### United States Patent [19]

#### Matsuda

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[54]	FOOTWEAR HAVING AN ACTIVE ORNAMENT				
[76]	Inventor:		inzaburo Matsuda, 15-6 Imado chome, Taito-ku, Tokyo, Japan		
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[58]	Field of S	earc	h 36/2.5 R, 2.5 E,		
			36/2.5 F, 29, 3 R, 3 B		
[56]		R	eferences Cited		
	UNI	TEL	STATES PATENTS		
1,942,	883 1/19	34	Schaffer 36/29		

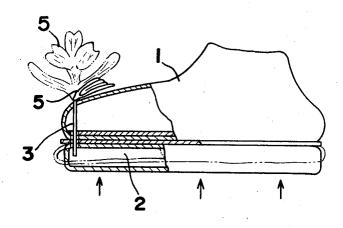
3,120,712	2/1964	Menken	36/29
FORE	EIGN PAT	TENTS OR APPLIC	ATIONS
301,002	11/1928	Great Britain	36/2.5 E

Primary Examiner—Patrick D. Lawson Attorney—Richard K. Stevens, Davidson C. Miller, Ellsworth H. Mosher et al.

#### [57] ABSTRACT

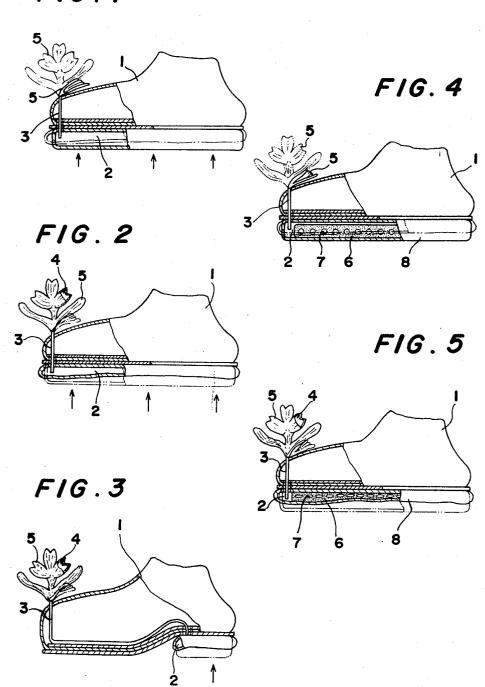
This invention relates to footwear having an active ornament comprising a footwear body, a sealed hollow space formed in the bottom portion of said footwear body, an active ornament having resilience and elasticity provided on the upper portion of said footwear body and formed therein with a sealed hollow space, and a conduit connecting said sealed hollow space in the bottom portion of said footwear body to said sealed hollow space in said ornament.

6 Claims, 7 Drawing Figures



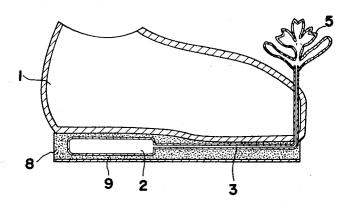
## SHEET 1 OF 2

FIG. 1

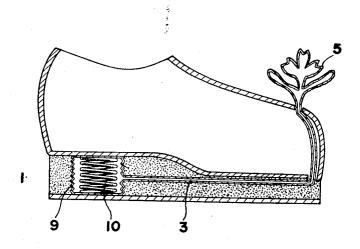


# SHEET 2 OF 2

F1G. 6



F1G. 7



2

#### FOOTWEAR HAVING AN ACTIVE ORNAMENT

This invention relates to footwear in general, and more particularly it is concerned with footwear of the type which has an active ornament.

The invention has as its object the provision of footwear having an active ornament, such for example as shoes or sandals, which is formed integrally therein with a hollow space in a bottom portion which hollow space is capable of varying its shape and at the same 10 time being readily restored to its original shape, such hollow space being maintained in communication with the active ornament which is resilient and elastic provided in a suitable position on the upper portion of the footwear through a conduit whereby the ornament can 15 be moved in a predetermined motion when pressure is applied to the hollow space by the body weight of the wearer to cause the same to vary its shape.

Other and additional objects as well as features and advantages of the invention will become evident from 20 the description set forth hereinafter when considered in conjunction with the accompanying drawings, in which:

FIG. 1 is a side view of the footwear comprising one embodiment of this invention, with certain parts being 25 cut out:

FIG. 2 is a side view of the footwear of FIG. 1 being shown in operation, with certain parts being cut out;

FIG. 3 is a side view of the footwear comprising a second embodiment of the invention, with certain parts 30 being cut out;

FIG. 4 is a side view of the footwear comprising a third embodiment of the invention, with certain parts being cut out;

FIG. 5 is a side view of the footwear of FIG. 4 being 35 shown in operation, with certain parts being cut out;

FIG. 6 is a vertical sectional side view of the footwear comprising a fourth embodiment of the invention; and FIG. 7 is a vertical sectional side view of the footwear comprising a fifth embodiment of the invention.

According to this invention, a footwear body 1 is formed in its bottom portion with a sealed hollow space 2 which is capable of varying its shape and at the same time being readily restored to its original shape. The sealed hollow space 2 is maintained in communication through a conduit 3 with an ornament 5 having a sealed space 4 which is made of a resilient material and provided on the upper portion of the footwear body.

According to the present invention, a hollow space 2 is formed as aforementioned in the bottom portion or sole of a footwear, such for example as shoes or sandals, which hollow space 2 is surrounded by walls made of rubber, sponge, synthetic resin or other resilient material and capable of being readily restored to its original shape, and the conduit or a pipe 3 made of rubber, vinyl or other like material connects the hollow space 2 to the ornament 5 provided on the upper portion of the footwear body, the ornament 5 being in the shape of an animal, flower or other object and made of rubber, vinyl or other like material which has resilience and elasticity and which is formed therein with a sealed hollow space 4, the ornament 5 being formed to be normally in a contracted position.

With this arrangement, the air contained in the hollow space 2 in the bottom portion of the footwear body is delivered through the conduit 3 to the hollow space 4 in the ornament 5 when pressure is applied thereto by the body weight of the wearer. For example, the air could be delivered to the sealed hollow space 4 in the ornament 5 which may be in the form of a flower in the bud, so that the flower made of rubber, vinyl or other like material would bloom at once. If the foot is raised and the no pressure is applied to the sole of the footwear, the sealed hollow space 2 would be immediately restored to its original shape and the air in the hollow space 4 in the ornament 5 would be drawn by suction to the hollow space 2, so that the flower would be returned to its bud form. It will be appreciated that the footwear according to this invention can attract the attention of a child. If a whistle is mounted in one portion of the conduit or tube 3, then the ornament will produce a sound while moving in a predetermined motion when the wearer of the footwear walks.

FIG. 3 shows a second embodiment of the invention which is formed only in the heel portion of the footwear with the sealed hollow space 2.

FIG. 4 and FIG. 5 show a third embodiment of the invention in which the bottom portion or sole of the footwear formed therein with the sealed hollow chamber 2 consists of a sponge body 6 of high resilience which is formed therein with a multitude of perforations 7 for permitting air to pass therethrough, and a cover 8 made of rubber, synthetic resin or other like material which provides an airtight seal to the outer periphery of the sponge body 6 and imparts proper hardness to the sole of the footwear.

The provision in the sole of the footwear comprising the sponge body 6 formed therein with a multitude of perforations 7 and sealed airtight in its periphery imparts proper resilience and hardness to the footwear, thereby improving the comfort of thewearer.

In the embodiment shown in FIG. 6, the footwear body 1, such for example as a shoe or sandal, has a sole which consists of a resilient body 8, such for example as rubber, sponge or other like material which has high resilience, which is formed therein with the hollow space 2 surrounded by the resilient material. The sealed chamber 2 may be enclosed by a bag 9 provided with a spring, bellows or other resilient means or formed therein with air supply ports.

FIG. 7 shows an embodiment in which the footwear body 1 has a coil spring 10 of high resilience built in the bag 9. The ornament can be made to move in a predetermined motion in this embodiment by supplying air thereto and withdrawing air therefrom by the action of the coil spring 10 in the bag 9 without being influenced by the resilience of the footwear body 1.

What I claim is:

1. Footwear having an active ornament comprising a footwear body, a sealed hollow space formed in the bottom portion of said footwear body, an active ornament having resilience and elasticity provided on the upper portion of said footwear body and formed therein with a sealed hollow space, and a conduit connecting said sealed hollow space in the bottom portion of said footwear body to said sealed hollow space in said ornament.

- 2. Footwear as set forth in claim 1 wherein in said sealed hollow space in the bottom portion of said footwear body a sponge body which is formed therein with a multitude of perforations is inserted.
- 3. Footwear as set forth in claim 1 wherein said sealed hollow chamber in the bottom portion of said footwear body is surrounded by a resilient body.

4. Footwear as set forth in claim 1 wherein said sealed hollow space in the bottom portion of said footwear body is enclosed by a bag.

5. Footwear as set forth in claim 4 wherein said bag

is in the form of a bellows and has a spring built therein.

6. Footwear as set forth in claim 1 wherein said conduit is provided in one portion thereof with a whistle.