W. C. BURNS.

CUBOID SUPPORT.

APPLICATION FILED SEPT. 7, 1921.

1,426,258.

Patented Aug. 15, 1922.

2 SHEETS—SHEET 1.

Fig. 9.

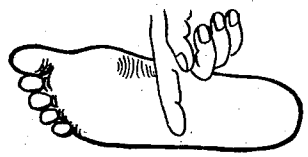


Fig. 1.

Fig. 2.

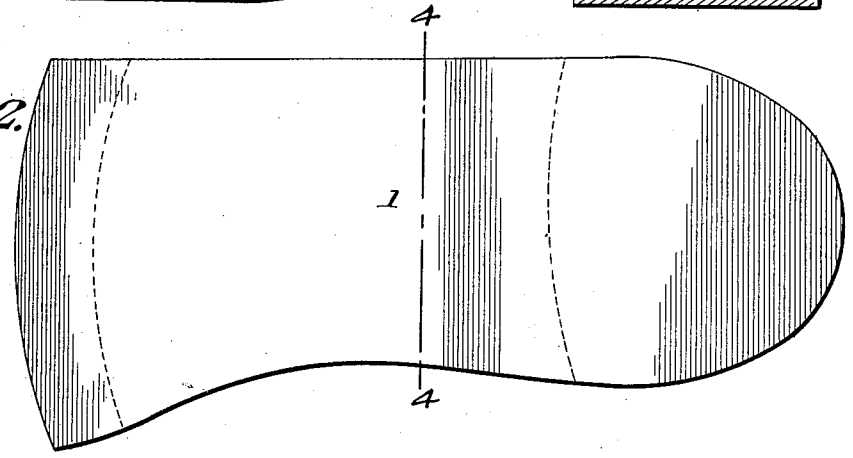


Fig. 3.

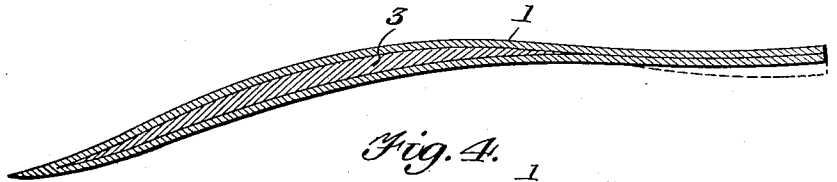


Fig. 4.



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2 SHEETS—SHEET 2.

Fig. 5.

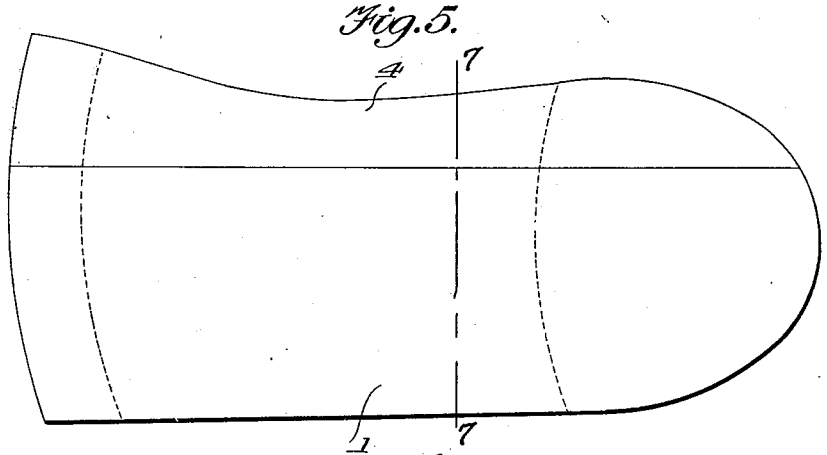


Fig. 6.

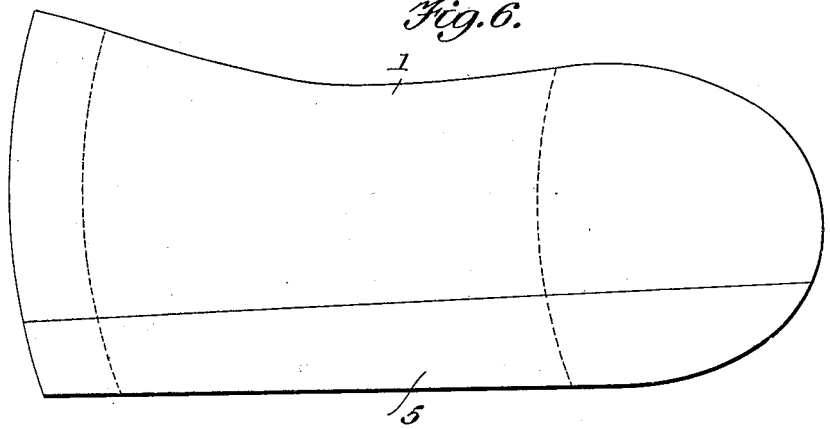


Fig. 7.

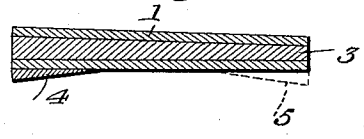
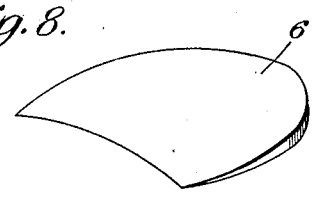


Fig. 8.



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CUBOID SUPPORT.

1,426,258. Specification of Letters Patent. Patented Aug. 15, 1922.

Application filed September 7, 1921. Serial No. 498,998.

To all whom it may concern:

Be it known that I, WILLIAM C. BURNS, a citizen of the United States, residing at Albany, in the county of Linn and State of Oregon, have invented new and useful Improvements in Cuboid Supports, of which the following is a specification.

My present invention has reference to a cuboid support designed to be removably placed in shoes to effectively support the cuboid part of the foot.

The primary object of the invention is to produce a support which will not only prevent foot troubles, but which will support fallen arches and which may be constructed and marketed at a minimum cost.

A further object is to produce a cuboid support comprising a leather body shaped to snugly fit in a shoe, and which is slitted longitudinally to provide a pocket for a substantially rigid member such as wood, or any other strong, light substance, the said member being so arranged in the body as to prevent the falling of the arch by supporting the cuboid bone of the foot and holding the weight of the foot off of the arch of the shoe as well as holding the foot straight in the shoe and preventing the turning of the shoe in walking.

A still further object is to produce a cuboid support comprising a leather body having an insert of non-flexible material that is non-corrodible and not affected by climatic changes, but which is also light in weight.

The foregoing, and many other objects which will appear as the nature of the invention is better understood, may be accomplished by a construction, combination and operative association of parts, such as is disclosed by the drawings which accompany and which form part of this specification.

In the drawings:—

Figure 1 is a sectional view taken through the heel portion of a shoe showing an arch support therein in accordance with this invention.

Figure 2 is a top plan view of the improvement.

Figure 3 is an approximately central longitudinal sectional view therethrough.

Figure 4 is a sectional view approximately on the line 4—4 of Figure 3.

Figure 5 is a bottom plan view illustrating a modification in which the cuboid support is provided with removable strips or levelers for building up the same to raise or cause more pressure under the cuboid bone.

Figure 6 is a similar view with the leveler on the opposite edge of the support for supporting and straightening the ankle.

Figure 7 is a sectional view on the line 7—7 of Figure 5.

Figure 8 is a perspective view of the lift.

Figure 9 is a diagrammatic view showing the exact position of the cuboid bone.

The body of my improved cuboid support is constructed of leather and is indicated, in the drawings, by the numeral 1. The body is shaped to be snugly received in the shoe 2 at the heel and arch portion thereof. However, the outer edge of the body, over which the portion of the foot containing the cuboid bone is positioned, is cut in a substantially straight line, in order to widen the body and to provide a wider and roomier support for the foot to better support the cuboid bone thereof and to prevent the crowding of the foot between the support and the upper of the shoe, under the cuboid bone. The leather body 1 is split transversely from the extreme end of the heel portion to within about one-half inch of its opposite end, the said last mentioned end being arranged, when the device is in position, up to the ball of the foot. The split portion provides the body with upper and lower layers, and a pocket between these layers. In this pocket, I place, and thereafter glue to the layers, an insert of wood or other substantially rigid material 3. The insert is the same width as that of the pocket, one of the ends of the said insert terminating a considerable distance away from the heel end of the support, with the result that the heel of the user is not brought into contact with the non-flexible part of the support, the non-flexible portion being arranged to receive thereon the cuboid bone of the foot as well as the other parts of the arch of the foot opposite the cuboid bone. The insert 3 is thickest at the portion thereof which is arranged to support the cuboid bone, and from thence gradually decreases in thickness in all directions. The tapered heel portion of the insert 3 is concaved, on its upper face inwardly from its corners, so that its said end is thus struck at a curvature. This provides what may be termed a pocket which receives therein the cords that hold the ball and the heel of the foot to-

gether. The cuboid support carries the most of the weight under the cuboid part of the foot, relieving the tired and overworked ball of the foot and removes or takes the pressure off of callouses and corns. By thus supporting the weight of the cuboid part of the foot in a natural manner, the user is afforded the same freedom as were he walking barefooted on soft earth, allowing an increased circulation of the blood while strengthening the muscles of the foot and ankle and consequently relieves all foot troubles.

In some instances, I have found it desirable to build up the support in a line with the edges thereof, and therefore employ levelers, indicated by the numeral 4 in Figure 5 of the drawings, and by the numeral 5 in Figure 6 of the drawings. These levelers are strips of any suitable material. The levelers are removably held on the support by driving a tack through the ends thereof. The leveler 5 is employed for raising the support to increase the pressure under the cuboid bone, while the leveler 4 is employed for supporting and strengthening the ankle. In the construction of the support I temporarily secure to the under face of the heel portion thereof, such as by a couple of tacks or by glue a lift shown in detail in Figure 8 of the drawings and indicated by the numeral 6. These lifts are, of course, of different thicknesses, but all taper from their rounded outer to their inner substantially concaved ends. The lifts are provided to eliminate pressure under the cuboid bone, and when the user of the support becomes accustomed to such pressure, the lifts are removed, increasing the pressure on the cuboid bone, it being understood that the more weight that can be carried under this part the greater the benefits derived by the wearer.

The insert or substantially non-flexible member 3 may be cheaply constructed and being of a non-corrodible nature is not susceptible to climatic changes and consequently cannot lose its effectiveness.

With the ordinary construction of arch supports, the same are rigid, being constructed of metal, and built higher on the inside of the foot so as to slope to the opposite or outside, and consequently the weight of the foot is shifted so that the foot is crowded over into one side of the shoe. These supports also press the shoe out of shape and cause corns by the upper binding across the foot. On the other hand, the supports that are made out of leather mash the shank of the shoe down, spoiling the shape of the shoe. In addition to the recited advantages of my support over those just referred to, my improvement can be manufactured at less than one-half of the cost of the best supports being manufactured.

My support holds the foot level on the insole preventing the foot from slipping forward or crowding to one side, prolonging the life of the shoe 50%.

My support is also of an extremely light construction, the material employed therein being of such nature and construction that the same in no ways materially adds to the weight of the shoe, and as a matter of fact, except for the benefits obtained, the user is hardly aware of the fact that the device is arranged in the shoe.

Having described the invention, I claim:—

1. A cuboid support comprising a leather body which is slitted transversely and longitudinally to provide a pocket therein, a wooden insert received in and glued to the walls of the pocket, and removable strips on the under face of the body.

2. A cuboid support comprising a leather body having a substantially straight outer edge whereby the same is widened transversely, said body having a longitudinal slit providing a pocket, an insert received in and adhesively connected to the walls of the pocket, said insert being at its greatest thickness at the portion thereof arranged to support the cuboid bone thereof, and gradually decreasing in thickness from said point in all directions.

3. A cuboid bone support comprising a leather body having an outer substantially straight edge, said body being slitted transversely and longitudinally from the extreme end of the heel portion thereof to adjacent its opposite end and said slit providing a pocket, a substantially non-flexible insert received in and wholly filling the pocket, said insert being arched on its upper face and having its greatest thickness at the portion thereof which supports the cuboid bone of the foot thereon and gradually decreasing in thickness from said point in all directions, said insert having the end thereof nearest the heel portion of the support concaved upon its upper face to provide a depression which receives therein the upper layer of the pocket.

In testimony whereof I affix my signature.

WILLIAM C. BURNS.