An assembly for creating a portable enclosure includes a plurality of individual and elongated ground engaging units, each having an elongated body and an end extending ground engaging portion. A magazine fixedly secures in vertically extending fashion along each of the units, a screen adapted to being withdrawn from the magazine and including hooks defined along a forward withdrawable edge. A plurality of rings extend along a further vertically extending edge associated with each of the units, and which is adapted to receive the hooks associated with a screen withdrawn from a succeeding located unit, in order to construct a barrier between the units.
PORTABLE PRIVACY FENCE INCORPORATING GROUND SECURED POSTS, EACH INCLUDING A MESH UNWINDING SECTION AND A SUCCEEDING SUPPORTING SECTION

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The present invention relates generally to a portable privacy fence design and, more particularly, to a privacy fence constructed by a plurality of individual and ground securable posts, each including a mesh unwinding section and a hook attachment for establishing either of an open or closed portable perimeter in an earth securing fashion.

[0003] 2. Description of the Prior Art

[0004] The prior art is well documented with varying examples of ground securable and portable wind screen or privacy perimeter assemblies. The objective in each instance is to assemble a portable screen device in a given location.

[0005] Gingrich, U.S. Pat. No. 5,875,597, teaches a height-adjustable space-dividing screen including a pair of height adjustable posts and a flexible fabric screen having the opposite ends thereof connected to the support posts. Of note, an outer tube associated with each post is rotatable in order to wind or unwind a flexible fabric and which may be interconnected to other pedestal support units as illustrated. The outer tubes are also rotatable so as to height adjust the screen. Additional screens are capable of being suspended from the support poles while the opposite free ends of the screens are supported by additional support posts to provide a readily adjustable privacy screen arrangement.

[0006] U.S. Pat. No. 4,576,364, issued to O'Fearna, teaches a portable screen of fabric held upright by a plurality of hollow poles clamped to the fabric by C clamps, each typically the length of the pole. A stake is telescoped within each hollow pole, and held in an extended position, so as to adjust the height of the screen, by the friction of a resilient sleeve near the top of the stake, and additionally by a C clamp around the stake adjust up against the pole. Straps are provided to secure the screen in a rolled-up condition, and to carry the rolled up screen.

[0007] U.S. Pat. No. 6,092,792, issued to Camara, teaches a portable barrier apparatus defining a multi-sectioned barrier for protection against wind and sand in various outdoor environments. A connected plurality of flexible barrier panels may be supported in an upright manner with a plurality of pole members. The apparatus further includes a protective panel member which generally covers the barrier panel member in an deployed configuration. The invention provides a compact transport-configured package for user carrying of the barrier.

[0008] U.S. Pat. No. 6,959,919, issued to Knott, Sr., teaches a wire fencing material including parallel line and fill wires extending respectively lengthwise and widthwise. The line and fill wires are secured to one another by welding at cross over locations, and at selected locations and between adjacent fill wires, the line wires having segments projecting alternately from opposite sides of the fencing to thereby define sleeves configured and dimensioned to axially receive support posts.

[0009] U.S. Pat. No. 5,033,719, issued to Cardente, teaches a length of fabric supported by aluminum rods forced into sand or the like and providing a fence for the purpose of deflecting windblown sand away from beachgoing sunbathers, and while offering more privacy in a lightweight device.

[0010] Finally, U.S. Pat. No. 4,981,152, issued to Laurent, teaches a portable, foldable beach screen providing privacy and protection from wind and blowing sand for a reclining individual. The screen is constructed from a single panel and is foldable into a compact and easily carried configuration. The screen may further include a reflective material on one or both major surfaces and can carry advertising messages or other printing.

SUMMARY OF THE PRESENT INVENTION

[0011] The present invention discloses a ground support privacy enclosure assembly, and which is an improvement over prior art devices, in that it provides a more effective earth supported enclosure for establishing a desired privacy screen configuration.

[0012] The present invention teaches a plurality of individually ground securable and spaced apart units. Each unit includes a vertically extending and elongated body, at a lower extending end of which is defined a spike, modified spike or fork portion for securely engaging the ground location.

[0013] A withdrawable screen is supported upon a magazine, in turn fixedly secured in vertically extending fashion along a likewise vertically extending edge location of the associated and elongated body portion. An opposite and likewise vertically extending edge location of each elongated body further includes a plurality of fastening rings, these being engaged by a like plurality of hooks defined along a withdrawing edge of a selected mesh screen associated with a succeeding emplaced unit.

[0014] In this manner, a screen enclosure is defined by any plurality of enclosure/barrier defining units, ranging from two for a given linear extending fence applications, to any increased number of units for assembling any suitable barrier defining enclosure, including polygonal enclosures and the like. Furthermore, the fastening rings associated with a given unit can support more than one individual set of hooks, these associated with more than screen, in order to further compartmentalize a given defined enclosure.

BRIEF DESCRIPTION OF THE DRAWINGS

[0015] Reference will now be made to the attached drawings, when read in combination with the following detailed description, wherein like reference numerals refer to like parts throughout the several views, and in which:

[0016] FIG. 1 is a perspective view of a screen withdrawal unit according to a first preferred embodiment of the present invention;

[0017] FIG. 2 is a perspective view of a screen withdrawal unit according to a second preferred embodiment of the present invention;

[0018] FIG. 3 is an environmental view illustrating one of an endless possibility of possible assembly configurations provided by the screen assembly device according to the present invention;
FIG. 4 is a partial view of a ground stake portion of an associated screen withdrawal unit according to a possible variant of the present invention;

FIG. 5 is a partial view of a further variant of a ground stake portion according to a still further possible variant;

FIG. 6 is a partial view of a yet further variant of an auger shaped ground engaging stake according to the present invention;

FIG. 7 is a perspective view of a yet further variant of the present design, similar to that shown in FIG. 2, and by which additional sets of height offset ring portions are defined extending in circumferentially offset fashion; and

FIG. 8 is a top view of the variant shown in FIG. 7 and better illustrating the ability to utilize a selected vertically extending unit in a centrally located and subdividing role according to a further variant of the present invention.

**DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT**

[0024] Referring now to FIG. 1, a ground support privacy enclosure assembly is illustrated 10 according to a first preferred embodiment of the present invention. As described previously, the assembly 10 is an improvement over prior art devices, in that it provides a more effective earth supported enclosure for establishing a desired privacy screen according to any of an infinite variety of configurations.

[0025] As shown again in FIG. 1, the present invention teaches any plurality (from two to infinity) of individually ground secureable and spaced apart units, one of which is illustrated at 10. Each unit includes a vertically extending and elongated body 12, such as a wooden, polymer, or lightweight metallic (e.g. aluminum) material. At a lower extending end of the stem 12 is defined a ground engaging portion 14. As illustrated in the partial view of FIG. 5, the ground engaging portion 14 is further illustrated as a spike portion exhibiting a plurality of radially extending flutes and which likewise can be constructed of a heavy duty plastic or metal material.

[0026] As further referenced in FIG. 5, the opposing ends of the spike 14 and stem 12 exhibit threadably engaging portions, such as is further illustrated by an exteriorly threaded portion 16 associated with an inner end of the spike 14 and which engages within a likewise interiorly threaded aperture 18 associated with the stem 12 for releasably securing the earthen engaging portion to the downwardly extending end of the stem 12. As further shown in FIG. 4, the earthen engaging portion may further be provided as a fork shaped element 20 exhibiting a primary prong 22 and a secondary and spaced apart prong 24 interconnected with the primary prong. Other and additional variants of earthen/ground engaging portions are contemplated and may include quasi-shaped prong, fork or other spade shaped components.

[0027] Referring again to FIG. 1, a withdrawable screen is provided supported within an elongate extending and three-dimensional magazine compartment 24, in turn fixedly secured in vertically extending fashion along the stem portion 12. As shown in the variant of FIG. 1, the magazine is constructed as a three-dimensional extending and internally hollowed component 26 coaxially arrayed around an extending length of the stem 12.

[0028] An uppermost extending end of the stem 12 terminates in a flattened end 28, this being suitable for engaging with a hammer or other heavy object and in order to drive the unit downwardly into an earthen-turf location. Also, at 29 is illustrated a flat lip or flange which can project from a lower location of the stem 12 and in order to facilitate such as foot generated embedding of the spike or ground engaging portion. Also, and as described herein, a hammer can be used to engage the lip or flange 29 to facilitate movement of the selected unit. In certain applications, such as engaging the unit into loose sand, adequate downward pressure exerted along the length of the stem usually provides adequate driving forces, and without the need to “hammer” the stake down from the top.

[0029] A mesh screen 30 is adapted to being withdrawn or from the fixedly mounted magazine (illustrated again as an interiorly hollowed drum element 26 in FIG. 1) and includes a first plurality of interengageable portions, e.g. hooks 32, defined along a forward withdrawable and typically reinforced edge. 34. A plurality of second interengageable portions, e.g. rings 36, extend in vertically extending fashion along a further vertically extending (typically opposite) edge associated with each of the individual units.

[0030] In practice, and as shown in FIG. 3, an assembly configuration is achieved and whereby the first interengageable portions associated with a screen withdrawn from a given unit 10 are engageable with the rings associated with a further located unit 10', and in order to construct a barrier between the units. As shown, the procedure is repeated between the unit 10' and a further succeeding unit 10'' to extend/modify the enclosure created.

[0031] The mesh screen 30 (typically a flexible plasticized or metallic fine grade material) is desirously held under a minimal degree of winding tension from the magazine compartment from which is withdrawn, and in order to establish a neat barrier appearance. The construction of the winding mechanisms of the associated magazine are further understood to be known to those of adequate skill in the art and such that a more detailed description is not required.

[0032] In this manner, a screen enclosure may be created, and such as is defined by any plurality of enclosure/barrier defining units, ranging from two for a given linear extending fence applications, to any increased number of units for assembling any suitable barrier defining enclosure, including polygonal enclosures and the like. Furthermore, the fastening rings associated with a given unit can support more than one individual set of hooks, these associated with more than one screen (see as further shown by screens 30, 30' and 30'' in the manner illustrated in FIG. 3), in order to further compartmentalize (or subdivide) a given defined enclosure.

[0033] Referring to FIG. 2, a further embodiment is shown as 38 of a selected unit having a specified shape and size further including an elongated stem portion 40 and lengthwise extending ground engaging portion 42. A magazine 44 according to this variant further defines a three-dimensional and elongated compartment secured (again in fixed fashion) against an exteriorly extending length of the stem 40, and opposed to being concentrically arrayed in the manner shown in FIG. 1.
As with the previously described variant, an associated mesh screen 46 includes end hooks 48 extending from a withdrawing and reinforced edge and which engage further defined rings 50 (or other suitably configured engaging locations) defined along a further vertically extending edge of the stem 40. In the preferred embodiment, the rings 50 are aligned along an opposite extending edge of the stem 40, relative to the withdrawing location of the screen 46, and in order to both minimize the incidences of tangling between the screen and hooks associated with a single unit, as well as to maximize the potential enclosure or barrier defining configurations made possible by the present invention.

Referring to FIG. 6 is a partial view is shown at 52 of a yet further variant of an auger shaped ground engaging stake according to the present invention. The auger 52 is intended as a substitute for either the modified fork 20 or threadably engageable fluted portions 14 and typically operates by being rotatably driven into a turf engaging location, either prior or following threaded (or twist and lock) interengagement of an associated stem portion (not shown).

FIG. 7 is a perspective view 54 of a yet further variant of the present design, similar to that shown in FIG. 2, and by which additional sets of height offset ring portions are defined extending in circularly offset fashion. In particular, and when viewing FIG. 7 in cooperation with the top view of FIG. 8, additional sets of height varying ring engaging portions are illustrated at 56 and 58. Each of the additional plurality of vertically spaced rings 56 and 58 extend in 90 degree circularly offset relationship relative to rings 60, these located in likewise vertically extending fashion along an opposite backside of the stem portion 62.

In this fashion, better illustrated is the ability to utilize a selected vertically extending unit 54 in a centrally located and subdividing role. The provision of additional pluralities of circularly offset rings renders possible attaching up to three reinforced and withdrawn screen edges associated with additional and outwardly positioned units, in inter-engaging fashion with the unit 54, such as environmentally represented by unit 10 in FIG. 3. Other features, including the location of a magazine withdraw unit 44 and lower engageable flange 29 are represented as substantially and previously described.

Other considerations include the withdrawable mesh screen capable of exhibiting any desired shading or consistency, and in order to range in application from privacy screens for sunbathers, sun ray retardant screens for use by other individuals also seeking privacy, and see-through screens such as for keeping an eye upon children or pets placed within an enclosed area defined by a plurality of such erected units. Yet additional applications include, without limitation, creating a wind resistant barrier (utilizing a burlap mesh material) for protecting newly planted shrubs and trees.

A particular variant of the invention contemplates the individual ground supporting fence post stem ranging in height up to 7', with a 2' solid plastic stake portion extending from a lower end thereof of the stem. The mesh portion may further preferably include a solid white (thereby light deflecting) vinyl material exhibiting a plurality of five individual and spaced apart hooks secured along a forward reinforced and withdrawing edge of the mesh material.

Having described my invention, other and additional preferred embodiments will become apparent to those skilled in the art to which it pertains, and without departing from the scope of the appended claims.

I claim:

1. An assembly for creating a portable enclosure, comprising:

a plurality of elongated and ground engaging units, each arranged at spaced locations;

a magazine fixedly secured in vertically extending fashion to each of said units, a screen adapted to being withdrawn from said magazine and including first interengageable portions along a forward withdrawable edge; and

a plurality of second interengageable portions extending in vertically extending fashion along each of said units and adapted to receive said first interengageable portions associated with a screen withdrawn from a succeeding located unit.

2. The assembly as defined in claim 1, each of said units having a specified shape and size and further comprising an elongated stem portion, said magazine comprising a three-dimensional elongate extending and internally hollowed component coaxially arrayed around an extending length of said stem.

3. The assembly as defined in claim 1, each of said units having a specified shape and size and further comprising an elongated stem portion, said magazine comprising a three-dimensional and elongated compartment secured against an exteriorly extending length of said stem.

4. The assembly as defined in claim 1, said screen further comprising a planar and flexible mesh, said first plurality of interengageable portions further comprising a plurality of hooks extending from a forward edge of said mesh.

5. The assembly as defined in claim 4, said second interengageable portions further comprising at least one plurality of rings extending in elongate spaced fashion from an exterior edge of each of said units and at a specified circumferentially spaced apart location, said hooks associated with a mesh screen withdrawn from a first selected unit engaging with a selected plurality of said hooks associated with a second selected unit.

6. The assembly as defined in claim 1, said units each having a specified shape and size and each further comprising an earthen engaging portion.

7. The assembly as defined in claim 6, said earthen engaging portion further comprising a ground stake exhibiting at least one of a plurality of radially extending flutes and an auger shaped embedding portion.

8. The assembly as defined in claim 6, said earthen engaging portion further comprising a fork shaped element exhibiting a primary prong and a secondary and spaced apart prong interconnected with said primary prong.

9. The assembly as defined in claim 6, further comprising first threadably engaging portion projecting from a lengthwise extending end of said earthen engaging portion, a second threadably engaging being defined in an opposing end of said unit for releasably securing said engaging portion thereto.

10. An assembly for creating a portable enclosure, comprising:
a plurality of elongated and ground engaging units, each arranged at spaced locations;

a three-dimensional and elongated magazine fixedly secured in vertically extending fashion to an elongated stem associated with each of said units, a screen adapted to being withdrawn from said magazine and including first interengageable portions defined along a forward withdrawable edge; and

a plurality of second interengageable portions extending in vertically extending fashion along each of said units and adapted to receive said first interengageable portions associated with a screen withdrawn from a succeeding located unit.

11. The assembly as defined in claim 10, said screen further comprising a planar and flexible mesh, said first plurality of interengageable portions further comprising a plurality of hooks extending from a forward reinforced edge of said mesh.

12. The assembly as defined in claim 11, said second interengageable portions further comprising a plurality of rings extending in elongate spaced fashion along an exterior edge of each of said units, said hooks associated with a mesh screen withdrawn from a first selected unit engaging with said hooks associated with a second selected unit.

13. The assembly as defined in claim 10, said units each having a specified shape and size and each further comprising an earthen engaging portion.

14. The assembly as defined in claim 13, said earthen engaging portion further comprising a ground stake exhibiting at least one of a plurality of radially extending flutes and an exterior configured auger shaped portion.

15. The assembly as defined in claim 13, said earthen engaging portion further comprising a fork shaped element exhibiting a primary prong and a secondary and spaced apart prong interconnected with said primary prong.

16. The assembly as defined in claim 13, further comprising first threadably engaging portion projecting from a lengthwise extending end of said earthen engaging portion, a second threadably engaging being defined in an opposing end of said unit for releasably securing said engaging portion thereto.

17. An assembly for creating a portable enclosure, comprising:

a plurality of elongated and ground engaging units, each of said units comprising an elongated body constructed of a durable material and including an end extending and ground engaging portion such that each of said units are arranged at spaced apart locations;

a three-dimensional and elongated magazine fixedly secured in vertically extending fashion to each of said units, a screen adapted to being withdrawn from said magazine and including first interengageable portions defined along a forward withdrawable edge; and

at least one plurality of second interengageable portions extending in vertically extending and circumferentially offset fashion along a further vertically extending edge associated with each of said units, a selected sub plurality of said second portions adapted to receiving said first interengageable portions associated with a screen withdrawn from a succeeding located unit, and in order to construct a barrier between said units.

18. The assembly as defined in claim 17, said screen further comprising a planar and flexible mesh, said first plurality of interengageable portions further comprising a plurality of hooks extending from a forward edge of said mesh.

19. The assembly as defined in claim 18, said second interengageable portions further comprising first, second and third pluralities of rings extending in elongate vertically spaced and circumferentially spaced apart fashion along exterior edge locations associated with each of said units, said hooks associated with a mesh screen withdrawn from a first selected unit engaging with a select sub plurality of rings associated with a second selected unit.

20. The assembly as described in claim 17, said ground engaging portion further comprising at least one of a ground stake exhibiting a plurality of radially extending flutes, an exterior and auger shaped portion, and a fork shaped element exhibiting a primary prong and a secondary and spaced apart prong interconnected with said primary prong.