J. O'DWYER.

FOOT CORSET.

APPLICATION FILED SEPT. 5, 1913.

1,156,621. Patented Oct. 12, 1915.

Fig. 1.

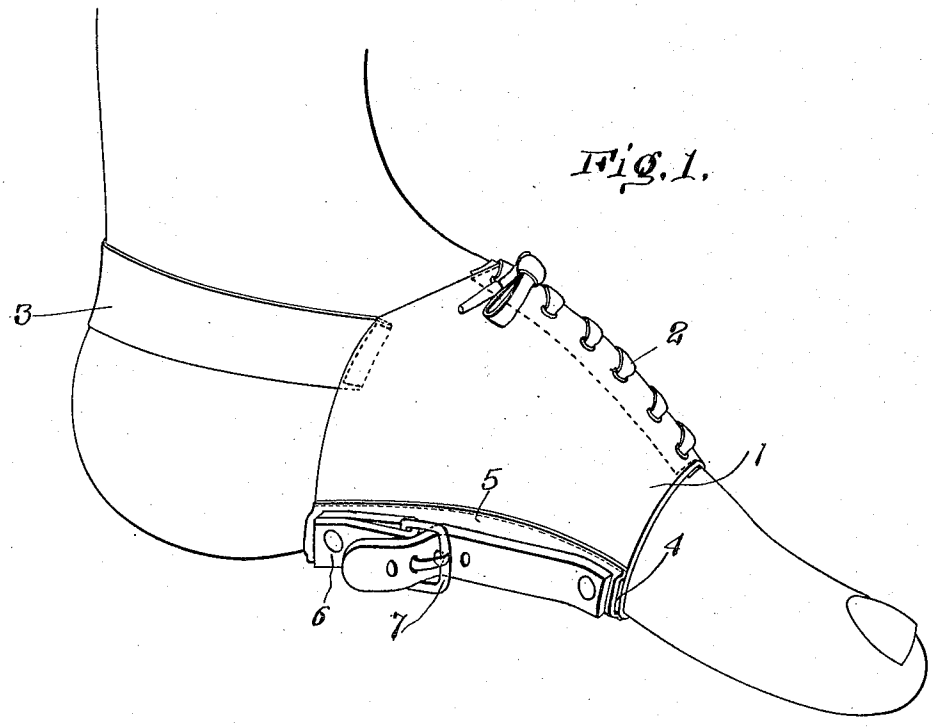


Fig. 2.

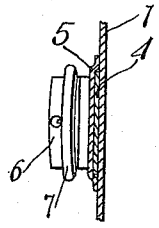
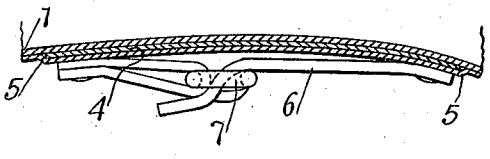


Fig. 3.



Witnesses

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FOOT-CORSET.

1,156,621. Specification of Letters Patent. Patented Oct. 12, 1915.

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To all whom it may concern:

Be it known that I, JOSEPH O'DWYER, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Foot-Corsets, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to foot corsets for use in orthopedic surgery.

The object of the invention is to provide a device for correcting what is known as "flat foot." The arch of the foot is naturally in the shape of a bow but it sometimes loses its elasticity and flattens out to a greater or less extent. To restore the foot to its natural shape the arch must be raised and the foot inverted or forced back to its natural position.

In providing a device to correct a flat foot it is a further object of my invention to provide means for supporting beneath the arch of the foot a curved brace which will tend to restore the arch to its normal foundation; and further to provide means for adjusting the brace to enable the curvature of the same to be altered to conform the same to the shape of the arch as the latter is gradually restored to its normal position.

In the accompanying drawings, Figure 1 is a perspective view of my invention showing the same applied to a foot; Fig. 2 is a sectional view taken transversely through the brace and adjusting device; and Fig. 3 is a sectional view taken longitudinally through the brace.

In these drawings I have illustrated one embodiment of my invention and have shown the same as comprising a body portion 1 of flexible material which is adapted to fit snugly about the arch or instep of the foot. This body portion, or jacket, may be of any suitable material having the desired strength and flexibility but I prefer to employ a soft leather which can be readily shaped to conform to the shape of the foot. The corset may be applied to the foot in any manner desired but in order that it may be drawn snugly about the foot I prefer to lace the same along the upper edge, as shown at 2. The device is also preferably provided with a heel strap 3 to prevent it slipping forward along the taper of the foot. Carried by the body portion or jacket 1, and preferably permanently secured thereto, is a curved resilient brace or arch support 4 which is so arranged with relation to the jacket that when the latter is in position on the foot the brace will be supported beneath and in engagement with the arch of the foot. This brace may be of any material having the necessary strength and resiliency but is preferably formed of a thin strip of metal and is here shown as mounted in a pocket formed by fastening a strip of material 5 at its edges to the jacket 1 and inclosing the strip of metal within the pocket. This manner of mounting the device has the advantage of effectually preventing the displacement of the brace relatively to the jacket and further entirely incloses the brace and protects the same from moisture and the like. The position of this brace is such that its curvature tends constantly to force the curvature of the arch upward toward its correct position while the resiliency of the brace permits it to yield and form a cushion. As the arch of the foot is gradually forced upward it will conform more and more to the normal position of the curved brace and, of course, the action of the brace becomes less effective. In order that the effectiveness and the curative action of the brace may be continued I provide means for gradually increasing the curvature thereof and in this manner I am enabled to keep the curvature of the brace greater than the curvature of the foot, thus maintaining the tendency of the brace to invert and force upward the arch of the foot.

The adjustment of the brace may be secured in various ways. One very convenient method is here shown and consists in arranging a two part strap 6 lengthwise of the brace, connecting the outer ends of the two parts to the brace near the respective ends thereof and connecting together the ends of the two parts of the strap by means of a buckle 7. By altering the length of this strap the curvature of the brace may be varied at will. The illustration of the strap and its buckle have been exaggerated to bring the same out clearly and it will be understood that in practice this adjusting device will be of such a character that it will occupy a comparatively small amount of space and will cause little or no inconvenience or discomfort when worn.

It will be noted that the narrow strip of resilient metal forming the brace is arranged along the inner margin of the arch of the foot and is curved to conform to the curvature of the margin of the arch of the foot. Thus, the brace pushes up on the inner margin of the foot and turns the foot in, correcting the position of the foot and causing the person to walk on the outer border of the foot. This position of the foot exercises the weakened muscles thereof, takes the strain from the weakened and stretched fascia and allows it to regain its original elasticity and form. By gradually adjusting the curvature of the brace the correction can be followed up until the foot has been restored to its original and correct form and position. Further, it will be noted that the device is very simple and inexpensive in its character, that it can be very readily applied to the foot and the adjustments easily made.

While I have shown and described one embodiment of the invention it will be understood that this has been chosen for the purposes of illustration only and that I do not desire to be limited to the details of construction shown and described, for obvious modifications will occur to a person skilled in the art.

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

1. In a device of the character described, a narrow curved resilient brace, and a thin flexible support for said brace arranged to retain the brace beneath and along the inner margin of the foot in a position to exert pressure on said inner margin only, and means for adjusting the curvature of said brace.

2. In a device of the character described, a flexible body portion or jacket adapted to extend about the foot, a narrow curved brace supported by said jacket beneath the inner margin of the foot in a position to exert pressure on said inner margin only, and means to adjust the curvature of said brace.

3. In a device of the character described, a body portion or jacket adapted to extend about the body of the foot, a narrow curved strip of resilient metal carried by said jacket in such a position that when the jacket is on the foot the strip of metal will be beneath the inner margin of the arch of the foot, a strap secured at one end to the adjacent end of said strip of metal, and a buckle secured to the other end of said strip of metal and coöperating with said strap to adjust the curvature of said strip.

4. A device of the character described comprising a body portion, a jacket of flexible material adapted to extend about the foot, said jacket having a narrow pocket extending longitudinally at one side thereof and arranged to engage the inner margin of the arch of the foot, and a curved brace of resilient material mounted in said pocket.

5. A device of the character described comprising a body portion, a jacket of flexible material adapted to extend about the foot, said jacket having a narrow pocket extending longitudinally at one side thereof and arranged to engage the inner margin of the arch of the foot, a curved brace of resilient material mounted in said pocket, and an adjusting device mounted on the outside of said pocket and connected with said brace.

In testimony whereof, I affix my signature in presence of two witnesses.

JOSEPH O'DWYER.

Witnesses:
KING W. WILLIAMSON,
ELIZABETH FITZSIMMONS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."