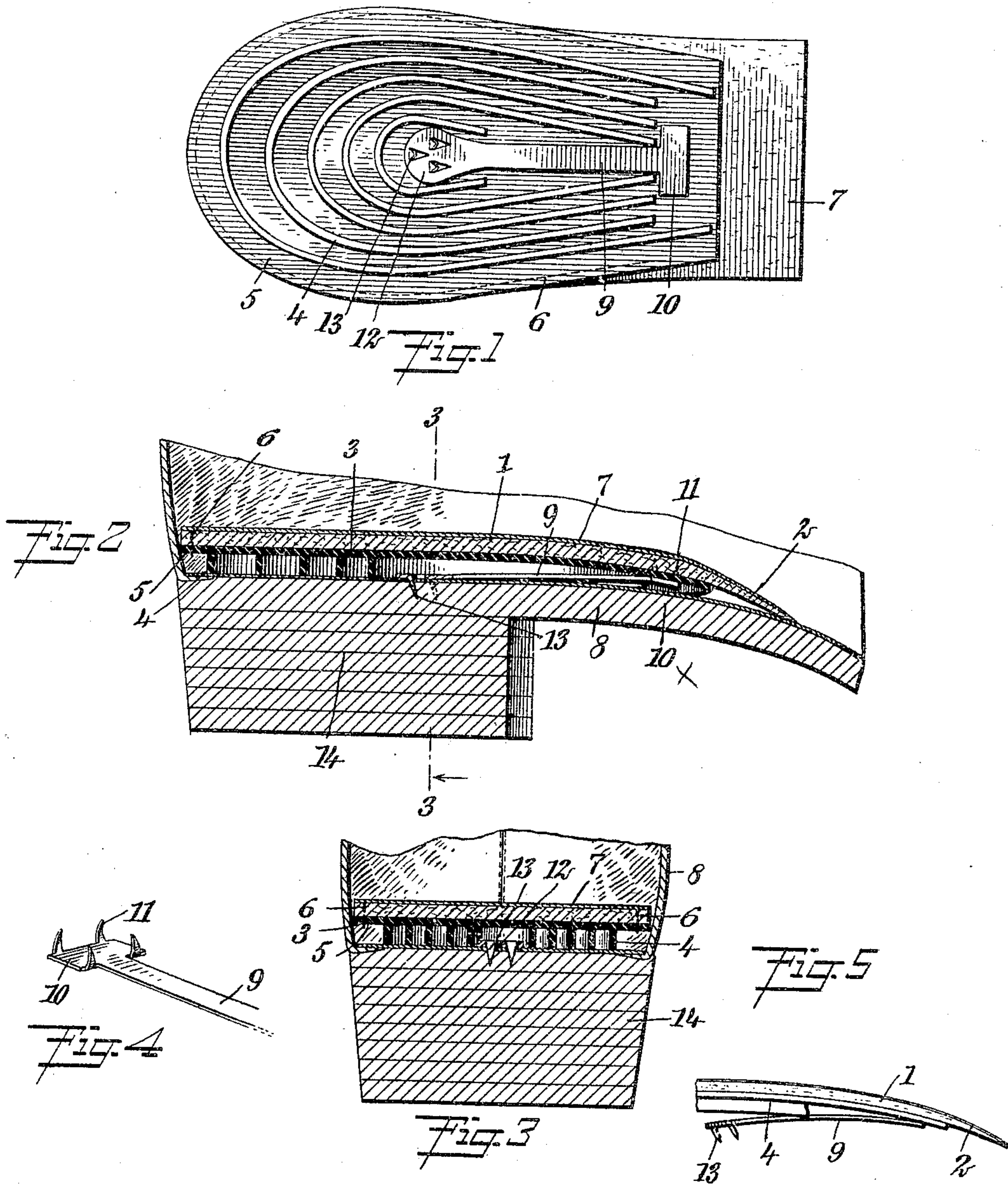


W. L. GORDON.
FASTENING FOR HEEL CUSHIONS.
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959,513.

Patented May 31, 1910.



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WILLIAM LEONARD GORDON, OF DEAL, NEW JERSEY.

FASTENING FOR HEEL-CUSHIONS.

959,513.

Specification of Letters Patent.

Patented May 31, 1910.

Application filed November 11, 1908. Serial No. 462,050.

To all whom it may concern:

Be it known that I, WILLIAM L. GORDON, a citizen of the United States, and a resident of Deal, in the county of Monmouth and State of New Jersey, have invented a new and Improved Fastening for Heel-Cushions, of which the following is a full, clear, and exact description.

This invention relates to pneumatic heel cushions which are adapted to be worn on the inside of the shoe at the heel for the purpose of providing a resilient cushion for the heel.

The object of the invention is to provide a heel cushion with improved means for securing the cushion against moving forwardly in the shoe.

While the invention is capable of being used with cushions of other kinds, it is especially useful in connection with a pneumatic heel cushion, that is, a cushion in which an air space is provided from which the air is expelled by heel pressure in walking.

The invention consists in the construction and combination of parts to be more fully described hereinafter and particularly set forth in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a bottom plan view of a heel cushion, and particularly illustrating my fastening for holding the same; Fig. 2 is a longitudinal vertical section taken at the heel of the shoe, showing the heel cushion therein, and illustrating the manner in which the fastening device secures the same; Fig. 3 is a vertical cross section taken on the line 3—3 of Fig. 2; Fig. 4 is a perspective showing a forward end of the fastening to illustrate its form; and Fig. 5 is a side elevation showing the forward portion of the heel-cushion and showing the form of the preferred fastener.

Referring more particularly to the parts, and especially to Figs. 1 to 3, inclusive, 1 represents the body of the cushion which is formed of a light porous material, such as cork. This body has the outline of a shoe at the heel, and at its forward end it has a sharp tapering edge 2, as indicated. On the

under side of this body piece 1, a pad 3 is provided. This pad is formed of rubber plate having substantially the same outline as the body piece, and having on its under side a plurality of concentrically disposed horseshoe-shaped ribs 4. The bows of these ribs are disposed rearwardly and the ribs have substantially straight forward extensions, so that channels are formed between the ribs opening in a forward direction, at the forward part of the heel. The outermost of the ribs 4 is somewhat removed inward from the edge of the rubber plate so that an over-hanging flange 5 is formed at this point. The pad 3 is attached to the body 1 by glue, or a similar adhesive substance, and in addition to this it is attached to it by stitches 6 passing through the flange 5, as indicated. The upper side of the body piece 1 is provided with a suitable cover or facing strip 7 of thin leather, or similar material. This facing strip is attached to the upper side of the body piece 1 by means of a suitable adhesive, but the stitching 6 referred to above does not pass through this cover piece. This heel cushion is adapted to be placed in the heel of a shoe 8, as indicated in Fig. 2. In order to secure the cushion against moving forwardly in the shoe in walking, I provide a fastener 9. This fastener has an elongated body or tongue, at the forward end of which a substantially rectangular head 10 is formed. The transverse edges of this head 10 are provided with integral spurs 11 which are adapted to pass through the pad 3 and embed themselves in the cork body piece 1. This head is disposed just forwardly of the forward end of the intermediate ribs. The fastener extends rearwardly from this point, and its rear end is expanded so as to form a substantially round head 12. This head is provided with downwardly projecting spurs 13 which are struck from the material of the head, as indicated. This head lies in the space which is surrounded by the innermost of the ribs 4. The spurs 13 are pressed downwardly into the upper face of the heel 14 of the shoe so that the fastening is securely attached to the heel at this point. As indicated in Fig. 1, the fastener 9 is disposed between the ribs in such a way that it does not pass under their lower edges, and hence, it does not interfere in any way with

the collapsing of the pad 3 under heel pressure. In other words the head 12 rests in the space surrounded by the innermost rib.

A heel cushion constructed as shown in Fig. 1, can be readily applied in a shoe and the claw grip can be secured in the heel by simply pressing the pad downwardly at a point over the head 12.

Attention is called to the fact that the attachment to the heel is made substantially under the middle portion of the pad or cushion, so that the heel pressure will insure that the fastening at this point will not come loose. The fastening is attached to the cushion at a convenient point near the forward edge.

The fastener 9 is preferably formed of sheet metal, such as steel or brass.

In the operation of the heel cushion, when the pressure of the heel comes upon it in walking, the ribs 4 collapse and the air in the channels between the ribs is expelled in a forward direction. In this way the cushion operates to ventilate the forward part of the shoe as well as to give resiliency at the heel.

As indicated in Fig. 5, the fastener 9 curves downwardly so that its free end projects below the ribs 4 like a claw. When the cushion is set in place this claw will engage the heel of the shoe even before the cushion is seated. The spurs 13 do not project vertically downward but incline forwardly, as indicated. This arrangement is advantageous, as the forward pull of the tongue tends to keep the spurs in engagement with the shoe.

Special attention is called to the forward inclination of the spurs 13. This inclination is most advantageous for the reason that in walking the tendency of the movement of the foot on the upper side of the cushion is to move it forwardly, and even in standing on account of the inclination of the shank 8^a of the shoe there is a tendency for

the heel cushion to work forwardly. This, of course, tends to keep the spurs in engagement with the upper face of the heel.

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

1. A heel cushion consisting of a pad having a plurality of substantially horseshoe-shaped ribs on the under side thereof forming channels therebetween having their openings disposed forwardly, and a metallic fastener attached to the under side of said pad near the forward edge thereof and having a tongue extending rearwardly depressed at its rear end to a point near the level of the lower edges of said ribs and surrounded by said ribs, said tongue having a claw grip formed at the rear end thereof having spurs adapted to engage the upper side of the heel of the shoe.

2. A heel cushion presenting a plurality of horseshoe-shaped ribs on the under side thereof, said ribs having forwardly projecting extensions and forming channels therebetween opening forwardly, and a metallic fastener attached to said cushion forwardly, extending rearwardly, projecting downwardly, and lying on the upper face of the heel at its rear extremity, said fastener having spurs at the rear end thereof projecting downwardly and engaging the heel, the said rear extremity of said fastener being surrounded by the innermost of said ribs, the body of said fastener being disposed on the central axis of said heel cushion and lying between the said forward extensions of said ribs.

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

WILLIAM LEONARD GORDON.

Witnesses:

MILAN RUS,

GEO. W. HUNT.