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(54) TRAMPOLINE SYSTEMS CONTAINING AT LEAST ONE ZIP LINE AND METHODS OF MAKING AND USING THE SAME

(57) Trampoline systems containing multiple trampoline jumping surfaces and at least one zip line are disclosed. Methods of making and using trampoline systems containing multiple trampoline jumping surfaces and at least one zip line are also disclosed.

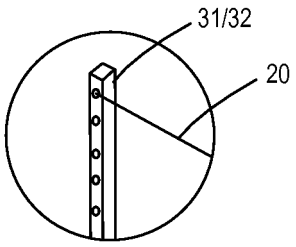

Fig. 2

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Description

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This patent application claims the benefit of priority to U.S. Provisional Patent Application Serial No. 62/589,724 filed on November 22, 2017 and entitled "TRAMPOLINE SYSTEMS CONTAINING AT LEAST ONE ZIP LINE AND METHODS OF MAKING AND USING THE SAME," the subject matter of which is hereby incorporated by reference in its entirety.

FIELD OF THE INVENTION

[0002] The present invention is directed to trampoline systems containing at least one zip line. The present invention is further directed to methods of making and using trampoline systems containing at least one zip line.

BACKGROUND

[0003] Efforts continue to further develop trampoline systems and enhance the experience of the user of the trampoline system.

SUMMARY

[0004] The present invention addresses some of the difficulties and problems discussed above by the discovery of new trampoline systems containing at least one zip line.

[0005] Accordingly, the present invention is directed to trampoline systems containing at least one zip line. In one exemplary embodiment, the trampoline systems of the present invention comprise: one or more trampoline jumping surfaces; and at least one zip line extending (i) along an outer edge of at least one trampoline jumping surface within the one or more trampoline jumping surfaces, (ii) over at least one trampoline jumping surface within the one or more trampoline jumping surfaces, or (iii) both (i) and (ii).

[0006] In some exemplary embodiments, the trampoline systems of the present invention comprise: one or more trampoline jumping surfaces; and at least one zip line extending (i) along an outer edge of at least one trampoline jumping surface within the one or more trampoline jumping surfaces, (ii) over at least one trampoline jumping surface within the one or more trampoline jumping surfaces, or (iii) both (i) and (ii), wherein the one or more trampoline jumping surfaces comprises (a) a first row of trampoline jumping surfaces (e.g., from 1 to 24 trampoline jumping surfaces) within a plane **P** that is parallel to a ground surface on which the trampoline system is positioned, and (ii) a second row of angled trampoline jumping surfaces (e.g., from 1 to 24 trampoline jumping surfaces) positioned at an angle **A** relative to plane **P.**

[0007] The present invention is further related to methods of making trampoline systems containing at least one zip line. In one exemplary embodiment, the method of making a trampoline system comprises: assembling one or more trampoline jumping surfaces with one another; and attaching at least one zip line to the trampoline system so that the at least one zip line extends (i) along an outer edge of at least one trampoline jumping surface within the one or more trampoline jumping surfaces, (ii) over at least one trampoline jumping surface within the one or more trampoline jumping surfaces, or (iii) both (i) and (ii).

[0008] In some exemplary embodiments, the method of making a trampoline system comprises: assembling one or more trampoline jumping surfaces with one another; and attaching at least one zip line to the trampoline system so that the at least one zip line extends (i) along an outer edge of at least one trampoline jumping surface within the one or more trampoline jumping surfaces, (ii) over at least one trampoline jumping surface within the one or more trampoline jumping surfaces, or (iii) both (i) and (ii), wherein the assembling step comprises assembling one or more of the trampoline jumping surfaces at an angle **A** relative to a plane **P** that is parallel to a ground surface on which the trampoline system is positioned. The method may further comprise assembling (i) a first row of trampoline jumping surfaces within plane **P** that is parallel to a ground surface on which the trampoline system is positioned, and (ii) a second row of angled trampoline jumping surfaces positioned at an angle **A** relative to plane **P.**

[0009] The present invention is even further related to methods of using trampoline systems containing at least one zip line. In one exemplary embodiment, the method of using a trampoline system comprises: jumping on at least one trampoline jumping surface within one or more trampoline jumping surfaces while being attached to at least one zip line.

[0010] In some exemplary embodiments, the method of method of using a trampoline system comprises: jumping on at least one trampoline jumping surface within one or more trampoline jumping surfaces while being attached to at least one zip line, wherein the one or more trampoline jumping surfaces comprise (i) a first row of trampoline jumping surfaces within a plane **P** that is parallel to a ground surface on which the trampoline system is positioned, and (ii) a second row of angled trampoline jumping surfaces positioned at an angle **A** relative to plane **P,** and the method further comprises moving a user/harness combination along the first and second rows of trampoline jumping surfaces.

[0011] These and other features and advantages of the present invention will become apparent after a review of the following detailed description of the disclosed embodiments and the appended claims.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012]

FIG. **1** is a perspective top view of an exemplary trampoline system of the present invention;

FIG. **2** is a close-up view of an exemplary zip line support member of the exemplary trampoline system shown in FIG. **1**;

FIG. **3** is a side end view of the exemplary trampoline system shown in FIG. **1**;

FIG. **4** is a top view of the exemplary trampoline system shown in FIG. **1**;

FIG. **5** is a rear view of the exemplary trampoline system shown in FIG. **1**; and

FIG. **6** is another close-up view of the exemplary zip line support member of the exemplary trampoline system shown in FIG. **1** and **5.**

DETAILED DESCRIPTION

[0013] To promote an understanding of the principles of the present invention, descriptions of specific embodiments of the invention follow and specific language is used to describe the specific embodiments. It will nevertheless be understood that no limitation of the scope of the invention is intended by the use of specific language. Alterations, further modifications, and such further applications of the principles of the present invention discussed are contemplated as would normally occur to one ordinarily skilled in the art to which the invention pertains.

[0014] The present invention is directed to trampoline systems containing at least one zip line. The present invention is further directed to methods of making trampoline systems containing at least one zip line. The present invention is even further directed to methods of using trampoline systems containing at least one zip line.

[0015] The trampoline systems of the present invention are further described in the following embodiments and claims. See also, the figures.

Other Embodiments:

Trampoline Systems

[0016]

1. A trampoline system **100** comprising: one or more trampoline jumping surfaces **101**; and at least one zip line **20** extending (i) along an outer edge of at least one trampoline jumping surface **101** within said one or more trampoline jumping surfaces **101**, (ii) over at least one trampoline jumping surface **101** within said one or more trampoline jumping surfaces **101**, or (iii) both (i) and (ii).

2. The trampoline system **100** of embodiment 1, wherein said trampoline system **100** comprises four or more trampoline jumping surfaces **101.**

3. The trampoline system **100** of embodiment 1 or 2, wherein said trampoline system **100** comprises from four to 80 trampoline jumping surfaces **101** (or any number, in increments of 1, between 4 and 80, e.g., 24, or any range of numbers, in increments of 1, between 4 and 80, e.g., from about 8 to about 16).

4. The trampoline system **100** of any one of embodiments 1 to 3, wherein each trampoline jumping surface **101** independently has a rectangular shape or a square shape. However, it should be understood that each trampoline jumping surface **101** within a given trampoline system **100** of the present invention may independently have any desired shape including, but not limited to, a triangular shape, an isosceles trapezoid shape, a parallelogram shape, a rhombus shape, a circular shape, or any other shape.

5. The trampoline system **100** of any one of embodiments 1 to 4, wherein one or more of said trampoline jumping surfaces **101** is within a plane **P** that is parallel to a ground surface **80** on which the trampoline system **100** is positioned. See, plane **P** shown in FIG. **3.**

6. The trampoline system **100** of any one of embodiments 1 to 5, wherein one or more of said trampoline jumping surfaces **101** is positioned at an angle **A** relative to a plane **P** that is parallel to a ground surface **80** on which the trampoline system **100** is positioned. These angularly-oriented trampoline jumping surfaces **101** are also referred to herein as angled trampoline jumping surfaces **101'.** See, for example, FIGS. **1** and **3.**

7. The trampoline system **100** of any one of embodiments 1 to 6, wherein at least one outer edge **104** of said trampoline system **100** is substantially within a plane **P** that is parallel to a ground surface **80** on which the trampoline system **100** is positioned. See, FIG. **3.**

8. The trampoline system **100** of any one of embodiments 1 to 7, wherein at least one outer edge **104** of said trampoline system **100** is above a plane **P** that is parallel to a ground surface **80** on which the trampoline system **100** is positioned. See, FIG. **3.**

9. The trampoline system **100** of any one of embodiments 1 to 5, wherein substantially all of said trampoline jumping surfaces **101** are within a plane **P** that is parallel to a ground surface **80** on which the trampoline system **100** is positioned.

10. The trampoline system **100** of any one of embodiments 1 to 8, wherein substantially more than half of said trampoline jumping surfaces **101** are within a plane **P** that is parallel to a ground surface **80** on which the trampoline system **100** is positioned, and less than half of said trampoline jumping surfaces **101** are positioned at an angle **A** relative to the plane **P** that is parallel to the ground surface **80** on which the trampoline system **100** is positioned. It should be understood that any number of said trampoline jumping surfaces **101** can be within and/or angled relative to a plane **P** that is parallel to a ground surface **80** on which the trampoline system **100** is positioned.

11. The trampoline system **100** of any one of em-

bodiments 6 to 8 and 10, wherein angle **A** ranges from about 15 ° to about 90° (or any number, in increments of 0.1, between 15 and 90, e.g., 45.2, or any range of numbers, in increments of 0.1, between 15 and 90, e.g., from about 35.7 to about 50.0).

12. The trampoline system **100** of any one of embodiments 1 to 11, further comprising: a trampoline support structure **30,** said trampoline support structure comprising a support structure frame member **31** (i) having an uppermost frame portion **32,** and (ii) a lowermost frame portion **33** on a ground surface **80.**

13. The trampoline system **100** of embodiment 12, wherein said uppermost frame portion **32** and said lowermost frame portion **33** are positioned a distance **H** from one another, said distance **H** ranging from about 5.0 feet (ft) to about 20 ft (or any number, in increments of 0.1, between 5.0 ft and 20 ft, e.g., 12.6 ft, or any range of numbers, in increments of 0.1, between 5.0 ft and 20 ft, e.g., from about 10.8 ft to about 16.3 ft).

14. The trampoline system **100** of embodiment 12 or 13, wherein said uppermost frame portion **32** is positioned a distance $\mathbf{d_s}$ above one or more of said trampoline jumping surfaces **101**, said distance $\mathbf{d_s}$ ranging from about 5.0 ft to about 16 ft (or any number, in increments of 0.1, between 5.0 ft and 16 ft, e.g., 12.6 ft, or any range of numbers, in increments of 0.1, between 5.0 ft and 16 ft, e.g., from about 5.8 ft to about 16.0 ft).

15. The trampoline system **100** of any one of embodiments 1 to 14, wherein each of said one or more trampoline jumping surfaces **101** comprises a separate fabric material **115.** See, for example, FIG. **1.** Although any trampoline material may be used, each trampoline jumping surface **101** is typically an upper surface of a woven polypropylene trampoline fabric.

16. The trampoline system **100** of embodiment 15, wherein said trampoline system **100** further comprises a plurality of elastic members (not shown), said plurality of elastic members connecting said separate fabric material **115** to a support structure frame member **30** of said trampoline system **100.**

17. The trampoline system **100** of embodiment 16, wherein said plurality of elastic members comprises a plurality of springs (not shown).

18. The trampoline system **100** of any one of embodiments 1 to 17, further comprising first padding (not shown) extending over springs (not shown) used to fasten said one or more trampoline jumping surfaces **101** to a trampoline support structure **30.**

19. The trampoline system **100** of any one of embodiments 1 to 18, further comprising a safety wall or net (not shown) extending upward from and along said outer edge **104.**

20. The trampoline system **100** of any one of embodiments 1 to 19, wherein said at least one zip line **20** extends along an outer edge **104** of at least one trampoline jumping surface **101** within said one or more trampoline jumping surfaces **101.**

21. The trampoline system **100** of any one of embodiments 1 to 19, wherein opposite ends **21,22** of said at least one zip line **20** are each independently attached to a trampoline support structure **30** of said trampoline system **100.**

22. The trampoline system **100** of any one of embodiments 1 to 21, wherein said at least one zip line **20** extends along an outer edge **104** of at least one trampoline jumping surface **101** within said one or more trampoline jumping surfaces **101.** See, for example, exemplary trampoline system **100** shown in FIG. **1.**

23. The trampoline system **100** of any one of embodiments 1 to 22, wherein said at least one zip line **20** extends along an uppermost outer edge **104** of at least one trampoline jumping surface **101** within said one or more trampoline jumping surfaces **101.** See again, for example, exemplary trampoline system **100** shown in FIG. **1.**

24. The trampoline system **100** of any one of embodiments 1 to 23, wherein said at least one zip line **20** extends over at least one trampoline jumping surface **101** within said one or more trampoline jumping surfaces **101.**

25. The trampoline system **100** of any one of embodiments 1 to 24, wherein said at least one zip line **20** extends over at least one trampoline jumping surface **101** within said one or more trampoline jumping surfaces **101** from one outer edge **104** of at least one trampoline jumping surface **101** within said one or more trampoline jumping surfaces **101** to an opposite outer edge **104** of at least one trampoline jumping surface **101** within said one or more trampoline jumping surfaces **101**, said opposite outer edge **104** being along an opposite side of said trampoline system **100** from said one outer edge **104.**

26. The trampoline system **100** of any one of embodiments 1 to 25, wherein said at least one zip line **20** comprises a single zip line **20.**

27. The trampoline system **100** of any one of embodiments 1 to 25, wherein said at least one zip line **20** comprises two or more zip lines **20.**

28. The trampoline system **100** of embodiment 27, wherein each of said two or more zip lines **20** have opposite ends **21,22** that are each independently attached to a trampoline support structure **30** of said trampoline system **100.**

29. The trampoline system **100** of embodiment 27 or 28, wherein each of said two or more zip lines **20** are parallel to one another. The two or more parallel zip lines **20** may be aligned with an outer edge **104** of trampoline system **100** or extend diagonally across one or more trampoline jumping surfaces **101** of the trampoline system **100.**

30. The trampoline system **100** of any one of embodiments 27 to 29, wherein each of said two or more zip lines **20** are parallel to one another and extend

along an outer edge **104** of the trampoline system **100.** For example, in some embodiments, trampoline system **100** may comprise two zip lines **20** that are parallel to one another and extend along opposite outer edges **104** of the trampoline system **100.** In other embodiments, trampoline system **100** may comprise two or more (e.g., from 3 to 8) zip lines **20** that are parallel to one another and extend along opposite outer edges **104** and over one or more trampoline jumping surfaces **101** of the trampoline system **100.**

31. The trampoline system **100** of any one of embodiments 27 to 29, wherein each of said two or more zip lines **20** are parallel to one another and extend (i) along an outer edge **104** of at least one trampoline jumping surface **101** within said one or more trampoline jumping surfaces **101**, and (ii) over at least one trampoline jumping surface **101** within said one or more trampoline jumping surfaces **101.**

32. The trampoline system **100** of any one of embodiments 1 to 31, wherein each of said at least one zip line **20** comprises a cable or a track (not shown) on which a user can move along. Although not shown in the figures, the track could be a track similar to a track used on amusement park rides that suspends a user/rider in the air above the ground and below the track. The user either manually or automatically is moved and/or stopped along the track as needed to provide a safe riding experience.

33. The trampoline system **100** of any one of embodiments 1 to 32, wherein each of said at least one zip line **20** comprises a cable.

34. The trampoline system **100** of any one of embodiments 1 to 32, wherein each of said at least one zip line **20** comprises a track.

35. The trampoline system **100** of any one of embodiments 1 to 34, further comprising one or more connecting lines (not shown) used to connect a user to said at least one zip line **20.**

36. The trampoline system **100** of any one of embodiments 1 to 35, further comprising one or more harnesses (not shown) sized to be worn by a user, each of said one or more harnesses being connectable to said at least one zip line **20.** Suitable harnesses include, but are not limited to, a waist fitted climbing harness, typically used for mountain/rock climbers and/or gymnastics training.

37. The trampoline system **100** of embodiment 36, wherein each of said one or more harnesses are connectable to said at least one zip line **20** by a connecting line (not shown).

38. The trampoline system **100** of any one of embodiments 6 to 37, wherein said one or more trampoline jumping surfaces **101** comprises (i) a first row **110** of trampoline jumping surfaces **101** within plane **P** that is parallel to a ground surface **80** on which the trampoline system **100** is positioned, and (ii) a second row **111** of angled trampoline jumping surfaces **101'** positioned at an angle **A** relative to plane **P.** As discussed above, angle **A** may range from about 15° to about 90° (or any number, in increments of 0.1, between 15 and 90, e.g., 45.2, or any range of numbers, in increments of 0.1, between 15 and 90, e.g., from about 35.7 to about 50.0). As shown in FIGS. **1** and **3**, in some desired embodiments of the present invention, all of the second row **111** of angled trampoline jumping surfaces **101'** are positioned within a plane **P'** (see, FIG. 3) that is at angle **A** relative to plane **P**.

39. The trampoline system **100** of embodiment 38, wherein each of said first row **110** and said second row **111** independently comprises at least two trampoline jumping surfaces **101/101'.**

40. The trampoline system **100** of embodiment 38 or 39, wherein each of said first row **110** and said second row **111** independently comprises from about 4 to about 24 trampoline jumping surfaces **101/101'.**

41. The trampoline system **100** of any one of embodiments 38 to 40, wherein said at least one zip line **20** extends along and above an outer edge **104'** of said second row **111** of angled trampoline jumping surfaces **101'.** See, for example, FIGS. **1, 3** and **5.**

Methods of Making Trampoline Systems

[0017]

42. A method of making the trampoline system **100** of any one of embodiments 1 to 41, said method comprising: assembling the one or more trampoline jumping surfaces **101** with one another; and attaching at least one zip line **20** to the trampoline system **100** so that the at least one zip line **20** extends (i) along an outer edge **104** of at least one trampoline jumping surface **101** within the one or more trampoline jumping surfaces **101**, (ii) over at least one trampoline jumping surface **101** within the one or more trampoline jumping surfaces **101**, or (iii) both (i) and (ii).

43. The method of embodiment 42, further comprising: attaching the one or more trampoline jumping surfaces **101** to a trampoline support structure **30**.

44. The method of embodiment 42 or 43, further comprising: attaching the at least one zip line **20** to a trampoline support structure **30.**

45. The method of any one of embodiments 42 to 44, further comprising: covering springs (not shown) used to fasten the one or more trampoline jumping surfaces **101** to a trampoline support structure **30** with first padding (not shown).

46. The method of any one of embodiments 42 to 45, further comprising: assembling a safety wall or net (not shown) that extends upward from and along the outer edge **104.**

47. The method of any one of embodiments 42 to

46, wherein said assembling step comprises assembling one or more of said trampoline jumping surfaces **101** is positioned at an angle **A** relative to a plane **P** that is parallel to a ground surface **80** on which the trampoline system **100** is positioned. As discussed above, angle **A** may range from about 15° to about 90° (or any number, in increments of 0.1, between 15 and 90, e.g., 45.2, or any range of numbers, in increments of 0.1, between 15 and 90, e.g., from about 35.7 to about 50.0).

48. The method of any one of embodiments 42 to 47, wherein said assembling step comprises assembling (i) a first row **110** of trampoline jumping surfaces **101** within plane **P** that is parallel to a ground surface **80** on which the trampoline system **100** is positioned, and (ii) a second row **111** of angled trampoline jumping surfaces **101'** positioned at an angle **A** relative to plane **P.**

49. The method of embodiment 48, wherein each of the first row **110** and the second row **111** independently comprises at least two trampoline jumping surfaces **101/101'.**

50. The method of embodiment 48 or 49, wherein each of the first row **110** and the second row **111** independently comprises from about 4 to about 24 trampoline jumping surfaces **101/101'**.

51. The method of any one of embodiments 48 to 50, wherein the at least one zip line **20** extends along and above an outer edge **104'** of the second row **111** of angled trampoline jumping surfaces **101'**. See, for example, FIGS. **1**, **3** and **5.**

Methods of Using Trampoline Systems

[0018]

52. A method of using the trampoline system **100** of any one of embodiments 1 to 41, said method comprising: jumping on at least one of the one or more trampoline jumping surfaces **101** while being attached to the at least one zip line **20.**

53. The method of embodiment 52, wherein the one or more trampoline jumping surfaces **101** comprise (i) a first row **110** of trampoline jumping surfaces **101** within plane **P** that is parallel to a ground surface **80** on which the trampoline system **100** is positioned, and (ii) a second row **111** of angled trampoline jumping surfaces **101'** positioned at an angle **A** relative to plane P. As discussed above, angle **A** may range from about 15° to about 90° (or any number, in increments of 0.1, between 15 and 90, e.g., 45.2, or any range of numbers, in increments of 0.1, between 15 and 90, e.g., from about 35.7 to about 50.0).

54. The method of embodiment 52, wherein each of the first row **110** and the second row **111** independently comprises at least two trampoline jumping surfaces **101/101'.**

55. The method of embodiment 53 or 54, wherein each of the first row 110 and the second row **111** independently comprises from about 4 to about 24 trampoline jumping surfaces **101/101'**.

56. The method of any one of embodiments 53 to 55, wherein the at least one zip line **20** extends along and above an outer edge **104'** of the second row **111** of angled trampoline jumping surfaces **101'**. See, for example, FIGS. **1**, **3** and **5.**

57. The method of any one of embodiments 52 to 56, wherein a user moves along a linear or curved path (not shown) using the at least one zip line **20.**

58. The method any one of embodiments 52 to 57, wherein a user is moved along a linear or curved path using the at least one zip line **20** via an external force (e.g., when the zip line **20** is a track and a motorized track moving system moves users along the track).

59. The method of any one of embodiments 52 to 58, further comprising attaching a harness (not shown) to a user to form a user/harness combination; and attaching the user/harness combination to the at least one zip line **20.**

60. The method of embodiment 59, further comprising disconnecting the harness from the user.

61. The method of embodiment 59 or 60, further comprising disconnecting the user/harness combination from the at least one zip line **20**.

62. The method of any one of embodiments 59 to 61, wherein the user/harness combination moves along the first and second rows **110/111** of trampoline jumping surfaces **101/101'.**

[0019] It should be understood that although the above-described trampoline systems, and methods are described as "comprising" one or more components or steps, the above-described trampoline systems, and methods may "comprise," "consists of," or "consist essentially of' any of the above-described components or steps of the trampoline systems, and methods. Consequently, where the present invention, or a portion thereof, has been described with an open-ended term such as "comprising," it should be readily understood that (unless otherwise stated) the description of the present invention, or the portion thereof, should also be interpreted to describe the present invention, or a portion thereof, using the terms "consisting essentially of' or "consisting of' or variations thereof as discussed below.

[0020] As used herein, the terms "comprises," "comprising," "includes," "including," "has," "having," "contains", "containing," "characterized by" or any other variation thereof, are intended to encompass a non-exclusive inclusion, subject to any limitation explicitly indicated otherwise, of the recited components. For example, a trampoline system and/or method that "comprises" a list of elements (e.g., components or steps) is not necessarily limited to only those elements (or components or steps), but may include other elements (or components or steps) not expressly listed or inherent to the trampoline

system and/or method.

[0021] As used herein, the transitional phrases "consists of' and "consisting of' exclude any element, step, or component not specified. For example, "consists of' or "consisting of' used in a claim would limit the claim to the components, materials or steps specifically recited in the claim except for impurities ordinarily associated therewith (i.e., impurities within a given component). When the phrase "consists of' or "consisting of' appears in a clause of the body of a claim, rather than immediately following the preamble, the phrase "consists of' or "consisting of' limits only the elements (or components or steps) set forth in that clause; other elements (or components) are not excluded from the claim as a whole.

[0022] As used herein, the transitional phrases "consists essentially of' and "consisting essentially of' are used to define a protective trampoline system and/or method that includes materials, steps, features, components, or elements, in addition to those literally disclosed, provided that these additional materials, steps, features, components, or elements do not materially affect the basic and novel characteristic(s) of the claimed invention. The term "consisting essentially of' occupies a middle ground between "comprising" and "consisting of'.

[0023] Further, it should be understood that the herein-described trampoline systems and/or methods may comprise, consist essentially of, or consist of any of the herein-described components and features, as shown in the figures with or without any feature(s) not shown in the figures. In other words, in some embodiments, the trampoline systems and/or methods of the present invention do not have any additional features other than those shown in the figures, and such additional features, not shown in the figures, are specifically excluded from the trampoline systems and/or methods. In other embodiments, the trampoline systems and/or methods of the present invention do have one or more additional features that are not shown in the figures.

[0024] The present invention is further illustrated by the following examples, which are not to be construed in any way as imposing limitations upon the scope thereof. On the contrary, it is to be clearly understood that resort may be had to various other embodiments, modifications, and equivalents thereof which, after reading the description herein, may suggest themselves to those skilled in the art without departing from the spirit of the present invention and/or the scope of the appended claims.

EXAMPLE 1

[0025] Trampoline systems, similar to exemplary trampoline system **100** shown in FIGS. **1-6**, were prepared.

[0026] While the specification has been described in detail with respect to specific embodiments thereof, it will be appreciated that those skilled in the art, upon attaining an understanding of the foregoing, may readily conceive of alterations to, variations of, and equivalents to these embodiments. Accordingly, the scope of the present invention should be assessed as that of the appended claims and any equivalents thereto.

[0027] Trampoline systems containing multiple trampoline jumping surfaces and at least one zip line are disclosed. Methods of making and using trampoline systems containing multiple trampoline jumping surfaces and at least one zip line are also disclosed.

Claims

1. A trampoline system comprising:

one or more trampoline jumping surfaces; and at least one zip line extending (i) along an outer edge of at least one trampoline jumping surface within said one or more trampoline jumping surfaces, (ii) over at least one trampoline jumping surface within said one or more trampoline jumping surfaces, or (iii) both (i) and (ii).

2. The trampoline system of claim 1, wherein said trampoline system comprises four or more trampoline jumping surfaces.

3. The trampoline system of claim 1 or 2, wherein said trampoline system comprises from four to 80 trampoline jumping surfaces.

4. The trampoline system of any one of claims 1 to 3, wherein one or more of said trampoline jumping surfaces is within a plane **P** that is parallel to a ground surface on which the trampoline system is positioned, and one or more of said trampoline jumping surfaces is positioned at an angle **A** relative to plane **P.**

5. The trampoline system of claim 4, wherein angle A ranges from about 15 ° to about 90°.

6. The trampoline system of any one of claims 1 to 5, further comprising:

a trampoline support structure, said trampoline support structure comprising a support structure frame member (i) having an uppermost frame portion, and (ii) a lowermost frame portion on a ground surface, wherein said uppermost frame portion and said lowermost frame portion are positioned a distance **H** from one another, said distance **H** ranging from about 5.0 feet (ft) to about 20 ft, and said uppermost frame portion is positioned a distance $\mathbf{d_s}$ above one or more of said trampoline jumping surfaces, said distance $\mathbf{d_s}$ ranging from about 5.0 ft to about 16 ft.

7. The trampoline system of any one of claims 1 to 6, wherein opposite ends of said at least one zip line

are each independently attached to a trampoline support structure of said trampoline system.

8. The trampoline system of any one of claims 1 to 7, wherein said at least one zip line extends along an uppermost outer edge of at least one trampoline jumping surface within said one or more trampoline jumping surfaces.

9. The trampoline system of any one of claims 1 to 8, wherein said at least one zip line comprises a single zip line.

10. The trampoline system of any one of claims 1 to 9, wherein said at least one zip line comprises two or more zip lines and each of said two or more zip lines have opposite ends that are each independently attached to a trampoline support structure of said trampoline system.

11. The trampoline system of any one of claims 1 to 10, wherein said one or more trampoline jumping surfaces comprises (a) a first row of trampoline jumping surfaces within a plane **P** that is parallel to a ground surface on which the trampoline system is positioned, and (ii) a second row of angled trampoline jumping surfaces positioned within a plane **P'** at an angle **A** relative to plane **P.**

12. The trampoline system of any one of claims 1 to 11, further comprising:

one or more harnesses (not shown) sized to be worn by a user, each of said one or more harnesses being connectable to said at least one zip line by a connecting line (not shown).

13. A method of making the trampoline system of any one of claims 1 to 12, said method comprising:

assembling the one or more trampoline jumping surfaces with one another; and
attaching at least one zip line to the trampoline system so that the at least one zip line extends (i) along an outer edge of at least one trampoline jumping surface within the one or more trampoline jumping surfaces, (ii) over at least one trampoline jumping surface within the one or more trampoline jumping surfaces, or (iii) both (i) and (ii).

14. A method of using the trampoline system of any one of claims 1 to 12, said method comprising:

jumping on at least one of the one or more trampoline jumping surfaces while being attached to the at least one zip line.

15. The method of claim 14, wherein the one or more trampoline jumping surfaces comprise (i) a first row of trampoline jumping surfaces within a plane P that is parallel to a ground surface on which the trampoline system is positioned, and (ii) a second row of angled trampoline jumping surfaces within a plane **P'** positioned at an angle **A** relative to plane **P**, and the method further comprises:

allowing a user/harness combination to move along the first and second rows of trampoline jumping surfaces.

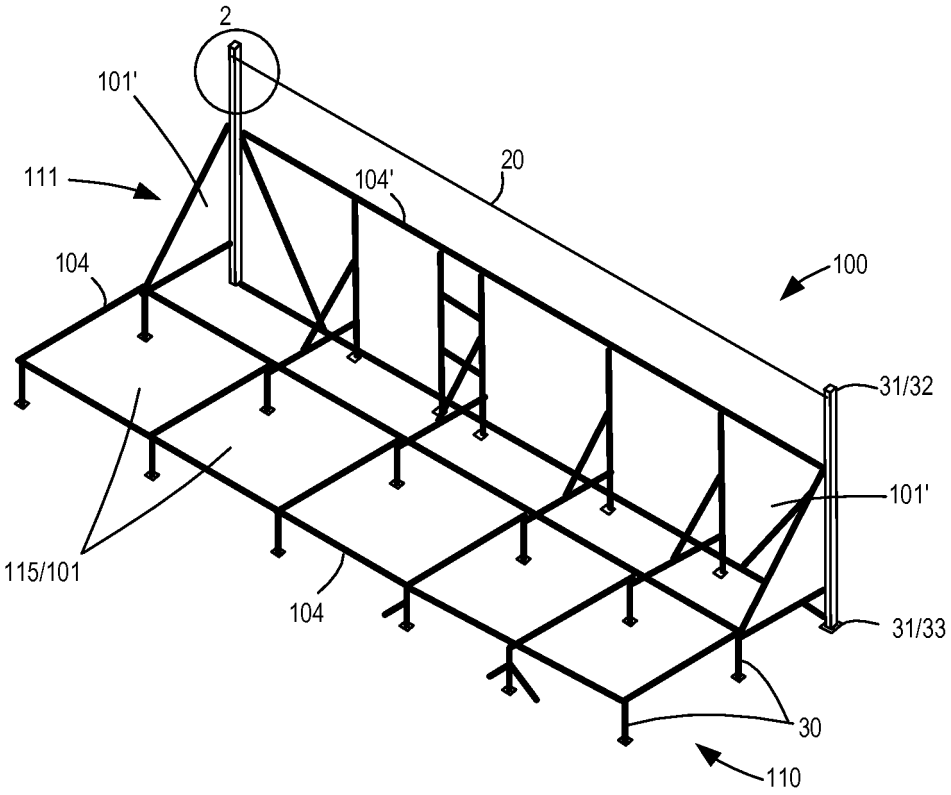

Fig. 1

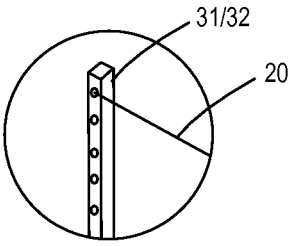

Fig. 2

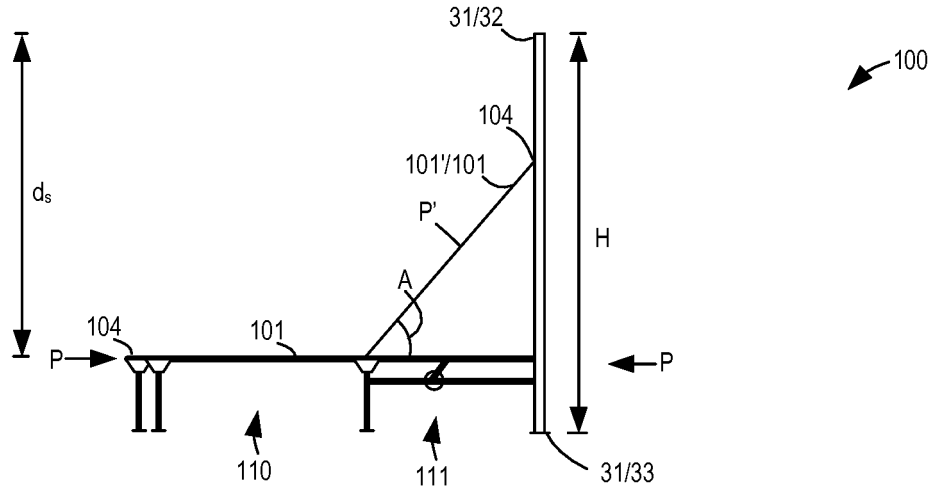
31/32
100
104
101'/101
d_s
P'
H
A
104
101
P
P
110
111
31/33

Fig. 3

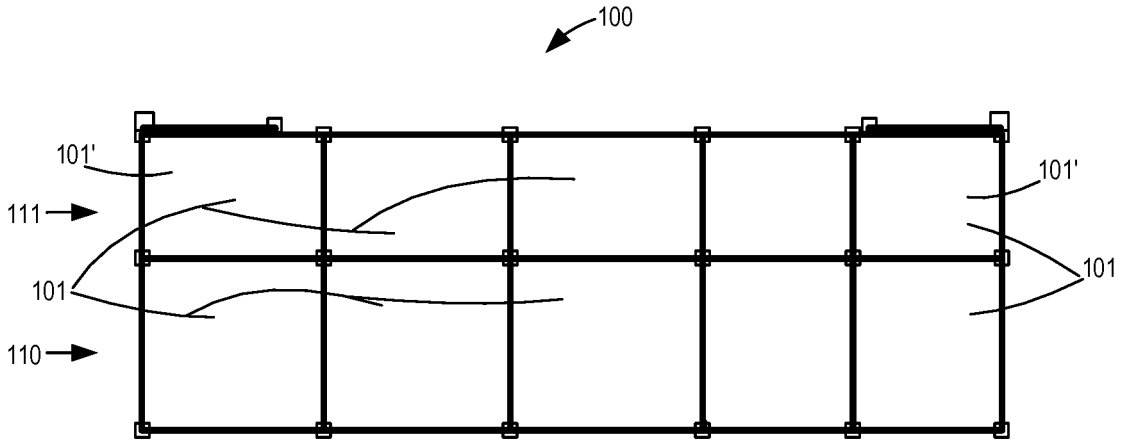
100
101'
101'
111
101
101
110

Fig. 4

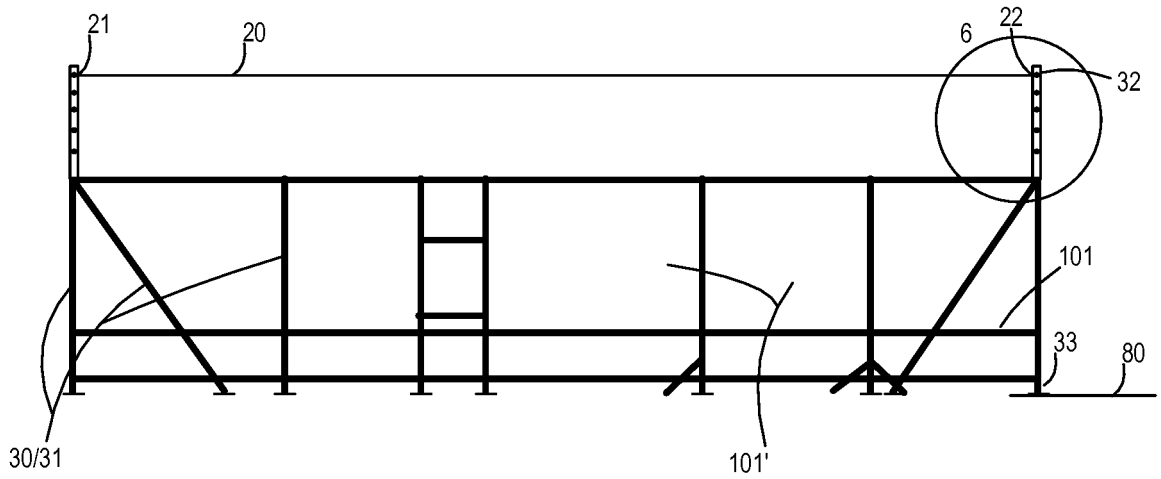

Fig. 5

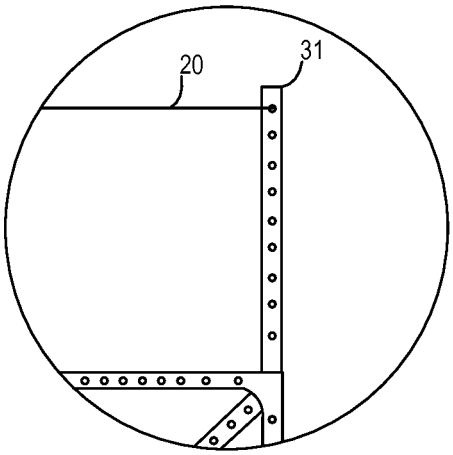

Fig. 6

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EUROPEAN SEARCH REPORT

Application Number
EP 18 20 7731

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Place of search	Date of completion of the search	Examiner
Munich	8 January 2019	Jekabsons, Armands

CATEGORY OF CITED DOCUMENTS

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