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(54) **GROUND ANCHOR**

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(57) **ABSTRACT**

The ground anchor includes a shaft having a pointed lower end, an embossed section extending between lower and upper portions of the shaft to retain the threaded upper portion above ground, at least one helical blade attached to the lower portion, a stabilizer cap mounted concentric on the upper portion, the cap having an outer diameter greater than the helical blades and having a plurality of spikes, a first and second securing member threaded onto the upper portion for holding the stabilizer cap against the embossed section and rotating the shaft into and from the ground, the second securing member having an outer diameter less than the first securing member and an interchangeable mount threaded to the upper portion. The interchangeable mount having a housing for covering the securing members and the upper portion and optionally having an attachment(s) extending therefrom.

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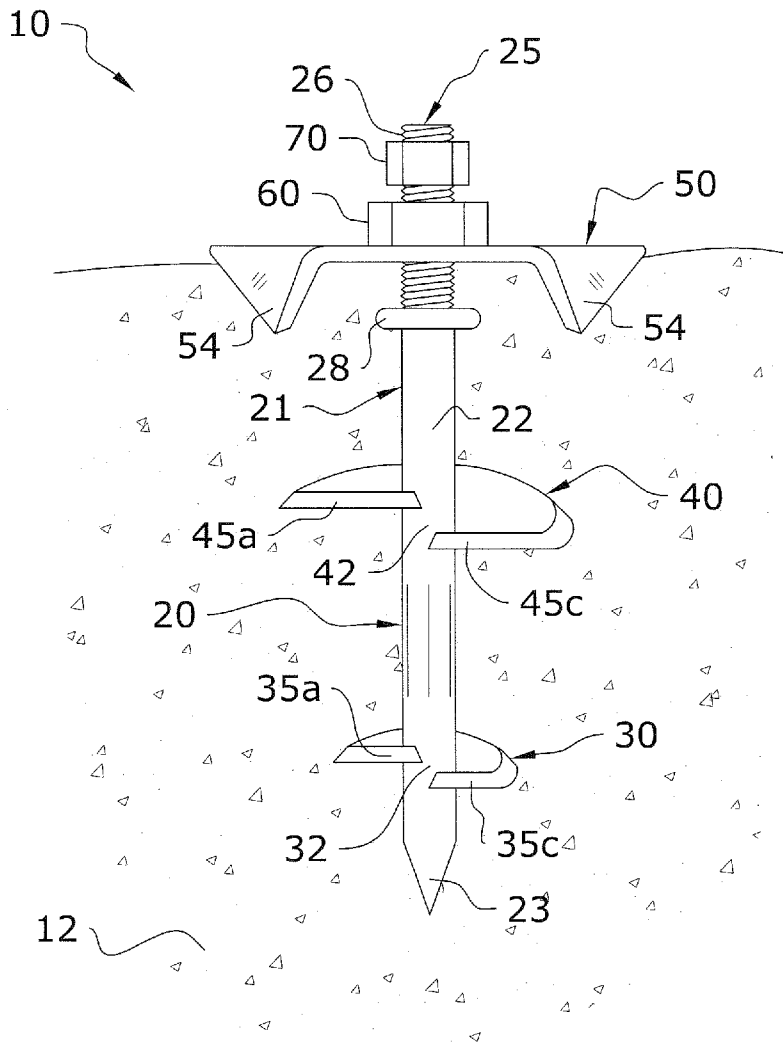
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(60) **Provisional application No. 61/233,595, filed on Aug. 13, 2009.**

Publication Classification

(51) **Int. Cl. E02D 5/80 (2006.01)**



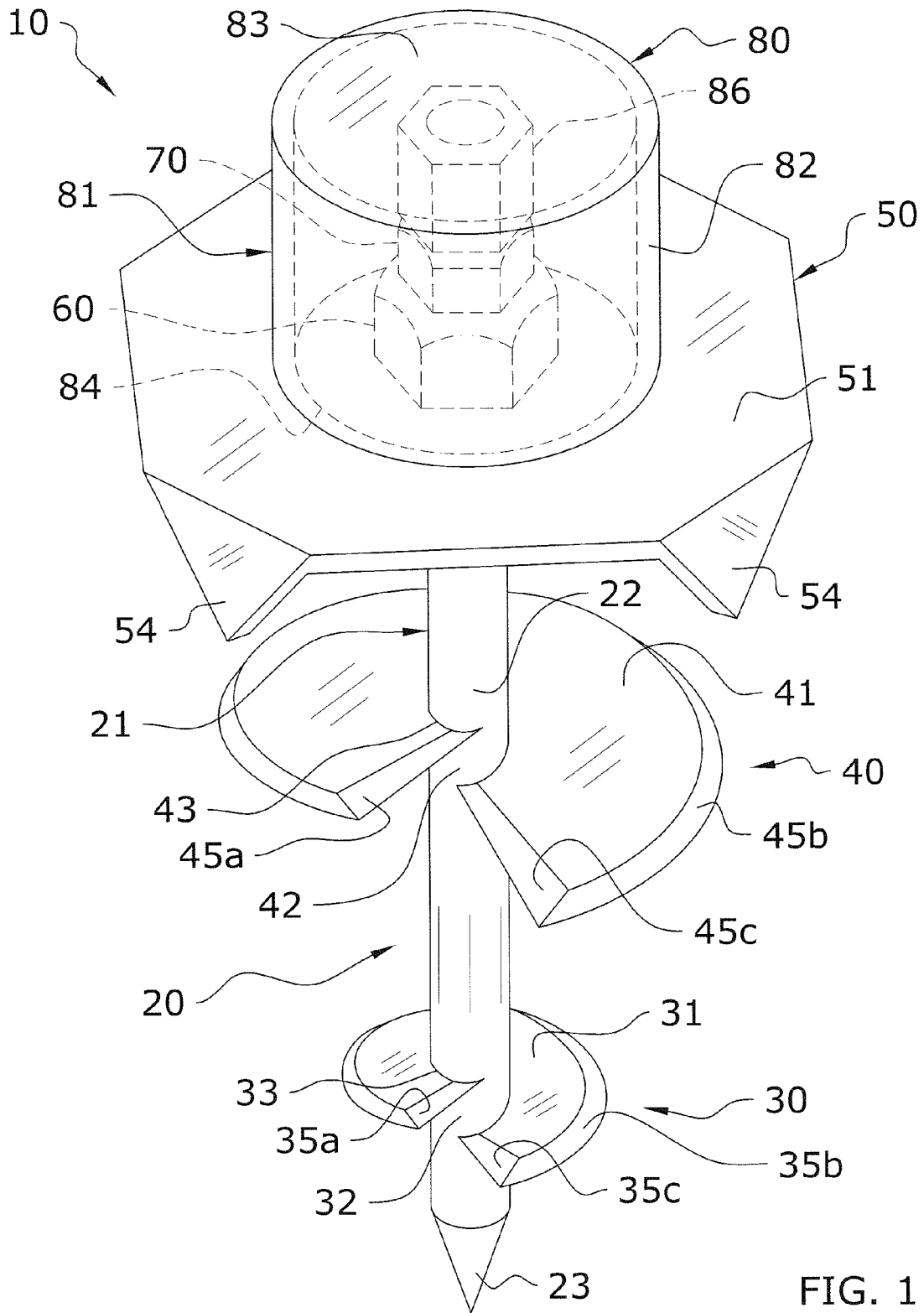


FIG. 1

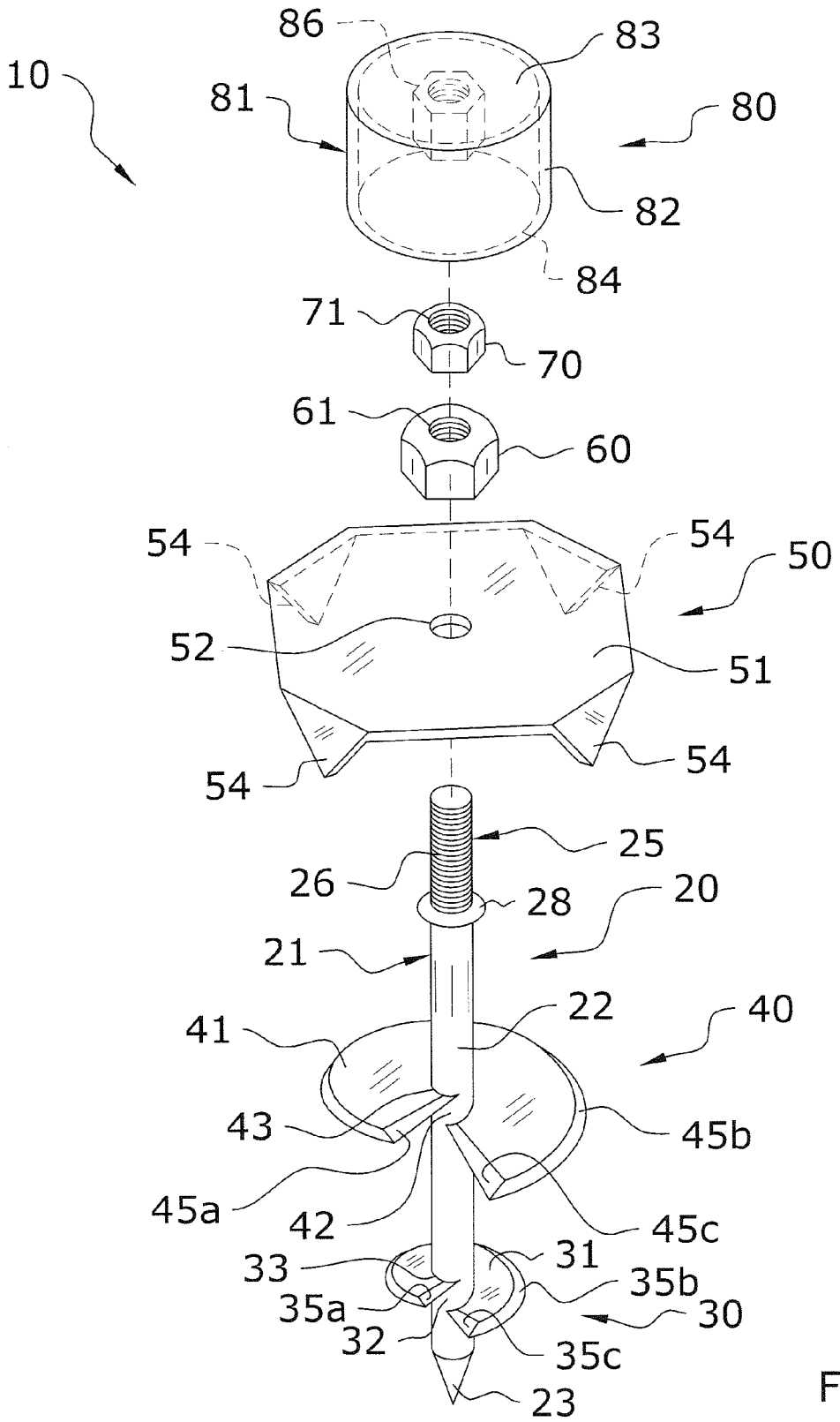


FIG. 2

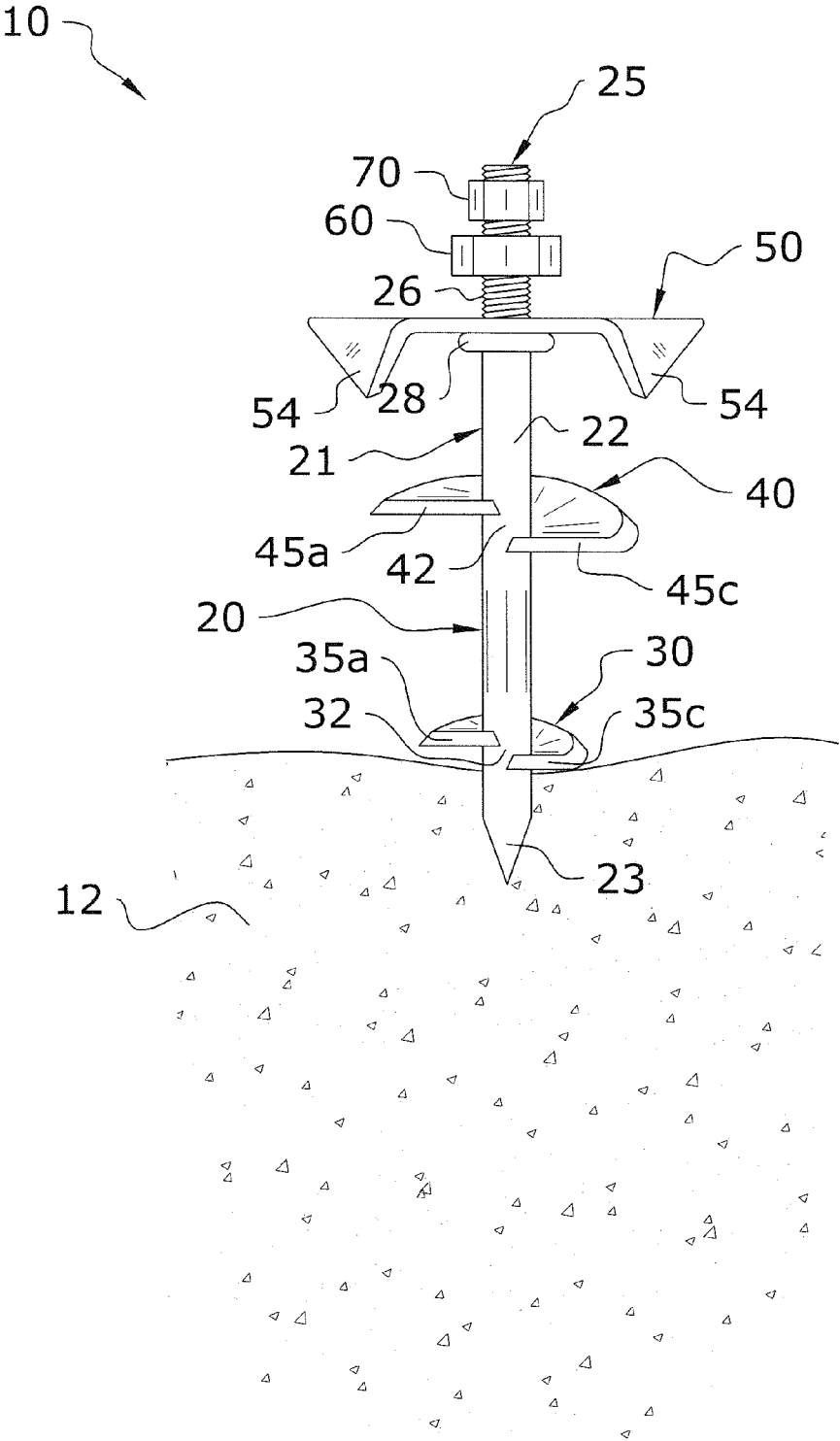


FIG. 3

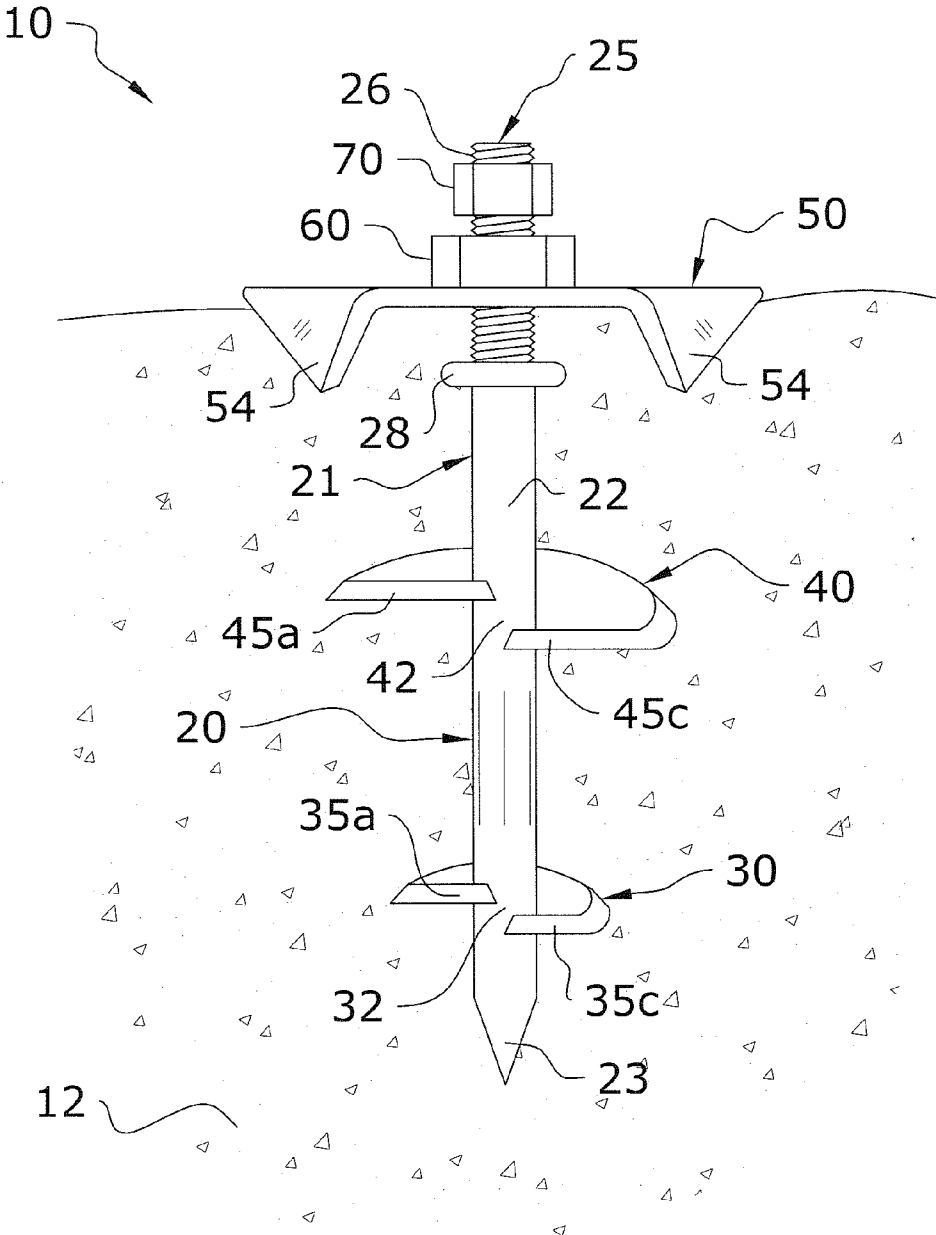


FIG. 4

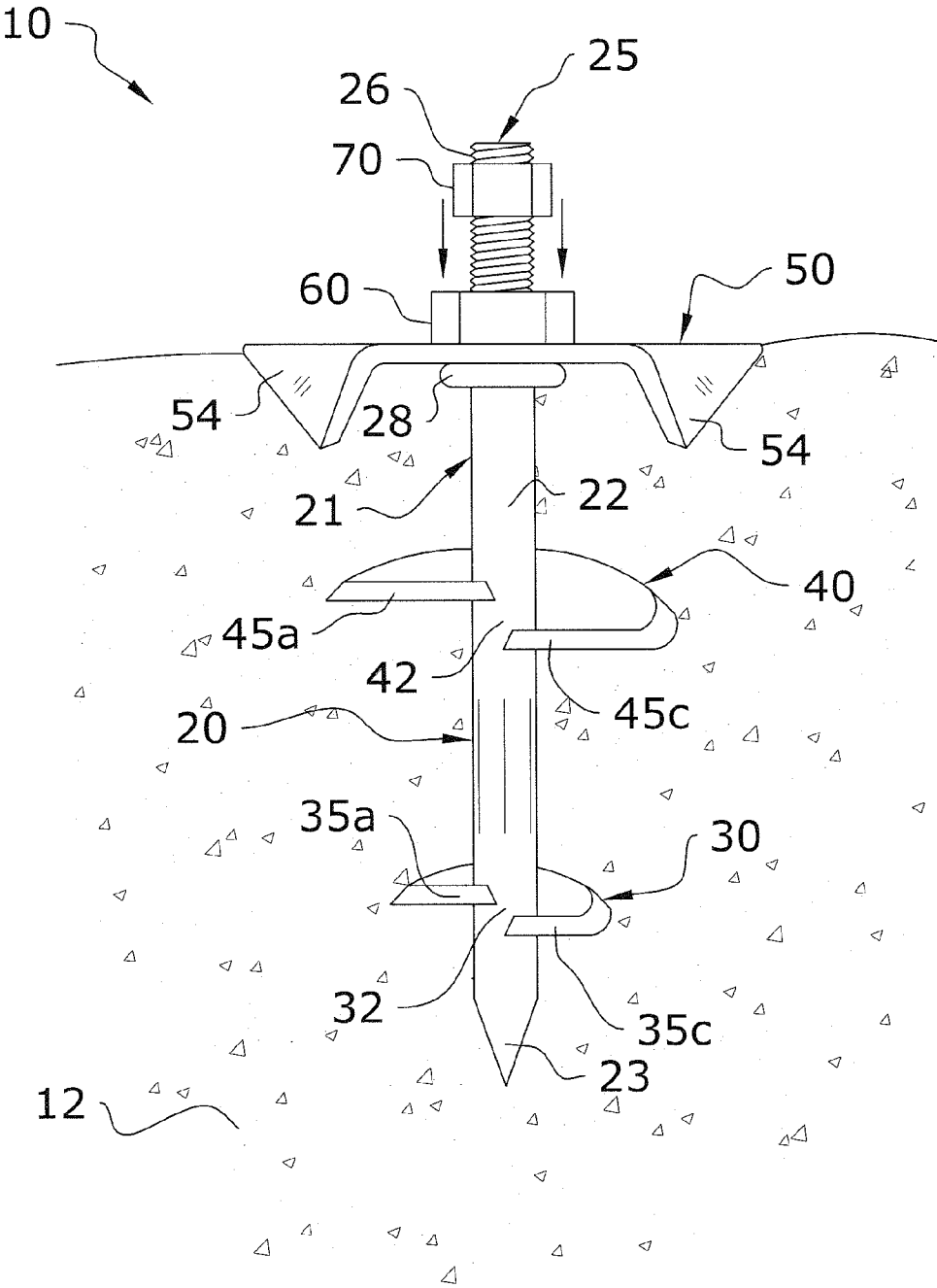


FIG. 5

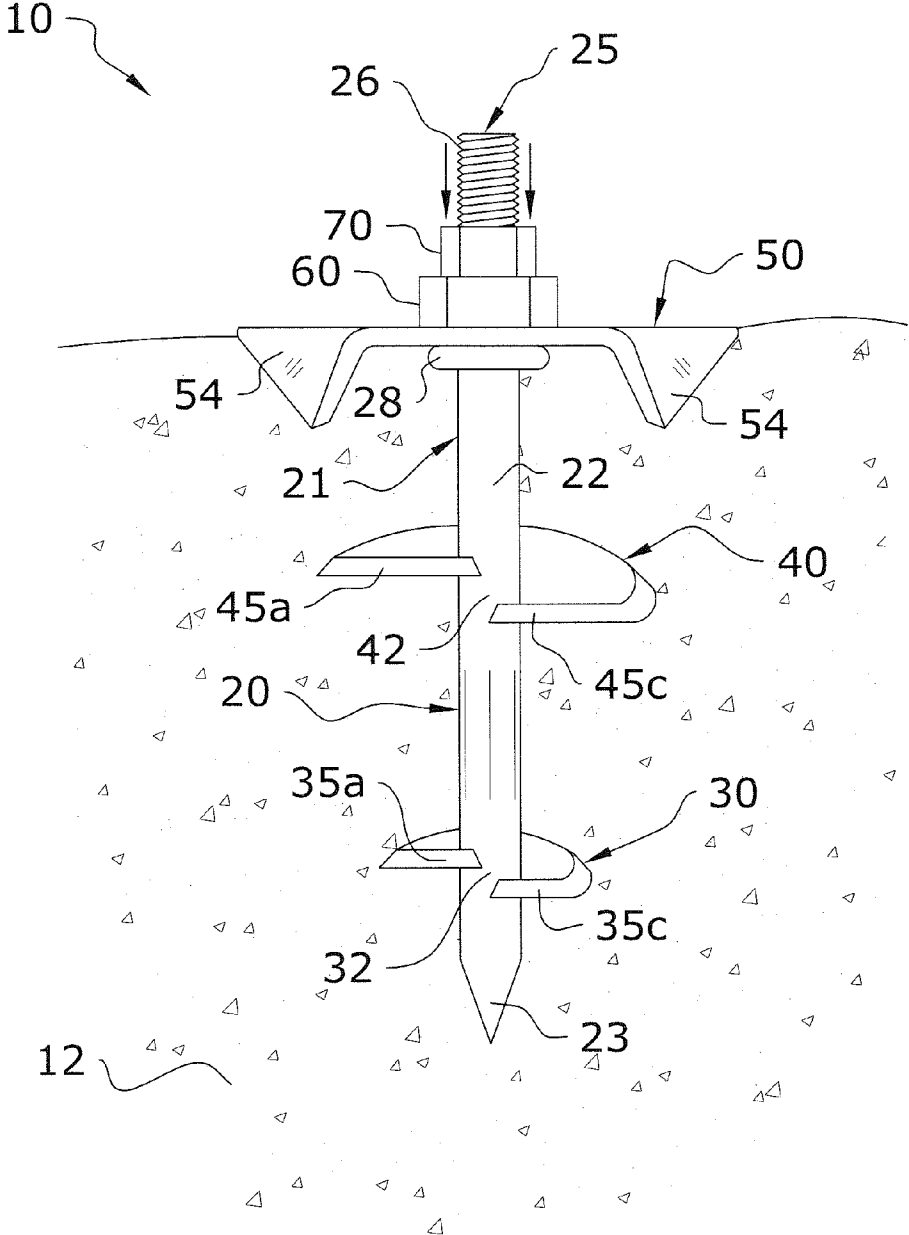


FIG. 6

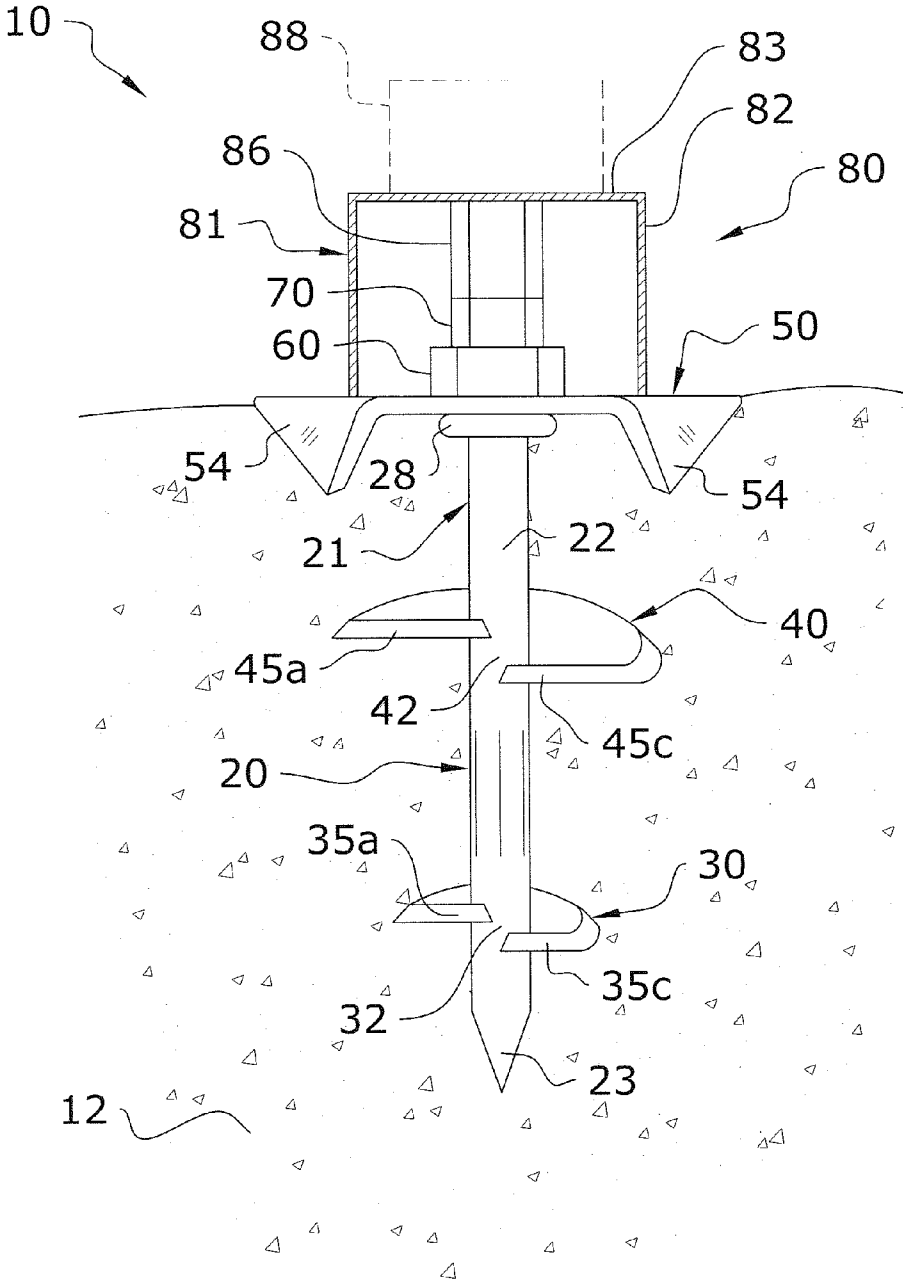


FIG. 7

GROUND ANCHOR

CROSS REFERENCE TO RELATED APPLICATIONS

[0001] I hereby claim benefit under Title 35, United States Code, Section 119(e) of U.S. provisional patent application Ser. No. 61/233,595 filed Aug. 13, 2009. The 61/233,595 application is currently pending. The 61/233,595 application is hereby incorporated by reference into this application.

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

[0002] Not applicable to this application.

BACKGROUND OF THE INVENTION

[0003] 1. Field of the Invention

[0004] The present invention relates generally to an anchor and more specifically it relates to a ground anchor for being efficiently retained within the ground for securing objects thereto or supporting objects and being adapted to be easily driven and removed from the ground.

[0005] 2. Description of the Related Art

[0006] Any discussion of the related art throughout the specification should in no way be considered as an admission that such related art is widely known or forms part of common general knowledge in the field.

[0007] The application of ground anchors for supporting objects about a ground surface has been in use for years. Typically ground anchors are comprised of an elongated metal, plastic, or wood stake, sometimes having rigid protrusions therefrom.

[0008] Problems with current ground anchors include the difficulty in retaining ground anchors within the ground and difficulty of removing of the anchors. In some cases, it can also be extremely difficult to insert an anchor within the ground due to structure of the ground anchor or firmness of the ground. Because of the inherent problems with the related art, there is a need for a new and improved ground anchor for efficiently retained within the ground for securing objects thereto or supporting objects and being adapted to be easily driven and removed from the ground.

BRIEF SUMMARY OF THE INVENTION

[0009] A system for efficiently retained within the ground for securing objects thereto or supporting objects and being adapted to be easily driven and removed from the ground. The invention generally relates to an anchor which includes a shaft having a pointed lower end, an embossed section extending between lower and upper portions of the shaft to retain the threaded upper portion above ground, at least one helical blade attached to the lower portion, a stabilizer cap mounted concentric on the upper portion, the cap having an outer diameter greater than the helical blades and having a plurality of spikes, a first and second securing member threaded onto the upper portion for holding the stabilizer cap against the embossed section and rotating the shaft into and from the ground, the second securing member having an outer diameter less than the first securing member and an interchangeable mount threaded to the upper portion. The interchangeable mount having a housing for covering the securing members and the upper portion and optionally having an attachment extending therefrom.

[0010] There has thus been outlined, rather broadly, some of the features of the invention in order that the detailed description thereof may be better understood, and in order that the present contribution to the art may be better appreciated. There are additional features of the invention that will be described hereinafter and that will form the subject matter of the claims appended hereto. In this respect, before explaining at least one embodiment of the invention in detail, it is to be understood that the invention is not limited in its application to the details of construction or to the arrangements of the components set forth in the following description or illustrated in the drawings. The invention is capable of other embodiments and of being practiced and carried out in various ways. Also, it is to be understood that the phraseology and terminology employed herein are for the purpose of the description and should not be regarded as limiting.

BRIEF DESCRIPTION OF THE DRAWINGS

[0011] Various other objects, features and attendant advantages of the present invention will become fully appreciated as the same becomes better understood when considered in conjunction with the accompanying drawings, in which like reference characters designate the same or similar parts throughout the several views, and wherein:

[0012] FIG. 1 is an upper perspective view of the present invention.

[0013] FIG. 2 is an exploded upper perspective view of the present invention.

[0014] FIG. 3 is a side view of the present invention, the pointed lower end of the shaft being initially inserted within the ground.

[0015] FIG. 4 is a side view of the present invention, the shaft and blades being inserted within the ground and the securing members secured part-way along the upper portion.

[0016] FIG. 5 is a side view of the present invention, the shaft and blades being inserted within the ground and the first securing member being tightened to cause compression of the ground and the upper portion to rise above the ground.

[0017] FIG. 6 is a side view of the present invention, the shaft and blades being inserted within the ground and the second securing member being tightened to jam the first securing member in place.

[0018] FIG. 7 is a side view of the present invention, the anchor installed within the ground and the mount with an exemplary attachment secured over the upper portion of the shaft.

DETAILED DESCRIPTION OF THE INVENTION

A. Overview

[0019] Turning now descriptively to the drawings, in which similar reference characters denote similar elements throughout the several views, FIGS. 1 through 7 illustrate a reusable ground anchor 10, which comprises a shaft 20 having a pointed lower end 23, an embossed section 28 extending between lower and upper portions 21, 25 of the shaft 20 to retain the threaded upper portion 25 above ground 12, at least one helical blade 30, 40 attached to the lower portion 21, a stabilizer cap 50 mounted concentric on the upper portion 25, the cap 50 having an outer diameter greater than the helical blades 30, 40 and having a plurality of spikes 54, a first and second securing member 60, 70 threaded onto the upper portion 25 for holding the stabilizer cap 50 against the embossed section 28 and rotating the shaft 20 into and from

the ground 12, the second securing member 70 having an outer diameter less than the first securing member 60 and an interchangeable mount 80 threaded to the upper portion 25. The interchangeable mount 80 having a housing 81 for covering the securing members 60, 70 and the upper portion 25 and optionally having an attachment 88 extending therefrom.

B. Shaft

[0020] The shaft 20 is generally comprised of a one-piece structure being of a metal, plastic or other rigid material to be the main structurally securing member of the anchor 10. The shaft 20 is generally cylindrical in an outer-diametric shape and may be hollow or solid.

[0021] The shaft 20 includes a lower portion 21 and an upper portion 25 linearly extending from the lower portion 21. The lower portion 21 is generally comprised of an elongated structure and is lengthier than the upper portion 25 to extend sufficiently within the ground 12 and retain the shaft 20 in the ground 12, wherein the lower portion 21 is inserted within the ground 12 and the upper portion 25 is retained above the ground 12.

[0022] The lower portion 21 is generally substantially uniform in diameter along a length of an elongated mid-section 22 of the lower portion 21 except for a pointed or tapered lower end 23 which is angled in such a manner for easy insertion within the ground 12 and extends from the mid-section 22 opposite the upper portion 25. The lower end 23 should be long enough to support the anchor 10 in a free-standing vertical position when the anchor 10 is pressed into the ground 12 by hand.

[0023] The upper portion 25 has threads 26 preferably extending along an entire elongated length of the upper portion 25 to threadably receive the securing members and the mount 80. It is appreciated that the securing members 60, 70 and the mount 80 may couple or connect to the upper portion 25 in other manners and thus other suitable connecting means may be utilized. The upper portion 25 is comprised of a one-size diametrically threaded structure to receive both the first securing member 60 and the second securing member 70, each of which have a same-sized threaded interior diameter defined by the openings 61, 71.

[0024] The shaft 20 also generally includes an embossed section 28 substantially separating the lower portion 21 from the upper portion 25. The embossed section 28 is generally integral with the shaft 20 and extends laterally therefrom for the stabilizer cap 50 to rest thereon and prevent the stabilizer cap 50 and upper portion 25 from being inserted within the ground 12 and also to prevent the stabilizer cap 50 from sliding onto the mid-section 22 of the lower portion 21.

C. Helical Blades

[0025] The helical blades 30, 40 are used to pull the shaft 20 within the ground 12 and to retain the shaft 20 within the ground 12. The blades 30, 40 are generally comprised of a rigid and strong material, such as steel including galvanized steel, mild steel, high carbon steel, and stainless steel. Other suitable materials having properties of strength, durability, abundance, and value may also be utilized.

[0026] Generally a pilot blade 30 and a main blade 40 are at least used; however more blades 30, 40 may be used as appreciated. The pilot blade 30 is located adjacent the lower end 23 of the lower portion 21 along the bottom of the mid-section 22 and the main blade 40 is located along the mid-

section 22 between the pilot blade 30 and the embossed section 28. The outer diameter of the pilot blade 30 is also less than the outer diameter of the main blade 40 and any additional blades 30, 40 preferably follow a similar pattern where the higher the blade is located along the mid-section 22, the larger the outer diameter of the blade.

[0027] The pilot blade 30 is used to easily establish a pilot hole, allowing the main blade 40 to enter the ground 12 at the desired angle. Upon insertion within the ground 12, the pilot blade 30 and the main blade 40 become load bearing members for retaining the shaft 20 within the ground 12, the main blade 40 being the primary load bearing member to stabilize and prevent the anchor 10 from slippage and the pilot blade 30 being the secondary load bearing member for the anchor 10.

[0028] Each blade 30, 40 generally includes a body 31, 41 comprised of winding flat-structural member that forms a helix around the mid-section 22 of the shaft 20 with the ends of the body 31, 41 being vertically separated and generally forming a notch 32, 42 between thereof. The use of the notch 32, 42 reduces friction as the blades 30, 40 are rotated within the ground 12. An opening 33, 43 is formed concentrically with the body 31, 41 for receiving the mid-section 22 of the shaft 20. The body 31, 41 may be secured to the shaft 20 in various methods all which prevent the blade 30, 40 from moving relative the shaft 20.

[0029] The pilot blade 30 includes a continuous and integral sharpened edge having a first straight edge 35a, a second circular or curved edge 35b, and a third straight edge 35c each following a respective peripheral part of the body 31. Likewise, the main blade 40 has a continuous and integral sharpened edge having a first straight edge 45a, a second circular or curved edge 45b, and a third straight edge 45c each following a respective peripheral part of the body 41.

D. Stabilizer Cap

[0030] The stabilizer cap 50 is mounted upon the shaft 20, generally above the embossed section 28 and is secured thereto via the first securing member 60 for creating static pressure upon the ground 12 and to provide a stable and aesthetically pleasing base for the interchangeable mount 80 to rest upon either temporarily or permanently and also to prevent the anchor 10 from swaying after installation and keeping the original position of the anchor 10. The stabilizer cap 50 is comprised of a rigid and strong material, such as steel including galvanized steel, mild steel, high carbon steel, and stainless steel. Other suitable materials having properties of strength, durability, abundance, and value may also be utilized.

[0031] The stabilizer cap 50 generally includes a body 51 having a flat structure and generally square in shape and an opening 52 extending through the body 51 and preferably concentric with the body 51. The outer diameter of the body 51 is generally larger than the outer diameter of the main blade 40 or largest blade to prevent the stabilizer cap 50 from being pulled into the ground 12 and to sufficiently stabilize the anchor 10 to prevent the anchor 10 from tilting or moving relative the ground 12. The body 51 may also have gussets (not shown) in connection with the shaft 20 or other types of supports as necessary to retain the body 51 perpendicular to the shaft 20 or at another desired angle.

[0032] Extending downwardly from a peripheral edge of the body 51 at each of the four-corners is a stabilizing spike 54, wherein the spike 54 generally comprises a perpendicular bent portion of the body 51. The spikes 54 are for engaging

the ground **12** and retaining the stabilizer cap **50** in place to prevent the stabilizer cap **50** from rotating. Generally, a spike **54** is located at approximately four-corners of the body **51**. It is appreciated that the spikes **54** may not be integral with the body **51** and the spikes **54** may be separate components secured thereto. The bend of the spikes **54** relative the body **51** may also be various angles rather than 90 as appreciated. The spikes **54** may also be various shapes and in various numbers according to what is necessary to be inserted within the ground **12** and maintain the body **51** in a relative location and position.

E. Securing Members

[0033] Generally the anchor **10** includes a first securing member **60** positioned against an upper side of the stabilizer cap **50** and a second securing member **70** positioned against an upper side of the first securing member **60**. The first securing member **60** and the second securing member **70** are comprised of a rigid and strong material, such as steel including galvanized steel, mild steel, high carbon steel, and stainless steel. Other suitable materials having properties of strength, durability, abundance, and value may also be utilized.

[0034] The securing members **60**, **70** are preferably comprised of a threaded hexagonal nut structure with the first securing member **60** having a larger hexagonal outer diameter than the second securing member **70** to allow the first securing member **60** to accept larger wrenches or sockets than the second securing member **70** so the first securing member **60** may be accessed with the second securing member **70** also installed upon the threads **26** of the upper portion **25**.

[0035] As implied, the opening defining the inside diameter of the first securing member **60** and the second securing member **70** is generally the same to be accepted on the threads **26** of the upper portion **25**. Thus, the first securing member **60** and/or the second securing member **70** are irregular in an (exterior peripheral) outer diameter so that the first securing member **60** has a larger hexagonal (or other shape) outer diameter than the second securing member **70**. The threads **26** along the interior of the first securing member **60** and the second securing member **70** may be any type of thread depending on application and according to the threads **26** of the upper portion **25**.

[0036] The first securing member **60** is able to quickly accept a socket or wrench (over the second securing member **70**) to tighten the first securing member **60** against the immobile stabilizer cap **50**. The securing members **60**, **70** may be threaded onto the upper portion **25** via a manual, electrical, pneumatic, or mechanical device to increase the static pressure in the ground **12** between the blades **30**, **40** and the stabilizer cap **50**, rendering the anchor **10** firmly embedded within the ground **12**. Thus, the second securing member **70** does not need to be removed to access the first securing member **60** with a wrench or socket thus decreasing the time to install or remove the anchor **10** and also substantially preventing possible loss of the second securing member **70** when installing or removing the anchor **10**. In an alternate embodiment, the second securing member **70** may also be comprised of a capped structure thus limiting the travel along the upper portion **25**.

F. Interchangeable Mount

[0037] The interchangeable mount **80** is for creating an aesthetically pleasing structure on the portion of the anchor

10 above the ground **12** by covering the first securing member **60**, the second securing member **70**, the upper portion **25** of the shaft **20**, and a portion of the stabilizer cap **50**, and also for optionally retaining an attachment **88** therefrom. The interchangeable mount **80** is comprised of a rigid and strong material, such as steel including galvanized steel, mild steel, high carbon steel, and stainless steel. Other suitable materials having properties of strength, durability, abundance, and value may also be utilized. The mount **80** also effectively seals the first securing member **60**, the second securing member **70**, the upper portion **25** of the shaft **20**, and a portion of the stabilizer cap **50** to prevent and slow weathering.

[0038] Generally, the interchangeable mount **80** includes a housing **81** having sidewalls **82**, a top **83**, and an open-ended bottom **84**. Within the housing **81** is a securing member **86** comprised of a threaded fitting or threaded nut for receiving the upper portion **25** above the second securing member **70** and securing the mount **80** to the shaft **20**. The securing member **86** may be affixed to the underside of the top **83** of the housing **81** or secured to various other locations; however the securing member **86** is generally connected to the housing **81** in non-rotatable manner.

[0039] The sidewalls **82** of the housing **81** generally extend the length of the upper portion **25** so that the bottom of the sidewalls **82** engages the upper side of the body **51** of the stabilizer cap **50** and the top **83** of the housing **81** extends over the upper portion **25** of the shaft **20**. The outer perimeter of the sidewalls **82** and thus housing **81** may be substantially equal to or less than the diameter of the body **51** of the stabilizer cap **50** so that the entire lower perimeter of the sidewalls **82** is able to rest upon the body **51** of the stabilizer cap **50**.

[0040] The attachments **88** may be attached at various locations along the outer surface of the housing **81** of the mount **80** or extend therefrom from various locations. The attachment **88** may be comprised of any fitting, sign, marker, etc. such as signs, posts, scaffolding, mooring ring, guy wire, etc. that can be permanently fixed to the top **83**, sidewalls **82**, other finished location, or other locations upon the mount **80**. Thus, different mounts **80** may have different attachments **88** secured thereto, wherein to change an appearance the user simply has to interchange the mount **80** without having to remove the anchor **10** from the ground **12**.

G. Operation of Preferred Embodiment

[0041] In use, assuming the desired location of insertion has been chosen, and the appropriate size and length of the anchor **10** has been chosen the anchor **10** may be installed. The opening **52** of the stabilizer cap **50** receives the upper portion **25** so the underside of the body **51** of the stabilizer cap **50** rests upon the upper side of the embossed section **28**. The first securing member **60** is threaded part way (e.g. mid-way) upon the upper portion **25** of the shaft **20** and the second securing member **70** is threaded on the upper portion **25** against and above the first securing member **60**.

[0042] The pointed lower end **23** of the shaft **20** is then inserted into the ground **12** until the ground **12** engages the pilot blade **30**. The shaft **20** and blades **30**, **40** are then rotated with applied downward pressure so that the lower portion **21** is fully inserted into the ground **12**. The stabilizer cap **50** is also caused to slightly rise upon the upper portion **25** (since the securing members **60**, **70** are not fully tightened) thus causing a portion of the upper portion **25** to be pulled within the ground **12**.

[0043] A wrench, socket, or other tightening member is then positioned over the outer diameter of the first securing member 60 and the first securing member 60 is tightened to rotate downwardly upon the upper portion 25 and cause the stabilizer cap 50 to be sandwiched tightly between the embossed section 28 and the first securing member 60. By sandwiching the stabilizer cap 50, the upper portion 25 is raised above the ground 12 since the large circumference of the stabilizer cap 50 prevents the stabilizer cap 50 from being pulled within the ground 12 and the first securing member 60 pulls upward upon the upper portion 25 via being threadably tightened. Additionally, by tightening the first securing member 60 to cause the shaft 20 to rise, the ground 12 between the blades 30, 40 and the blade 40 and the stabilizer cap 50 is firmly compacted thus firmly embedding the shaft 20 and blades 30, 40 within the ground 12.

[0044] A smaller sized wrench, socket, or other tightening member is then used upon the outer diameter of the second securing member 70 to tighten the second securing member 70 by rotating the second securing member 70 downwardly upon the upper portion 25 until the second securing member 70 engages the first securing member 60 locking the first securing member 60 in place.

[0045] The desired mount 80 optionally having a desired attachment 88 thereon is then aligned with the upper portion 25 so that the securing member 86 of the mount 80 may be threaded onto the upper portion 25 and the housing 81 of the mount 80 conceals the first securing member 60, the second securing member 70 and the upper portion 25. The length of the upper portion 25 above the stabilizer cap 50 is preferably slightly less than the total length of the first securing member 60, the second securing member 70, and the securing member 86 of the mount 80 so that the securing member 86 of the mount 80 is spaced from the second securing member 70 and the mount 80 is able to rest upon the top of the stabilizer cap 50 for added stability. The mount 80 may also be welded or locked into position with a keylock bracket.

[0046] To remove the anchor 10 from the ground 12, the mount 80 is first removed. The second securing member 70 is then rotated partially upwards along the upper portion 25 to allow the first securing member 60 to be rotated partially upwards. A socket or wrench is then applied upon the outer diameter of the first securing member 60 in a reverse direction. The second securing member 70 prevents the first securing member 60 from rotating upwardly and as a reverse rotation is applied to the first securing member 60, the shaft 20 is forced to rotate with the first securing member 60 in a reverse direction thus causing the blades 30, 40 to reversely rotate and thus travel upwards and out of the ground 12. It is appreciated that if the depth of the tightening member is great enough, the second securing member 70 and the first securing member 60 do not need to be initially rotated upwardly to access the first securing member 60 for removing the anchor 10.

[0047] Unless otherwise defined, all technical and scientific terms used herein have the same meaning as commonly understood by one of ordinary skill in the art to which this invention belongs. Although methods and materials similar to or equivalent to those described herein can be used in the practice or testing of the present invention, suitable methods and materials are described above. All publications, patent applications, patents, and other references mentioned herein are incorporated by reference in their entirety to the extent allowed by applicable law and regulations. In case of conflict, the present specification, including definitions, will control.

The present invention may be embodied in other specific forms without departing from the spirit or essential attributes thereof, and it is therefore desired that the present embodiment be considered in all respects as illustrative and not restrictive. Any headings utilized within the description are for convenience only and have no legal or limiting effect.

The invention claimed is:

1. A ground anchor, comprising:

a shaft having a lower portion and an upper portion; said lower portion having a lower end being pointed for insertion of said lower portion within the ground and said upper portion being threaded;

at least one helical blade attached to said lower portion of said shaft;

a stabilizer cap mounted concentric adjacent said upper portion of said shaft, said cap having an outer diameter greater than said at least one helical blade;

a first securing member threaded onto said upper portion of said shaft against said stabilizer cap, said first securing member having a first interior threaded diameter and a first exterior peripheral diameter; and

a second securing member threaded onto said upper portion of said shaft above said first securing member, said second securing member having a second interior threaded diameter and a second exterior peripheral diameter;

said second interior threaded diameter being the same as said first interior threaded diameter to both be threadably received upon said threaded upper portion of said shaft and said second exterior peripheral diameter being less than said first exterior peripheral diameter for accessing said first securing member with a tightening tool while both said first securing member and said second securing member are threaded onto said upper portion of said shaft.

2. The ground anchor of claim 1, including an interchangeable mount threaded to said upper portion.

3. The ground anchor of claim 2, wherein said interchangeable mount has an attachment extending therefrom.

4. The ground anchor of claim 1, including an interchangeable mount connected to said upper portion, said interchangeable mount having a housing with an open end, said open end adapted to receive said upper portion, said first securing member, and said second securing member so that a lower rim of said housing rests on said stabilizer cap.

5. The ground anchor of claim 4, wherein said interchangeable mount has an attachment extending therefrom.

6. The ground anchor of claim 4, wherein said housing has a threaded fitting supported within said housing, said threaded fitting concentric with said housing and threaded onto said upper portion for connecting said interchangeable mount to said shaft.

7. The ground anchor of claim 6, wherein said interchangeable mount has an attachment extending therefrom.

8. The ground anchor of claim 1, wherein said exterior peripheral diameters of said first securing member and said second securing member each comprised of a hexagonal shape.

9. The ground anchor of claim 1, wherein said stabilizer cap has a plurality of spikes for insertion within the ground.

10. The ground anchor of claim 1, wherein said at least one helical blade has a first helical blade and a second helical blade, said first helical blade positioned below said second

helical blade along said shaft and said first helical blade having a lesser outer diameter than said second helical blade.

11. The ground anchor of claim 1, wherein said shaft has an embossed section laterally extending therefrom, said embossed section extending between said lower portion and said upper portion to retain said upper portion above the ground.

12. A ground anchor, comprising:
a shaft having a lower portion and an upper portion;
said lower portion having a lower end being pointed for insertion of said lower portion within the ground;
said shaft has an embossed section laterally extending therefrom, said embossed section extending between said lower portion and said upper portion to retain said upper portion above the ground;
said upper portion being threaded;
at least one helical blade attached to said lower portion of said shaft;
a stabilizer cap mounted concentric on said upper portion of said shaft, said cap having an outer diameter greater than said at least one helical blade;
a first securing member threaded onto said upper portion of said shaft against said stabilizer cap for holding said stabilizer cap against said embossed section;
a second securing member threaded onto said upper portion of said shaft above said first securing member, said second securing member having an outer diameter less than said first securing member; and
an interchangeable mount threaded to said upper portion.

13. The ground anchor of claim 12, wherein said interchangeable mount has an attachment extending therefrom.

14. The ground anchor of claim 12, wherein said interchangeable mount has a housing with an open end, said open end adapted to receive said upper portion, said first securing member, and said second securing member so that a lower rim of said housing rests on said stabilizer cap.

15. The ground anchor of claim 14, wherein said housing has a threaded fitting supported within said housing, said threaded fitting concentric with said housing and threaded onto said upper portion for connecting said interchangeable mount to said shaft.

16. The ground anchor of claim 15, wherein said interchangeable mount has an attachment extending therefrom.

17. The ground anchor of claim 12, wherein said exterior peripheral diameters of said first securing member and said second securing member each comprised of a hexagonal shape.

18. The ground anchor of claim 12, wherein said stabilizer cap has a plurality of spikes for insertion within the ground.

19. The ground anchor of claim 12, wherein said at least one helical blade including a plurality of helical blades, said helical blades having an increasingly greater diameter as said helical blades are positioned closer to said upper portion along said shaft.

20. A ground anchor, comprising:
a shaft having a lower portion and an upper portion;
said lower portion having a lower end being pointed for insertion of said lower portion within the ground;
said shaft has an embossed section laterally extending therefrom, said embossed section extending between said lower portion and said upper portion to retain said upper portion above the ground;
said upper portion being threaded;
a first helical blade and a second helical blade extending from said lower portion, said first helical blade positioned below said second helical blade along said lower portion and said first helical blade having a lesser outer diameter than said second helical blade;
a stabilizer cap mounted concentric on said upper portion of said shaft, said cap having an outer diameter greater than said second helical blade;
wherein said stabilizer cap has a plurality of spikes for insertion within the ground;
a first securing member threaded onto said upper portion of said shaft against said stabilizer cap, said first securing member having a first interior threaded diameter and a first exterior peripheral diameter;
a second securing member threaded onto said upper portion of said shaft above said first securing member, said second securing member having a second interior threaded diameter and a second exterior peripheral diameter;
said second interior threaded diameter being the same as said first interior threaded diameter to both be threadably received upon said threaded upper portion of said shaft and said second exterior peripheral diameter being less than said first exterior peripheral diameter for accessing said first securing member with a tightening tool while both said first securing member and said second securing member are threaded onto said upper portion of said shaft;
wherein said exterior peripheral diameters of said first securing member and said second securing member each comprised of a hexagonal shape; and
an interchangeable mount threaded to said upper portion; wherein said interchangeable mount has a housing with an open end, said open end adapted to receive said upper portion, said first securing member, and said second securing member so that a lower rim of said housing rests on said stabilizer cap;
wherein said housing has a threaded fitting supported within said housing, said threaded fitting concentric with said housing and threaded onto said upper portion for connecting said interchangeable mount to said shaft; wherein said housing has a hexagonal cross-section; wherein said interchangeable mount has an attachment extending therefrom.

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