Aug. 9, 1932. H. A. TALLMAN 1,870,758

ARCH SUPPORT

Filed Jan. 2, 1932

Fig. 1.

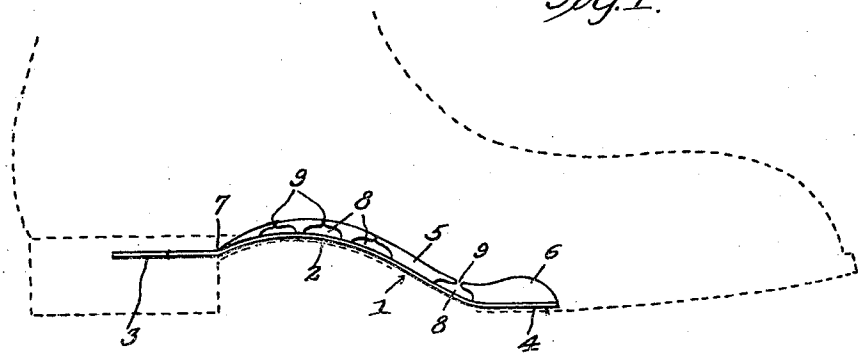


Fig. 2.

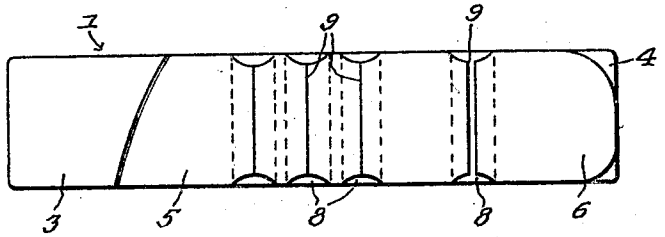
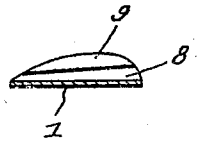


Fig. 3.



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UNITED STATES PATENT OFFICE

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ARCH SUPPORT

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The present invention relates to new and useful improvements in arch supports for aiding in forming and maintaining the longitudinal and transverse arches and has for some of its objects to provide, in a manner as hereinafter set forth, a device of this character embodying a novel construction which is strong, durable, simple, efficient and comfortable when in use and which may be manufactured at low cost.

All of the foregoing and still further objects and advantages of the invention will become apparent from a study of the following specification, taken in connection with the accompanying drawing wherein like characters of reference designate corresponding parts throughout the several views, and wherein:—

Figure 1 is a view in side elevation showing an arch support constructed in accordance with the present invention.

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

Figure 3 is a view in vertical transverse section through the arch support.

Referring now to the drawing in detail, it will be seen that the embodiment of the invention which is illustrated comprises an elongated, resilient plate of suitable material, preferably spring steel which is designated generally by the reference numeral 1 and which includes an upwardly bowed intermediate portion 2 and the substantially straight or flat end portions 3 and 4. The plate 1 may be of any desired length and width and also of any desired shape.

Mounted on the plate 1 is a body 5 of suitable material, preferably a light weight metal or alloy, which may be fixed to the plate in any suitable manner, as by welding or soldering. The body 5 is formed to provide an enlarged forward end portion 6 on the end portion 4 of the plate 1 and said body 5 extends over the upwardly bowed intermediate portion 2 and terminates in a beveled rear end 7 adjacent the point where the rear end portion 3 of the plate merges with the intermediate portion 2. The raised enlargement 6 helps to provide a support for the transverse arch of the foot.

The upper surface, sides and ends of the body 5 are rounded so that no sharp edges are presented to the foot of the user.

The lower portion of the body 5 has formed therein a series of substantially semi-oval cut-outs or openings 8 extending transversely therein, the plate 1 constituting the lower walls of said cut-outs or openings. The body 5 is further provided, in its upper portion, with the transverse slits 9 which communicate with the cut outs or openings 8. The forwardmost of the slits 9 is of materially greater width than the other slits and the walls of said forwardmost slit are spaced from each other at all times. The walls of the other slits are adapted for abutting engagement when the bowed portion 2 is flexed downward under pressure for limiting downward flexing of said bowed portion.

In use, the pressure of the foot on the arch support flexes the bowed portion 2 downward until the walls of the slits 9, with the exception of the forwardmost slit, are in abutting engagement. Thus, a substantially positive support for the arch is provided which exerts a yielding upward pressure on the arch at all times. The comparatively wide forwardmost slit 9 permits greater flexibility in the support at this point. The plate 1 and the body 5 may, if desired, be formed from a single piece of metal cast in the desired shape and then tempered for strength and resiliency. If desired, the enlargement at 6 may be eliminated.

It is believed that the many advantages of an arch support constructed in accordance with the present invention will be readily understood, and although the preferred embodiment of the invention is as illustrated and described, it is to be understood that changes in the details of construction and in the combination and arrangement of parts may be resorted to which will fall within the scope of the invention as claimed.

What is claimed is:—

An arch support comprising an elongated resilient metallic plate including a bowed intermediate portion, and a body on the plate extending across the bowed portion, said body having transverse cut-outs in a lower portion

and further having transverse slits in an upper portion communicating with the cut-outs, the walls of the slits being engageable with each other for limiting the flexing of the plate in one direction.

In testimony whereof I affix my signature.

HARRY A. TALLMAN, D. O.