Sept. 17, 1929. A. MARSHALEK 1,728,243

ARCH SUPPORT

Filed May 4, 1927

Fig. 1.

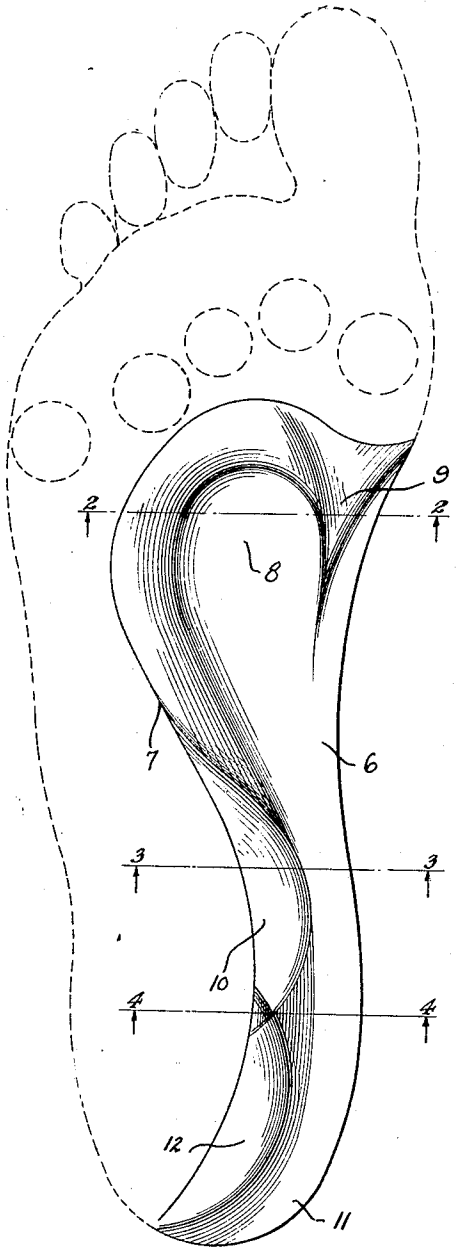


Fig. 2.

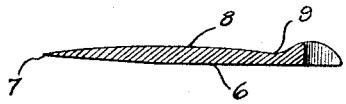


Fig. 3.

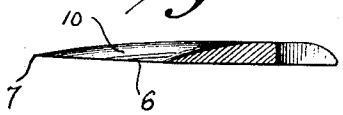
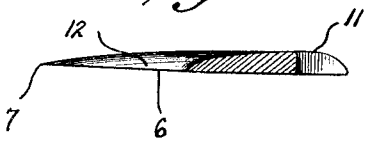


Fig. 4.



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UNITED STATES PATENT OFFICE

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ARCH SUPPORT

Application filed May 4, 1927. Serial No. 188,761.

This invention relates to improvements in arch supports.

It is the primary object of the invention to provide an arch support which is anatomically correct in shape and construction for the support of the arch of a foot.

A further object of the invention is to provide an arch support which is shaped and positioned so as to give a foot three points of support with a tripodal distribution of weight, the three supported points being the heel, the inner metatarsal, and the outer metatarsal.

A further object of the invention is to provide an arch support which will cause a foot supported thereby to have a perfectly shaped tread.

A further object of the invention is to provide an arch support which is adapted to be preferably positioned between the insole and outer sole of a shoe, and being so positioned it is not visible nor apparent, the arch support also being of such a nature that it may be built into a shoe originally or provided as a separate member or accessory.

A further object of the invention is to provide an arch support which is of very simple construction, is inexpensive to manufacture, is strong and durable, is comfortable to the wearer, and is well adapted for the purpose described.

With the above and other objects in view the invention consists of the improved arch support and its parts and combinations as set forth in the claims, and all equivalents thereof.

In the accompanying drawing in which the same reference characters indicate the same parts in all of the views:

Fig. 1 is a plan view of an arch support for a left foot with the position of a foot supported thereby shown in dotted lines;

Fig. 2 is a cross sectional view of the arch support taken on line 2—2 of Fig. 1;

Fig. 3 is a cross sectional view taken on line 3—3 of Fig. 1; and

Fig. 4 is a cross sectional view taken on line 4—4 of Fig. 1.

Referring now more particularly to the drawing it will appear that the numeral 6 indicates the improved arch support which in its entirety is of an S formation and is constructed preferably of leather or other similar slightly compressible material.

The arch support is preferably adapted for disposition within a shoe between the insole and outer sole, and when so positioned it extends from the rear of the shoe forwardly along the inner side thereof, terminating forwardly of the medial portion of the shoe. Referring to Fig. 1, the arch support is shown in full lines, while a foot is shown in dotted lines, illustrating the relative position of the arch support with reference to a foot supported thereby, the foot indicated being a left foot.

The arch support is of a substantial thickness along its inner edge portion, as shown in the sectional views, but tapers practically to a knife edge along its outer edge portion, as indicated at 7. The forward portion of the support is curved and assumes a position rearwardly of the foot bone joints and is tapered downwardly toward all of the edges, except the inner edge. The mid-portion is raised, as at 8, and inwardly of said raised portion there is a gouged out or depressed channel 9, diverging toward the front, for the accommodation of certain nerves and tendons of the foot.

The intermediate portion of the support is narrowed in width and from an intermediate point toward the outer edge a depression 10 is provided.

The rear end portion of the support is curved in shape and is adapted to engage substantially the inner half of the heel of a foot. The inner portion 11 of the heel portion is raised, while the portion 12 is slightly gouged out.

With the improved arch support positioned in a shoe as described, the inner portion of the foot is elevated and the weight is directed toward the outer portion of the foot. Also, the arch is comfortably supported and the distribution of the weight of the foot is on the heel portion of the support, and the widened front portion, which engages the inner and outer metatarsals of a foot, insuring a tripodal distribution of weight which is anatomically correct.

From the foregoing description it will be

seen that the improved arch support is of very simple and novel construction, and is well adapted for the purpose set forth.

What is claimed as the invention is:

1. As a new article of manufacture, an S-shaped arch support formed of slightly compressible material and adapted to underlie only the inner intermediate and heel portions of a foot and having a comparatively wide metatarsal portion, a narrow intermediate portion, and a curved heel portion, said support being of a substantial thickness at its inner edge and very thin at its outer edge, portions of said support also being formed with recessed areas and leaving relatively raised areas.

2. As a new article of manufacture, an elongated S-shaped arch support of considerably less width than the width of a human foot, said support being shaped to conform with and to underlie only the inner side portion of the bottom of a foot and having an inner metatarsal supporting portion, an outer metatarsal supporting portion, and a heel supporting portion, all integral, said support having depressed portions to accommodate the bony structure of a human foot and in general being tapered toward its outer side edge.

In testimony whereof, I affix my signature.

ALOIS MARSHALEK.