



(19) **United States**
(12) **Patent Application Publication**
PERKINS

(10) **Pub. No.: US 2012/0042601 A1**
(43) **Pub. Date: Feb. 23, 2012**

(54) **PATIO ENCLOSURES AND METHODS FOR ASSEMBLING PATIO ENCLOSURES**

E04C 2/38 (2006.01)
E04B 1/38 (2006.01)

(76) Inventor: **Robert L. PERKINS**, Fort Edward, NY (US)

(52) **U.S. Cl.** **52/651.11**; 52/656.1; 52/653.1; 52/655.1; 52/745.21; 52/633

(21) Appl. No.: **13/214,903**

(57) **ABSTRACT**

(22) Filed: **Aug. 22, 2011**

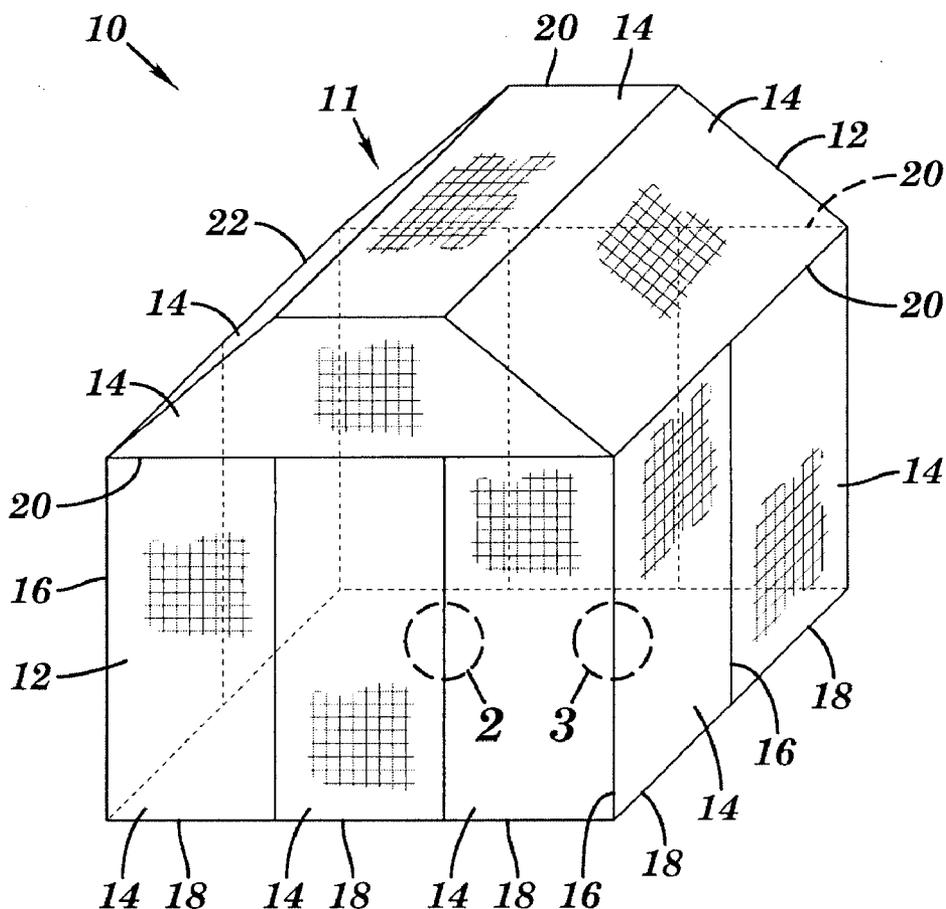
Patio enclosures and methods for assembling patio enclosures are disclosed. The patio enclosures include supports structures having uprights and cross members and screen panels removably mounted to the support structure by hook-and-loop fasteners, for example, strips of Velcro brand hook-and-loop fasteners. Aspects of the invention allow for the removal and/or storage of the perforated screen panels when the enclosure is subjected to inclement weather, for example, to potential snow fall or wind loads. The present invention allows for the use and enjoyment of patio enclosure in climates prone to inclement weather, for example, the northern United States, among other regions, that otherwise would be impractical for such structures. Outdoor enclosures having removable screen panels are also disclosed.

Related U.S. Application Data

(60) Provisional application No. 61/376,014, filed on Aug. 23, 2010.

Publication Classification

(51) **Int. Cl.**
E04B 1/343 (2006.01)
E04B 1/19 (2006.01)
E04B 2/82 (2006.01)
E04B 2/74 (2006.01)



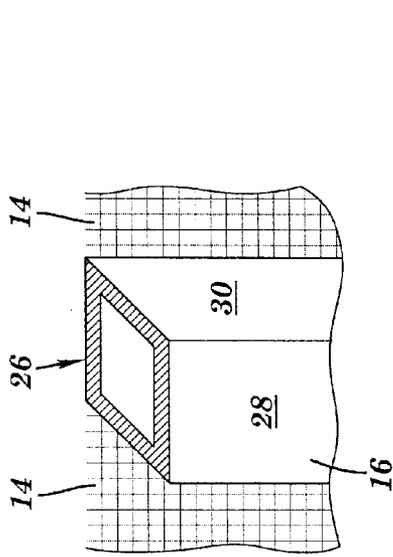


FIG. 2

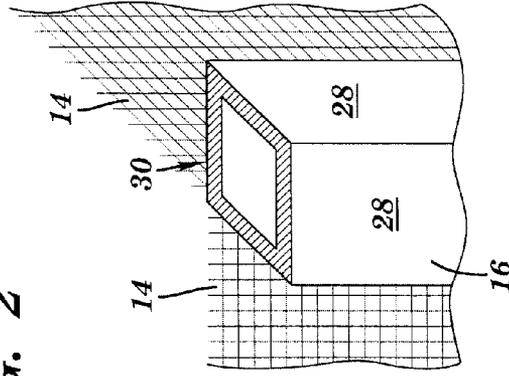


FIG. 3

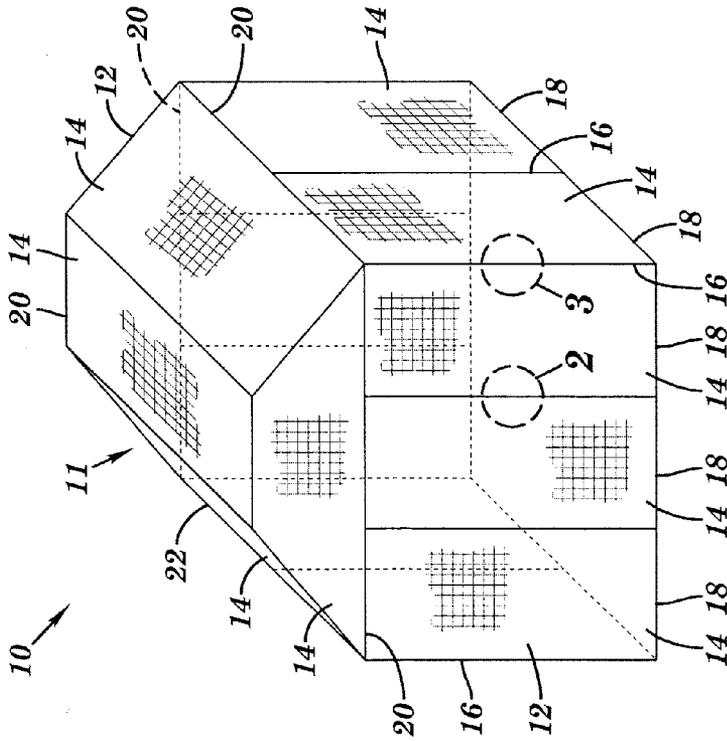
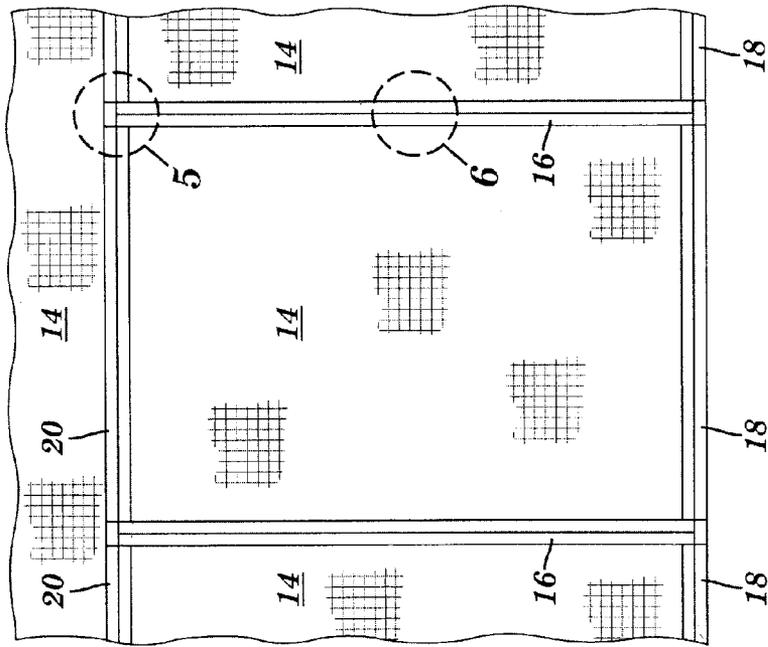
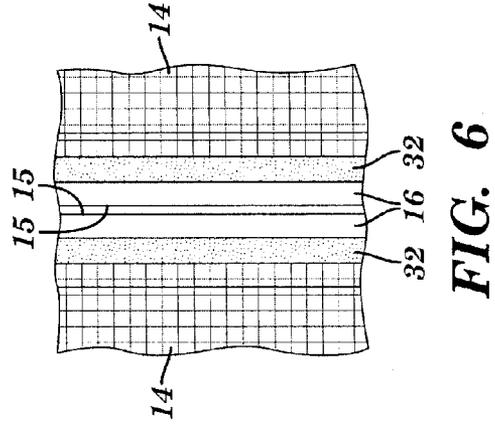
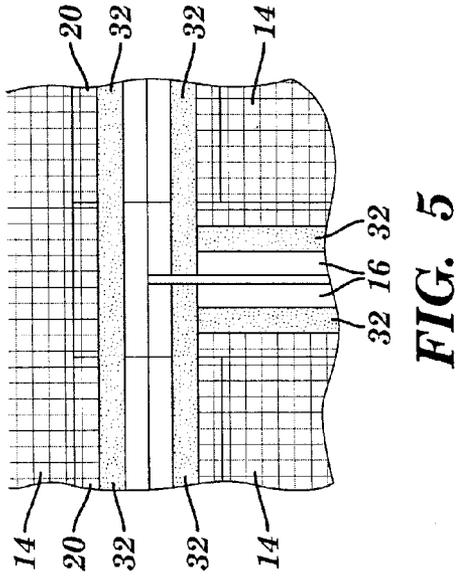


FIG. 1



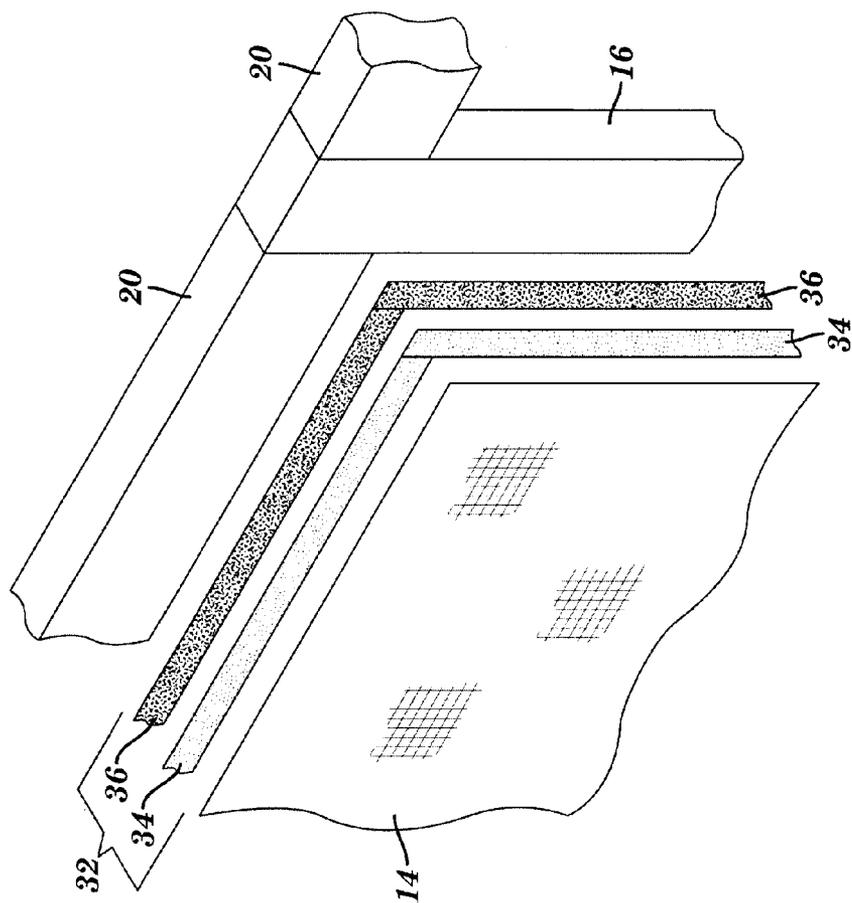


FIG. 7

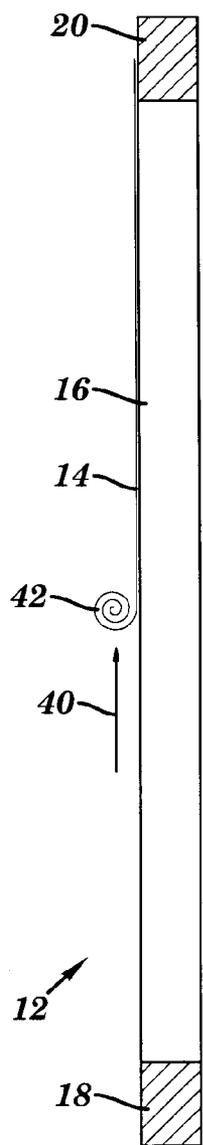


FIG. 8

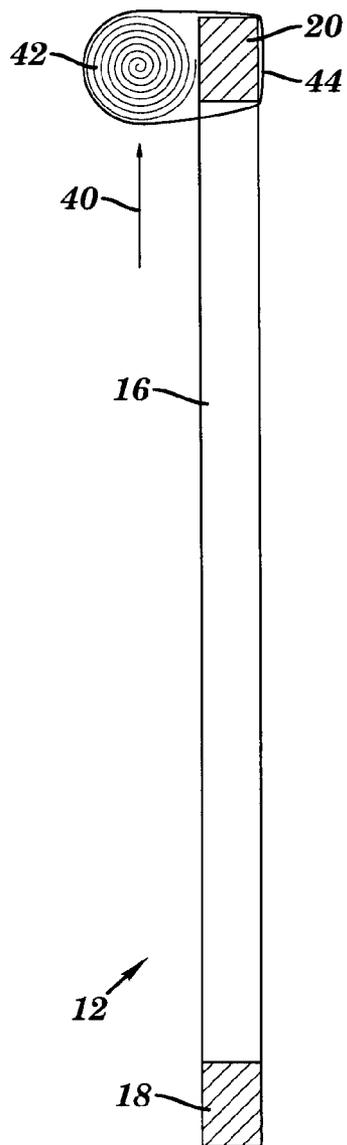


FIG. 9

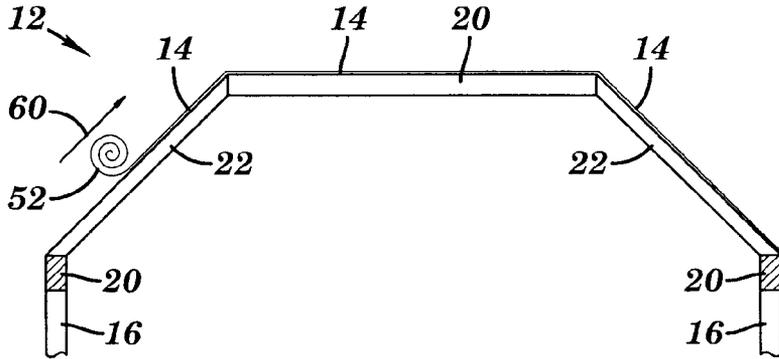


FIG. 10

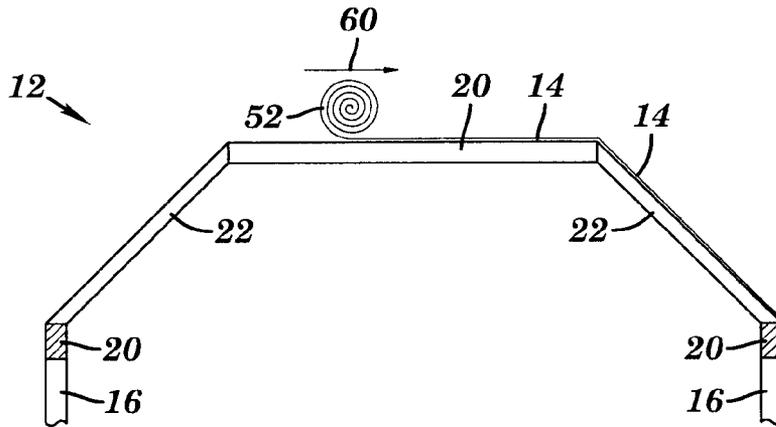


FIG. 11

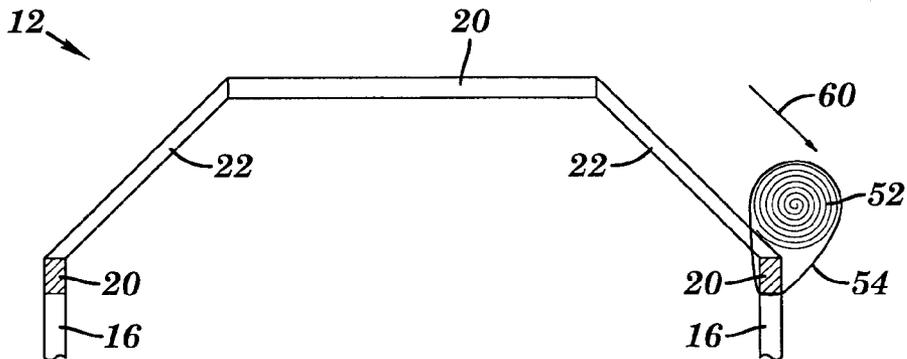


FIG. 12

PATIO ENCLOSURES AND METHODS FOR ASSEMBLING PATIO ENCLOSURES

CROSS-REFERENCE TO RELATED APPLICATION

[0001] This application claims priority from pending U.S. Provisional Patent Application 61/376,014, filed on Aug. 23, 2010, the disclosure of which is included by reference herein in its entirety.

BACKGROUND OF THE INVENTION

[0002] 1. Field of the Invention

[0003] The present invention relates, generally, enclosure and methods for assembling enclosures for example, outdoor enclosures. In particular, the present invention relates to screened patio or pool enclosures have screen panels releasably mounted by hook-and-loop fasteners.

[0004] 2. Description of Related Art

[0005] The outdoor leisure experience is often hampered by exposure to insects and airborne debris that can often detract from the enjoyment of the experience. It is common in moderate, subtropical, and tropical climates around the world, for example, in the southern United States, to erect screened enclosures to create a permeable barrier to minimize or prevent the entry of insects, most notably, mosquitoes, to the enclosure. This desire is has become more acute due to the perceived increase in the potential for exposure to insect-borne disease, such as, West Nile virus. Though common in southern climates, such structures are typically absent from northern climates, for example, from the Northeastern United States, the Great Lake States, and the New England States, among others. The reason for this absence in northern climates is clear to any homeowner in these more temperate regions: snow and the snow load such structures would be exposed to.

[0006] In such snow belt areas, typical screened enclosures, especially, those having screened roofs, can be exposed to one or more feet of snow that such structures are not intended to support. Of course, such structures could be fabricated to withstand such loads, but the cost of providing such a snow-load-resistant structure would likely be cost prohibitive. Another potential alternative is to remove the screen panels from the structure before the first snowfall and replace the screens when spring arrives. However, based upon the current design of such structures and procedures for erecting and assembling the screen panels to such enclosures, this timely, costly, and cumbersome procedure again defeats the purpose of providing the enclosure in the first place.

[0007] In contrast, aspects of the present invention overcome the disadvantages of the prior art and provide a cost-effective alternative to providing screened enclosures to regions having climates prone to receive snow and other inclement weather conditions.

SUMMARY OF ASPECTS OF THE INVENTION

[0008] The present invention provides enclosures and methods of assembling enclosures having removable screen panels affixed to the support structure of the enclosure by hook-and-loop fasteners. Aspects of the present invention facilitate both the assembly and removal of the panels to avoid damage to the panels due to inclement weather. Where prior to the present invention the use of a screened enclosure, such

as, a lanai, in colder climates was impractical due, for example, snow loads, the present invention now makes such structures practical.

[0009] One embodiment of the present invention is patio enclosure comprising or having a support structure comprising a plurality of support members; and a plurality of perforated screen panels, each of the plurality of perforated screen panels having a peripheral border, the peripheral border having a strip of a hook-and-loop fastener (for example, a Velcro brand fastener); wherein each of the plurality of screen panels is releasably mountable to at least some of the plurality of support members by engaging at least some of the strip of hook-and-loop fastener about the peripheral border of each of the screen panels to a complementary strip of hook-and loop fastener mounted to the at least some of the plurality of support members to form the patio enclosure. In one aspect of the invention, the enclosure encompasses a volume having a footprint, and the footprint may a polygon, a circle, or an oval. The patio enclosure may include a plurality of straps adapted to secure at least one of the plurality of perforated screen panels to the support structure when the at least one perforated screen panel is rolled in to a cylindrical roll.

[0010] Another embodiment of the invention is a method of assembling a patio enclosure, the method comprising or including the steps of: assembling a support structure comprising a plurality of support members; and mounting a plurality of perforated screen panels having a peripheral border with a strip of one of hooks and loops of a hook-and-loop type fastener [that is, Velcro fastener] to the plurality of support members of the support structure. The method may also include rolling at least one of the plurality of perforated screen panels in to a cylindrical roll, and securing the cylindrical roll to the support structure, for example, to an upper cross member using a plurality of Velcro straps.

[0011] A further embodiment of the invention is an outdoor enclosure comprising or having a support structure comprising a plurality of support members; and a plurality of perforated screen panels, each of the plurality of perforated screen panels having a peripheral border, the peripheral border having a strip of a hook-and-loop fastener; wherein each of the plurality of screen panels is releasably mountable to at least some of the plurality of support members by engaging at least some of the strip of hook-and-loop fastener about the peripheral border of each of the screen panels to a complementary strip of hook-and loop fastener mounted to the at least some of the plurality of support members to form the outdoor enclosure. The outdoor enclosure may be a patio enclosure, a sun room, a court yard enclosure, a recreation area enclosure; a dining area enclosure; a veranda enclosure; a pool enclosure; a spa enclosure; a hot tub enclosure; a garden enclosure; a greenhouse; or a lanai.

[0012] Details of these aspects of the invention, as well as further aspects of the invention, will become more readily apparent upon review of the following drawings and the accompanying claims.

BRIEF DESCRIPTION OF THE FIGURES

[0013] The subject matter that is regarded as the invention is particularly pointed out and distinctly claimed in the claims at the conclusion of the specification. The foregoing and other features and advantages of the invention will be readily understood from the following detailed description of aspects of the invention taken in conjunction with the accompanying drawings in which:

[0014] FIG. 1 is a perspective view of an enclosure having screen panels mounted thereon according to one aspect of the invention.

[0015] FIG. 2 is a perspective view, partially in cross section, of Detail 2 shown in FIG. 1.

[0016] FIG. 3 is a perspective view, partially in cross section, of Detail 3 shown in FIG. 1.

[0017] FIG. 4 is a partial front elevation view of the enclosure shown in FIG. 1.

[0018] FIG. 5 is a view of Detail 5 shown in FIG. 4.

[0019] FIG. 6 is a view of Detail 6 shown in FIG. 4.

[0020] FIG. 7 is a partial exploded perspective view of the mounting of a screen panel to a support member according to an aspect of the invention.

[0021] FIGS. 8 and 9 are partial side elevation views, in partial cross section, illustrating the sequential storage of a screen panel according to one aspect of the invention.

[0022] FIGS. 10, 11, and 12 are partial side elevation views, in partial cross section, illustrating the sequential storage of a screen panel according to another aspect of the invention.

DETAILED DESCRIPTION OF FIGURES

[0023] The details and scope of the aspects of the present invention can best be understood upon review of the attached figures and their following descriptions. FIG. 1 is a perspective view of an enclosure 10 having a support structure 12 and a plurality of screen panels 14 mounted to support structure 12 according to one aspect of the invention. In FIG. 1 and others the surfaces of screen panels 14 are represented by screen patterns that are representative only; the actual dimensions of screen fibers and screen openings may vary according to the intended use of enclosure 10. According to aspects of the present invention, screen panels 14 are removably mounted to support structure 12 by means of hook-and-loop type fasteners, for example, Velcro® brand fabric hook-and-loop type fasteners as provided Velcro USA Inc. of Manchester, N.H., though other hook-and-loop type fasteners may be used.

[0024] According to aspects of the invention, the ability to removably mount screen panels 14 to support structure 12 facilitates the removal or re-positioning of screen panels 14 from enclosure 10 as needed, for example, to minimize or prevent damage to enclosure 10 and/or screen panel 14 due to environmental conditions, for example, excessive wind, rain, hail or, especially in northern climates, snow load.

[0025] According to aspects of the invention, enclosure 10 may be used wherever a screen barrier can be worthwhile, for example, wherever there is a desire to isolate the inside of enclosure 10 from an external environment by means of screen panels 14. According to one aspect, enclosure 10 may be used out of doors to prevent insects, for example, mosquitoes and/or black flies, from entering enclosure 10 through screen panels 14, but, for example, allowing the free flow of air and sunlight into enclosure 10 through screen panels 14. In one preferred application, enclosure 10 may be used to screen an outdoor patio, a sun room, a court yard, a recreation or dining area, a veranda, a pool, or a spa, and like structures, for example, a patio having a pool, a spa, a hot tub, furniture, toys, games, or other structures or leisure activities, though aspects of the invention may be used without the presence of a formal "patio." Aspects of the invention may also be used to protect gardens, flowers, or other plants, or as a greenhouse. In some areas of the country, such structures are called "lanais," and aspects of the present invention can be uniquely adapted for

use as a lanai. Though FIG. 1 illustrates an enclosure having a generally rectangular footprint, aspects of the invention may be used for any conventional enclosure footprint shape, including, polygonal, such as, square; pentagonal, hexagonal, or octagonal footprints; round; oval; or combinations thereof.

[0026] Support structure 12 typically includes a plurality of support members, for example, uprights 16, lower cross members 18 and upper cross members 20. Support structure 12 may also include diagonal members 22 depending upon the shape of the top or roof 11 of enclosure 10. Other support members that may be required to ensure the structural integrity of support structure 12 may also be provided as needed, for example, by local building codes.

[0027] Structural members 16, 18, 20, and 22 may be any type of conventional structural member fabricated from conventional structural materials. Members 16, 18, 20, and 22 may comprise extruded tubing, sections, channels, angles, beams, braces, and other conventional members, and the like, and may be made from conventional structural materials, for example, steel, stainless steel, aluminum, and even wood. In one aspect of the invention, structural members 16, 18, 20 and 20 may typically be extruded aluminum members to minimize the weight of support structure 12 and minimize susceptibility to damage from the environment, for example, from rain and/or chlorinated pool or hot tub water. According to one aspect of the invention, structural members 16, 18, 20, and 22 need only be limited to members providing appropriate surfaces for mounting fabric hook-and-loop type fasteners. Structural members 16, 18, 20, and 22 may be connected by conventional mechanical fasteners, for example, nuts and bolts, screws, gussets, plates, guy wires, and the like.

[0028] FIG. 2 is a perspective view, partially in cross section, of Detail 2 shown in FIG. 1. As shown, FIG. 2 illustrates a typical vertical member 16 and screen panels 14 mounted to vertical member 16 positioned at an intermediate position or at the side of enclosure 10. Again, screen panels 14 may be mounted to vertical member 16 with hook and loop fasteners (not shown). As is typical, vertical member may comprise a hollow member, for example, a hollow extruded aluminum member. In some aspects, member 16 may have an open cross-section, for example, a channel, or a closed cross section, for example, as indicated by the hollow rectangular member 16 shown in FIG. 2. Though FIG. 2 illustrates screen panels 14 mounted to the internal surface of member 16, screen panels 14 may be mounted to one or more of any of the surfaces of member 16, for example, an internal surface 26, an external surface 28, or a side or lateral surface 30 in FIG. 2.

[0029] FIG. 3 is a perspective view, partially in cross section, of Detail 3 shown in FIG. 1. As shown, FIG. 3 illustrates a typical vertical member 16 and screen panels 14 mounted to vertical member 16 positioned at a corner of enclosure 10. Again, screen panels 14 may be mounted to vertical member 16 with hook and loop fasteners (not shown). As is typical, vertical member may comprise a hollow member, for example, a hollow extruded aluminum member. In some aspects, member 16 may have an open cross-section, for example, a channel, or a closed cross section, for example, as indicated by the hollow square member 16 shown in FIG. 3. Though FIG. 3 illustrates screen panels 14 mounted to the side surfaces of member 16, screen panels 14 may be mounted to one or more of any of the surfaces of corner member 16, for example, an external surface 28, or a side or lateral surface 30 in FIG. 3.

[0030] Screen panels 14 may comprise any suitable perforated material that can be mounted to support structure 12, for example, to members 16, 18, 20, and 22. Typically, screen panels 14 comprise sheets of flexible material that facilitate handling and installation of screen panels 14, for example, rolled fabric-type material. Screen panels 14 may be metallic, for example, steel or aluminum, or may be non-metallic, for example, plastic or cellulose fiber. In one aspect, screen panels 14 may comprise fiberglass. Aspects of the invention may be used with any size screen mesh, for example, screen mesh sizes having opening dimensions ranging from about 0.010 inches to about 0.50 inches. However, the size of the screen perforations or mesh is typically a function of the size of the local insect population, for example, mosquitoes, black flies, and “no see-ums,” among others, and the size of the screen mesh is provided to prevent passage of such insects.

[0031] FIG. 4 is a partial front elevation view of enclosure 10 shown in FIG. 1 showing a typical screen panel 14 mounted to uprights 16, lower cross members 18, and upper cross members 20. According to aspects of the invention, FIG. 4 may represent a view from the inside of enclosure 10 toward the outside, or from the outside of enclosure 10 toward the inside. As noted above, screen panels 14 may be mounted to the outside or inside of members 16, 18, 20, and 22.

[0032] FIG. 5 is a view of Detail 5 shown in FIG. 4. FIG. 6 is a view of Detail 6 shown in FIG. 4. As shown, according to aspects of the invention, screen panels 14 may be mounted to members 16, 18, 20, and 22 by means of strips of hook-and-loop fasteners 32, for example, fabric strips of hook-and-loop fasteners. Strips 32 may be positioned around a periphery or border of screen panels 14 and cooperate with complementary strips mounted and positioned on members 16, 18, 20, and 22 to position and releasably retain screen panels 14 on support structure 12. As shown in FIGS. 5 and 6, strips 32 may be spaced from the edges 15 of screen panels 14, or may be positioned substantially along or coincident with the edges 15 of panels 14. Though in one aspect of the invention, strips 32 may be mounted continuously along screen panels 14 and continuously along members 16, 18, 20, and 22, strips 32 may also be located intermittently along screen panels 14 and/or along members 16, 18, 20, and 22, for example, at evenly spaced intervals. In another aspect, strips 32 may have a width of between about 0.5 and about 6 inches, but typically may have a width of about 1 to about 3 inches, for example, about 1 inch. In one aspect of the invention, the width of strips 32 may vary depending upon the size of the enclosure and/or the size of the screen panels 14 between members on the support structure 12. In one aspect, 2 or more strips 32 may be mounted along an edge or a border of the screen panels 14 and members 16, 18, and 20 to provide sufficient structural support to screen panels 14.

[0033] FIG. 7 is a partial exploded perspective view of the mounting of a screen panel 14 to support members 16 and 20 with hook and loop fastener strip 32 according to an aspect of the invention. As noted previously, hook and loop fastener strip 32 typically comprises a first strip 34 mounted to screen panel 14, for example, about the periphery of screen panel 14, and a second strip 36, complementary to first strip 34, mounted to, for example, support members 16 and 20. First strip 34 may comprise hooks or loops and second strip 36 may comprise complementary hooks or loops, depending upon the nature of the first strip 34. Strip 34 may be mounted to screen panel 14 by conventional means, for example, by sewing or by an adhesive or by means of mechanical fasten-

ers. Similarly, strip 36 may be mounted to members 16 and 20 by conventional means, for example, by an adhesive or mechanical fasteners.

[0034] FIGS. 8 and 9 are side elevation views illustrating the sequential storage or removal of a screen panel 14 from support structure 12 according to one aspect of the invention, for instance, when there is a desire to remove or reposition screen panels 14, for example, for winter storage. As shown in FIG. 8, screen panel 14 may be rolled into a cylindrical roll 42 by rolling screen panel 14 in the direction of arrow 40. In one aspect, after rolling screen panel 14 in the direction of arrow 40, for example, in the direction of upper cross member 20, or opposite the direction of arrow 40, for example, in a direction toward lower cross member 18, the roll 42 of screen panel 14 may be removed from support structure 12 and stored, for example, in a pool house. As shown in FIG. 9, according to one aspect, after rolling screen panel 14 into a roll 42 at upper member 20 or lower member 18, roll 42 may be retained to member 18 or 20, for example, by means of one or more straps 44. Strap 44 may also comprise a hook and loop type fabric fastener or may comprise a cord or rope to retain roll 42 on support structure 12, for example, for winter storage or for short term access to enclosure 12 with screen panel 14 removed.

[0035] FIGS. 10, 11, and 12 are side elevation views, partially in cross section, illustrating the sequential storage or removal of a screen panel 14 from support structure 12 according to another aspect of the invention, for instance, when there is a desire to remove or reposition screen panels 14, for example, for seasonal storage or to avoid snow loads. As shown in FIGS. 10 and 11, screen panel 14 may be rolled into a cylindrical roll 52 by rolling screen panel 14 in the direction of arrow 60 over one or more members 20 and 22. In one aspect, after rolling screen panel 14 in the direction of arrow 60, the roll 52 of screen panel 14 may be removed from support structure 12 and stored, for example, in a garage or pool house. As shown in FIG. 12, according to one aspect, after rolling screen panel 14 into a roll 52 at upper member 20, roll 52 may be retained to member 20, for example, by means of one or more straps 54. Strap 54 may also comprise a hook and loop type fastener or may comprise a cord or rope to retain roll 52 on support structure 12, for example, for winter storage or for short term access to enclosure 12 with screen panel 14 removed.

[0036] Aspects of the present invention provide enclosures, such as, patio or pool enclosures, and methods for assembling enclosures that address the shortcomings and disadvantages of the prior art. As will be appreciated by those skilled in the art, features, characteristics, and/or advantages of the various aspects described herein, may be applied and/or extended to any embodiment (for example, applied and/or extended to any portion thereof).

[0037] Although several aspects of the present invention have been depicted and described in detail herein, it will be apparent to those skilled in the relevant art that various modifications, additions, substitutions, and the like can be made without departing from the spirit of the invention and these are therefore considered to be within the scope of the invention as defined in the following claims.

1. A patio enclosure comprising:
a support structure comprising a plurality of support members; and

- a plurality of perforated screen panels, each of the plurality of perforated screen panels having a peripheral border, the peripheral border having a strip of a hook-and-loop fastener;
 wherein each of the plurality of screen panels is releasably mountable to at least some of the plurality of support members by engaging at least some of the strip of hook-and-loop fastener about the peripheral border of each of the screen panels to a complementary strip of hook-and-loop fastener mounted to the at least some of the plurality of support members to form the patio enclosure.
- 2.** The patio enclosure as recited in claim **1**, wherein the support structure comprises:
 a plurality of uprights, each of the plurality of uprights having a top and a bottom;
 a plurality of upper cross members, each of the plurality of upper cross members mounted between the top of one of the plurality of uprights and the top of another of the plurality of uprights; and
 a plurality of lower cross members, each of the plurality of lower cross members mounted between the bottom of one of the plurality of uprights and the bottom of another of the plurality of uprights;
 wherein at least one of the plurality of perforated screen panels is releasably mountable to at least one of the plurality of uprights, at least one of the plurality of upper cross members, and at least one of the plurality of lower cross members.
- 3.** The patio enclosure as recited in claim **1**, wherein the enclosure encompasses a volume.
- 4.** The patio enclosure as recited in claim **3**, wherein the volume defines a footprint.
- 5.** The patio enclosure as recited in claim **4**, wherein the footprint comprises one of a polygon, a circle, and an oval.
- 6.** The patio enclosure as recited in claim **1**, wherein the strip of a hook-and-loop fastener the peripheral border of each of the plurality of perforated screen panels comprises a fabric strip having one of hooks and loops.
- 7.** The patio enclosure as recited in claim **1**, wherein the plurality of perforated screen panels comprise rectangular panels having four linear edges.
- 8.** The patio enclosure as recited in claim **1**, wherein the enclosure further comprises a plurality of straps adapted to secure at least one of the plurality of perforated screen panels to the support structure when the at least one perforated screen panel is rolled in to a cylindrical roll.
- 9.** The patio enclosure as recited in claim **8**, wherein the plurality of straps are adapted to secure the cylindrical roll to one of the plurality of upper cross members and lower cross members.
- 10.** The patio enclosure as recited in claim **5**, wherein the strip of a hook-and-loop fastener the peripheral border of each of the plurality of perforated screen panels comprises a fabric strip having one of hooks and loops.
- 11.** A method of assembling a patio enclosure, the method comprising:
 assembling a support structure comprising a plurality of support members; and
 mounting a plurality of perforated screen panels having a peripheral border with a strip of one of hooks and loops of a hook-and-loop type fastener to the plurality of support members of the support structure.
- 12.** The method as recited in any one of claim **11**, wherein the plurality of support members comprises:
 a plurality of uprights, each of the plurality of uprights having a top and a bottom;
 a plurality of upper cross members, each of the plurality of upper cross members mounted between the top of one of the plurality of uprights and the top of another of the plurality of uprights; and
 a plurality of lower cross members, each of the plurality of lower cross members mounted between the bottom of one of the plurality of uprights and the bottom of another of the plurality of uprights;
 wherein at least one of the plurality of perforated screen panels is releasably mountable to at least one of the plurality of uprights, at least one of the plurality of upper cross members, and at least one of the plurality of lower cross members.
- 13.** The method as recited in claim **11**, wherein the method further comprises rolling at least one of the plurality of perforated screen panels in to a cylindrical roll; and securing the cylindrical roll to the support structure.
- 14.** The method as recited in claim **13**, wherein securing the cylindrical roll to the support structure comprises securing the cylindrical roll to the upper cross member with a plurality of straps.
- 15.** The method as recited in claim **12**, wherein the method further comprises rolling at least one of the plurality of perforated screen panels in to a cylindrical roll; and securing the cylindrical roll to the support structure.
- 16.** An outdoor enclosure comprising:
 a support structure comprising a plurality of support members; and
 a plurality of perforated screen panels, each of the plurality of perforated screen panels having a peripheral border, the peripheral border having a strip of a hook-and-loop fastener;
 wherein each of the plurality of screen panels is releasably mountable to at least some of the plurality of support members by engaging at least some of the strip of hook-and-loop fastener about the peripheral border of each of the screen panels to a complementary strip of hook-and-loop fastener mounted to the at least some of the plurality of support members to form the outdoor enclosure.
- 17.** The outdoor enclosure as recited in claim **16**, wherein the support structure comprises:
 a plurality of uprights, each of the plurality of uprights having a top and a bottom;
 a plurality of upper cross members, each of the plurality of upper cross members mounted between the top of one of the plurality of uprights and the top of another of the plurality of uprights; and
 a plurality of lower cross members, each of the plurality of lower cross members mounted between the bottom of one of the plurality of uprights and the bottom of another of the plurality of uprights;
 wherein at least one of the plurality of perforated screen panels is releasably mountable to at least one of the plurality of uprights, at least one of the plurality of upper cross members, and at least one of the plurality of lower cross members.
- 18.** The outdoor enclosure as recited in claim **16**, wherein the enclosure further comprises a plurality of straps adapted to secure at least one of the plurality of perforated screen panels to the support structure when the at least one perforated screen panel is rolled in to a cylindrical roll.

19. The patio enclosure as recited in claim **18**, wherein the plurality of straps are adapted to secure the cylindrical roll to one of the plurality of upper cross members and lower cross members.

20. The outdoor enclosure as recited in claim **16**, wherein the outdoor enclosure comprises at least one of a patio enclo-

sure, a sun room, a court yard enclosure, a recreation area enclosure; a dining area enclosure; a veranda enclosure; a pool enclosure; a spa enclosure; a hot tub enclosure; a garden enclosure; a greenhouse; and a lanai.

* * * * *