May 26, 1931. J. F. GILKERSON 1,807,401

SHOE

Filed Feb. 13, 1930 2 Sheets-Sheet 1

Fig. 1

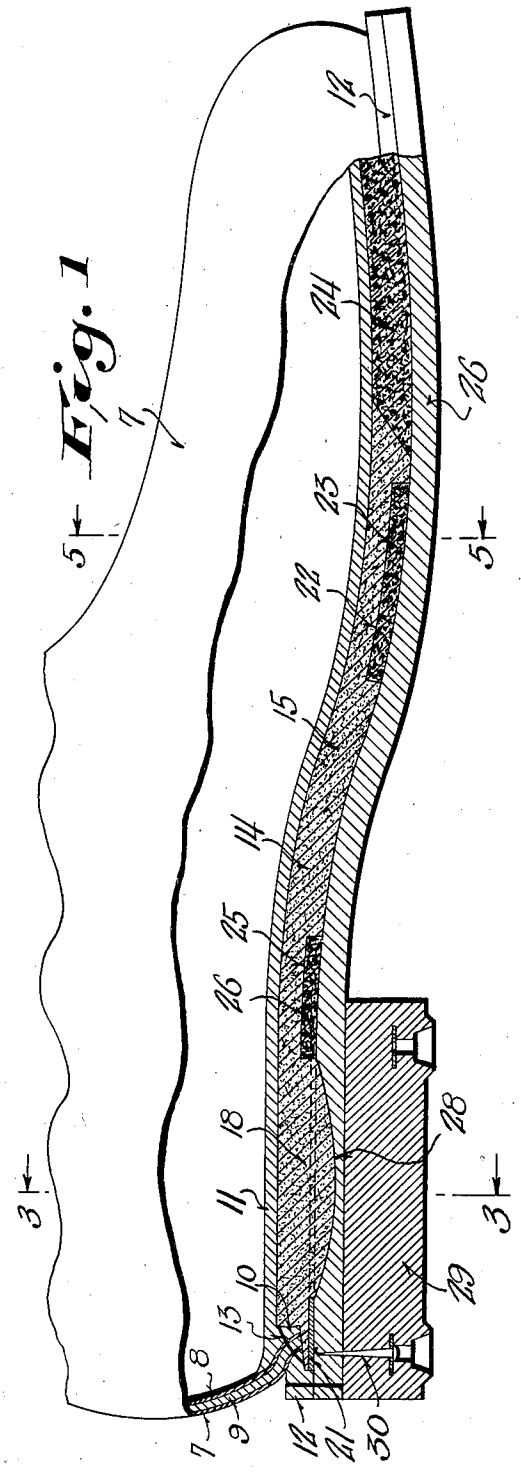


Fig. 5

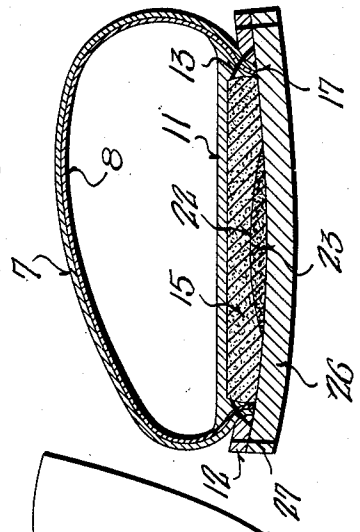
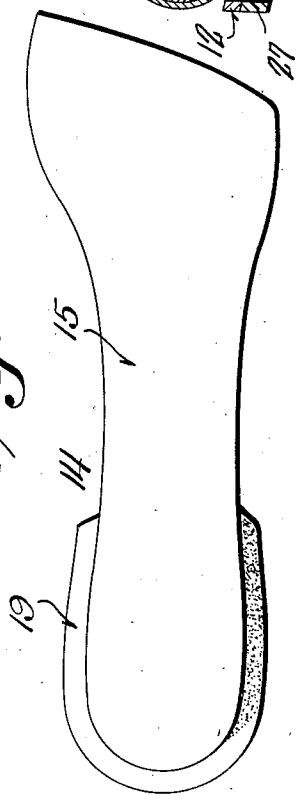


Fig. 6



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SHOE

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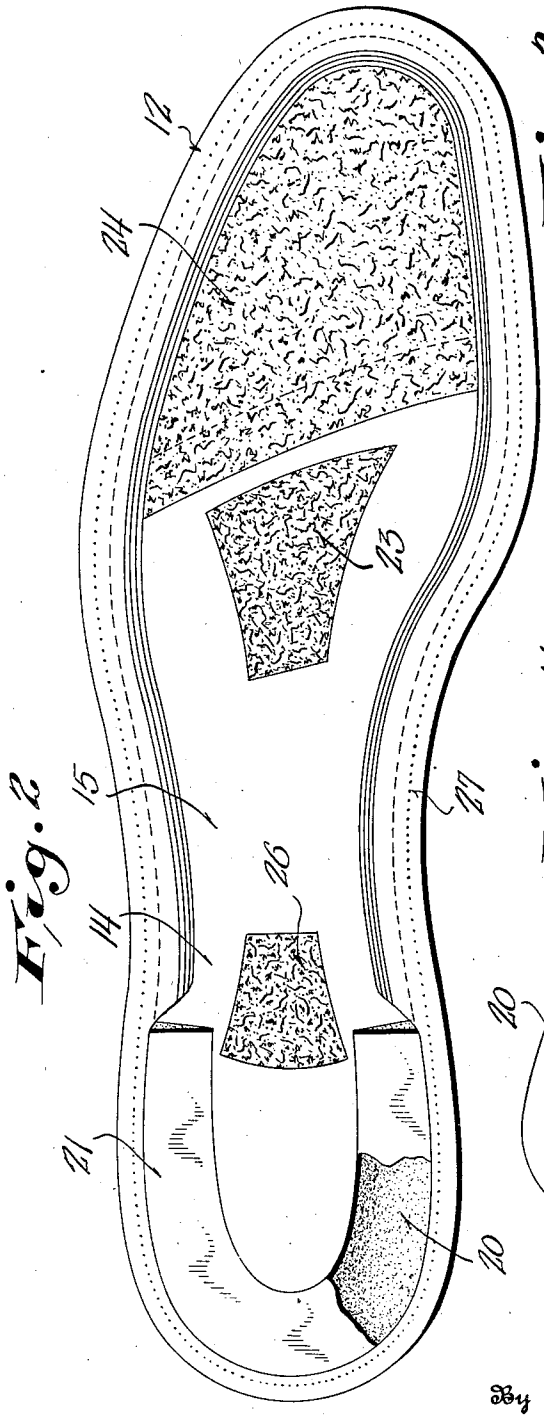


Fig. 2

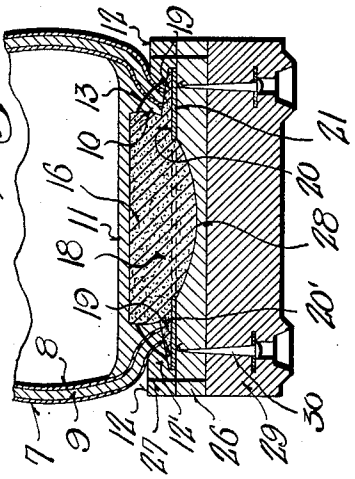


Fig. 3

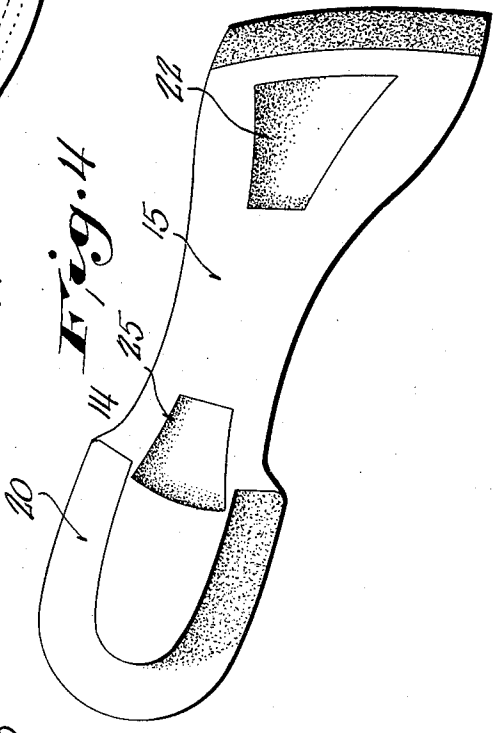


Fig. 4

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1,807,401

UNITED STATES PATENT OFFICE

JAMES F. GILKERSON, OF MILWAUKEE, WISCONSIN

SHOE

Application filed February 13, 1930. Serial No. 428,045.

The invention relates to shoes and more particularly to Goodyear welt shoes having sewed seats.

The general object of the invention is to provide a cushioned heel and also preferably cushioned shank shoe of the Goodyear welt type having sewed seats, which may be expeditiously produced without special changes in factory equipment or at a materially increased cost over that required for the manufacture of the usual Goodyear welt shoes, and produce very comfortable and long-lived shoes. More particularly, the present invention is designed to provide certain improved features of construction over that of my copending application, Serial No. 390,181, filed September 3, 1929, for cushion shoes. One of these features is the use of a metal rim around the heel portion of the shoe interposed between the cushion member and the outer sole and serving as a clincher for the heel nails, clinching the nails firmly on the inner side of the outersole instead of extending said nails all the way through the innersole and clinching on the plate of the last, as is done in the ordinary shoe. While the invention may be employed at the heel portion only where the cushion member extends over the shank, another feature of the invention is the use of a stiffer or firmer material in a cavity at the forward portion of the cushion shank, so shaped and placed as to hold the cushion material gently but firmly upward against the metatarsal bones of the foot, thus giving a cushioned support to the same. Another feature of the invention is the use of a stiffer or firmer material in a cavity extending forward from the heel portion of the shoe and serving as a firmer support for the forward portion of the heel and also as a firmer base for the forward part or breast of the heel of the shoe.

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 detail side elevation view of a shoe embodying the invention, parts being broken away and shown on a vertical, central section through the shoe;

Fig. 2 is a detail plan view of a shoe embodying the invention, with the outer sole and heel omitted and parts broken away;

Fig. 3 is a detail sectional view taken on the line 3—3 of Fig. 1;

Fig. 4 is a perspective bottom view of a cushioning member embodying the invention;

Fig. 5 is a detail sectional view taken on the line 5—5 of Fig. 1;

Fig. 6 is a top plan view of a cushioning member embodying the invention.

As previously noted, this invention relates to Goodyear welt shoes in which the heel seat is sewed and as such the shoe includes the usual upper 7, which may have a lining 8 and counter 9 associated therewith, these parts being secured in the usual manner to the flange portion 10 of the insole 11 and to the welt 12 by the inseam stitching 13, the welt 12 extending about the entire shoe.

According to the present invention, after the inseaming operation the cushion member 14 is secured in place. This member 14, of soft rubber, preferably molded, sponge rubber, is formed to provide a heel portion which may be used alone for cushioned heel shoes but preferably is associated or formed integral with a flexible shank portion 15. From Figs. 3, 4 and 6 it will be noted that the heel portion includes a part 16 which extends up into the space formed between the inseam ridges 17 and the bottom of the insole 11 and includes a part 18 which forms a cushion heel that projects beyond the part 16, forming a flange 19 which extends over the inseam ridge 17 at the heel seat. The part 18 also has an annular recess 20 formed therein which together with the base 20′ of the flange forms a seat for an arch-shaped, flat, metal clincher plate 21, the recessing of the heel portion to receive this plate insuring its proper positioning in the shoe during assembly and construction. By the use of the shoulder or flange 19 extending over the inseam of the shoe at the heel portion, the usual entirely hard and uncomfortable ridge around the inside of the shoe at the heel portion is eliminated and this shoulder also acts

as a shock absorber while walking, relieving the body of jars and shocks.

It will also be noted from Figs. 1, 2, 4 and 5 of the drawings that the flexible shank portion 15 is disposed in the space between the inseam ridges 17 and the bottom of the insole in the space usually occupied by the relatively unyielding bottom filler and extends farther forward in the shoe than the ordinary shank piece, so that it provides not only a cushioned shank but also a cushion for the metatarsal bones and in order to hold the cushioning member gently but firmly upward against the metatarsal bones of the foot, I provide a hollow or cavity 22 at the forward portion of the shank which is filled with a firmer substance 23 than the sponge rubber shank, preferably bottom filler or leather. This cavity 22 is preferably convexed laterally and is shaped to provide the necessary support for the metatarsal bones and leaves less cushioning material under the foot at this point, which has the effect, when weight is placed on the foot, of bringing this cushioning material up into the hollow of the foot at this point and thus efficiently supporting the same.

While the cushion member 14 may extend over the entire sole, inasmuch as the greater pressure comes on the metatarsal portion of the foot the cushion member stops short of the front end of the shoe and this space is filled with the usual bottom filler 24.

Also from Figs. 1, 2 and 4 of the drawings it will be noted that a cavity 25 has been provided in the cushioning member extending forward from the heel portion, which cavity is filled with a firmer substance 26, such as bottom filler or leather, which serves as a firmer support for the forward portion of the heel of the foot and also as a firmer base for the forward part or breast of the heel of the shoe.

The cushion member 14 is placed in position after the inseaming operation and secured against the insole and the inseam by suitable cement or adhesive and the plate 21 placed in position.

Thereafter the outsole 26 is secured to the shoe by stitching 27 extending through the welt and outsole around the entire shoe, the heel seat portion of said outsole being recessed or hollowed out, as indicated at 28 in Figs. 1 and 3, so that a deep and substantial heel cushion of the soft rubber may be obtained and so that this cushion may project over the inseam ridge and yet not interfere with the direct stitching of the outsole to the welt at the heel seat. It will also be noted that around the heel the welt is skived, as at 12', to provide a recess into which the outer edges of the flange 19 and the plate 21 project.

Thereafter, a heel 29 of the usual rubber or leather type is secured to the heel seat portion of the shoe by nails 30 or similar fastening means which pass through the outer sole and find anchorage therein and are clinched against the plate 21. In the present instance the heel is shown as a rubber heel and the nails 30 pass through the openings usually provided therein, except the central opening, and into the outer sole.

Where a cushion heel only is desired, the heel portion of the cushion member 14 may be used separately with any desired shank piece, giving the same cushion effect to the heel as where the combined heel and shank cushion is used.

The cushion constructed and arranged as previously described does not alter the outer appearance of the finished shoe, but does provide an extremely comfortable and lasting cushioning construction at only a small increase in cost over the usual, unyielding Goodyear welt type shoe.

I desire it to be understood that this invention is not to be limited to any particular form or arrangement of parts except insofar as such limitations are specified in the claims.

What I claim as my invention is:

1. In a Goodyear welt shoe, the combination with the sewed seat portion of the shoe including the inner sole, the welt, the inseam ridge and the outer sole, of a soft rubber member having a filler portion extending under the insole between the inseam ridges of the heel and a heel portion extending under the inseam ridge, a metal plate abutting that part of said heel portion adjacent the inseam ridge on one side and the outsole on the other, stitching securing the welt and outer sole directly together at the heel seat, a heel, and fastening means for the heel extending through said outer sole and clenched against said plate.

2. In a Goodyear welt shoe, the combination with the sewed seat heel portion of the shoe including the inner sole, the welt, the inseam ridge and the outer sole, of a soft rubber member having a filler portion extending under the insole between the inseam ridges of the heel and a heel portion extending under the inseam ridge and recessed to provide a plate seat, a metal plate seated in said recess and against that part of said member extending over the inseam ridge on one side and abutting the outer sole on the other side, stitching securing the welt and outer sole directly together at the heel seat, a heel, and fastening means for the heel extending through said outer sole and clenched against said plate.

3. In a Goodyear welt shoe having a sewed seat, the combination with the inner sole, the welt, the inseam ridge and the outer sole, of a cushion sole interposed between the inner and outer soles comprising a soft rubber member having a filler portion extending under the insole, between the inseam ridges

at the heel and the shank of the shoe, and secured thereto and having a heel portion extending under the inseam ridge, said filler portion having a bottom cavity formed therein beneath the metatarsal bones of the foot, material stiffer than said member filling said cavity and acting to hold the cushioning material above the same upwardly beneath the metatarsal bones of the foot, stitching securing the welt and outer sole directly together at the heel seat portion and around the front portion of the shoe, a heel, and means securing said heel to the outer sole.

4. In a Goodyear welt shoe having a sewed seat, the combination with the inner sole, the welt, the inseam ridge and the outer sole, of a cushion sole interposed between the inner and outer soles comprising a soft rubber member having a filler portion extending under the insole, between the inseam ridges at the heel and the shank of the shoe, and secured thereto and having a heel portion extending under the inseam ridge, said member having a bottom cavity extending from the heel adjacent its breast outwardly beyond the same, material stiffer than said member filling said cavity to reinforce the same, stitching securing the welt and outer sole directly together at the heel seat portion and around the front of the shoe, a heel, and means securing said heel to the outer sole.

5. In a Goodyear welt shoe having a sewed seat, the combination with the inner sole, the welt, the inseam ridge and the outer sole, of a cushion sole interposed between the inner and outer sole comprising a soft rubber member having a filler portion extending under the insole, between the inseam ridges at the heel and shank of the shoe, and secured thereto and having a bottom cavity formed therein beneath the metatarsal bones of the foot and a bottom cavity extending from the heel adjacent its breast outwardly beyond the same, material stiffer than said member filling said cavities, stitching securing the welt and outer sole directly together around the shoe, a heel, and fastening means for said heel secured to the outer sole.

In testimony whereof I affix my signature.

JAMES F. GILKERSON.