

[54] **RESILIENT PAD FOR USE ON FOOTWEAR**
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 [58] Field of Search36/32 R, 2.5 R, 2.5 T, 36/2.5 AE, 7.5, 7.6

[57] **ABSTRACT**

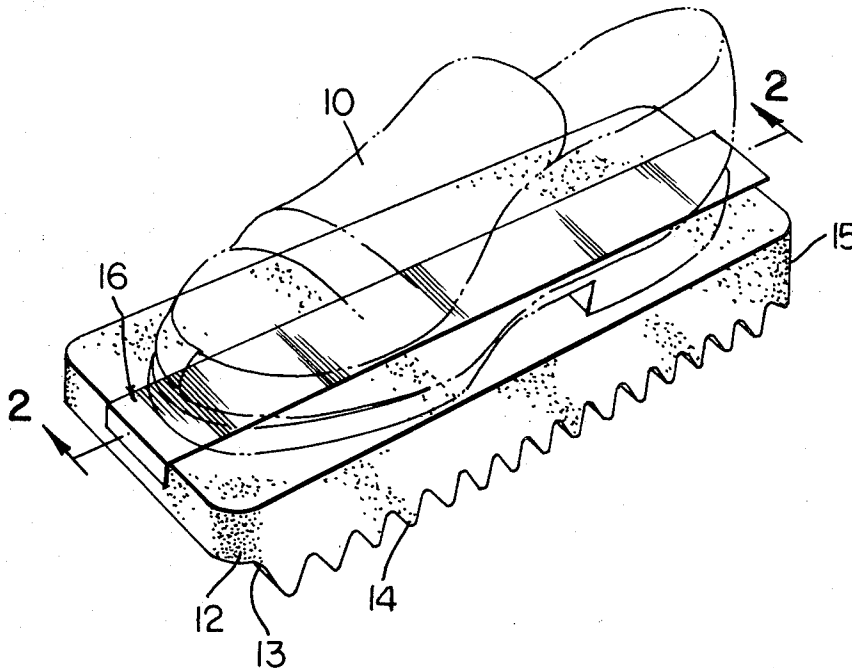
The specification discloses a resilient pad, for example, foamed elastomeric material with the pad being generally contoured for mounting on the bottom of an article of footwear, such as a shoe, or the like. The pad is provided with pressure sensitive adhesive on the upper side so that it can be adhered to the bottom of an article of footwear to provide a cushion, while the pad can readily be removed from the article of footwear when desired.

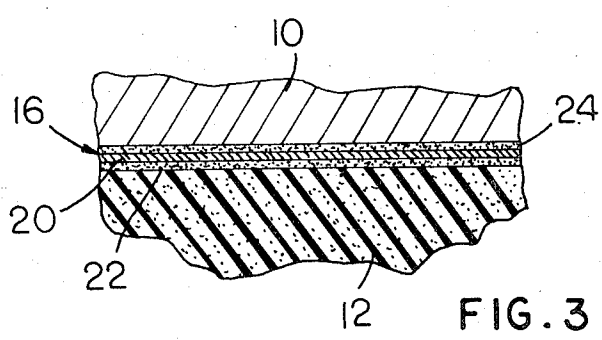
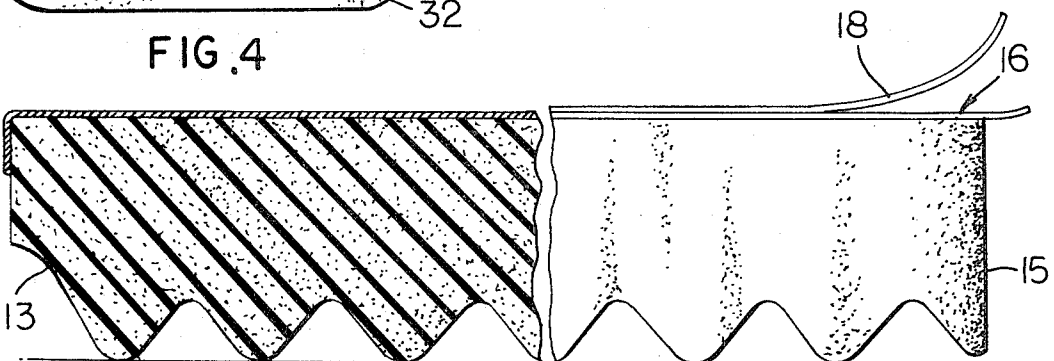
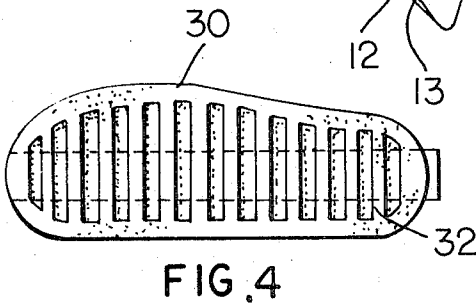
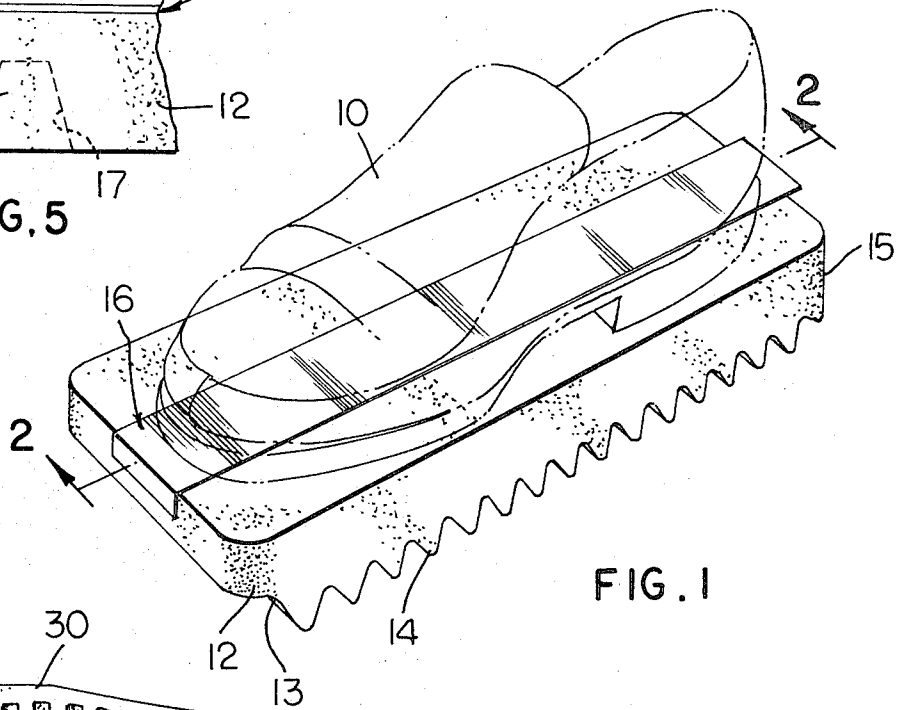
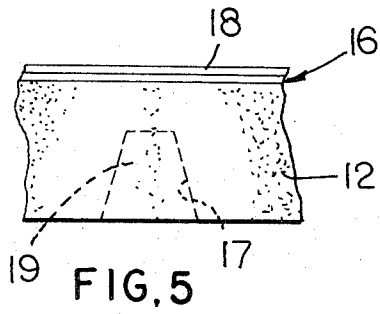
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2 Claims, 5 Drawing Figures





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RESILIENT PAD FOR USE ON FOOTWEAR

The present invention relates to a resilient pad arrangement adapted for detachable connection to the bottom of an article of footwear, such as a shoe or the like.

Conventional footwear for regular use ordinarily has a rather hard sole thereon, and such footwear can, on occasion, induce considerable discomfort and fatigue, notably, when the individual wearing the shoe has a great deal of walking or standing to do on concrete or other hard surfaces of this nature.

Shoes are known in which the sole is made of resilient rubber-like material, and such shoes do off-set the fatigue that accompanies wearing shoes under the conditions referred to, but shoes of this nature are usually in the form of sport shoes and the like and are only worn in rather special circumstances.

The present invention proposes the provision of a resilient pad arrangement adapted for detachable mounting on the bottom of an article of footwear, such as a shoe, and which will provide the wearer with resilient support, thereby avoiding the fatigue and discomfort that can come from walking or standing for a great length of time, particularly on a hard surface.

An object of the present invention is the provision of a resilient pad arrangement for articles of footwear which eliminates straps and other connecting devices.

Still another object of the present invention is the provision of a resilient pad arrangement of the nature referred to which can readily be attached to the bottom of an article of footwear, such as a shoe, and readily removed therefrom and with no damage whatsoever to the article of footwear.

A still further object of the present invention is the provision of a pad arrangement of the nature referred to which can be used a multiple of times.

Still another object is the provision of a pad arrangement of the nature referred to which is quite inexpensive to use.

Still another object is the provision of a pad arrangement of the nature referred to connectable to a shoe or the like by pressure sensitive adhesive, and which adhesive can readily be renewed if it becomes completely or partially ineffective.

The foregoing objects of the present invention, as well as still other objects and advantages thereof, will become more apparent upon reference to the following detailed specification taken in connection with the accompanying drawings in which:

FIG. 1 is a somewhat schematic perspective view showing one form which a pad according to the present invention can take;

FIG. 2 is a vertical longitudinal sectional view through the pad of FIG. 1, drawn at enlarged scale, and is indicated by line 2—2 on FIG. 1;

FIG. 3 is a fragmentary view drawn at still further enlarged scale showing details in connection with the adhesive arrangement disposed between the top of the pad and the bottom of the shoe;

FIG. 4 is a view looking at the bottom of a pad which is contoured somewhat differently than the pad of FIG. 1; and

FIG. 5 is a cross section view illustrating another embodiment of the invention.

BRIEF SUMMARY OF THE INVENTION

According to the present invention, a pad of resilient

material is formed, such as by foaming a rubber or elastomeric plastic material, or by providing a resilient body of material with air holes or other relieved portions so that it is yieldable to a desired degree whereby the pad will provide a cushion action.

The thus formed pad, when viewed from above, has generally the contour to fit the general profile of the bottom portion of an article of footwear, such as a shoe, and, on the top wall, is provided with an adhesive for detachably connecting the pad to an article of footwear. The adhesive is preferably a pressure sensitive adhesive and may be applied to the top of a pad in the form of a strip, with a peel off cover layer.

DETAILED DESCRIPTION OF THE INVENTION

Referring to the drawings somewhat more in detail, FIG. 1 shows an article of footwear, such as a shoe, at 10 and therebeneath, as indicated by reference numeral 12, is a pad of resilient material. The material of pad 12 may be rubber, or a rubber-like material such as an elastomeric plastic. The material can, advantageously, be a foamed material, preferably, a closed cell foam material which will trap the air therein.

It is possible to form the pad without foaming the material and to impart resilience thereto as a body by providing the material with holes or a recessed pattern configuration on the bottom and, alternatively, the bottom of a pad of foamed material can also have a recessed pattern configuration on the bottom or can be completely flat. Foamed materials of this nature vary widely as to resilience from relatively soft to quite firm, and for the purpose of the present invention, it is preferred that the material be rather firm in order to withstand the weights to be imposed thereon.

In FIG. 1, the bottom of the pad is corrugated as at 14, preferably with transverse corrugations, which assist in imparting resilience to the pad and also provide the pad with good surface gripping characteristics. The front end of the pad is provided with a curved portion 13 forming a toe portion so that the pad will not engage or catch on objects as the person is walking. The back end of the pad is provided with straight portion 15 forming a heel. The top and bottom walls of the pad have an upper surface plane and ground contacting plane respectively which is parallel.

Extending lengthwise across the top of the pad is a strip 16, which preferably consists of a uniform width strip of material having a pressure sensitive adhesive on both sides thereof. The adhesive product is placed on top of the pad with the adhesive on one face of the strip adhering to the pad and with the adhesive on the other face of the strip covered by a peel off cover layer 18.

When the pad is to be connected to the bottom of a shoe, the peel off cover layer 18 is peeled off, and the shoe is located relative to the pad and is pressed thereagainst. Preferably, the bottom of the shoe is carefully cleaned before it is pressed against the pad to insure good adherence of the adhesive of strip 16 to the bottom of the shoe.

The strip 16 will be seen in somewhat more detail in FIG. 2, wherein the cover layer 18 is lifted therefrom at one end of the pad.

When the shoe is adhered to the pad, the appearance of the interface thereof is somewhat as schematically illustrated in FIG. 3. In FIG. 3, the strip 16 will be seen to consist of a center carrier layer 20 which may, for example, be a cloth tape, and on the underside thereof

is a layer 22 of pressure sensitive adhesive which is adhered to the top of pad 12, while on the top of the carrier layer is a layer 24 of pressure sensitive adhesive which is adhered to the bottom of shoe 10.

The described arrangement permits a resilient pad readily to be joined to the bottom of an article of footwear, such as a shoe, when the need thereof becomes evident and, likewise, the pad can readily be removed from the shoe when the need has been eliminated.

The pressure sensitive adhesive which secures the pad to the bottom of the shoe will retain its effectiveness for a number of applications of the pad to the shoe, and when the adhesive commences to become ineffective, the adhesive region of the pad can readily be renewed merely by applying a new adhesive strip directly thereover.

The pad 12 in FIG. 1 is shown in substantially rectangular form, but the pad could be conformed more or less exactly to the outline of the shoe on which it is to be mounted, as shown in FIG. 4. In FIG. 4, the left end of the pad is adapted for engaging under the sole portion of the shoe, and the right end is adapted for engaging under the heel portion of the shoe. The pad is adapted for being secured to the bottom of the shoe by adhesive means of the nature referred to above. The pad can be made in various sizes so as to conform to various shoe sizes.

FIG. 4 shows a somewhat different bottom pattern for the pad. In FIG. 4, the pad has a peripheral rim portion 30, with corrugations or the like 32 disposed inside the rim portion. The bottom configurations for the pad illustrated in the drawings are, of course, merely exemplary, and the pad could have any desired surface configuration on the bottom, from planar or flat to corrugated, or could be configured in any other desired manner.

FIG. 5 illustrates another embodiment of the invention wherein the bottom pattern for the pad includes a series or number of holes or recesses 17 formed in the pad. The holes or recesses provide an air chamber or pocket 19 between the pad 12 and the walking surface. The holes or recesses 17 provide an additional cushioning effect as well as increased frictional engagement with the walking surface to prevent the pad from slipping thereon.

It is contemplated, due to the extreme simplicity and inexpensiveness of the pad according to the present invention, to supply the pads in kit form, for sale at exhi-

bition sites or any place that has hard surface for walking or standing, in which a plurality of pads are contained in a kit, together with simple instrumentalities for cleaning the bottom of the shoe and, if desired, additional double faced adhesive strips for renewing the adhesive region on the top of the pad.

The bottom of the shoe might be cleaned, for example, by including in the kit an absorbent member wetted with alcohol or the like and another absorbent member for drying the bottom of the shoe. After cleaning the shoe, it can be placed on top of the pad, which has had the cover layer removed from the adhesive strip thereon, and then by merely pressing the pad and shoe together, as by stepping down on the pad, the pad becomes firmly joined to the shoe and will remain thereon until deliberately removed.

It will be understood that the adhesive could be supplied in forms other than a single longitudinal strip, and that the pad could be configured in a desired manner and be of any desired size.

No straps, clips, or other fastening devices, which would increase the expense of the arrangement and which would, at the same time, be troublesome and likely to damage the finish of the shoe, are required.

The pad, in effect, becomes an integral part of the shoe when it is joined thereto and remains an integral part of the shoe as long as desired.

Modifications may be made within the scope of the appended claims.

I claim:

1. A resilient pad adapted for mounting on the bottom portion of an article of footwear forming a cushion and comprising: a body of resilient closed cell foam elastomeric material having top and bottom walls with the upper surface plane and ground contacting plane being parallel, said body of the cell foam elastomeric material adapted to trap air therein to provide a cushion to absorb the shock of the weight coming in contact with a hard surface, adhesive strip means in the form of a double-sided adhesive strip having a uniform width with one side adhered to the top wall of said body and a peel off protective layer on the other side of said adhesive strip.

2. A pad according to claim 1 wherein said pad is shaped to fit the general profile of the bottom portion of the article of footwear to which it is to be attached.

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