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PATENT SPECIFICATION

364,732

Application Date: Nov. 1, 1930. No. 32,933/30.

Complete Left: July 24, 1931.

Complete Accepted: Jan. 14, 1932.



PROVISIONAL SPECIFICATION.

Improvements in or relating to Heel Grips for Footwear.

We, PHILLIPS RUBBER SOLES, LIMITED, a British Company, and GEORGE PHILLIPS, a British Subject, both of 142, 144 and 146, Old Street, Finsbury, in the County of London, do hereby declare the nature of this invention to be as follows:—

This invention relates to heel grips for footwear and particularly to heel grips of the kind comprising two side pads adapted to be secured to the inner rear end surface of a boot or shoe (hereinafter referred to for brevity, as a shoe) and adapted to fit the natural cavities at the opposite sides of the heel bone of a person's foot. In a known form of heel grip of this kind only two oppositely arranged projecting pads were provided, connected by a plain portion of strip material, each pad being of relatively small area and arranged more or less horizontally, so that they could afford only a small bearing surface for the heel of the user of the shoe to which the grip was to be applied, and little or no provision was made for ventilating the heel of the user and dissipating heat therefrom.

The present invention has for its object to provide a heel grip that shall afford a relatively large bearing surface for the heel of the user of the shoe to which the grip is applied, and wherein provision is made for the ventilation of and dissipation of heat from the user's heel.

For this purpose a heel grip according to the present invention comprises two pads adapted to be secured to the rear portion of a shoe and to fit into the natural cavities at the side of the heel bone of the user of the grip and each constituted by a backing provided with a number of projections of a soft or yielding nature, having free air spaces between them, so that when the grip is secured to the inner side of the rear end of a shoe and in use, the projections of the two pads will afford a relatively large bearing surface for the heel of a user, and the spaces between the several projections will be in free communication with the outer air so as to ventilate the heel and keep it cool. The two pads may be connected by a plain strip portion forming part of or connected to the backing of the two pads, or the two

pads may be separate from each other.

The heel grip may comprise a backing formed of sheet rubber, or of textile materials coated with sponge or other rubber, and the projections be formed of sponge rubber moulded integral with the rubber backing, or rubber coating thereof.

According to one construction, the heel grip comprises a backing formed of a strip of rubber covered textile material having a straight upper edge and a curvilinear lower edge, the front side of the strip being provided with a plain central portion that will be at the back of a user's heel and two side portions each provided with a number of projections in the form of upwardly extending ribs formed of sponge rubber moulded integral with or secured to the rubber of the backing and having between them grooves forming free air spaces. The two sets of ribs are adapted to fit the natural cavities of the heel bone of a user, over a relatively large area thereof, in such manner that air can gain ready access to the heel of the user by way of the grooves between the said projections and dissipate heat therefrom. The plain central portion of the heel grip may be slit to enable the heel grip to readily conform to the shape of the part of the shoe to which it is to be attached.

Instead of the two pads being connected together by a plain portion they may be separate, each pad comprising a backing having a straight upper edge and a curvilinear lower edge and each comprising a number of projections in the form of ribs of sponge rubber moulded integral with or secured to the backing.

The extent to which the ribs extend from the front surface of the backing may be greater at the portion thereof designed to be uppermost in use, than the lower portions. The ribs may be of rounded shape in cross section and the bottoms of the intervening grooves be of concave shape in cross section. Each rib, as seen in longitudinal section, may be of convex shape at its intermediate portion and of concave shape at its end portion which merges into the backing, each rib being thus of a convexo-concave shape longi-

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tudinally. The ribs and grooves may however be of other shapes in cross and longitudinal section.

The ribs and intervening grooves may be arranged vertically, or they may be inclined to the vertical, that is to say be diagonally arranged, or they may be horizontally arranged. Or in lieu of ribs and intervening grooves a number of small projections of round, square or other shape, as seen in end view, having free air spaces between them, may be provided on each of the side portions of the backing.

The front surface of the backing including that of the projections, may, if

desired, be covered with a layer of soft textile or other material.

In each case, the heel grip may be cemented to the rear portion of the shoe, or it may be otherwise secured thereto, as for instance by sewing the plain marginal portion of the backing to the shoe. Or the heel grip may be shaped to enable it to be incorporated in a shoe during the manufacture thereof.

Dated this 1st day of November, 1930.

For the Applicant,

LLOYD WISE & Co.,
10, New Court, Lincoln's Inn, London,
W.C. 2,
Chartered Patent Agents.

COMPLETE SPECIFICATION.

Improvements in or relating to Heel Grips for Footwear.

We, PHILLIPS RUBBER SOLES, LIMITED, a British Company, and GEORGE PHILLIPS, a British Subject, both of 142, 144 and 146, Old Street, Finsbury, in the County of London, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to heel grips for footwear and particularly to heel grips of the kind comprising two side pads adapted to be secured to the inner rear end surface of a boot or shoe (hereinafter referred to or for brevity, as a shoe) and adapted to fit the natural cavities at the opposite sides of the heel bone of a person's foot. In a known form of heel grip of this kind, two oppositely arranged projecting pads were provided, connected by a plain portion of strip material, each pad being of relatively small area and arranged more or less horizontally, so that they could afford only a small bearing surface for the heel of the user of the shoe to which the grip was to be applied. It has also been proposed to provide a heel grip with a large number of flexible points disposed over its internal or external surface, or both, and with a number of holes for ventilation purposes.

The present invention has for its object to provide a heel grip that shall afford a relatively large bearing surface for the heel of the user of the shoe to which the grip is applied, and at the same time admit of the ventilation of and dissipation of heat from the user's heel.

For this purposes a heel grip according to the present invention comprises two pads adapted to be secured to the rear portion of a shoe and to fit into the natural

cavities at the sides of the heel bone of the user of the grip and each constituted by a backing provided with a number of ribs of a soft or yielding nature, having free air spaces between them, so that when the grip is secured to the inner side of the rear end of a shoe and in use, the ribs of the two pads will afford a relatively large bearing surface for the heel of a user, and the spaces between the several ribs of each pad will be in free communication with the outer air so as to ventilate the heel and keep it cool. The two pads may be connected by a plain strip portion forming part of or connected to the backing of the two pads, or the two pads may be separate from each other.

The heel grip may comprise a backing or support formed of sheet rubber or of other flexible material coated with rubber, and the ribs be formed of sponge rubber or of other rubber or material of a soft or yielding material moulded integral with or secured to the rubber or other backing.

In the accompanying illustrative drawings, Fig. 1 is a front view of one construction of heel grip according to the invention and Figs. 2 and 3 are sections on the lines II—II and III—III respectively of Fig. 1. Figs. 4, 5, 6 and 7 are front views of modified constructions of heel grips.

The heel grip in the example shown in Figs. 1, 2 and 3, comprises a backing 1 formed of a strip of rubber having a straight upper edge and a curvilinear lower edge, the front side of the strip having a plain central portion 2 that will be at the back of a user's heel, and two side portions each provided with a number of upwardly extending ribs 3 formed of rubber moulded integral with the rubber

of the backing 1 and having between them vertical grooves 4 forming free air spaces, The two side portions with ribs constitute side pads. The two sets of ribs 3 are adapted to fit the natural cavities of the heel bone of a user, over a relatively large area thereof, in such manner that air can readily gain access to the heel of the user by way of the grooves between the said projections and dissipate heat therefrom. The plain central portion 2 of the heel grip may, if desired, be slit for part of its height, to enable the heel grip to conform more readily to the shape of the part of the shoe to which it is to be attached.

The extent to which the ribs 3 extend from the front surface of the backing may be greater at the portions thereof designed to be uppermost in use, than the lower portions. The ribs 3 may, as shown in Fig. 2, be of rounded shape in cross section and the bottoms of the intervening grooves 4 be of concave shape in cross section. Each rib, as seen in longitudinal section, may be of more or less convex shape (Fig. 3) at its intermediate portion and of concave shape at its end portions which merge into the backing. The ribs and grooves may however be of other shapes in cross section and longitudinal section.

Fig. 4 shows a heel grip similar to that shown in Figs. 1, 2 and 3, but wherein the vertical ribs 3 are thinner, greater in number and closer together than those shown in the said Figs. 1, 2 and 3.

The ribs and intervening grooves, instead of being arranged vertically, as in the examples hereinbefore described, may, as shown in Fig. 5, be inclined to the vertical, that is to say, be diagonally arranged, or they may be horizontally arranged as shown in Fig. 6.

Instead of the two pads being connected together by an intermediate plain portion 2, as in the examples hereinbefore described, they may be separate from each other, each pad, one of which is shown in Fig. 7, comprising a backing 1 having a straight upper edge 1^a and a curvilinear lower edge 1^b and a number of vertical ribs 3 of rubber or other soft or flexible material moulded integral with or secured, as by cement, to the backing and having vertical grooves 4 between them.

The front surface of the backing including that of the projections, may, if desired, be covered with a layer of soft textile or other like material, for instance velvet.

In each case, the heel grip, or the separate parts thereof as the case may be, can be cemented to the rear portion of the shoe, or be otherwise secured thereto, as for instance by sewing the plain marginal

portion of the backing to the shoe. Or the backing carrying the two groups of ribs 3 may be of such dimensions and shape as to enable it to be incorporated in a shoe during the manufacture thereof.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. A heel grip comprising two pads adapted to be secured to the rear portion of a shoe and to fit into the natural cavities at opposite sides of the heel bone of the user of the grip and each constituted by a backing provided with a number of ribs of a short or yielding nature, having free air spaces between them.

2. A heel grip according to the preceding claim, wherein the two pads are connected together by plain strip material.

3. A heel grip according to claim 1, wherein the two pads are separate from each other.

4. A heel grip according to any of the preceding claims, wherein the back is formed of sheet rubber, or other flexible material coated with sponge or other rubber, and the ribs are formed of sponge or other rubber moulded integral with or secured to the rubber backing, or rubber coated backing.

5. A heel grip according to claim 1, wherein each pad comprises a backing formed of sheet rubber or rubber-covered sheet material having a straight upper edge and a curvilinear lower edge and provided with two laterally displaced groups of ribs of sponge or other rubber moulded integral with or secured to the backing, substantially as described.

6. A heel grip according to any of the preceding claims, wherein the ribs and intervening grooves of each pad are arranged vertically.

7. A heel grip according to any of the preceding claims 1 to 5, wherein the ribs and intervening grooves of each pad are arranged diagonally or horizontally.

8. A heel grip according to any of the preceding claims, wherein the front surface of the backing, including that of the ribs, is covered with a layer of soft textile or like material, as for instance velvet.

9. Heel grips constructed, arranged and adapted for use substantially as described with reference to the several examples shown in the accompanying drawings.

Dated this 24th day of July, 1931.

For the Applicant,

LLOYD WISE & Co.,
10, New Court, Lincoln's Inn, London,
W.C. 2,
Chartered Patent Agents.

[This Drawing is a reproduction of the Original on a reduced scale.]

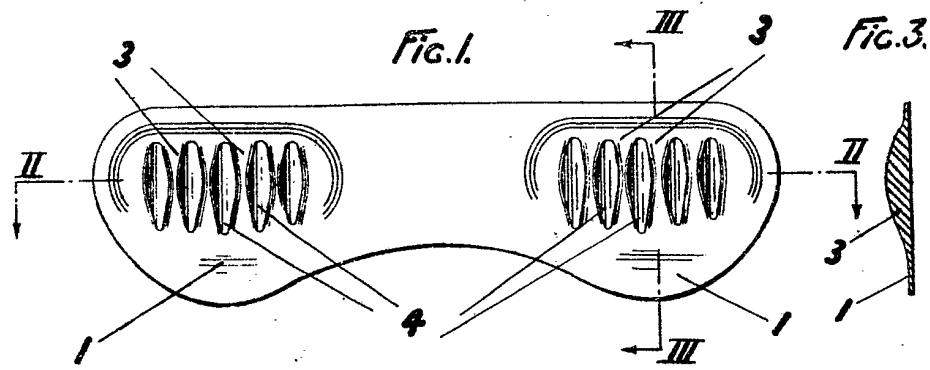


Fig. 2.

