



US 20120192451A1

(19) **United States**

(12) **Patent Application Publication**  
**FUJIKURA**

(10) **Pub. No.: US 2012/0192451 A1**

(43) **Pub. Date: Aug. 2, 2012**

(54) **FITNESS INSOLE**

(52) **U.S. Cl. .... 36/44**

(76) **Inventor: Kazumi FUJIKURA, Tokyo (JP)**

(57) **ABSTRACT**

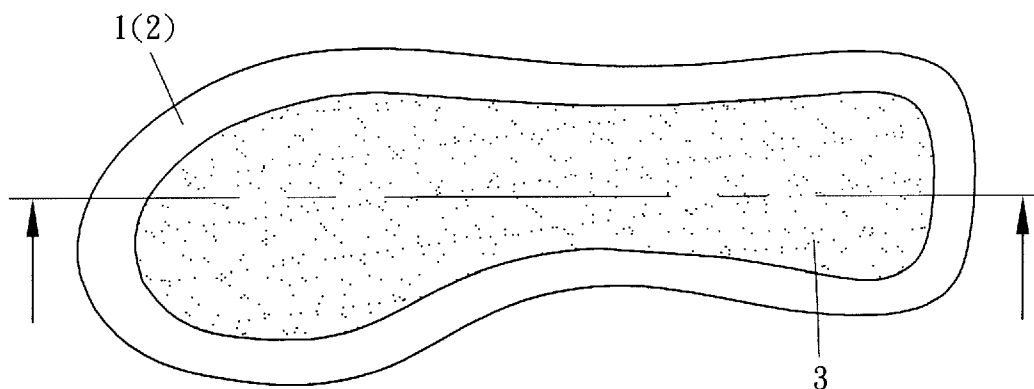
(21) **Appl. No.: 13/016,991**

(22) **Filed: Jan. 29, 2011**

**Publication Classification**

(51) **Int. Cl.**  
**A43B 13/40 (2006.01)**

A fitness insole is applicable to various sandals, beach shoes, slippers and general-purpose shoes. The fitness insole has a soft substrate deposited on an upper pad or between the upper pad and a lower pad, so that the fitness insole forces a wearer to make an effort to balance his/her body, thereby increasing the wearer's calorie consumption and facilitating the wearer's weight loss.



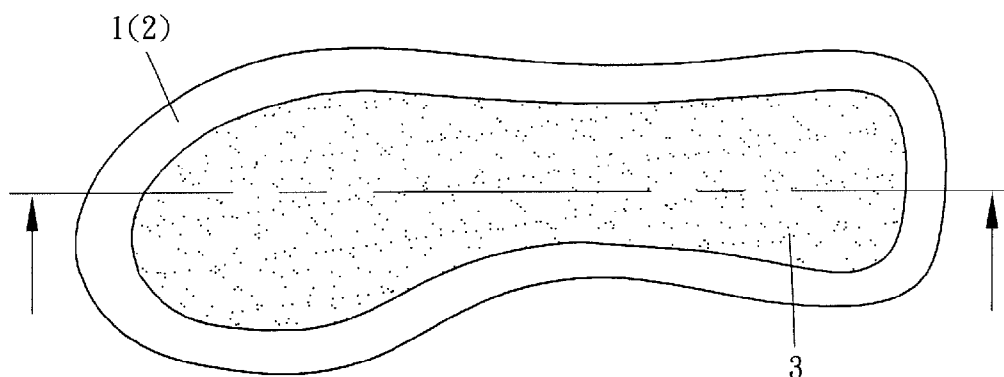


Fig. 1



Fig. 2

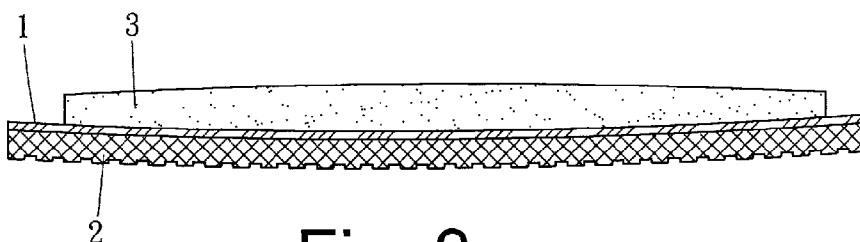


Fig. 3



Fig. 4

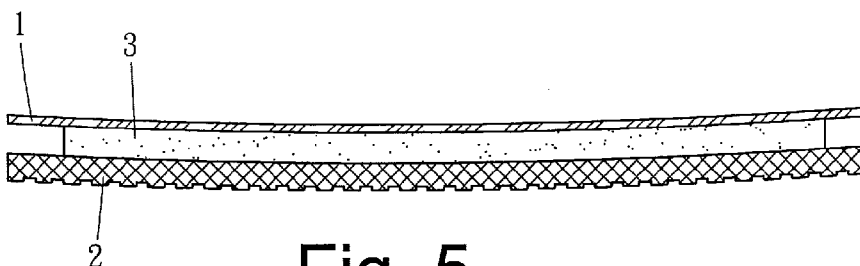
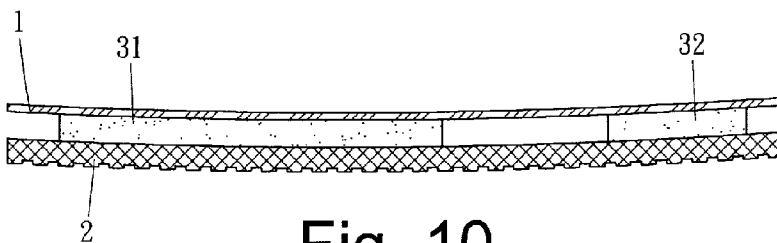
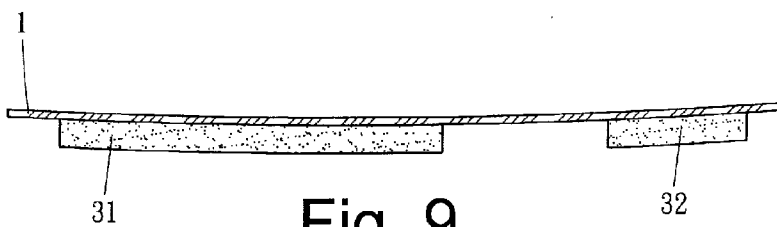
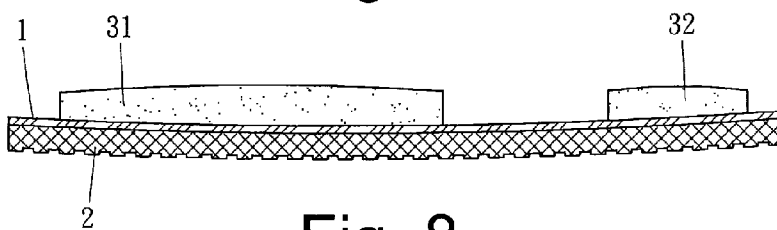
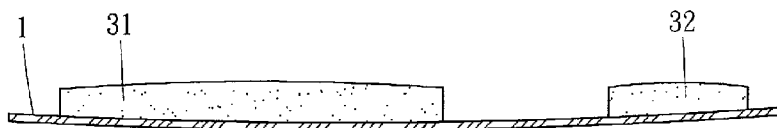
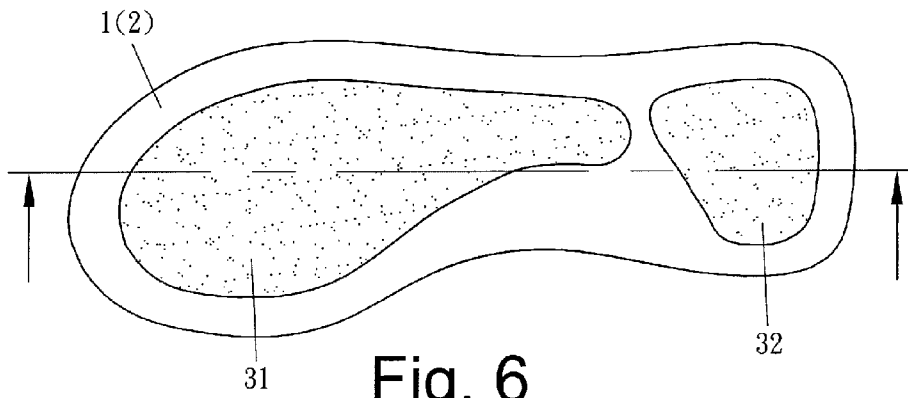


Fig. 5



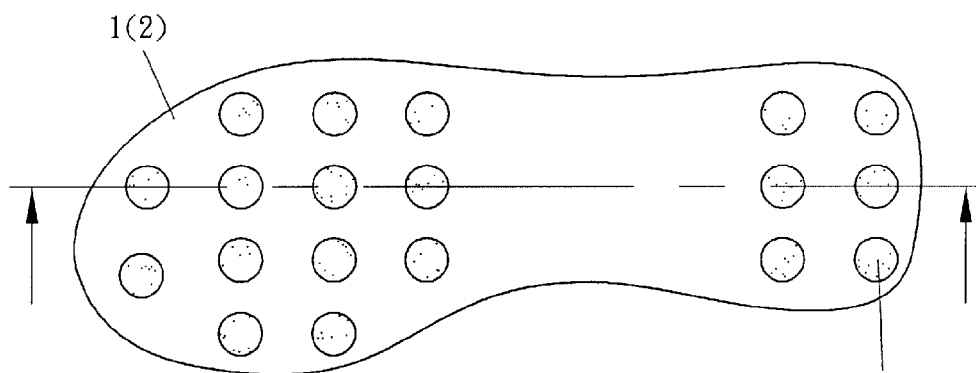


Fig. 11



Fig. 12

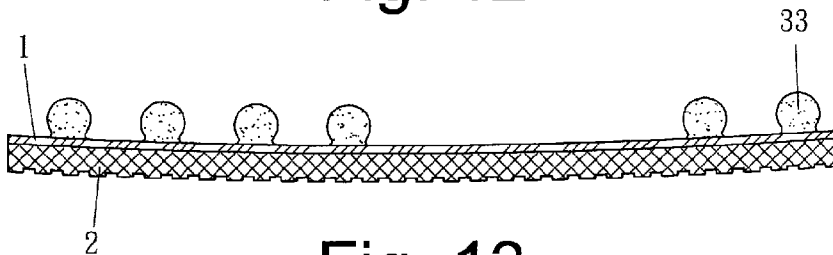


Fig. 13

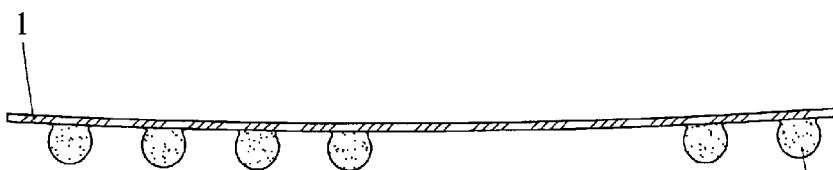


Fig. 14

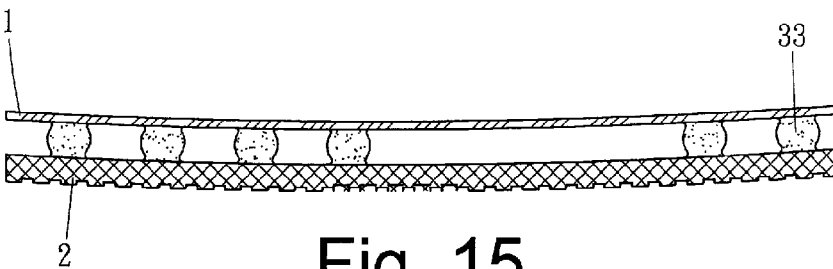


Fig. 15

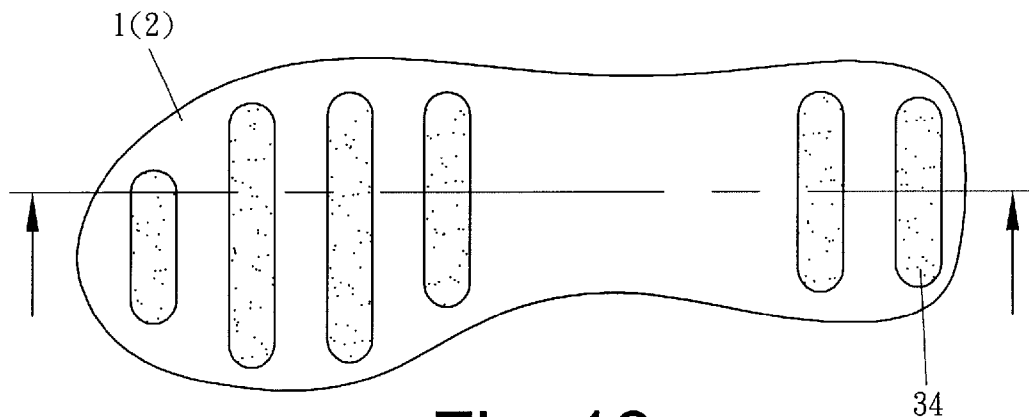


Fig. 16

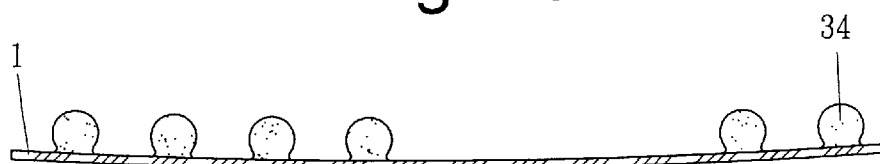


Fig. 17

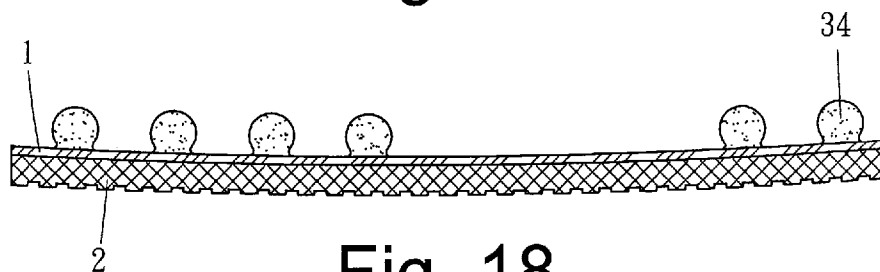


Fig. 18

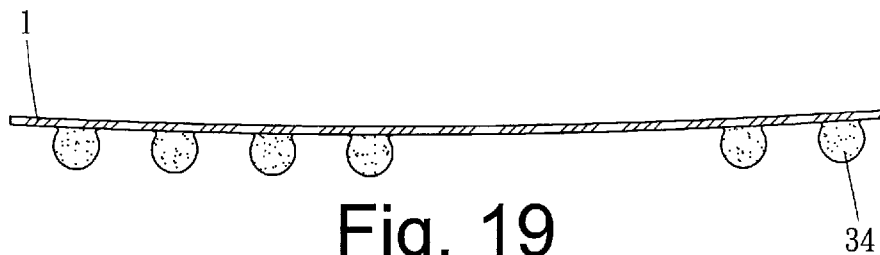


Fig. 19

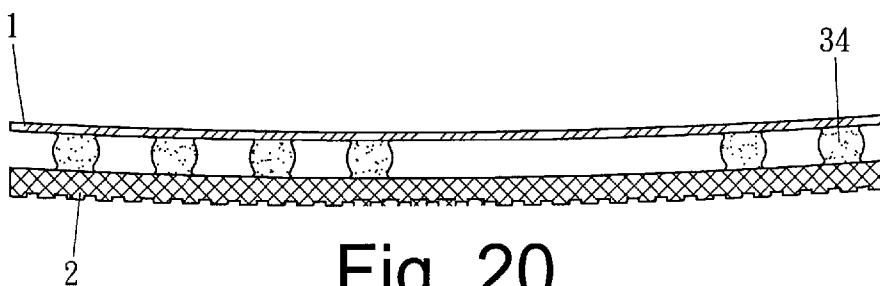


Fig. 20

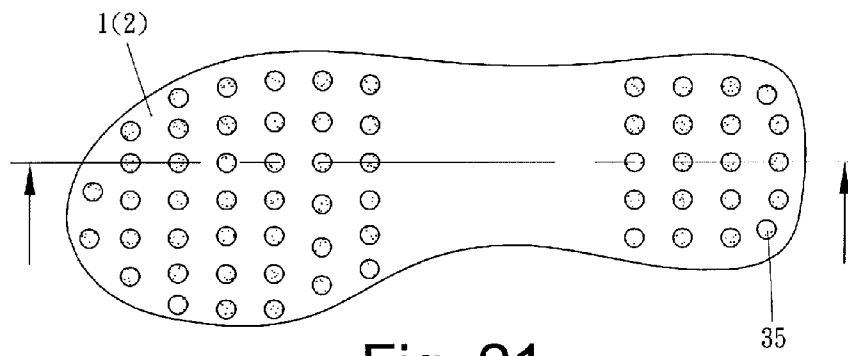


Fig. 21

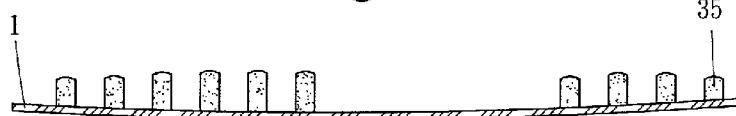


Fig. 22

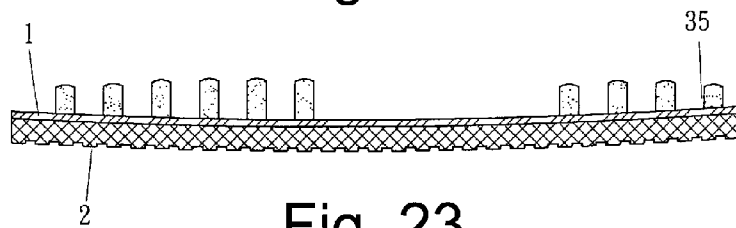


Fig. 23

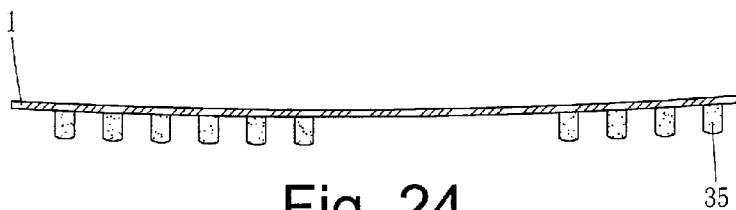


Fig. 24

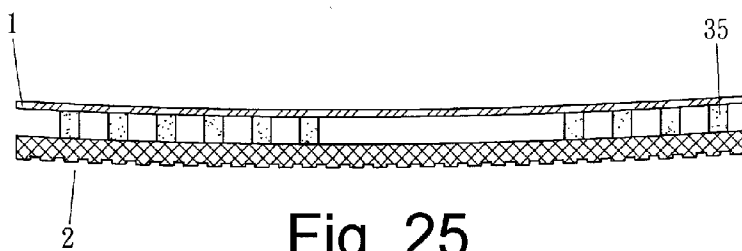


Fig. 25

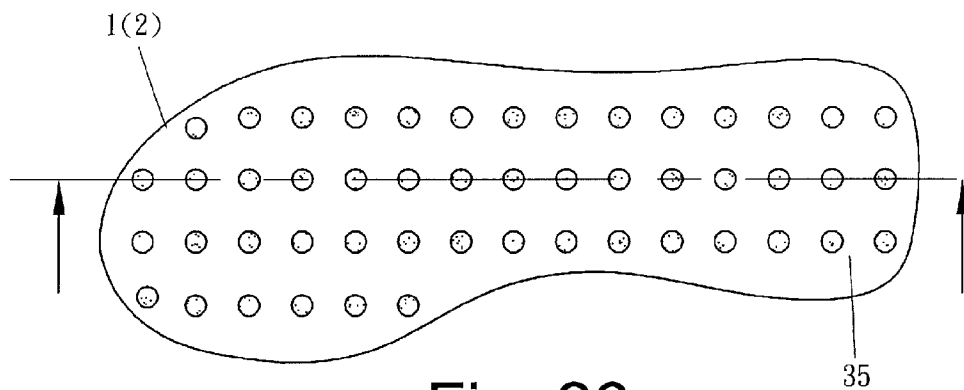


Fig. 26

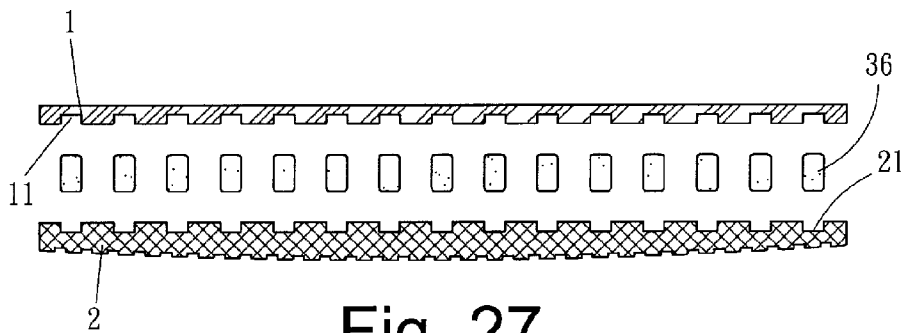


Fig. 27

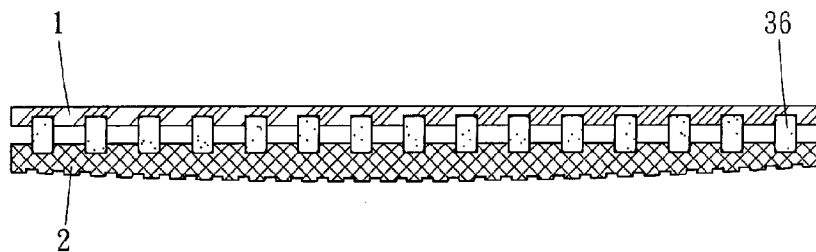


Fig. 28

**FITNESS INSOLE****BACKGROUND OF THE INVENTION**

**[0001]** 1. Technical Field

**[0002]** The present invention relates to an insole applicable to various sandals, beach shoes, slippers and general-purpose shoes for increasing calorie consumption and thereby facilitating weight loss of its wearer.

**[0003]** 2. Description of Related Art

**[0004]** Shoes are highly close to people for they lead our steps for quite a few hours every day. In early days, apart from the esthetic reason, the main task of shoes is to protect wearers' feet. Currently, shoe manufacturers have invested very much in research and development of shoes in terms of different functions with the attempt to endow shoes with capabilities in addition to their original esthetic and protective purposes. Consequently, there are shoes featuring massage treatment, air cushions and corrective effects.

**[0005]** With the improvement of living quality, while the modern people enjoy adequate and even excessive nutrition, overweight and weight loss have become the rising issues. It is known that diet control is nothing more than a temporary solution, and the real cure is to dissipate excessive calories as many as possible, so as to balance body energy and calorie consumption, there by maintaining mental and physical health as well as a proper shape.

**[0006]** In view that there is not a shoe product effective in helping its wearer to dissipate calories effectively and that it is desirable to have a shoe product helpful in consuming calories and thereby preventing overweight or facilitating weight loss, the inventor of the present invention took time to research and utilized his years of experience in shoe manufacturing to finally invent a fitness insole, which has a soft substrate that is deposited on an upper pad or between the upper pad and a lower pad. The soft substrate is configured to force a wearer to make an effort to balance his/her body, thereby increasing the wearer's calorie consumption and facilitating the wearer's weight loss.

**SUMMARY OF THE INVENTION**

**[0007]** As known, the existing sandals, beach shoes, slippers and general-purpose shoes support a wearer's body weight with an insole that contacts the wearer's foot. The insole is typically composed of an upper pad 1 and a lower pad 2. The upper pad 1 and lower pad 2 for receiving the foot are usually made of a material that is soft or is of appropriate hardness. The upper pad and lower pad are balanced to allow the wearer to stand on it with conformableness and balance.

**[0008]** The foregoing material that is soft or is of appropriate hardness includes: silicone, thermoplastic elastomer (TPE), thermoplastic rubber (TPR), thermoplastic polyurethane (TPU), polyurethane (PU), natural rubber (NR), nitrile-butadiene rubber (NBR) and ethylene vinyl acetate (EVA).

**[0009]** The present invention breaks through the traditional design and proposes an unbalanced structure, so that a wearer has to mobilize muscles throughout his/her body to counter the unbalance caused by the insole, with the hope to increase the wearer's calorie consumption and facilitate the wearer's weight loss.

**[0010]** To achieve this effect, the insole of the present invention comprises a soft substrate on the upper pad or between the upper pad and the lower pad, so as to unbalance a wearer and force the wearer to make an effort to balance

his/her body, thereby increasing the wearer's calorie consumption and facilitating the wearer's weight loss.

**BRIEF DESCRIPTION OF THE DRAWINGS**

**[0011]** The invention as well as a preferred mode of use, further objectives and advantages thereof will be best understood by reference to the following detailed description of illustrative embodiments when read in conjunction with the accompanying drawings, wherein:

**[0012]** FIG. 1 is a top view of a fitness insole according to one embodiment of the present invention;

**[0013]** FIG. 2 is a cross-sectional view of the fitness insole wherein a soft substrate is on an upper pad;

**[0014]** FIG. 3 is a cross-sectional view of the fitness insole wherein the soft substrate is on the upper pad that is combined with a lower pad;

**[0015]** FIG. 4 is a cross-sectional view of the fitness insole wherein the soft substrate is below the upper pad;

**[0016]** FIG. 5 is a cross-sectional view of the fitness insole wherein the soft substrate is below the upper pad that is combined with the lower pad;

**[0017]** FIG. 6 is a top view of a fitness insole according to another embodiment of the present invention;

**[0018]** FIG. 7 is a cross-sectional view of the fitness insole wherein a soft substrate is on an upper pad;

**[0019]** FIG. 8 is a cross-sectional view of the fitness insole wherein the soft substrate is on the upper pad that is combined with a lower pad;

**[0020]** FIG. 9 is a cross-sectional view of the fitness insole wherein the soft substrate is below the upper pad;

**[0021]** FIG. 10 is a cross-sectional view of the fitness insole wherein the soft substrate is below the upper pad that is combined with the lower pad;

**[0022]** FIG. 11 is a top view of a fitness insole according to another embodiment of the present invention;

**[0023]** FIG. 12 is a cross-sectional view of the fitness insole wherein block-like soft substrates are on an upper pad;

**[0024]** FIG. 13 is a cross-sectional view of the fitness insole wherein the block-like soft substrates are on the upper pad that is combined with a lower pad;

**[0025]** FIG. 14 is a cross-sectional view of the fitness insole wherein the block-like soft substrates are below the upper pad;

**[0026]** FIG. 15 is a cross-sectional view of the fitness insole wherein the block-like soft substrates are below the upper pad that is combined with the lower pad;

**[0027]** FIG. 16 is a top view of a fitness insole according to another embodiment of the present invention;

**[0028]** FIG. 17 is a cross-sectional view of the fitness insole wherein bar-like soft substrates are on an upper pad;

**[0029]** FIG. 18 is a cross-sectional view of the fitness insole wherein the bar-like soft substrates are on the upper pad that is combined with a lower pad;

**[0030]** FIG. 19 is a cross-sectional view of the fitness insole wherein the bar-like soft substrates are below the upper pad;

**[0031]** FIG. 20 is a cross-sectional view of the fitness insole wherein the bar-like soft substrates are below the upper pad that is combined with a lower pad;

**[0032]** FIG. 21 is a top view of a fitness insole according to still another embodiment of the present invention;

**[0033]** FIG. 22 is a cross-sectional view of the fitness insole wherein column-like soft substrates are on an upper pad;



[0034] FIG. 23 is a cross-sectional view of the fitness insole wherein the column-like soft substrates are on the upper pad that is combined with a lower pad;

[0035] FIG. 24 is a cross-sectional view of the fitness insole wherein the column-like soft substrates are below the upper pad;

[0036] FIG. 25 is a cross-sectional view of the fitness insole wherein the column-like soft substrates are below the upper pad that is combined with a lower pad;

[0037] FIG. 26 is a top view of a fitness insole according to yet another embodiment of the present invention;

[0038] FIG. 27 is an exploded cross-sectional view of the fitness insole wherein independent column-like soft substrates are between an upper pad and a lower pad; and

[0039] FIG. 28 is an assembled cross-sectional view of the fitness insole wherein the independent column-like soft substrates are between an upper pad and a lower pad

DETAILED DESCRIPTION OF THE INVENTION

[0040] The present invention provides a fitness insole workable with various sandals, beach shoes, slippers or general-purpose shoes. Referring to FIG. 1 through FIG. 5, the fitness insole has an upper pad 1 with a soft substrate 3 attached thereon or therebelow, so that when the upper pad 1 is combined with a lower pad 2, the fitness insole brings a wearer unbalance and the wearer thus has to make an effort to balance his/her body, thereby increasing calorie consumption and facilitate weight loss.

[0041] The soft substrate 3 is made of silicone, thermoplastic elastomer (TPE), thermoplastic rubber (TPR), thermoplastic polyurethane (TPU), polyurethane (PU), natural rubber (NR), nitrile-butadiene rubber (NBR) or ethylene vinyl acetate (EVA).

[0042] Referring to FIG. 6 through FIG. 10, the fitness insole of the present invention may alternatively have the soft substrate 3 on or below the upper pad 1 shaped as a front soft substrate 31 and a rear soft substrate 32.

[0043] Referring to FIG. 11 through FIG. 15, the fitness insole of the present invention may alternatively have the soft substrate 3 on or below the upper pad 1 shaped as a plurality of block-like soft substrates 33.

[0044] Referring to FIG. 16 through FIG. 20, the fitness insole of the present invention may alternatively have the soft substrate 3 on or below the upper pad 1 shaped as a plurality of bar-like soft substrates 34.

[0045] Referring to FIG. 21 through FIG. 25, the fitness insole of the present invention may alternatively have the soft

substrate 3 on or below the upper pad 1 shaped as a plurality of column-like soft substrates 35.

[0046] Referring to FIG. 26 through FIG. 28, the fitness insole of the present invention may alternatively have the soft substrate 3 shaped as a plurality of replaceable independent column-like soft substrates 36, while a downward facing surface of the upper pad 1 and an upward facing surface of the lower pad 2 are both formed with sockets 11 and 21 for receiving the independent column-like soft substrates 36, so that the independent column-like soft substrates 36 can be received and positioned between the upper pad 1 and the lower pad 2.

What is claimed is:

1. A fitness insole applicable to various sandals, beach shoes, slippers and general-purpose shoes, the fitness insole having a soft substrate 3 deposited on or below an upper pad 1, so that when the upper pad 1 is combined with a lower pad 2, the fitness insole unbalances a wearer and thereby forces the wearer to make an effort to balance his/her body, thereby increasing the wearer's calorie consumption and facilitating the wearer's weight loss.

2. The fitness insole of claim 1, wherein the soft substrate 3 is made of silicone, thermoplastic elastomer (TPE), thermoplastic rubber (TPR), thermoplastic polyurethane (TPU), polyurethane (PU), natural rubber (NR), nitrile-butadiene rubber (NBR) or ethylene vinyl acetate (EVA).

3. The fitness insole of claim 1, wherein the soft substrate 3 deposited on or below the upper pad 1 is shaped as a front soft substrate 31 and a rear soft substrate 32.

4. The fitness insole of claim 1, wherein the soft substrate 3 deposited on or below the upper pad 1 is shaped as a plurality of block-like soft substrates 33.

5. The fitness insole of claim 1, wherein the soft substrate 3 deposited on or below the upper pad 1 is shaped as a plurality of bar-like soft substrates 34.

6. The fitness insole of claim 1, wherein the soft substrate 3 deposited on or below the upper pad 1 is shaped as a plurality of column-like soft substrates 35.

7. The fitness insole of claim 1, wherein the soft substrate 3 is shaped as a plurality of replaceable independent column-like soft substrates 36, while a downward facing surface of the upper pad 1 and an upward facing surface of the lower pad 2 are both formed with sockets 11, 21 for receiving the independent column-like soft substrates 36, so that the independent column-like soft substrates 36 are received and positioned between the upper pad 1 and the lower pad 2.

\* \* \* \* \*