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L. W. LITCH.

APPLIANCE FOR STRAIGHTENING THE BIG TOE.

APPLICATION FILED OCT. 19, 1905.

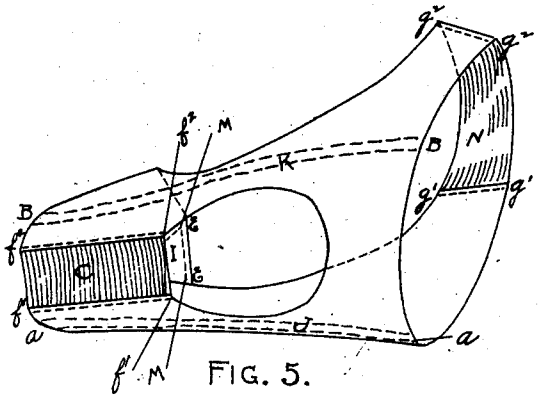


FIG. 5.

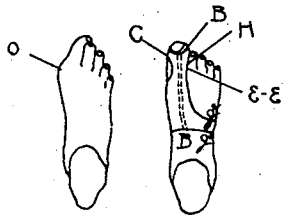


FIG. 6. FIG. 7.

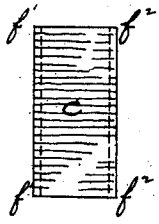


FIG. 2.

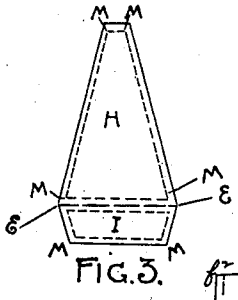


FIG. 3.

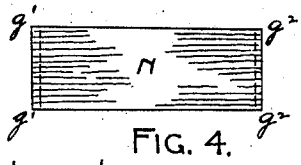


FIG. 4.

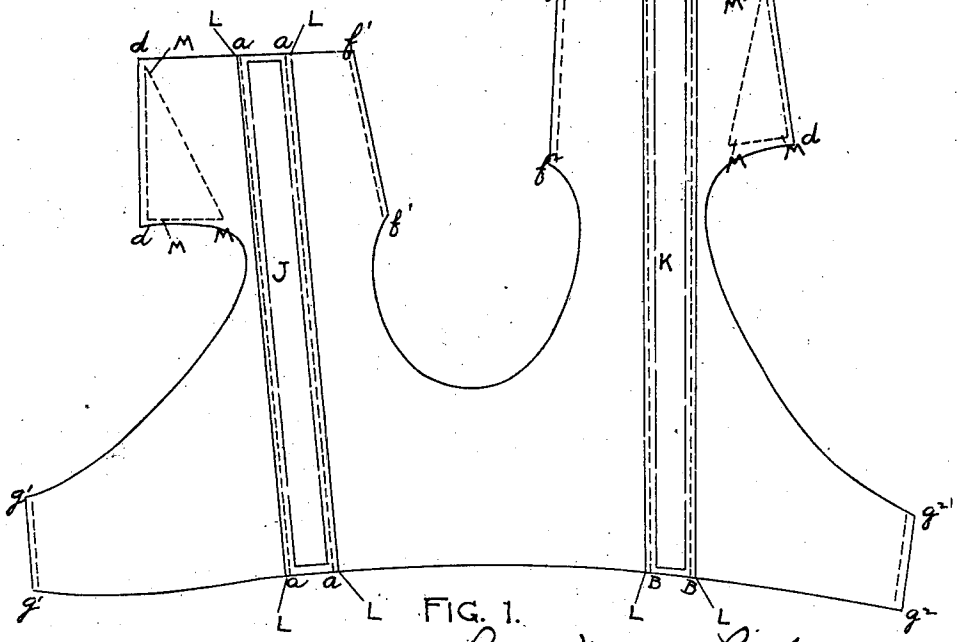


FIG. 1.

Witnesses
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UNITED STATES PATENT OFFICE.

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APPLIANCE FOR STRAIGHTENING THE BIG TOE.

No. 826,515. Specification of Letters Patent. Patented July 17, 1906.

Application filed October 19, 1905. Serial No. 283,539.

To all whom it may concern:

Be it known that I, LEMUEL WARREN LITCH, a citizen of the United States, residing at Lynn, in the county of Essex and Commonwealth of Massachusetts, have invented new and useful Improvements in Appliances for Straightening the Big Toe, of which the following is a specification, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification, in explaining its nature.

The object of this invention is to provide an improved and suitable appliance to be worn upon the foot and which will replace the big toe, when it has been forced upon or under the second toe, to its normal position, thereby preventing the formation of or reducing the size of an already-formed bunion and protect the latter against the pressure of the boot, and to secure other advantages and results, some of which may be referred to hereinafter in connection with the description of the working parts.

The invention consists of an improved form of an appliance to be worn upon the foot and intended for the purpose of straightening the big toe and relieving the pain of bunions and in the arrangement and combination of the parts of the same, all substantially as well as hereinafter set forth, and finally embraced in the clauses of the claim.

Referring to the accompanying drawings, in which like letters of reference indicate corresponding parts in each of the several figures, Figure 1 represents the main or body portion of my appliance laid flat as it is cut from the material of which it is made. Figs. 2 and 4 represent, respectively, pieces of elastic webbing for use as hereinafter stated. Fig. 3 represents a shield of chamois. Fig. 5 is a perspective view of my appliance, showing all the parts in position. Fig. 6 represents the human foot, showing thereon a bunion. Fig. 7 represents the corrected human foot.

The main or body portion of my appliance, Fig. 1, is cut in one piece from calf-skin. The dotted lines *a a*, *b b*, *d d*, *f′ f′*, f^2 f^2, *g′ g′*, and g^2 g^2 represent the stitching where the various parts are joined together. The dash-lines inclosing J and K represents strips of German or other suitable spring-steel of about twenty-four gage, (or heavier should an obstinate case of crooked big toe demand it.) Said strips lie next the side of the main or body portion which is away from the foot and are covered their entire length by suitable material, preferably the same as that of the body portion, which material is stitched down to the said body portion, as shown by the dotted lines *a a* and *b b*, thus holding the strips of steel securely in position.

The elastic webbing represented by Fig. 2 is inserted at *f′ f′* and f^2 f^2 in order to make that portion of my appliance which encircles the big toe adjustable to said big toe and hug it tightly.

The shield represented by Fig. 3 is made of chamois and is sewed or fastened upon that part of the main or body portion of my appliance which lies next the second toe. The dash-line *e e* represents where the shield is creased or folded over that edge of my appliance which touches the web of the foot between the big and second toes, thus preventing injury or soreness between the said toes. The portion H lies next to and protects the second toe. The portion I lies next the big toe. The dotted lines M M represent the stitching whereby the shield is fastened to my appliance.

The piece of elastic webbing represented by Fig. 4 is inserted at *g′ g′* and g^2 g^2 in order to make that portion of my appliance which encircles the body of the foot at the lower portion of the instep adjustable to said foot and hug it tightly with a firm and even pressure. Said elastic webbing may be used interchangeably, at the option of the wearer, with a strap-and-buckle attachment or a tied tape which may be tightened or loosened at will. This is particularly so where my appliance is used for night wear. For day use, however, the elastic webbing is much preferable, inasmuch as it lies snug to the foot and can be worn comfortably beneath the stocking.

In Fig. 5, which shows my appliance complete, it will be noted that the portions of elastic webbing both at the toe and instep portions must necessarily make the appliance hug snugly to the foot and bring the stiffness (insured by the strip of steel) to bear upon the crooked toe, thus forcing the said toe

back into its normal position and at the same time pressing the enlarged joint or bunion inward. This figure also shows the shield of chamois I fastened to that portion of my appliance which lies next to the second toe, which shield insures a protection to the said second toe and to the web of the foot between the big and second toes.

In Fig. 6, O represents the bunion which my appliance is intended to relieve. This relief is accomplished by pulling the big toe back into its normal position, which in turn throws the joint in and away from the friction of the boot.

Fig. 7 represents, again, the human foot, showing thereon my appliance with the crooked big toe pulled over to its normal position.

My said appliance is made in rights and lefts and in various sizes, according to the size of the foot upon which it is intended to be worn. It may also be made in small sizes for correcting bunions and the deformation of the little toe.

In practice it is obvious that I may substitute any suitable material in place of the calfskin in the manufacture of the main or body portion of my appliance.

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

In an appliance for straightening the big toe and relieving the pain of bunions, a body portion of calfskin, combined and stiffened at the parts lying directly under and on top of the foot with strips of spring-steel fastened longitudinally to the said body portion, in combination with elastic webbing both at the toe and instep portions, and also in combination with a shield of chamois made and fastened to that part of the body portion which lies between the big toe and second toe, all substantially and for the reasons as herein described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LEMUEL WARREN LITCH.

Witnesses:
IRVING T. AUSTIN,
ANNIE L. BAKER.