May 29, 1923. 1,456,843

L. E. CLARK

INSOLE FOR SHOES OR THE LIKE

Filed July 25, 1921

Fig. 2

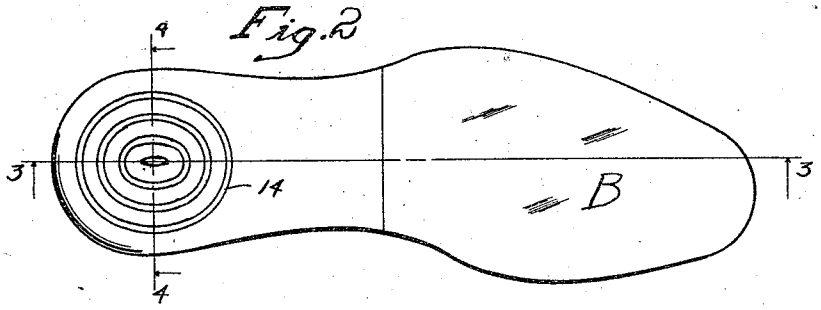


Fig. 4

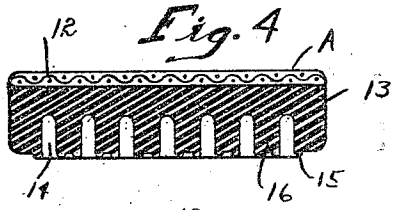


Fig. 3

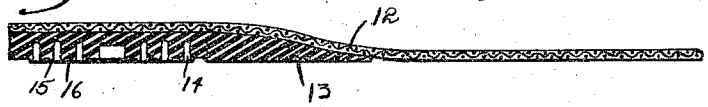


Fig. 1

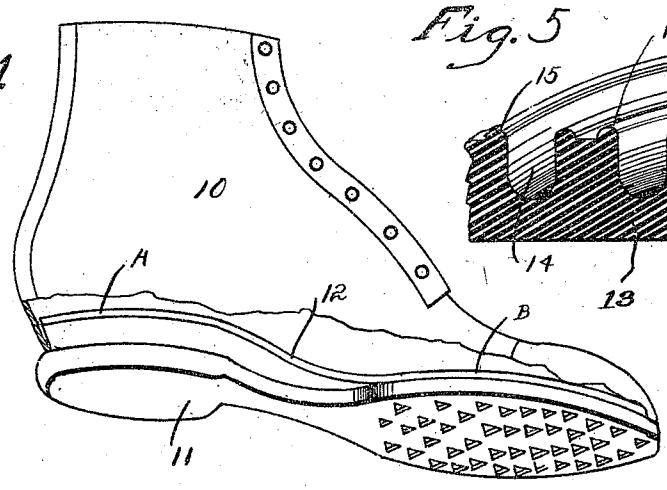


Fig. 5

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UNITED STATES PATENT OFFICE.

LAWRENCE E. CLARK, OF DES MOINES, IOWA.

INSOLE FOR SHOES OR THE LIKE.

Application filed July 25, 1921. Serial No. 487,286.

To all whom it may concern:

Be it known that I, LAWRENCE E. CLARK, a citizen of the United States, residing at Des Moines, in the county of Polk and State of Iowa, have invented a certain new and useful Insole for Shoes or the like, of which the following is a specification.

The object of my invention is to provide an insole for shoes having a resilient portion fixed thereto, the parts being simple, durable and inexpensive.

More particularly my invention relates to an insole for shoes preferably for shoes of athletic types which are provided with rubber soles.

Still a further object is to provide under the heel portion of the foot a resilient pad or strip of material which is provided with oval-shaped grooves extended only part way through said pad for permitting the resilient portion to be spread or moved to position where it will conform to the underside of the heel of the foot.

Still another object is to provide beads which are formed adjacent to the edges of the grooves in the resilient material, which ribs are adapted to co-act or rest against the inner surface of the sole of a shoe for preventing the possible slipping of the insole within the shoe, or from having it crowd towards the toe of the shoe.

Still another object is to provide an insole of substantially the same shape as the sole of the shoe, the resilient portion, however, being provided only under the heel portion of the insole, and being held in position by means of the remainder of the insole, which is preferably made of a tough strip of material such as leather or cloth. A leather insole or strip of material, when it is used with an athletic shoe serves as a non-conductor of the heat which is usually experienced with shoes having rubber soles.

Still another object is to provide the resilient portion of the insole directly below the heel of the foot so that it may serve as a heel or raised portion when it is used in an athletic shoe; and at the same time serve as a cushion for preventing jars and shocks due to walking, running or jumping, or any other exercise.

With these and other objects in view my invention consists in the construction, arrangement and combination of the various parts of my device, whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claim, and illustrated in the accompanying drawings, in which:

Figure 1 is a perspective view of a portion of a shoe with my improved insole shown therein.

Figure 2 is a plan view of the underside of the insole.

Figure 3 is a central, sectional view taken on the line 3—3 of Figure 2 through the insole.

Figure 4 is a sectional view taken on the line 4—4 of Figure 2; and

Figure 5 is a detail, perspective, sectional view taken through a portion of the resilient part of the insole, showing the grooves and beads.

In the accompanying drawings I have used the reference numeral 10 to indicate an ordinary athletic shoe, which is provided with a sole 11 preferably of rubber.

It will be understood that in most athletic shoes practically no heel or raised portion for a heel is provided.

My improved sole comprises a strip of trough material 12 preferably of leather and substantially the outline of a shoe sole. The strip of material 12 may be said to contain two parts, a heel portion A and a sole portion B.

Fixed to the underside of the heel portion A of the strip of material 12 is a resilient pad or cushion 13, preferably of rubber. The pad of resilient material 13 is tapered from its forward end slightly so as to provide an inclined portion between the heel and sole portion of the insole 12.

The pad 13 is provided with a plurality of grooves 14 which are oval-shaped in outline, and spaced one within another, as clearly illustrated in Figure 2 of the drawings. Each of the grooves 14 have their edges provided with a bead 15, the purpose of which will be hereinafter more fully set forth.

The grooves 14 permit the resilient pad 13 to be easily compressed to conform to the outline of the heel of the foot and at the same time serves as a cushion for any sudden jar or shock. The portion of the material 16 between the grooves 14 will be spread or caused to fill the grooves 14 when any pressure is applied upon the resilient pad. However, as soon as the pressure is released the parts will return to their normal position and thus serve as a cushion.

The beads 15 which project downwardly beyond the lower surface of the main body portion of the pad 13 rest upon the shoe sole and thus prevent the easy slipping of the entire insole within the shoe or the heel portion from crowding towards the toe and at the same time gives additional flexibility to the pad 13.

By providing the pad 13 below the heel portion A of the strip of material 12 it not only serves as a cushion for the preventing of any shocks or jars, but it also normally serves as a heel for an athletic shoe.

The pad 13 is arranged so that its edge is flush with the edge of the heel portion of the strip of material 12 so as to prevent its edge being bent downwardly due to the pressure of the foot thereon. The pad 13 serves to make the cushion effect greatest where it is most desired, that is, where the surface of the person's heel rests. The spread of the rubber is not wasted by being diverted to the edge of the insole, and since it cannot expand toward the edge it must give way more in the inner portions of the cushion part, thus making for greater resiliency and comfort, where the weight is greatest and allowing the cushion part to yield to the natural contour of the foot.

The arrangement of the pad 13 flush with the heel portion A of the strip of material 12 prevents such an undesired effect as hereinbefore described.

Another advantage is the arrangement of the strip of leather which covers the entire shoe sole and serves as a non-conductor of heat in the athletic shoe.

Another advantage of my insole and resilient cushion is that a heel is formed and thus the breaking down of a person's arch due to the no-heel type of shoes is substantially eliminated.

From the construction of the parts just described it will be seen that my insole is very simple, can easily be slipped into or out of the shoe, and when used will be very comfortable. It will be understood that my type of insole may be placed in the shoe at the time of manufacture of the shoe and permanently secured therein.

Some changes may be made in the construction and arrangement of the parts of my insole without departing from the real spirit and purpose of my invention, and it is my intention to cover by my claim, any modified forms of structure or use of mechanical equivalents, which may be reasonably included within its scope.

I claim as my invention:

An insole for shoes of substantially the outline of a shoe comprising a strip of tough material, divided into two portions, a heel portion and a sole portion and a resilient strip of material of substantially the same outline as said heel portion secured to the underside of said strip of tough material, said resilient strip of material having a plurality of oval shaped grooves therein, said oval shaped grooves being spaced one within the other and being substantially the shape of an inverted U in cross section, the material between each of the said last grooves being provided with comparatively shallow grooves for causing narrow beads to be formed on the edges of said first groove, the parts being so arranged that the material between said grooves will be spread out and forced into said grooves when under pressure, thus giving a cushioning effect to any sudden pressure applied upon the heel portion of said insole all for the purposes stated.

Des Moines, Iowa, July 18th, 1921.

LAWRENCE E. CLARK.