

March 22, 1938.

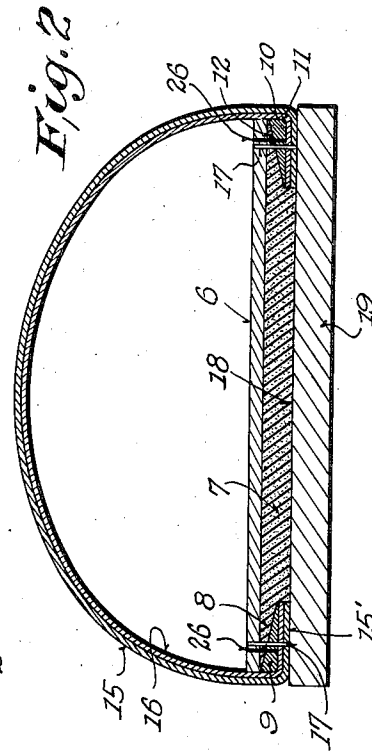
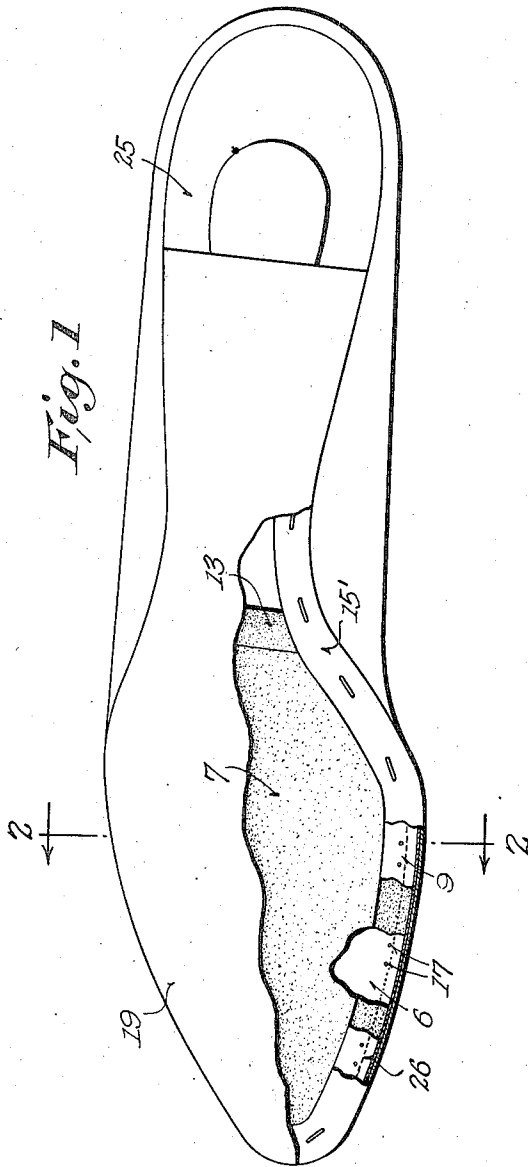
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2,111,620

SHOE

Filed April 2, 1936

2 Sheets-Sheet 1



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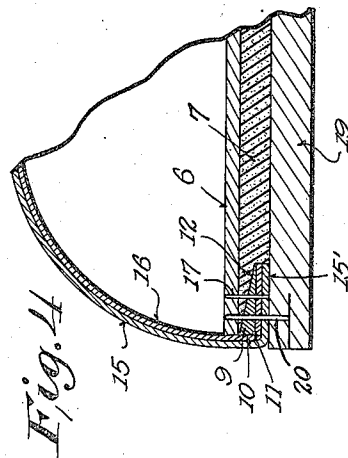
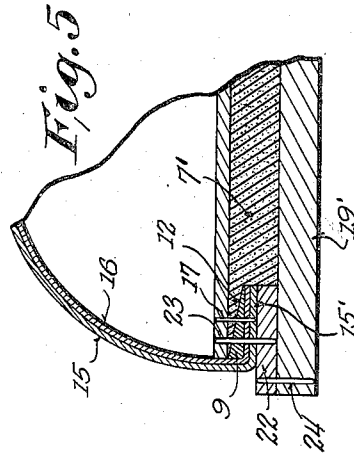
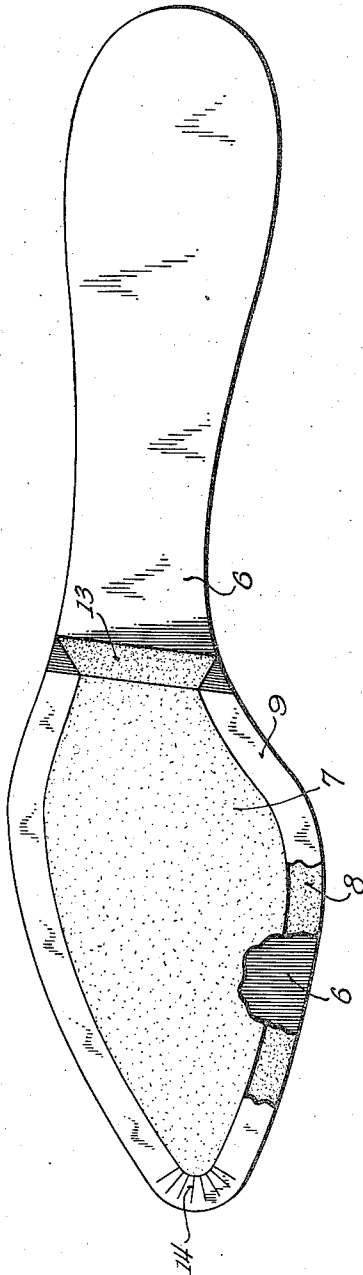
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Fig. 3



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UNITED STATES PATENT OFFICE

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SHOE

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Application April 2, 1936, Serial No. 72,234

5 Claims. (Cl. 36—28)

The invention relates to shoes and more particularly to a shoe having a cushioned insole.

The object of the invention is to improve shoes of the type known as the McKay in which the upper is lasted inwardly over the inner sole of the shoe and more particularly to improve cushion shoes of the type shown in the prior U. S. patent to James F. Gilkerson No. 1,968,290, dated July 31, 1934. In the construction of the shoe under the aforesaid patent unless a relatively heavy leather insole is used, it is difficult to secure a shoe having sharp lines between the upper and the outer sole, and this is especially true in the form of the invention where the outer sole is secured to the assembled bottom of the shoe solely by a cementing operation. The object of the present invention is to provide a McKay type shoe with a cushion insole and to improve the construction of this insole by providing a means for securing a square shoulder at the outer edges of the insole over which the upper is lasted so as to improve the lines of the shoe. Furthermore, with the present invention a relatively flexible and light weight insole may be used without impairing the shape-determining properties of the insole unit and thus provide a more flexible and comfortable shoe than that of the aforesaid patent by providing a softer tread for the foot. More particularly, according to the present invention a rand of stiffer material than the cushion is associated with the cushion at the outer edge thereof and provides a square and relatively stiff shoulder over which the upper is lasted inwardly, and the advantages of this invention apply not only to the straight McKay shoe but to modified McKay shoes in which a welt is secured to the insole and the outsole is stitched to the welt.

A further object of the invention is to provide a cushion shoe construction for shoes of the above type that may be expeditiously produced and will provide a comfortable and healthful shoe that may be produced at relatively low cost and one which has distinct advantages over other and higher priced shoes such as Goodyear welt shoes.

The invention further consists in the several features hereinafter set forth and more particularly defined by claims at the conclusion hereof.

In the drawings:

Fig. 1 is a bottom plan view of a shoe embodying the invention, parts being broken away;

Fig. 2 is a detailed sectional view taken on the line 2—2 of Fig. 1;

Fig. 3 is a bottom plan view of the insole con-

struction embodying the invention, parts being broken away;

Fig. 4 is a detailed sectional view similar to Fig. 2 showing certain modifications, parts being broken away;

Fig. 5 is a view similar to Fig. 2 showing certain further modifications, parts being broken away.

The inner sole unit of the present invention includes an inner sole 6 of leather or other suitable flexible material having properties generally similar to leather and which in its preferred form is, what may be termed, a light weight insole so that it is quite flexible. To the forepart of this inner sole we cement a layer 7 of cushioning material, preferably soft or sponge rubber which has a recessed or bevelled outer edge 8. This cushioning layer 7 extends substantially over the entire surface of the inner sole 6 at the forepart, thus forming a perfect cushion for the foot at the stitched or nailed edge of the forepart and thereby eliminating the hard and uncomfortable surface around the outer edges of the inner soles as formed in the ordinary McKay shoes where the upper is lasted over directly against the single leather inner sole and the stitching or nails connecting the outer sole passes through these parts. The cushioning layer is permanently fastened to the under side of the inner sole member 6 by a cement or other suitable adhesive so that it will act as a unit with said sole, as shown in Fig. 3. A rand 9 of leather or other suitable materials stiffer than the cushion and having a wall 10 and a relatively square corner 11 of which the wall 10 forms a side is secured to the inner sole unit to form a corner edge reinforcement for the same at the forepart of the shoe. This rand is a strip of relatively flexible material which is bevelled on its top side 12 or otherwise suitably shaped to substantially conform to the recessed or bevelled outer edge portion of the cushion and is initially secured thereto by cement or other suitable adhesive and either terminates adjacent the back bevelled edge 13 of the cushioning layer or may extend rearwardly somewhat beyond the same, its ends being bevelled off so as to merge with the outer and inner soles when the shoe is assembled. The rand 9 has the usual scorings 14 therein to permit it to be readily bent to conform to the curved outline of the shoe. The rand may be secured to the other parts of the insole either before or after the same is placed upon the last with the inner side of the leather insole 9 disposed adjacent the bottom of the last and is preferably se-

cured to the cushion while the same is on the last. With the insole unit completed as above described the upper 15 and its lining 16 at the forepart and the usual parts such as the counter and the box toe if used are lasted inwardly over the edge portions of the inner sole and particularly over those portions of the inner sole which are reinforced by the rand 9 as shown in Fig. 2, and these lasted over parts are secured in position by suitable fastening means, such as staples 17 at the shank and forepart and by tacks or other suitable fastening means, not shown, at the heel seat or by tacks in place of staples, which fastening means pass through the lasted over parts of the shoe and the rand 9, cushion layer 7, and inner sole member 6, it being noted that the bottom surface of the rand 9 is preferably disposed somewhat above the bottom surface 18 of the cushioning layer 7 to accommodate the lasted over portions of the upper so as to provide a substantially level and smooth bottom for the shoe after the same is lasted. Thereafter, in the form of the invention shown in Figs. 1 and 2 the outer sole 19 is fastened to the shoe in accordance with the regular practice in the making of Compo shoes. In this type of shoe the outer sole is secured to the other adjacent parts of the shoe by a suitable adhesive instead of nails or stitching, and Fig. 2 shows a section through the forepart of such a shoe.

In the usual McKay shoe the outer sole 19 is secured at the forepart, as shown more in detail in Fig. 4, by stitching 20 passing through the edge portion of the outer sole and the lasted over parts of the upper 15 and the lining 16, the rand 9, cushion 7, and inner sole member 6 while the other parts of the upper are secured to the inner sole and the shank and heel seat portions of the shoe in the customary manner, usually by nailing. In the nailed shoe nails are substituted for the stitching 20, and these nails usually pass through the outer sole and are clinched against the inner sole.

In the form of invention shown in Fig. 5 the cushioning layer 7' for the forepart of the shoe is generally similar to the cushioning layer 7 except that it is somewhat thicker so as to accommodate a welt 22 which may be initially secured to the lasted over edge of the upper by cementing and is secured to the lasted over portions of the upper and lining, the rand 9, and the inner sole member 6 by stitching 23, the cushioning layer 7' being recessed to accommodate said welt and to a depth so that after the lasting operation and the securing of the welt as above described the bottom face of the welt and the bottom face of the cushioning layer 7 will be substantially level. It will, of course, be understood in connection with both forms of the invention that the cushioning layer need not be exactly level with the stiffer outer edge portions of the shoe parts above described since it may project slightly beyond these parts and be compressed to some extent when the outer sole is secured in position. The outer sole unit 19' is secured to the shoe by stitching 24 passing through said outer sole and the outer edge portion of the welt 22. In securing either the outer sole 19 or 19' to the adjacent parts of the shoe in addition to the fastening means above described, it is also preferred to cement said outer sole unit to the abutting parts, such as the cushion and the lasted over edge of the upper or the welt, and particularly to the bottom of the cushioning layer 7 or 7' so that the cushioning layer will

flex as a unit with the outer sole. A heel 25 is secured to the heel seat portion of the shoe in any suitable manner.

Since the outer sole unit and the inner sole member of the shoe are both cemented to the cushioning layer, any tendency of the inner sole to buckle relative to the outer sole is prevented.

In all the forms of the invention it will also be noted that the relatively stiff corner edge provided by the rand 9 provides a square shoulder over which the upper is lasted and thus provides a relatively square corner between the upper and the outer sole which greatly improves the lines of the shoe and also maintains the shape of the shoe even though the inner sole member 6 is of relatively light material so that it may readily flex and give added comfort to the wearer. It will also be noted that in the construction of the shoe shown in Fig. 5 a relatively heavy outsole 19' may be used, as particularly in connection with the making of men's shoes, and yet a very flexible shoe provided in view of the attachment of the outer sole to the outer edge of the welt at a point beyond the upper so as to more readily accommodate the flexing of the outer sole with the flexing of the foot in walking.

In some instances in addition to the cementing of the rand 9 to the cushioning layer 7 we may additionally secure the rand to the inner sole unit by stitching 26 as shown in Figs. 1 and 2, this stitching passing through the rand, the cushioning layer, and the inner sole member. While for the sake of clearness this stitching is shown as following outside of the lasting fastening or stitching 17, it will not in practice necessarily do so as the lasting means will vary to some extent so that in some cases the stitching 17 might also pass through or run over the stitching 26.

It is also to be noted that with the constructions shown in Figs. 2 and 4 the rand cooperates with the inner sole member to provide a good foundation for resoling if desired.

We desire it to be understood that this invention is not to be limited to descriptive details hereinbefore set forth except insofar as the same are specifically included in the claims.

What we claim as our invention is:

1. In a cushion shoe, the combination of an upper, an outer sole, an insole comprising an upper layer, a bottom layer of resilient material connected thereto, and a rand of stiffer material than said bottom layer underlying and surrounding the edge portion of said layer at the forepart of the shoe and having a relatively square bottom corner, the upper being lasted over said insole and over said corner of the rand thereof at the forepart and connected to the upper layer of said insole, and means connecting the outer sole to the insole, said means passing through the lasted over portion of the upper, the rand, and said resilient bottom layer.

2. In a McKay type shoe, an insole unit comprising an insole member conforming to the shape of the lasted shoe bottom, a resilient layer coextensive with the forepart of the insole attached to the bottom side thereof to flex therewith as a unit, said resilient layer having a recessed edge and a rand of stiffer material than said layer abutting and underlying said recessed edge and cooperating with said inner sole member to form a shape-determining inner sole and to provide a relatively firm square corner over which the upper is directly lasted, and means securing said rand, cushioning layer, and inner sole member together so as to act as a unit.

3. In a cushion shoe, the combination of an upper, an outer sole, and an inner sole comprising an upper layer, a bottom layer of resilient material connected to said upper layer, a rand of relatively stiffer material than said bottom layer and forming an edge facing therefor and secured thereto and to said upper layer, the upper being lasted over said inner sole including the edge provided by said rand and connected to the upper layer of said inner sole, a welt secured to said inner sole and the lasted over edge of said upper, an outer sole, means connecting said outer sole with the outer edge of the welt, and means connecting said outer sole with said inner sole to flex therewith as a unit.

4. In a cushion shoe, the combination of an upper, an outer sole, and an insole comprising an upper layer, a bottom layer of resilient material at the forepart connected to said upper layer and having a reduced outer edge, a rand of stiffer material than said bottom layer abutting the reduced edge of said bottom layer and bevelled on

one side and having a square corner, the upper being lasted over said insole and over the square corner of said rand at the forepart and connected to the upper layer of said insole, and means connecting the outer sole to said insole.

5. In a cushion shoe, the combination of an upper, an outer sole, an insole comprising an upper layer, a bottom layer of resilient material at the forepart connected to said upper layer and having a bevelled outer edge and a rand of relatively stiffer material than said bottom layer bevelled to abut the outer bevelled edge of said bottom layer and underlying the same to form a relatively squared corner facing for the same, the upper being lasted directly over the squared corner of said facing at the forepart, means at the forepart passing through said insole layers and said rand connecting the upper to the upper layer of said insole, and means connecting said outer sole to said insole.

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