Feb. 16, 1932. C. T. READ 1,845,681

ARCH SUPPORT

Filed Feb. 13, 1931

Fig. 1

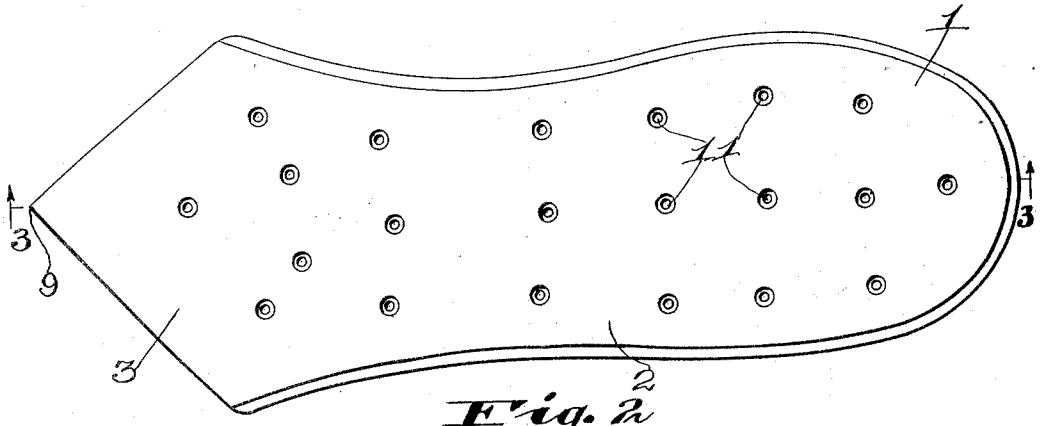


Fig. 2

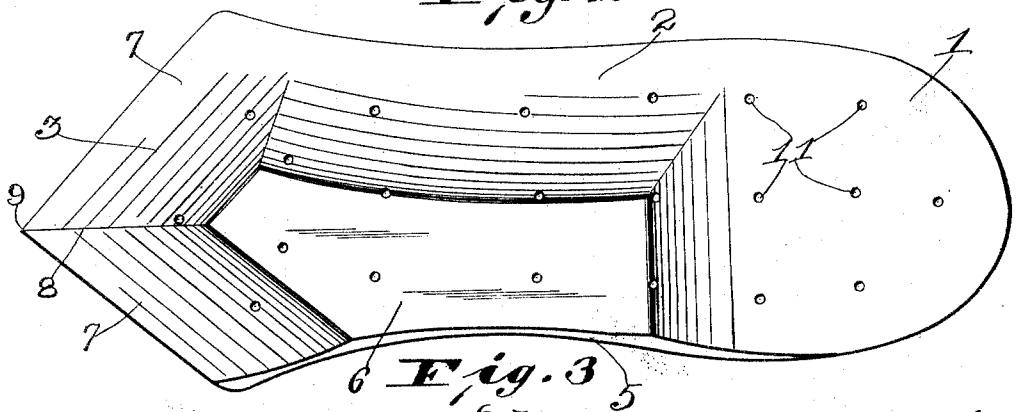


Fig. 3

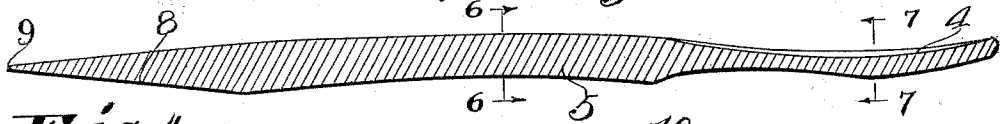


Fig. 4

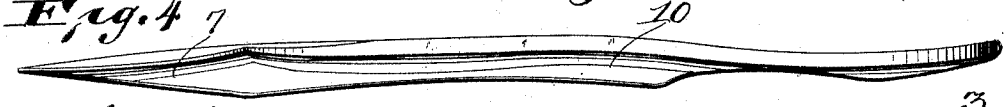


Fig. 5

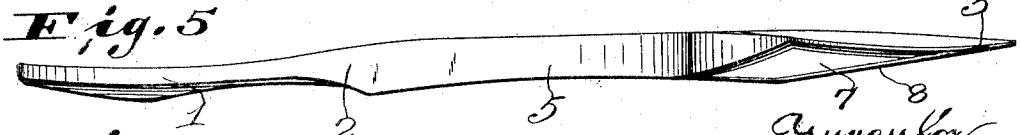


Fig. 6

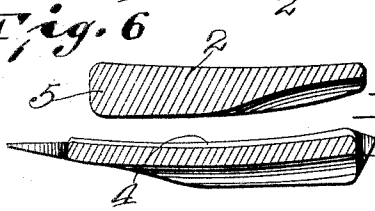


Fig. 7

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UNITED STATES PATENT OFFICE

CHARLES T. READ, OF MILWAUKEE, WISCONSIN

ARCH SUPPORT

Application filed February 13, 1931. Serial No. 515,461.

This invention relates to an improved arch support and more particularly to a removable type of arch support adapted to be positioned within the shoe.

One of the objects of the present invention is the provision of an arch support in the form of an insert adapted to be placed within the shoe and conform to the shape of the foot, with a raised portion at the instep to provide a positive support for the arch and with a tapering portion at the front end to fit beneath the metatarsus, whereby to properly retain the arch against dropping or falling.

Another object of the present invention is the provision of a supporting member of the above character which may be formed of leather, rubber or suitable composition and is provided at its forward end where it projects beneath the metatarsus with a pointed or tapered portion which extends inwardly from both sides of the interior to a substantial point at the longitudinal center of the insert, providing two tapered side portions which assist in retaining the exterior against longitudinal movement when fitted within the bottom portion of a shoe.

A still further object of the present invention is the provision of an arch support of the above character, wherein the heel portion of the insert is slightly curved or formed with a depression to properly receive the specific shape of the heel and continues into the raised or thick portion adapted to fit beneath the arch of a foot and is reduced in thickness along one edge to properly conform to the shape of a person's foot to provide a comfortable supporting member within a shoe.

With the above and other objects in view, the invention consists in the novel features of construction, the combination and arrangement of parts hereinafter more fully set forth, pointed out in the claims and shown in the accompanying drawings wherein:

Figure 1 is a top plan view of an arch support constructed in accordance with my invention;

Figure 2 is a bottom plan view of my improved support;

Figure 3 is a longitudinal sectional view on the line 3—3 of Figure 1;

Figure 4 is an edge view, looking at one side of the support;

Figure 5 is a view similar to Figure 4, looking at the opposite side of the support;

Figure 6 is a detail section on the line 6—6 of Figure 3; and,

Figure 7 is a detailed section on the line 7—7 of Figure 3.

Referring more particularly to the drawing, it will be noted that I have illustrated one of the main forms of the invention, wherein the device is constructed of rubber, or suitable composition, but it will be apparent that the main portion of the support may be formed of leather, with a suitable underlining of canvas to retain the support against squeaking when placed in a shoe.

The supporting member itself includes a heel portion 1, an intermediate portion 2 and a front portion 3. As shown in Figures 3 and 4, the heel portion 1 is provided with a depression 4 which is preferably shaped to conform to the outlines of a person's heel, so that the heel, when the foot is placed in a shoe, will rest easily within the depressed portion and position the arch of the foot directly over the substantially thick intermediate portion 5, the upper face of which is slightly curved longitudinally of the insert and tapers at each end, as illustrated, so that the main portion of the thickness of the part 5 is arranged directly beneath the instep of the foot.

On the bottom portion of the insert at one side thereof, the thick portion 5 is indicated at 6, showing that the lower face of the thick portion is provided with a substantially flat surface preferably of the design shown, so that this part will rest smoothly upon the instep of the shoe and cause the upper curved surface thereof to engage beneath the instep of a person's foot. The front portion 3, at the bottom of the insert, tapers forwardly at each side of the longitudinal center, as shown at 7, while a slightly raised ridge 8 extends along the longitudinal center, as shown, thus bringing the front end to a point indicated at 9, which brings the forward end of the supporting member beneath the metatarsus,

and due to the tapering inclined portions 7 and the point 9, it reduces to a minimum the forward movement of the supporting member when placed within a shoe.

In the construction of a great many arch supports in use at the present time, the shape of the device has a tendency to cause the same to be moved forwardly in the shoe, while a person is walking, and displacing the supporting member from its correct position beneath the arch of a foot, so that its usefulness is rendered inoperative. However, in the construction of my improved arch supporting device, it will be noted that the same is of such length, and the forward end thereof is of such construction, as to reduce to a minimum the movement of the same forward in the bottom of the shoe.

From this it will be apparent that the heel portion, as well as the arch portion will be maintained in their proper position, and be retained against longitudinal shifting in the shoe.

In Figures 4 and 5, where I have illustrated in elevation two opposite edges of the arch support, it will be noted that one side of the thick portion tapers transversely, as shown at 10, and the front end tapers off on both sides as indicated at 7 to form a comparatively thin front edge, tapered to the point 9. It is believed that an arch supporting device constructed in accordance with this invention will prove very beneficial for those suffering from fallen arches, as the supporting device is maintained in its correct position within the shoe and is prevented from shifting longitudinally which would necessarily move the supporting portion out of its correct position.

The device can be made up of various materials, such as leather, rubber, or suitable composition, and can be placed on the market and sold at a very low cost.

Attention is directed to the fact that due to the curvature of certain parts of the device, portions of the support will be spaced from the bottom of the shoe, while the foot is raised during the taking of each step and when the weight of the body is brought down on the top of the supporting device, it will compress these parts toward the bottom of the shoe. Ordinarly, the air which would be trapped beneath the supporting member, would pass out to the sides and up around the sides of the foot. However, it will be noted that the body of the arch support is provided with a plurality of apertures 11 which are arranged at various positions relative to the device, so that as the weight of the body compresses onto the supporting device, the air beneath the same will pass up through the apertures and provide for a thorough circulation around the foot. This latter feature is very beneficial to feet which have a tendency to perspire readily, as it will keep the feet in a comparatively dry condition.

I claim:

A foot support including an elongated body having a plurality of apertures therethrough, one end of the body being formed with a depressed portion to conform to the shape of the heel of a foot, a thick portion at the intermediate part of the body having one side formed with a substantially straight side wall, the other side of the relatively thick portion tapering off toward the opposite side of the body, and the upper face of the thick portion being arcuately curved to conform to the correct curvature of the instep of a foot, and the end of the body opposite the depression having oppositely disposed tapered portions converging to a point, and the tapered portions each terminating in a comparatively thin edge.

In testimony that I claim the foregoing I have hereunto set my hand at Milwaukee, in the county of Milwaukee and State of Wisconsin.

CHARLES T. READ.