

[54] **FOOTWEAR CONTAINING FOOT
MASSAGE MEANS**

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[58] Field of Search..... **36/2.5 R, 1, 11.5, 43;
128/582**

[56] **References Cited**

UNITED STATES PATENTS

2,518,649	8/1950	Tydings et al.	36/11.5
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2,760,279	8/1956	Jones et al.	36/11.5
2,864,179	12/1958	Watson	36/11.5
3,472,508	10/1969	Baker et al.	36/2.5 R
3,595,244	7/1971	Kugler	36/11.5
3,722,113	3/1973	Birkenstock	36/11.5

FOREIGN PATENTS OR APPLICATIONS

1,282,592	11/1960	France	128/582
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[57] **ABSTRACT**

An item of footwear capable of effecting foot massage while it is being worn, thereby stimulating circulation of the blood and thus promoting the overall health of the individual through the strengthening of the internal organs.

6 Claims, 5 Drawing Figures

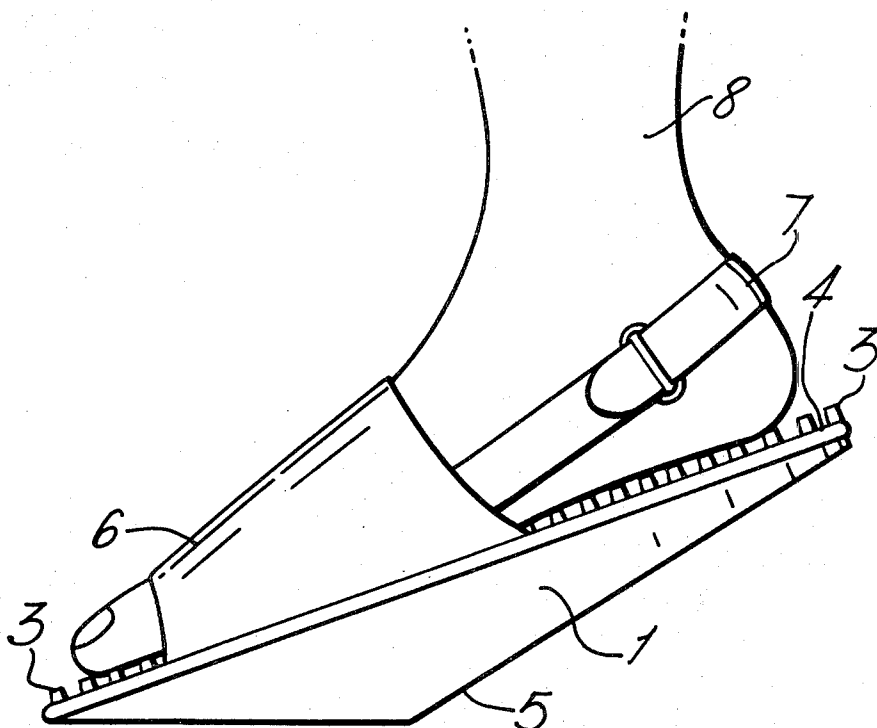


Fig. 1.

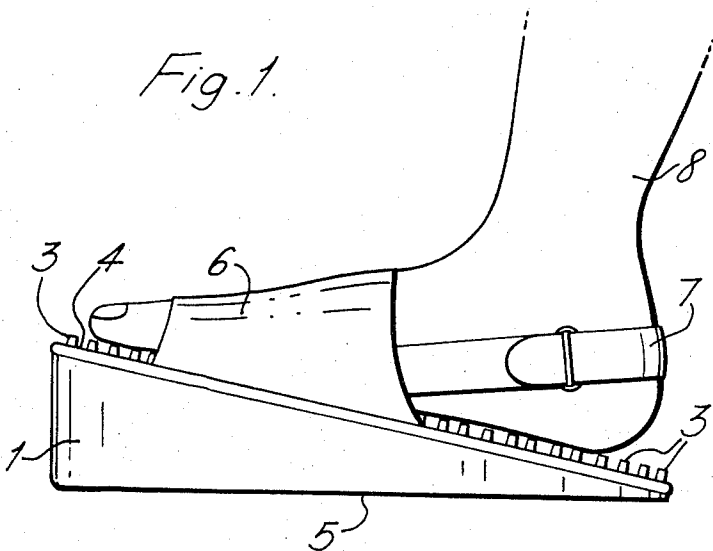
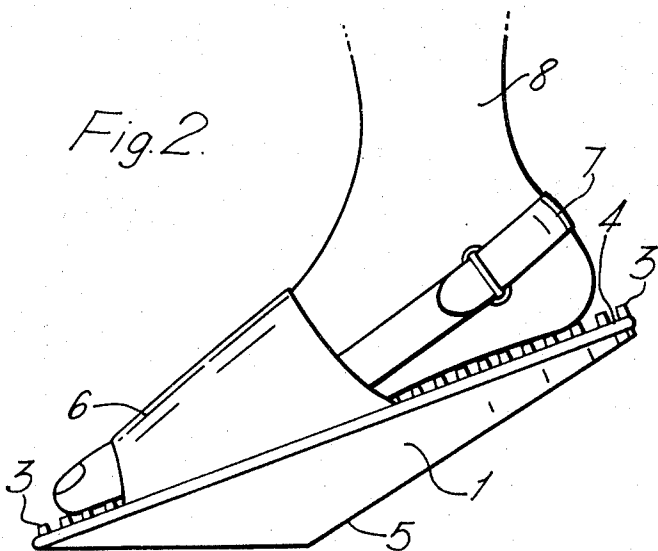
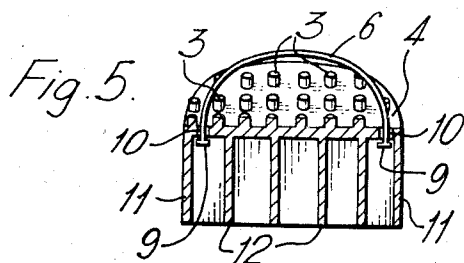
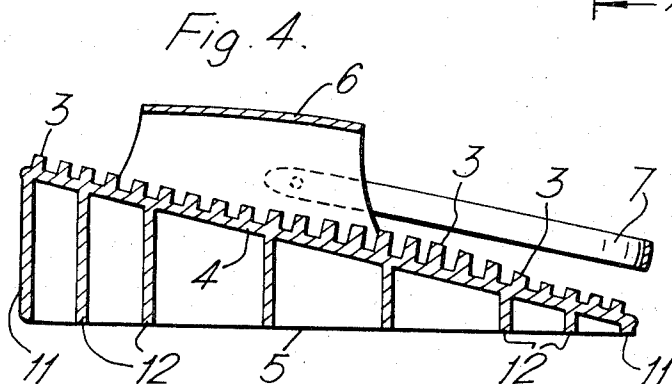
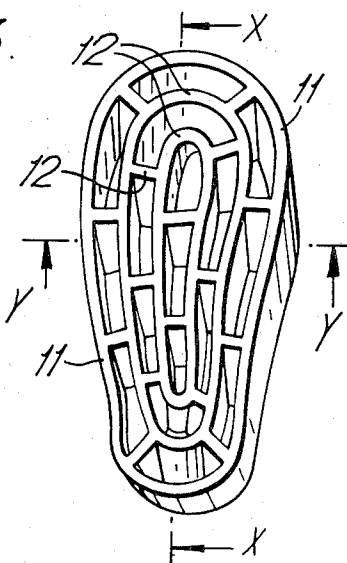


Fig. 2.





FOOTWEAR CONTAINING FOOT MASSAGE MEANS

BACKGROUND AND SUMMARY OF THE INVENTION

The present invention relates to an item of footwear adapted to improve the wearer's health by stimulating circulation of blood and strengthening the internal organs. More specifically, the present invention is concerned with improvements in footwear which are capable of effecting the massage of the foot muscles without the use of any special devices but rather only through normal use of the footwear.

The present way of life and modern conveniences have created many health problems due to a lack of sufficient time and facilities to take part in the necessary physical activities required for good health. Particularly office workers who spend substantially their entire day in a sitting position suffer from this problem, thereby constituting a great social problem. As a result, man's muscles tend to become loose or dull, which causes malfunction of the internal organs and also adversely effects the nervous system. To date, no effort has been made in the apparel field, particularly in the footwear field to solve this problem. For example, ladies' high heel shoes, which have become a way of life in our society, requires the wearer to stand on tip toes to create an attractive look or appearance. However, little consideration has been given to the promotion of health factors in the footwear field.

In accordance with the present invention, the foregoing problems are overcome by providing footwear which promotes good health by giving continuous stimulation to the soles of the feet which would otherwise be congested with blood due to the continual support of the body weight by the feet. The stimulation to the soles of the feet stimulates the circulation of the blood as does manual therapy, strengthens the internal organs and provides a refreshing and overall healthy feeling. According to the present invention, when the footwear of the present invention is being worn, the wearer takes a posture similar to that of ascending a hill which causes the flexors, which are rarely used when walking on a flat surface, to be thoroughly exercised. Such footwear is particularly advantageous in our modern society where people, because of the vast network of transportation, have little opportunity to take part in active walking. As can be readily observed, the footwear of the present invention can be readily used at home or at offices and is also suitable for mass production.

It is therefore an object of the present invention to introduce an overall health consideration in the footwear field by providing footwear having a raised sole portion, that is, where the front portion of the foot is at a higher elevation relative to the back or heel portion of the foot.

Another object of the present invention is to provide an improved item of footwear wherein the surface of the footwear facing the sole of the foot is provided with a plurality of projections which provide the effect of constant volar massage while the wearer is walking.

Other objects and further scope of applicability of the present invention will become apparent from the detailed description given hereinafter; it should be understood, however, that the detailed description and specific examples, while indicating preferred embodi-

ments of the invention, are given by way of illustration only, since various changes and modifications within the spirit and scope of the invention will become apparent to those skilled in the art from this detailed description.

BRIEF DESCRIPTION OF THE DRAWINGS

The present invention will become more fully understood from the detailed description given hereinbelow and the accompanying drawings, which are given by way of illustration only and thus are not limitative of the present invention and wherein,

FIG. 1 is a schematic side view of an item of footwear apparel according to the present invention;

FIG. 2 is a schematic side view of another embodiment of the footwear apparel illustrated in FIG. 1;

FIG. 3 is a perspective view of a further modification of the footwear apparel of the present invention, particularly showing the bottom portion thereof;

FIG. 4 is a sectional view of the footwear apparel illustrated in FIG. 3, taken along the line X—X; and

FIG. 5 is a sectional view of the footwear apparel illustrated in FIG. 3, taken along the line Y—Y.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring to FIG. 1, the footwear of the present invention comprises a sole 1 having a raised front portion which produces an inclined insole 4 in contrast to a flat outsole 5. The inclined insole 4 is provided with a plurality of projections 3. The projections may be formed on the insole in an extensive manner so as to cover the entire area. Alternatively, the projections may be formed only in the plantar arch section. In the embodiment illustrated in FIG. 2, the front portion of the outsole 5 is cut away so as to enable the wearer to walk on both the heels and the tip-toes, alternately. The foot 8 is held to the footwear by means of a strap 6 and a fastener band 7 wherein pressure is exerted on the sole of the foot by the projection 3 as the wearer walks. At the same time, the calves of the legs are subjected to muscle use and strain through the action of the Achilles' tendon while walking. Thus a massage effect is given to the leg muscles, thereby facilitating the circulation of the blood and the stimulation of internal organs. Additionally, the flexor, which is rarely used when walking on a flat surface is exercised and stimulated which slows down the ageing process. In the embodiment illustrated in FIG. 2, the massage effect is multiplied by virtue of a see-saw action.

Referring now to FIGS. 3 to 5, the outsole 5 has a beehive-like surface, as shown in FIG. 3, with a peripheral rim 11 and ribs 12. The front portion of the rim, that is, the tip-toe side rim is higher than the rear portion, that is, the heel side rim. In the same way, the ribs 12 are gradually reduced from the toe towards the heel, whereby the front portion of the insole surface is raised. Projections 3 are formed on the insole surface in the same manner as in FIGS. 1 and 2. The projections, the rim and ribs, and the sole body are molded together and are made of an elastic material, such as a synthetic rubber material, for example soft polyvinyl chloride. As illustrated in FIG. 4, the insole 4 has a convex surface in its central portion so as to match the plantar arch properly. A strap 6 is fastened to the sole 1 through the use of bores 10 and stoppers 9. The outsole which has a beehive surface can be also con-

structed in the embodiment shown in FIG. 2 so as to effect a tiptoe action.

Instead of providing an outsole as shown, a forwardly raised insole can be obtained by providing a supporting bar in the under-side of the sole, with the axis of the supporting bar being located at right angles to the foot direction, thereby effecting a see-saw action around the supporting bar. The foot is massaged in the same way as described above, with the addition of a see-saw effect centering around the bar.

By utilizing the footwear of the present invention, volar massage is produced in the course of ordinary use at home and at the office, thereby facilitating the circulation of the blood through the legs and the stimulation of the internal organs. Thus physical fatigue is substantially reduced and an overall healthy feeling is generated.

The invention being thus described, it will be obvious to one skilled in the art that the same may be varied in many ways. Such variations are not to be regarded as a departure from the spirit and scope of the invention, and all modifications as are embraced by the appended claims are intended to be included in the purview of the present invention.

What is claimed is:

1. An item of footwear comprising a sole having an insole and an outsole, said outsole resembling an inverted triangle with the base thereof adapted to face the bottom of the foot of the wearer, thereby enabling

the foot to pivot about the apex of said inverted triangular outsole, the height of the apex of said inverted triangular outsole above the base of said outsole being sufficient to cause a see-saw action around said apex and an alternate shifting of the weight of the wearer from the heel to the toe of the foot.

2. The item of footwear of claim 1, wherein the insole is provided with a plurality of projections formed on at least a portion of its surface, said projections corresponding to the plantar arch being higher than the remaining projections so as to match the concavity of the plantar arch.

3. The item of footwear of claim 1, wherein said sole has a beehive construction comprising a peripheral rim and a plurality of ribs interlaced within the peripheral rim.

4. An item of footwear as claimed in claim 1 wherein said footwear is provided with a strap and a fastener band.

5. An item of footwear as claimed in claim 4 wherein the strap is attached to the insole and is adapted to receive the front portion of the foot of the wearer and the fastener band is attached to the strap and is adapted to receive the heel portion of the foot of the wearer.

6. An item of footwear as claimed in claim 1, wherein the projections are only located in that portion of the insole corresponding to the plantar arch.

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