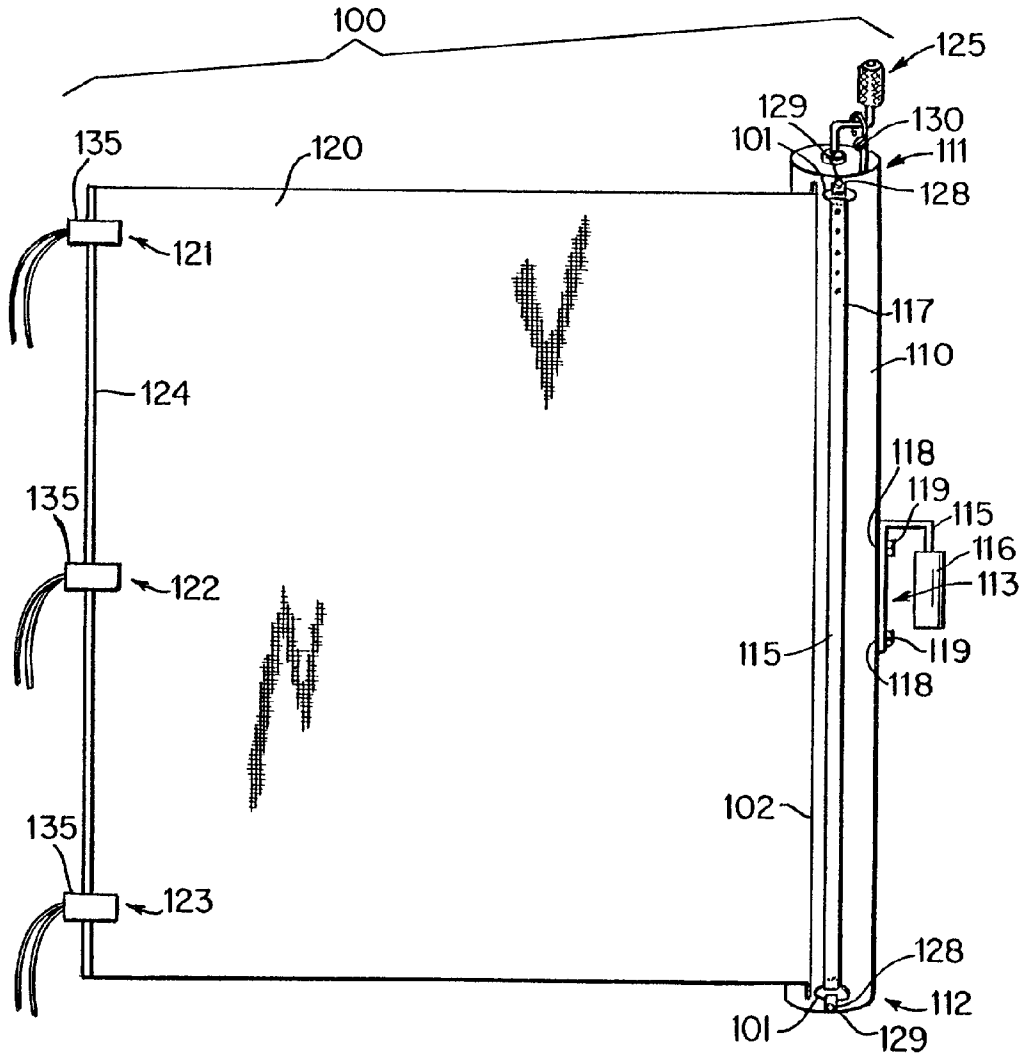
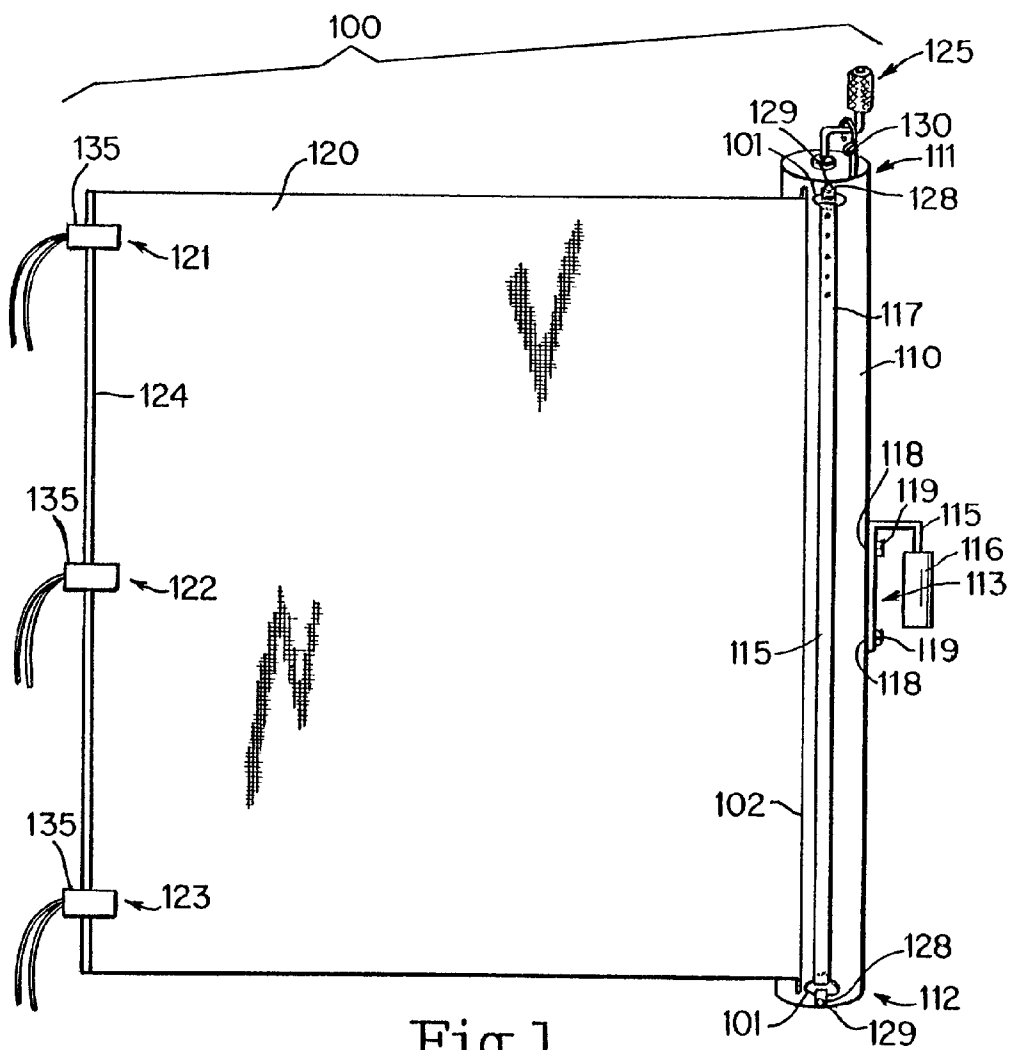


(43) **Pub. Date:** **Jun. 26, 2003**





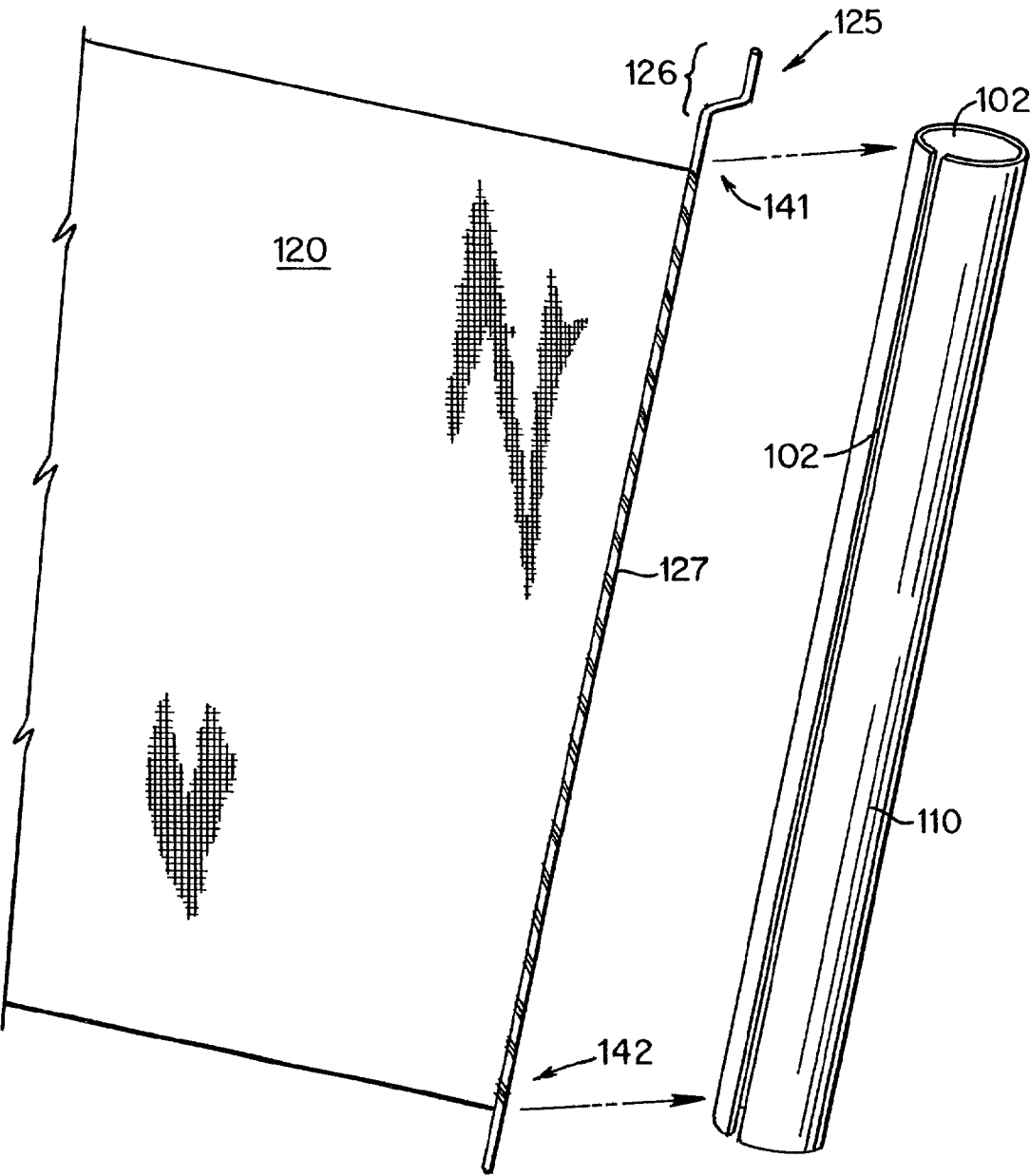


Fig.2

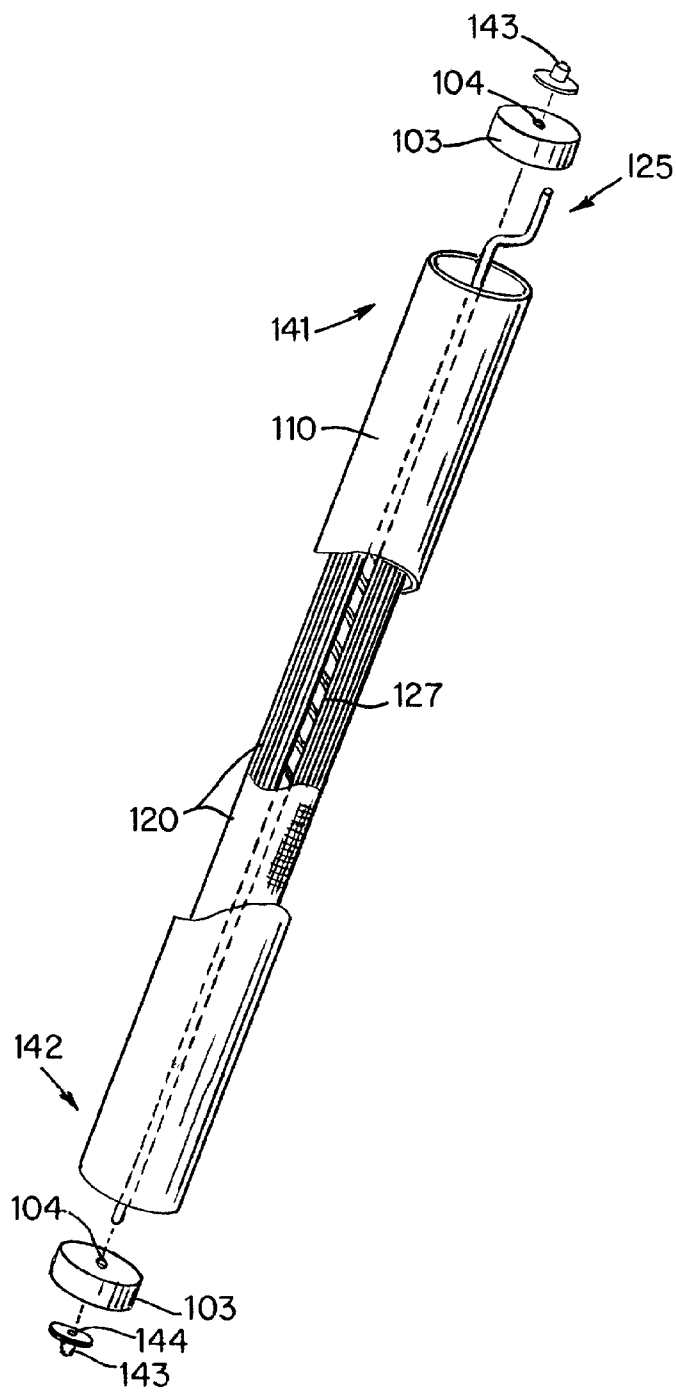


Fig.3

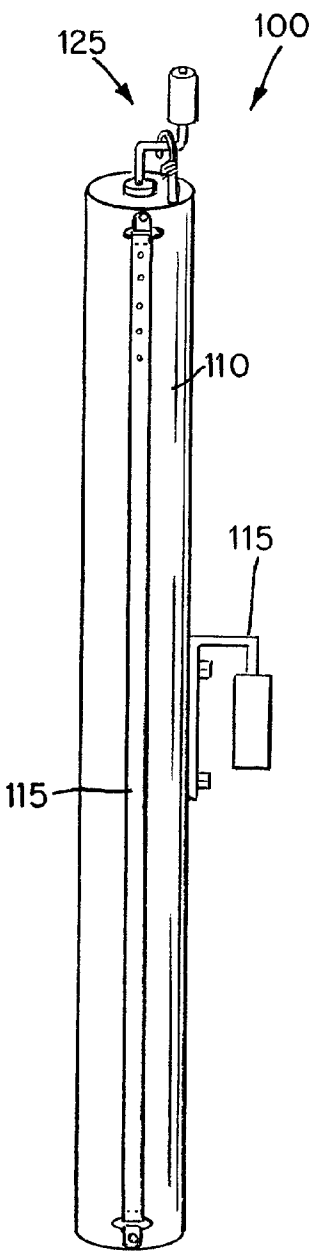


Fig. 4

Fig.5

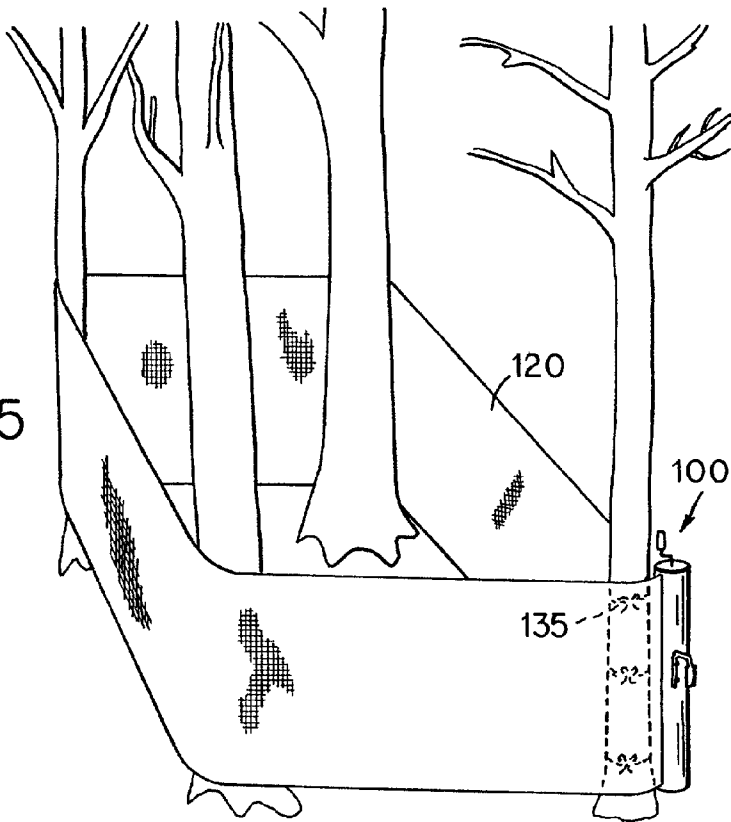
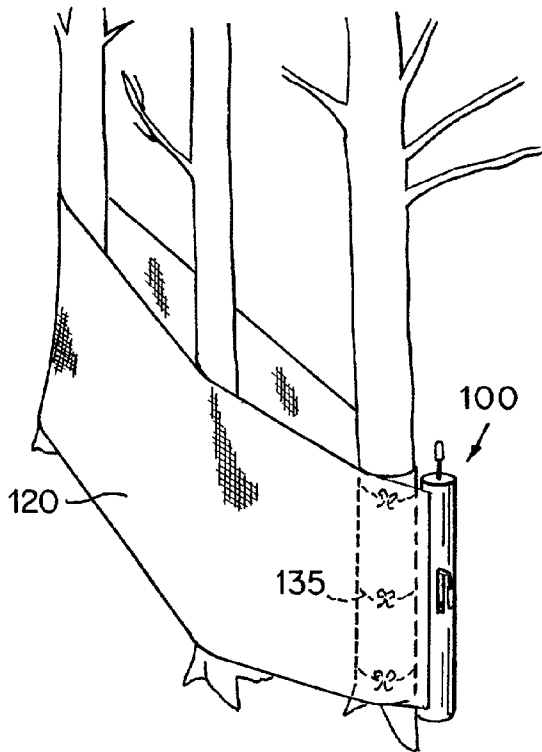


Fig.6



PORTABLE SCREEN ASSEMBLY

FIELD OF THE INVENTION

[0001] The present invention relates in general to screen assemblies. In particular, the present invention relates to portable screen assemblies that can be used to screen off an area, for example, to facilitate hunting.

BACKGROUND OF THE INVENTION

[0002] It is known to use hunting blinds that are collapsible and that are capable of being carried and moved. These hunting blinds, however, are bulky to carry, and/or clumsy to install, and once installed, they are difficult to disassemble and to be moved. Examples of hunting blinds are found in U.S. Pat. Nos. 5,609,176 to Weeks, 5,010,909 to Cleveland, 4,473,087 to Cavender, and 3,442,275 to Ternes.

SUMMARY

[0003] One embodiment of the present invention provides a screen housing assembly. The screen housing assembly includes a housing structure, a carrying structure, a screening structure, a screen releasing assembly, and a releasable securement structure. The housing structure is capable of being carried and moved by a user. The carrying structure is releasably and fixedly secured to the housing structure for carrying the housing structure. The screening structure is stored internally of the housing structure. The screen releasing assembly is fixedly attached to the screening structure to allow the user to release a portion of the screening structure from internally of the housing structure to externally of the housing structure. The releasable securement structure is coupled to the screen releasing assembly to change the screen releasing assembly between a screen released position and a screen releasably secured position. The screen releasing assembly and the releasable securement structure are accessible externally of the housing structure. The portion of the screening structure, which is external of the housing structure, can be used to screen off an area.

BRIEF DESCRIPTION OF THE DRAWINGS

[0004] In the drawings, like reference numerals represent similar parts of the illustrated embodiments of the present invention throughout the several views and wherein:

[0005] FIG. 1 is a perspective view of an embodiment of a screen assembly, where a portion of a screening structure is released from internally of a housing structure to externally of the housing structure;

[0006] FIG. 2 is a perspective view of a screen releasing assembly and a housing structure in accordance with an embodiment of the present invention, where the screen releasing assembly is moved toward the housing structure for installation;

[0007] FIG. 3 is a cross-sectional view of a housing structure in accordance with an embodiment of the present invention, where a set of screen releasing assembly fasteners is moved toward the housing structure for installation;

[0008] FIG. 4 is a perspective view of an embodiment of a screen assembly, where a screening structure is stored internally of a housing structure;

[0009] FIG. 5 is similar to FIG. 1, but illustrates the screen assembly being used to screen off a leveled area; and

[0010] FIG. 6 is similar to FIG. 1, but illustrates the screen assembly being used to screen off a sloped area.

DETAILED DESCRIPTION

[0011] FIG. 1 illustrates an embodiment of a screen housing assembly 100. The screen housing assembly 100 may include a housing structure 110, a carrying structure 115, a screening structure 120, a screen releasing assembly 125, and a releasable securement structure 130.

[0012] The housing structure 110 is constructed and arranged to be carried and moved by a user using the carrying structure 115. The housing structure 110 (e.g., PVC housing structure) may be cylindrical in shape and/or made of a soft covered material. The size, shape and/or material of the housing structure 110 may be varied, for example, according to the preference of the user. The housing structure 110 may include (i) a forward end portion 111, (ii) a rearward end portion 112, and (iii) a center portion 113.

[0013] The carrying structure 115 is releasably and fixedly secured to the housing structure 110 for carrying and moving the housing structure 110. The carrying structure 115 may include at least one of a handle 116 and a shoulder strap 117.

[0014] The housing structure 110 has a set of fastener receiving openings 118 formed therethrough. To mount the handle 116 to the housing structure 110, the handle 116 is placed against the surface of the center portion 113 of the housing structure 110 with the set of fastener receiving openings 118 in alignment, and a set of fasteners 119 (e.g., threaded bolts) are inserted through the openings. Then, a set of complimentary threaded structures (e.g., threaded nuts) are threaded onto the ends of the set of fasteners 119 inside the housing structure 110 to secure the handle 116 against the exterior of the housing structure 110. Alternatively, the handle 116 may be externally molded or welded integrally with the housing structure 110. Also, the handle 116 may include a wooden handle.

[0015] A shoulder strap assembly may include the shoulder strap 117 and a set of shoulder strap securement structures 101. The shoulder strap 117 may be adjusted, for example, based on a preference of the user. The housing structure 110 has a set of fastener receiving openings 128 formed therethrough. To mount the set of shoulder strap securement structures 101 to the housing structure 110, the set of shoulder strap securement structures 101 is placed against the surface of the forward end portion 111 and the rearward end portion 112 of the housing structure 110 with the set of fastener receiving openings 128 in alignment, and a set of fasteners 129 (e.g., threaded bolts) are inserted through the openings. Then, a set of complimentary threaded structures (e.g., threaded nuts) are threaded onto the ends of the set of fasteners 129 inside the housing structure 110 to secure the shoulder strap securement structure 101 against the exterior of the housing structure 110. Alternatively, the shoulder strap securement structure 101 may be externally molded or welded integrally with the housing structure 110. The shoulder strap 117 may then be coupled to the set of shoulder strap securement structures 101 to be releasably and fixedly secured to the housing structure 110.

[0016] The screen releasing assembly 125 and the releasable securement structure 130 are accessible externally of

the housing structure 110. Moreover, the screen releasing assembly 125 may be accessible externally from at least one of the forward end portion 111 and the rearward end portion 112 of the housing structure 110. The screen releasing assembly 125 is fixedly attached to the screening structure 120 (see FIG. 2) to allow the user to release a portion of the screening structure 120 from internally of the housing structure 110 to externally of the housing structure 110. The releasable securement structure 130, such as, for example, a cord and hook, is coupled to the screen releasing assembly 125 to change the screen releasing assembly 125 between a screen released position and a screen releasably secured position. The portion of the screening structure 110, being external of the housing structure 110, can be used to screen off an area (see FIGS. 5-6), such as, for example, for facilitating hunting. The area screened off may include at least one of a level area (see FIG. 5) and a sloped area such as, for example, a hillside area (see FIG. 6). Also, the area screened off may be of sufficient size to allow the user to move and remain unnoticeable.

[0017] The screening structure 120 may include (i) a forward end portion 121, (ii) a center portion 122, and (iii) a rearward end portion 123. A fastener assembly 135 may then be fixedly attached to at least one of (i) the forward end portion 121, (ii) the center portion 122, and (iii) the rearward end portion 123 of the screening structure 120. The fastener assembly 135 is fixedly attached to the screening structure 120 to releasably secure the screening structure 120 to an object, such as, for example, a tree, bushes and/or a fence. The fastener assembly 135, for example, may be made of raw hide and/or nylon. Also, the screening structure 120 may include a shaft 124 (e.g., steel rod) that may be used, for example, in place of a tree (or equivalent) to screen off the area. If a tree (or equivalent) is unavailable to screen off the area, then, for example, a fence (or equivalent) may be used instead, where the shaft 124 can be used to screen off the area. The screening structure 120 may be constructed and arranged to blend in with the surroundings of the area screened off. For example, the screening structure 120 may be made of a camouflaged material.

[0018] FIG. 2 is a perspective view of the screen releasing assembly 125 and the housing structure 110 in accordance with an embodiment of the present invention. The screening structure 120 is fixedly attached (e.g., tightly sewn) to the screen releasing assembly 125, which may include a crank 126, which can be rotated by hand, and/or a crank shaft 127, which is coupled to the crank 126. A wooden handle may be used for turning the crank 126. The screen releasing assembly 125 may include a forward end portion 141 and a rearward end portion 142.

[0019] The housing structure 110 may include a receiving opening 102 formed therethrough to mount the screen releasing assembly 125 to the housing structure 110. FIG. 2 illustrates the screen releasing assembly 125 being moved toward the housing structure 110 to be inserted through the receiving opening 102 and to be mounted to the housing structure 110.

[0020] FIG. 3 is a cross-sectional view of the housing structure 110 in accordance with an embodiment of the present invention, and illustrates the screening structure 120 stored internally of the housing structure 110. A set of

positioning supports 103, having positioning receiving openings 104, is moved toward the housing structure 110 for installation. To mount the set of positioning supports 103 to the housing structure 110, the set of positioning receiving openings 104 is aligned with and moved toward the forward end portion 141 and the rearward end portion 142, respectively, of the screen releasing assembly 125, for example, to affix the set of positioning supports 103 to a set of complimentary structures (not shown) inside the housing structure 110.

[0021] A set of positioning fasteners 143, having fastener receiving openings 144, is moved toward the set of positioning supports 103 for installation. To couple the set of positioning fasteners 143 to the set of positioning supports 103, the set of positioning receiving fasteners 143 is aligned with and moved toward the forward end portion 141 and the rearward end portion 142, respectively, of the screen releasing assembly 125, for example, to be coupled (e.g., threaded) onto a set of complimentary structures (not shown) of the screen releasing assembly 125. The set of positioning supports 103 and the set of positioning fasteners 143 may be constructed and arranged for rotatably securing the screen releasing assembly 125 to the housing structure 110.

[0022] FIG. 4 is a perspective view of an embodiment of a screen assembly, where a screening structure is stored internally of a housing structure. The housing structure 100 may be constructed and arranged to protect and/or preserve the screening structure 120 (not shown). The housing structure 110 may retain a scent to be applied to the screening structure 120 by the screening structure 120 being stored internally (e.g., entirely internally) of the housing structure 110. The scent may be applied to the screening structure 120, for example, to cover the scent emanating from the user (e.g., body odor). The scent may be neutral or of a type appealing to the observed and/or hunted. The housing structure 110 may also be sealed (e.g., air tight) to extend the duration of the scent to be applied to the screening structure 120.

[0023] Another embodiment of a screen assembly may include a screening structure 120, a fastener assembly 135, a screen releasing assembly 125, a releasable securement structure 130, and a carrying assembly 115 (such as, for example, illustrated in FIGS. 1-2). The screening structure 120 may be used for screening off an area. The fastener assembly 135 may be attached to the screening structure 120 to releasably secure the screening structure 120 to an object for screening off the area. The screen releasing assembly 125 may be fixedly attached to the screening structure 120 to releasably store the screening structure 120. The screen releasing assembly 125 may include a crank, which can be rotated by hand, and/or a crank shaft, which may be coupled to the crank. The releasable securement structure 130 is coupled to the screen releasing assembly 125 to change the screen releasing assembly 125 between a screen released position and a screen releasably secured position. The carrying assembly 115 may be coupled to the screen releasing assembly 125 for carrying and moving the screening structure 120, which can be used to facilitate hunting.

[0024] An embodiment of a method for screening off an area is provided, for example, by using a screen assembly (such as, for example, illustrated in FIGS. 1-4) that is

capable of being carried and moved by a user. The method may provide for carrying and moving a housing structure **110** by using a carrying structure **115**, which is releasably and fixedly secured to the housing structure **110**. Also, the method may provide for storing a screening structure **120** entirely internally of the housing structure **110** to carry and move the screening structure **120**. The method may be performed by a right-handed or a left-handed user, for example, with ease.

[0025] The method releases a portion of the screening structure **120** from internally of the housing structure **110** to externally of the housing structure **110** by using a screen releasing assembly **125**. The screen releasing assembly **125** may be fixedly attached to the screening structure **120**.

[0026] The method positions a releasable securement structure **130** in a screen releasably secured position from a screen released position. The releasable securement structure **130** may be coupled to the screen releasing assembly **125**. The screen releasably secured position allows the user to releasably secure the position of the screen releasing assembly **125**, whereas the screen released position allows the user to release the position of the screen releasing assembly **125**. The housing structure **110**, moreover, may be constructed and arranged to be made of a soft covered material such that the user can grip and squeeze the housing structure **110** to, in effect, releasably secure the position of the screen releasing assembly.

[0027] The method fastens a fastener assembly **135** to an object to screen off an area. The fastener assembly **135** may be attached to the screening structure **120**. The fastener assembly **135** fastened to the object may be adjusted and/or readjusted by the user to screen off a level area (see FIG. 5) and/or a sloped area (see FIG. 6). The fastener assembly **135** may include a plurality of fasteners, all of which may be independently adjusted and/or readjusted.

[0028] The method then screens off the area by using the portion of the screening structure **120** released external of the housing structure **110**, and that is releasably secured in position, for example, by the releasable securement structure **130**. The method may adjust any slack from the portion of the screening structure **120**, used in screening off the area, for example, by using the releasable securement structure **130**. Also, the method may adjust the height of the portion of the screening structure **120**, used in screening off the area, with respect to the ground by bending at least a part of the portion of the screening structure **120** over upon itself. The screening structure **120** may be constructed and arranged to be 36 inches in height, with respect to the ground.

[0029] The method, also, may release the fastener assembly **135** from the object to allow the screen assembly **100**, for example, to be moved to screen off another area. As discussed above, the fastener assembly **135** may include (i) a forward end portion **121**, (ii) a center portion **122**, and (iii) a rearward end portion **123** of fasteners (see FIG. 1). The method, thus, may initially release the forward end portion **121** and the rearward end portion **123** of the fastener assembly **135**, and not release the center portion **122** of the fastener assembly **135** fastened to the object, for example, to reduce the amount of contact of the screening structure **120** with the ground (having dirt, leaves and/or tree branches thereon).

[0030] The method may then position the releasable securement structure **130** in the screen released position

from the screen releasably secured position. As such, the method may store the portion of the screening structure **120** from externally of the housing structure **110** to internally of the housing structure **110** by using the screen releasing assembly **125**. The carrying structure **115** such as, for example, the shoulder strap **117** may be adjusted and used to facilitate carrying and moving the housing structure **110** to store the screening structure **120**. The method may, at last, release the fastener attached to the center portion **122** of the screening structure **120**.

[0031] The method may then position the releasable securement structure **130** in the screen releasably secured position from the screen released position. Finally, the method may fasten the fastener assembly **135** to the housing structure **110**. The screen assembly may then be carried and moved to screen off another area.

[0032] Thus, the described embodiments of a screen assembly are collapsible, durable, and capable of being carried and moved. These embodiments, moreover, provide for a screen assembly that is easy and/or convenient (e.g., efficient and light weight) to carry, and/or to install, and once installed, it is quickly disassembled and moved.

[0033] The foregoing presentation of the described embodiments is provided to enable any person skilled in the art to make or use the present invention. Various modifications to these embodiments are possible, and the generic principles presented herein may be applied to other embodiments as well. As such, the present invention is not intended to be limited to the embodiments shown above, and/or any particular configuration of structure but rather is to be accorded the widest scope consistent with the principles and novel features disclosed in any fashion herein.

What is claimed is:

1. A screen housing assembly comprising:

- a housing structure constructed and arranged to be capable of being carried and moved by a user;
- a carrying structure constructed and arranged to be releasably and fixedly secured to the housing structure for carrying the housing structure;
- a screening structure constructed and arranged to be stored internally of the housing structure;
- a screen releasing assembly fixedly attached to the screening structure to allow the user to release a portion of the screening structure from internally of the housing structure to externally of the housing structure; and
- a releasable securement structure coupled to the screen releasing assembly to change the screen releasing assembly between a screen released position and a screen releasably secured position,

wherein the screen releasing assembly and the releasable securement structure are accessible externally of the housing structure, and

wherein the portion of the screening structure, being external of the housing structure, can be used to screen off an area.

2. The screen housing assembly of claim 1, wherein the screening structure is constructed and arranged to be used to facilitate hunting.

3. The screen housing assembly of claim 1, further comprising

a fastener assembly fixedly attached to the screening structure to releasably secure the screening structure to an object.

4. The screen housing assembly of claim 3,

wherein the screening structure includes (i) a center portion, (ii) a forward end portion, and (iii) a rearward end portion, and

wherein the fastener assembly is fixedly attached to at least one of (i) the center portion, (ii) the forward end portion, and (iii) the rearward end portion of the screening structure.

5. The screen housing assembly of claim 1, wherein the screen releasing assembly includes a crank, which can be rotated by hand.

6. The screen housing assembly of claim 5, wherein the screen releasing assembly includes a crank shaft, which is constructed and arranged to be coupled to the crank.

7. The screen housing assembly of claim 1,

wherein the housing structure includes a forward end portion and a rearward end portion, and

wherein the screen releasing assembly is accessible from at least one of the forward end portion and the rearward end portion of the housing structure.

8. The screen housing assembly of claim 1, wherein the carrying structure includes at least one of a handle and a shoulder strap.

9. The screen housing assembly of claim 1, wherein the housing structure is configured cylindrical in shape.

10. The screen housing assembly of claim 1, wherein the housing structure is soft covered.

11. The screen housing assembly of claim 1, wherein the screening structure is constructed and arranged to be stored entirely internally of the housing structure.

12. The screen housing assembly of claim 11,

wherein the screening structure is constructed and arranged to be applied with a scent, and

wherein the housing structure is constructed and arranged to retain the scent applied to the screening structure when the screening structure is stored internally of the housing structure.

13. The screen housing assembly of claim 1, wherein the area screened includes a level area.

14. The screen housing assembly of claim 1, wherein the area screened includes a sloped area.

15. A screen assembly comprising:

a screening structure constructed and arranged to be used for screening off an area;

a fastener assembly attached to the screening structure to releasably secure the screening structure to an object for screening off the area;

a screen releasing assembly fixedly attached to the screening structure to releasably store the screening structure;

a releasable securement structure coupled to the screen releasing assembly to change the screen releasing assembly between a screen released position and a screen releasably secured position; and

a carrying assembly coupled to the screen releasing assembly for carrying and moving the screening structure.

16. The screen assembly of claim 15, wherein the screening structure is constructed and arranged to be used to facilitate hunting.

17. The screen assembly of claim 15,

wherein the screening structure includes (i) a center portion, (ii) a forward end portion, and (iii) a rearward end portion, and

wherein the fastener assembly is attached to at least one of (i) the center portion, (ii) the forward end portion, and (iii) the rearward end portion of the screening structure.

18. The screen assembly of claim 15, wherein the screen releasing assembly includes a crank, which can be rotated by hand.

19. The screen assembly of claim 18, wherein the screen releasing assembly includes a crank shaft, which is constructed and arranged to be coupled to the crank.

20. The screen assembly of claim 15, wherein the carrying assembly includes at least one of a handle and a shoulder strap.

21. A method for screening off an area comprising:

releasing a portion of a screening structure from internally of a housing structure to externally of the housing structure by using a screen releasing assembly, the screen releasing assembly being constructed and arranged to be fixedly attached to the screening structure;

positioning a releasable securement structure in a screen releasably secured position from a screen released position, the releasable securement structure being constructed and arranged to be coupled to the screen releasing assembly;

fastening a fastener assembly to an object to screen off an area, the fastener assembly being constructed and arranged to be attached to the screening structure; and

screening off the area by using the portion of the screening structure released external of the housing structure,

wherein the housing structure is constructed and arranged to be capable of being carried and moved by a user.

22. The method of claim 21, further comprising

carrying and moving the housing structure by using a carrying structure, the carrying structure being constructed and arranged to be releasably and fixedly secured to the housing structure.

23. The method of claim 22, wherein the carrying structure includes at least one of a handle and a shoulder strap.

24. The method of claim 21, wherein the screening structure is constructed and arranged to blend in with the surroundings of the area screened off, which can be used to facilitate hunting by allowing the user to move therein and remain unnoticeable to the surroundings thereof.

25. The method of claim 21, wherein the fastener assembly is further constructed and arranged to releasably secure the screening structure to the housing structure.

26. The method of claim 21,

wherein the screening structure includes (i) a center portion, (ii) a forward end portion, and (iii) a rearward end portion, and

wherein the fastener assembly is fixedly attached to at least one of (i) the center portion, (ii) the forward end portion, and (iii) the rearward end portion of the screening structure.

27. The method of claim 21, wherein the screen releasing assembly includes a crank, which can be rotated by hand.

28. The method of claim 27, wherein the screen releasing assembly includes a crank shaft, which is constructed and arranged to be coupled to the crank.

29. The method of claim 21,

wherein the housing structure includes a forward end portion and a rearward end portion, and

wherein the screen releasing assembly is accessible from at least one of the forward end portion and the rearward end portion of the housing structure.

30. The method of claim 21, further comprising

storing the screening structure entirely internally of the housing structure to carry and move the screening structure.

31. The method of claim 30,

wherein the screening structure is constructed and arranged to be applied with a scent, and

wherein the housing structure is constructed and arranged to retain the scent applied to the screening structure when the screening structure is stored internally of the housing structure.

32. The method of claim 21, wherein the area screened off includes a level area.

33. The method of claim 21, wherein the area screened off includes a sloped area.

34. The method of claim 21, further comprising

adjusting the height of the portion of the screening structure, used in screening off the area, with respect to the ground by bending the portion of the screening structure over upon itself.

* * * * *