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MEANS FOR STRAIGHTENING CROOKED TOES

Filed Feb. 5, 1923

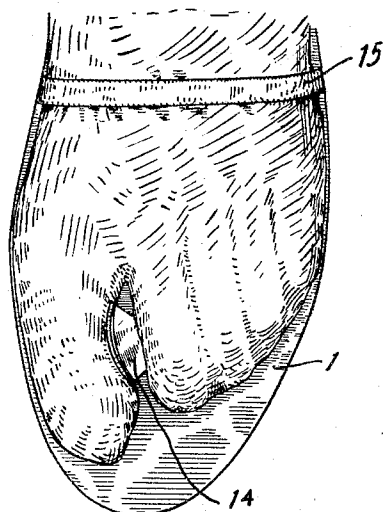


Fig. 1.

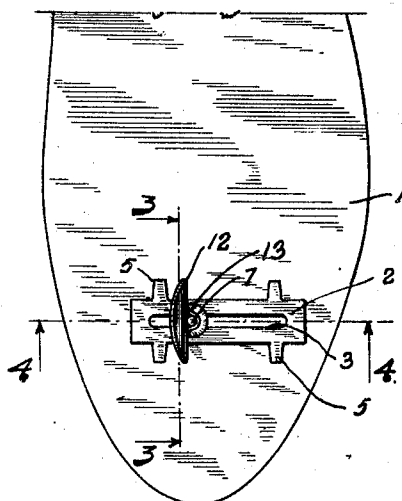


Fig. 2.

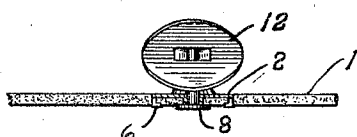


Fig. 3.

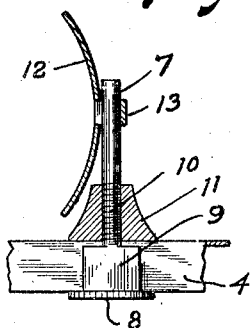


Fig. 5.

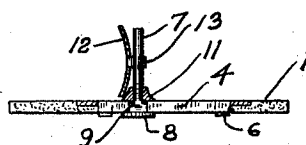


Fig. 4.

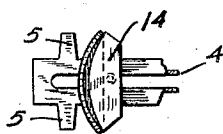


Fig. 6.

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UNITED STATES PATENT OFFICE.

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MEANS FOR STRAIGHTENING CROOKED TOES.

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To all whom it may concern:

Be it known that I, MAX SAHLIN, a citizen of the United States, residing at Denver, the city and county of Denver, and State of Colorado, have invented certain new and useful Improvements in Means for Straightening Crooked Toes; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this specification.

This invention relates to means for straightening crooked toes.

It is well known that some people, due to various causes, have toes which incline inwardly and cause them considerable pain and annoyance. The big toe is usually the one that causes the greatest amount of trouble and when this is crooked, it usually exerts sufficient pressure on the other toes to make them crooked and to cause the development of soft corns between the toes.

It has been found by experiment that the big toe can be straightened if some force is applied thereto to prevent it from assuming its crooked form. The straightening cannot be accomplished all at once, but must be effected gradually and naturally requires a considerable period of time.

It is the object of this invention to provide a simple and effective means that can be cheaply made and which is adapted to hold the big toe in any desired position and which can be readily adjusted so as to increase the correction action at proper intervals.

My invention, briefly speaking, consists of an insole of leather, fiber or other suitable material which has imbedded transversely therein, at a point directly beneath the toes, a piece of metal having a slot. In the slot I mount a standard that projects upwardly a short distance and is adapted to hold a shield that engages the inner surface of the big toe. I also provide means for clamping the standard to any part of the slot so that proper adjustments may be made.

In order to better show the construction of my device, and to more clearly describe the operation thereof, I shall have reference to the accompanying drawings, in which:

Fig. 1 is a plan view showing a foot having the straightener applied thereto.

Fig. 2 is a plan view of a portion of my device.

Fig. 3 is a section taken on line 3—3, Fig. 2.

Fig. 4 is a section taken on line 4—4, Fig. 2.

Fig. 5 is a fragmentary view similar to that shown in Fig. 4, but drawn to a larger scale; and

Fig. 6 is a fragmentary plan view showing the manner in which the protective pad is applied thereto.

The same reference characters will be used to indicate the same parts throughout the several views.

Numerals 1 designates an insole of leather, rubber, fiber or any other suitable material which has a transverse slot near the toe thereof, at a point which will be directly beneath the middle of the big toe. Secured to the sole is a metal plate 2 which has a slot 3 extending longitudinally thereof. Plate 2 is preferably formed of a thin piece of steel or similar material in which the sides of the slot 3 are formed by portions 4 which have been bent downwardly from the material removed to form the slot. The sides 4 fit into the slot in the insole in the manner shown in Figs. 3 and 4. The plate 2 is provided with a plurality of projections 5 whose ends 6 may be inserted through the insole and which serve to hold the plate in place. Movable mounted in the slot 3 is a standard 7, one end of which is provided with a head 8. Adjacent to the head 8 there is a rectangular portion 9 which is of such a width that it fits snugly between the sides 4 of the slot 3 so that it can easily be moved longitudinally of the slot. The portion 10 of the standard, directly above the rectangular part 9, is threaded and is engaged by a nut 11 which can be turned down so as to clamp the standard against relative movement with respect to the plate 2. Secured to the upper portion of the standard 7 is a shield 12 which is curved so as to conform to the inside of the big toe which will rest thereagainst in the manner shown in Fig. 1. The shield 12 may be secured to the standard in any suitable manner, but I have shown a loop 13 formed from the material of the shield itself and believe this to be a satisfactory and simple means for the purpose. It is evident that by loosening the nut 11, the standard may be moved to any position along slot 3 and

when the nut is tightened the standard will be clamped against movement.

When my device is worn, it is desirable that the foot be enclosed in a stocking having a separate compartment for the big toe, in the manner shown in Fig. 1. The standard 7 is adjusted so that when the foot is in place on the insole the big toe, which rests against the shield 12, will be straightened to a certain extent. The device is worn in this position for several days, or until the toe has become accustomed to remaining in the position, when the standard is moved in the slot so as to increase the straightening effect and the device worn in the second position until the toe has become accustomed to this second adjustment. The above operations are repeated as often as may be necessary in order to obtain the desired correction.

In order to protect the second toe from injury, by reason of contact with the standard 7 and strap 13, I provide a cushion 14 which is placed between the second toe and the standard.

It is evident that many specifically different constructions can be devised for the purpose of obtaining the above described results, but in order to be satisfactory they must all be so constructed that the position of the standard can be quickly and easily adjusted transversely of the insole so that the straightening action can be increased as the conditions of the case may require. I therefore desire to claim, as broadly as possible, the fundamental idea of having a transversely adjustable means whereby the straightening can be accomplished gradually so as not to cause any unnecessary discomfort to the wearer.

In applying the insole to the foot, this is preferably done before the foot is inserted in the shoe and the insole held to the foot by means of a rubber band, in the manner shown in Fig. 1, the rubber band being indicated by the numeral 15. This rubber band should preferably be thin and of such size that it does not retard the circulation of the blood in the foot, as it would naturally have to be worn as long as the shoe was on, as it cannot readily be removed. Instead of the rubber band, a strap may be used which may be unbuckled and removed when the shoe has been applied to the foot.

Having now described my invention, what I claim is:

1. An insole adapted to be inserted into a shoe and having a shape conforming to the general outline of a human foot, said insole having a narrow slot extending in a substantially straight line transversely thereof near the front end, an anchoring member movable in said slot, toe-engaging means fastened to said anchoring member,

and means for clamping said member at any desired position along said slot.

2. A device for straightening crooked toes comprising, in combination, an insole; a standard projecting from the upper side thereof; means permitting the standard to be moved to any desired position in a slot directed transversely of the insole; and means for clamping the standard against movement in any desired transverse position.

3. A device for straightening crooked toes comprising, in combination, an insole; a standard projecting from the upper side thereof; means permitting the standard to be moved to any desired position in a slot directed transversely of the insole; means for clamping the standard against movement in any desired transverse position; and a shield adjustably secured to the standard.

4. An insole having a transverse elongated opening in the front end thereof; a metal plate secured in said opening, said plate having an elongated slot therein; a standard having a portion extending through the slot and projecting from the upper side thereof; and means for clamping said standard in any desired position along said slot.

5. An insole having a transverse elongated opening in the front end thereof; a metal plate secured in said opening, said plate having an elongated slot therein; a standard having a portion extending through the slot and projecting from the upper side thereof; means for clamping said standard in any desired position along said slot; and a shield adjustably secured to the standard.

6. An insole having a transverse elongated opening in the front end thereof; a metal plate secured in said opening, said plate having an elongated slot therein; a standard having a portion extending through the slot and projecting from the upper side thereof; a head on one end of said standard adapted to engage one side of the plate; a nut threadedly connected to the standard, said nut being adapted to be screwed into contact with the plate for the purpose of clamping the standard against movement; and a plate secured to the standard for engaging the inner side of a toe.

7. A device for straightening toes comprising an insole having a narrow slot extending in a substantially straight line transversely thereof; a member movable along said slot, said member having a plate secured to one side thereof; means for adjusting said plate with respect to said member, and means for clamping said member at any desired position along said slot.

In testimony whereof I affix my signature.

MAX SAHLIN.