United States Patent

Murray

[15] 3,693,270

[45] Sept. 26, 1972

[54] **INTERNAL PADS FOR RUBBER FOOTWEAR**

[72] Inventor: **Brian L. Murray,** 147-37 38th Avenue, Flushing, N.Y. 11354

[22] Filed: **Jan. 8, 1971**

[21] Appl. No.: **104,964**

[52] **U.S. Cl.** **36/58.5,** 36/71

[51] **Int. Cl.** **A13b 23/28,** A43b 23/28

[58] **Field of Search**.....36/71, 58.5, 58.677.1, 7.322.5 AL

[56] **References Cited**

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Primary Examiner—Alfred R. Guest

Attorney—James M. Heilman and Heilman & Heilman

[57] **ABSTRACT**

Internal pads of sponge material are preferably enclosed in a fabric casing and secured to the inside surface of rubber boots or shoes. The construction permits the wearer to put his feet into the boots without strenuous effort. Also, the boots may be removed easily without using a zipper opening or shoe laces. While being worn, the wearer may run or take long walking steps without fear of losing the boots or of displacing the foot within the boot. The sponge inserts hold the foot in its proper place by forcing the foot into contact with the inner sole.

2 Claims, 7 Drawing Figures

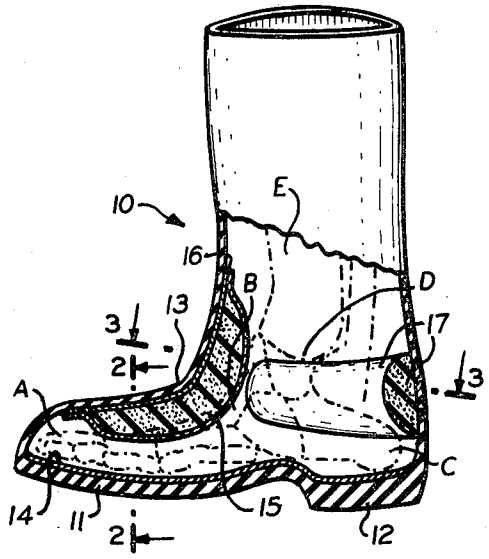


FIG. 1.

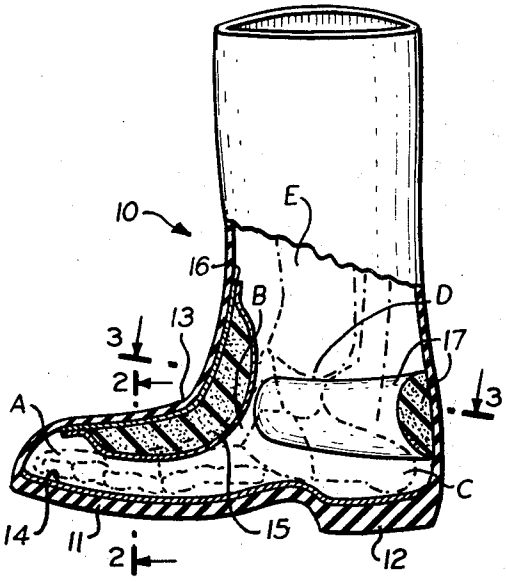


FIG. 2.

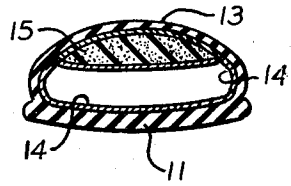


FIG. 3.

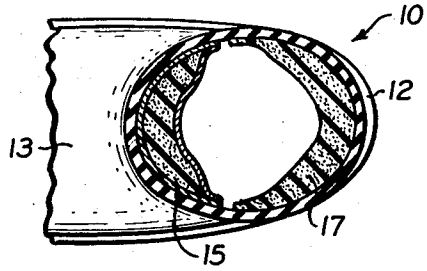


FIG. 4.

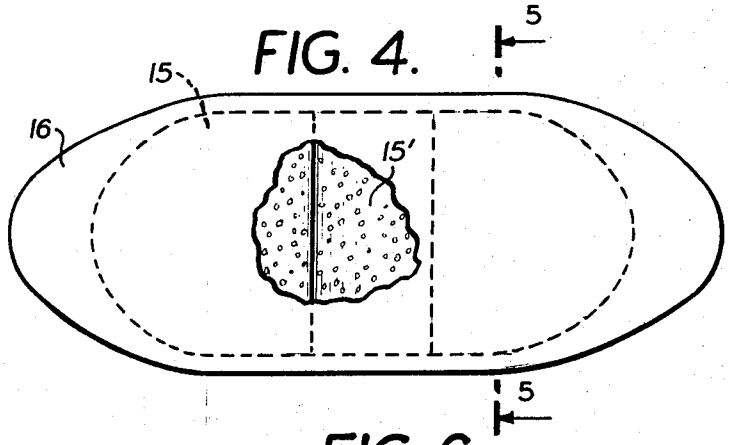


FIG. 5.

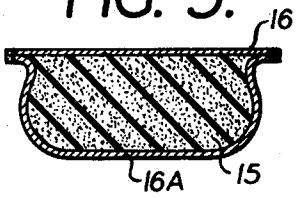


FIG. 6.

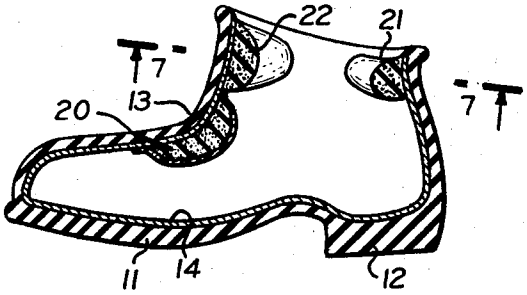
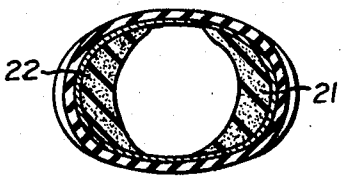


FIG. 7.



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Skechers EX1007-p.2
Skechers v. FAST IP

INTERNAL PADS FOR RUBBER FOOTWEAR

BACKGROUND OF THE INVENTION

Boots made of moulded rubber are old in the art and have proved useful when used in the rain or when moving along muddy or wet roads. In order to be completely waterproof the boots should have no laces and no zipper fastenings. Such a construction requires a rather large size for any particular foot so that the boot may be put on and taken off without too much effort. An oversize boot makes walking difficult and running almost impossible because the foot is not held firmly within the boot and has considerable movement within the boot when the wearer is in motion.

For convenience, "boots" are used throughout to designate all types of footwear such as firemen and sportsman boots, high and low shoes, loafers, slippers, and of all types of materials whether rubber, plastic, leather or cloth. Likewise, the sponge inserts may be of any spongy or sponge-like resilient material of rubber, plastic or cloth, with or without an outer protective covering.

The present invention corrects these disadvantages by employing inward expanding sponge rubber inserts, secured to the inside surface of the boot to hold the foot firmly against the bottom of the boot. When running, the boot inserts do not permit the foot to move about within its confines but instead, causes the foot to cling to the sole.

A feature of the present invention is the unitary nature of the inserts comprising a body of foam rubber or plastic covered with cloth, thereby permitting the inserts to be attached to ordinary boots and shoes to achieve a tight comfortable fit.

Internal pads of sponge material are preferably enclosed in a fabric casing and secured to the inside surface of rubber boots or shoes. The construction permits the wearer to put his feet into the boots without strenuous effort. Also, the boots may be removed easily without using a zipper opening or shoe laces. While being worn, the wearer may run or take long walking steps without fear of losing the boots or of displacing the foot within the boot. The sponge inserts hold the foot in its proper place by forcing the foot into contact with the inner sole.

For a better understanding of the present invention, together with other details and features thereof, reference is made to the following description taken in connection with the accompanying drawings.

BRIEF DESCRIPTION OF THE FIGURES

FIG. 1 is a side view of a boot, partly in section, showing two inserts in place.

FIG. 2 is a cross sectional view of the boot of FIG. 1 taken along line 2—2 of that figure.

FIG. 3 is another cross sectional view of the boot taken along line 3—3.

FIG. 4 is a plan view of an insert before its insertion into the boot.

FIG. 5 is a cross section of the insert shown in FIG. 4 and is taken along line 5—5 of that figure.

FIG. 6 is a cross sectional view of a shoe having three inserts.

FIG. 7 is a cross sectional view of the shoe of FIG. 6 and is taken along line 7—7.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to FIGS. 1 through 5, a boot 10, made of rubber or other plastic composition, includes a sole 11, a heel 12, and an instep portion 13 (sometimes called the vamp). Inside the shoe there is always an insole 14 or liner on which the foot rests. A first insert 15, preferably formed with a transverse hollowed out section 15′ is positioned around the instep junction 13 at the hollowed out section. The insert or projection 15 may be formed in one piece with the boot or other footwear or may be formed separately and glued to the inside surface of the boot. If desired, this insert may be formed at substantially a right angle and could be preferably 5 inches to 8 inches long by 2 inches to 4 inches in width. It may be formed with a fabric liner 16 and stitched or otherwise secured to the boot. When properly installed, as shown in FIG. 1, the first insert 15 acts to hold the foot tightly in contact with the rear insert 17 and thereby prevent the foot A from making contact with any other portion of the upper.

A second insert 17 is placed in the boot, preferably in a leval horizontal plane, just below the wearer's interior ankle bone D of tibia E and extending around the heel to the outside of the foot A, preferably to complete a semicircle or to terminate at the instep pad, in the range of about 2 inches to 8 inches and about ¼ inch to 3 inches in height. This insert 17 keeps the instep B of the foot and heel bone C in its proper position and when the foot is lifted, to walk or run, the heel bone of the foot engages insert 17 so that the boot closely follows the movement of the foot with no tendency to pull out. The foam material, however, is resilient or spongy enough to give way whenever it is desired to remove the foot from the boot. The second insert 17 may be attached to the boot in the same manner as the first.

FIG. 4 shows the first insert (with the optional hollowed out section 15′ extending across the width of the pad) prior to being attached to the boot. The foam material may be held within two fabric pieces 16 and 16A (see FIG. 5) which form a complete container and take the wear away from the foam surface. The ends 16 may be extended as shown in FIG. 4 to permit stitching if desired.

As shown in FIG. 6, for inexpensive shoes, loafers and slippers, a quantity of plastic foam or foam adhesive may be adhesively flowed against the shoe rim, as at 21 and/or 22, to form projections without a fabric covering over it. The foam itself may be sticky, eliminating the necessity for a separate adhesive.

FIGS. 6 and 7 show three inserts applied to a shoe type of footwear without an extended upper portion. A first insert 20 is positioned at the instep junction. A second insert 21 is positioned around the rear portion of the shoe top. A third insert 22 is secured near the upper edge of the front portion of the upper. This arrangement of inserts, with or without a fabric or hardened cover, keeps the foot firmly engaged within the footwear and at the same time absorbs the play which otherwise may exist around the ankle. The result is a comfortable fit while retaining all the advantages of a watertight shoe.

While foam rubber has been indicated as the most desirable type of insert, many other foam-type plastic compositions may be used. It should be noted that all

the foam or sponge type materials contain many small air bubbles which make the material lighter than water. If the wearer of either the boots or shoes is submerged in water, the foam material can act as a floatation means and an aid in survival. This would be particularly useful for Navy personnel, Merchant Seamen, and others.

The embodiments of the invention in which an exclusive property or privilage is claimed are defined as follows:

1. Slip on footwear provided with a smooth curved bulging soft appendage covering the junction between the sloping top portion of the footwear and the vertical portion and extending a distance on each side of said junction whereby the rear portion of said footwear will be tightly but yieldingly held against the heel of a wearer so that relative movement between the footwear and the heel of the wearer will be eliminated, and wherein the bulging appendage is formed as a separate element and adhesively bonded to said footwear, and wherein the bulging appendage is covered with a tough wear resistant fabric, and wherein a ridge of spongy material is provided opposite to said junction, and wherein said appendage covering the junction point is spongy material which is hollowed out in a transverse direction to form substantially a rough right angle pad, said pad being approximately 6 inches long and approximately 4 inches in width, and said rear spongy material being just below the wearer's ankle bone and approximately 6 inches long and 2 inches wide.

2. Footwear as set forth in claim 1 wherein said footwear is a slip on fireman's rubber boot of the above knee type.

* * * * *

UNITED STATES PATENT OFFICE

CERTIFICATE OF CORRECTION

Patent No. 3,693,270 Dated September 26, 1972

Inventor(s) BRIAN L. MURRAY

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Patentee's address should read -- 6-02 Clintonville Street, Whitestone, New York 11357 --

Signed and sealed this 15th day of May 1973.

(SEAL)
Attest:

EDWARD M.FLETCHER,JR.
Attesting Officer

ROBERT GOTTSCHALK
Commissioner of Patents

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