May 14, 1957 H. HORLACHER 2,791,844

FOOT ARCH SUPPORT

Filed Sept. 9, 1953

Fig.1

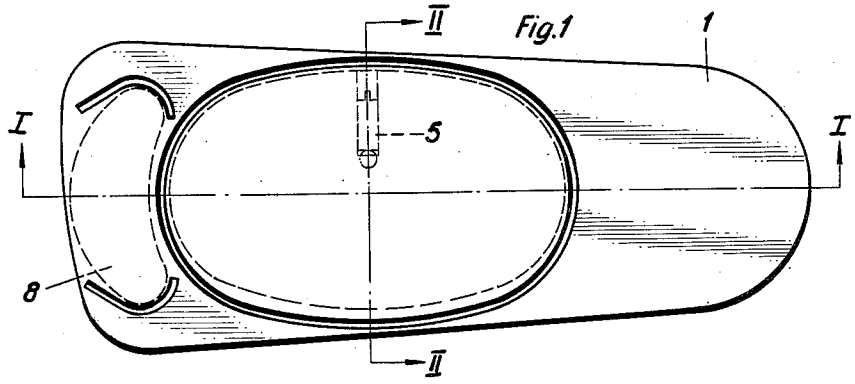


Fig.2

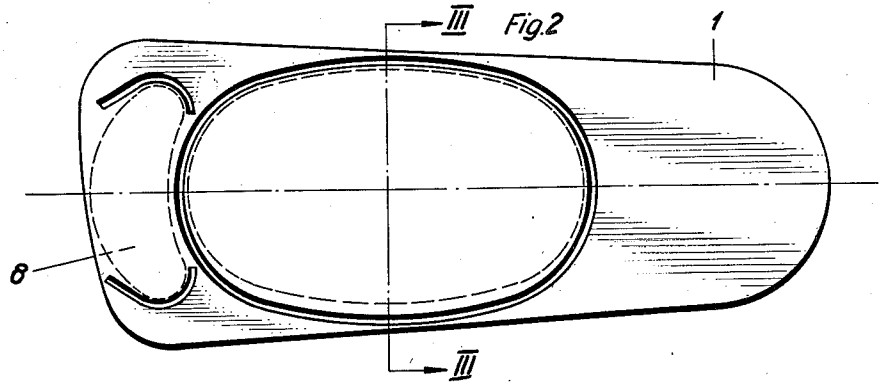


Fig.3

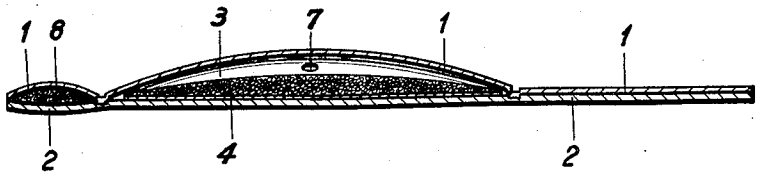


Fig.4

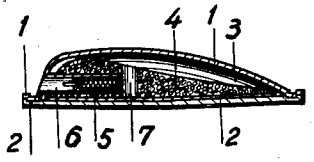
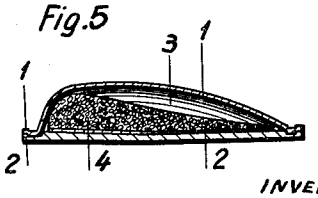


Fig.5



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FOOT ARCH SUPPORT

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2 Claims. (Cl. 36—71)

The present invention is related to foot arch supports and is more particularly concerned with a flexible support to be placed in shoes for supporting the cunieform and metatarsal bones of a foot.

The principal object of the present invention is to provide a foot arch support provided with an air cushion containing a resilient pad for the support of a foot arch and which support is entirely covered exteriorly with an elastic air-tight material which is resistant to moisture and acids.

In the accompanying drawings:

Fig. 1 is a plan view of a foot arch support with an air valve.

Fig. 2 is a plan view of a modified form of foot arch support.

Fig. 3 is a longitudnial section taken on line 1—1 of Fig. 1.

Fig. 4 is a cross sectional view taken on line 2—2 of Fig. 1, and,

Fig. 5 is a cross sectional view taken on line 3—3 of Fig. 2.

Referring now more in detail to the accompanying drawings wherein like and corresponding parts are indicated by similar reference characters, numeral 1 refers to the top sheet of the foot arch support which is of a configuration for coinciding with sheet 2. Both of said sheets are formed from an airtight, water-tight elastic synthetic material resistant to moisture and acids. Said sheets are sealed together providing a pocket 3 therebetween in which is positioned a resilient wedge-shaped pad or insert 4 adhesively attached to sheet 2.

A spring loaded air valve extends within a duct 6 provided in the side of said pad 4 and through the side of sheet 2. A second duct 7 extends through said pad from the top to the bottom face thereof and has the inlet end of said valve opening therein.

A resilient pad 8 is inserted within an open end pocket provided across and between sheets 1 and 2.

The arch support as shown in Figs. 2 and 5 is similar to the support hereinbefore described, except that it has

no air valve and the air within pocket 3 results from the pressing together of the two sheets 1 and 2.

In the support of Fig. 1, air can be forced into pocket 3 by means of a small pump or the like connected to valve 6 from time to time.

In use either of the supports are placed within a shoe with sheet 2 lowermost with the result that a flexible and resilient foot arch support is provided for the foot in said shoe which adapts itself closely to the arch of the foot and as the support is seamless, no objectionable pressure on the arch of the foot is created. The resilient insert or pad 4 provides an additional support for the air in pocket 3 providing a curvature of the arch support suitable for flexibly supporting the cunieform and metatarsal bones. The resilient pad 8 is exchangable and serves to support the spread portion of the foot. Pads 4 and 8 may for example be formed from rubber.

What I claim is:

1. A foot pad and arch support comprising a pair of elongated coincident sheets of an airtight, elastic and water and acid repellant material forming a pad for the sole of a foot, said sheets being welded together at their marginal portions entirely around and sealing off a single central section thereof providing a centrally located closed airtight pocket with said sheets spaced apart therebetween, a wedge-shaped pad of resilient material positioned within said pocket having one face affixed to one of said sheets and having an opening extending from the base thereof to and through the free face thereof, one of said sheets having an opening coinciding with the base end of said pad opening, a duct extending through said sheet opening and into said pad opening, and an air inlet valve fixedly mounted in said duct whereby air can be introduced through said sheet and pad openings into said pocket forming an air cushion which cooperates with said pad when positioned beneath the foot arch for properly positioning and cushioning the sole of a foot placed thereon.

2. A foot pad and arch support as claimed in claim 1 wherein an end marginal section of both of said sheets are spaced apart up to said marginal weld forming an open front pocket provided therein and a resilient exchangeable pad is inserted in said open front pocket for supporting the spread portion of the foot.

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