion of the lining part of the upper to the marginal portion of the sock lining, inserting a last in the stitched together lining part and sock lining, pulling the lower marginal portion of the outer part of the upper over the stitched edges of the lining part and sock lining and the edge of the insole to encase the same and securing it to the bottom surface of the insole and then securing an outsole to the insole.

7. In a method of making an open heel shoe, the steps which comprise securing to the top of an insole a sock lining of a size to have marginal portions extending beyond the edge of the insole, constructing an open heel upper to provide an outer part and a lining part with the lower marginal portions of said parts in unsecured relation and with the lower marginal portion of the outer part extending beyond the lower marginal edge of the lining part, providing a heel strip, stitching the lower marginal portion of the lining part of the upper and the heel strip of the marginal portion of the sock lining with the ends of the heel strip in overlapping relation to the rear ends of the lower marginal portions of the lining part, inserting a last in the stitched together lining part and sock lining, pulling the heel strip over the edge stitched to the sock lining and securing it to the bottom of the insole and then pulling the lower marginal portion of the outer part of the upper over the stitched edges of the lining part of the upper and sock lining and securing it to the insole.

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