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TOE STRAIGHTENING DEVICE

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2 Claims. (Cl. 128—81)

This invention relates to new and useful improvements in orthopedic appliances for foot treatment and more particularly to a toe straightening device.

The primary object of the present invention is to provide a foot appliance for remedying bunions as well as the displacement of metatarsophalangeal articulation usually effecting an inward positioning of the big or great toe.

Another important object of the present invention is to provide a device that conforms to a portion of the foot for straightening the big toe as the foot is inserted in a shoe.

A further object of the present invention is to provide a toe straightening device that includes novel and improved bunion receiving means whereby the device may be worn on a foot in a comfortable position without the necessity of adjusting the device to fit various sizes of feet.

A still further aim of the present invention is to provide a toe straightening device that is simple and practical in construction, strong and reliable in use, relatively inexpensive to manufacture, and otherwise well adapted for the purposes for which the same is intended.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a fragmentary perspective view of a foot and showing the present invention applied in position thereon;

Figure 2 is a plan view of the device and showing the inner protective covering removed therefrom;

Fig. 3 is a plan view of the protective inner covering;

Figure 4 is a plan view of the bunion receiving member;

Figure 5 is a transverse vertical sectional view taken substantially on the plane of section line 5—5 of Figure 4;

Figure 6 is a plan view of one of the springs used in conjunction with the present invention;

Figure 7 is a longitudinal vertical sectional view of the toe engaging band;

Figure 8 is a bottom plan view showing a foot having a disarranged big toe for which the present invention is particularly useful in correcting; and

Figure 9 is a similar view of Figure 8 and showing the present invention applied thereto for retaining the big toe in a normal comfortable position.

Referring now to the drawings in detail, wherein for the purpose of illustration, there is disclosed a preferred embodiment of the present invention, the numeral 10 represents a palette-like or spoon-shaped body portion of preferably soft leather material and provided with an integral forward extension 12.

Suitably secured to the side edges of the extension are the terminal portions of an elastic toe engaging band 14.

Extending longitudinally on the inner face of the body and extension 12, is a pair of spaced parallel spring arms 16, that afford means for holding the body comfortably against a foot 18 and more particularly when the foot is inserted in a shoe.

Disposed over the spring and secured to the body in any suitable manner, is a pad or bunion receiving member 20 having a tapered centrally disposed bunion seat 21. Member 20 is preferably of a rubber material to comfortably receive and conform to the size and shape of a bunion 22 at the forward inside of the foot.

A second pad 24 is also secured to the inner face of the body, in spaced apart relationship to pad 20, and near the rear portion of the body to comfortably bear against the foot in order to prevent the rear edge of the body or the ends of the spring arms from cutting or injuring the foot.

Secured to the inner face of the body by cement, stitching or any other suitable means, is an inner covering or padding member 26 of the same relative shape as the body 10 and this covering is provided with a forward integral extension 28 conforming to the size of extension 12.

In practical use of the device, the band 14 is slipped onto the inwardly turned displaced big toe 30 of the foot 18, so that the bunion 22 is adjacent to the seat 21 provided in member 20.

As the foot is inserted into a shoe (not shown) the upper portion of the body and covering will bear against the forward inside portion of the foot with the rear portions of the spring arms 16 permitting the device to conform to the curvature of the side of the foot and also bending or exerting an outward pressure on the big toe to retain the same in a normal straight position.

In this position, the lower portion of the covering and body will extend beneath the foot, as shown in Figure 9, supporting or padding the outer portion of the foot.

In view of the foregoing description taken in conjunction with the accompanying drawings it
is believed that a clear understanding of the device will be quite apparent to those skilled in this art. A more detailed description is accordingly deemed unnecessary.

It is to be understood, however, that even though there is herein shown and described a preferred embodiment of the invention the same is susceptible to certain changes fully comprehended by the spirit of the invention as herein described and the scope of the appended claims.

Having described the invention, what is claimed as new is:

1. A toe straightening device comprising a flexible body, an inner flexible pad secured to the inner face of said body and conforming to the shape of said body, a band carried by said body for engaging a big toe, a plurality of spaced resilient strips interposed between said body and said pad for urging the body and the pad inwardly toward a user's foot, means secured to the inner face of said body overlying one end portion of said strips to shield the same, and a resilient bunion receiving member engaging said strips and interposed between said body and said pad.

2. The combination of claim 1 wherein said bunion receiving member includes a resilient member having a tapered bunion receiving seat.

REINHOLD J. MULLER.

REFERENCES CITED

The following references are of record in the file of this patent:

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