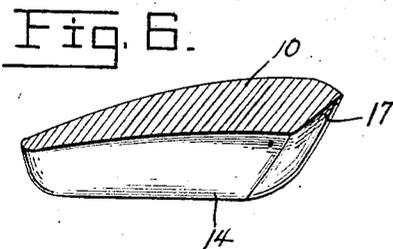
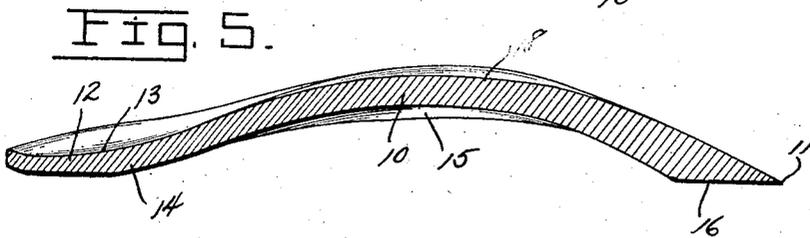
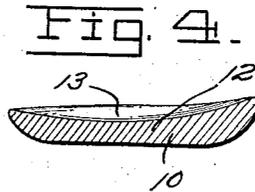
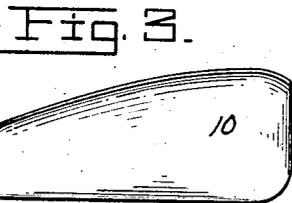
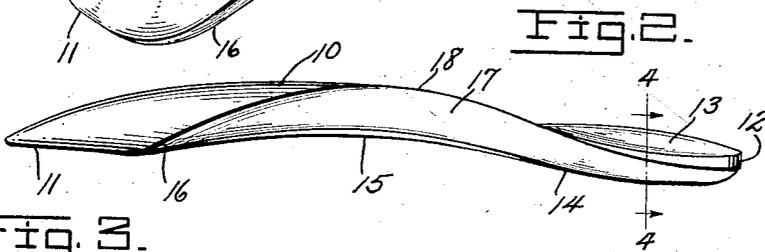
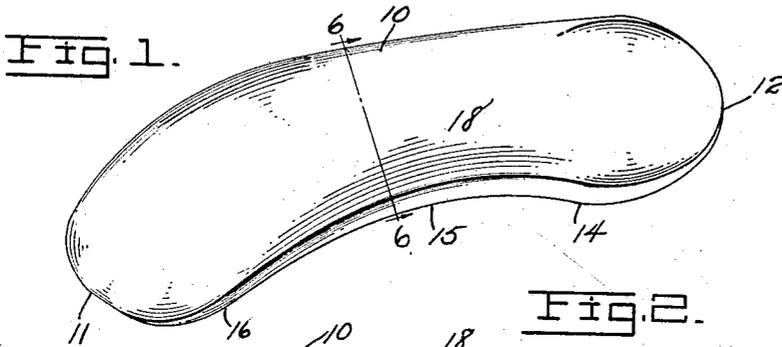


July 15, 1924.

H. A. FREESE
ARCH SUPPORT

1,501,765

Filed Aug. 24, 1921



Inventor
Herman A. Freese.

By *Watson E. Coleman*
Attorney

UNITED STATES PATENT OFFICE.

HERMAN A. FREESE, OF PASADENA, CALIFORNIA.

ARCH SUPPORT.

Application filed August 24, 1921. Serial No. 495,017.

To all whom it may concern:

Be it known that I, HERMAN A. FREESE, a citizen of the United States, residing at Pasadena, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Arch Supports, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to arch supports, and the general object of the invention is to make a support which will be light, unbreakable, and which will hold its shape and give long service, and further to so construct the arch support that it will not cut or injure the leather of the shoe, that it will not heat the foot as do metal arch supports, and which is so formed that it will relieve the strain on the foot and maintain this relief by reason of the fact that the arch support will not be deformed by the pressure of the foot.

A further object is to give a particular contour to the arch support which will effectively support the arch and relieve strain thereon.

Other objects will appear in the course of the following description.

My invention is illustrated in the accompanying drawings, wherein:—

Figure 1 is a perspective view of an arch support constructed in accordance with my invention, looking toward the top thereof;

Figure 2 is a perspective view looking toward the edge of the arch support;

Figure 3 is a front elevation of the arch support;

Figure 4 is a section on the line 4—4 of Figure 2;

Figure 5 is a longitudinal section of the arch support;

Figure 6 is a section on the line 6—6 of Figure 1, looking toward the forward end of the support;

Referring to these drawings, 10 designates the arch support which is made of relatively light wood. I do not wish to be limited to the particular kind of wood which the arch support is made from, but this wood should be light and yet strong. The strip of wood from which the arch support is made is shaped in plan view, as illustrated in Figure 1, so as to conform more or less to the shape of the foot and so that it may be disposed in the heel of the shoe and extend beneath the arch of

the foot and rest upon the sole of the shoe. The arch supports, of course, are made in pairs for either right or left foot, and I have illustrated an arch support for the right foot.

As will be noted from the longitudinal section in Figure 5, the rear portion of the arch support is relatively thin, while the forward portion is relatively thick but terminates in a relatively thin edge 11. The under face of the heel portion 12 of the arch support is slightly convex both longitudinally and transversely, while the upper face 13 of this heel portion is slightly concave both longitudinally and transversely. The under face of that portion of the arch support in advance of the heel on the inside of the foot is relatively thick, as at 14, and in front of this thickened portion which constitutes the heel, the arch support is concavely curved longitudinally, as at 15.

Viewed transversely, however, it will be seen that the arch support is thicker adjacent its inside edge than it is on its outside edge. Forward of the concave portion 15, the under face of the arch support flattens out longitudinally and transversely, as at 16. The inner margin of the arch support on its under face is beveled, as at 17. The upper face of the arch support as regards the heel is slightly concave, as before stated, and in front of this concave portion the upper face is longitudinally convex, as at 18. This portion 18 is also transversely convex.

It will be obvious that to a certain extent the particular shape of the arch support will depend upon the shape of the particular foot to which it is to be applied, but generally speaking the arch support is longitudinally arched from the heel portion to the opposite edge and this portion is transversely arched slightly from one edge to the other, the heel being flattened or slightly concave. I am aware of the fact that metal arch supports have been used for a number of years, but the difficulty with these arch supports is that if worn long the metal supports tend to bend or give and thereby get out of shape and do not support the foot properly. Furthermore, they cut the leather or otherwise injure the shoe and tend to heat the foot. Furthermore, inasmuch as these arches on the market are made of metal they have to be formed from certain standard patterns and cannot, there-

fore, conform in detail to the conformation of the foot or the surface contour of the under side of the foot, whereas my supporting arch being made of wood can be worked in conformity to a plaster cast foot so as to secure such a contour to the upper face of the arch support as will give perfect comfort to the foot and will secure full contact of the arch support with the foot. The arch support being made of wood may be so worked as to secure exactly the right degree of curvature and the exact degree of lateral curvature. The arches made of wood are light, whereas the metal arches are relatively heavy. They cannot become deformed, whereas the metal arches can. The strain on the foot is relieved, due to the fact that the wooden arch supports do not bend or give, whereas the metal arch supports under use will not stand up for any length of time.

It is to be particularly noted that this arch support is not formed upon its upper face with a groove or recess for the foot to rest in but is more nearly "form fitting". By eliminating the side walls which would be formed were the upper face of the arch support recessed, the arch support is caused to fit snugly into the shoe and thus does not require any larger shoe than if no arch

support were used. This arch support need not, of course, be made of wood, as it might be made of any other solid, light substance and it may be either covered with fabric or bare and may be either painted, varnished or otherwise treated.

I claim:—

An arch support comprising a relatively thin strip of elastically yielding material rounded at its rear edge and forward edge so that the rear edge will fit the heel of the shoe and the forward edge will fit against the sole of the shoe, the rear portion of the upper face at the heel end being depressed to form a heel seat and forward of this heel seat being convexly rounded, the under face being slightly flattened at its rear end and then concavely arched longitudinally, the inside margin of the under face being beveled in an approximately straight line extending from the heel to the toe portion, said inside margin of the support being thicker than the outside margin, the under face of the support at its forward edge having a flat edge face in the same plane as the under face of the heel portion of the support.

In testimony whereof I hereunto affix my signature.

HERMAN A. FREESE.