P. LIOY.

HEEL CUSHION.

APPLICATION FILED MAR. 15, 1921.

1,403,970.

Patented Jan. 17, 1922.

Fig. 1.

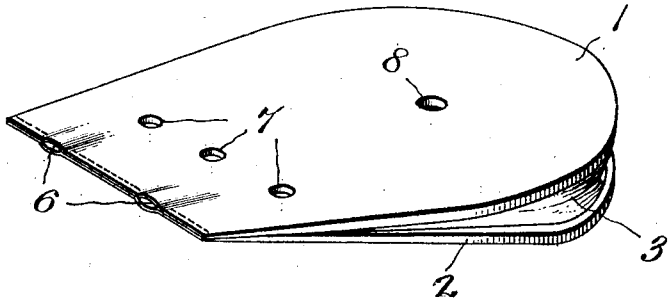


Fig. 2.

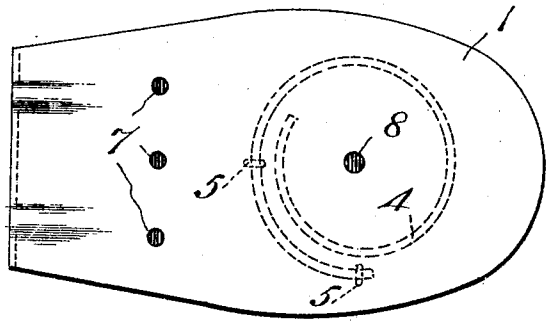
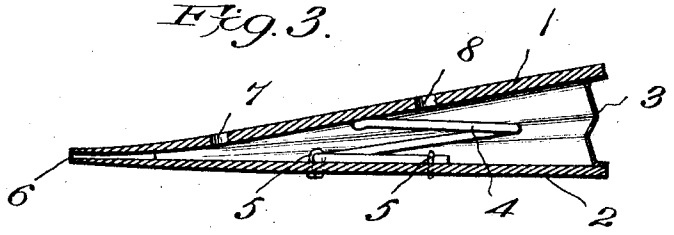


Fig. 3.



Inventor

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UNITED STATES PATENT OFFICE.

PAUL LIOY, OF PASSAIC PARK, NEW JERSEY.

HEEL CUSHION.

1,403,970. Specification of Letters Patent. Patented Jan. 17, 1922.

Application filed March 15, 1921. Serial No. 452,409.

To all whom it may concern:

Be it known that I, PAUL LIOY, a citizen of the United States, and resident of Passaic Park, in the county of Passaic and State of New Jersey, have invented certain new and useful Improvements in Heel Cushions, of which the following is a specification.

This invention relates to a heel cushion and ventilator for shoes adapted to be inserted in boots or shoes of ordinary construction and has for its general object to make walking more comfortable by relieving the jars and shocks incident thereto.

A further object of the device is to provide a simple cheap and efficient means for automatically forcing a circulation of air through the shoe and about the foot.

A still further object of the invention is to obviate the offensive odors arising from perspiring feet by utilizing the device to force an antiseptic and perfumed powder through the shoe so that only a sweet and pleasant odor may arise therefrom.

And to these ends the invention consists in the novel details of construction and combination of parts more fully hereinafter described and particularly pointed out in the claims.

Referring to the drawings forming a part of this specification, in which like numerals designate like parts in all the views—

Figure 1 is a perspective view of a heel constructed in accordance with my invention.

Figure 2 is a top plan view thereof and Figure 3 is a longitudinal sectional view thereof.

Heretofore heel cushions which have been placed on the market have not been very successful due to the fact that they could not be sold for a relatively small sum because of the large number of parts necessary to their manufacture and because no means were provided for forcing air under the instep of the foot and into the forward or toe portion of the shoe. By the use of a heel cushion constructed in accordance with my invention the same could be made to sell for a relatively small sum because there are only four parts necessary to its manufacture: and by providing the heel with a pair of horizontally arranged air circulating openings in its forward end, for the ingress and egress of air it is obvious that the instep of the foot as well as the toe portion of the shoe will be thoroughly ventilated and that when an antiseptic and perfumed powder is placed in the heel the same will be forced outwardly through the openings and around the foot so as to give off a sweet and pleasant odor.

Referring to the drawings in detail the heel essentially consists of a hollow compressible body and comprises an upper or top piece 1, a bottom piece 2 and a connecting strip 3. The upper and lower parts are preferably formed into the desired shape to conform to the heel portion of the shoe from strips of suitable leather and are held apart by a stout coil spring 4. To prevent the spring from creeping or otherwise becoming displaced the lower part of the coil is secured to the bottom piece 2 by any suitable means such as staples 5. The front ends of both the upper and lower parts are tapered to a feathered edge and connected by a line of stitching as indicated, or they may be cemented together if desired. The edge portion is provided with horizontally arranged air circulating openings 6 for the ingress and egress of air so that when the heel is in use air may be forced around the instep of the foot and to the forward toe portions thereof. These openings are formed by providing opposed depressions in both and upper and lower parts 1 and 2 as shown. The upper and lower parts diverge, toward the heel, and the inclosing strip 3 connecting said parts, tapers toward its ends in conformity to the tapering space between the upper and lower parts of the heel. This strip is preferably formed of soft leather, has bellows folds, and is stitched or cemented to the edges of the upper and lower parts 1 and 2. The top portion 1 is provided with a series of small air circulating openings 7 arranged adjacent the front end of the heel and a somewhat larger air circulating opening 8 arranged in substantially the central portion of the heel. These openings are also provided for the ingress and egress of air as the top portion moves up and down. When the heel collapses with weight of the wearer the air confined within the parts 1 and 2 is expelled partly through the openings 6 in the front edge of the heel and partly through the openings 7 in the top edge of the heel and is forced outwardly through the shoe and when the weight is

relieved the spring 4 reacts and forces the upper part 1 outward, thereby drawing air into the shoe and the space formed between the upper and lower parts of the heel.

By filling the heel through the opening 8 with a suitable perfumed antiseptic powder it is obvious that when the heel is in use this powder will be forced out through the opening 6 to all the parts of the shoe with the result that a sweet pleasant odor will arise therefrom.

My improved heel may be made in various sizes and inserted and withdrawn from a shoe at will so that it may be removed from one shoe and placed in another.

Other modifications may suggest themselves to those skilled in the art, and it will be understood that any changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle of the invention.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent is—

A heel cushion and ventilator for shoes comprising an upper part provided with a series of ventilating openings and having its front end tapered to a feather edge, a lower part having its front end tapered to a feathered edge, and secured to the front portion of the upper part, the meeting ends of said upper and lower parts provided with opposed horizontally arranged depressions providing ventilating openings, a strip having bellows folds enclosing the space between the upper and lower parts and secured at its edges to each and a coil spring interposed between the upper and lower parts substantially as and for the purpose set forth.

Signed at New York city in the county of New York and State of New York this 14 day of March A. D. 1921.

PAUL LIOY.