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(54) **TRUSS-FRAME SPORTS NET SYSTEM**

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(57)

ABSTRACT

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Related U.S. Application Data

(60) Provisional application No. 62/872,463, filed on Jul. 10, 2019, provisional application No. 62/882,777, filed on Aug. 5, 2019.

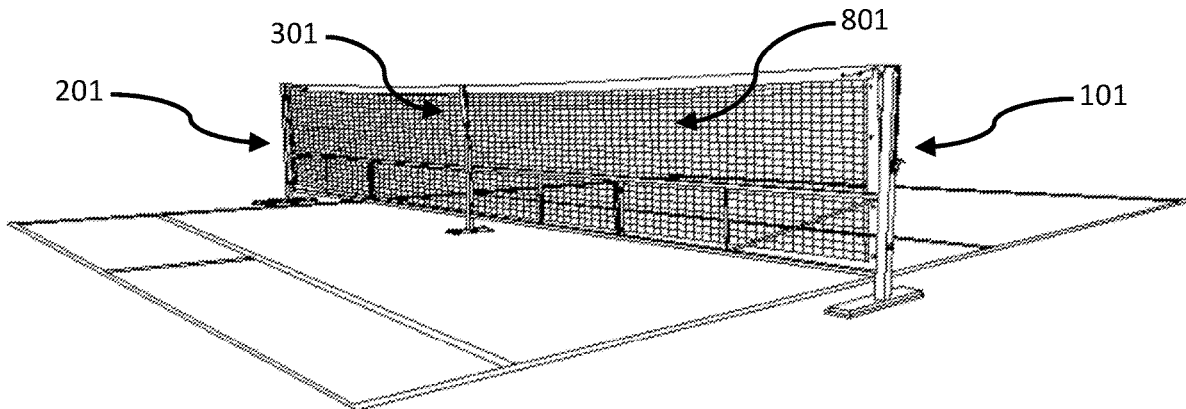
A sports net support system includes a first end post, a second end post and a plurality of truss segments configured for coupling therebetween. The first end post includes an inferior end and a superior end with a first outside base member provided to the inferior end of the first end post. The second end post has an inferior end and a superior end and a second outside base member is provided to the inferior end of the second post. One or more of the truss segments include an inferior span, a superior span and a plurality of struts each extending between the inferior span and the superior span. A reel is configured for winding a top strand of a net suspended between the first and second end posts.

Publication Classification

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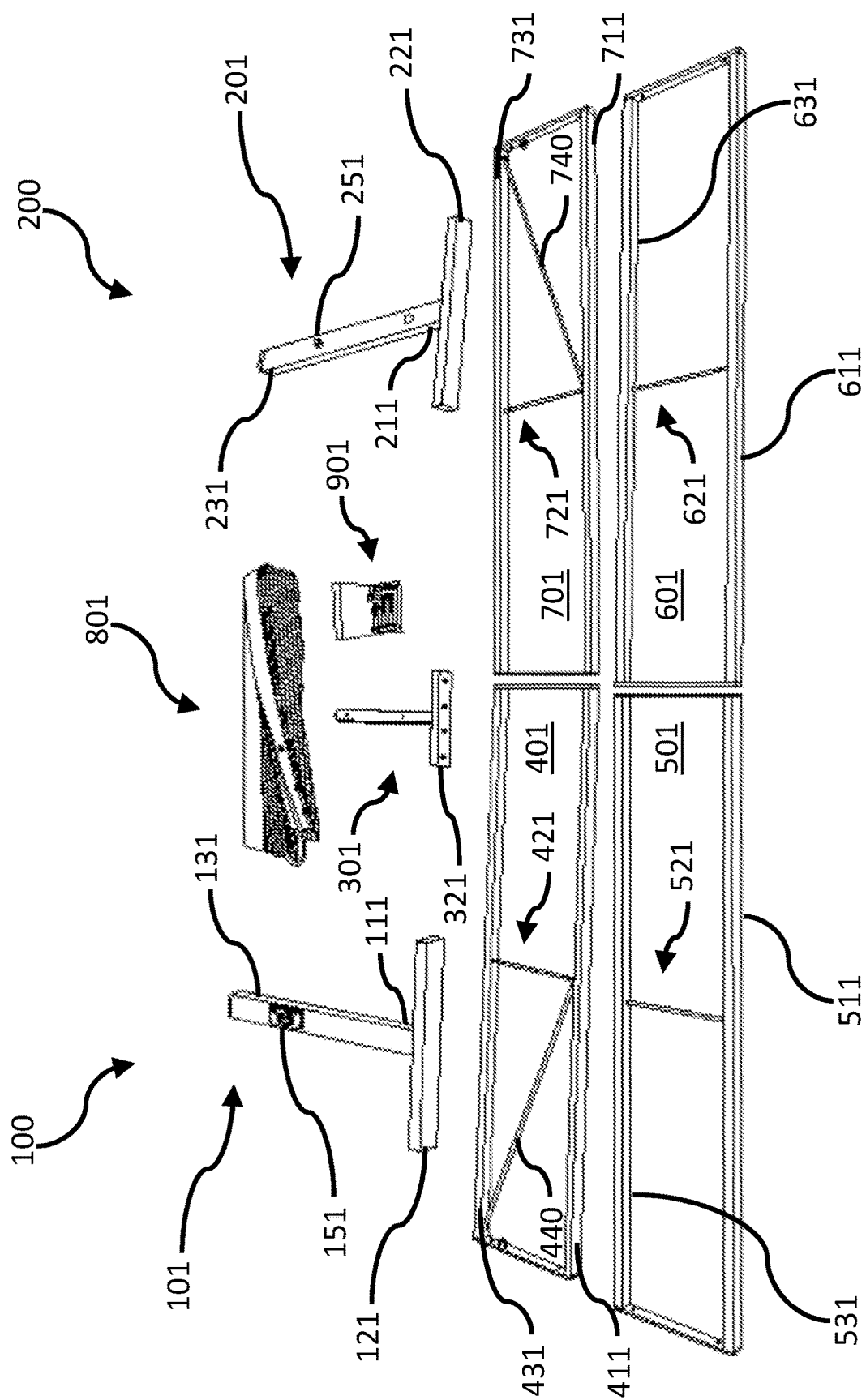


FIG. 1

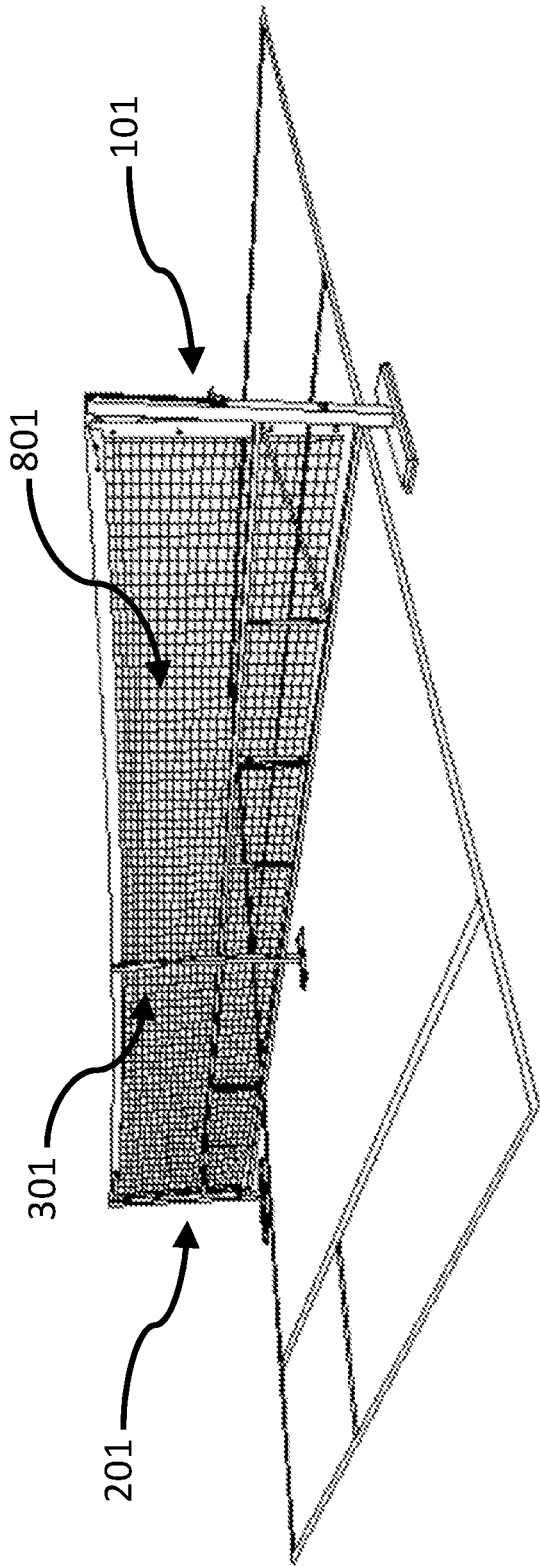


FIG. 2

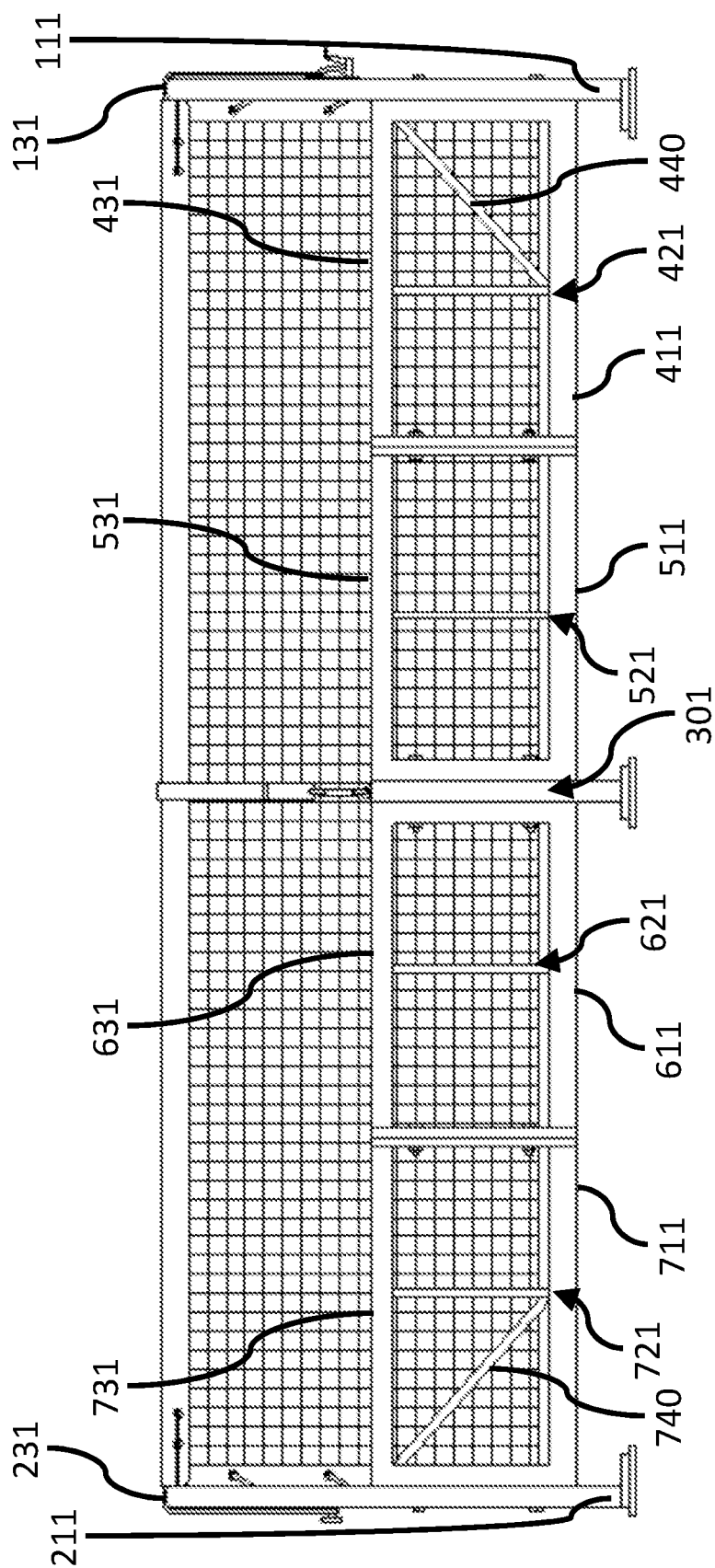


FIG. 3

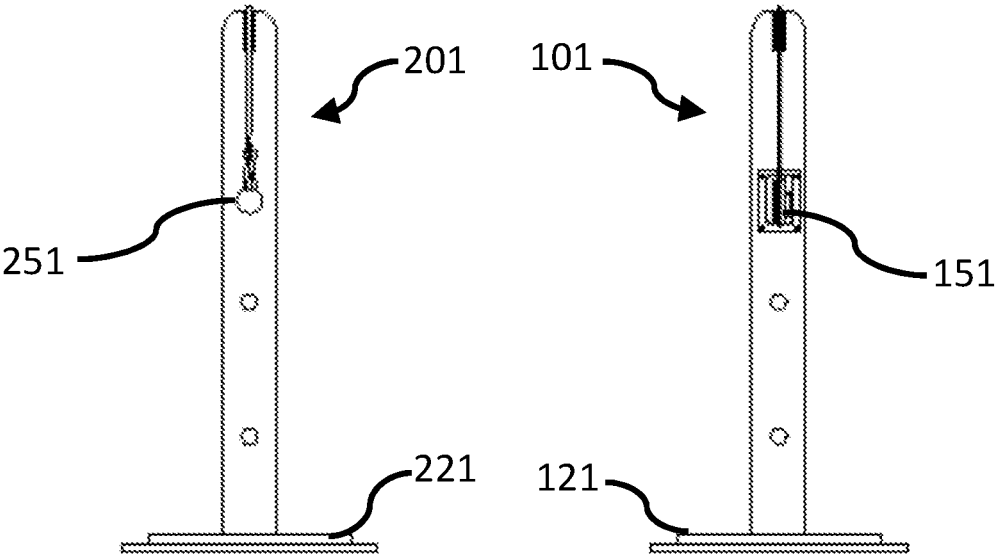


FIG. 4

FIG. 5

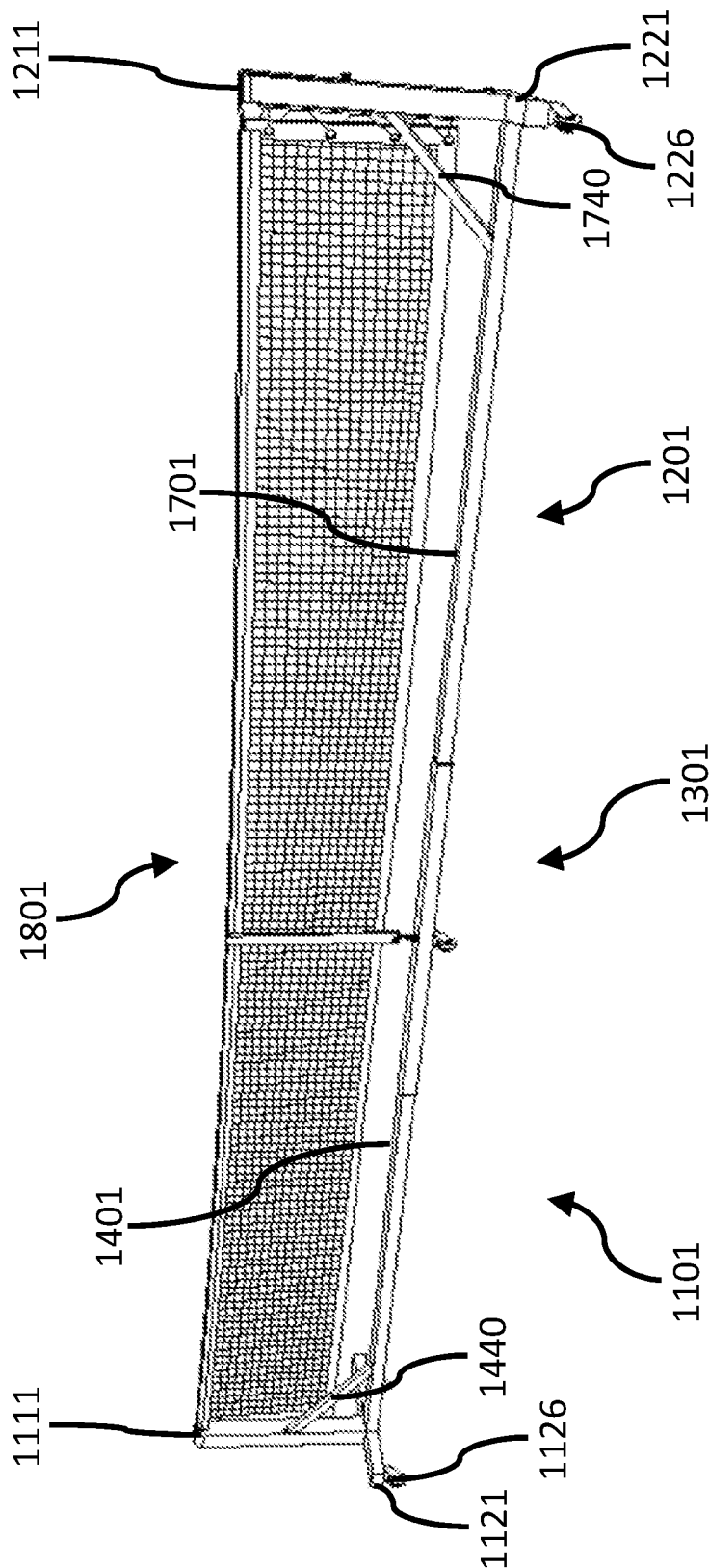


FIG. 6

TRUSS-FRAME SPORTS NET SYSTEM

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims the priority benefit of U.S. Provisional Application No. 62/871,463 filed on Jul. 10, 2019, pending, which is incorporated herein by reference in its entirety.

TECHNICAL FIELD

[0002] The present disclosure is directed to the field of net sports.

SUMMARY

[0003] The disclosure describes a sports net system. The sports net system includes a first end post having an inferior end and a superior end with a first outside base member provided to the inferior end of the first end post. A first truss segment is coupled with the first end post and has an inferior span, a superior span and a plurality of struts each extending between the inferior span and the superior span. A second truss segment is coupled with the first truss segment and has an inferior span, a superior span and a plurality of struts each extending between the inferior span and the superior span. A third truss segment is coupled with the second truss segment and has an inferior span, a superior span and a plurality of struts each extending between the inferior span and the superior span. A fourth truss segment is coupled between the third truss segment and the second end post and includes an inferior span, a superior span and a plurality of struts each extending between the inferior span and the superior span.

[0004] The disclosure also describes a sports net support system. The sports net support system includes a first end post having an inferior end and a superior end with a first outside base member provided to the inferior end of the first end post. A first truss segment is configured for coupling with the first end post and has an inferior span, a superior span and a plurality of struts each extending between the inferior span and the superior span. A second truss segment is configured for coupling with the first truss segment and has an inferior span, a superior span and a plurality of struts each extending between the inferior span and the superior span. A third truss segment is configured for coupling with the second truss segment and has an inferior span, a superior span and a plurality of struts each extending between the inferior span and the superior span. A second end post has an inferior end and a superior end and a second outside base member is provided to the inferior end of the second post. A fourth truss segment is configured for coupling between the third truss segment and the second end post and has an inferior span, a superior span and a plurality of struts each extending between the inferior span and the superior span. A reel is configured for winding a top strand of a net.

BRIEF DESCRIPTION OF THE FIGURES

[0005] The summary above, as well as the following detailed description of illustrative embodiments, is better understood when read in conjunction with the appended drawings. For the purpose of illustrating the disclosure, example constructions are shown in the drawings. However,

the disclosure is not limited to specific methods and instrumentalities disclosed herein. Moreover, those having ordinary skill in the art will understand that the drawings are not to scale. An underlined number is employed to represent an item over which the underlined number is positioned or an item to which the underlined number is adjacent. Wherever possible, like elements have been indicated by identical numbers.

[0006] Embodiments of the disclosure will now be described, by way of example only, with reference to the following diagrams wherein:

[0007] FIG. 1 illustrates an example disassembled state of an example sports net system.

[0008] FIG. 2 illustrates a perspective view of an example assembled state of the example sports net system of FIG. 1.

[0009] FIG. 3 illustrates a front view of the example assembled state of the example sports net system of FIG. 2.

[0010] FIG. 4 illustrates a left side view of the example assembled state of the example sports net system of FIGS. 2 and 3.

[0011] FIG. 5 illustrates a right side view of the example assembled state of the example sports net system of FIGS. 2-4.

[0012] FIG. 6 illustrates a perspective view of an example sports net system according to another embodiment.

DETAILED DESCRIPTION

[0013] The following detailed description illustrates embodiments of the disclosure and manners by which they can be implemented. Although the best mode of carrying out disclosed systems and methods has been described, those of ordinary skill in the art would recognize that other embodiments for carrying out or practicing disclosed systems and methods are also possible.

[0014] It should be noted that the terms “first”, “second”, and the like, herein do not denote any order, quantity, or importance, but rather are used to distinguish one element from another. Further, the terms “a” and “an” herein do not denote a limitation of quantity, but rather denote the presence of at least one of the referenced item.

[0015] A variety of activities make use of net systems including sports such as tennis, pickleball, badminton, basketball, dodgeball and volleyball. Net systems with permanent, in-ground posts offer consistent quality of play and require minimal maintenance. Such systems use heavy gauge steel posts that can withstand the tension of top quality, heavy, outdoor nets. However, the posts are set into a sleeved hole in the ground and cannot be easily moved to allow for other activities and/or transport.

[0016] Known movable net systems are made of very thin, light weight poles and use light weight nets. These portable systems are designed to be put together when needed and then taken down and put back into a carrying case but do not hold heavy-duty, quality nets with tension cables and a reel/crank component that keep the top of the net firm. Light-weight couplings and/or adhesives including hook-and-loop fasteners such as Velcro™ creep in response to continuous stresses. The result is inconsistent play dynamics. Regular net height and tension adjustment are necessary due to use of unstable components and couplings. Further, these net systems are not designed to be left assembled outdoors. The thin frames and light weight nets quickly deteriorate in the outdoor elements.

[0017] Disclosed sports net systems provide a sturdy framework that plays just like permanent, in-ground, net post systems but is easily and quickly rollable or otherwise moveable to make the court space quickly available for another sport or activity. Disclosed systems may be used by facilities offering any multi-use indoor or outdoor courts and wanting to enable play with an easy-to-move, rollable net system design. For example, advantages of disclosed described systems may be appreciated by facilities including but not limited to city and county parks departments, home owners and private sport clubs.

[0018] Additional aspects, advantages, features and objects of the disclosure will be made apparent from the drawings and the detailed description of the illustrative embodiments construed in conjunction with the appended claims that follow.

[0019] It will be appreciated that described features are susceptible to being combined in various combinations without departing from the scope of the disclosure as defined by the appended claims.

[0020] Referring now to the drawings, FIG. 1 depicts a kit for an example sports net system suitable for practicing embodiments of the disclosure. The sports net system of FIG. 1 includes a first end member 100, a second end member 200 and a net 801. The first end member 100 includes a first upright or end post 101 having an inferior end 111 and a superior end 131 with a first outside base member 121 provided to inferior end 111 of first end post 101 as a supportive base. A first truss segment 401 of the first end member is configured for coupling with first end post 101 and has an inferior chord or span 411, a superior chord or span 431 and a plurality of struts 421 each extending between inferior span 411 and superior span 431. A second truss segment 501 of first end member 100 is configured for coupling with first truss segment 401 and has an inferior chord or span 511, a superior chord or span 531 and a plurality of struts 521 each extending between inferior span 511 and superior span 531.

[0021] The second end member 200 includes a third truss segment 601 configured for coupling with second truss segment 501 (for example, through a center post) and having an inferior chord or span 611, a superior chord or span 631 and a plurality of struts 621 each extending between inferior span 611 and superior span 631. A second upright or end post 201 has an inferior end 211 and a superior end 231 and further includes a second outside base member 221 provided to inferior end 211 of second end post 201 as a supportive base. A fourth truss segment 701 of the second end member is configured for coupling between third truss segment 601 and second end post 201 and has an inferior chord or span 711, a superior chord or span 731 and a plurality of struts 721 each extending between inferior span 711 and superior span 731.

[0022] Each of truss segments 401, 501, 601 and 701 may include more struts or fewer struts than depicted. In an example, the plurality of struts of each truss segment includes three struts such that a first strut is configured for coupling with another component, a second strut is configured for coupling with another component and one strut is provided between the first and second struts.

[0023] A first brace 440 may extend between first truss segment superior span 431 and one of the plurality of struts 421 thereof. For example, first brace 440 may form a diagonal of a rectangle formed by a portion of first truss

segment superior span 431, a portion of first truss segment inferior span 411 and two of the plurality of struts 421 thereof. A second brace 740 may extend between fourth truss segment superior span 731 and one of the plurality of struts 721 thereof. Second brace 740 may form a diagonal of a rectangle formed by a portion of fourth truss segment superior span 731, a portion of fourth truss segment inferior span 711 and two of the plurality of struts 721 thereof.

[0024] A center post 301 includes a superior end configured for coupling between second truss segment superior span 531 and third truss segment superior span 631 as well as an inferior end configured to extend from second truss segment inferior span 511 and third truss segment inferior span 611 and further including a central base member 321 provided to the center post inferior end.

[0025] First truss segment 401 and second truss segment 501 may be provided as a single, integral truss segment. Similarly, third truss segment 601 and fourth truss segment 701 may be provided as a single, integral truss segment. In such a configuration, while the disassembled system may have a longer profile, assembly and disassembly is simplified.

[0026] The end posts, outside base members, center post, truss segment inferior spans and truss segment superior spans may be configured with a tubular construction. In an example, tubular construction includes that having a rectangular cross-section. The width of each of end posts 101 and 201 and outside base members 121 and 221 may be about 3 inches. In particular, the rectangular cross-section of the end posts, outside base members, center post and inferior and superior spans may be a square cross-section. The end posts, outside base members, center post, truss segment inferior spans and the truss segment superior spans may be formed from any of a variety of durable, weather-resistant materials such as steel.

[0027] The plurality of struts 421, 521, 621 and 721 may also include tubular construction with a rectangular cross-section or may be of a different construction such as solid. In an example, the struts have a cross-sectional area of 1 square inch. In a further example the struts have a square cross section. The plurality of struts, 421, 521, 621 and 721 may be formed from any of a variety of durable, generally rigid, weather-resistant materials including but not limited to steel, plastics and composites.

[0028] In a particularly robust example of the sports net system, the end posts, the outside base members and the truss segments are formed from steel.

[0029] The height of end posts 101 and 201 generally enables holding of at least one net at a level complying with regulations for one or more sports or games with which disclosed sports net supports and/or systems are used. In an example, the height of end posts 101 and 201 may measure substantially 36 inches with outside base members 121 and 221 supported on a horizontal surface and with end posts 121 and 221 substantially vertical. Center post 301 may measure about 18 inches long/high and have a cross section of about 2 inches by about 2 inches. Central base member 321 may be about 12 inches long and have a cross section of about 1 inch by about 2 inches.

[0030] A bottom surface of the first and second outside base members 121 and 221 may be provided with a 0.5 inch rubber pad to reduce or eliminate damage to a supporting surface such as the surface of a game court. Fasteners 901 enable removable coupling of first 401 and fourth 701 truss

segments with first **101** and second **201** end posts, respectively. Similarly, fasteners **901** enable removable coupling of first truss segment **401** with second truss segment **501**, removable coupling of second truss segment **501** with center post **301**, removable coupling of third truss segment **601** with center post **301** and removable coupling of fourth truss segment **701** with third truss segment **601**. Example fasteners for use as fasteners **901** include any of a combination of fastener sizes facilitating coupling of any disclosed components and including but not limited to $\frac{3}{8}$ inch stainless steel bolts.

[0031] The sports net system further includes a net **801** configured to extend between first end post **101** and second end post **201**. Net **801** may include a superior strand configured for coupling with the first end post **101** near superior end **131** and with second end post **201** near superior end **231** as well as an inferior strand configured for coupling with first end post **101** near inferior end **111** and with second end post **201** near inferior end **211**. A network of web strands spans the superior and inferior strands of net **801**. Strands of net **801** may be between about 3 mm and about 3.5 mm in diameter and may be formed from any one or more of fabric, nylon and vinyl.

[0032] In an example, the superior strand is configured for coupling with first and second ends posts **101** and **201** so as to have a height of about 36 inches when first and second end posts **101** and **201** are vertical and first and second outside base members **121** and **221** are supported on a horizontal surface. Center post **301** may be provided with an eyelet at its superior end into which a tie-down strap may be anchored in order to tension a superior strand of a net extending between the first and second end posts when the system is assembled.

[0033] In some examples, net **801** may be provided separately from other elements of the system.

[0034] In an example, each of the plurality of struts **421**, **521**, **621** and **721** may have a height/length between one quarter and three quarters of the distance between the end post inferior and superior ends. In a further example, each of the plurality of struts **421**, **521**, **621** and **721** have a height/length about one third of the distance between the end post inferior and superior ends or between about 10 inches and about 12 inches.

[0035] The sports net system may include a reel **151** mounted in or on one of first end post **101** or second end post **201** and configured to adjust tension in a top strand of a net. The reel may include a pulley and geared cable winder. In an example, the pulley and geared cable winder are formed from brass. In the other of the first and second end posts a coupling point **251** may be provided for an end of the net opposing the end coupled with reel **151**. The net may be anchored to the coupling point **251** at a first end of the top strand and the second end wound around reel **151**.

[0036] The disclosure further addresses a method for assembling a sports net system. The method includes providing a first end post, a second end post, a center post, a first truss segment, a second truss segment, a third truss segment, a fourth truss segment and a net as generally described with respect to FIG. 1 above.

[0037] First truss segment **401** and second truss segment **501** may be coupled together in a generally planar arrangement for example by use of fasteners **901** to secure the second end strut of first truss segment **401** with the first end strut of second truss segment **501**.

[0038] Third truss segment **601** and fourth truss segment **701** may be coupled together in a generally planar arrangement for example by use of fasteners **901** to secure the second end strut of fourth truss segment **701** with the first end strut of third truss segment.

[0039] First truss segment **401** may then be coupled to first end post **101** by fasteners **901** such that first end post **101** and first truss segment **401** are generally within the same plane and outside base member **121** is generally perpendicular with the plane shared by the first and second truss segments **401** and **501** and first end post **101**. Fourth truss segment **701** may then be coupled with second end post **201** by fasteners **901** such that second end post **201** and fourth truss segment **701** are generally within the same plane and outside base member **221** is generally perpendicular with the plane shared by third and fourth truss segments **601** and **701** and second end post **201**.

[0040] Center post **301** may be coupled between the ends of second and third truss segments **501** and **601** and the sports net system may be supported in a substantially vertical plane by first outside base member **121**, second outside base member **221** and central base member **321** (FIGS. 2-5).

[0041] Net **801** may then be anchored to one of first and second end posts **101** and **201** and wound around reel **151** provided to the other of the first and second end posts **101** and **201**. Reel **151** may then be rotated until the desired tension is applied to net **801** such that its superior strand is substantially horizontally extended between the first and second end posts **101** and **201**. A tie down of net **801** may then be anchored into an eyelet at the superior end of center post **301** (FIG. 3). It should be noted that while FIG. 3 may be considered a front view, with the net removed, front and rear views may appear to be mirror images.

[0042] The actions described above are only illustrative and other alternatives can also be provided where one or more actions are added, one or more actions are removed, or one or more actions are provided in a different sequence without departing from the scope of the claims herein.

[0043] With components assembled into a sports net support system in accordance with the above method and with reference to FIGS. 2-5, inferior span **411** of first truss segment **401** extends from a position adjacent to inferior end **111** of first end post **101**, superior span **431** of first truss segment **401** extends from a position between inferior **111** and superior **131** ends of first end post **101**, inferior span **711** of fourth truss segment **701** extends from a position adjacent to inferior end **211** of second end post **201**, and superior span **731** of fourth truss segment **701** extends from a position between inferior **211** and superior **231** ends of second end post **201**.

[0044] Inferior span **511** of second truss segment **201** extends from a position adjacent to inferior span **411** of first truss segment **401**, superior span **531** of second truss segment **501** extends from a position adjacent to superior span **431** of first truss segment **401**, inferior span **611** of third truss segment **601** extends from a position adjacent to inferior span **711** of fourth truss segment **701** and superior span **631** of third truss segment **601** extends from a position adjacent to superior span **731** of fourth truss segment **701**.

[0045] Each of the plurality struts **421**, **521**, **621** and **721** may have a height/length about one-half of the distance between the end post inferior and superior ends so that truss segment superior spans are distanced from the superior span

of the net and do not interfere with normal reaction of the net to being struck by a ball or other game equipment (FIGS. 2 & 3).

[0046] With the sports net support system assembled in accordance with the above method, each of the plurality of struts **421**, **521**, **621** and **721** may be substantially parallel with first end post **101** and second end post **201** in the sense that during game play any angle between any of the plurality of struts **421**, **521**, **621** and **721** and the ends posts will not be apparent to any player. For example, the angle between any of the plurality of struts **421**, **521**, **621** and **721** and either of the first or second end posts **101** and **201** may be less than about 3 degrees.

[0047] First outside base member **121** may be substantially perpendicular to first end post **101** and second outside base member **221** may be substantially perpendicular to second end post **201** in the sense that during use, for example during game play, the angle between either of outside base members **121** and **221** with either of end posts **101** and **201** will appear to be around 90 degrees. For example, either of first and second outside base members **121** and **221** may form an angle of from about 87 degrees to about 90 degrees with either of first or second end posts **101** and **201**.

[0048] First truss segment superior span **431** may be substantially perpendicular to first outside base member **121** and substantially perpendicular to first end post **101** in the sense that during use, for example during game play, the angle between first truss segment superior span **431** and first outside base member **121** and the angle between first truss segment superior span **431** and first end post **101** will appear to be around 90 degrees. For example, first truss segment superior span **431** may form an angle of from about 87 degrees to about 90 degrees with first outside base member **121** and may form an angle of from about 87 degrees to about 90 degrees with first end post **101**. First truss segment inferior span **411** may be substantially parallel with first truss segment superior span **431** in the sense that during use, for example during game play, the angle between first truss segment inferior span **411** and first truss segment superior span **431** will appear to be around 0 degrees. For example, first truss segment inferior span **411** may form an angle of from about 0 degrees to about 3 degrees with first truss segment superior span **431**.

[0049] Second truss segment superior span **531** may be substantially collinear with first truss segment superior span **431** and second truss segment inferior span **511** may be substantially collinear with first truss segment inferior span **411** in the sense that during game play the angle between second truss segment superior span **531** and first truss segment superior span **431** will appear to be around 0 degrees and the angle between second truss segment inferior span **511** and first truss segment inferior span **411** will appear to be around 0 degrees. For example, second truss segment superior span **531** may form an angle of from about 0 degrees to about 3 degrees with first truss segment superior span **431** and second truss segment inferior span **511** may form an angle of from about 0 degrees to about 3 degrees with first truss segment inferior span **411**. It should further be noted that the term collinear is being used loosely since the inferior and superior spans, unlike lines, are three-dimensional rather than unidimensional.

[0050] With second truss segment superior span **531** being substantially collinear with first truss segment superior span **431** and second truss segment inferior **511** span being

substantially collinear with first truss segment inferior span **411**, it follows that second truss segment superior span **531** may be substantially perpendicular to first outside base member **121** and substantially perpendicular to first end post **101** in the sense that during use, for example during game play, the angle between second truss segment superior span **531** and first outside base member **101** and the angle between second truss segment superior span **531** and first end post **101** will appear to be around 90 degrees. For example, second truss segment superior span **531** may form an angle of from about 87 degrees to about 90 degrees with first outside base member **121** and may form an angle of from about 87 degrees to about 90 degrees with first end post **101**. Second truss segment inferior span **511** may be substantially parallel with second truss segment superior span **531** in the sense that during use, for example during game play, the angle between second truss segment inferior span **511** and second truss segment superior span **531** will appear to be around 0 degrees. For example, second truss segment inferior span **511** may form an angle of from about 0 degrees to about 3 degrees with second truss segment superior span **531**.

[0051] Fourth truss segment superior span **731** may be substantially perpendicular to second outside base member **221** and substantially perpendicular to second end post **201** in the sense that during use, for example during game play, the angle between fourth truss segment superior span **731** and second outside base member **221** and the angle between fourth truss segment superior span **731** and second end post **201** will appear to be around 90 degrees. For example, fourth truss segment superior span **731** may form an angle of from about 87 degrees to about 90 degrees with second outside base member **221** and may form an angle of from about 87 degrees to about 90 degrees with second end post **201**. Fourth truss segment inferior span **711** may be substantially parallel with fourth truss segment superior span **731** in the sense that during use, for example during game play, the angle between fourth truss segment inferior span **711** and fourth truss segment superior span **731** will appear to be around 0 degrees. For example, fourth truss segment inferior span **711** may form an angle of from about 0 degrees to about 3 degrees with fourth truss segment superior span **731**.

[0052] Third truss segment superior span **631** may be substantially collinear with fourth truss segment superior span **731** and third truss segment inferior span **611** may be substantially collinear with fourth truss segment inferior span **711** in the sense that during game play the angle between third truss segment superior span **631** and fourth truss segment superior span **731** will appear to be around 0 degrees and the angle between third truss segment inferior span **611** and fourth truss segment inferior span **711** will appear to be around 0 degrees. For example, third truss segment superior span **631** may form an angle of from about 0 degrees to about 3 degrees with fourth truss segment superior span **731** and third truss segment inferior span **611** may form an angle of from about 0 degrees to about 3 degrees with fourth truss segment inferior span **711**. Again, the term collinear is being used loosely since the inferior and superior spans, unlike lines, are three-dimensional rather than unidimensional.

[0053] With third truss segment superior span **631** being substantially collinear with fourth truss segment superior span **731** and third truss segment inferior span **611** being substantially collinear with fourth truss segment inferior

span 711, it follows that third truss segment superior span 631 may be substantially perpendicular to second outside base member 221 and substantially perpendicular to second end post 201 in the sense that during use, for example during game play, the angle between third truss segment superior span 631 and second outside base member 221 and the angle between third truss segment superior span 631 and second end post 201 will appear to be around 90 degrees. For example, third truss segment superior span 631 may form an angle of from about 87 degrees to about 90 degrees with second outside base member 221 and may form an angle of from about 87 degrees to about 90 degrees with second end post 201. Third truss segment inferior span 611 may be substantially parallel with third truss segment superior span 631 in the sense that during use, for example during game play, the angle between third truss segment inferior span 611 and third truss segment superior span 631 will appear to be around 0 degrees. For example, third truss segment inferior span 611 may form an angle of from about 0 degrees to about 3 degrees with third truss segment superior span 631.

[0054] With outside base members 121, 221 supported on a substantially flat, horizontal surface and end posts 101, 201 substantially vertical, inferior spans 411, 511, 611, 711 of the first, second, third and fourth truss segments may be about 4.5 inches above the horizontal support surface.

[0055] In an example, the width of the entire, assembled sports net system may be about 22 feet with each end member 100, 200 measuring about 11 feet long.

[0056] Individually or in combination, the truss segments 401, 501, 601 and 701 may be considered a compression resistance network resisting the compressive effects of tension added to a net or a top strand thereof. Truss segments 401, 501, 601 and 701 in cooperation with first and second end posts 101 and 201 are configured to maintain distance and orientation between first 101 and second 201 end posts when tension is applied to a net or a strand thereof.

[0057] FIG. 6 depicts another example sports net system, including a first end member 1101, a second end member 1201 and a tubular member 1301. First end member 1101 includes a first outside base member 1121 coupled with a first cross bar 1401 and a first upright or end post 1111, a first brace 1440 extending between first cross bar 1401 and first end post 1111 and at least one foot 1126 coupled with first outside base member 1121 opposite first end post 1111. Second end member 1201 includes a second outside base member 1221 coupled with a second cross bar 1701 and a second upright or end post 1211, a second brace 1740 extending between second cross bar 1701 and second end post 1211 and at least one foot 1226 coupled with second outside base member 1221 opposite second end post 1211. Tubular member 1301 telescopically receives first cross bar 1401 in a first opening and second cross bar 1701 in a second opening opposite the first opening. A net 1801 extends between first end post 1111 and second end post 1211.

[0058] A first locking member may be provided to prevent relative motion between first end member 1101 and tubular member 1301. In an example, the first locking member includes a set screw. A second locking member may be provided to prevent relative motion between second end member 1201 and tubular member 1301. As with the first locking member, the second locking member may include a set screw.

[0059] In an example construction, first cross bar 1401 is substantially perpendicular to both first outside base member

1121 and first end post 1111, first end post 1111 is substantially perpendicular to first outside base member 1121, or first end post 1111, first cross bar 1401 and first outside base member 1121 are substantially mutually perpendicular in the sense that during use, for example during game play, the angle between each of first end post 1111, first cross bar 1401 and first outside base member 1121 will appear to be around 90 degrees.

[0060] In an example construction, second cross bar 1701 is substantially perpendicular to both second outside base member 1221 and second end post 1211, second end post 1211 is substantially perpendicular to second outside base member 1221, or second end post 1211, second cross bar 1701 and second outside base member 1221 are substantially mutually perpendicular in the sense that during use, for example during game play, the angle between each of second end post 1211, second cross bar 1701 and second outside base member 1221 will appear to be around 90 degrees.

[0061] While first end post 1111, first cross bar 1401 and first outside base member 1121 may be provided in any of a variety of shapes or cross-sections, in one example, first end post 1111, first cross bar 1401 and first outside base member 1121 exhibit a rectangular cross-section. In a further example, first end post 1111, first cross bar 1401 and first outside base member 1121 exhibit a square cross-section. While first end post 1111 and first outside base member 1121 may be provided in any of a variety of dimensions, in an example, the width of each of first end post 1111 and first outside base member 1121 is 3 inches. While first cross bar 1401 may be provided in any of a variety of dimensions, in an example, the width of first cross bar 1401 is 2.5 inches. In an example, the height of first end member 1101 measures substantially 36 inches with foot 1126 contacting a horizontal surface and with first end post 1111 substantially vertical.

[0062] While second end post 1211, second cross bar 1701 and second outside base member 1221 may be provided in any of a variety of shapes or cross-sections, in one example, second end post 1211, second cross bar 1701 and second outside base member 1221 exhibit a rectangular cross-section. In a further example, second end post 1211, second cross bar 1701 and second outside base member 1221 are optionally configured with square cross-section. While second end post 1201 and second outside base member 1221 may be provided in any of a variety of dimensions, in an example, the width of each of second end post 1201 and second outside base member 1221 is 3 inches. While second cross bar 1701 may be provided in any of a variety of dimensions, in an example, the width of second cross bar 1701 is 2.5 inches. In an example, the height of second end member 1201 optionally measures substantially 36 inches with foot 1226 contacting a horizontal surface and with second end post 1211 substantially vertical.

[0063] First end member 1101 and second end member 1201 may be constructed or otherwise configured from one or more weather-resistant materials including but not limited to a metal such as steel.

[0064] Hardware such as set screws, bolts, nuts, etc. may be formed from any of a variety of materials configured for long-lasting, all-weather durability against the elements. In an example, hardware may be formed from stainless steel.

[0065] The net 1801 may be provided from heavy gauge 3 mm or 3.5 mm strands and/or in accordance with regula-

tions applying to use thereof. A center tie down strap may be formed from long lasting, steel tension cable for constant top net tension and net height.

[0066] In an example, the system of FIG. 6 includes a reel configured to adjust tension in a top strand of the net.

[0067] In an example, foot 1126 coupled with first outside base member 1121 is selectively rollable and foot 1226 coupled with second outside base member 1221 is selectively rollable. In a further example, the rollable feet include wheels capable of locking to selectively prevent rolling. For example, the wheels may be high-quality, locking, stainless steel ball bearing, non-marking wheels.

[0068] In another example, foot 1126 coupled with first outside base member 1121 and foot 1226 coupled with second outside base member 1221 is configured from heavy duty furniture bases for a lower profile to the ground. While lacking feet which roll, this example net system may still be moved. In yet another example, 1/2" thick flat bar stock may be provided as a base for an even lower profile and a more permanent look. In this example, feet may be excluded.

[0069] Referring again to FIG. 6, the disclosure further addresses a method for assembling a sports net system in accordance with a second embodiment. The method includes providing a first tubular member having a first opening and a second opening opposite the first opening and providing a first end member and a second end member. The first end member includes first outside base member coupled with a first cross bar and a first end post, a first brace extending between the first cross bar and the first end post and at least one foot coupled with the first outside base member opposite the first end post. The second end member includes a second outside base member coupled with a second cross bar and a second end post, a second brace extending between the second cross bar and the second end post and at least one foot coupled with the second outside base member opposite the second end post. The method further includes inserting the first cross bar in the first opening and the second cross bar in the second opening.

[0070] With the first cross bar inserted into the first opening of the first tubular member, relative motion between the first end member and the first tubular member is prevented with a first locking member. In an example, relative motion is prevented by tightening at least one set screw.

[0071] With the second cross bar inserted into the second opening of the first tubular member, relative motion between the second end member and the first tubular member is prevented with a second locking member. In an example, relative motion is prevented by tightening at least one set screw.

[0072] With a net provided, the net may be extended between the first end post and the second end post for example, starting with anchoring one side of the net to one of the first end post and the second end post. In a further example, tension in a top strand of the net may be adjusted with a reel coupled to the other of the first end post and the second end post.

[0073] With the net extending between the first and second end posts, the sports net system may be rolled on the at least one foot coupled with the first outside base and the at least one foot coupled with the second outside base member. Rolling may be performed to move the sports net system into a position suitable for playing a net sport or to move the sports net system into a storage position when not being used to play a net sport. When the sports net system is in the

desired position, the at least one foot coupled with the first outside base member, the at least one foot coupled with the second outside base member or both may be locked against rolling motion.

[0074] The actions described above are only illustrative and other alternatives can also be provided where one or more actions are added, one or more actions are removed, or one or more actions are provided in a different sequence without departing from the scope of the claims herein.

[0075] While dimensions disclosed herein for described sports net systems may be suitable for a variety of sports or games, in particular, they support use for pickleball play. Disclosed sports net systems provide a sturdy framework that plays just like permanet, in-ground, net post pickleball systems but is easily and quickly rollable and/or moveable to make the court space quickly available for another sport or activity. Disclosed systems may be used by facilities offering any multi-use indoor or outdoor courts and wanting to enable pickleball play with an easy-to-move, rollable net system design.

[0076] Modifications to embodiments of the disclosure described in the foregoing are possible without departing from the scope of the disclosure as defined by the accompanying claims and features of one or more disclosed embodiments may be provided to one or more other disclosed embodiments. Expressions such as "including", "comprising", "incorporating", "consisting of", "have", "is" used to describe and claim disclosed features are intended to be construed in a non-exclusive manner, namely allowing for items, components or elements not explicitly described also to be present. Reference to the singular is also to be construed to relate to the plural.

What is claimed is:

1. A sports net system, comprising:

- a first end post having an inferior end and a superior end;
- a first outside base member provided to the inferior end of the first end post;
- a first truss segment coupled with the first end post and having an inferior span, a superior span and a plurality of struts each extending between the inferior span and the superior span;
- a second truss segment coupled with the first truss segment and having an inferior span, a superior span and a plurality of struts each extending between the inferior span and the superior span;
- a third truss segment coupled with the second truss segment and having an inferior span, a superior span and a plurality of struts each extending between the inferior span and the superior span;
- a second end post having an inferior end and a superior end;
- a second outside base member provided to the inferior end of the second post; and
- a fourth truss segment coupled between the third truss segment and the second end post and having an inferior span, a superior span and a plurality of struts each extending between the inferior span and the superior span.

2. The sports net system as set forth in claim 1, wherein the inferior span of the first truss segment extends from a position adjacent to the inferior end of the first end post, the superior span of the first truss segment extends from a position between the inferior and superior ends of the first end post, the inferior span of the fourth truss segment

extends from a position adjacent to the inferior end of the second end post, and the superior span of the fourth truss segment extends from a position between the inferior and superior ends of the second end post.

3. The sports net system as set forth in claim 1, further comprising at least one first brace extending between the first truss segment superior span and one of the plurality of struts of the first truss segment and at least one second brace extending between the fourth truss segment superior span and one of the plurality of struts of the fourth truss segment.

4. The sports net system as set forth in claim 3, wherein the at least one first brace forms a diagonal of a rectangle formed by a portion of the first truss segment superior span, a portion of the first truss segment inferior span and two of the plurality of struts of the first truss segment and the at least one second brace forms a diagonal of a rectangle formed by a portion of the fourth truss segment superior span, a portion of the fourth truss segment inferior span and two of the plurality of struts of the fourth truss segment.

5. The sports net system as set forth in claim 1, further comprising a center post having a superior end coupled between the second truss segment superior span and the third truss segment superior span and having an inferior end extending from the second truss segment inferior span and the third truss segment inferior span and further including a central base member provided to the center post inferior end.

6. The sports net system as set forth in claim 1, wherein the first outside base member is arranged substantially perpendicular to the first end post and the second outside base member is arranged substantially perpendicular to the second end post.

7. The sports net system as set forth in claim 1, wherein the first truss segment superior span is arranged substantially perpendicular to both the first end post and first outside base member and wherein the fourth truss segment superior span is arranged substantially perpendicular to both the second end post and the second outside base member.

8. The sports net system as set forth in claim 1, wherein the first truss segment inferior span is arranged substantially parallel with the first truss segment superior span and the fourth truss segment inferior span is arranged substantially parallel with the fourth truss segment superior span.

9. The sports net system as set forth in claim 1, further comprising a net extending between the first end post and the second end post.

10. The sports net system as set forth in claim 9, wherein the net includes a superior strand coupled with the first end post near the superior end and with the second end post near the superior end as well as an inferior strand coupled with the first end post near the inferior end and with the second end post near the inferior end.

11. The sports net system as set forth in claim 10, further comprising a tie-down strap tensioning the superior strand of the net towards the second truss segment and/or the third truss segment.

12. The sports net system as set forth in claim 10, wherein the first truss segment, the second truss segment, the third truss segment and the fourth truss segment are configured to maintain distance between the first and second end posts when tension is applied to the superior strand.

13. The sports net system as set forth in claim 1, further comprising a reel provided to the first end post or the second end post and configured to adjust tension in a superior strand of a net extending between the first and second end posts.

14. A sports net support system, comprising:

a first end post having an inferior end and a superior end;
a first outside base member provided to the inferior end of the first end post;

a first truss segment configured for coupling with the first end post and having an inferior span, a superior span and a plurality of struts each extending between the inferior span and the superior span;

a second truss segment configured for coupling with the first truss segment and having an inferior span, a superior span and a plurality of struts each extending between the inferior span and the superior span;

a third truss segment configured for coupling with the second truss segment and having an inferior span, a superior span and a plurality of struts each extending between the inferior span and the superior span;

a second end post having an inferior end and a superior end;

a second outside base member provided to the inferior end of the second post;

a fourth truss segment configured for coupling between the third truss segment and the second end post and having an inferior span, a superior span and a plurality of struts each extending between the inferior span and the superior span; and

a reel configured for winding a superior strand of a net.

15. The sports net support system as set forth in claim 14, further comprising at least one first brace extending between the first truss segment superior span and one of the plurality of struts of the first truss segment and at least one second brace extending between the fourth truss segment superior span and one of the plurality of struts of the fourth truss segment.

16. The sports net support system as set forth in claim 15, wherein the at least one first brace forms a diagonal of a rectangle formed by a portion of the first truss segment superior span, a portion of the first truss segment inferior span and two of the plurality of struts of the first truss segment and the at least one second brace forms a diagonal of a rectangle formed by a portion of the fourth truss segment superior span, a portion of the fourth truss segment inferior span and two of the plurality of struts of the fourth truss segment.

17. The sports net support system as set forth in claim 14, wherein the inferior spans, the superior spans and the plurality of struts each include tubular construction.

18. The sports net support system as set forth in claim 14, further comprising a center post having a superior end configured for coupling between the second truss segment superior span and the third truss segment superior span and having an inferior end configured to extend from the second truss segment inferior span and the third truss segment inferior span and further including a central base member coupled with the center post inferior end.

19. The sports net support system as set forth in claim 14, wherein the first outside base member is arranged substantially perpendicular to the first end post and the second outside base member is arranged substantially perpendicular to the second end post.

20. The sports net support system as set forth in claim 14, wherein the first truss segment inferior span is arranged substantially parallel with the first truss segment superior

span and the fourth truss segment inferior span is arranged substantially parallel with the fourth truss segment superior span.

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