Feb. 8, 1949. B. D. FREEDMAN ET AL 2,461,047

FOOTPAD

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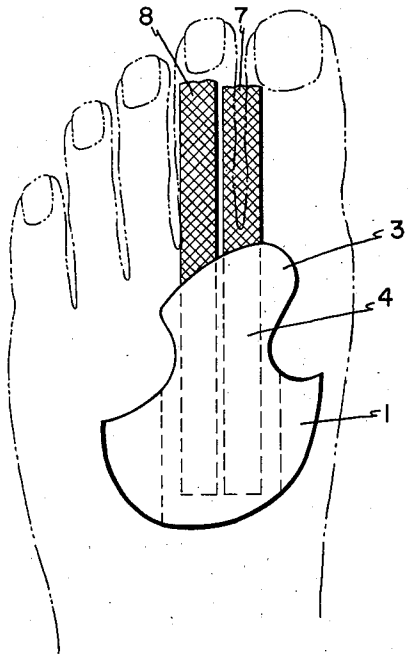

FIG. 1

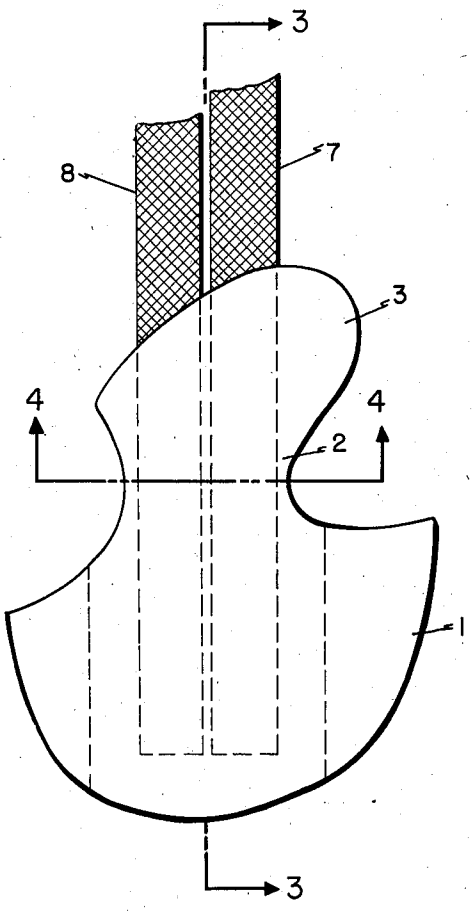

FIG. 2

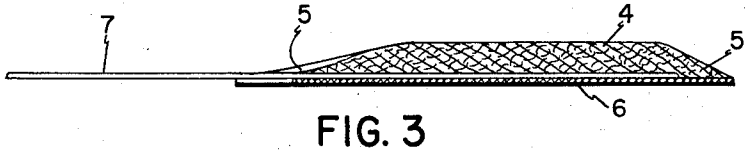

FIG. 3

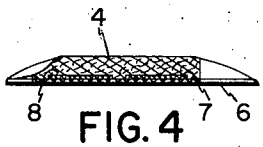

FIG. 4

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FOOTPAD

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2 Claims. (Cl. 128—153)

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The present invention relates to a foot pad and more particularly a pad to be used by a person having a callous on the bottom of the foot. It is quite a common practice to provide guards and protectors for different parts of the human foot, particularly for corns and bunions and for the most part these are attached to the foot in such a way that they remain in a given fixed position securely against the skin to be protected. Usually such guards or protectors are placed over the part of the foot which is effected and serve for the most part to provide a soft covering to protect the foot from further abrasion or rubbing at the corn or bunion.

In the case of a callous at the bottom of the foot, this method of treatment is not too effective because a pad or protector positioned in this fashion tends to concentrate the weight of the body on an even smaller area, thus increasing the pressure on the calloused portion. While it is desirable to have a pad remain in its correct position, it is not desirable to keep it in contact with the foot during the movement of the foot in ordinary walking or running. The present invention provides a callous pad which will take advantage of these features and which may be readily applied and worn against the bottom of the foot within the sock or stocking.

The weight of the foot under ordinary and normal conditions is borne in two regions on the bottom of the foot, these places forming the posterior and anterior ends of the arch of the foot. The forward or anterior end comes at the joints of the toes and the metatarsal bones of which there are five in number, one for each toe, the bones of the toe or phalanges being joined to the metatarsal bones at that point. The posterior end of the arch has the calcaneum or os calcis, the two sets of bones being joined together by the remaining tarsal bones which form the other bones of the arch. There is a tendency for greater pressure to be brought on the metatarsal bones at the joints with the phalanges or just behind the joints or even at the enlarged ends of the metatarsal bones where they are joined to the tarsal bones, particularly when the foot arch has fallen slightly these rear joints of the metatarsal bones tend to assume a good deal of the weight of the foot and pressure in this region and slightly ahead of it may frequently cause callouses on the bottom of the foot beneath the metatarsal bones.

In the callous pad of the present invention the support for the foot comes in this region and begins at a point at least at the joint of the phalanges and the metatarsal bones and extends rearward in the region of the rear metatarsal joints. The pad is so positioned and attached to the foot that this position is substantially maintained.

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Further features and advantages of the present invention will be more readily understood from a description of the same in the specification to follow when taken in connection with the drawings showing an embodiment of the same in which:

Figure 1 shows a callous pad in position with respect to a foot shown in dotted lines.

Figure 2 shows a plan view of the pad in larger scale than shown in Figure 1.

Figure 3 shows a section on the line 3—3 of Figure 2 and

Figure 4 shows a section on the line 4—4 of Figure 2.

The pad shown in the figures has been fitted, it will be noted, for the left foot. This pad, which has a shape somewhat like a distored violin, comprises a large body section 1 with a comparatively small neck portion 2 enlarging slightly to a larger head section 3. The pad, it will be noted, is not symmetrical with respect to the long central axis. The reason for this is that a pad for the left foot should be extended more to the right, both sidewise and lengthwise and similarly a pad for the right foot should be extended on the left, both sidewise and lengthwise. Taking the reference lines as in a map, the extension for the pad for the left foot should be in a northeast direction and for the right foot in a northwest direction, as viewed with respect to Figure 2. With regard to this, it will be noted from Figure 1 that the head portion 3 in the left foot callous pad has a portion which comes directly under the end of the great toe extending to the second and third toes in approximately the same position. From this head portion the pad is narrowed corresponding to the position between the ends of the metatarsal bones and widening in the body portion 1 to extend substantially across the base of the foot in the region of the rear metatarsal joints. The pad 4 is preferably composed of wool, such as lamb's wool, which has been softly felted together or any other suitable soft, absorbent material might be used. Such material, however, while yielding should not be so yielding that it loses its form and shape or is compressed into a hard mass. The edges of the pad are skived, as indicated at 5, although the central neck portion 2 need not be skived. The back of the pad is provided with a cover 6 which may be made of cloth or moisture resistant paper and

is preferably adhered to the pad by means of suitable cement. In fact, the back cover may be composed of an adhesive plaster strip cemented to the pad.

Between the back cover 6 and the pad proper 4 there are cemented two tapes 7 and 8 of ordinary cloth material. These tapes may extend all the way across the cover 6 projecting beyond the head portion 3 of the pad in a position so that the tapes may be drawn on either side of the second toe or in fact, any of the other toes depending upon the position that the callous pad is to assume. The tapes 7 and 8 may, if desired, be simply drawn back over the top of the foot or may, if desired, be tied around the toe. It will be noted from the above that the rear portion of the pad is not fastened in any way. This is allowed to rest within the stocking and does not follow the up and down motion of the foot except insofar as it is retained in the stocking.

In Figure 3 it will be noted that the front end of the pad coming under the phalange metatarsal articulation has a longer, thinner shiving than the rest of the pad so that no abrupt raising occurs at this point.

Having now described our invention, we claim:

1. A callous pad to be used under the bottom of the foot but free therefrom having a shape to cover the region of the rear metatarsal joints of the foot and part of the front metatarsal joints, said callous pad comprising a thickness of soft felted material, a cover element covering the felted material, a pair of flexible tape members fixed between the cover and the felted material in face contact with the cover and extending outwards from the end of the pad in the direction of the toes, said pad adapted to be placed with the cover next to the bottom of the foot whereby the tapes extend from the cover near the toe junctions and may be drawn between the toes and tied over the same.

2. A callous pad to be used under the bottom of the foot but free therefrom, having a portion shaped to cover the region of the rear metatarsal joints of the foot, a narrow neck portion, and a head portion smaller than the first portion, said callous pad comprising a thickness of soft felted material, a cover element covering the felted material, a pair of flexible tape members fixed between the cover and the felted material in face contact with the cover and extending outwards from the end of the pad in the direction of the toes, said pad adapted to be placed with the cover next to the bottom of the foot whereby the tapes extend from the cover near the toe junctions and may be drawn between the toes and tied over the same.

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