Sept. 18, 1934. E. FREI 1,974,045

ARCH AND ANKLE SUPPORT

Filed March 28, 1931

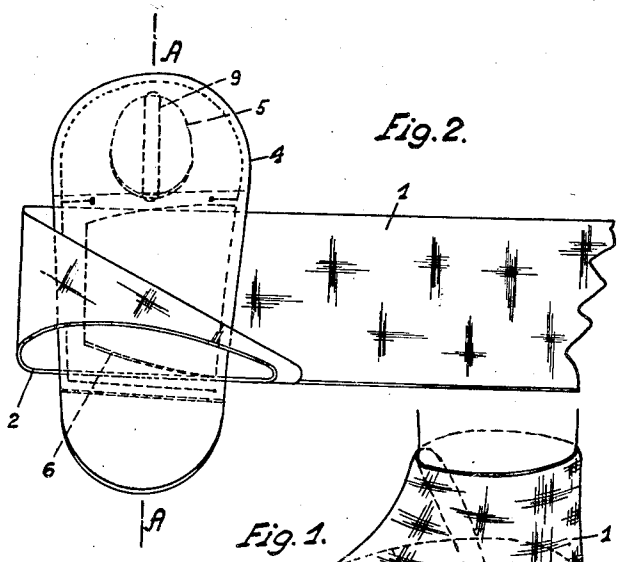


Fig. 2.

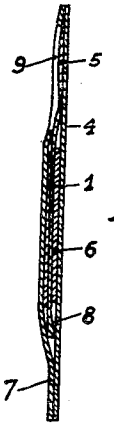


Fig. 3.

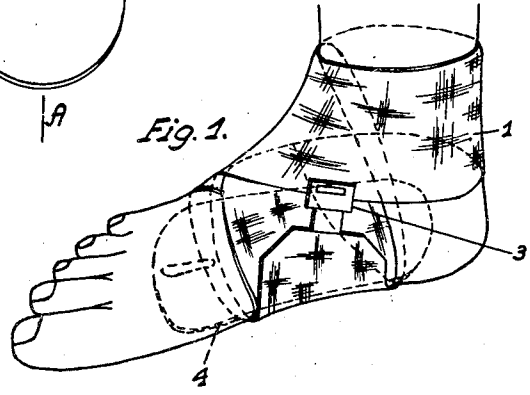


Fig. 1.

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ARCH AND ANKLE SUPPORT

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1 Claim. (Cl. 128—166.5)

The present invention relates to a new and improved arch and ankle support.

The main object of the invention is to provide a durable, washable support arranged for quick and convenient attachment to the foot.

A further object of the invention consists in the provision of a support adapted to apply pressure to the foot to increase and decrease it at any desired point in order to reform the usual slight deformities and incorrect positions of the human foot and parts thereof.

A further object is to provide a support in the shape of a bandage to support, or raise to its natural position, the arch of deformed feet and the metatarsals caused by insufficient strength of the ligaments without creating any undue or distressing pressure upon the fleshy portions of the foot.

Another object consists in the provision of a soft, pliable knitted bandage snugly fitting the foot and adapted to sustain the ankle and to support the arch and the metatarsals without discomfort to the wearer and without impeding the use of stockings and shoes.

A still further object of my invention is to provide a simple, inexpensive and adjustable pressure-exerting brace that will rectify the disalignment of the metatarsals or any bones in the feet that have worked out of their original normal position, and that will strengthen and cure weak arches by the application of elastic pressure.

With the above and other objects in view, my invention consists in the construction, combination and arrangement of devices hereinafter described and claimed.

Fig. 1 is a perspective view and

Fig. 2 a top view of a first form of the brace,

Fig. 3 is a section, on line A—A of Fig. 2.

The bandage comprises a loosely knitted band 1 of cotton etc. which is in some measure elastic and which permits the air to pass through. At one end of the band 1 the latter is twisted to form a loop 2 adapted to receive the ankle of the foot. The loop 2 is formed by twisting and connecting the free end of the band to one of the two edges of the band 1, according to the foot (right or left foot) to which the bandage is to be applied. At the other end the band 1 is provided with a hook 3 adapted to grip the band 1 and to retain the bandage in its position on the foot. The band 1 passes between the upper sole 4 and the lower sole 7 of an insole fixed to each other at their ends by stitching. The upper sole 4 is of leather the sole 7 may be of soft leather, fabric etc. The insole is provided with a slot 9 through which a pad 5 may be inserted. The pad 5 is destined to support metatarsal bones. A central pad 6 of stiff material such as vulcanized fibre, leather, wood, metal to support the arch of the foot is placed below the sole 4, in a pocket formed by sewing a piece of fabric 8 to the sole 4. The insole may be of any of the well known construction and of any suitable material.

Fig. 1 shows the bandage applied to the foot. After the foot has been passed into the loop the free portion of band 1 is wrapped around the ankle and the hook 3 finally inserted at a convenient place. The band 1 is tightly wrapped and exerts a pressure on the foot and maintains moreover the insole in its proper position within the arch of the foot.

Any suitable material such as cotton, wool, silk, artificial silk etc. may be used for making the band and any knitting process may be used which will produce a fabric which is in some measure elastic and porous.

What I wish to claim and secure by U. S. Letters Patent, is:—

A support of the class described, comprising insole members secured together at their ends, a band passed transversely entirely across and between the insole members and arranged to be passed around the instep, said band being twisted at one end over the insole members to form a loop for the reception of the foot and being also arranged to be passed around the ankle and provided at its free end with fastening means adapted to be engaged with the ankle portion of the band, a fabric strip secured at one end to the upper insole member and arranged in the pocket formed between said insole members and bearing on the upper side of the band and an arch supporting pad arranged in said pocket between said fabric strip and the upper insole member.

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