(19) United States
${ }^{(12)}$ Patent Application Publication
Teren
(10) Pub. No.: US 2015/0105185 A1

Pub. Date:
Apr. 16, 2015
(54) PORTABLE PHYSICAL ACTIVITY PANELS
(71) Applicant: Darren M. Teren, San Diego, CA (US)
(72) Inventor: Darren M. Teren, San Diego, CA (US)
(21) Appl. No.: 14/510,943
(22) Filed:

Oct. 9, 2014

## Related U.S. Application Data

(60) Provisional application No. 61/890,099, filed on Oct. 11, 2013.

Publication Classification
(51) Int. Cl.

A63C 19/08
(2006.01)
(52) U.S. Cl.

CPC $\qquad$ A63C 19/08 (2013.01); A63C 2019/085
(2013.01)

## (57)

## ABSTRACT

Features for assembling a physical boundary are disclosed The boundary may be used in a variety of physical activities, including a pit for Ga-Ga ball. The boundary is made up of panels that can be stowed for transportation and then deployed to form the boundary. The panels are coupled together and secured to the ground using posts. The posts can secure directly to the ground or to supports. The panels may include a variety of features, including windows, ports, pockets, stiffeners, tensioners, and entry ways. An access such as a zipper in the panels may be opened and closed to provide an entry way. The panels and posts can be stored in a portable kit and deployed in a place of interest, such as a park. The assembly can then be broken down, stored as a portable kit, and transported. Associated methods of assembling and use are also disclosed.



FIG. 1


FIG. 2A


FIG. 2B


FIG. $2 C$


FIG. 2D


FIG. $3 A$



FIG. $3 C$


FIG. 4B

FIG. 4C



FIG. 6A


FIG. $6 B$

FIG. 7


FIG. 8



FIG. 9B


FIG. 10


FIG. 11A


FIG. 12


$$
\text { FIG. } 13
$$

## PORTABLE PHYSICAL ACTIVITY PANELS

## INCORPORATION BY REFERENCE TO ANY PRIORITY APPLICATIONS

[0001] Any and all applications for which a foreign or domestic priority claim is identified in the Application Data Sheet as filed with the present application are hereby incorporated by reference under 37 CFR 1.57.
[0002] This application claims priority to U.S. Provisional Application Ser. No. 61/890,099, filed Oct. 11, 2013, the disclosure of which is incorporated herein by reference in its entirety.

## BACKGROUND

[0003] 1. Technical Field
[0004] The present technology relates to boundaries, specifically, portable boundaries and barriers, in which sports and games can be played. Related systems and methods of assembly are also disclosed.
[0005] 2. Description of the Related Art
[0006] In the U.S., many schools are reducing recess and gym activities, and the overall population is growing increasingly sedentary and overweight. Now, more than ever before, it is important to reduce barriers to physical activity. There is a need for games that can be played quickly, easily, and nearly anywhere, which get people of all ages and abilities moving.
[0007] Many games require a demarcation of some kind to identify the boundaries of the playing field, court, pit, or course. In designated sports facilities, the demarcations often include lines, walls, and/or fences. It can be challenging to play many games outside of designated sports facilities, such as in a yard or open field, due to difficulties that exist in trying to define the physical boundaries of the games.
[0008] For example, in Ga-ga, a sport of increasing popularity, a wall is needed to define the boundary of the Ga-ga pit, and ideally, to also allow ricochet of the ball during play. Ga-ga has few rules and is easy to learn; it can be played by children and adults of nearly all ages and athletic abilities, and it is a short, fast-paced game that can be played by many participants at once. For at least these reasons, it is becoming a favorite game at schools and summer camps. The game itself requires no more than a bounceable ball, such as a playground ball; however, the ability to play Ga-ga is limited by the need for the pit-defining wall.
[0009] Current Ga-ga pits are generally permanent or semipermanent in nature. In Ga-ga, the pit is typically octagonal or hexagonal in shape with each of the eight or six wall panels generally ranging from $2-5$ feet in height and $6-9$ feet in length. Installation of a pit of such dimensions is generally time- and cost-intensive. Even semi-permanent or "portable" Ga-ga pits on the market generally require assembly of a series of bulky 6-9 foot-long panels made of wood or a relatively rigid plastic or composite material. Summer camps looking for a more portable solution have been known to place a series of picnic tables on their sides to form the octagonal pit. Creating a pit in such a manner can be strenuous and is impractical in many settings. Further, portable Ga-ga pits on the market are not multipurpose and typically are made only for playing Ga-ga and serve no other significant fitness needs. There therefore exists a need for a user-friendly, portable fitness structure, which can be easily set up and taken down by a single person without the need for strenuous effort or large vehicles to transport. Further, there exists a need for
such a structure that can serve multiple purposes, for instance as a Ga-ga pit but also as more general purpose exercise walls.

## SUMMARY

[0010] The systems and methods described herein each have several aspects, no single one of which is solely responsible for its desirable attributes. Without limiting the scope of this disclosure as expressed by the claims that follow, the more prominent features will now be discussed briefly. After considering this discussion, and particularly after reading the section entitled "Detailed Description," one will understand how the sample features described herein provide for improved boundaries and barriers for Ga-ga, fitness obstacle courses, and other physical activities.
[0011] Due to an increasing interest in Ga-ga, a need exists for a Ga-ga pit boundary that allows Ga-ga to be played recreationally by friends and families, for example, in backyards, parks, and other open spaces. A need exists for a Ga-ga pit boundary that is quick to assemble and truly portable. A need also exists for a Ga-ga pit boundary that is affordable for families and individual consumers. The systems, devices, and methods described herein may address one or more of the aforementioned needs. Embodiments described herein relate to portable boundaries in which sports and games, such as Ga-ga, can be played.
[0012] One aspect of the disclosure is directed towards a system for defining the boundaries of a playing field. In some embodiments, the system comprises a plurality of deployable panels. Each panel may have a height of about $2-5$ feet and a length of about 3-12 feet. Each panel is configured to collapse and deploy and has a top edge, a bottom edge, two side edges, and at least one sleeve coupled to each side edge. There are also a plurality of rigid support posts, with each post having a top portion and a bottom portion, and wherein each post extends at least the height of each side edge and is configured to mate with at least one sleeve and a plurality of foundations. Each foundation is configured to secure the bottom of each support post wherein the plurality of panels and the plurality of posts are moveable between multiple configurations, and wherein, in one configuration, the walls form a boundary defining a playing field.
[0013] In other embodiments of the first aspect, each sleeve comprises a plurality of loops and/or forms a tube of material along the height of each side edge.
[0014] In other embodiments of the first aspect, each panel is comprised of polyester, canvas, or other flexible polymer, fabric, or composite material.
[0015] In other embodiments of the first aspect, each foundation comprises a spike, an auger, a threaded end, or a pointed tip affixed to a bottom portion of the post and configured to be pierced or screwed into the ground or into a support. The support may further comprise a mount defining a cavity configured to receive a bottom end of the post, and the mount configured to secure the bottom end of the support post in place via friction fit, snap fit, or threading.
[0016] In other embodiments of the first aspect, the system may be in a configuration such that the panels form an enclosed hexagon, or the system may comprise eight panels and eight posts and the panels may form an enclosed octagon. In octagonal or other embodiments, one panel may be an access panel comprised of a long section and a short section, such that, in one configuration, the panels form an octagon comprising an access area along the access panel for entering and exiting the boundary.
[0017] In other embodiments of the first aspect, the system may have at least a portion of at least one panel that is transparent, and/or at least one panel including a port or moveable flap portion. Some embodiments may further comprise at least one anchor coupled to a bottom portion of at least one panel, and the anchor may comprise a pointed tip configured for securement into the ground.
[0018] In other embodiments of the first aspect, some embodiments may have at least one panel that comprises a pocket, and the system may further comprise an insert removably disposed within the pocket.
[0019] In other embodiments of the first aspect, some embodiments may further comprise a flexible flooring sheet positioned between, and substantially enclosed by, the plurality of panels.
[0020] In other embodiments of the first aspect, some embodiments may have at least one panel comprising a zipper.
[0021] In other embodiments of this first aspect, the system may comprise a net. The system may further comprise a plurality of net segments, wherein each net segment is configured to collapse and deploy, and wherein each net segment has a net top edge, a net bottom edge, and two net side edges, and a plurality of rigid net support posts or extensions, wherein each extension has a top post portion and a bottom post portion, and wherein each extension extends at least the height of each net side edge and is configured to mate with at least two net side edges. In some embodiments, the bottom portion of the extension is configured to mate with the top portion of the rigid support posts. In some embodiments, the system further comprises a cross brace configured to couple with the support posts or with the extensions, and the cross brace may be configured to clamp to the net and comprises a length that is adjustable.
[0022] A second aspect of the disclosure is directed towards a portable kit for defining the boundaries of a playing field. In some embodiments, the kit comprises a system for defining the boundaries of a playing field, wherein the deployable panels are configured to be rolled into a compact state, and a carrying case sized to enclose and carry the system.
[0023] In some embodiments of the second aspect, the carrying case is a shoulder bag, the kit is further comprising a post-driving insertion tool, the kit is further comprising a wall angle placement guide, the kit is further comprising a plurality of support bases, and/or the kit is further comprising a removable, flexible flooring sheet.
[0024] A third aspect of the disclosure is directed towards a method of assembling a system for defining the boundaries of a playing field. In some embodiments, the method comprises removing a playing field boundary from a carrying case, the playing field boundary comprising a plurality of panels and a plurality of support posts, unrolling or otherwise deploying the plurality of panels, inserting a first support post through a first sleeve coupled to a first side edge of a first panel, securing a bottom end of the first support post into the ground or into a first support base, extending the first panel, inserting a second support post through a second sleeve coupled to a second side edge of the first panel, securing a bottom end of the second support post into the ground or into a second support base, extending a second panel at an angle relative to the first panel, wherein the second panel is coupled to the second support post, and extending the remaining panels, inserting the remaining posts, and securing them in like manner to form the boundaries of the playing field.
[0025] In other embodiments of the third aspect, the method further comprises driving support anchors connected to one or more of the panels.
[0026] In other embodiments of the third aspect, the method further comprises inserting one or more support beams into one or more pockets of one or more of the panels.
[0027] In other embodiments of the third aspect, the method further comprises attaching net segments above each of the panels by inserting a post attached to two net segment side edges into a top portion of a respective support post.
[0028] In other embodiments of the third aspect, the method further comprises attaching a clamp of a cross brace to the posts and adjusting the cross brace to further extend and tighten the panels.
[0029] In another aspect, a system for defining a boundary is disclosed. The system comprises a plurality of deployable panels, a plurality of posts, and a plurality of foundations. Each panel is configured to collapse and deploy, each post is configured to couple with at least one edge of at least one panel, each foundation is configured to couple a bottom portion of each post with the ground. The plurality of panels and the plurality of posts are moveable between multiple configurations, and, in at least one configuration, the panels define the boundary.
[0030] These are just some of the potential features of the boundary and related systems and methods. The foregoing is a summary and thus contains, by necessity, simplifications, generalizations, and omissions of detail; consequently, those skilled in the art will appreciate that the summary is illustrative only and is not intended to be in any way limiting. Any particular boundary, system, or method may have some or all of these features or additional or alternative features. Other aspects, features, and advantages described herein will become apparent in the teachings that follow.

## BRIEF DESCRIPTION OF THE DRAWINGS

[0031] The above-mentioned aspects, as well as other features, aspects, and advantages of the present technology will now be described in connection with various embodiments, with reference to the accompanying drawings. The illustrated embodiments, however, are merely examples and are not intended to be limiting.
[0032] FIG. 1 is a schematic perspective view of one embodiment of a boundary for physical activities.
[0033] FIG. 2A is a schematic top view of the boundary of FIG. 1.
[0034] FIG. 2B is a schematic top view of one embodiment of a boundary for physical activities having an opening near a vertex of the boundary.
[0035] FIG. 2C is a schematic top view of another embodiment of a boundary for physical activities having an opening away from a vertex of the boundary.
[0036] FIG. 2D is a schematic top view of an additional embodiment of a boundary for physical activities with a floor cover.
[0037] FIG. 3A is a schematic top view of one embodiment of a boundary for physical activities. In the depicted embodiment, the fitness/playing area is hexagonal.
[0038] FIG. 3B is a schematic top view of another embodiment of a boundary for physical activities. In the depicted embodiment, the fitness/playing area is pentagonal.
[0039] FIG. 3C is a schematic top view of an additional embodiment of a boundary for physical activities. In the depicted embodiment, the fitness/playing area is rectangular.
[0040] FIG. 4A is a schematic view of a wall panel in one embodiment of a boundary for physical activities.
[0041] FIG. 4B is a schematic view of a wall panel in another embodiment of a boundary for physical activities.
[0042] FIG. 4C is a schematic view of a wall panel with tensioning systems in another embodiment of a boundary for physical activities.
[0043] FIG. 5A is a schematic top view of one embodiment of a support post.
[0044] FIG.5B is a schematic cross-section of one embodiment of a support post, wherein the cross-section is viewed along the cut line shown in FIG. 5A.
[0045] FIG. 6A is a schematic side view of one embodiment of a support post insertion tool.
[0046] FIG. 6B is a schematic top view of one embodiment of a support post insertion tool.
[0047] FIG. 7 is a schematic perspective view of one embodiment of a support base.
[0048] FIG. 8 is a schematic perspective view of one embodiment of a boundary for physical activities, wherein the boundary includes a top net.
[0049] FIG. 9A is a schematic representation of one embodiment of mechanisms used to secure a top net to a support post of the boundary embodiment.
[0050] FIG. 9B is a schematic representation of one embodiment of mechanisms used to secure a top net to a support post of the boundary embodiment.
[0051] FIG. 9C is a schematic representation of one embodiment of mechanisms used to tension the top net to the support post of the boundary embodiment.
[0052] FIG. 10 is a schematic top view of one embodiment of a boundary for physical activities, wherein the walls have been moved into an alternate configuration for use as a fitness obstacle course.
[0053] FIGS. $11 \mathrm{~A}-11 \mathrm{~B}$ are various views of a boundary opening.
[0054] FIG. 12 is a side view of an embodiment of a boundary with triangular end panels.
[0055] FIG. 13 is a flowchart showing an embodiment of a method for assembling a boundary.

## DETAILED DESCRIPTION

[0056] In the following detailed description, reference is made to the accompanying drawings, which form a part of the present disclosure. The illustrative embodiments described in the detailed description, drawings, and claims are not meant to be limiting. Other embodiments may be utilized, and other changes may be made, without departing from the spirit or scope of the subject matter presented here. It will be readily understood that the aspects of the present disclosure, as generally described herein and illustrated in the FIGS., can be arranged, substituted, combined, and designed in a wide variety of different configurations, all of which are explicitly contemplated and form part of this disclosure. For example, a system or boundary may be implemented or a method may be practiced using any number of the aspects set forth herein. In addition, such a system or boundary may be implemented or such a method may be practiced using other structure, functionality, or structure and functionality in addition to, or other than, one or more of the aspects set forth herein.
[0057] FIG. 1 illustrates an embodiment of portable physical activity panels $\mathbf{1 1 0}$ set up to form a boundary $\mathbf{1 0 0}$. In this embodiment, the boundary $\mathbf{1 0 0}$ is defined by a collection of one or more panels $\mathbf{1 1 0}$. The boundary $\mathbf{1 0 0}$ may in addition or
alternatively be comprised of other wall elements or side surfaces. The panels 110 may partially or fully bound a space 140. As shown, the four-sided panels 110 are arranged to substantially or fully enclose the space $\mathbf{1 4 0}$ on the inside of the boundary 100. Eight panels 110 are shown such that the boundary $\mathbf{1 0 0}$ substantially forms an octagon. The panels $\mathbf{1 1 0}$ may be of substantially equivalent length. However, many configurations and sizes are possible. Further, the panels 100 need not all be exactly the same length, and the boundary 100 may still be formed. The interior space 140 of the boundary is empty and does not contain any panels 110. A surface 142 on which the panels are set up is merely enclosed by the panels. The surface 142 may be grass, dirt, mulch, or some other natural material. The surface 142 could also be some firmer, man-made material, such as concrete, asphalt, wood, or rubber. Many other possibilities exist for the surface on which the panels are set up, including a combination of multiple surfaces 142. The surface (or surfaces) 142 needs to provide enough area for the panels $\mathbf{1 1 0}$ to be set up. Further, the surface $\mathbf{1 4 2}$ may also be covered, as is further discussed below.
[0058] The boundary in FIG. 1 may be used for physical activities. For instance, the boundary may serve as a Ga-ga pit or Ga-ga boundary for a game of Ga-ga. The inside of the eight panels 110 in FIG. 1 provide side surfaces against which a Ga-ga ball may be bounced. The panels 110 also provide a perimeter inside which the players of Ga-ga must remain. Further, if spectators are watching the game, the panels $\mathbf{1 1 0}$ will provide a perimeter to protect them from being struck by the ball or by the players.
[0059] The boundary $\mathbf{1 0 0}$ is shown in FIG. 1 after the panels 110 have been deployed and the boundary 100 assembled to the configuration shown. The panels $\mathbf{1 1 0}$ are joined to one another by means of a post $\mathbf{1 3 0}$ that couples with sleeves (not shown in FIG. 1, see FIGS. 4A-4C) on the left and right sides 118, 120 of each panel 110. These post 130 and sleeve couplings are located at the vertices of the octagon in FIG. 1, or the locations where one panel 110 meets another. Further, the bottom of each post $\mathbf{1 3 0}$ is secured to the ground $\mathbf{1 0}$ using a foundation (not shown in FIG. 1, see FIGS. 4A-4C). The foundation may take a variety of forms, as is discussed further below, depending on the surface $\mathbf{1 4 2}$ on which the boundary $\mathbf{1 0 0}$ is set up. For disassembly, the posts $\mathbf{1 3 0}$ and individual panels $\mathbf{1 1 0}$ may be separated and the posts $\mathbf{1 3 0}$ and panels $\mathbf{1 1 0}$ collapsed. Each post $\mathbf{1 3 0}$ and panel $\mathbf{1 1 0}$ is lightweight, making it easy to transport most or all of them in a single carrying case or bag. The panels 110 may collapse in numerous ways, for instance by rolling up.
[0060] To deploy the panels 110 , they would then simply be unrolled and then assembled with the posts $\mathbf{1 3 0}$ to form the boundary 100 . The posts 130 may also be collapsible and deployable, for instance in a telescoping structure, or the posts $\mathbf{1 3 0}$ may also be a single, unitary structure of a single length. Further details of these and other structures are provided below.
[0061] As further shown in FIG. 1, the panels 110 may have an upper edge 114 and/or a lower edge 116. The upper edge 114 may be a section or segment of the panel 110 along the top of the panel 110. The upper edge $\mathbf{1 1 4}$ may in addition or alternatively be a separate feature coupled with the panel 110, such as a thickened section of the panel 110 , an elongated seam along the edge, a reinforcement for the panel 110, etc. The lower edge 116 may be similar to the upper edge 114 except it may be located along the bottom of the panel 110.

The lower edge 116 may therefore be located opposite the upper edge 114. In between the upper and lower edges 114, 116 may be a panel center 112. The center 112 may be the center or middle portion of the panel $\mathbf{1 1 0}$. The center $\mathbf{1 1 2}$ may also include other features coupled with the panel 110, such as extra fabric or signs, such as advertising.
[0062] A top view of an embodiment of a boundary $\mathbf{2 0 0}$ is shown in FIG. 2A. As shown, in the depicted top view, the boundary $\mathbf{2 0 0}$ is fully enclosed on all sides by eight panels. Three consecutive panels are labelled as panels 211, 212 and 213, with corresponding lengths L1, L2 and L3. In some embodiments, L1 $=\mathrm{L} 2=\mathrm{L} 3$. In other embodiments, the lengths L1, L2 and L3 may all be different from each other. Other configurations may be implemented, such as $\mathrm{L} 1=\mathrm{L} 2 \neq \mathrm{L} 3$. The panels may form interior angles with respect to each other. As shown, the panels form angles A1, A2, A3 and A4. In particular, angle A2 is formed by panels 211 and 212, angle A3 is formed by panels 212 and 213, and angles A1 and A4 are at the ends of panels 211 and $\mathbf{2 1 3}$, respectively. In some embodiments, $\mathrm{A}=\mathrm{A} \mathbf{2}=\mathrm{A} 3=\mathrm{A} 4$. However, other configurations are possible. For instance, $\mathrm{A} \mathbf{1}=\mathrm{A} \mathbf{4} \neq \mathrm{A} \mathbf{2}=\mathrm{A} \mathbf{3}$. These are merely examples and a variety of angular orientations of the panels may be implemented.
[0063] FIGS. 2B and 2C depict top views of the boundary 200 with a removable or offset access panel 216, to allow for ingress and egress into the space $\mathbf{2 4 0}$ defined by the boundary 200. As shown in FIG. 2B, the access panel 216 may be a part of one of the panels 210 , such that the access panel 216 is shorter than the other panels 210. The access panel 216 is shown at the end of the shorter stationary portion 214 of the panel 210, where one side of the access panel 216 forms a vertex of the boundary $\mathbf{2 0 0}$ and the other side couples with the stationary portion 214. The access panel 216 may also be positioned with a different panel 210 and/or in a different location along the panel 210. For instance, FIG. 2C depicts the access panel 216 substantially near the center of the panel 210 of the boundary 200 . In such an embodiment, the access panel 216 couples with two shorter stationary portions 214 of the panel 210 on either side of the access panel 216.
[0064] Players or other users of the boundary 200 may enter and exit the boundary 200 in a variety of ways. In embodiments such as those shown in FIG. 2A, players or users of the boundary $\mathbf{2 0 0}$ may simply step or climb over the walls to enter and leave the space $\mathbf{2 4 0}$ or, as described in more detail below, they may climb through one or more openings, such as port holes, located within the panels. For embodiments such as those shown in FIGS. 2B and 2C, the players or users may enter through an opening 241 defined by the access panel 216. The access panel 216 is shown on an eight-sided boundary 200, but it may be included in any embodiment, for instance a six-sided boundary 200 , and the access panel 216 may be near a vertex, centered on a panel $\mathbf{2 1 0}$, or in any other location along any panel 210. The access panel 216 could likewise be between two panels 210 such that another side is introduced to the structure. For example, two panels $\mathbf{2 1 0}$ of the boundary 200 could be made shorter and the access panel 216 could join the two shortened panels 210, thereby introducing a new side to the structure. Further, multiple access panels 216 could be included in a single boundary 200 and/or on a single panel 210, for example one access panel 216 could be an entrance and the other access panel 216 an exit.
[0065] An embodiment of the boundary 200 with a floor cover 242 is shown in FIG. 2D. With the portable design of various embodiments, the boundary 200 can be assembled for
play in a variety of environments and on a variety of playing surfaces 142 , such as, for example, dirt, grass, sand, pea gravel, or asphalt. In some embodiments, a flexible, removable floor cover $\mathbf{2 4 2}$ is provided. Such a floor cover $\mathbf{2 4 2}$ may be laid down within the boundary $\mathbf{2 0 0}$ to provide a relatively smooth and hard surface for use when playing on a soft and uneven surface, such as sand or pea gravel. The cover 242 may be a plastic fabric or other such suitable material that can be enclosed by the panels 210 . The cover 242 need not have the exact same shape of the assembled panels 210. Preferably the cover 242 allows for coverage of all of the interior floor space of a boundary 200, but it may provide coverage that is less than or more than the enclosed or bounded area. Further, the cover $\mathbf{2 4 2}$ may attach to the boundary $\mathbf{2 0 0}$, such as to the panels 210 . In such embodiments, the cover 242 may attach to some or all of the panels 210 , and/or to some or all of the posts 130. The cover 242 may also merely be laid down inside the boundary $\mathbf{2 0 0}$ and not be attached to any structure.
[0066] Some embodiments have eight walls, which form an enclosed boundary having the shape of an octagon, as shown, for example, in FIGS. 1-2D. However, in other embodiments, the boundary may have any number of walls. In some embodiments, the boundary has between four and eight walls. For example, as shown in FIG.3A, in some embodiments, the boundary $\mathbf{3 0 0}$ includes six walls formed by six panels $\mathbf{3 1 0}$ such that a substantially hexagonal boundary $\mathbf{3 0 0}$ may be formed. In other embodiments, the system has five panels 310 forming a substantially pentagonal boundary $\mathbf{3 0 0}$ as depicted in FIG. 3B, or it may have four panels 310 forming a substantially rectangular boundary $\mathbf{3 0 0}$ as depicted in FIG. 3C. Any features described for any of these or other embodiments may also be part of any other embodiments. For instance, the embodiments in FIGS. 3A-3C may also have access panels and ground covers. It is further understood that the boundary 300 could have more than eight sides or fewer than four, for example it may have three, seven, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, twenty, thirty, fifty, one hundred, or other numbers of sides.
[0067] FIG. 4A illustrates a close up side view of a panel 410 of a boundary $\mathbf{4 0 0}$. A central panel 410 is depicted parallel to the viewing plane, with panels 410 on either side at angles to the viewing plane. A net $\mathbf{4 6 0}$ is shown attached to the top of the panels $\mathbf{4 1 0}$. The central panel $\mathbf{4 1 0}$ has posts $\mathbf{4 3 0}$ on either side that couple the panel 410 to the other flanking panels 410, and foundations 434 at the bottom of the posts 430. At the center of the central panel 410 is an access 440 , which may be a zipper, button or other access feature, that allows the panel 410 to be opened and/or closed. At the bottom portion of the panel $\mathbf{4 1 0}$ is an bottom tensioning system $\mathbf{4 5 0}$, such as an auger system, that tensions the panel 410 and further secures it to the ground 10.
[0068] The panel 410 is depicted in FIG. 4A with an access 440 as a zipper down the center, but the panel 410 may also be a unitary structure without any access $\mathbf{4 4 0}$. In either case, the overall dimensions of the individual panel 410 are typically 2-5 feet high and 3-12 feet long. The panel 410 has an upper edge 414, a lower edge 416, a left edge 418 and a right edge 420. The upper edge 414 is shown in FIG. 4A attached to a net 460. The two side edges 418, 420 are shown coupled to other panels $\mathbf{4 1 0}$ by posts $\mathbf{4 3 0}$. The lower edge 416 is shown with tensioning system 450 attached thereto. The two side edges 418, 420 of the panel 410 contain sleeves 432, discussed further below, that allow the posts 430 to couple to the panel 410 and allow the panels 410 to couple to each other.
[0069] The posts $\mathbf{4 3 0}$ are generally as long as the side edges 418, 420 of the panels 410 are high, with extra length at the bottom for the foundations 434 and possible extra length at the top. In some embodiments, the posts $\mathbf{4 3 0}$ are a single, unitary structure with a fixed length. In other embodiments, the posts $\mathbf{4 3 0}$ are adjustable structures of varying height, for instance telescoping structures that shorten for transport and lengthen for installation and assembly. The posts $\mathbf{4 3 0}$ in some embodiments are made of separate shorter post segments that detach from each other for transport and reattach for installation and assembly, for instance by screwing or snapping together.
[0070] The panel $\mathbf{4 1 0}$ depicted in FIG. 4A is made up of a lightweight, collapsible material, such as polyester, canvas, or other flexible polymer, fabric, or composite. The panel 410 may be any material that allows for collapsing and deploying of the panels $\mathbf{4 1 0}$ for easy transport and setup. The panels $\mathbf{4 1 0}$ may therefore be fully opaque or fully transparent, or anywhere in between. While fully opaque panels 410 would provide for the most privacy for those inside the boundary 400, the fully transparent panels 410 would provide spectators a better view of the activities inside the boundary 400 . For shorter panels 410 , where the view is not very obstructed, the transparency of the panel $\mathbf{4 1 0}$ may not be critical. But for taller panels 410, transparency is more important. This is especially so in the context of schools where teachers and staff need to keep an eye on the children as they play inside the boundary 400 .
[0071] FIG. 4B depicts an embodiment of a panel $\mathbf{4 1 0}$ with various modifications for viewing and/or access. The left side of the central panel 410 depicted contains a window 441, which may be transparent. The window 441 is an oval shape, but may be any shape, and may allow for full viewing into and out of the boundary 400 . The window 441 could provide a spectator a means to watch the activity inside the boundary 400. The window 441 may be of any material that is suitable for the panel $\mathbf{4 1 0}$ itself, and it may be the same or a different material as the panel $\mathbf{4 1 0}$ itself, such as plexiglass or some other hard plastic.
[0072] Another modification to the central panel 410 is the port $\mathbf{4 1 1}$ shown in FIG. 4 B on the right side of the central panel 410. The port 411 is shown with an optional removable segment 442. It may have an oval shape, but it could be any shape, including square, triangular, etc. The port 411 may likewise be transparent and allow for viewing into and out of the boundary $\mathbf{4 0 0}$, but the port 411 may include a removable segment $\mathbf{4 4 2}$, such as a flap, that may open and close. The port 411 thus additionally provides access into or out of the boundary 400 through an opening 443 defined by an inner edge 412 of the panel 410.
[0073] The port 411 may also be of any shape and may be positioned anywhere on the panel 410. It is shown as an oval near the middle of the height of the panel $\mathbf{4 1 0}$, but it could also be near the bottom of the panel $\mathbf{4 1 0}$ or could have a square shape. The port 411 may open and close by any means suitable for the material of the panel. For example, the port 411 may use a zipper or Velcro to open and close. Further, any material that is suitable for the panel $\mathbf{4 1 0}$ may also be used for the port 411. The port 411 may be the same or a different material as the panel 410, for example the port 411 may be canvas, or a hard plastic, such as plexiglass.
[0074] Besides the window 441 and port $\mathbf{4 1 1}$ shown in FIG. 4B, other modifications to the panels 410 are possible. For instance, the window 441 may also serve as a pocket on the
interior, exterior, or both sides, of the panel 410. The pocket may be used to hold items used for the physical activity or any other items, including personal effects of those participating in the activity. The panels 410 may also include subpanels that make up the entire panel 410, or they may include a combination of subpanels and/or windows 441 and/or ports 411. Other features in the panels 410 in addition to those described may be included.
[0075] The windows 441 , ports 411 , or other features of the panel $\mathbf{4 1 0}$ may, in addition to providing viewing or access, provide a means to tension the panels 410 and keep them taut. For instance, the access 440 , such as a zipper, shown in the center of the panel $\mathbf{4 1 0}$ in FIG. 4B may be used to tighten the panel 410 by having different settings on it to take in more or less panel 410 material when it tightens. Further, the sleeves 432 on the left and right side edges $\mathbf{4 1 8}, \mathbf{4 2 0}$ of the panels 410 that couple with the posts $\mathbf{4 3 0}$ may provide a mechanism by which the panel $\mathbf{4 1 0}$ may be tightened or kept taut. The sleeves $\mathbf{4 3 2}$ may be adjustable such that loose panels $\mathbf{4 1 0}$ may have their slack taken up by adjustment of the sleeves 432.
[0076] The tightening system 450 may likewise be located at or near the lower edge $\mathbf{4 1 6}$ of the panel 410 that connects the panel 410 to the ground 10 as shown in FIGS. 4A-4B. The tensioning system $\mathbf{4 5 0}$ may include a pocket $\mathbf{4 5 1}$, one or more attachments 452, one or more cords 453, and one or more spikes 454 . The cords 453 may be tightening ropes and the attachments 452 may be reinforced sections on the panel 410 . The cords $\mathbf{4 5 3}$ are connected to the spikes $\mathbf{4 5 4}$ that secure into the ground 10 . Securing the spikes 454 into the ground 10 creates tension in the panels $\mathbf{4 1 0}$ that helps keep them taut. The cord $\mathbf{4 5 3}$ may be a simple fabric rope or it may be steel wire or composite. Further, the cord $\mathbf{4 5 3}$ may run through all attachments 452 , as is shown on the left side of the panel 410 in FIGS. 4A-4B. This side of the panel 410 has two spikes 454 that attach the cord $\mathbf{4 5 3}$ to the ground $\mathbf{1 0}$. On the right side of the panel 410 in FIGS. 4A-4B, another implementation of the tightening system $\mathbf{4 5 0}$ is shown. The right side contains two vertical cords $\mathbf{4 5 3}$ with spikes $\mathbf{4 5 4}$, that emanate from two attachments 452.
[0077] Many variations of the tightening system 450 are possible, with the cord 453, attachments $\mathbf{4 5 2}$, and spikes 454 allowing for many combinations of such a system 450 . Further, the spikes $\mathbf{4 5 4}$ may be pointed tip objects to facilitate a driving penetration and securement with the ground 10, or they may take a variety of other shapes and forms. For instance, the spikes $\mathbf{4 5 4}$ may be threaded for rotational penetration of the ground or hook shaped in order to flare out from the panels and provide stability in a direction that is out of the plane of the panel $\mathbf{4 1 0}$. Other features related to panel tensioning, stiffening, and securing are discussed below.
[0078] FIG. 4C depicts an embodiment of a boundary $\mathbf{4 0 0}$ showing another means of creating tension in the panels 410. A tensioning system $\mathbf{4 5 0}$ is depicted near the lower edge $\mathbf{4 1 6}$ of the panel 410 that includes pockets $\mathbf{4 5 1}$ with inserts $\mathbf{4 5 5}$. This system $\mathbf{4 5 0}$ consists of the inserts, which may be rods, slipped into the pockets 451 provided in or on the panel 410. The pockets 451 are shown horizontally oriented, but they may also be vertical or diagonal, or a combination of any of these. The pockets $\mathbf{4 5 1}$ may also be positioned near the upper edge $\mathbf{4 1 4}$ of the panel $\mathbf{4 1 0}$. The pockets 451 may be sized to fit just one insert $\mathbf{4 5 5}$ or multiple inserts $\mathbf{4 5 5}$. They may also be combined with other features of the panel $\mathbf{4 1 0}$, such as the windows 441 or ports 411, or the other pockets for holding items. The inserts 455 that are inserted into the stiffening
system pockets $\mathbf{4 5 1}$ are rigid or stiff such that they provide a rigidity or stiffness to the panel 410. This rigidity or stiffness may be crucial with some of the physical activities that may be played inside the boundary $\mathbf{4 0 0}$, for instance Ga-ga. Ga-ga requires the ability to bounce a ball off the walls, i.e. the panels 410. Many times the ball is bounced off the bottom portion of the walls, so having a stiffening system near the bottom portion of the panels $\mathbf{4 1 0}$ becomes important, especially with balls bounced off the panels $\mathbf{4 1 0}$ with a lot of force or speed. The inserts $\mathbf{4 5 5}$ may therefore be metal rods, such as aluminum, or composite rods, such as carbon fiber. The inserts $\mathbf{4 5 5}$ may be unitary structures or assembled from separate pieces, for instance shorter inserts 455 that are screwed together. There may also be a combination of inserts 455 in different orientations that attach to each other once installed in the panels $\mathbf{4 1 0}$, for instance to form a triangle or rectangle on the panel 410.
[0079] The tensioning system $\mathbf{4 5 0}$ depicted in FIG. 4C further includes a mini ground auger vertical tensioning system located near the bottom portion of the panel. It consists of two attachments $\mathbf{4 5 2}$ that connect the cords $\mathbf{4 5 3}$ to the panels 410 which secure the attachments $\mathbf{4 5 2}$ directly to the ground. The cords $\mathbf{4 5 3}$ are secured by means of spikes 454 or other attachment means, such as rotating threads. The panel in FIG. 4 C depicts a single cord $\mathbf{4 5 3}$ and spike 454 on either side of the panel 410, but more or fewer cords 453 and/or spikes 454 may be implemented. For instance, multiple attachments $\mathbf{4 5 2}$ may be provided on the panel 410, and only a few or none may be used in for example calm environmental conditions. But for windy or other disrupting conditions, more or all of the attachments $\mathbf{4 5 2}$ that are provided may be used. The system 450, such as a mini ground auger system, may be included on all of the panels $\mathbf{4 1 0}$ or only some, for instance an access panel 216 may not include them so as to facilitate access.
[0080] FIG. 4C further depicts fabric corner post sleeves 432. The sleeves 432 are tubular structures inside which the posts $\mathbf{4 3 0}$ are received. The sleeves $\mathbf{4 3 2}$ are shown in FIG. 4A running the entire length of each side edge 418, 420. The sleeves $\mathbf{4 3 2}$ may also run only a portion of the respective side edges $\mathbf{4 1 8}, 420$, or the sleeve 432 may be made up of multiple sleeves $\mathbf{4 3 2}$ that each has a length that is shorter than the side edge 418,420 . The sleeve 432 may also be made up of a series of loops. The loops on one panel side edge may be offset from the loops on an adjoining panel side edge such that loops do not interfere with each other when coupled together by a post 430. The sleeves 432 may also be reinforced with fabric or metal or other materials for durability and strength. As mentioned, the sleeves $\mathbf{4 3 2}$ may also serve as a tightening mechanism for the panels $\mathbf{4 1 0}$, for instance by being adjustable. For example, the sleeves may comprise loops that use Velcro to attach to a post 430. The loops may be of various lengths to allow for looser or tighter attachment to the posts 430, and therefore a looser or tighter fit for the panels 410.
[0081] The access 440 in FIG. 4C, such as a zipper, also provides a means of tensioning the panel $\mathbf{4 1 0}$ as well as a means for access into the boundary 400 . The access 440 is shown extending along the entire height of the panel 410 from top to bottom. However, the access 440 may also extend for only a portion of the height of the panel 410. It may begin at the upper edge $\mathbf{4 1 4}$ of the panel 410 and end in the middle, or begin at the lower edge 416 and end in the middle. The access 440 such as a zipper may also run in the reverse direction. The access $\mathbf{4 4 0}$ may further begin and end on the interior of the panel 410, such that it does not contact an edge. The access

440 is shown as a linear implementation oriented vertically, but other orientations and implementations may be provided. For instance, the access 440 may be a zipper or other feature and may be horizontal or it may also be curved. For instance, the access $\mathbf{4 4 0}$ may fully enclose an access panel, such as access panel 216, provided in the panel 410, such that a U-shaped access 440 that begins and ends on the same edge of the panel 410 allows for removal of the access panel that it surrounds. The access $\mathbf{4 4 0}$ may also be provided on the windows $\mathbf{4 4 1}$ or ports $\mathbf{4 1 1}$ or other throughways previously discussed.
[0082] A brace 466 is also shown in FIG. 4C. The brace 466, such as a cross brace, provides stability for the boundary 400 and extends along the upper edges 414 of the panels 410. The brace 466 is further discussed in more detail below.
[0083] FIGS. 5A and 5B depict vertical support posts 500 that form the backbone of the boundary. A top view of the post 500 is shown in FIG. 5A. The post 500 has a circular cross sectional shape and an engagement $\mathbf{5 2 0}$ near the top. The engagement $\mathbf{5 2 0}$ may be a socket for receiving a post-driving tool. Thus, the engagement 520 may also function as a driving feature. The engagement $\mathbf{5 2 0}$ is depicted as a square socket, but the engagement $\mathbf{5 2 0}$ may be a number of engagement features and of any suitable shape, such as a star, hexagon, or polygon with rounded corners. A cross-section view of the post $\mathbf{5 0 0}$ in FIG. $\mathbf{5 A}$ is shown in FIG. 5B as taken along the line $5 \mathrm{~B}-5 \mathrm{~B}$ as shown in FIG. $\mathbf{5} \mathrm{A}$. The post $\mathbf{5 0 0}$ is depicted with a foundation $\mathbf{5 3 0}$ having a pointed tip near the bottom of the post $\mathbf{5 0 0}$. In this embodiment, the posts $\mathbf{5 0 0}$ are driven or screwed into the ground. They may also have an auger or threads $\mathbf{5 3 2}$ for rotating the post $\mathbf{5 0 0}$ into the ground. The engagement $\mathbf{5 2 0}$ is seen as a recess into the top portion of the post $\mathbf{5 0 0}$. As mentioned, the posts $\mathbf{5 0 0}$ provide a means for coupling the panels to each other and are depicted at the intersections of the panels in various figures, for example in FIGS. 4A-4C. They may also serve as tensioning means for the panels 410 and attachments for various features of the system, such as a post-driving tool or net.
[0084] FIGS. 6A and 6B depict an embodiment of a postdriving tool 600 . A side view of the tool 600 is shown in FIG. 6A and a top view is shown in FIG. 6B. The tool 600 is used to drive the posts, such as the post $\mathbf{5 0 0}$, into the ground. It attaches to the top of the post $\mathbf{5 0 0}$ and is complementary in shape to the engagement $\mathbf{5 2 0}$ of the post $\mathbf{5 0 0}$. The tool $\mathbf{6 0 0}$ has an engagement 620 that aligns or mates with the post 500 . In some embodiments, the engagement 620 of the tool $\mathbf{6 0 0}$ is a square extrusion that engages with a complementary-shaped socket engagement $\mathbf{5 2 0}$ of the post 500 . A circular base $\mathbf{6 3 0}$ may also be included as shown in FIG. 6B. Once the tool $\mathbf{6 0 0}$ is mated with the post, the tool $\mathbf{6 0 0}$ may provide a surface to drive the post into the ground. The tool $\mathbf{6 0 0}$ may also provide a means for rotating the post by providing a lever arm. The two arms $\mathbf{6 1 0}$ of the tool $\mathbf{6 0 0}$ that extend out from the engagement $\mathbf{6 2 0}$ are grasped and rotated to rotate the post and secure it to the ground. The engagement $\mathbf{6 2 0}$ may be of various shapes depending on the shape of the engagement $\mathbf{5 2 0}$ at the top of the post $\mathbf{5 0 0}$.
[0085] While the system may be secured to the ground by direct penetration of the posts $\mathbf{5 0 0}$ into the ground, this is not always possible. When playing on hard surfaces, such as asphalt, a gym floor, concrete, or hard-packed dirt or clay, it is often not possible to drive the bottom point of the post $\mathbf{5 0 0}$ into the ground. Accordingly, in some embodiments, a support 750 that includes a base 755 and a mount 760 is provided
as depicted in FIG. 7 to support a post 700 . The support 750 includes the base 755 that has a large enough footprint to allow for stability of the post 700 once attached to the support 750. FIG. 7 depicts a side view of the support 750, which has a circular mount 760 for receiving and mating to the post 700, and a larger, flanged base $\mathbf{7 5 5}$ attached to the bottom of the mount $\mathbf{7 6 0}$. The mount $\mathbf{7 6 0}$ may define a cavity $\mathbf{7 6 5}$ and may contain mating features to which the post 700 mates. In some embodiments, the post 600 includes a foundation 730 with threads 732 that mate with complementary threads inside the mount 760. These or other mating features may be located inside the cavity 765 .
[0086] The flanged base 755 is depicted with ribs that enhance stability of the support $\mathbf{7 5 0}$. The ribs are seen on either side of the mount 760 in FIG. 7. The flanged base 755 may be circular, square, or any other suitable shape. The base 755 provides stability for the mount 760 and therefore for the posts 700 when attached to them. The underside of the base 755 that contacts the ground is flat, however, the surface of this underside may be grooved or ridged to provide even more stability. A grooved or ridged underside to the base $\mathbf{7 5 5}$ will provide more friction between the base $\mathbf{7 5 5}$ and ground and make it more difficult to slide on the ground. It may also dig in slightly or grab the surface on which it rests. Other means of providing a rough surface to the underside of the base $\mathbf{7 5 5}$ for increased friction or grabbing are possible, for instance etching or dotted patterns of recesses or extrusions may be implemented.
[0087] Some physical activities may require the need for a taller structure than is offered by the panels alone. In such a case, a net $\mathbf{8 6 0}$ may be implemented along the top of the panels 810, as depicted in FIG. 8. In various embodiments, the net $\mathbf{8 6 0}$ is added for additional height, which may for example help catch balls that fly out. The net $\mathbf{8 6 0}$ and associated features of the netting system may also serve additional sporting purposes in other sporting contexts, for example in volleyball or badminton to provide the net and/or adjustable netting features disclosed herein. In FIG. 8, the net $\mathbf{8 6 0}$ is shown attached to the top of the panels 810. It extends all around the boundary $\mathbf{8 0 0}$. The net $\mathbf{8 6 0}$ however need not extend all the way around but may be selectively installed or implemented. For instance, if only one side of the boundary 800 is of concern with respect to balls flying out, then that side alone may have the net 860 . The net 860 may further be implemented with many embodiments of the boundary 800 . For instance, as shown, the boundary 800 may have the net 860 along with a window 841 and an access 840 , such as a zipper.
[0088] The net 860 may also provide additional support. It may advantageously allow additional support to be added without significantly impairing the view of spectators, due to the mesh pattern or holes of the net $\mathbf{8 6 0}$. Such support may be provided by a net $\mathbf{8 6 0}$ having an adjustable cross brace, discussed in more detail below. The net $\mathbf{8 6 0}$ may include many net segments 861 corresponding to portions of the net 860 that are over a single panel. For instance, the boundary 800 in FIG. 8 has eight panels 810 as well as eight net segments 861 , with each segment 861 located above a corresponding panel 810. The net 860 is shown with extensions 862 , which may be support posts, that separate the net segments 861 that make up the entire net 860 . The net segments 861 are joined together by the extensions 862 . These extensions $\mathbf{8 6 2}$ are shown above each post $\mathbf{8 3 0}$ that connects the panels $\mathbf{8 1 0}$. For instance, the extensions $\mathbf{8 6 2}$ may continue a linear line, such as an axis, of
the posts $\mathbf{8 3 0}$ at the vertices of the boundary $\mathbf{8 0 0}$. The extensions 862 may thus extend the structural feature of the corresponding post 830 above which the extension 862 is located [0089] The net segments 862 may be collapsible and deployable. The segments $\mathbf{8 6 2}$ may be rolled or otherwise bunched up to collapse and take up a smaller volume, and then unrolled or otherwise unfurled to take their full, deployed shape. The net segments $\mathbf{8 6 2}$ may be removed from the panels 810 when the boundary 800 is disassembled and transported, or they may remain on the panels $\mathbf{8 1 0}$ for quicker assembly the next time the boundary 800 is assembled. Further detail of the net $\mathbf{8 6 0}$ and associated features are discussed below.
[0090] FIGS.9A-9C describe various features for attaching or otherwise coupling an embodiment of a netting system 960 to a boundary $\mathbf{9 0 0}$. The netting system $\mathbf{9 6 0}$ may include a net segment 964 coupled with the posts 500 of the boundary 900 and the netting system $\mathbf{9 6 0}$ may provide tension through a brace 966 . FIG. 9 A depicts a joint 901 in the boundary 900 structure. At the joint 902 , the post 500 is shown extending up from the bottom of the figure and coupling with an extension 962 for the net segment 964 . The extension 962 is shown attached to the top of the post $\mathbf{5 0 0}$ by fitting into the same engagement 520 that the post-insertion tool 600 fits into. The extension 962 has a complementary shape that allows it to fit inside the engagement $\mathbf{5 2 0}$. In some embodiments, the extension 962 has a support plate positioned above the engagement 520 when coupled with the post 500 that covers the top of the post $\mathbf{5 0 0}$ and further adds stability.
[0091] The extension 962 has the net segment 964 attached to it and is shown attached to the left side of the extension 962 in FIG. 9A. While the extension 962 and the net segment 964 may be a unitary structure, they may also be comprised of separate pieces, whereby the extension 962 is separate from the net segment 964 . There may also be a combination of unitary structures composed of the net segment 964 and the extension 962 and then also separate net 964 and extension 962 structures, such that one end of the net segment 964 has an extension 962 attached to it and the other end of the net segment 964 does not. The extension 962 would then be installed and the free end of the net segment 964 would then attach to an extension 962 on another net segment 964 , installed adjacent to the current net segment 964 . In this manner, a larger net made up of the net segments 964 may be installed in a series around or otherwise along the boundary 900 , consisting of the net segments 964 with each net segment 964 having an end with the extension 962 and an end without the extension 962.
[0092] A brace 966 is also shown as part of the net segment 964 depicted in FIG. 9A. The brace 966 may be an adjustable cross-brace and is shown extending parallel to the net segment 964 and perpendicular to the post 500 and extension 962. The brace $\mathbf{9 6 6}$ provides additional horizontal tension and stability by tightening or loosening of the brace $\mathbf{9 6 6}$. The brace $\mathbf{9 6 6}$ connects one post $\mathbf{5 0 0}$ to another post $\mathbf{5 0 0}$. It is adjusted by means of a clamp 968, such as an adjustable ratchet clamp as depicted at the intersection of the brace 966 and the post 500 in FIG. 9A. The clamp 968 allows for adjustment of the brace 966 toward either a tighter or looser configuration. The brace 966 is a rigid but lightweight material, such as a metal, plastic or composite, that can provide tension but also provide compressive resistance in order to provide lateral stability of the boundary 900 . The clamp 968 is shown located just above the top of the post $\mathbf{5 0 0}$ and mated with the brace 966 . The clamp 968 receives and grabs onto the
brace 966 and by adjustment can pull more brace 966 in or let more brace 966 out. In this manner, it provides for more or less tension in the boundary 900 . The clamp 968 is shown coupling with only one brace 966 but it may provide for connection of another brace $\mathbf{9 6 6}$ on the opposite side of the clamp 968 shown, such that two braces 966 may be adjusted with a single clam $968 p$. Another clamp 968 may also be used that installs over or around this clamp 968, or at another location on the post 500. A clamp 968 and/or brace 966 may be useful in the gaga pit context as well as other contexts, for instance if the panels 910 and/or netting system 960 or net segments 964 are used for volleyball, badminton, or other activities.
[0093] Another embodiment of the joint 901 formed by the post 500 , the extension 962 and the brace 966 is shown in FIG. 9 B . In this depiction, the net segment 964 is arranged going the opposite direction as in FIG. 9A. A corner post 500 is located near the bottom of FIG. 9B, with a corner post engagement 520 socket that receives an insert 963 , such as a pipe bushing socket insert. The insert 963 allows for attachment of the complementary extension 962 . The insert 963 may be a bushing and/or may be circular, square, or any other shape to mate with the post $\mathbf{5 0 0}$. In the configuration of FIG. 9 B , the adjustable clamp 968 is on the left side of the post 500 and the brace 966 extends to the right side of the post 500 as illustrated. However, FIG. 9B depicts a different embodiment of the clamp 968 . Here, the clamp 968 is adjustable as well as the length of a ratchet 967 attached to the removable brace 966. These or other configurations may be used, based on different needs with respect to, for example, space, weight, materials, etc.
[0094] Another embodiment of a brace 966 is depicted in FIG. 9C. The brace 966 shown is a cross brace and has an adjustable tensioner 972 , which may be a brace slide tensioner. The tensioner 972 allows for adjusting the length and tension or compression in the brace $\mathbf{9 6 6}$ or braces 966 . In this implementation, the brace 966 has a shorter brace segment attached to the post at the right of FIG. 9C. This shorter segment attaches to the tensioner 972, which in turn attaches to the next segment of the brace 966 . The tensioner 972 may be adjusted using, for example, thumb screws, to increase or decrease the tension on the brace segments 966 . The next segment 966 contains a claw friction fit clamp 971 that uses a friction fit to mate with the brace 966 .
[0095] While the various embodiments can be positioned to form an enclosed boundary, the panels can also be moved and modified to form other shapes and structures. For example, FIG. 10 depicts panels 1010 arranged to form an open boundary $\mathbf{1 0 0 0}$. Such a boundary $\mathbf{1 0 0 0}$ is useful in many contexts, such as for an obstacle course, and/or for use in cross-fit activities or other activities. The panels $\mathbf{1 0 1 0}$ are portable and flexible such that it is easy to form many different embodiments of such a course. FIG. 10 depicts two walls 1102 each formed with four panels $\mathbf{1 0 1 0}$. The walls $\mathbf{1 1 0 2}$ can have a variety of shapes, including the zig-zag shape as shown. The overall size and layout of the panels $\mathbf{1 0 1 0}$ can be adjusted in various ways, as shown by the arrows. For instance, the panels 1010 can be moved out or translated sideways to form a wider path in between the walls, as indicated by the arrows at the bottom of the figure. As indicated, the panels 1010 can likewise be moved closer together to form a narrower path. The panels 1010 themselves can also be rotated with respect to one another such that the angles $\mathrm{A}, \mathrm{B}$ formed by the walls are larger or smaller, as indicated by the directions of the arrows
on the panels 1010 themselves. Finally, the panels 1010 can be rotated all together as indicated by the directions of the arrows near the center of the figure. The panels $\mathbf{1 0 1 0}$ may be arranged in any geometric configuration conducive to an obstacle or exercise course. For example, the panels 1010 may have uses beyond just the exercise context, such as temporary dividers in offices, or as indicators to guide foot traffic, or merely as items of entertainment for kids to build forts. The panels $\mathbf{1 0 1 0}$ may also be joined in various other configurations or singularly isolated and used in many contexts, such as volleyball, badminton, and other activities. These are just some of the possibilities with the present disclosure, and many different variations and combinations of structures may be formed by the panels, as will be readily apparent to one having ordinary skill in the art.
[0096] FIG. 11A is a side view of a boundary 1100 having an opening 1141. FIG. 11B is a top view of the boundary 1100. The boundary 1100 has a centrally located opening 1141 formed by end panels 1111. The panels 1110 on either side of the opening 1141 are coupled with the end panels 1111 on respective ends of the panels $\mathbf{1 1 1 0}$. As shown, each panel 1110 has two end panels 1111 coupled thereto. A first end panel 1111 extends toward the opening 1141 and a second end panel 1111 extends outward perpendicularly from the panel 1110 and the first end panel 1111. The panels 1110 include posts 1130 on the ends.
[0097] The panels 1110 are further shown with pockets 1115 located near the upper edge 1114. The pockets 1115 have inserts 1163, such as a batten. Further, a cord 1164 extends along the length of the upper edge 1114 and a cord 1153 extends along the lower edge of the panels 1110 . The cord 1153 may be part of a bottom tensioning system 1150. Similarly, the cord 1154 may be part of an upper tensioning system 1160. The boundary 1100 may include a joint 1162 having a cross member 1161 coupling with the upper tensioner 1160 , and the insert 1163.
[0098] FIG. 12 is a side view of an embodiment of a boundary $\mathbf{1 2 0 0}$ with triangular end panels $\mathbf{1 1 1 1}$. The boundary $\mathbf{1 2 0 0}$ may further include attachments $\mathbf{1 1 5 2}$ along the top and bottom edges of the panels $\mathbf{1 1 1 0}$. In some embodiments, the attachments 1152 are grommets.
[0099] FIG. 13 is a flowchart showing an embodiment of a method 1300 for assembling a boundary, such as the boundary 100. The method 1300 may begin with block 1310 wherein a set of panels, such as the panels $\mathbf{1 1 0}$, are removed from a case or are otherwise provided. The panels may be part of a boundary, such as boundary 100 , and may form a variety of playing fields or obstacles, such as a Ga-Ga pit.
[0100] The method 1300 may continue to block 1320 wherein a first panel is extended, such as unfurling or unrolling the panel $\mathbf{1 1 0}$. The panel 110 may be laid out on the ground.
[0101] The method 1300 may continue to block 1330 wherein a first post is inserted through a first sleeve of the first panel. This may include, for example, inserting the post 430 into the sleeve 432 on the left side 418 of the panel 410 .
[0102] The method 1300 may continue to block 1340 wherein a second post is inserted through a second sleeve of the first panel. This may include, for example, inserting another of the post 430 into the sleeve 432 on the right side 420 of the panel 410.
[0103] The method 1300 may continue to block 1350 wherein the first and second posts are secured to the ground or other support on the ground. This may include, for example,
securing the foundations $\mathbf{4 3 4}$ of the posts $\mathbf{4 3 0}$ into the ground. It may also include, for example, rotating the threads 732 of the foundation 730 on the lower part of the post 700 into the cavity $\mathbf{7 6 5}$ of the mount $\mathbf{7 6 0}$ on the support 750 .
[0104] The method $\mathbf{1 3 0 0}$ may continue to block $\mathbf{1 3 6 0}$ wherein a second panel is extended away from the second post. This may include, for example, extending another panel 110 at an angle relative to the plane of the first panel 110 , such that an angled corner or vertex of a boundary is formed. It may also include coupling the second panel with the second post. For instance, it may include extending the sleeve 432 on the left side $\mathbf{4 1 8}$ of the second panel $\mathbf{4 1 0}$ over the post $\mathbf{4 3 0}$.
[0105] The method $\mathbf{1 3 0 0}$ may continue to block $\mathbf{1 3 7 0}$ wherein the remaining panels are assembled in a similar manner. For instance, the remaining panels $\mathbf{1 1 0}$ may be coupled with the remaining posts $\mathbf{4 3 0}$ or $\mathbf{5 0 0}$ to form the boundary $\mathbf{1 0 0}$ or $\mathbf{1 0 0 0}$.
[0106] The methods disclosed herein comprise one or more steps or actions for achieving the described method. The method steps and/or actions may be interchanged with one another without departing from the scope of the claims. In other words, unless a specific order of steps or actions is specified, the order and/or use of specific steps and/or actions may be modified without departing from the scope of the claims.
[0107] With respect to the use of substantially any plural and/or singular terms herein, those having skill in the art can translate from the plural to the singular and/or from the singular to the plural as is appropriate to the context and/or application. The various singular/plural permutations may be expressly set forth herein for sake of clarity.
[0108] It will be understood by those within the art that, in general, terms used herein, and especially in the appended claims (e.g., bodies of the appended claims) are generally intended as "open" terms (e.g., the term "including" should be interpreted as "including but not limited to," the term "having" should be interpreted as "having at least," the term "includes" should be interpreted as "includes but is not limited to," etc.). It will be further understood by those within the art that if a specific number of an introduced claim recitation is intended, such an intent will be explicitly recited in the claim, and in the absence of such recitation no such intent is present. For example, as an aid to understanding, the following appended claims may contain usage of the introductory phrases "at least one" and "one or more" to introduce claim recitations. However, the use of such phrases should not be construed to imply that the introduction of a claim recitation by the indefinite articles "a" or "an" limits any particular claim containing such introduced claim recitation to embodiments containing only one such recitation, even when the same claim includes both the introductory phrases "one or more" or "at least one" and indefinite articles such as "a" or "an" (e.g., "a" and/or "an" should typically be interpreted to mean "at least one" or "one or more"); the same holds true for the use of definite articles used to introduce claim recitations. In addition, even if a specific number of an introduced claim recitation is explicitly recited, those skilled in the art will recognize that such recitation should typically be interpreted to mean at least the recited number (e.g., the bare recitation of "two recitations," without other modifiers, typically means at least two recitations, or two or more recitations).
[0109] Furthermore, in those instances where a convention analogous to "at least one of $\mathrm{A}, \mathrm{B}$, and C , etc." is used, in general such a construction is intended in the sense one hav-
ing skill in the art would understand the convention (e.g., "a system having at least one of $\mathrm{A}, \mathrm{B}$, and C " would include but not be limited to systems that have A alone, B alone, C alone, $A$ and $B$ together, $A$ and $C$ together, $B$ and $C$ together, and/or $\mathrm{A}, \mathrm{B}$, and C together, etc.). It will be further understood by those within the art that virtually any disjunctive word and/or phrase presenting two or more alternative terms, whether in the description, claims, or drawings, should be understood to contemplate the possibilities of including one of the terms, either of the terms, or both terms. For example, the phrase "A or B" will be understood to include the possibilities of "A" or "B" or "A and B."
[0110] While the above description has pointed out novel features as applied to various embodiments, the skilled person will understand that various omissions, substitutions, and changes in the form and details of the device or process illustrated may be made without departing from the scope of the invention. The claims are not limited to the precise configuration and components illustrated above. Therefore, the scope of the invention is defined by the claims that follow rather than by the foregoing description. All variations coming within the meaning and range of equivalency of the claims are embraced within their scope.

What is claimed is:

1. A system for defining the boundaries of a playing field, the system comprising:
a plurality of deployable panels, wherein each panel is configured to collapse and deploy, wherein each panel has a top edge, a bottom edge, two side edges, and at least one sleeve coupled to each side edge;
a plurality of rigid support posts, wherein each post has a top portion and a bottom portion, and wherein each post is configured to couple with at least one sleeve; and
a plurality of foundations, wherein each foundation is configured to secure the bottom of each support post.
wherein the plurality of panels and the plurality of posts are moveable between multiple configurations, and wherein, in at least one configuration, the walls form a boundary defining a playing field.
2. The system of claim $\mathbf{1}$, wherein each sleeve comprises a plurality of loops.
3. The system of claim $\mathbf{1}$, wherein each sleeve forms a tube of material along the height of each side edge.
4. The system of claim 1 , wherein each panel is comprised of polyester, canvas, or other flexible polymer, fabric, or composite material.
5. The system of claim 1 , wherein each foundation comprises a spike, an auger, a threaded end, or a pointed tip coupled with the bottom portion of the post and is configured to be pierced or screwed into the ground or into a support
6. The system of claim 5 , wherein the support comprises a mount defining a cavity configured to receive the foundation, the mount configured to secure the foundation in place via friction fit, snap fit, or threading.
7. The system of claim 1 , wherein, in one configuration, the panels form an enclosed hexagon.
8. The system of claim 1 , wherein, in one configuration, the panels form an enclosed octagon.
9. The system of claim 8 , wherein one panel comprises an access panel, such that, in one configuration, the panels form an octagon comprising an access area along the access panel for entering and exiting the boundary.
10. The system of claim 1 , wherein either at least a portion of at least one panel is transparent or at least one panel includes a port.
11. The system of claim 1 , wherein at least one panel comprises a pocket, and the system further comprises an insert configured to be removably disposed within the pocket.
12. The system of claim 1, further comprising a flexible flooring sheet positioned between, and substantially enclosed by, the plurality of panels.
13. The system of claim 1, wherein at least one panel comprises a zipper.
14. The system of claim 1 , further comprising:
a plurality of net segments, wherein each net segment is configured to collapse and deploy, and wherein each net segment has a net top edge, a net bottom edge, and two net side edges; and
a plurality of rigid net extensions, wherein each extension has a top portion and a bottom portion, and wherein each extension extends at least the height of each net side edge and is configured to mate with at least two net side edges.
15. The system of claim 14 , wherein the bottom portion of the extension is configured to mate with the top portion of the rigid support posts.
16. The system of claim $\mathbf{1 4}$, further comprising a cross brace configured to couple with the support posts or with the extensions and configured to clamp to the net and comprises a length that is adjustable.
17. A portable kit for defining the boundaries of a playing field, the kit comprising:
the system of claim 1, wherein the deployable panels are configured to be rolled into a compact state; and
a carrying case sized to enclose and carry the system.
18. The portable kit of claim 17, further comprising a post-driving insertion tool.
19. A method of assembling a system for defining a boundary of a playing field, the method comprising:
extending a first panel;
inserting a first post through a first sleeve coupled to a first side edge of the first panel;
inserting a second post through a second sleeve coupled to a second side edge of the first panel;
securing a bottom end of the first post into the ground or into a first support;
securing a bottom end of the second post into the ground or into a second support;
extending a second panel at an angle relative to the first panel, wherein the second panel is coupled to the second post;
extending the remaining panels, inserting the remaining posts, and securing them in like manner to form the boundary of the playing field.
20. A system for defining a boundary, the system comprising:
a plurality of deployable panels, wherein each panel is configured to collapse and deploy, a plurality of posts, wherein each post is configured to couple with at least one edge of at least one panel; and
a plurality of foundations, wherein each foundation is configured to couple a bottom portion of each post with the ground,
wherein the plurality of panels and the plurality of posts are moveable between multiple configurations, and wherein, in at least one configuration, the panels define the boundary.
