Nov. 12, 1963 B. B. POSNER 3,110,306

TOE CUSHION

Filed April 10, 1961

FIG. 1

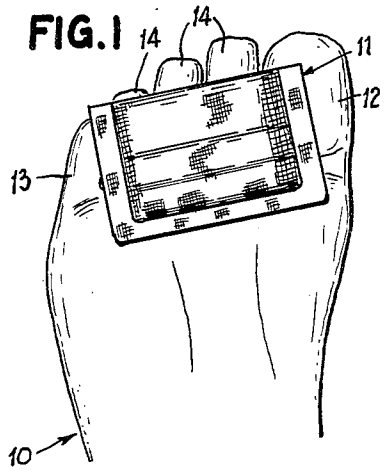



FIG. 2

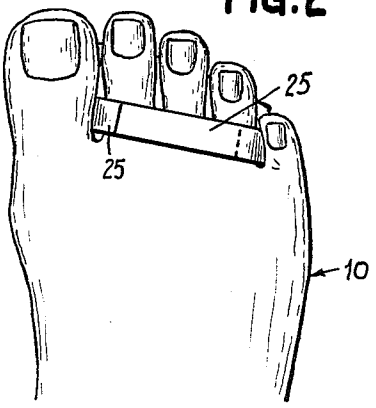



FIG. 3

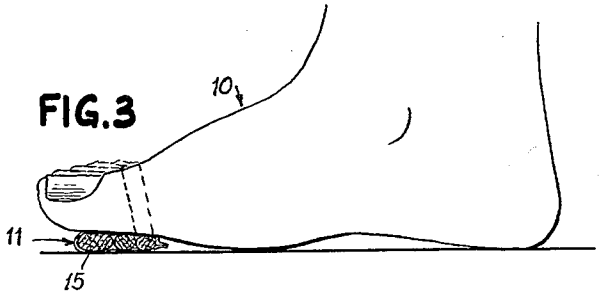



FIG. 4

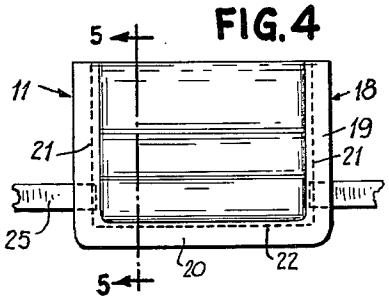



FIG. 6

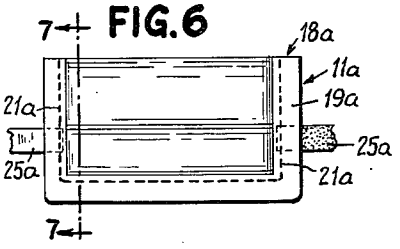



FIG. 5

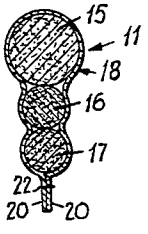
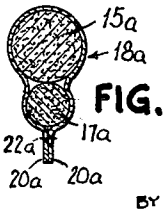



FIG. 7




INVENTOR.
BERTHA B. POSNER.

BY Percy Freeman
ATTORNEY

United States Patent Office

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# TOE CUSHION

Bertha B. Posner, 141 E. 56th St., New York, N.Y.

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2 Claims. (Cl. 128—81)

This invention relates to podiatric devices, and is especially concerned with a device to be worn under a user's toes.

As is well-known in the field of podiatry, there are certain types of foot-and-leg pains which have not heretofore responded favorably to conventional treatment. Toward this end, it is an object of the present invention to provide a device adapted for engagement beneath a user's toes which effectively relieves and eliminates certain types of foot-and-leg pains.

It is a further object of the present invention to provide a pad construction for engagement beneath a wearer's toes, which includes at least two pad elements connected together for movement relative to each other, whereby the pad elements are adapted to articulate and accommodate to changes in foot contour in a manner affording effective relief from pain during use of the feet.

It is still another object of the present invention to provide a podiatric device having the advantageous characteristics mentioned in the preceding paragraphs, which is extremely simple in construction, capable of quick and easy application by the wearer, which is durable and long-lasting in use, entirely sanitary and safe, and which can be economically manufactured for sale at a reasonable price.

Other objects of the present invention will become apparent upon reading the following specification and referring to the accompanying drawings, which form a material part of this disclosure.

The invention accordingly consists in the features of construction, combinations of elements, and arrangements of parts, which will be exemplified in the construction hereinafter described, and of which the scope will be indicated by the appended claims.

In the drawings:

FIG. 1 is a bottom plan view showing a device of the present invention as applied to a wearer's foot.

FIG. 2 is a top plan view of the foot and associated device shown in FIG. 1.

FIG. 3 is a side elevational view showing a foot in standing or walking condition, and illustrating a device of the instant invention applied to the foot, the device being shown in section.

FIG. 4 is a plan view showing a device constructed in accordance with the present invention, being somewhat enlarged and in greater detail.

FIG. 5 is a sectional view taken substantially along the line 5—5 of FIG. 4.

FIG. 6 is a plan view showing a slightly modified embodiment of the instant invention.

FIG. 7 is a sectional view taken substantially along the line 7—7 of FIG. 6.

Referring now more particularly to the drawings, and specifically to FIGS. 1–3, a user's foot is there generally designated 10, and a podiatric device 11 is shown in operative association with the wearer's foot. For purposes of reference, the big toe is designated 12, the little toe is designated 13, and the intermediate toes between the outer toes 12 and 13 are designated 14.

Thus, it will be appreciated that the pad construction or podiatric device 11 is arranged to underlie the three inner or intermediate toes 14 between the outer toes 12 and 13. Further, as best seen in FIG. 3, the pad construction 11 is substantially entirely beneath the inner toes 14, being spaced forward from the ball of the foot.



The pad construction is best seen in FIGS. 4 and 5, and by reference to FIG. 5, it will be understood that the pad construction includes a plurality of generally cylindrical pad elements 15, 16 and 17 arranged in longitudinally extending, side-by-side relation, with their axes generally coplanar. The pad elements 15, 16 and 17 may each be fabricated of suitably resilient, soft yieldable material, such as cotton or the like. As best seen in FIG. 5, one of the pad elements, namely the upper or other pad element 15, may be of greater diameter than the intermediate pad element 16 and the lower pad element 17, the latter two being illustrated as of substantially the same diameter. However, the pads 15, 16 and 17 may all be longitudinally coextensive with each other.

Enveloping and connecting together the several pad elements 15, 16 and 17 is a flexible covering sheet 18, which may be fabricated of any suitable flexible sheet material, such as sturdy elasticized fabric. More particularly, the cover 18 may be formed of a single, generally rectangular sheet of fabric and folded at its medial region about the outer side of the outer pad element 15 to cover opposite sides of the remaining pad elements 16 and 17. The cover 18 is of a size to extend beyond opposite ends of the cylindrical pad elements, the extending regions defining overlying edge portions 19, and also to extend laterally beyond the pad element 17 to provide overlying edge portions 20. The overlying edge portions 19 beyond the ends of pad elements 15, 16 and 17 are secured together in their facing relation, as by stitching 21, while the overlying edge portions 20 may be secured in their facing relation by stitching 22. If desired, facing securement of the overlying edge portions may be achieved by other suitable securing means, such as adhesive, cement, or the like. Also, if desired, the inner surface of the covering sheet 18 may be adhesively secured in its engagement with the contained pad elements 15, 16 and 17.

In any event, it is understood that the covering sheet 18 provides means connecting the pad elements 15, 16 and 17 in a way to permit relative articulation or motion between the pad elements, so that the pad construction may be yieldably deformed under pressure to accomplish its intended purposes.

To releasably retain the pad construction 11 on a wearer's foot 10, a pair of strap elements 25 may be connected to the cover sheet 18 adjacent to opposite ends of the inner pad element 17. In use, the strap elements 25 each extend upward between an adjacent outer one of the toes 12 and 13 and the next adjacent inner toe 14 where they may extend transversely across the upper side of the inner toes and be connected together, as in FIG. 2. The strap elements 25 in the illustrated embodiment may be of the releasably securable type known as "Velcro", or other suitable means may be employed for releasably securing together the free ends of the strap elements 25 above the inner toes 14.

As best seen in FIG. 3, the relatively large cylindrical pad element 15 is located outermost with respect to the toes, while the pad element 17 is located innermost and proximate to the inner connected ends of the toes. Thus, the pad construction 11 is of a thicker dimension in its outer or forward region. However, the pad construction may be substantially symmetrical about a central plane, say located along a vertical center line of FIG. 5, so that opposite faces of the pad construction will be identical. Thus, the views of FIGS. 1 and 4 may be considered as showing opposite faces of the pad device 11.

Under certain circumstances it may be desired to employ a pad device 11*a* as shown in FIGS. 6 and 7. The pad device 11*a* is similar to the pad device 11, but includes only two cylindrical longitudinally coextensive yieldable pad elements 15*a* and 17*a* arranged in side-by-

side relation within and connected together by a flexible sheet covering 18*a*. The flexible sheet covering 18*a* may be folded about the relatively large-diameter pad element 15*a* to cover opposite sides of the latter and of the relatively small-diameter pad element 17*a*, with edge portions of the covering sheet in facing engagement with each other. The facing edge portions 20*a* and 21*a* may be suitably secured, as by stitching 19*a* and 22*a*, or other suitable securing means.

Connected to the covering sheet 18*a*, adjacent to opposite ends of the contained smaller, inner pad element 17*a* are strap elements 25*a*, which may be the same as strap elements 25 described hereinbefore.

Thus, it will be appreciated that the pad device 11*a* of FIGS. 6 and 7 is similar to the first-described pad device 11, but with the omission of the intermediate pad element 16, and appropriate envelopment of the two pad elements 15*a* and 17*a* by the covering sheet 18*a*. Thus, in the embodiment of FIGS. 6 and 7, as in the first-described embodiment, the covering sheet 18*a* serves to connect the contained pad elements 15*a* and 17*a* while permitting relative motion or articulartion of the contained pad elements as required under the walking pressure of a wearer's foot.

From the foregoing, it is seen that the present invention provides a podiatric pad device which accomplishes its intended objects and is well-adapted to meet practical conditions of manufacture and use.

Although the present invention has been described in some detail by way of illustration and example for purposes of clarity of understanding, it is understood that certain changes and modifications may be made within the spirit of the invention and scope of the appended claims.



Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A podiatric device for extension only beneath the crest of a wearer's toes transversely thereof, and comprising a plurality of generally cylindrical pad elements of yieldable material arranged in longitudinally extending side-by-side in contact relation, with their axes generally coplanar, a flexible covering enveloping and loosely confining said pads together said covering being so dimensioned as to facilitate relative articulation of said pad elements, one of said pad elements being of greater diameter than the others for location outward of said other pad elements relative to a wearer's toes.

2. A podiatric device according to claim 1, said cover being fabricated of a single generally rectangular sheet folded upon itself about said pad elements and having its overlying edge portions secured to each other.

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