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2,585,629

BUNION PAD AND THE LIKE

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Fig. 1

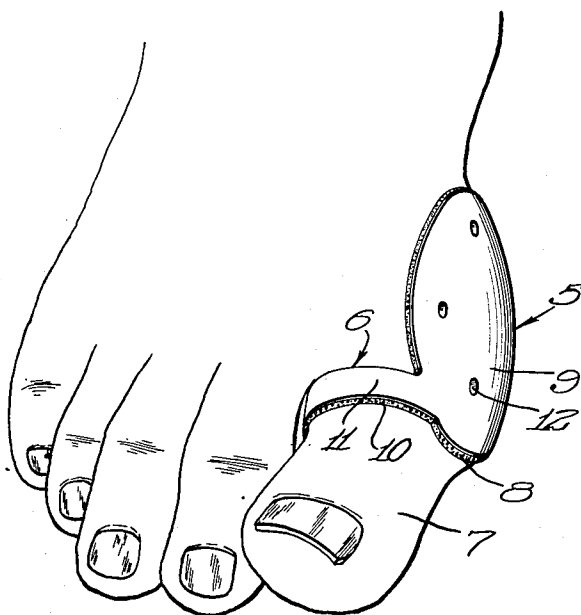


Fig. 2

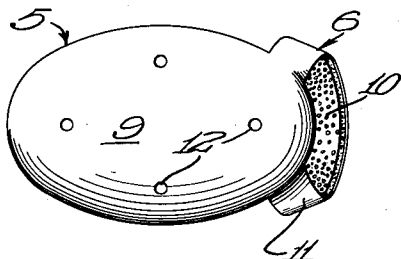


Fig. 3

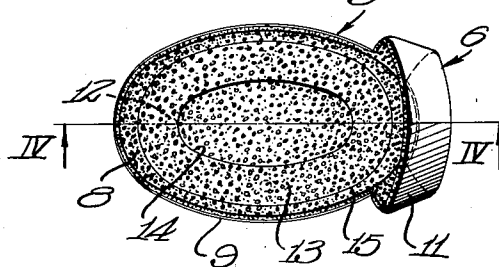
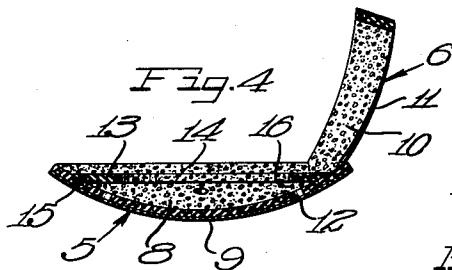


Fig. 4



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BUNION PAD AND THE LIKE

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This invention relates to improvements in a bunion pad and the like, and more particularly to a foot corrective appliance or device highly desirable for the treatment of bunions, tailor's bunions, hallux valgus, exostosis of the metatarsophalangeal joint, and similar afflictions of the human foot, although the invention may have other uses and purposes as will be apparent to one skilled in the art.

It is an important object of the instant invention to provide a treatment device for bunions and similar afflictions of the foot which is made in its entirety of extremely light weight and highly resilient material of a character exceeding felt and similar fabric in cushioning properties.

Also an object of this invention is the provision of a foot corrective appliance of the character set forth herein embodying a plurality of pieces secured together in such manner that a space is present between adjacent pieces when the device is not in use, thereby adding to the resiliency and cushioning properties of the device as a whole.

Still a further feature of the invention resides in the provision of a foot corrective appliance of the character set forth herein wherein the device itself is relatively thin so as to easily and readily fit within an article of footwear and occupy little room in a shoe or the like, while at the same time by virtue of the novel construction of the device, its cushioning properties are augmented so that it protects and relieves the affliction of pressure to a very high degree.

Also a feature of the invention resides in the provision of a foot corrective appliance of the character set forth herein which embodies an outer shield, and an inner flange-like member secured to the shield only at its edge portion, so that there is a definite space between the shield and the remainder of the flange member to add to the cushioning properties of the device as a whole.

It is also an object of this invention to provide a corrective appliance for bunions and similar afflictions, which device embodies an outer concavo-convex shield of resilient material, and an inner flange element also of resilient material and secured to the inner face of the shield only at the edge portion of the flange, the flange having an affliction receiving opening therein, and readily transferring pressure from the afflicted area to adjacent healthy tissue.

It is a further object of this invention to provide a corrective appliance for bunions and simi-

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lar afflictions, embodying an outer shield of curvate contour, with an inner flange-like element secured at its edge only to the inner face of the shield, so that when the device is not in use there is otherwise a space between the flange element and the shield.

Also an object of this invention is the provision of a foot corrective appliance for the treatment of bunions and similar afflictions which presents a very pleasing appearance to the eye of a prospective user, and is of such character as to inspire confidence in the prospective user that it will perform the function desired.

A still further object of the invention resides in the provision of a device for the treatment of bunions and similar afflictions, the device being entirely constructed of highly resilient material of the character of foam latex or foam rubber, and the outer surface of the device being covered with an externally smooth and relatively thin latex sheet.

While some of the more salient features, characteristics and advantages of the instant invention have been above pointed out, others will become apparent from the following disclosures, taken in conjunction with the accompanying drawing, in which—

Figure 1 is a fragmentary pictorial view illustrating the anterior portion of a human foot, and showing the foot equipped with a device embodying principles of the present invention, the device being in proper position for the treatment of a bunion, hallux valgus, or a similar affliction;

Figure 2 is an exterior face view of the device itself;

Figure 3 is an interior face view of the device of Fig. 2; and

Figure 4 is a central vertical sectional view through the device taken substantially as indicated by the line IV—IV of Fig. 3, looking in the direction of the arrows.

As shown on the drawings:

The illustrated embodiment of the instant invention consists in general of a body portion, generally indicated by numeral 5, and an attaching element or band generally indicated by numeral 6 secured to the body portion 5 adjacent one end thereof. When the device is applied over a bunion or some similar affliction occurring in the region of the metatarsophalangeal joint at the first metatarsal head, the attaching band 6 is disposed over the great toe 7 of the foot, and the body portion of the device extends rearwardly, overlying the affliction. With the attaching band circumscribing the great toe, nothing else is

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needed to hold the device in proper position, the user's stocking maintaining the body portion of the device in proper position over the affliction.

In a preferred form of the invention, the body portion 5 has a general overall contour of an oval, since this shaping will better fit most afflictions of the character the device is designed to correct, but it will be understood that other shapes may be adopted, if so desired. The body portion of the device also preferably embodies a concavo-convex shield made up of a layer 8 of cushioning material, preferably foam latex. This layer of cushioning material is covered by a relatively thin latex sheet 9 having a smooth external surface. The latex sheet 9 may well be a thin rubber sheet of the character utilized for dental dams. The thin sheet 9 is preferably cemented to the external face of the shield structure 8, or it may be vulcanized thereto if so desired, and closes the pores of the foam latex on the outer side. Obviously, the thin sheet 9 prevents any adherence to the stockings of a user when the device is in place on the foot, and permits the stocking to be freely and easily drawn onto the foot with the device in place.

The securing band 6 is formed in the same way and made of the same material as the concavo-convex shield 8, and includes an inner layer of foam latex 10, covered by a thin latex sheet 11. Thus this band is elastic and may readily be attached over the toe of the user, without any discomfort. If so desired, the band may be integral with the shield.

For ventilation purposes the shield is preferably provided with one or more apertures or openings 12 therethrough, and these openings may be disposed in any desired location.

A flange-like element 13, also preferably made of foam latex, and of substantially the same thickness as the portion 8 of the shield, is mounted inside the shield. In the preferred form of structure as seen clearly in Figs. 3 and 4, this flange-like member 13 possesses the same general oval contour as the shield itself and is provided with a central aperture or opening 14 which may satisfactorily be of oval contour. This aperture, of course, receives the affliction, or at least the most sensitive part of the affliction. As seen best in Fig. 4, the flange-like element 13 is substantially flat in character, and is secured to the interior face of the shield only at the edge portion of the flange, as indicated at 15. This securement may be by way of cementitious material or otherwise. With securement being at the edge portion of the flange member only, there will be a definite space 16 between the flange and the shield, this space increasing inwardly from the line of securement.

Were the flange 13 secured over its entire face by cementitious material to the inner face of the shield, much of the resiliency and cushioning properties of the device as a whole would be lost, but with the space 16 present, the cushioning function of the device is greatly enhanced. Added to this advantage, it will be noted that there is no considerable thickness of material directly over the affliction at any time during use of the device. The flange may be bent so that a greater area of it actually contacts the inside face of the layer 8 of the shield when the device is applied to the foot of the user, but by virtue of the flange, any pressure from an article of footwear or the like is transferred from the affliction to the healthy tissue surrounding the affliction, the affliction or the most sensitive part of it extending through the opening 14 in the

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flange 13 and being further protected by the shield itself.

In the illustrated instance, the ventilation openings 12 in the shield are shown as communicating with the space 16 between the shield and the flange, but it will be understood that it is not necessary to so locate the openings.

Since the instant invention is made of foam rubber, the entire device is extremely light in weight, yet by virtue of its construction is capable of providing more than adequate cushioning power to effectively transfer pressure from an affliction to surrounding healthy tissue. Further, the device presents an appearance that at once inspires confidence in the prospective user that the device will adequately perform its function and not be uncomfortable even when disposed in the wearer's regular article of footwear, because of the relatively small space occupied by the device. It should also be noted that the device is long lasting, and may readily be laundered or otherwise cleansed whenever desired. In use the device is extremely simple, it being merely necessary to slip the elastic loop 6 over the toe, and the device will automatically seat itself properly over the affliction, with the more sensitive part of the affliction received inside the opening of the flange 13.

It will be understood that modifications and variations may be effected without departing from the scope of the novel concepts of the present invention.

I claim as my invention:

1. In a treatment pad for bunions and similar afflictions of the foot, a concavo-convex shield of resilient material, and a free inwardly extending flange member of resilient material and of the general overall contour of said shield with its edge circumscribed by and secured to an interior part of said shield.

2. In a treatment pad for bunions and similar afflictions of the foot, a concavo-convex shield of resilient material, and a flange member of resilient material and of the general overall contour of said shield with its edge circumscribed by and secured to an interior part of said shield, said flange having an opening therein for the reception of the affliction and being spaced from said shield except for said edge portion when the device is not in use.

3. In a treatment pad for bunions and similar afflictions of the foot, a concavo-convex shield of resilient material, a flange member of resilient material and of the general overall contour of said shield with its edge circumscribed by and secured to an interior part of said shield, and said shield having ventilation openings there-through.

4. In a treatment pad for bunions and similar afflictions of the foot, a concavo-convex shield of resilient material, a freely extending flange member of resilient material and of the general overall contour of said shield with its edge circumscribed by and secured to an interior part of said shield, and an elastic band attached to an end portion of said shield and extending substantially transversely thereto to embrace a toe of the user to hold the pad in place on the foot.

5. In a treatment pad for bunions and similar afflictions of the foot, a concavo-convex shield of resilient material of general oval contour, a flange of similar contour but smaller in size and having a central opening secured at its edge only to the inside wall of said shield, the opening in said flange also being of generally oval contour,

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and the space between said flange and said shield increasing inwardly from the attached flange edge.

6. In a treatment pad for bunions and similar afflictions of the foot, a concavo-convex shield of resilient material of general oval contour, a flange of similar contour but smaller in size and having a central opening secured at its edge only to the inside wall of said shield, and said shield having ventilation openings therethrough communicating with the space between said flange and said shield.

7. In a treatment device for bunions and similar afflictions of the foot, a shield of foam latex, a thin sheet of latex doubled to the outer face of said shield, and a flange-like element also of foam latex secured along its edge only to the interior surface of said shield.

8. In a treatment device for bunions and similar afflictions of the foot, a shield of foam latex, a thin sheet of latex doubled to the outer face of said shield, a flange-like element also of foam latex secured along its edge only to the interior surface of said shield, and an attaching loop of the same doubled material as said shield attached to said shield adjacent one end thereof and extending substantially transversely to the shield.

9. In a treatment device for bunions and similar afflictions of the foot, an outer shield to overlie an affliction, and a flange-like inner element attached at its edge portion only to the interior of said shield and otherwise spaced from the shield when the device is not in use.

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10. In a treatment device for bunions and similar afflictions of the foot, an outer shield to overlie an affliction, a flange-like inner element attached at its edge portion only to the interior of said shield and otherwise spaced from the shield when the device is not in use, said inner element having an opening therein to receive the affliction, and said shield having ventilation apertures therethrough.

11. In a treatment device for bunions and similar afflictions of the foot, an outer shield to overlie an affliction, and a substantially flat cushioning member attached edgewise to the inner face of said shield.

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