Sept. 8, 1942. H. SKOREPA 2,295,364

ADJUSTABLE SHOE ARCH SUPPORT

Filed Sept. 15, 1941

Fig. 1.

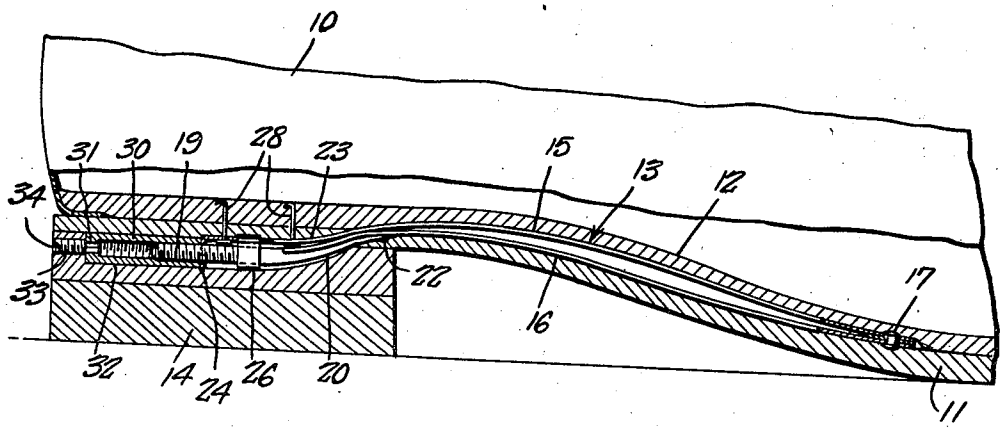


Fig. 2.

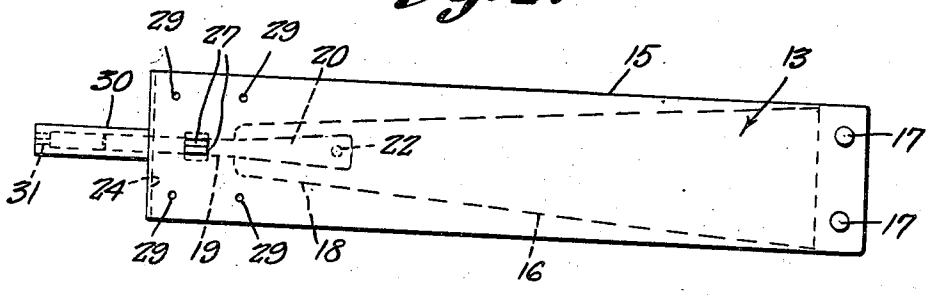


Fig. 3.

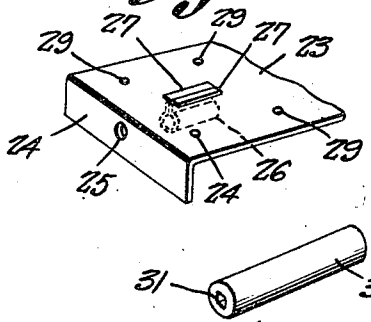


Fig. 4.

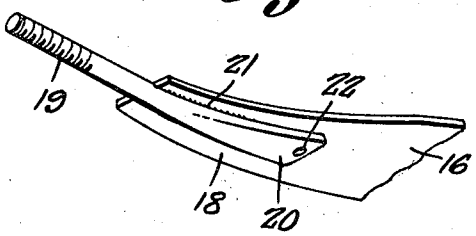


Fig. 5.

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ADJUSTABLE SHOE ARCH SUPPORT

Henry Skorepa, Tucumcari, N. Mex.

Application September 15, 1941, Serial No. 410,925

3 Claims. (Cl. 36—71)

This invention relates to an adjustable shoe arch support and has for an object to provide a device of this character which is a complete unit in itself, and comprises a flexible upper arch forming plate which is buckled or raised by drawing its ends closer together through the medium of a lower adjusting plate connected to the forward part of the arch forming plate and equipped at the rear end with an externally threaded shaft and an internally threaded take-up nut for adjusting the arch forming plate.

A further object is to provide a device of this character which may be built into shoes during the manufacture thereof, or may be built into used shoes.

A further object is to provide apparatus of this character which will be formed of a few strong, simple and durable parts, which will be inexpensive to manufacture, and which will not easily get out of order.

With the above and other objects in view the invention consists of certain novel details of construction and combinations of parts hereinafter fully described and claimed, it being understood that various modifications may be resorted to within the scope of the appended claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawing forming a part of this specification:

Figure 1 is a longtudinal sectional view of an adjustable shoe arch support, constructed in accordance with the invention, incorporated in a shoe sole and heel.

Figure 2 is a top plan view of the adjustable shoe arch support.

Figure 3 is a perspective view of the rear end of the upper arch forming plate.

Figure 4 is a perspective view of the rear end of the lower adjusting plate and threaded shaft.

Figure 5 is a perspective view of the adjusting nut.

Referring now to the drawing in which like characters of reference designate similar parts in the various views, 10 designates a shoe having an outsole 11 and an insole 12. For raising or lowering the insole at the shank or arch of the shoe an adjustable shoe arch support 13 is disposed between the outsole and insole at the arch or shank of the shoe and extends into the heel 14 of the shoe.

The adjustable shoe arch support comprises a resilient upper arch forming plate 15, and a lower adjusting plate 16, the plates being riveted together at their forward ends as shown at 17.

The lower adjusting plate 16 is reduced in width at its rear end as shown at 18, see Figure 4. An externally threaded shaft 19 is provided with a flattened forward end 20 which is welded as shown at 21 and also riveted as shown at 22 to the bottom face of the reduced end of the lower adjusting plate.

The flexible upper arch forming plate 23 is provided with a downturned flange 24 at the rear end, the flange having an opening 25 through which the threaded shaft 19 projects. A washer 26 surrounds a smooth portion of the shaft adjacent to the flange 24 and may be formed of a length of tubular material provided with extensions adapted to be engaged through an opening in the rear end of the flexible upper arch forming plate and then crimped over the top surface of the plate as shown at 27, see Figure 3. The flexible upper arch forming plate may be secured to the insole by nails 28 driven through openings 29 formed in the rear end of the plate adjacent the flange 24.

An internally threaded tubular nut 30 is mounted on the shaft 19 rearwardy of the flange 24. The flange forms an abutment for the nut so that when the nut is rotated in one direction the threaded shaft will be threaded into the nut with the result that the curvature of the flexible arch forming plate will be increased and when the nut is rotated in the opposite direction an opposite effect will be produced on the flexible upper arch forming plate. The nut is provided with a substantially square wrench opening 31 at the rear end to receive a similar shaped wrench for turning the nut.

The nut is mounted in an opening 32 formed in the heel 14 of the shoe and a smaller opening 33 is formed in the heel and opens through the rear end of the heel to permit insertion of the aforesaid wrench for manipulating the nut. The opening 33 is closed by a screw plug 34 which is inconspicuous and may be easily removed and replaced when it is desired to manipulate the nut for changing the curvature of the flexible upper arch forming plate 15.

From the above description it is thought that the construction and operation of the invention will be fully understood without further explanation.

What is claimed is:

1. An adjustable shoe arch support comprising an upper resilient plate, a lower adjusting plate, said plates being connected together at their forward ends and adapted to be incorporated in a shoe sole at the arch portion of a

sole, and means at the rear ends of both plates adapted to draw the lower plate rearwardly to buckle upward the upper plate.

2. An adjustable shoe arch support comprising an upper resilient arch forming plate, a lower adjusting plate, the plates being connected together at their forward ends and adapted to be incorporated in the arch portion of a sole, a downwardly extending flange at the rear end of the upper plate having an opening, a threaded shaft extending from the rear end of the lower plate slideably engaged in said opening, and a nut threadedly engaged on the threaded shaft abutting the flange, rotation of the nut in one direction threading the shaft into the nut to draw the lower plate rearwardly to buckle upward the upper arch forming plate.

3. The combination with a shoe sole and heel, of an adjustable shoe arch support comprising an upper resilient arch forming plate, a lower adjusting plate, the plates being connected together at their forward ends and incorporated between layers at the arch portion of the sole, a downwardly extending flange at the rear end of the upper plate having an opening, a threaded shaft projecting from the rear end of the lower plate slideably engaged in said opening, a nut threadedly engaged on the threaded shaft abutting the flange, rotation of the nut in one direction threading the shaft into the nut to draw the lower plate rearwardly to buckle upward the upper arch forming plate, said nut having wrench faces and being built into said heel, there being an opening in said heel permitting application of a wrench to said nut faces for turning the nut, and a plug closing the last named opening.

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