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ABSTRACT OF THE DISCLOSURE

A golf spike construction 10 including a generally cruciform golf spike member 20 having four arm elements 21. The outboard ends of each of the arm elements 21 are provided with a downwardly depending cleat portion 25 and the sides of the diametrically opposed arm elements 21 are further provided with means, such as recesses 26, adapted to engage the prongs 101 of a golf spike installing tool 100 to impart rotation to the golf spike member 20.
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Invention Title: “Cruciform Golf Spike Construction”

The following statement is a full description of this invention, including the best method of performing it known to me:-
"CRUCIFORM GOLF SPIKE CONSTRUCTION"
CROSS REFERENCE TO RELATED APPLICATIONS

Not applicable.

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

Not applicable.

REFERENCE TO MICROFICHE APPENDIX

Not applicable.

BACKGROUND OF THE INVENTION

Field of the Invention

The present invention relates to the field of golf spike cleats in general, and in particular to a generally cruciform soft golf spike construction.

Description of Related Art

As can be seen by reference to the following U.S. Patent Nos. Des. 288,262; Des. 373,675; Des. 375,192; and 5,367,793, the prior art is replete with myriad and diverse soft golf spike constructions.

While all of the aforementioned prior art constructions are more than adequate for the basic purpose and function for which they have been specifically designed, they are uniformly deficient with respect to their failure to provide a simple, efficient, and
practical soft golf spike construction that is both easy to install while also providing widely spaced ground engaging portions.

As most golfers are aware, while the use of soft golf spikes have become increasingly popular one of the most vexing problems associated with their use is the difficulty in installing the soft golf spikes with a conventional golf spike wrench due to the generally resilient nature of the material that the soft spike is fabricated from.

As a consequence of the foregoing situation, there has existed a longstanding need for a new and improved soft golf spike construction that would be configured and designed to be readily engaged by a conventional spike wrench to facilitate the installation and removal of the spike construction on the bottom of a golf shoe and the provision of such a construction is a stated objective of the present invention.

BRIEF SUMMARY OF THE INVENTION

Briefly stated, the golf spike construction that forms the basis of the present invention comprises in general a golf spike member having a generally cruciform configuration. Each of the outwardly projecting arm elements of the golf spike member have a generally arcuate upper surface and a generally flat lower central surface. In addition, each of the outboard ends of the arm elements have a downwardly depending cleat element which form the ground engaging elements of the golf spike construction.

Furthermore, as will be explained in greater detail further on in the specification, the generally cruciform configuration of the golf spike construction dispenses with the need for special apertures in the golf spike member to receive the prongs of a conventional golf spike wrench. This is due to the fact that each of the arm elements of the golf spike member are dimensioned to engage the prongs of the spike wrench at a variety of locations along their length to either install or remove the golf spike member with respect to the user's golf shoes.
BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

These and other attributes of the invention will become more clear upon a thorough study of the following description of the best mode for carrying out the invention, particularly when reviewed in conjunction with the drawings, wherein:

FIG. 1 is a perspective view of the cruciform golf spike construction that forms the basis of the present invention;
FIG. 2 is a side plan view of the golf spike construction;
FIG. 3 is a top plan view of the golf spike construction; and
FIG. 4 is a bottom plan view of the golf spike.

DETAILED DESCRIPTION OF THE INVENTION

As can be seen by reference to the drawings, and in particularly to FIG. 1, the cruciform golf spike construction that forms the basis of the present invention is designated generally by the reference number 10. The golf spike construction comprises in general, a golf spike member 20 having a generally cruciform configuration provided by four identical contoured arm elements 21 which are equally spaced around and project outwardly from the central portion 22 of the golf spike member 20 which is formed by the juncture of all of the contoured arm elements 21.

As can best be seen by reference to FIGS. 1 through 3, the upper surface 23 of each of the arm elements 21 are arcuately curved upwardly relative to the central portion 22 of the spike member 20 and surround a threaded stud 24 which projects upwardly from the central portion 22 of the spike member 20 to engage the spike member 20 to the bottom of a conventional golf shoe (not shown) in a well recognized manner.

Turning now to FIGS. 2 through 4, it can be seen that the outboard ends 21 of each of the arm elements 21 are provided with downwardly depending tapered cleat elements 25. In addition, as shown in FIGS. 2 and 4, both the bottom of the inboard ends of the arm elements 21 and the bottom of the central portion 22 of the spike construction 20 are flat such that the bottom of the cleat elements 25 form the rounded ground engaging portion 25 of the golf spike construction 20.
As can best be seen by reference to FIG. 3, the cruciform configuration of the
golf spike construction 10 is specifically designed to cooperate with the prongs 101 in
the head of a conventional golf spike installing tool 100 depicted in phantom.

Whereas, virtually all of the prior art spike constructions are required to have a
plurality of holes to accept the prongs 101 of the installing tool 100, the present
invention does not due to the fact that the prongs 101 can engage the opposite sides
of diametrically aligned arm elements 21 for rotating the spike construction in either a
clockwise or counter-clockwise fashion.

In addition, as shown in FIG. 3, this invention also contemplates the provision
of one or more registration recesses 26 depicted in phantom on one or both of the
sides of at least two diametrically opposed arms 21. The recesses 26 are
dimensioned to receive a portion of the prongs 101 of the installing tool 100.

A golf spike construction designed for use in conjunction with a conventional spike
installing tool having a pair of downwardly depending prongs wherein the golf spike
construction comprises:

The present invention is directed to a golf spike construction designed for use
in conjunction with a conventional spike installing tool having a pair of downwardly
depending prongs wherein the golf spike construction comprises: a golf spike member
having a central portion and a generally cruciform configuration provided by four arm
elements which project outwardly from the central portion of the spike member, which
is further provided with a threaded stud; and wherein each of the outboard ends of the
arm elements are provided with a downwardly depending cleat element.

In accordance with the present invention, the upper portion of each of the arm
elements are curved outwardly and upwardly relative to the threaded stud; the bottom
of the inboard end of each of the arm elements and the bottom of the central portion of
the spike member are generally flat; each pair of diametrically opposed arm elements
are provided with means adapted to engage the prongs of the conventional spike
installing tool; and/or the opposite sides of at least one pair of diametrically opposed
arm elements are provided with recesses dimensioned to receive a portion of the
prongs of the conventional spike installing tool.

The present invention is also directed to a golf spike construction comprising:
a generally cruciform shaped golf spike member having a generally flat bottom portion,
a generally concave upper portion wherein the outboard end of the golf spike member
is provided with a plurality of downwardly depending cleat elements; and wherein the
central portion of the spike member is provided with a threaded stud, preferably
wherein the golf spike member is provided with four outwardly projecting arm elements
which give the golf spike member a cruciform shape, and wherein the outboard ends
of each of the arm elements are provided with one of said plurality of downwardly
depending cleats, and wherein at least two diametrically opposed arm elements are
provided with recesses on opposite sides of each of said diametrically opposed arm
elements.

The present invention is also directed to a soft golf spike construction for golf
shoes wherein the golf spike construction comprises: a golf spike member having a
central portion and a generally cruciform configuration provided by four arm elements
which project outwardly from the central portion of the spike member, which is further
provided with a threaded stud; wherein each of the arm elements have outboard ends
which are provided with a downwardly depending cleat element having a rounded
ground engaging portion wherein the ground engaging portion of the cleat elements are
disposed parallel to the outboard ends of the arm elements, the upper portion of each of
the arm elements are curved outwardly relative to the threaded stud, and the bottom
of the inboard end of each of the arm elements and the bottom of the central portion of
the spike member are generally flat, preferably wherein the opposite sides of at least
one pair of diametrically opposed arm elements are provided with recesses
dimensioned to receive a portion of the prongs of the conventional spike installing tool.

The present invention is also directed to a soft golf spike construction for golf
shoes wherein the golf spike construction consists of: a golf spike member having a
central portion and a generally cruciform configuration provided by four arm elements
which project outwardly from the central portion of the spike member, which is further
provided with a threaded stud; and wherein each of the arm elements have outboard
ends which are provided with a downwardly depending cleat element, having a
rounded ground engaging portion wherein the ground engaging portion of the cleat
elements are disposed parallel to the outboard ends of each of the arm elements, the
upper portion of each of the arm elements are curved outwardly and upwardly relative
to the threaded stud, and wherein the bottom of the inboard end of each of the arm
elements and the bottom of the central portion of the spike member are generally flat.
Although only an exemplary embodiment of the invention has been described in detail above, those skilled in the art will readily appreciate that many modifications are possible without materially departing from the novel teachings and advantages of this invention. Accordingly, all such modifications are intended to be included within the scope of this invention as defined in the following claims.

In the claims, means-plus-function clauses are intended to cover the structures described herein as performing the recited function and not only structural equivalents, but also equivalent structures.

Having thereby described the subject matter of the present invention, it should be apparent that many substitutions, modifications and variations of the invention are possible in light of the above teachings. It is therefore to be understood that the invention as taught and described herein is only to be limited to the extent of the breadth and scope of the appended claims.

Throughout this specification, unless the context requires otherwise, the word "comprise", or variations such as "comprises" or "comprising", will be understood to imply the inclusion of a stated integer or group of integers but not the exclusion of any other integer or group of integers.
The claims of the invention are defined as follows:

1. A golf spike construction designed for use in conjunction with a conventional spike installing tool having a pair of downwardly depending prongs wherein the golf spike construction comprises:
   a golf spike member having a central portion and a generally cruciform configuration provided by four arm elements which project outwardly from the central portion of the spike member, which is further provided with a threaded stud; and wherein each of the outboard ends of the arm elements are provided with a downwardly depending cleat element.

2. The golf spike construction as in claim 1 wherein the upper portion of each of the arm elements are curved outwardly and upwardly relative to said threaded stud.

3. The golf spike construction as in claim 1 wherein the bottom of the inboard end of each of the arm elements and the bottom of the central portion of the spike member are generally flat.

4. The golf spike construction as in claim 1 wherein each pair of diametrically opposed arm elements are provided with means adapted to engage the prongs of the conventional spike installing tool.

5. The golf spike construction as in claim 1 wherein the opposite sides of at least one pair of diametrically opposed arm elements are provided with recesses dimensioned to receive a portion of the prongs of the conventional spike installing tool.

6. A golf spike construction comprising:
   a generally cruciform shaped golf spike member having a generally flat bottom portion, a generally concave upper portion wherein the outboard end of the golf spike member is provided with a plurality of downwardly depending cleat elements; and wherein the central portion of the spike member is provided with a threaded stud.
7. The construction as in claim 6 wherein the golf spike member is provided with four outwardly projecting arm elements which give the golf spike member a cruciform shape.

8. The construction as in claim 7 wherein the outboard ends of each of the arm elements are provided with one of said plurality of downwardly depending cleats.

9. The construction as in claim 8 wherein at least two diametrically opposed arm elements are provided with recesses on opposite sides of each of said diametrically opposed arm elements.

10. A soft golf spike construction for golf shoes wherein the golf spike construction comprises:

    a golf spike member having a central portion and a generally cruciform configuration provided by four arm elements which project outwardly from the central portion of the spike member, which is further provided with a threaded stud; wherein each of the arm elements have outboard ends which are provided with a downwardly depending cleat element having a rounded ground engaging portion wherein the ground engaging portion of the cleat elements are disposed parallel to the outboard ends of the arm elements, the upper portion of each of the arm elements are curved outwardly relative to the threaded stud, and the bottom of the inboard end of each of the arm elements and the bottom of the central portion of the spike member are generally flat.

11. The soft golf spike construction as in claim 10 wherein the opposite sides of at least one pair of diametrically opposed arm elements are provided with recesses dimensioned to receive a portion of the prongs of the conventional spike installing tool.
12. A soft golf spike construction for golf shoes wherein the golf spike construction consists: of a golf spike member having a central portion and a generally cruciform configuration provided by four arm elements which project outwardly from the central portion of the spike member, which is further provided with a threaded stud; and wherein each of the arm elements have outboard ends which are provided with a downwardly depending cleat element, having a rounded ground engaging portion wherein the ground engaging portion of the cleat elements are disposed parallel to the outboard ends of each of the arm elements, the upper portion of each of the arm elements are curved outwardly and upwardly relative to said threaded stud, and wherein the bottom of the inboard end of each of the arm elements and the bottom of the central portion of the spike member are generally flat.

13. A spike construction comprising a spike member having a central portion and a generally cruciform configuration provided by four arm elements which project outwardly from the central portion of the spike member, wherein each of the outboard ends of the arm elements are provided with a downwardly depending cleat element.

14. A spike construction as in claim 13 wherein the bottom of the inboard end of each of the arm elements and the bottom of the central portion of the spike member are generally flat.

15. In a shoe construction having a bottom which includes a heel portion and a sole portion an improvement comprising a plurality of spike members operatively associated with the bottom of the shoe construction wherein each spike member includes a central portion and a generally cruciform configuration provided by four arm elements which project outwardly from the central portion of the spike member wherein each of the outboard ends of the arm elements are provided with a downwardly depending cleat element.
16. The improvement as in claim 15 wherein the bottom of the inboard end of each of the arm elements and the bottom of the central portion of the spike member are generally flat.

17. The improvement as in claim 15 wherein the top of the central portion of at least a dome of the spike members is removably attached to the bottom of the shoe construction.

18. The improvement as in claim 15 wherein the top of the central portion of at least some of the spike members is threadedly engaged with the bottom of the shoe construction.

19. The improvement as in claim 15 wherein the top of the central portion of at least some of the spike members is removably attached to the bottom of the shoe construction.

20. The improvement as in claim 15 wherein at least some of the plurality of spike members are operatively associated with the sole portion of the bottom of the shoe.

21. The improvement as in claim 15 wherein at least some of the plurality of spike members are operatively associated with the heel portion of the bottom of the shoe.

22. The improvement as in claim 15 wherein the plurality of spike members are operatively associated with both the sole portion and the heel portion of the bottom of the shoe.

23. A spike construction for use with the bottom of a shoe wherein the spike construction comprises: a spike member having a central portion and a generally cruciform configuration provided by four arm elements which project outwardly from the central portion of the spike member which is operatively
associated with the bottom of the shoe; wherein, each of the outboard ends of
the arm elements are provided with a downwardly depending cleat element.

24. The spike construction as in claim 23 wherein the bottom of the inboard
end of each of the arm elements and the bottom of the central portion of the
spike member are generally flat.

25. The spike construction as in claim 23 wherein the top of the central
portion of the spike member is removably attached to the bottom of the shoe.

26. The spike construction as in claim 23 wherein the top of the central
portion of the spike member is threadably engageable with the bottom of the
shoe.

27. A golf spike construction substantially as hereinbefore described.

Dated this SEVENTH day of AUGUST 1998.

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