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(19) **United States**(12) **Patent Application Publication**
Kim(10) **Pub. No.: US 2004/0040181 A1**(43) **Pub. Date: Mar. 4, 2004**(54) **GOLF SHOE****Publication Classification**(76) Inventor: **Jinho Kim**, Keyang-ku (KR)(51) **Int. Cl.⁷** **A43B 5/00**(52) **U.S. Cl.** **36/127; 36/144**Correspondence Address:
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ALEXANDRIA, VA 22314(57) **ABSTRACT**

Disclosed is a pair of golf shoes, each comprising an outsole provided with a plurality of spikes protruded from a lower surface of the outsole, in which the lower surface of the outsole is inclined from an outer edge of the outsole to an inner edge of the outsole so that the spikes at the inner edge of the outsole have a height larger than that of the spikes at the outer edge of the outsole, and the spikes respectively have heights so that an upper surface of the outsole is substantially parallel with a ground. The golf shoes allow golfer's feet to be stably mounted on the surface of a green, thereby assisting a golfer in taking a stable position during address and swing motions.

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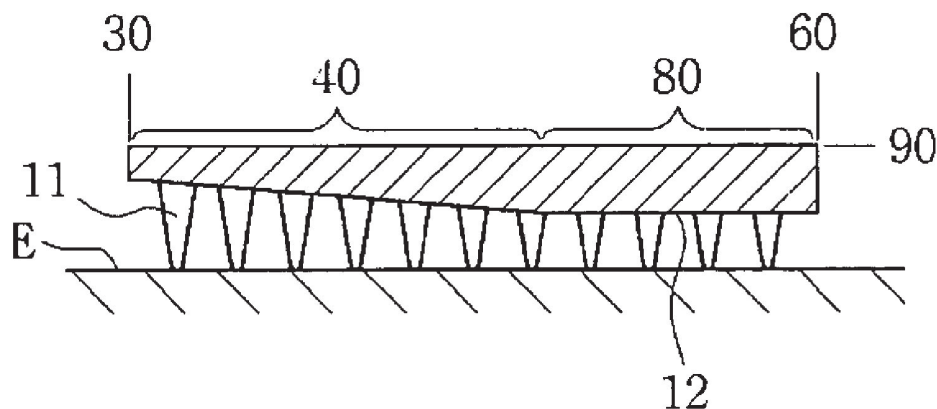


FIG. 1

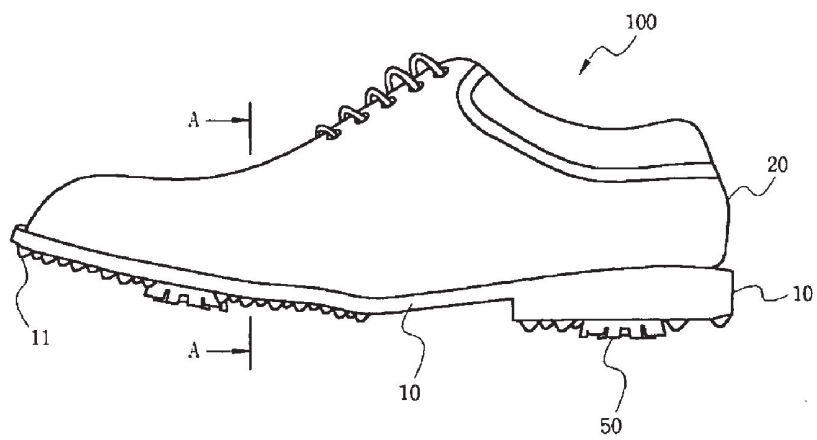


FIG. 2

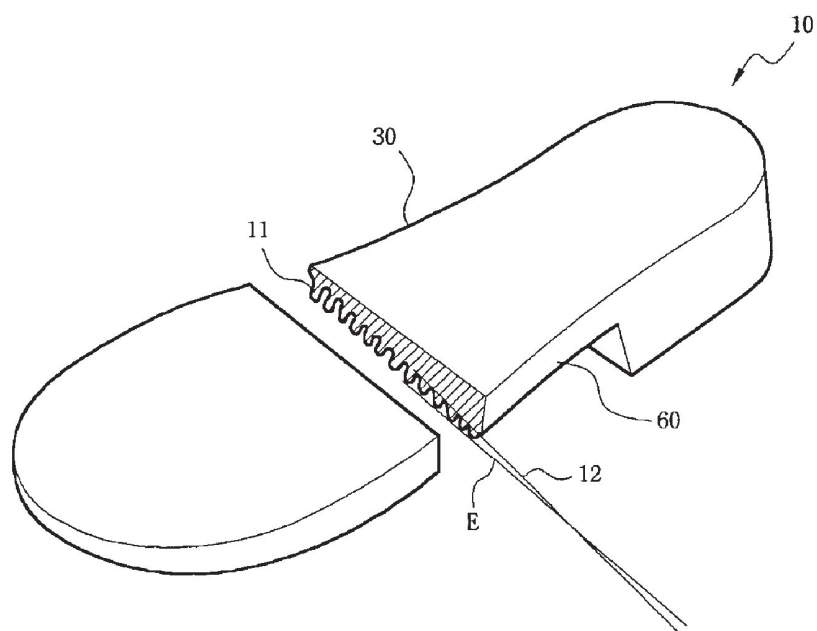


FIG. 3a

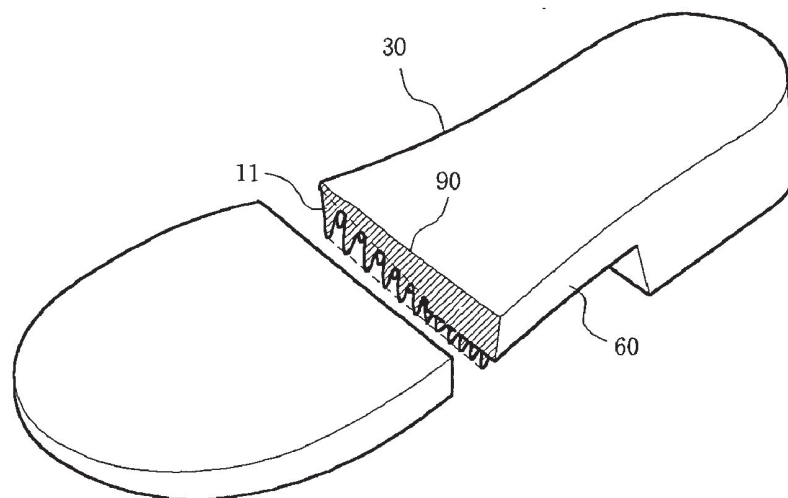


FIG. 3b

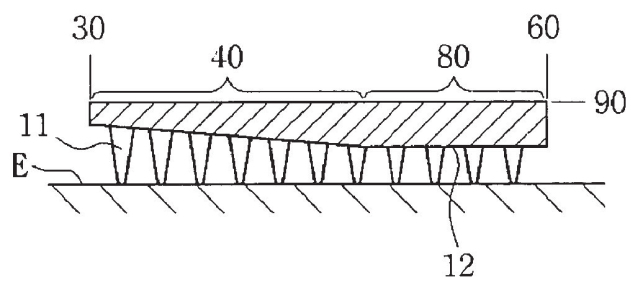


FIG. 4a

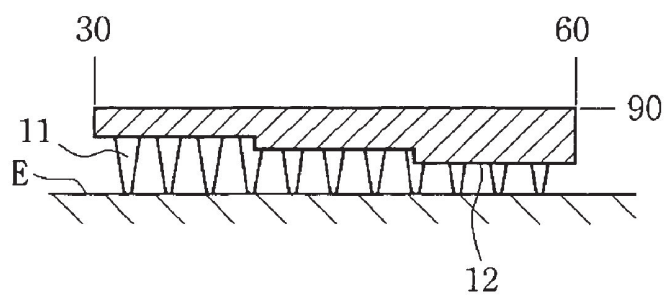


FIG. 4b

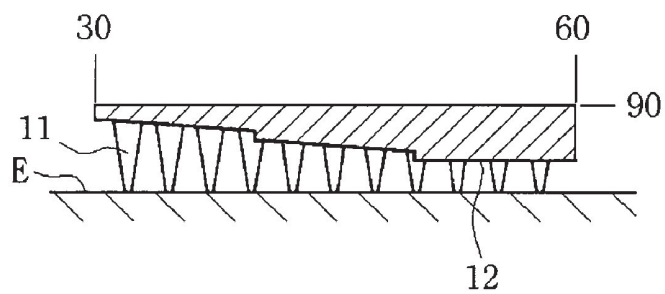


FIG. 4c

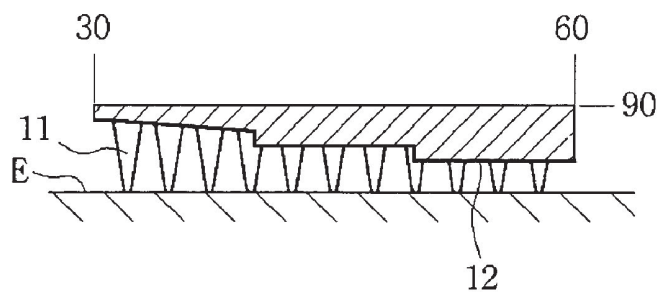


FIG. 5a

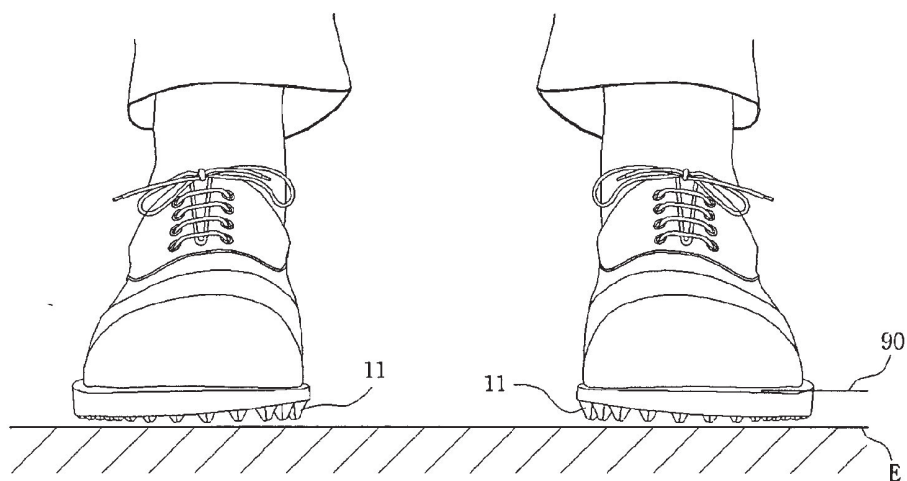
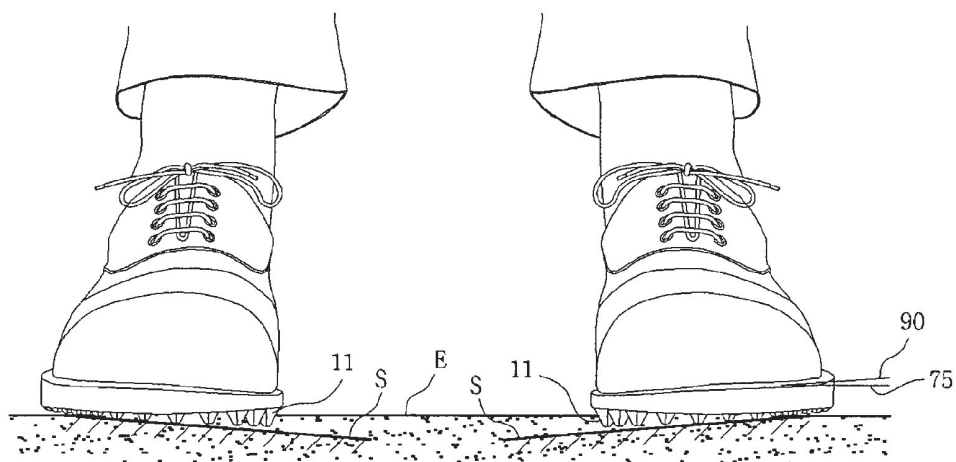


FIG. 5b



GOLF SHOE

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The present invention relates to a golf shoe, and more particularly to a pair of golf shoes, each provided with an outsole having a lower surface inclined from its outer edge to its inner edge so that the outer edge has a thickness larger than that of the inner edge.

[0003] 2. Description of the Related Art

[0004] The game of golf is a sport for hitting a golf ball on a golf course with a club so as to insert the golf ball into a given hole. Golfers contend for superiority by means of the number of pars, i.e., the number of times the ball is hit, until the golf ball is inserted into the given hole.

[0005] The golf course is standardized so that it includes a variety of terrains with a vast area of 660,000~1,000,000 h, such as fields, hills, forests, etc. Specifically, the terrains include teeing grounds in which golfers start the hitting of the ball, fairways, roughs, bunkers, water hazards, greens, holes, etc. The golfers walk on a lawn for most of the time during the game.

[0006] In order to obtain a good result in a golf game, various techniques are required. A swing motion, in which a golfer hits a golf ball on the ground with a club moving along a circular arc with a constant path in the direction along the distance and orientation desired, is very important to the overall performance of the golfer. That is, the golf swing motion is the circular movement performed by a golfer's arm with the club. During the golf swing motion, the golf ball arranged on the path of the circular arc is hit by the golfer using a clubhead.

[0007] The path of the circular arc of the swing motion is parallel with a hitting line of the golf ball. Here, the golfer poses his/her stance on the ground by setting footholds. A performance, in which the golfer poses his/her stance on the ground and places the club on the ground, is referred to as an address motion.

[0008] The swing motion is a consistent movement for hitting the golf ball with the club in a straight line to a distance using the centrifugal force. In order to maximize the centrifugal force, it is required that the golfer efficiently twists and untwists his/her waist. Here, the proper timing and stable stance are important in the swing motion.

[0009] Golfers require golf shoes to perform the game of golf on the green. Golf shoes are typically characterized by a number of spikes extending from the lower surfaces of soles of the shoes, so that the golfer in the golf shoes is prevented from sliding during the rounding (mainly, at the teeing ground and fairway). Conventionally, the spikes extending from the lower surfaces of soles of the golf shoes have the same height.

[0010] In a preparatory position of the golfer at the teeing ground, i.e., during the address motion, the weight of the golfer is concentrated on the center of the inner edges of the soles of the feet. Such a position prevents the lower part of the golfer's body, i.e., golfer's legs from collapsing, thereby allowing the golfer to maintain the balance of the body in the backswing or downswing phase, so that the golfer hits the

golf ball with an excellent quality by maintaining his/her proper swing balance. In case that the golfer wears the conventional golf shoes during the rounding, the soles of the feet are pushed toward the outer edges of the golf shoes, thereby agitating the legs of the golfer. Then, the path of the circular arc of the swing motion collapses, and the swing position of the golfer is scattered. Particularly, in case that the golfer physically positions their knees with a large space therebetween, this problem becomes severer.

[0011] Accordingly, there are required a pair of golf shoes for stably mounting golfer's feet on the ground so that a golfer can take a stable stance position.

SUMMARY OF THE INVENTION

[0012] Therefore, the present invention has been made in view of the above problems, and it is an object of the present invention to provide a pair of golf shoes, which assist a golfer in concentrating his/her proper weight balance on the inner edges of soles of feet during the address and swing motions, thus allowing the golfer to perform the swing motion while maintaining his/her stable position.

[0013] It is another object of the present invention to provide a pair of golf shoes, which allow a golfer to stably maintain the lower part of his/her body on the surface of a green during the address and swing motions, thus assisting the golfer in swinging a club along a correct path and to correctly impact a golf ball by means of the swing of the club.

[0014] In accordance with the present invention, the above and other objects can be accomplished by the provision of a pair of golf shoes, each comprising an outsole provided with a plurality of spikes protruded from a lower surface of the outsole, wherein: bottoms of the spikes (an upper surface of the outsole) are substantially parallel with the ground; the lower surface of the outsole is inclined so that the thickness of the lower surface of the outsole is decreased from its outer edge to its inner edge; and spikes at the inner edge of the outsole have a height larger than that of the spikes at the outer edge of the outsole.

[0015] That is, the lower surface of the outsole is inclined so that the thickness of the lower surface of the outsole is decreased from the outer edge to the inner edge, the spikes protruded from the lower surface of the outsole have different heights at outer and inner edges of the outsole (the height of spikes at the inner edge is larger than the height of the spikes at the outer edge), and the bottoms of the spikes are substantially parallel with the ground, thereby allowing a golfer in the golf shoes to concentrate his/her weight during the address and swing phases on the inner edges of soles of feet and assisting the golfer in performing a stable swing motion.

[0016] Preferably, the lower surface of the outsole may be stepped upward from the outer edge to the inner edge.

BRIEF DESCRIPTION OF THE DRAWINGS

[0017] The above and other objects, features and other advantages of the present invention will be more clearly understood from the following detailed description taken in conjunction with the accompanying drawings, in which:

[0018] **FIG. 1** is a side view of a golf shoe in accordance with one embodiment of the present invention;

[0019] FIG. 2 is an exploded perspective view of an outsole of the golf shoe, illustrating a cross section taken along the line A-A of FIG. 1;

[0020] FIG. 3a is an exploded perspective view of an outsole of a golf shoe in accordance with another embodiment of the present invention;

[0021] FIG. 3b is a cross-sectional view of the outsole of the golf shoe in accordance with another embodiment of the present invention;

[0022] FIGS. 4a to 4c are cross-sectional views of outsoles of golf shoes in accordance with other embodiments of the present invention, respectively;

[0023] FIG. 5a is a schematic view illustrating feet of a golfer in a pair of the golf shoes of the present invention standing on a hard ground; and

[0024] FIG. 5b is a schematic view illustrating feet of a golfer in a pair of the golf shoes of the present invention standing on a green.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0025] Now, preferred embodiments of the present invention will be described in detail with reference to the annexed drawings.

[0026] FIG. 1 is a side view of a golf shoe in accordance with one embodiment of the present invention, and FIG. 2 is an exploded perspective view of an outsole of the golf shoe, illustrating a cross section taken along the line A-A of FIG. 1. FIG. 3a is an exploded perspective view of an outsole of a golf shoe in accordance with another embodiment of the present invention, and FIG. 3b is a cross-sectional view of the outsole of the golf shoe in accordance with another embodiment of the present invention. FIGS. 4a to 4c are cross-sectional views of outsoles of golf shoes in accordance with other embodiments of the present invention, respectively. FIG. 5a is a schematic view illustrating feet of a golfer in a pair of the golf shoes of the present invention standing on a hard ground, and FIG. 5b is a schematic view illustrating feet of a golfer in a pair of the golf shoes of the present invention standing on a green.

[0027] As shown in FIGS. 1 and 2, the golf shoe 100 in accordance with one embodiment of the present invention comprises an upper leather portion 20 and an outsole 10. The outsole 10 includes a lower surface 12 inclined from its outer edge 60 to its inner edge 30 so that the outer edge 60 has a thickness larger than that of the inner edge 30. Except for the outsole 10 including the inclined lower surface 12, the golf shoe 100 of the present invention is substantially the same as conventional golf shoes.

[0028] That is, the golf shoe 100 of the present invention comprises the upper leather portion 20 for accommodating a golfer's foot, and the outsole 10 attached to the lower surface of the upper leather portion 20 and adapted to contact the ground. Further, the golf shoe 100 further comprises an insole (not shown) arranged on the bottom of the inside of the upper leather portion 20.

[0029] Generally, the outsole 10 includes an intermediate sole and an outer sole. Here, the outsole 10 denotes the intermediate sole and the outer sole.

[0030] A plurality of spikes 11 are protruded from the lower surface 12 of the outsole 10 so that the golf shoe 100 is firmly gripped on the ground. The spikes 11 are integrally formed with the outsole 10. As shown in FIGS. 1 and 2, a plurality of cleat-shaped spikes 50 are also protruded from the lower surface 12 of the outsole 10. The cleat-shaped spikes 50 may be integrally formed with the outsole 10, or detachably attached to the outsole 10 using bolts, etc.

[0031] Hereinafter, the term "spikes" disclosed in the description and the accompanying claims include the spikes 11 integrally formed with the outsole 10, and the cleat-shaped spikes 50 integrally formed with the outsole 10 or detachably attached to the outsole 10.

[0032] Here, the lower surface 12 of the outsole 10 is inclined from the outer edge 60 to the inner edge 30. That is, the outsole 10 at the outer edge 60 has a thickness larger than that of the outsole 10 at the inner edge 30.

[0033] However, the variation in the height of the spikes 11 and 50 protruded from the lower surface 12 of the outsole 10 is inversely proportional to the variation in the thickness of the outsole 10. That is, the height of the spikes 11 and 50 at the outer edge 60 of the outsole 10 with the larger thickness is smaller than the height of the spikes 11 and 50 at the inner edge 30 of the outsole 10 with the smaller thickness. Accordingly, when the golf shoe 100 contacts a ground (E in FIG. 3b and FIGS. 4a to 4c), the bottoms of the spikes 11 and 50 are substantially parallel with the ground E.

[0034] Such a configuration of the spikes 11 and 50 protruding from the outsole 10 assists a golfer in maintaining his/her stable stance on the green.

[0035] During the address position, the balance of weight of the golfer's body is concentrated on the inner edges of the soles of feet. The golf shoe 100 of the present invention with the above configuration of the spikes 11 and 50 on the outsole 10 assists the golfer in concentrating his/her weight balance on the inner edges of the soles of the feet during the address position, thus preventing the scattering of the lower portion of the golfer's body and maintaining his/her weight balance in backswing or downswing motion. Accordingly, it is possible to allow the golfer to maintain his/her stable swing balance, and to hit a golf ball in the direction along the distance and orientation desired.

[0036] FIG. 5b is a schematic view illustrating feet of a golfer in a pair of the golf shoes 100 of the present invention standing on the ground E of a green. When the golfer in a pair of the golf shoes 100 of the present invention stands on the ground E of the green, since the height of the spikes 11 at the inner edge 30 of the outsole 10 is larger than that of the spikes 11 at the outer edge 60 of the outsole 10, the spikes 11 at the inner edge 30 penetrate the ground E of the green more deeply than the spikes 11 at the outer edge 60, and has a holding power stronger than the holding power of the spikes 11 at the outer edge 60. Thereby, both legs of the golfer in the stance position are close to each other toward the inner edges of the soles of the feet, thus allowing the weight balance of the golfer's body to be concentrated on the inner edges of the soles of the feet.

[0037] Accordingly, the golfer can maintain his/her stable position during and after the swing motion. That is, it is possible to minimize the scattering of the position.

[0038] FIG. 5a is a schematic view illustrating feet of a golfer in a pair of the golf shoes 100 of the present invention standing on a hard ground. With reference to FIG. 5a, when the golfer in a pair of the golf shoes 100 of the present invention walks on the hard ground such as a paved road, since the bottoms of the spikes 11 are substantially parallel with the ground E, the golfer in the golf shoes 100 of the present invention can stably walk on the hard ground in the same manner as the application of conventional golf shoes.

[0039] In FIGS. 5a and 5b, the reference numeral 90 denotes a line representing the level of the golfer's feet being parallel with the ground E, and the reference numeral 75 denotes a line being parallel with a line (S) representing the level of the bottoms of the spikes 11.

[0040] The above-described outsole 10 of the golf shoe 100 is made of synthetic rubber, or synthetic resin such as ABS (Acrylonitrile-butadiene styrene), polycarbonate, etc.

[0041] FIGS. 3a and 3b illustrate an outsole of a golf shoe in accordance with another embodiment of the present invention. In this embodiment, the height of the spikes 11 at the inner edge 30 of the outsole 10 is larger than that of the spikes 11 at the outer edge 60 of the outsole 10. However, the lower surface 12 of the outsole 10 is not gradually inclined from the outer edge 60 to the inner edge 30, but includes a horizontal plane 80 extended from the outer edge 60, and an inclined plane 40 extended from the end of the horizontal plane 80.

[0042] FIGS. 4a to 4c illustrate outsides of golf shoes in accordance with other embodiments of the present invention, respectively. With reference to FIGS. 4a to 4c, the lower surface 12 of the outsole 10 is formed in a stepwise shape. More specifically, in FIG. 4a, the lower surface 12 of the outsole 10 includes horizontal planes, thereby having the stepwise shape. In FIG. 4b, the lower surface 12 of the outsole 10 includes inclined planes, thereby having the stepwise shape. In FIG. 4c, the lower surface 12 of the outsole 10 includes a horizontal plane and an inclined plane, thereby having the stepwise shape. The above three embodiments are identical, in that the height of the spikes 11 at the inner edge 30 of the outsole 10 is substantially larger than the height of the spikes 11 at the outer edge 60 of the outsole 10, and the line 90 representing the level of the golfer's foot and the bottoms of the spikes 11 are substantially parallel with the ground E.

[0043] As apparent from the above description, a pair of golf shoes in accordance with the present invention allows

golfer's legs to be close to each other during a stance position, thereby concentrating the weight balance of the golfer on the inner edges of soles of his/her feet. Accordingly, the golfer in the golf shoes maintains his/her stable position during and after the swing motion so that the scattering of the position is minimized.

[0044] Further, a pair of the golf shoes allows the golfer to correctly hit (impact) a golf ball and to strengthen his/her force imposed on the swing motion, and prevents the soles of the golfer's feet from being pushed toward the outer edges of the outsides of the golf shoes.

[0045] Moreover, in case that the golfer in the golf shoes of the present invention walks on a hard ground such as a paved road, the bottoms of spikes protruding from the outsides of the golf shoes are parallel with the ground. Accordingly, the golfer can walk effectively in the same manner as the use of the conventional golf shoes.

[0046] Although the preferred embodiments of the present invention have been disclosed for illustrative purposes, those skilled in the art will appreciate that various modifications, additions and substitutions are possible, without departing from the scope and spirit of the invention as disclosed in the accompanying claims. For example, the inclined plane may be formed only at the front portion of the outsole, or only at parts of the front and/or rear portions of the outsole.

What is claimed is:

1. A pair of golf shoes, each comprising an outsole provided with a plurality of spikes protruded from a lower surface of the outsole, wherein:

the spikes at an inner edge of the outsole have a height larger than that of the spikes at an outer edge of the outsole;

the lower surface of the outsole is inclined so that the thickness of the lower surface of the outsole is decreased from the outer edge to the inner edge; and

an upper surface of the outsole is substantially parallel with a ground.

2. The pair of golf shoes as set forth in claim 1,

wherein the lower surface of the outsole is stepped upward from the outer edge to the inner edge.

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