April 3, 1928.

1,665,030

M. HARTWIG

BUNION CORRECTOR

Filed Dec. 20, 1926

Fig 1.

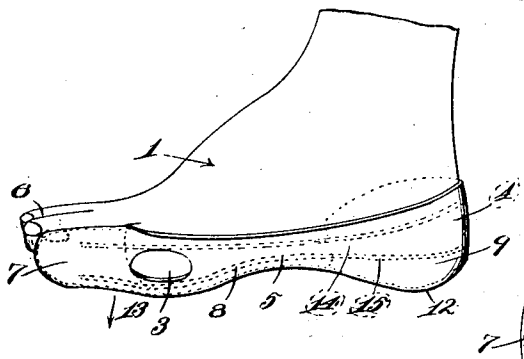


Fig 3.

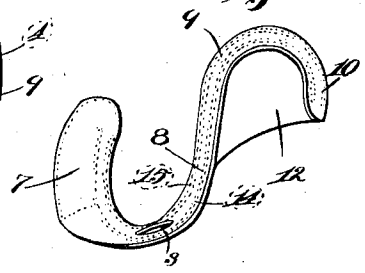


Fig 2.

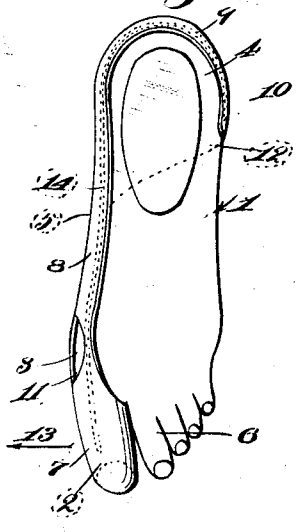


Fig 4.

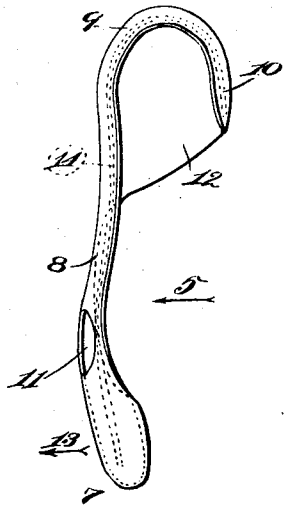
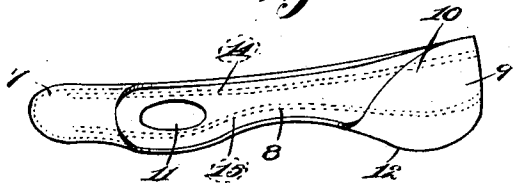


Fig 5.



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UNITED STATES PATENT OFFICE.

MARCELL HARTWIG, OF LOS ANGELES, CALIFORNIA.

BUNION CORRECTOR.

Application filed December 20, 1926. Serial No. 155,940.

My invention is a bunion corrector designed to be worn on the foot to reduce or eliminate bunions.

An object of my invention is a correcting device which may be worn on the foot to engage the big toe and to exert a certain tension thereon, straightening the toe in proper relation to the joints and thereby reducing or eliminating a bunion.

A further object of my invention is a correcting device formed of soft resilient material, such as rubber, molded to shape, engaging the heel and passing along one side of the foot adjacent the arch and having the toe glove or stall for the large toe, such device when worn exerting a small but constant tension on the toe tending to move same laterally into proper alignment and thereby reduce or eliminate bunions formed adjacent the joint of the large toe and the foot at the side thereof.

In constructing my invention I preferably make same of soft rubber, cast and molded to shape, with a toe glove or a stall of sufficient size to engage the large toe, and with a strap portion passing along the side of the foot adjacent the arch and lapping around the heel. A cut out portion at the side of the joint of the large toe and the foot accommodates a bunion and prevents direct pressure on same. If desired, I may use a heel base which extends underneath the heel of the foot and which with the toe stall holds the device firmly in position. It is intended that the corrector be worn underneath the stocking or sock.

My invention will be more readily understood from the following description and drawings, in which:

Figure 1 is a side elevation of a foot with my bunion corrector fitted thereon.

Figure 2 is a plan of the foot showing the bunion corrector as worn.

Figure 3 is a plan of the corrector showing the approximate shape in which it would be cast or molded.

Figure 4 is a plan view of the corrector by itself in the position which it would occupy when fitted on the foot.

Figure 5 is a side elevation taken in the direction of the arrow 5 of Fig. 4.

Referring to the drawings, a foot is designated generally by the numeral 1 having a large toe 2 and indicating a bunion 3 at the side of the foot adjacent the joint of the large toe and the foot proper. The heel of the foot is designated by the numeral 4 and the arch of the foot by the numeral 5, the small toes being designated by the numeral 6.

The corrector per se is constructed substantially as follows:

Being made preferably of relatively soft flexible rubber, the device is molded substantially in the shape shown in Fig. 3 and has a toe glove or stall 7 in which the large toe fits. A strap portion 8 extends from one side of the toe stall towards the heel fitting the side of the foot adjacent the arch 5. The heel portion 9, forming a continuation of the strap, has an outside wall 10 which extends forwardly on the outside of the foot opposite to that of the strap, slightly past what may be designated as the heel of the foot. An opening 11 is formed in the strap adjacent the toe stall to accommodate the bunion 3 so that no pressure will be exerted thereon. If desired, a web forming a heel base 12 may extend from the outside part 10 of the heel construction to the strap portion 8 passing underneath the heel of the foot. This web, however, may be omitted if desired. It will be understood that the device will be properly molded and made in different sizes to accommodate different sizes and shapes of feet and when molded will have somewhat the shape shown in Fig. 3 so that when bent into the position shown in Figs. 2 and 4 there is a certain tension tending to draw the large toe in the direction of the arrow 13. This is due to the fact that the rubber, although of relatively soft molded character, has a tendency to move to its original form or shape.

The corrector is easily fitted on the foot, the large toe being inserted in the toe stall and the opening fitted over the bunion with the heel portion being stretched to pass over the heel with the web engaging underneath the heel if desired. Or if more convenient, the heel portion may be first attached and the strap portion 8 stretched so that the toe stall part may fit over the large toe. As above mentioned, the device is intended to be worn underneath a stocking and the regular shoes to be worn although, if these shoes have a tendency to create distortion of the foot and form bunions, proper shaped shoes should be worn.

The small though constant stress of the toe stall tending to move in the direction of the arrow 13 gives a constant pressure exert-

ing the large toe into its proper alignment with the foot and in time, if the distortion of the foot is not too great and the bunion too pronounced, the toe may be brought back into its proper alignment, and thus reduce or eliminate the bunion adjacent the joint of the large toe and the foot.

If it is desired to increase the stiffness of the bunion corrector or to give an additional lateral tension, one or more fine strips or bands of spring material 14 and 15 may be molded in the structure. These strips are preferably about the size of steel hair springs of watches and may extend from the toe stall above and below the opening 11 to the heel part of the corrector and around the heel if desired. These strips do not interfere with the wearing of the corrector and if the springs are tensioned to have a lateral bend in the direction of the arrow 13 it will increase the side pressure on the toe, drawing same into its natural alignment.

In some cases it may be desirable to wear the corrector over a stocking or sock, and in which case the sock should be made with an opening for the big toe or else knitted with a special toe stall for the big toe so that the toe stall of the corrector could be fitted thereover. When so worn, the rubber does not come in direct contact with the foot.

Various changes may be made in the principles of my invention without departing from the spirit thereof, as set forth in the description, drawings and claims.

I claim:

1. A bunion corrector comprising a resilient flexible structure having a toe stall at one end, a heel gripping device at the other end, said heel gripping device having flexible parts engaging around the back of the heel and with a web passing underneath the heel, said parts being joined by a strap portion fitting along the inside of the foot and conforming partly to the arch of the foot.

2. A bunion corrector comprising a resilient flexible structure having a toe stall for the large toe at one end, a heel gripping portion at the other end having parts fitting around the sides and back of the heel and a web fitting underneath the heel, a strap portion joined to the toe stall, there being an opening adjacent the strap portion and the stall to accommodate a bunion, the said strap portion having a stressing tendency to draw the toe into correct alignment with the rest of the foot.

3. A bunion corrector comprising a flexible strip of rubber having a toe stall, a strap portion and a heel part to fit around the heel, the strap portion passing along the lower side of the foot, there being a heel base passing under the heel and formed integral with the other structure, there being an opening to accommodate a bunion, and resilient metal strips embedded in the material extending above and below the bunion from the toe stall to the heel portion, said rubber and metal strips having a permanent outward bend to exert a side pressure drawing the big toe outwardly.

In testimony whereof I have signed my name to this specification.

MARCELL HARTWIG.