

[54] SHOE ATTACHMENT FOR GOLFERS

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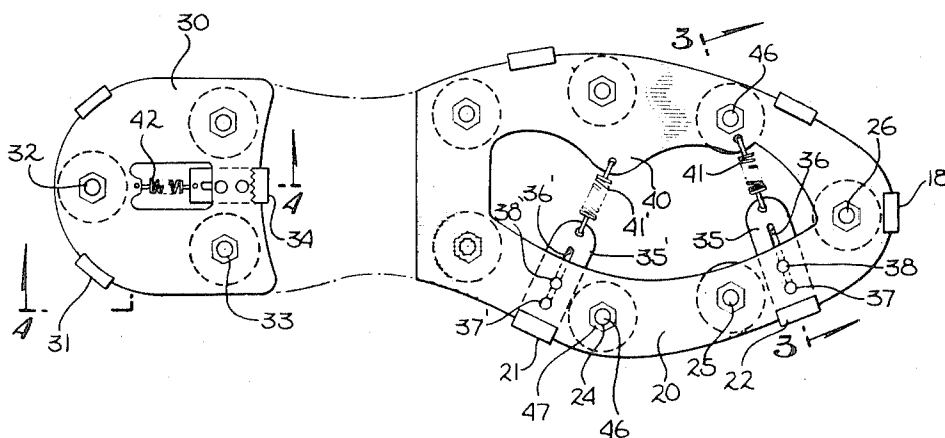
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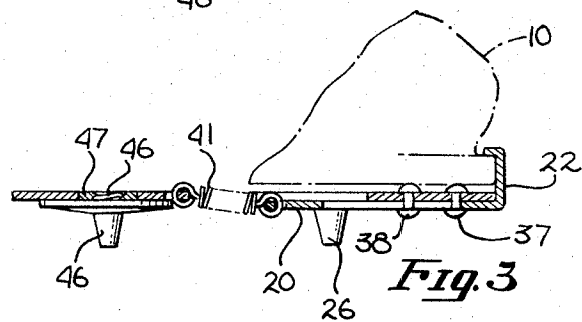
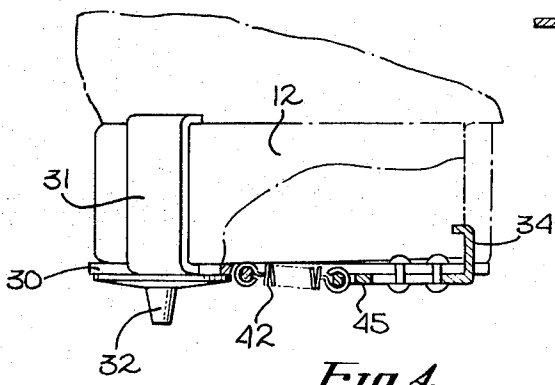
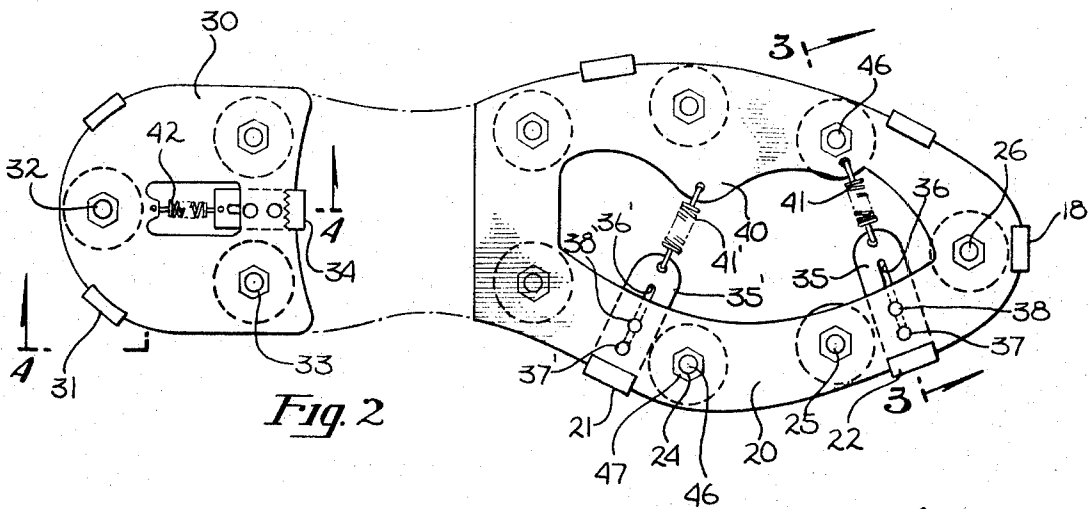
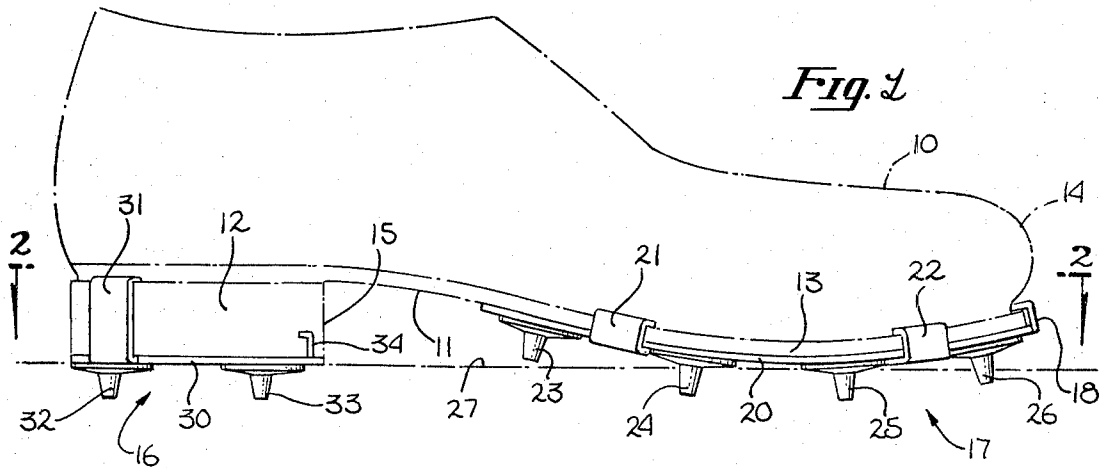
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[57] ABSTRACT

An attachment is disclosed herein for removably securing a pair of plates to the heel and sole of conventional street shoes for converting the shoes for golf use. Each plate includes edge grippers for gripping the peripheral sides of the heel and sole respectively and a plurality of downwardly depending spikes extending about the edge marginal region of each plate so that the spikes are located about the corresponding edge marginal region of the heel and sole. Selected ones of the edge grippers are resiliently carried on the plates to facilitate attachment and detachment. The selected resilient grippers are yieldably biased by resilient devices to forcibly grip with a portion of the respective heel and sole edge.

7 Claims, 4 Drawing Figures





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SHOE ATTACHMENT FOR GOLFERS

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to accessories for golf players and, more particularly, to a spiked attachment plate detachably mountable to the heel and sole of street shoes.

2. Brief Description of the Prior Art

In the past, it has been the conventional practice of golfers to use special golf shoes having a multiplicity of spikes downwardly projecting from the underside of the soles of shoes. Normally, each of the spikes is directly carried on the sole and heel of each shoe so that the golfer's feet may be readily engaged with the ground surface preparatory to swinging a golf club. The use of spiked shoes also assists the golfer in traversing the ground between holes on the golf course. Normally, the terrain of a golf course is heavily grassed and the sod is generally soft so that the use of street shoes is not conducive to the player's performance. Obviously, smooth soled street shoes would have a tendency to slip on the lawn or grass of the golf course terrain and, in many instances, the lawn is wet which further increases the hazard of using smooth soled shoes.

Difficulties have been encountered when using conventional golf shoes having spikes integrally secured to the soles of the shoes which stem largely from the fact that the player must purchase special golf shoes for use during his game. Furthermore, the player must remove his street shoes and then place the golf shoes on his feet in preparation for playing. This procedure necessitates a storage area or space for leaving the street shoes while engaged in the play of the game. Therefore, a long standing need is evident for a means suitably attachable to street shoes which will extend the use of street shoes to the playing of golf.

In some ancillary fields such as the logging industry and in the performance of telephone pole repair work, cleating devices are provided which include spikes carried on a bracing device so that the device may be coupled to the feet and legs of the wearer without necessitating special shoes. However, these devices are cumbersome since they engage the lower extremity of the leg and generally require straps, belts and other attachment means for securing the cleats to the wearer. Such devices are employed not only for providing cleats on the underside of the wearer's foot but include means for supporting and stabilizing the wearer during the performance of duties such as pole climbing or tree climbing. Such apparatus is not suitable for use in playing the game of golf.

SUMMARY OF THE INVENTION

The above difficulties and problems encountered with conventional footwear for golfers are obviated by the present invention which provides an accessory device comprising a pair of plates adapted to fit against the heel and sole respectively of each shoe in a pair of street shoes. Each plate includes a peripheral edge which corresponds to the shape or outline of the respective heel and sole. The edge of each plate is provided with a plurality of gripping means for engaging with an opposing portion of the sides of the heel and sole respectively. A plurality of spikes are carried on each of the plates so as to downwardly depend from the side of the plate opposite to its side engaging with the heel or sole of the shoe. Selected ones of the gripping

means are resiliently mounted so as to provide a yieldable biasing force against the respective heel or sole to which it is attached. A fastening nut is integrally formed with each of the heel and sole plates so as to threadably receive a spike therein for mounting on each of the respective plates. The spikes are arranged in fixed spaced relationship about the edge marginal region of each of the plates so that the general outline of the sole and heel are defined thereby.

Therefore, it is among the primary objects of the present invention to provide a novel accessory for permitting conventional street shoes to be employed by a player for the game of golf.

Another object of the present invention is to provide an accessory for the game of golf comprising heel and sole plates having gripping means for ready attachment to the heel and sole of conventional street shoes.

Another object of the present invention is to provide a novel shoe attachment device for golfers having spiked plates detachably secured to the respective heel and soles of a pair of street shoes for use in the game of golf.

Yet another object of the present invention is to provide a novel shoe attachment device for golfers permitting the extension of use of street shoes for the game of golf.

BRIEF DESCRIPTION OF THE DRAWINGS

The features of the present invention which are believed to be novel are set forth with particularity in the appended claims. The present invention, both as to its organization and manner of operation, together with further objects and advantages thereof, may best be understood by reference to the following description, taken in connection with the accompanying drawings, in which:

FIG. 1 is a side elevational view of the shoe attachment device for golfers incorporating the present invention;

FIG. 2 is a top plan view of the shoe attachment device as taken in the direction of arrows 2—2 of FIG. 1;

FIG. 3 is a transverse cross-sectional view of a resilient gripping means shown in FIG. 2 as taken in the direction of arrows 3—3 thereof; and

FIG. 4 is a cross-sectional view of the resilient gripping means employed on the heel plate as taken in the direction of arrows 4—4 of FIG. 2.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to FIG. 1, a conventional street shoe is shown in broken lines as indicated by numeral 10 which includes a bottom sole 11 and a conventional raised heel 12. As is the usual practice, the heel is attached to the rearmost portion of the sole 11 by any suitable means, such as nails, screws or the like. The sole 11 includes a ground engaging portion 13 substantially provided at the ball of the foot of the wearer. The sole extends rearwardly from a toe portion of the shoe, as indicated by numeral 14, to the heel 12 so as to provide a raised instep substantially midway between the opposite ends of the shoe. The heel 12 is of suitable thickness so as to raise the heel of the wearer and to provide an arcuate surface 15 defining one side of the raised portion of the sole at the instep.

The shoe attachment apparatus of the present invention comprises, in one form, a pair of attachment plates

indicated in the direction of arrows 16 and 17 adapted to be carried by the heel 12 and ground engaging portion 13 of sole 11, respectively. Attachment plate 17 includes a plurality of gripping means such as is indicated by numeral 18 representing a toe grip. The gripping means may take the form of a U-shaped clamp or gripper adapted to engage over the exposed edge of the sole 11 at the extreme end of the shoe. The gripper or clamp 18 includes an open slot or receptacle into which the exposed edge of the sole is insertably received in friction engagement therewith. The gripping means are carried about the peripheral edge of a plate 20 that is substantially form-fitted or corresponds to the shape and curvature of the ground engaging portion of sole 11.

It is to be particularly noted that the plate 20 lies flush against the sole portion 13 and that the plate is held in this position by means of the grips or clamps, such as the fixed clamp 18. However, self-adjusting clamps are indicated by the numerals 21 and 22 which are resiliently biased so as to yieldably press against the side edge of the sole. These latter clamps provide for lateral adjustment so as to compensate for any difference in shoe width depending on the size of shoe intended to be fitted by the plate. A plurality of spikes, such as is indicated by numerals 23-26 are provided which are downwardly depending from the underside of plate 20 so as to engage with the ground or turf indicated by line 27. The plurality of spikes are spaced apart in fixed relationship about the edge marginal region of plate 20.

Attachment plate 16 for heel 12 includes a plate 30 carrying a gripping means 31 on either side of heel 12. The fixed gripping means 31 are similar to the fixed gripper or clamp 18 with the exception that the clamp is elongated so as to accommodate the height of the heel 12. The upper-most portion of the gripper or clamp engages over the edge of the sole 11 at a selected area where the heel 12 is attached thereto. A plurality of spikes, such as indicated by numerals 32 and 33, are carried on the underside of plate 30 and downwardly depend therefrom into ground engaging relationship with the turf or ground 27. The forward edge of plate 30 adjacent the instep of the shoe includes an adjustable clamp 34 yieldably biased to engage with arcuate side or wall 15 of the heel.

Referring now in detail to FIG. 2, it can be seen that the plurality of spikes, such as is indicated by numerals 23-26, are located on plate 20 so as to be arranged about the edge marginal region of the sole 11. The plate 20 includes a central cut-out or opening so that the general configuration of plate 20 is that of an oval. Also, it is to be noted that the upper-most portion of each fixed and adjustable clamp extends slightly toward the central opening in plate 20 so that the sole may be readily inserted or slid across the plate whereby the selected portions of the sole opposite the clamps will be engaged by the clamps.

Adjustable clamps 21 and 22 include an elongated portion 35 formed with an elongated slot 36 through which a pair of rivets or guides 37 and 38 are mounted. By this arrangement, the clamps 21 and 22 may slide outwardly to open the entrance into the clamp receptacles or openings when the sole is slid forward over the plate 20. Plate 20 is formed with an integral lobe 40 and one end of a resilient means 41 is attached thereto while the opposite end is attached to extension 35 on

the clamp. The resilient means may take any form but, as illustrated, a helical spring is shown and the spring is contracted so as to draw the clamp 21 inwardly against the edge of the sole 11. It is to be understood that the spring bias of spring 41 is yieldable and may be readily overcome by manipulating the plate 20 or by using fingers to hold the clamps 21 or 22 open.

With respect to plate 30, it is noted that at least three spikes are provided and that the adjustable clamp 34 is constructed in a similar fashion to the adjustable clamps 21 and 22. A central opening is provided in plate 30 so as to accommodate mounting of a resilient member such as spring 42 which is connected at its opposite ends to a lobe 44 on the plate and the backside of an extension 45 forming a part of the clamp 34. A slot and rivet combination is similarly employed for holding the clamp onto the plate 30.

Referring now in detail to FIGS. 3 and 4, it is noted that the rivets 37 and 38 are secured to the plate 20 and that the extension 35 of clamp 22 is guided by the shank of the rivets since the shank is interposed in slot 36. The heads of the rivets hold the extension 35 in sliding relationship with the plate. It is to be noted that each of these spikes such as spike 32 carried on plate 30 and a spike 46 carried on plate 20 include a threaded shank which engages with a hexagon nut 47 press-fitted into the plate 20. All of the spikes in the plurality are mounted in this fashion so that they may be replaced when worn. Furthermore, the upper inwardly extending edge of clamp 34 is provided with a plurality of serrations, as noted in FIG. 2, that affords a secure engagement with the heel wall 15 when the bias of spring 42 forcibly urges the edge against the wall.

Although adjustable clamps 21 and 22 illustrated on the sole plate 20 are employed for transverse or lateral adjustment, it is to be understood that longitudinal or axial adjustment may be accommodated in the same fashion such as by mounting clamp 18 with a similar slide and spring arrangement. In this latter instance, it is to be understood that other spring biasing means than a coil spring may be employed, such as for example, a leaf spring, so that interference with the forward-most toe spike will not occur. The slidable mounting and resilient biasing of clamps 34 is illustrative for disclosure purposes of a longitudinal or axial adjustment means. It is to be understood that the material used to construct the plates and their components, may be of any suitable material, such as metal, plastic or the like.

While particular embodiments of the present invention have been shown and described, it will be obvious to those skilled in the art that changes and modifications may be made without departing from this invention in its broader aspects and, therefore, the aim in the appended claims is to cover all such changes and modifications as fall within the true spirit and scope of this invention.

What is claimed is:

1. An attachment device for converting street shoes for use in playing the game of golf wherein each shoe includes a sole having a continuous exposed edge and a raised heel having a forward wall defining a part of the instep, the combination comprising:

a first attachment plate removably carried on said heel;

a second attachment plate removably carried on said sole in spaced relationship to said first attachment plate;

each of said plates having a plurality of clamping means arranged in spaced apart relationship along the peripheral edges of said plates and extending into frictional engagement with opposing portions of the edge of said sole;

a plurality of spikes carried on the underside of each of said plates adapted for ground engagement when said plates are affixed to said sole by said clamping means;

each of said clamping means includes a U-shaped member having one end carried on said respective plate and the other end raised therefrom to define a space therebetween intended to be occupied by an opposing edge portion of said sole;

a selected one of said clamping means associated with each of said plates is adjustably mounted on said plate so as to grip with said sole;

said selected clamping means associated with said plate carried by said heel is engageable with said forward wall and said raised end thereof formed with a plurality of serrations adapted to grip with the face of said forward wall; and

said selected clamping means associated with said heel plate move parallel to the longitudinal axis with respect to said shoe and said selected clamping means associated with said sole plate move transversely with respect to said shoe.

2. The invention as defined in claim 1 wherein each of said plates is formed with an elongated central opening and a plurality of nuts are secured in fixed spaced apart relationship on said plates about said central openings in flush surface relationship with the top and bottom surfaces of said plates and wherein each nut is formed with threaded openings to detachably receive a threaded shank carried by an associated spike.

3. The invention as defined in claim 2 wherein said heel plate includes three spikes and two fixed clamp members and one adjustable clamp member; said fixed clamp members having an extension joining its opposite ends lying along the full height of said heel.

4. The invention as defined in claim 3 wherein said adjustable clamping means include a slide member having a central slot into which guide members are disposed; said guide members being fixed to said respective plates; and a contracting spring fixed at

one end to said plate and its opposite end to said slide member so as to cross over said central opening.

5. The invention as defined in claim 4 wherein said sole plate is formed with a lobe projecting into said central opening to receive the fixed end of said spring.

6. An attachment device for converting street shoes for use in playing the game 39 of golf wherein each shoe includes a sole having a continuous exposed edge and a raised heel having a forward wall defining a part of the instep, the combination comprising:

a first attachment plate removably carried on said heel;

a second attachment plate removably carried on said sole in spaced relationship to said first attachment plate;

each of said plates having a plurality of clamping means arranged in spaced apart relationship along the peripheral edges of said plates and extending into frictional engagement with opposing portions of the edge of said sole;

a plurality of spikes carried on the underside of each of said plates adapted for ground engagement when said plates are affixed to said sole by said clamping means;

each of said clamping means includes a U-shaped member having one end carried on said respective plate and the other end raised therefrom to define a space therebetween intended to be occupied by an opposing edge portion of said sole;

a selected one of said clamping means associated with each of said plates is adjustably mounted on said plate so as to grip with said sole;

said selected clamping means associated with said plate carried by said heel is engageable with said forward wall and said raised end thereof formed with a plurality of serrations adapted to grip with the face of said forward wall; and

said selected clamping means associated with said plate carried by said sole comprises a pair of laterally adjustable clamp members movably mounted to extend from the outside edge of said sole.

7. The invention as defined in claim 6 including: resilient means interconnecting said clamping so as to normally bias said selected clamping means into gripping engagement with said sole.

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