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(54) **TREE AND SHRUB STABILIZING APPARATUS AND METHOD FOR STABILIZING A TREE OR SHRUB**

(57) **ABSTRACT**

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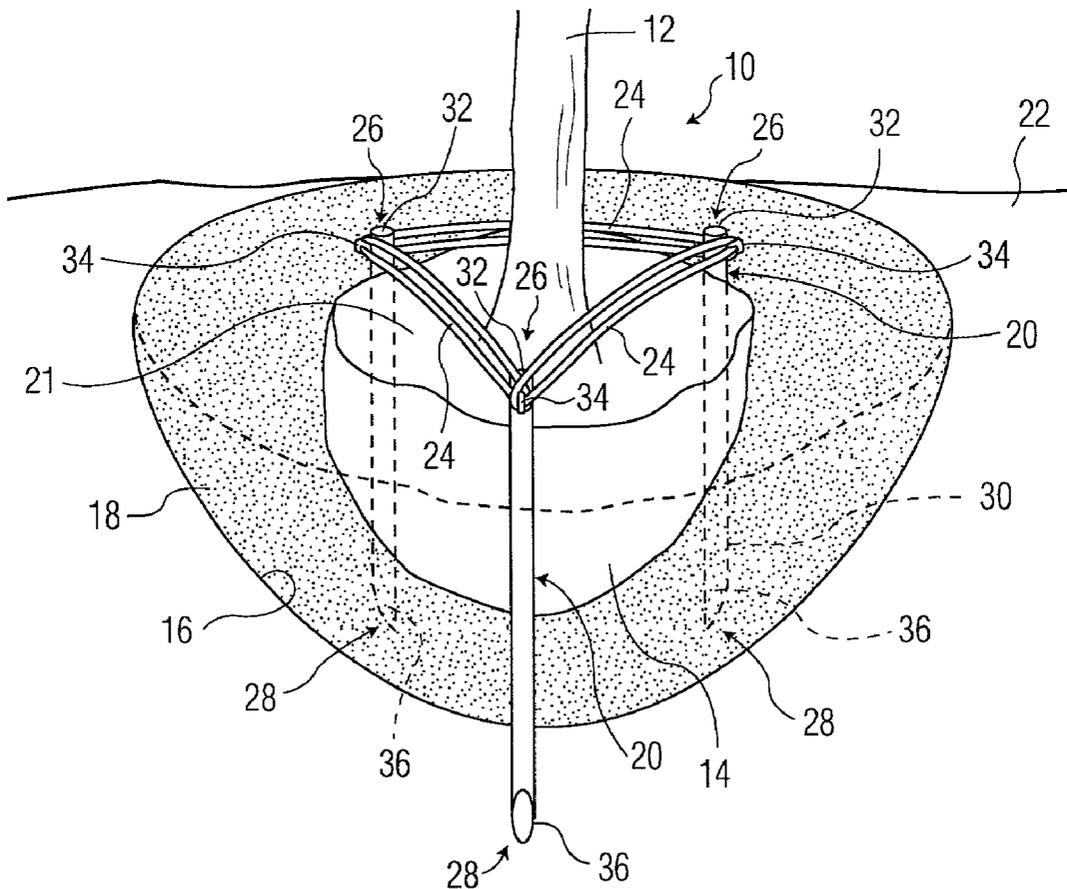
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An apparatus for stabilizing a tree or shrub, comprises a plurality of stakes each including first and second ends, respectively, the first ends being adapted for permitting the stakes to be driven into the ground, a plurality of straps, and attachment means located on the plurality of stakes, respectively, for securely attaching a portion of selected ones of the plurality of straps thereto, respectively, wherein the plurality of stakes are arranged in a desired spaced apart configuration around the root ball, and driven via their respective first ends at least partly into the ground, each of the plurality of straps being individually connected via the attachment means to and between a selected pair of the plurality of stakes, respectively, for providing a desired configuration of a single layer or multiple overlying layers of the plurality of straps, whereby the plurality of straps are positioned over and against the root ball to provide a downward force there-against and to secure the root ball in place.



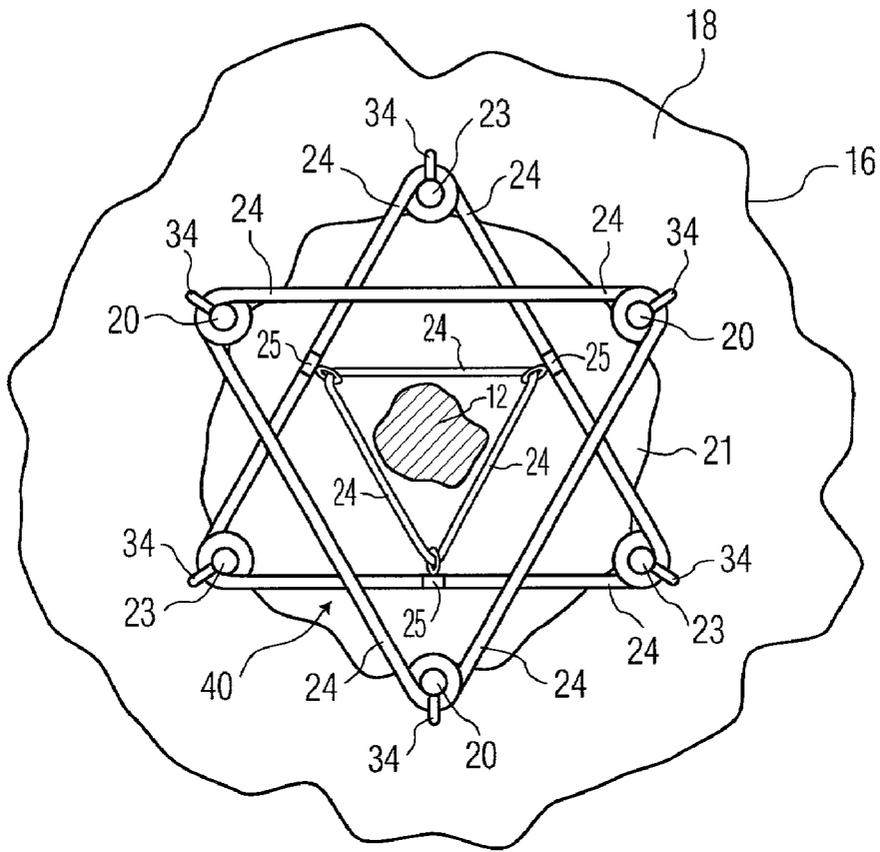


FIG. 3

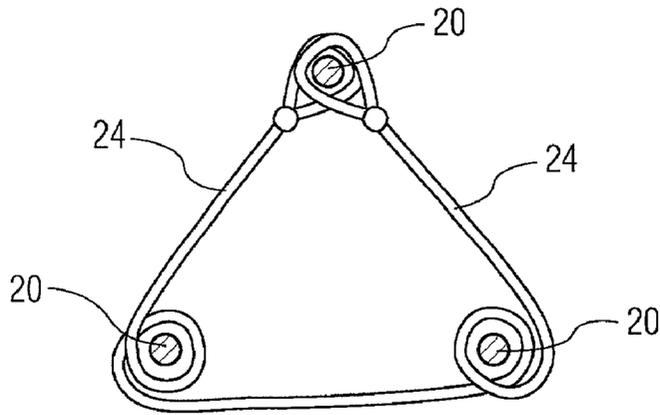


FIG. 4

TREE AND SHRUB STABILIZING APPARATUS AND METHOD FOR STABILIZING A TREE OR SHRUB

RELATED PATENT APPLICATION AND PATENTS

[0001] This Application is related to U.S. patent application Ser. No. _____: (Attorney Docket No. 1002.1.004), entitled UNITARY TREE AND SHRUB STABILIZING DEVICE, filed on Apr. 1, 2002; U.S. Pat. No. 6,141,903, entitled TREE STAPLE, issued on Nov. 7, 2000; and U.S. Pat. No. 6,065,243, entitled TREE AND SHRUB STABILIZING DEVICE, issued on May 23, 2000. Each of the related patent application and patents have common ownership herewith.

FIELD OF THE INVENTION

[0002] The present invention relates generally to an apparatus for stabilizing newly planted trees and shrubs to prevent them from shifting or toppling while their root systems are first developing,

BACKGROUND OF THE INVENTION

[0003] In the initial period, newly planted trees or shrubs typically require some level of assisted support to avert tilting or toppling. Strong winds and excessive moisture can cause a poorly supported tree or shrub to lean excessively or fall to the ground. Adequate support not only enhances the survival of the tree or shrub during the critical growth period, but also reduces the risks of injury to people and of damage to property. The support is usually maintained until the roots have sufficiently established themselves in the ground. The time required for the roots to establish themselves can vary depending on tree or shrub type, growth conditions, soil type and condition, moisture and nutrient level and other factors. Adequate support is necessary for larger trees or shrubs especially those planted during wet or freezing weather.

[0004] Conventional methods for supporting trees or shrubs typically include driving two or more stakes into the ground adjacent to the trunk or the tree or shrub and tethering guy lines between the trunk and the respective stakes to provide the support. The stakes are usually composed of wood or other suitable material in the form of short spikes a few inches in length to elongate poles a few feet long. The stakes and guy lines are typically adapted for single use. Such conventional methods are also generally suitable for stabilizing small to moderate sized trees and shrubs, and are not recommended for supporting substantially larger trees and shrubs.

[0005] There are several disadvantages associated with using stakes and guy line systems. The stakes and guy lines are typically exposed above grade level of the ground, and can pose hazards to passing traffic such as pedestrians, children, ground maintenance equipment such as lawnmowers and the like. The presence of such components are usually displeasing to the eye and often undesirably detract from the appearance of the tree or shrub and the surrounding area. The stakes and guy lines also need frequent attention and adjustment, since they can become loosened, vandalized, damaged, shifted or simply outgrown by the tree or shrub. Once the roots of the tree or shrub have established

themselves, the stakes and guy lines require prompt disassembly and removal to avoid inflicting potentially fatal injuries to the tree or shrub as it grows.

[0006] For the foregoing reasons, there is a need for developing an improved device and method for providing a tree or shrub with adequate support at the time of planting that avoids the limitations and disadvantages typically associated with conventional devices and methods as highlighted above.

SUMMARY OF THE INVENTION

[0007] The present invention is directed to an apparatus and a method for stabilizing a tree or a shrub to prevent it from toppling from a vertical position. The apparatus generally includes two or more stakes inserted into the ground in a circumferentially spaced apart manner around the root ball of a tree or shrub, with one or more pieces or straps of flexible material secured to the stakes. As the stakes are driven into the ground, the one or more straps are drawn downwardly to exert a constant pressure upon the root ball, thus immobilizing it and preventing movement that can result in toppling of the associated tree or shrub.

[0008] In one particular aspect of the present invention, there is provided an apparatus for stabilizing a tree or shrub, comprising:

[0009] a plurality of stakes each including first and second ends, respectively, the first ends being adapted for permitting the stakes to be driven into the ground; and

[0010] at least one strap having portions thereof individually to and between selected pairs of the plurality of stakes, respectively, wherein the plurality of stakes are arranged in a desired spaced apart configuration around the root ball, and driven via their respective first ends at least partly into the ground, whereby the portions of the at least one strap are positioned over and against the root ball desired configuration to provide a downward force thereagainst and to secure the root ball in place.

[0011] In another particular aspect of the present invention, there is provided an apparatus for stabilizing a tree or shrub, comprising:

[0012] a plurality of stakes each including first and second ends, respectively, the first ends being adapted for permitting the stakes to be driven into the ground;

[0013] at least one strap; and

[0014] attachment means located on the plurality of stakes, respectively, for securely attaching a portion of the at least one strap thereto, wherein the plurality of stakes are arranged in a desired spaced apart configuration around the root ball, and driven via their respective first ends at least partly into the ground, and the at least one strap has individual portions connected via the attachment means between selected ones of the plurality of stakes in a desired configuration for positioning the portions of the at least one strap over and against the root ball in a desired configuration to provide a downward force thereagainst and to secure the root ball in place.

[0015] In another particular aspect of the present invention, there is provided an apparatus for stabilizing a tree or shrub, comprising:

[0016] a plurality of stakes each including first and second ends, respectively, the first ends being adapted for permitting the stakes to be driven into the ground; and

[0017] a plurality of straps each being individually attached to and between a selected pair of the plurality of stakes, respectively, wherein the plurality of stakes are arranged in a desired spaced apart configuration around the root ball, and driven via their respective first ends at least partly into the ground, whereby the plurality of straps are positioned over and against the root ball to provide a downward force thereagainst and to secure the root ball in place.

[0018] In another particular aspect of the present invention, there is provided a method for stabilizing a tree or shrub, comprising:

[0019] inserting a plurality of stakes into the ground in a spaced apart arrangement around the circumference of the root ball of the tree or shrub;

[0020] attaching either each one of a plurality of straps individually between selected pairs of the plurality of stakes, respectively, or a single elongated strap with portions thereof between the selected pairs of the plurality of stakes, across and against a top portion of the root ball; and

[0021] tensioning the plurality of straps attached to and between the corresponding selected pairs of the plurality of stakes to provide a sufficient downward force against the root ball to secure the root ball in place.

BRIEF DESCRIPTION OF THE DRAWINGS

[0022] The various embodiments of the invention are described in detail below with reference to the drawings, in which like items are identified by the same reference designation, wherein;

[0023] FIG. 1 is a partial cross sectional view of a planting hole in which the root ball of a tree is planted and stabilized therein by tree stabilizing apparatus for one embodiment of the present invention;

[0024] FIG. 2 is a pictorial view a stake of the tree stabilizing apparatus for one embodiment of the present invention;

[0025] FIG. 3 is a top view of tree stabilizing apparatus installed around a tree for another embodiment of the present invention; and

[0026] FIG. 4 is a schematic illustration of a suitable layout for securing a strap to a plurality of stakes in accordance with the present invention.

DETAILED DESCRIPTION OF THE INVENTION

[0027] The present invention is generally directed to apparatus for stabilizing trees or shrubs and to prevent their toppling over or shifting from a vertically upright position.

The apparatus can be installed in a rapid and simple manner, while being cost effective to fabricate. The apparatus is designed for effective concealment, thus providing a desirable neat appearance of the surrounding area and minimizing obstructions to passing traffic. The apparatus is further designed to avoid direct contact with an associated tree or shrub that may cause damage or injury to the trunk or root system thereof.

[0028] With reference to FIG. 1, a tree stabilizing apparatus 10 is illustrated for one embodiment of the present invention. The apparatus 10 is adapted to provide safe and effective support to a tree 12 having a root ball 14 surrounded by fill soil 18 in a planting hole 16. The planting hole 16 is typically prepared by digging a hole having a diameter twice that of the root ball 14. The apparatus 10 includes two or more stakes 20 arranged in a spaced apart manner around and adjacent to the circumference of the root ball 14. In this example, three stakes 20 are shown positioned equidistant from one another. It is noted that the number and arrangement of the stakes can vary depending on the size of the tree and root ball, the soil conditions, soil type and the like.

[0029] The stakes 20 are each configured to be driven vertically through the fill soil 18 into surrounding undisturbed soil 22 beneath the planting hole 16 to provide firm anchoring. Preferably, the stakes 20 are positioned adjacent to the root ball 14 of the tree 12. The stakes 20 are adapted to be driven into the ground through suitable means including hammering and the like. It is noted that the lengths of the stakes 20 can be modified as necessary depending on the needs of the application at hand, the depth of the planting hole, soil conditions, terrain features, and the like.

[0030] The apparatus 10 further includes a plurality of flexible straps 24, each having one end securely attached to an upper portion 26 of one stake 20 and the other end securely attached to the upper portion 26 of a successive stake 20. Each of the flexible straps 24 is secured to and between successive stakes 20, respectively and, in combination, forming a support band extending over the root ball 14 around the tree 12, as shown. As the stakes 20 are driven deeper into the ground, the support band comprising the co-joined successive flexible straps 24 is drawn downward against the top portion 21 of the root ball 14. In the installed state, the stakes 20 are adapted to securely retain the corresponding flexible straps 24 where a continuous downward pressure is applied over the top portion 21 of the root ball 14 to safely and effectively immobilize the root ball 14 in place. In this manner, the apparatus 10 can effectively minimize undesirable movement that may cause the tree 12 to shift or topple to the ground.

[0031] The flexible straps 24 are each further adapted to conform to the shape and contours of the root ball 14 and to uniformly distribute the downward pressure on the top portion 21 of the root ball 14. In this manner, the shear and strain generated by the tree 12 are effectively dispersed over a significant area of the root ball 14, thus preventing or at least substantially minimizing injury or damage to the tree roots as the tree 12 is retained in a desired orientation. The straps 24 can be fabricated from any flexible material including, but not limited to, elastomeric materials, woven and non-woven materials, biodegradable materials, plastic materials, fibrous materials and the like. Preferably, the

straps **24** are formed from a biodegradable, environmentally-acceptable and safe material such as burlap, linen, and the like that can slowly decompose over time and eventually mix with the surrounding soil. Accordingly, the apparatus **10** can be permanently installed in the ground with little or no adverse effect on the tree's root system. It is further noted that the dimension, thickness and shape of the flexible straps **24** can also vary as required depending on the means of attachment to the stakes, the number of stakes used, the configuration of the stakes, root ball dimensions and the like.

[0032] In an alternative embodiment, the plurality of straps **24** can be supplanted by a single unitary piece or segment of flexible material extending around the tree or shrub **12** and secured to the upper portions **25** of the successive stakes **20** to form a closed polygonal-like band therearound over the root ball **14**. The stakes **20** can then be driven into the ground until the unitary piece or segment of flexible material is pulled downward onto the root ball **14** for secure retainment. Also, for this embodiment, and other of the embodiments, any excess length of a strap **24** can be taken up by wrapping the strap **24** a number of times around a top portion of an associated stake **20**.

[0033] Referring to FIGS. 1 and 2, each of the stakes **20** includes an upper portion **26**, a lower portion **28** and a shaft portion **30** extending therebetween. The stake **20** can be fabricated with a solid or tubular construction using a durable, rigid material that is impact resistant including metal such as ferrous-based materials, plastic polymers, wood materials, fibrous material or other suitable material that is at least minimally safe for plants including trees and shrubs, and free from harmful plating or coatings, for example.

[0034] In another embodiment of the present invention, the stake **20** can be fabricated from a plastic polymer material preferably biodegradable plastic polymer. The plastic polymer can be extruded, molded or reinforced, and is capable of withstanding the rigors associated with installation and use. The plastic polymer material can be further impregnated with a soil enriching or conditioning agent that can be released over time into the surrounding soil and provide beneficial sustenance for the growth of plants, including trees and shrubs. Such soil enriching agent can include minerals, ion forming compounds, fertilizers including fixed nitrogen sources, and other suitable plant nutrients.

[0035] The upper portion **26** of the stake **20** further includes a striking end **32** configured to receive and direct the impact of a hammer or mallet along the length thereof, and one or more hook members **34** (see FIG. 2) adapted for facilitating attachment of one or more strap **24** thereto. The hook member(s) **34** can be formed on the stake **20** through suitable means including welding, casting and the like. The hook member(s) **34** are not limited to the form depicted in the drawings, and can include other forms or structures capable of facilitating secure attachment of the strap **24** to the stake **20** as known by one of ordinary skill in the art.

[0036] As shown in FIG. 1, at least where only one hook member **34** is provided the hook members **34** in the apparatus **10** are generally oriented radially away from the center of the tree **12**, thereby ensuring the retainment of the straps **24** thereon. In the present embodiment, the straps **24** can be fabricated from a woven material such as burlap and the like, in the form of substantially elliptical bands, or loops, in this

example. Each strap **24** is secured between successive stakes **20** by looping or fastening the ends thereof onto the corresponding hook members **34**. Alternatively, the straps **24** can be in the form of strips fabricated with a reinforced eyelet at each opposed ends thereof to facilitate secure fastening engagement with the corresponding hook members **34** between the corresponding stakes **20**, respectively.

[0037] The lower portion **28** of the stake **20** includes a ground penetrating tip **36**. In one embodiment, the tip **36** can be formed by cutting the lower portion **28** at an angle suitable for forming a sharp point. For tubular constructions, the tip **36** can be modified to be sealed from the exterior through suitable means include pinching, heat welding or the like. Alternatively, the tip **36** can be formed by shearing the lower end **28** of the stake **20**. For tubular constructions, the tip **36** is effectively sealed during formation. The method of forming the tip **36** is not limited to that disclosed above and can include other methods of forming a sharp ground penetrating tip as known in the art.

[0038] The installation of the apparatus **10** will now be described in connection with FIGS. 1 and 2. The root ball **14** is placed into the planting hole **16**. The planting hole **16** is filled with a fill soil **18** to elevate the base of the tree **12** or the top portion of its root ball **14** above or even with the finished grade. With the root ball **14** and the fill soil **18** installed in the planting hole **16**, the stakes **20** are arranged in a spaced apart manner around the tree **12** along or adjacent to the periphery of the root ball **14**. In other words, the stakes **20** located proximate the root ball **14** about the circumference thereof. The number and spatial distribution of the stakes **20** around the circumference of the root ball **14** can be modified as required to meet the support needs of the tree **12**.

[0039] The stakes **20** are preferably adapted to extend through the fill dirt **18** into the surrounding undisturbed soil **22** for deep anchoring engagement. The stakes **20** are driven to a partial depth into the ground by striking each stake **20** at the striking end **32** using conventionally available mallets, sledge hammers or other appropriate means. Thereafter, the ends of each flexible strap **24** are secured to the respective hook members **34** of the adjacent stakes **20**. With the tree **12** retained in a desired position, the stakes **20** are driven deeper into the ground to pull downward and to more firmly or tightly draw the flexible straps **24** onto the top portion **21** of the root ball **14**. Alternatively, prior to permanent securement of the straps **24** to the stakes **20**, a tensioning device or a winch can be used to adjust the tension in the straps **24** as required to attain firm retainment of the root ball **14**. Note that when so installed, the tips **36** of the stakes **20** are firmly lodged into the surrounding undisturbed soil **22** beneath the planting hole **16**. Once the apparatus **10** is installed, the top portion **21** of the root ball **10** can be covered with a layer of fill soil **18** and/or a layer of mulch or other suitable planting material. Optionally, the striking ends **32** can be driven down to below ground level for concealed installation of the apparatus **10**.

[0040] With reference to FIG. 3, tree stabilizing apparatus **40** is shown for an alternative embodiment of the present invention. The apparatus **40** includes six stakes **20** and **23**, respectively, installed in the ground around the circumference of the root ball **14** in a spaced apart arrangement, and six straps **24** secured to and between corresponding pairs of

stakes **20** or **23**. The stakes **20** and **23**, respectively, are each driven into the fill soil **18** and extend into undisturbed soil beneath the planting hole **16** as described above. Each of the straps **24** are secured to and between corresponding stakes **20** or **23**, respectively, by a hook member **34** projecting from the stakes **20** and **23**, respectively. In this arrangement, the apparatus **40** includes two overlapping layers of straps **24** pressed tightly downward against a top portion **21** of the root ball **14**.

[0041] The number of stakes and patterns of straps are not limited to the embodiment shown herein, and can include further configurations having a single layer or multiple overlapping layers of straps as required to adapt to the needs of the tree stabilizing application, for enhancing stabilization. Furthermore, the straps can be arranged in different configurations and patterns depending on the corresponding pairs of stakes selected for securement of the straps in accordance with the present invention. For example, as shown in FIG. 3, eyelets **25** or other suitable fastening means can be added at intermediary points of the straps **24** to permit additional straps **24** to be installed between the respective eyelets **25** to provide additional support for small or weak root balls.

[0042] With reference to FIG. 4, a schematic layout is shown to illustrate an alternate arrangement for securing a single unitary strap **24** to a plurality of stakes **20**. With the stakes **20** suitably installed in the manner described above, the single unitary strap **24** can be readily fastened to the plurality of stakes **20** to secure the tree or shrub root ball. One end of the strap **24** is fastened to a first stake **20**, in this example, by slipping a looped end portion over the corresponding first stake **20**. The strap **24** is then drawn to the stake **20** adjacent to the first stake **20**, and wrapped there-around at least once. The same process is repeated for the next successive stake **20**. The other end of the strap **24** is looped and fastened to the first stake **20**, as shown, to complete the circumferential loop around the tree or shrub. Preferably, the strap **24** is fastened in a taut condition wherein sufficient tension is generated, typically by driving the stakes **20** further into the ground, to effectively retain the tree or shrub root ball thereunder. Optionally, any excess length of the strap **24** can also be wrapped around the stakes **20** as needed to achieve a taut condition.

[0043] Although various embodiments of the invention have been shown and described, they are not meant to be limiting. Those of skill in the art may recognize various modifications to these embodiments, which modifications are meant to be covered by the spirit and scope of the appended claims. For example, if the integrity of the root ball of a tree is disrupted by drying, poor preparation or rough handling, causing the dirt to break away from the root ball, guy lines may be optionally secured to the hooks **34** of the stakes **20** and the trunk of the tree **12**.

What is claimed is:

1. An apparatus for stabilizing a tree or shrub, comprising:
 - a plurality of stakes each including first and second ends, respectively, said first ends being adapted for permitting the stakes to be driven into the ground; and
 - a plurality of straps each being individually attached to and between a selected pair of the plurality of stakes, respectively, wherein said plurality of stakes are

arranged in a desired spaced apart configuration around the root ball, and driven via their respective first ends at least partly into the ground, whereby said plurality of straps are positioned over and against said root ball to provide a downward force thereagainst and to secure the root ball in place.

2. An apparatus for stabilizing a tree or shrub, comprising:
 - a plurality of stakes each including first and second ends, respectively, said first ends being adapted for permitting the stakes to be driven into the ground;
 - a plurality of straps; and

attachment means located on said plurality of stakes, respectively, for securely attaching a portion of selected ones of said plurality of straps thereto, respectively, wherein said plurality of stakes are arranged in a desired spaced apart configuration around the root ball, and driven via their respective first ends at least partly into the ground, each of said plurality of straps being individually connected via said attachment means to and between a selected pair of said plurality of stakes, respectively, for providing a desired configuration of a single layer or multiple overlying layers of said plurality of straps, whereby said plurality of straps are positioned over and against said root ball to provide a downward force thereagainst and to secure the root ball in place.

3. The apparatus of claim 2, wherein the plurality of straps are each composed of flexible material.
4. The apparatus of claim 3, wherein the flexible material is selected from the group consisting of elastomeric materials) woven materials, non-woven materials, biodegradable materials, plastic materials and fibrous materials.
5. The apparatus of claim 3, wherein the flexible material is selected from the group consisting of burlaps, linens and plastics.
6. The apparatus of claim 2, wherein the selected stake pairs each comprise alternate ones of the plurality of stakes.
7. The apparatus of claim 2, wherein the selected stake pairs each comprise successive ones of the plurality of stakes.
8. The apparatus of claim 2, wherein the plurality of stakes include at least three stakes.
9. The apparatus of claim 2, wherein the plurality of stakes each comprise a structural construction selected from the groups consisting of tubulars and solids.
10. The apparatus of claim 2, wherein the attachment means further comprises at least one hook member.
11. The apparatus of claim 10, wherein the at least one hook member is directed radially away from the center of the tree or shrub.
12. The apparatus of claim 2, wherein the second end further comprises a striking area.
13. The apparatus of claim 2, wherein the plurality of stakes are each composed of a material selected from the group consisting of metals, plastics and wood materials.
14. The apparatus of claim 2, wherein said plurality of straps each further include a fastening means at an intermediary point thereof between respective pairs of said plurality of stakes for securing additional ones of said plurality of straps between selected pairs of said fastening means, respectively.
15. The apparatus of claim 14, wherein the fastening means is an eyelet.

- 16.** A method for stabilizing a tree or shrub, comprising:
 inserting a plurality of stakes into the ground in a spaced apart arrangement around the circumference of the root ball of the tree or shrub;
 attaching either each one of a plurality of straps individually between selected pairs of said plurality of stakes, respectively, or a single elongated strap with portions thereof between said selected pairs of said plurality of stakes, across and against a top portion of the root ball; and
 tensioning the plurality of straps attached to and between the corresponding selected pairs of said plurality of stakes to provide a sufficient downward force against the root ball to secure the root ball in place.
- 17.** The method of claim 16, wherein the tensioning step comprises driving the selected pairs of said plurality of stakes further downward into the ground until the plurality of straps or portions of said single strap are drawn tightly downward against the top portion of the root ball.
- 18.** The method of claim 17, further comprising driving the plurality of stakes into undisturbed soil located below the tree or shrub.
- 19.** The method of claim 18, attaching an additional strap to and between a select pair of said plurality of straps.
- 20.** An apparatus for stabilizing a tree or shrub, comprising:
 a plurality of stakes each including first and second ends, respectively, said first ends being adapted for permitting the stakes to be driven into the ground;
 at least one strap; and
 attachment means located on said plurality of stakes, respectively, for securely attaching a portion of said at least one strap thereto, wherein said plurality of stakes are arranged in a desired spaced apart configuration around the root ball, and driven via their respective first ends at least partly into the ground, and said at least one strap has individual portions connected via said attachment means between selected ones of said plurality of stakes in a desired configuration for positioning the portions of said at least one strap over and against said root ball in a desired configuration to provide a downward force thereagainst and to secure the root ball in place.
- 21.** The apparatus of claim 20, wherein said at least one strap is composed of flexible material.
- 22.** The apparatus of claim 21, wherein the flexible material is selected from the group consisting of elastomeric materials, woven materials, non-woven materials, biodegradable materials, plastic materials and fibrous materials.
- 23.** The apparatus of claim 21, wherein the flexible material is selected from the group consisting of burlaps, linens and plastics.
- 24.** The apparatus of claim 20, wherein the selected stake pairs each comprise alternate ones of the plurality of stakes.
- 25.** The apparatus of claim 20, wherein the selected stake pairs each comprise successive ones of the plurality of stakes.
- 26.** The apparatus of claim 20, wherein the plurality of stakes include at least three stakes.
- 27.** The apparatus of claim 20, wherein the plurality of stakes each comprise a structural construction selected from tubular or solid.
- 28.** The apparatus of claim 20, wherein the attachment means further comprises at least one hook member.
- 29.** The apparatus of claim 28, wherein the at least one hook member is directed radially away from the center of the tree or shrub.
- 30.** The apparatus of claim 20, wherein the second end further comprises a striking area.
- 31.** The apparatus of claim 20, wherein the plurality of stakes are each composed of a material selected from the group consisting of metals, plastics and wood materials.
- 32.** The apparatus of claim 20, wherein said at least one strap each further includes a fastening means at an intermediary point of the portions thereof between respective pairs of said plurality of stakes for securing additional straps between selected pairs of fastening means, respectively.
- 33.** The apparatus of claim 32, wherein the fastening means is an eyelet.
- 34.** An apparatus for stabilizing a tree or shrub, comprising:
 a plurality of stakes each including first and second ends, respectively, said first ends being adapted for permitting the stakes to be driven into the ground; and
 at least one strap having portions thereof individually to and between selected pairs of said plurality of stakes, respectively, wherein said plurality of stakes are arranged in a desired spaced apart configuration around the root ball, and driven via their respective first ends at least partly into the ground, whereby said portions of said at least one strap are positioned over and against said root ball desired configuration to provide a downward force thereagainst and to secure the root ball in place.

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