

J. P. CALVEY.
 COMBINATION ARCH SUPPORT AND HEEL CUSHION.
 APPLICATION FILED DEC. 14, 1916.

1,244,027.

Patented Oct. 23, 1917.

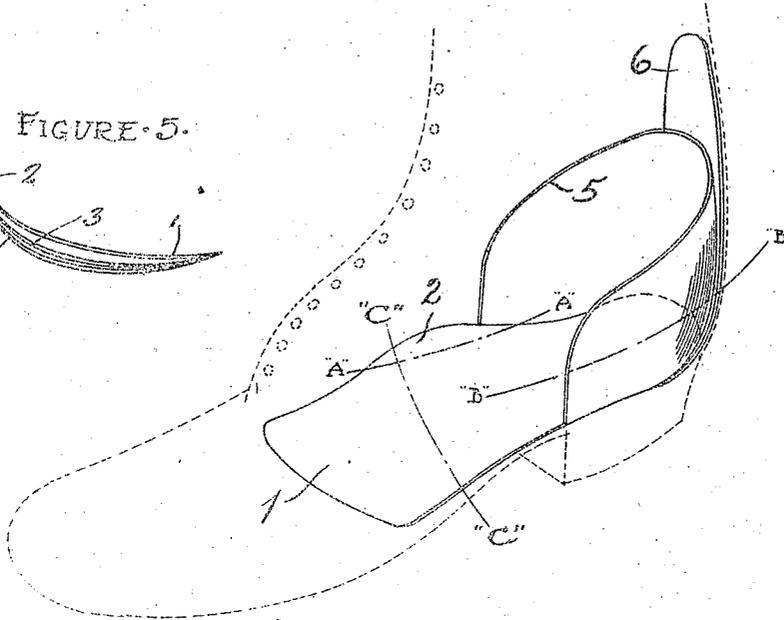
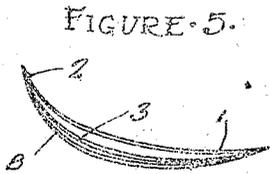


FIGURE 1.



FIGURE 2.

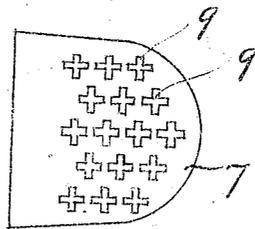


FIGURE 3.

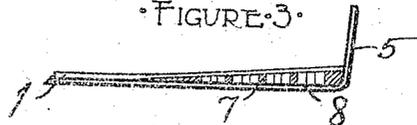


FIGURE 4.

J. P. Calvey Inventor

Witnesses
 E. M. Smith
 J. B. Harpman

By C. L. Chapman
 his Attorney

UNITED STATES PATENT OFFICE.

JAMES P. CALVEY, OF YOUNGSTOWN, OHIO, ASSIGNOR OF ONE-HALF TO CHARLES POLANER.

COMBINATION ARCH-SUPPORT AND HEEL-CUSHION.

1,244,027.

Specification of Letters Patent.

Patented Oct. 23, 1917.

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To all whom it may concern:

Be it known that I, JAMES P. CALVEY, citizen of the United States, residing at Youngstown, in the county of Mahoning and State of Ohio, have invented certain new and useful Improvements in Combination Arch-Supports and Heel-Cushions, of which the following is a specification.

This invention relates to arch supports and has for its object to provide a support for the arch of the foot, formed of a flexible material so that it may closely conform to the arch, also that it may be easily placed in the shoe.

Another object of the invention is to provide a pad which will afford a yielding elastic support for the heel of the wearer without producing any discomfort by reason of its insertion in an arch support to be inserted within a shoe.

A still further object of my invention is to provide a number of cross shaped perforations in the central and elastic portion of the heel pad. The upper and lower portions of the pad being formed of less yielding material thereby forming air cells or cushions within the heel pad. This tends to reduce to a great extent injurious effects by the jarring incident to walking on hard pavements or floors.

A still further object of my invention is to provide a series of V-shaped channels formed in the flexible material of the arch support thereby making the arch spring evenly when the weight is placed thereon. Should the arch become damp from any cause the V-shaped channels provide a rapid way of evaporating said moisture.

With the foregoing and other objects in view, the invention consists in the novel construction, combination and arrangement of parts constituting the invention to be hereinafter specifically described and illustrated in the accompanying drawings which form a part hereof wherein is shown the preferred embodiment of the invention, but it is to be understood that changes, variations and modifications can be resorted to which come within the scope of the matter hereinafter claimed.

Figure 1 is a perspective view of my arch support and heel cushion.

Fig. 2 is a sectional view on the line A—A of Fig. 1.

Fig. 3 is a plan view of the elastic portion of the pad.

Fig. 4 is a section on the line B—B of Fig. 1.

Fig. 5 is a section on the line C—C of Fig. 1.

In the drawings 1 designates the sole, this sole 1 is so shaped as to form a part of arch portion 2 of the arch support. By referring to Fig. 2 it will be clearly seen that this arch portion 2 is made of several layers 3 of flexible material. In order to provide a means of securing an equal distribution of the spring of the arch 2 these inner layers 3 are formed with V-shaped channels running at right angles to the general direction of the arch 2 of my invention. By means of these V-shaped channels, a means of rapid evaporation is provided should the arch 2 for any reason become damp.

Attached to the outer edge of the heel portion 4 of the sole 1 is a counter 5 provided with a tab 6 extending above the counter 5. See Fig. 1. This tab 6 allows the support and heel cushion device to be easily removed or inserted.

The perforated elastic cushion 7 is positioned between heel portion of sole 1 and the lower layer 8 of my invention. It will be noticed that the perforations 9 are so arranged as to provide uniform supporting walls for the air cells forming the air cushions formed by means of the upper layer 1 and the lower layer 8. See Fig. 4.

Having thus described my invention, I claim:

In a device of the class described, a sole composed of two layers, an arch built up upon said sole, this arch consisting of several layers of flexible material, inner layers of said arch provided with V-shaped channels running at right angles to the general direction of the sole, a counter, said counter attached to the back portion of the sole, a tab, said tab attached to said counter at the top and at the central portion of said

counter, and an elastic perforated cushion member inserted between the two layers of the sole, said elastic perforated cushion member forming a heel cushion when so inserted, all substantially as described for the purpose set forth.

In testimony whereof I affix my signature in the presence of two witnesses.

JAMES P. CALVEY.

Witnesses:

W. G. JOHNSON,
CHARLES E. NADLER.