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1,492,514

F. H. JENSEN

ARCH SUPPORT

Filed Feb. 18, 1920

Fig. 1

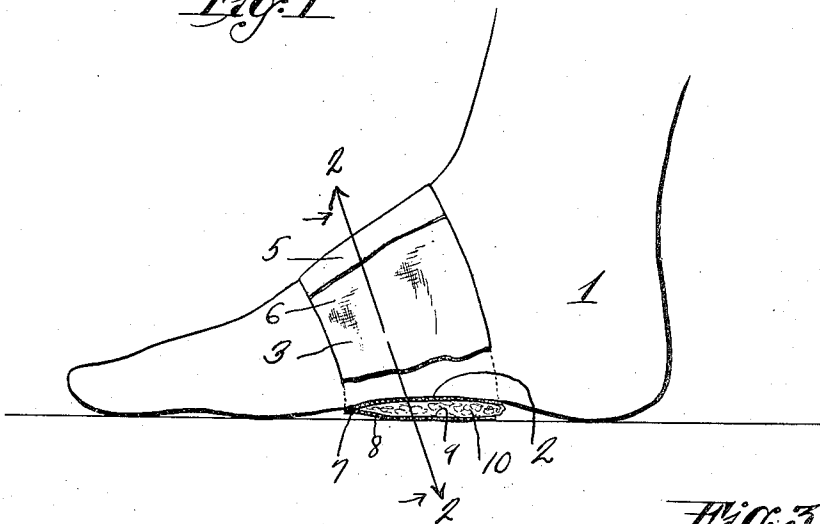


Fig. 2

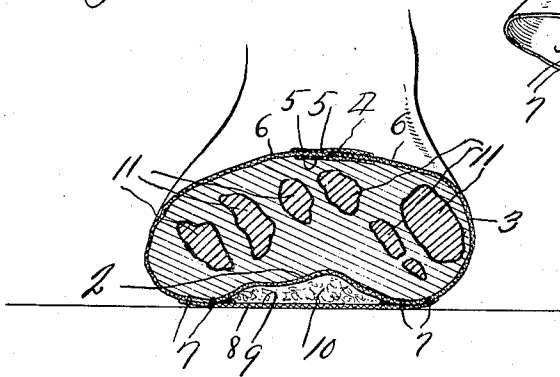
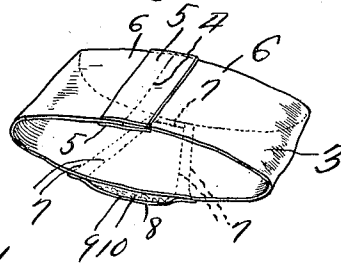


Fig. 3



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By

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UNITED STATES PATENT OFFICE.

FRANK HARRIS JENSEN, OF CHELSEA, MASSACHUSETTS.

ARCH SUPPORT.

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To all whom it may concern:

Be it known that I, FRANK H. JENSEN, a citizen of the United States, residing at Chelsea, in the county of Suffolk, State of Massachusetts, have invented a new and useful Arch Support; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention relates to arch supports and has for its object to provide an elastic cuff adapted to encircle the foot and provided on its under side with a pocket, in which pocket various sizes of pads may be disposed so that the transverse arch may be gradually built up and elevated, the pad being adapted to be disposed below the metatarsal heads so that said heads will be gradually forced up and held in their original positions. The cuff being particularly adapted for use in cases of a character known as metatarsaliga, which cases involve pain in the metatarsal heads and are evidenced by the down dropping of the anterior transverse arch of the foot. The elastic cuff serving the function of assisting the pad in maintaining the anterior transverse arch in normal or raised position.

With the above and other objects in view the invention resides in the combination and arrangement of parts as hereinafter set forth, shown in the drawings described and claimed, it being understood that changes in the precise embodiment of the invention may be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawings:—

Figure 1 is a side elevation of a foot showing the cuff applied thereto.

Figure 2 is a sectional view taken on line 2—2 of Figure 1.

Figure 3 is a perspective view of the cuff.

Referring more especially to the drawings, the numeral 1 designates a foot and 2 the transverse arch thereof, which arch when broken down causes in what are known as the metatarsal heads what is known as metatarsaliga, which is pain in the metatarsal heads. To overcome the above trouble and to relieve the pain it is necessary to gradually build up the transverse arch 2 until the metatarsal heads are

restored to their normal position. To accomplish the building up of the transverse arch an elastic band 3 is provided, which band is adapted to encircle the foot as shown in Figure 1. Band 3 is formed from a single piece of elastic material, the ends of which are brought together as shown at 4 in Figure 3 and then the ends are secured together by means of strips of adhesive material 5, or if so desired the strips 5 may be sewed to the ends 6 of the band. Secured to the under face of the cuff by means of stitching 7 is a piece of fabric 8, which fabric is substantially V-shaped so that the stitching 7 will cause a V-shaped or tapered pocket 9, in which pocket a pad 10 is adapted to be received. The pad 10 is preferably formed from the soft material such as felt, and during the first stages of the treatment the pad 10 is comparatively thin, however as the arch is gradually built up, pads of greater thickness are used until the arch is built up to its normal position as shown in Figure 2 at which time the cuff may be continued to be used until the transverse arch will remain in normal position. During the building up of the arch it will be seen that the elastic material from which the cuff is formed will exert a pressure on the foot at its sides thereby causing the bones 11 to be forced upwardly as shown in Figure 2 so that the transverse arch 2 will be formed. During the building up the transverse arch, the elastic band by exerting a pressure on both sides of the foot will materially assist the pad 10 in holding up the bones which form the transverse arch.

From the above it will be seen that a transverse arch support is provided which is formed from elastic material in the form of a cuff, thereby allowing the same to be quickly applied to the foot and also one wherein various sizes of arched building up and supporting pads may be quickly placed. The elastic material adjacent the V-shaped pocket allowing the placing within the pocket of various sizes of pads, which pads will be held by the contracting force of said material. It will also be seen that a transverse arch supporter is provided wherein the elastic material from which it is formed will assist the pads in raising the transverse arch and also will assist in maintaining the bones forming the trans-



verse arch in raised or elevated positions after they have been built up to normal positions by the use of pads.

5 The inventor having been set forth what is claimed as new and useful is:—

10 A transverse arch support comprising an elastic band adapted to encircle the foot and positioned in registration with the transverse arch of said foot, said band exerting a contracting force on the foot, a pocket on the under side of said band, said

pocket being formed from contractable material, thereby providing a pocket which will receive therein and hold against displacement therein various sizes of pads. 15

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRANK HARRIS JENSEN.

Witnesses:

DANIEL H. SULLIVAN,
MILDRED L. CHRISTENSEN.