

W. H. WOOD.
INSTEP ARCH SUPPORT.
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1,014,687.

Patented Jan. 16, 1912.

Fig. 1.

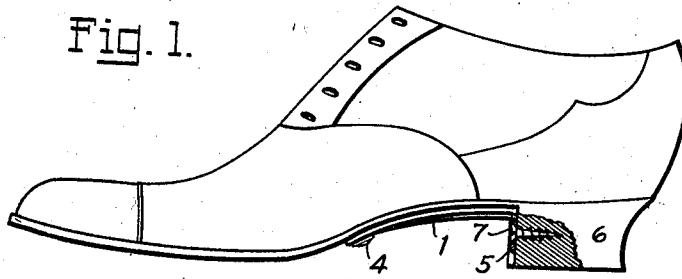


Fig. 2.

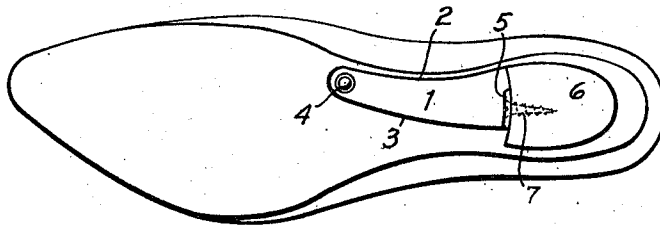
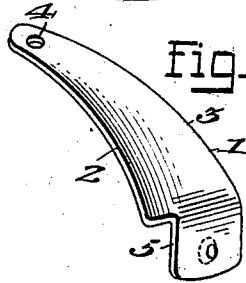


Fig. 3.



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UNITED STATES PATENT OFFICE.

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INSTEP-ARCH SUPPORT.

1,014,687.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM H. WOOD, a citizen of the United States, and resident of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Instep-Arch Supports, of which the following is a specification.

This invention is an instep-arch support of the type which is adapted to be permanently secured to the outer surface of the shank of a shoe-sole.

One object of the invention is to produce an inexpensive and easily-applied device of the kind above referred to which shall be applicable to shoes of various sizes and styles and which shall afford support at the part of the shoe where it is most needed while leaving other parts free to yield to the movements of the foot. To this end the support of the present invention is so formed that its inner edge substantially coincides with the inner edge of the shank so as to fully and firmly support the shoe at this point, while the support is of less width than the shank so as to leave the outer edge of the shank comparatively free to yield and conform to the outer edge of the foot, where support is not necessary.

To secure the rear end of the support to the heel the support is provided with a heel-engaging lug so located as to engage the breast of the heel substantially at the middle thereof, so as to be unaffected by variations in curvature in the breast of the heel.

In the accompanying drawings:—Figure 1 is a side elevation of a shoe with an instep-arch support embodying the present invention in place on the shoe; Fig. 2 is a bottom view of the subject-matter of Fig. 1; and Fig. 3 is a perspective view of the instep-arch support of Fig. 1.

The illustrated embodiment of the present invention consists of a single piece of stiff sheet metal which is cut and bent to the proper form. As shown in Fig. 2 the elongated body 1 of the device is provided with a concave inner edge 2 which substantially coincides with the inner edge of the shank, so as to afford the fullest possible support at this part of the shoe. The support is of less width than the shank, however, so that the outer edge of the shank is left free to yield to the foot. The outer edge 3 of the

support is convex and diverges from the inner edge toward the heel of the shoe, so that the support has a smoothly-tapering form from rear to front.

The support, as shown in Fig. 1, is longitudinally curved in a vertical plane so as to conform to the proper concave form of the shoe-shank. In order to stiffen the support longitudinally, and also to cause it to conform closely to the convex surface of the sole, the support is arched transversely to give it a concave upper surface, as shown in Fig. 3. The forward end of the support is secured to the sole by a rivet 4, while the rear end is secured to the heel. For this purpose a depending lug 5 is formed on the rear end of the body portion, this lug being located adjacent to the outer edge 3 of the support so as to bring it substantially at the middle of the breast of the heel. A screw 7 passes through the lug and into the breast of the heel and serves to maintain the support in close contact with the shank of the shoe.

The form of the instep-arch support above described is such that by the use of a minimum weight of metal the shoe is supported at the exact point where support is necessary while other portions of the shoe are left free to yield as is desirable, to the form and the movements of the foot.

The position of the heel lug hereinbefore described is such that it always engages the middle of the breast of the heel. As this part of the breast is always substantially normal to the length of the heel, the lug will fit closely against it regardless of the degree to which the breast is concaved in any particular style of shoe in connection with which the support may be used.

I am aware that instep-arch supports adapted to be secured to the outer surface of the shank of a shoe have heretofore been proposed, and I claim as my invention only the peculiar form of my support by which it is adapted to support the shoe only at the proper point while leaving it free at other points, and the features of construction by which my support is adapted for use in connection with shoes of a great range in sizes and styles.

I claim:—

In combination with a shoe, an instep-arch support permanently secured to the

outer surface of the shank of the shoe-sole, the support being of less width than the shank and having a concave edge substantially coinciding with the inner edge of the
5 shank, and a depending lug offset from the inner edge of the support so as to engage the breast of the heel substantially at the

middle thereof, the lug and the forward end of the support being secured, respectively, to the heel and the sole of the shoe.

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Witnesses:

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