

Dec. 22, 1959

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2,918,059

FOOT CORRECTIVE PAD

Filed Dec. 11, 1957

FIG. 1

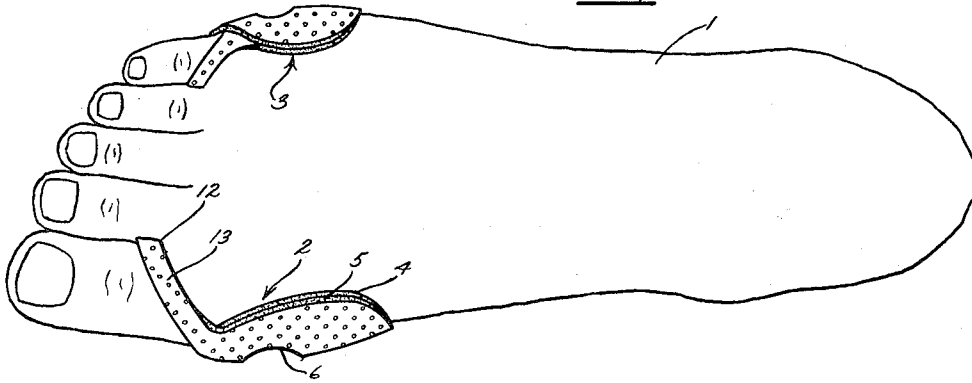


FIG. 2

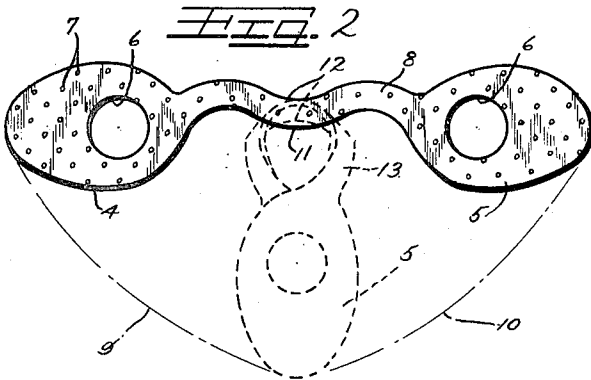


FIG. 3

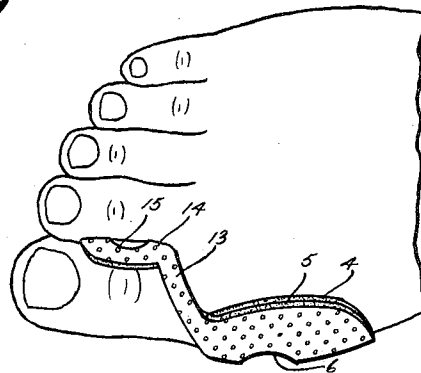


FIG. 4

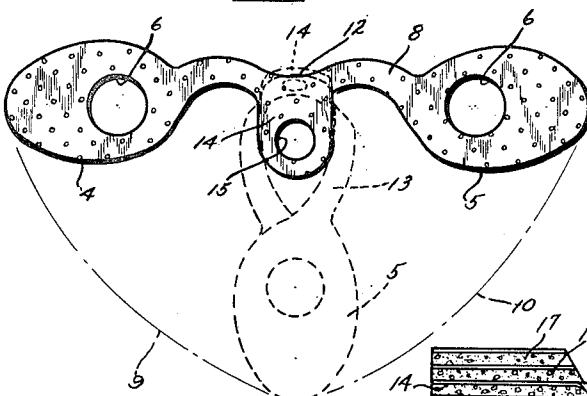


FIG. 5

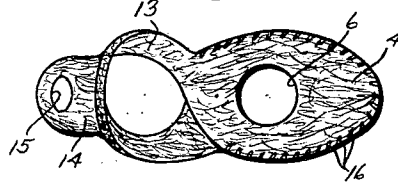
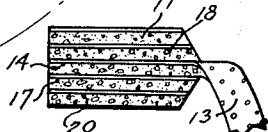


FIG. 6



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FOOT CORRECTIVE PAD

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Application December 11, 1957, Serial No. 702,100

11 Claims. (Cl. 128—81)

This invention relates to improvements in a foot corrective pad and to a method of making the same, the pad being highly desirable for the treatment or the alleviation of foot afflictions of the character of bunions, tailor's bunions, corns and the like, although it will have numerous uses of such character as will be apparent to one skilled in the art.

In the past, many and various types of bunion and corn pads have been developed, but most of them were held to the foot by adhesive material, or in some instances by articles of apparel only. In rare cases, toe loops were provided to hold the pad disposed adjacent the side of a foot with the toe loop engaged over a terminal toe, but in all instances of which I am aware, that loop did not extend away from the pad body itself in the proper direction to provide an intimate and comfortable fit upon the foot. For example, if it is desired to have the pad overlie the side of the foot substantially opposite or to the rear of the first or fifth metatarsal head, the web between the terminal and next adjacent toe is a considerable distance forward, so that the toe loops on pads heretofore known assumed an awkward and uncomfortable position in the event the pad was maintained in its desired location, and there was always danger of the pad slipping away from the desired location during use. In addition, it may be mentioned that devices of this character heretofore known were objectionably expensive, and in most cases were not capable of alleviating a plurality of afflictions at the same time.

With the foregoing in mind, it is an important object of the instant invention to provide a foot corrective pad for disposition along the side of the foot, which pad is provided with a toe loop for engagement over a terminal toe, the loop extending from the pad body at the proper angle to fit comfortably and maintain the pad in its selected location.

Another object of the invention is the provision of a foot corrective pad having superposed body parts secured together and connected by a relatively narrow and undulating neck forming a toe loop extending obliquely away from the body of the pad.

Also a feature of the instant invention is the provision of a pad made from a blank having a pair of body portions connected by an undulating neck portion having an auxiliary pad extending to one side thereof, the undulating neck portion forming an obliquely extending toe loop carrying the auxiliary pad, when the body parts are superposed and secured together.

A further feature of the instant invention is the provision of a foot corrective pad having synergistic characteristics in that it includes a body portion for relieving pressure over an affliction such as a bunion, a toe loop extending obliquely away from that body portion and carrying an auxiliary pad which, in one instance, may be of the character to relieve a corn between the terminal and next toe, and in another instance may be thickened to a desired extent to function as a toe straightener by

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virtue of its disposition between the terminal and next adjacent toe.

Still another feature of the instant invention is the provision of a foot corrective pad made from a blank comprising a pair of like body portions connected by an undulating or sinuous neck, the body portions being superposed and secured together, and the undulating neck providing a toe loop partially within the plane of the body parts and partially upstanding therefrom, whereby the device is enabled to more snugly and comfortably fit over a terminal toe of the foot.

Also an object of the instant invention is the provision of a new and novel method of making a foot corrective pad.

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 drawings, in which

Fig. 1 is a diagrammatic illustration of the human foot with pads embodying principles of the instant invention shown attached thereto in operative position;

Fig. 2 is a plan view of a blank or pattern from which one of the pads in Fig. 1 is made, indicating in dotted lines a method of shaping the blank into the finished structure;

Fig. 3 is a fragmentary plan view of a human foot equipped with another form of pad embodying principles of the instant invention;

Fig. 4 is a plan view of a pattern or blank from which the pad of Fig. 3 is made, indicating in dotted lines the method of shaping the blank into the finished structure;

Fig. 5 is an inside face view in elevation of a pad embodying principles of the instant invention, but formed of a different material; and

Fig. 6 is a fragmentary side elevational view of a pad of the character shown in Fig. 3, but illustrating a different form of construction.

As shown on the drawings:

In Fig. 1 of the drawing, I have illustrated diagrammatically a human foot 1 and attached in operative position to the large toe, a bunion pad generally indicated by numeral 2, and to the small or fifth toe a tailor's bunion pad generally indicated by numeral 3. Except for size, these pads 2 and 3 are of identical construction, so it is only necessary to described one such structure herein.

The pattern from which either bunion pad seen in Fig. 1 is made is shown in Fig. 2, and it comprises a pair of opposed body parts 4 and 5, generally oval in contour, and each of which is provided with an affliction-receiving aperture 6 therein. The body portions 4 and 5 may be made of any suitable material, a foam cushioning material being satisfactory for the under layer, such as foam latex, polyurethane foam, polyvinyl chloride foam, etc. This material has long life, high restorative powers, and preferably has intercommunicating cells throughout so that any slight pressure on portions of the structure will cause air to be pumped into and out of the pad, thus giving the afflicted region adequate ventilation. When such material is used, it is preferable to cover the outer or exposed surface of the resulting structure with a thin, slick sheet of material that may be a plastic film, a slick-surfaced fabric, or any other equivalent material, and this cover may be perforated in many locations as indicated at 7. As will later appear herein, the entire pad structure might also be made of some soft cushioning fabric such as felt, for example.

The two body parts 4 and 5 are joined by an integral neck 8 which is sinuous or undulating as clearly seen in Fig. 2. As shown, the undulant neck 8 preferably connects the body parts at adjacent ends thereof.

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In converting the blank or pattern into the finished pad, the body parts 4 and 5 are preferably swung toward each other as indicated by the arcuate dotted lines 9 and 10, and it will be noted that the body parts are moved toward each other in the direction of convexity of the central undulation 11, and the opposite side of that undulation will then result in an arcuate notch, as indicated at 12. Bringing the body parts into superposed relationship in this manner causes the undulant neck 8 to form a toe loop 13 of which substantially half will be approximately in the plane of the superposed body parts, while the other half at the loop end thereof will be upstanding away from the body parts when viewed from inside the structure, as seen in Fig. 5. As noted in Fig. 1 clearly, the resultant toe loop 13 will extend away from the superposed body parts, which are secured together in any suitable manner such as by cementitious material, stitching, or the like, so that this toe loop better accommodates the human foot.

The web between the terminal toe and the next adjacent toe is situated a good distance forwardly of the outer protuberance of the terminal metatarsal head in the vicinity of which bunions usually occur. Thus, if the toe loop projected at right angles to the composite body portion of the pad, there would be a distortion in the pad, but with the toe loop projecting obliquely from the pad, it intimately lays over the portion of the toe between the web and its metatarsal head. The aforesaid notch 12 occurring opposite the high point of the toe loop 13 will be positioned over the web between the terminal toe and the next adjacent toe, so as to enhance the smooth and comfortable fit of the device when in position so as to extend along the side of the foot and eliminate pressure from a bunion or the like adjacent the terminal metatarsal head.

In Figs. 3 and 4, I have illustrated a pad formed from the same general type of pattern or blank including the opposed body parts 4 and 5 connected by the undulant neck 8. In this instance, however, an auxiliary pad 14 extends from the central undulation of the neck 8, and this pad preferably extends only from the convex side of the undulation, leaving the aforesaid notch 12 for engagement with the web of the foot between the toes. The auxiliary pad 14 is preferably provided with an aperture 15 to receive an affliction such as a corn between the terminal and next adjacent toe.

Now when the pattern or blank is formed into the finished article by moving the body portions 4 and 5 along the direction defined by the dotted lines 9 and 10, as above explained, the toe loop 13 will be formed but with the pad 14 projecting away from the toe loop at an angle thereto. Thus, when the device is placed on the foot as seen in Fig. 3, the composite body may lie along the side of the foot, the toe loop lies over the oblique stretch necessitated to reach the web of the foot which is received in the notch 12, and the pad 14 parallels the inner faces of the terminal and next adjacent toe, as seen in Fig. 3. A soft corn on either the terminal or next adjacent toe can easily have pressure relieved therefrom by virtue of the auxiliary pad 14, the soft corn preferably occupying the space within the aperture 15. As explained above, this pad provides an accurate, snug and comfortable fit on the foot, and maintains the entire pad properly in position against accidental maladjustment during use.

In Fig. 5, I have illustrated the same pad structure as shown in Fig. 4, with the exception that in this instance the integral blank or pattern is formed of a cushioning fabric such as felt, and the superposed body parts are held together by a line of stitching 16 rather than be cementitiously secured together. Otherwise, the pad of Fig. 5 functions in the same manner as that of Figs. 3 and 4.

In Fig. 6, I have illustrated another pad incorporating

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the same body construction including the body parts 4 and 5, and the same toe loop 13 which is integral with an auxiliary pad layer 14. In this instance, however, the aperture 15 is omitted, and the auxiliary pad layer 14 is solid. A number of additional layers of material are superposed in relation to the auxiliary pad layer 14, and secured to it and to each other. As seen clearly in this figure, layers or laminations 17 and 18 have been attached on the outside of the auxiliary pad layer 14, and layers or laminations 19 and 20 to the underside thereof. Each of these layers or laminations is preferably of the same material as the auxiliary pad portion 14, and also of the same general contour. They may be united in their illustrated disposition by a suitable adhesive. It is not essential that a total of five thicknesses be incorporated as shown to form a composite auxiliary pad; in some instances, only three thicknesses or some other number being desirable. Likewise, these thicknesses of material need not be added to both sides of the pad portion or layer 14, but may all be disposed on one side thereof if the particular affliction so indicates.

With the structure shown in Fig. 6, it will be seen that the composite auxiliary pad portion functions as a toe straightener. Very frequently, in the case of a bunion the terminal toe is abducted toward the next adjacent toe, and it is desirable to use some means of restoring the abducted toe to its normal position. The opposite is also true, namely where there is an abducted toe, there is very frequently a bunion as well. Thus, with an affliction such as a bunion, there is not only need for alleviation of pressure from the bunion, but also need for toe straightening at the same time, and both remedial effects should occur in unison. The pad structure shown in Fig. 6 is synergistic in character, and thus accomplishes both the desired end results.

From the foregoing, it is apparent that I have provided a bunion pad designed to intimately and comfortably fit the foot of a user to a better extent than was heretofore possible, whereby the pad is held in proper position throughout its use against unintentional shifting. Furthermore, one form of the invention will simultaneously remove pressure from or alleviate a plurality of afflictions and be even more firmly held in place by contact with adjacent toes while so doing. It will be appreciated that the blank or pattern may simply be formed into the finished article by my improved method. Both the resultant article and the practice of the method are extremely economical, and yet the article is very long lived.

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 foot corrective pad, a pair of superposed body parts secured together, and an undulated neck connecting said body parts and forming a toe loop to attach the pad to the foot of a user.

2. In a foot corrective pad, a pair of superposed body parts secured together, and an undulated neck connecting said body parts and forming a toe loop to attach the pad to the foot of a user, the central undulation in said neck providing the effect of a notch to intimately contact the web between adjacent toes.

3. In a foot corrective pad, a pair of superposed body parts secured together, and an undulated neck connecting said body parts and forming a toe loop to attach the pad to the foot of a user, the undulations in said neck causing the toe loop to be partially in the plane of the superposed body parts and partially upstanding therefrom.

4. In a foot corrective pad, a pair of superposed body parts secured together, and an undulated neck connecting said body parts and forming a toe loop to attach the pad to the foot of a user, the undulations in said neck caus-

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ing the toe loop to extend obliquely away from the superposed body parts.

5. In a foot corrective pad, a pair of superposed body parts secured together, and an undulated neck connecting said body parts and forming a toe loop to attach the pad to the foot of a user, and an auxiliary pad carried by said undulating neck in an intermediate location.

6. In a foot corrective pad, a pair of superposed body parts secured together, and an undulated neck connecting said body parts and forming a toe loop to attach the pad to the foot of a user, and an auxiliary pad carried by the central undulation of said neck and extending to one side of said central undulation.

7. In a foot corrective pad, a pair of superposed body parts secured together, and an undulated neck connecting said body parts and forming a toe loop to attach the pad to the foot of a user, and an auxiliary pad extending from said toe loop in the opposite direction from said body parts.

8. In a foot corrective pad, a pair of superposed body parts secured together, a relatively narrow neck connecting said body parts and forming a toe loop to attach the pad to the body of a user, an auxiliary pad carried by said neck, and a plurality of additional layers of material of similar contour to said auxiliary pad superposed and secured to each other and said auxiliary pad.

9. In a foot corrective pad, a pair of superposed body parts secured together, a relatively narrow neck connecting said body parts and forming a toe loop to attach the pad to the body of a user, an auxiliary pad carried by

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said neck, and a plurality of additional layers of material of similar contour to said auxiliary pad superposed and secured to each other and said auxiliary pad, certain of said additional layers being on one side of said auxiliary pad and certain on the opposite side.

10. In a foot corrective pad, a pair of superposed body parts secured together, a relatively narrow neck connecting said body parts and forming a toe loop to attach the pad to the body of a user, an auxiliary pad carried by said neck, and a plurality of additional layers of material of similar contour to said auxiliary pad superposed and secured to each other and said auxiliary pad, said body parts, neck, and auxiliary pad being integral.

11. In a combination bunion and toe straightening pad, a pair of superposed body parts of cushioning material secured together, a relatively narrow neck integral with and connecting said body parts and forming a toe loop, an auxiliary pad portion integral with said neck and projecting therefrom on the side opposite said body parts and in the opposite direction, and a plurality of layers of material superposed and secured to said auxiliary pad portion to thicken the same for toe straightening purposes.

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