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Outdoor Workout Station

Abstract

A novel outdoor workout station includes a platform, an exercise structure, and a canopy assembly. The exercise structure is disposed on and fixed to the platform, and the canopy assembly is disposed over both the exercise structure and the platform. The arrangement of support beams of the platform corresponds to a footprint of the exercise structure. In a particular embodiment, the platform includes adjustable legs that facilitate the leveling of the platform. In another particular embodiment, the canopy assembly is mounted directly to the platform.

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Background/Summary

RELATED APPLICATIONS [0001] This application is a continuation of co-pending U.S. patent application Ser. No. 18/207,374, filed on Jun. 8, 2023 by the same inventors, which is a continuation of U.S. patent application Ser. No. 17/319,397, filed on May 13, 2021 by the same inventors, which claims the benefit of priority of U.S. Provisional Patent Application No. 63/024,404, filed on May 13, 2020 by the same inventors, and also claims the benefit of priority of U.S. Provisional Patent Application No. 63/029,905, filed on May 26, 2020 and having at least one common inventor. [0002] All prior applications are incorporated herein by reference in their respective entirety.

BACKGROUND OF THE INVENTION

Field of the Invention

[0003] This invention relates generally to workout equipment, and more particularly to outdoor workout equipment.

Description of the Background Art

[0004] Many exercise enthusiasts prefer exercising outdoors. For example, outdoor weight lifting facilities are popular in regions where warm weather prevails. One challenge with outdoor weight lifting facilities is that inclement weather (e.g. rain) is often unpredictable, thereby resulting in unpredictable operating times in such facilities. Another challenge is that what may be preferred weather to one individual may not necessarily be preferred by another. For example, many individuals prefer to be exposed to intense sunlight while working out while others prefer to be shielded from direct sunlight. Another challenge with outdoor weight lifting facilities is that it is difficult to stabilize and level heavy weight lifting equipment on the ground. Another challenge with outdoor weight lifting facilities is that puddles often accumulate on the ground around the equipment after it rains. Of course, most people are not willing to stand in a puddle during their exercise routine so they must wait for it to dry. Yet another problem with outdoor weight lifting facilities is that slippery ground can be dangerous, especially to athletes lifting heavy weights, where even a minor slip can result in a serious injury.

SUMMARY

[0005] The present invention overcomes the problems associated with the prior art by providing an outdoor workout station. The invention provides a safe, stable environment for heavy exercise equipment, even on unlevel ground.

[0006] An example workout station includes an exercise structure, a platform, and a canopy. The platform is configured to support the exercise structure thereon. The canopy assembly can include a frame coupled to the platform and a cover supported over the platform by the frame. In the example workout station, the platform can include a frame and a plurality of legs. The legs can be coupled to the frame of the platform, and each of the legs can include a bottom portion and an opposite top portion. Each bottom portion can be configured to rest on an underlying supporting surface. Each top portion can be adjustably coupled to the frame of the platform to facilitate the leveling of the platform by raising and lowering each leg with respect to the platform.

[0007] In an example workout station, the frame of the platform can include a first beam extending along a first direction and a second beam extending along a second direction parallel to the first direction. The example exercise structure can include a first bottom portion and a second bottom portion. The first bottom portion is configured to support at least a portion of the weight of the exercise structure and is disposed over the first beam of the platform. The second bottom portion is configured to support at least a portion of the weight of the exercise structure and is disposed over the second beam. The first bottom portion of the exercise structure can be fixed to the first beam, and the second bottom portion of the exercise structure can be fixed to the second beam.

[0008] In a particular example workout station, the exercise structure can include a first beam extending along a third direction that is parallel to the first direction of the first beam of the frame of the platform. The first beam of the exercise structure can form the first bottom portion of the exercise structure and is disposed over the first beam of the frame of the platform. The exercise structure can also include a second beam extending along a fourth direction that is parallel to the second direction of the second beam of the frame of the platform. The second beam of the exercise structure can form the second bottom portion of the exercise structure and is disposed over the second beam of the frame of the platform. The exercise structure can additionally include a first column extending upward from the first beam of the exercise structure and a second column extending upward from the second beam of the exercise structure.

[0009] In an example workout station, the frame of the platform can include a third beam and a fourth beam. The third beam can extend along a third direction that is perpendicular to the first direction (i.e., of the first beam) and includes a first end and an opposite second end. The fourth beam can extend along a fourth direction that is parallel to the third direction (i.e., of the third beam) and includes a first end and an opposite second end. The first beam of the frame of the platform includes a first end and an opposite second end, and the second beam of the frame of the platform includes a first end and an opposite second end. The first end of the first beam of the frame of the platform can be coupled to the first end of the third beam of the frame of the platform, and the second end of the first beam of the frame of the platform can be coupled to the first end of the fourth beam of the frame of the platform. Additionally, the first end of the second beam of the frame of the platform can be coupled to the second end of the third beam of the frame of the platform, and the second end of the second beam of the frame of the platform can be coupled to the second end of the fourth beam of the frame of the platform.

[0010] In an example workout station, the plurality of legs can include a first leg, a second leg, a third leg, and a fourth leg. The first leg can be disposed proximate the first end of the first beam of the frame of the platform and proximate the first end of the third beam of the frame of the platform. The second leg can be disposed proximate the second end of the first beam of the frame of the platform and proximate the first end of the fourth beam of the frame of the platform. The third leg can be disposed proximate the first end of the second beam of the frame of the platform and proximate the second end of the third beam of the frame of the platform. The fourth leg can be disposed proximate the second end of the second beam of the frame of the platform and proximate the second end of the fourth beam of the frame of the platform.

[0011] An example workout station can additionally include a first panel (e.g., flooring). The first panel can be supported by and between the first beam of the frame of the platform, the second beam of the frame of the platform, the third beam of the frame of the platform, and the fourth beam of the frame of the platform. Optionally, the example workout station can additionally include a second panel supported on the first panel.

[0012] In an example workout station, the frame of the platform can further include a fifth beam, a sixth beam, a seventh beam, an eighth beam, a ninth beam, and a tenth beam. The fifth beam includes a first end and an opposite second end and can extend along a direction that is parallel to the first direction (i.e., parallel to the first beam). The sixth beam includes a first end and an opposite second end and can extend along the third direction (i.e., of the third beam). The seventh

beam includes a first end and an opposite second end and can extend along the fourth direction (i.e., of the fourth beam). The eighth beam includes a first end and an opposite second end and can extend along a direction that is parallel to the first direction. The ninth beam includes a first end and an opposite second end and can extend along the third direction. The tenth beam includes a first end and an opposite second end and can extend along the fourth direction. The first end of the fifth beam of the frame of the platform can be coupled to the second end of the sixth beam of the frame of the platform, and the second end of the fifth beam of the frame of the platform can be coupled to the second end of the seventh beam of the frame of the platform. The first end of the sixth beam can be coupled to at least one of the first end of the second beam of the frame of the platform and the second end of the third beam of the frame of the platform. The first end of the seventh beam can be coupled to at least one of the second end of the second beam of the frame of the platform and the second end of the fourth beam of the frame of the platform. The first end of the eighth beam of the frame of the platform can be coupled to the first end of the ninth beam of the frame of the platform, and the second end of the eighth beam of the frame of the platform can be coupled to the first end of the tenth beam of the frame of the platform. The second end of the ninth beam can be coupled to at least one of the first end of the first beam of the frame of the platform and the first end of the third beam of the frame of the platform. The second end of the tenth beam can be coupled to at least one of the second end of the first beam of the frame of the platform and the first end of the fourth beam of the frame of the platform. So connected, the beams of the platform form a frame with three adjacent rectangular sections that can be assembled and/or leveled sequentially, starting with the center section.

[0013] In the example workout station, the plurality of leveling legs includes a first leg, a second leg, a third leg, a fourth leg, a fifth leg, a sixth leg, a seventh leg, and an eighth leg. The first leg can be disposed proximate the first end of the first beam of the frame of the platform, and the second leg can be disposed proximate the second end of the first beam of the frame of the platform. The third leg can be disposed proximate the first end of the second beam of the frame of the platform, and the fourth leg can be disposed proximate the second end of the second beam of the frame of the platform. The fifth leg can be disposed proximate the first end of the fifth beam of the frame of the platform, and the sixth leg can be disposed proximate the second end of the fifth beam of the frame of the platform. The seventh leg can be disposed proximate the first end of the eighth beam of the frame of the platform, and the eighth leg can be disposed proximate the second end of the eighth beam of the frame of the platform.

[0014] An example workout station can additionally include a first floor panel, a second floor panel, and a third floor panel. The first floor panel can be supported by and between the first beam, the second beam, the third beam, and the fourth beam of the frame of the platform. The second floor panel can be supported by and between the second beam, the fifth beam, the sixth beam, and the seventh beam of the frame of the platform. The third floor panel can be supported by and between the first beam, the eighth beam, the ninth beam, and the tenth beam of the frame of the platform. In a particular example workstation, the second floor panel and the third floor panel have the same size and/or shape.

[0015] The example workout station can additionally include a fourth floor panel, a fifth floor panel, and a sixth floor panel. The fourth floor panel can be supported on the first floor panel, the fifth floor panel can be supported on the second floor panel, and the sixth floor panel can be supported on the third floor panel. The first floor panel and the fourth floor panel have the same shape and/or size. The second floor panel, the third floor panel, the fifth floor panel, and the sixth floor panel can all have the same shape and/or size.

[0016] In an example workout station, the frame of the platform can be supported by the plurality of legs. The exercise structure can be supported by the platform, and the frame of the canopy can also be supported by the platform.

[0017] In an example workout station, the platform can include a first support beam and a second

support beam, and the exercise structure defines a footprint on the platform. The footprint can include a first portion disposed over the first support beam and a second portion disposed over the second support beam. The first portion of the footprint can have a center, and the center of the first portion of the footprint can be disposed over the first support beam. The second portion of the footprint can also have a center, and the center of the second portion of the footprint can be disposed over the second beam.

[0018] In a particular example workout station, the exercise structure can be a weight rack. The weight rack can have a first side frame, a second side frame, and one or more transverse members coupling the first side frame to the second side frame. The first support beam can extend along a first direction, and the second support beam extends along a second direction. The first side frame can have an elongated bottom member extending along the first direction and defining the first portion of the footprint, and the second side frame can have an elongated bottom member extending along the second direction and defining the second portion of the footprint.

[0019] In the example workout station, the position of the weight rack on the platform can be selectively adjustable. The first support beam can be substantially parallel to the second support beam. The first support beam can define a plurality of attachment apertures, and the second support beam defines a complementary second plurality of attachment apertures. The elongated bottom member of the first side frame can be substantially parallel to the elongated bottom member of the second side frame. The elongated bottom member of the first side frame can define a third plurality of attachment apertures, and the elongated bottom member of the second side frame can define a complementary fourth plurality of attachment apertures. The first plurality of attachment apertures can include a greater number of attachment apertures than the third plurality of attachment apertures, and the second plurality of attachment apertures can include a greater number of apertures than the fourth plurality of attachment apertures. The apertures of the third plurality of attachment apertures can be arranged to align with different subsets of attachment apertures of the first plurality of attachment apertures, and the apertures of the fourth plurality of attachment apertures can be arranged to align with different subsets of attachment apertures of the second set of attachment apertures. The position of the weight rack on the platform can be adjusted by selectively aligning the third plurality of attachment apertures with a particular one of the subsets of attachment apertures of the first set of attachment apertures, and selectively aligning the fourth plurality of attachment apertures with a particular one of the subsets of attachment apertures of the second set of attachment apertures. Fasteners can be disposed through the aligned attachment apertures to secure the weight rack to the beams of the platform.

[0020] An example workout station can include a weight rack, a platform, and a canopy. The weight rack can include a tubular frame, and the tubular frame can include a plurality of bottom tubes arranged together to rest on a flat surface of the platform. The platform can be configured to support the weight rack thereon, and the platform can include a plurality of support beams arranged to correspond to the bottom tubes of the weight rack. The bottom tubes of the weight rack can be mechanically fastened to the support beams of the platform. The platform can additionally include a plurality of leveling legs. The canopy can be disposed to shade at least a portion of the platform.

Description

BRIEF DESCRIPTION OF THE DRAWINGS

[0021] The present invention is described with reference to the following drawings, wherein like reference numbers denote substantially similar elements:

[0022] FIG. 1 is a perspective view of an outdoor weight station;

[0023] FIG. 2 is a perspective view of a platform and an exercise structure of the outdoor weight station of FIG. 1;

[0024] FIG. 3 is a front plan view of the outdoor weight station of FIG. 1;

[0025] FIG. 4 is a perspective view of an intermediate structure of the frame of the platform of FIG. 1;

[0026] FIG. 5 is an exploded perspective view of the frame of the platform of FIG. 1;

[0027] FIG. 6 is a perspective view of the platform of FIG. 1 with a plurality of floor panels exploded therefrom;

[0028] FIG. 7 is a perspective view of a plurality of brackets of the canopy assembly of FIG. 1 coupled to and exploded from the platform of FIG. 1;

[0029] FIG. 8 is a perspective view of the platform and frame of the canopy assembly of FIG. 1;

[0030] FIG. 9 is a perspective view of the platform and canopy assembly of FIG. 1;

[0031] FIG. 10 is a cross-sectional plan view of the platform of FIG. 1 taken along line A-A of FIG. 7;

[0032] FIG. 11 shows a cross-sectional plan view of the platform of FIG. 1 taken along line B-B of FIG. 7; and

[0033] FIG. 12 shows a bottom perspective view of a corner of the platform of FIG. 1.

DETAILED DESCRIPTION

[0034] The present invention overcomes the problems associated with the prior art, by providing an outdoor workout station including a platform and a canopy. The platform supports exercise equipment thereon, and the canopy is disposed over the platform. In the following description, numerous specific details are set forth (e.g., fasteners, materials, etc.) in order to provide a thorough understanding of the invention. Those skilled in the art will recognize, however, that the invention may be practiced apart from these specific details. In other instances, details of well-known manufacturing practices (e.g., stock extrusion, material strengthening, etc.) and components have been omitted, so as not to unnecessarily obscure the present invention.

[0035] FIG. 1 shows a perspective view of an outdoor workout station **100** including a platform **102** supporting an exercise structure **104** and a canopy assembly **106**. Platform **102** is disposed on a relatively uneven underlying support surface such as, for example, the ground, pavement, etc. Further, platform **102** is slightly suspended and leveled over the underlying support surface, so that exercise structure **102** is also level. Canopy assembly **106** is disposed over platform **102** to shelter platform **102** and exercise structure **104** from the outdoor elements such as rain, sunlight, etc. Canopy assembly **106** includes a cover **108** supported on a frame **110**. Cover **108** is formed from material that blocks, or at least impedes, light and precipitation. Frame **110** is disposed over, and is supported by, platform **102**. Alternatively, canopy assembly **106** may be disposed directly on the underlying support surface independently from platform **102**.

[0036] FIG. 2 is a perspective view of outdoor workout station **100** with canopy assembly **106** removed. Platform **102** includes a plurality of floor panels **200**, a frame **202**, and a plurality of adjustable legs **204**. Floor panels **200** are supported on frame **202**, and frame **202** is supported on legs **204**.

[0037] Panels **200** provide a planar surface upon which users stand when using workout station **100** and are formed, for example, from sheets of wood (e.g., oriented strand board, plywood, and so on) or any other sufficiently strong and tough sheet material (e.g., polymer, metal, and so on). Floor panels **200** can also include layers formed of other materials (e.g., rubber, plastic, and so on) to provide desirable characteristics such as a non-slip surface. Specific details of panels **200** will be described in further detail with reference to FIG. 6.

[0038] Frame **202** provides structural support to exercise structure **104** and canopy assembly **106** (shown in FIG. 1), and includes a plurality of metal (e.g., steel, stainless steel, aluminum, etc.) beams. Specific details of frame **202** will be described in further detail with reference to FIGS. 4-7.

[0039] Each of legs **204** includes a column **206** having a bottom portion and a top portion. A foot plate **208** is attached to bottom portion of column **206**, and the top portion of column **206** facilitates vertical height adjustability. More specifically, each column **206** is adjustably received within a

respective column receiver **210**, each of which is attached (e.g. welded) to frame **202**, to facilitate the leveling of platform **102** on the ground. The distance between each foot plate **208** and respective column receiver **210** can be adjusted by moving the column **206** up or down within the respective column receiver **210**. When the desired distance between foot plate **208** and frame **202** is achieved, column **206** is fixed with respect to column receiver **210** by advancing bolts **212** through respective nuts **214** to engage column **206**. In this example embodiment, nuts **214** are welded to the sidewalls of receiver **210** and include threaded apertures that pass completely through the sidewalls, such that bolts **212** engage the exterior surface of column **206** when tightened. However, any suitable means of fixing the position of foot plate **208** with respect to frame **202** can be employed including, but not limited to pins/apertures, screw jack, scissor jack, and so on. Each foot plate **208** has an enlarged area that disperses the supported weight and prevents the respective leg **204** attached thereto from sinking into the underlying soil when the weight of workout station **100** is exerted thereon. Each foot plate **208** additionally includes a plurality of apertures **215** that facilitate fixing foot plate **208** to an underlying surface (e.g., soil, asphalt, and so on).

[0040] In the example embodiment, exercise structure **104** is a weight rack that is configured to support a plurality of weights and other miscellaneous equipment (e.g., weight bars, chin-up bars, a bench, etc.). Exercise structure **104** is a modular structure that includes a frame **216**, various weight holders **218**, a bar holder **220**, and two feet **222**. Frame **216** provides structural support to weight holders **218**, bar holder **220**, and any weights and/or weight bars disposed thereon. Frame **206** includes a plurality of apertures **224**, which facilitate the selective re-positioning of weight holders **218** and bar holder **220** into any desirable configuration. Furthermore, apertures **224** allow various miscellaneous components (e.g., weight holders, bar holders, pull-up handles, etc.) to be added to and/or removed from frame **216** according to user preference. As shown, the spacing between feet **222** of frame **216** is substantially the same as the spacing between a respective set of underlying beams **226** of frame **202**. This allows the weight of exercise structure **104**, and any additional weight loaded thereon, to be exerted directly on beams **226** and not panels **200**. In addition, because exercise structure **104** can be set up in a number of different configurations, the position of exercise structure **104** can be adjusted forward and backward and secured in any one of a number of different predefined discrete positions. However, the footprint of exercise structure **104** remains the same, regardless of the particular configuration, and therefore remains aligned with beams **226** of frame **110**.

[0041] U.S. Provisional Patent Application No. 63/029,905, which is incorporated herein by reference in its entirety, discloses a modular weight station capable of multiple configurations. Because those configurations are built upon exercise structure **104**, they have the same or similar footprint as exercise structure **104**. Therefore, any or all of those configurations can be advantageously used in combination with platform **102** or an extended version of platform **102**.

[0042] In addition, other types of exercise equipment can be used in conjunction with platform **102**, as long as there is some correspondence between beams **226** and the footprint of the particular exercise equipment. For example, an elliptical running machine might have a footprint that includes four separate foot pads, and be positioned with two of the footpads being located over a portion of one of beams **226**, and the other two footpads being located over the other of beams **226**. In addition, corresponding apertures could be provided in the footpads to facilitate securement of the footpads to beams **226**. As another example, a piece of exercise equipment might have a footprint including one or more irregular shapes. A portion of the irregular shapes sufficient to bear the load of the equipment could be positioned over beams **226**. Preferably, but not necessarily, the center of each respective portion of a footprint would be positioned over one of beams. As yet another example, elongated footprints extending perpendicularly with respect to beams **226** could be arranged so that each opposite end of the footprint extends over one of beams **226**.

[0043] FIG. 3 shows a front plan view of workout station **100**. As shown, each of the middle legs **204** is directly aligned with a respective one of beams **226** and, therefore, feet **222** of exercise

structure **104**. This causes the majority (sometimes the entirety) of the load of exercise structure **104** and weights loaded thereon to be supported on the middle four legs **204**. However, frame **202** might also transfer part of the load to the four corner legs **204** if circumstances, such as supporting terrain, require.

[0044] The components of workout station **100** will now be described in greater detail with reference to FIGS. **4-9**, after which an example method of assembling workout station **100** will be summarized with reference to the same FIGS. **4-9**.

[0045] FIG. **4** shows a perspective view of an intermediate structure **400** of frame **202** and four of legs **204** exploded therefrom. Structure **400** includes two short beams **402** fixed between two long beams **226** to, together, form a rigid rectangular structure. In example workout station **100**, beams **402** and **226** are welded together, but beams **402** and **226** can alternatively be fastened together with brackets, bolted directly to one another, or connected in any other way to facilitate disassembly. Each of beams **402** includes an inside planar sidewall **404** and an opposite outside planar sidewall **406**. The first ends of beams **226** are fixed to inside planar sidewall **404** of a first one of beams **402**, and the opposite, second ends of beams **226** are fixed (e.g. welded) to the inside planar sidewall **404** of the second one of beams **402**. Each outside planar sidewall **406** of respective beams **402** is fixed to a respective two of receivers **210** by, for example, welding.

[0046] FIG. **5** shows a perspective view of two side structures **500** and four couplers **502** of frame **202** exploded from intermediate structure **400**. Each of structures **500** includes a long beam **504** interposed between two short beams **506**, wherein short beams **506** are perpendicular to beam **504**. Beams **506** are fixed to beam **504** by, for example, welding. Further, each of beams **506** is coaxially aligned with a respective beam **402** and a respective couplers **502**. Each side structure **500** further includes a set of two receivers **210** attached thereto by, for example, welding.

[0047] Coupler **502** facilitates the mounting of beams **506** to beams **402**. The outer diameter of each coupler **502** is slightly less than the inner diameter of beams **402** and **506**, such that a single coupler **502** can be simultaneously inserted into both beams **402** and **506**. Coupler **502** defines a first set of holes **508** and second set of holes **510**. Holes **508** are spaced to align with a respective two slots **512** of beam **402** and holes **510** are spaced to align with a respective two slots **514** of beam **506**. The coupling of coupler **502** to beam **402** includes partially inserting coupler **502** into beam **402** until holes **508** of coupler **502** align with slots **512** of beam **402**. Once aligned, bolts (not shown) are disposed through both slots **512** and holes **508**, then secured in place by a respective set of nuts (not shown). Likewise, the coupling of beam **506** to the opposite end of coupler **502** includes partially inserting coupler **502** into beam **506** until holes **510** of coupler **502** align with slots **514** of beam **506**. Once aligned, bolts are disposed through both slots **514** and holes **510**, then secured in place by respective nuts.

[0048] FIG. **6** shows a perspective view of floor panels **200** exploded from assembled frame **202**. In the example workout station **100**, panels **200** include a bottom layer of three coplanar oriented strand board (OSB) wood panels **600**, a middle layer of three coplanar OSB wood panels **602**, and a top layer of three coplanar rubberized panels **604**, all arranged into three discrete stacks. The middle stack is configured to be seated in between beams **226** of intermediate structure **400** of frame **202**. Each side stack is configured to be seated in between a respective one of beams **504** and a respective one of beams **226**. Each of the three panels **600** and three panels **602** provide structural flooring support to platform **102**. Panels **604** provide impact resistance for weights which might fall on top of platform **102**, slip resistance for persons standing on platform **102**, and so on. Panels **200** are supported by lipped features that will be described with reference to FIGS. **9-10**.

[0049] FIG. **7** is a perspective view of a plurality of corner brackets **700** and center brackets **702** of frame **110** of canopy **106** mounted on frame **202** of platform **102**. Brackets **700** and **702** are configured to receive the bottom ends of frame tubes **704** (shown in FIG. **8**) of frame **110**. Each of brackets **700** and **702** includes an open top end wherein the bottom ends of frame tubes **704** are inserted during assembly. The inner dimensions of the square stock are slightly larger than the outer

diameter of frame tubes **704**. Each of brackets **700** and **702** also define bolt holes that coaxially align with complementary bolt holes formed in frame **202**. In this example, brackets **700** and **702** are formed from sections of square stock that are welded together.

[0050] FIG. **8** shows a perspective view of frame tubes **704** being inserted into brackets **700** and **702**, with brackets **700** and **702** bolted to platform **102**. As shown, each of frame tubes **704** is inserted into a respective two brackets (one end in each bracket). That is, the opposing open ends of front frame tube **704** are inserted into a respective two brackets **700**, the opposing open ends of rear frame tube **704** are inserted into a respective two brackets **700**, and the opposing open ends of the middle frame **704** are inserted into respective brackets **702**. The ends of frame tubes **704** are removably secured in brackets **700**, **702** by fasteners (not shown) of any suitable type (e.g., pins, detens, set screws, nuts and bolts, and so on).

[0051] FIG. **9** shows a perspective view of platform **102** and canopy assembly **106** wherein cover **108** is disposed over, and supported by, frame tubes **704**. Cover **108** may be fixed to frame tubes **704** by any suitable fastening means such as, for example, rope, straps, cables, etc.

[0052] The assembly of platform **102** and canopy assembly **106** will now be described with reference to FIGS. **4-9**.

[0053] Initially, intermediate structure **400** of frame **202** is assembled by positioning one of columns **206** into each of the four receivers **210** attached to intermediate structure **400**, as illustrated in FIG. **4**. Intermediate structure **400** is then leveled on the underlying supporting surface by adjusting the vertical positions of the four legs **204** as described with reference to FIG. **2**. Once intermediate structure **400** is level, the legs **204** are fixed in position with respect to intermediate structure **400**.

[0054] With intermediate structure **400** assembled and leveled, both side structures **500** are added to the assembly and leveled as illustrated in FIG. **5**. Initially, four couplers **502** are coupled to intermediate structure **400**. Specifically, each of the four couplers **502** are inserted into a respective open end of the two beams **402** of intermediate structure **400**, until all holes **508** are aligned with respective slots **512**. Once aligned, a bolt is inserted through each of slots **512** and, therefore, through each of complementary holes **508**. Each bolt is then secured in place with a complementary nut. Optionally, the nuts may be left slightly loose so that the position of couplers **502** with respect to intermediate structure **400** can be adjusted slightly if needed. With couplers **502** extending from each open end of beams **402**, each coupler **502** is inserted into a respective open end of a respective one of beams **506** until slots **514** of beams **506** are aligned with holes **510** of couplers **502**. Once aligned, a bolt is inserted through each of slots **514** and, therefore, through complementary holes **510**, and then secured in place with complementary nuts. Optionally, the nuts may be left slightly loose so that the position of side structures **500** with respect to intermediate structure **400** can be adjusted slightly if needed. The height of legs **204** of side structures **500** are then adjusted until side structures **500** are level with intermediate structure **400**. Once leveled, the nuts and bolts passing through couplers **502** are all tightened, resulting in a rigid, level frame **202**.

[0055] With frame **202** assembled and leveled, panels **200** are positioned therein as illustrated in FIG. **6**. That is, panels **600** are positioned on frame **202**, panels **602** are positioned on panels **600**, and panels **604** are positioned on panels **602**.

[0056] With platform **102** assembled, as illustrated in FIG. **7**, brackets **700** and **702** are then bolted to frame **202**. Note that exercise structure **104** may be loaded onto platform **102** after platform **102** is assembled and leveled. The loading of exercise structure **104** onto platform **102** may be carried out before or after canopy assembly **106** is assembled onto platform **102**. Optionally, canopy assembly **106** may be omitted such that exercise structure **104** may be used on platform **102** without being shielded from the elements (i.e. rain, sunlight).

[0057] With brackets **700** and **702** bolted to frame **202**, frame tubes **704** are then mounted to brackets **700** and **702**, as illustrated in FIG. **8**. That is, the open ends of frame tubes **704** are inserted into the upward facing open ends of brackets **700** and **702**. The ends of frame tubes **704** are then

secured in brackets **700** and **702** with fasteners (not shown). With frame **110** of canopy **106** assembled onto platform **102**, cover **108** is positioned over frame **110** and then secured thereto as illustrated in FIG. **9**.

[0058] FIG. **10** is a cross-sectional view of platform **102** taken along line A-A of FIG. **7**. As shown, beam **226** includes a section of square stock **1000** interposed between two sections of angle bar **1002**. Specifically, each section of angle bar **1002** is welded (or otherwise fixed) to a respective opposing outer sidewall of square stock **1000** to form a horizontal lip that supports panels **200**. The total thickness of panels **200** is such that the top planar surfaces of the stacks of panels **604** are flush to the top planar surfaces of beam **226**.

[0059] FIG. **11** is a cross-sectional view of platform **102** taken along line B-B of FIG. **7**. Beam **504** includes a section of square stock **1100** and a section of angle bar **1102**. Angle bar **1102** is welded (or otherwise fixed) to the planar sidewall of square stock **1100** to form a horizontal lip that supports panels **200**.

[0060] FIG. **12** shows a bottom perspective view of one of the four corners of platform **102**. Each corner of platform **102** includes an attachment plate **1200** (only one shown in FIG. **12**) bolted to the planar bottom surface of beams **504**. Accordingly, platform **102** includes two attachment plates **1200** extending from each side thereof. Plates **1200** are configured to facilitate the attachment of multiple platforms together, and therefore, multiple workout stations **100** in a side-by-side configuration.

[0061] The description of particular embodiments of the present invention is now complete. Many of the described features may be substituted, altered or omitted without departing from the scope of the invention. For example, alternate leveling mechanisms (e.g., scissor lifting legs, screw lifts, etc.), may be substituted for legs **204**. As another example, alternate sheet material (e.g., screen material, opaque plastic sheet material, etc.) may be substituted for cover **108**. As yet another option, each bottom foot of the exercise structure can be oriented perpendicular to the support beams of the platform and be extended to be supported by at least two support beams of the platform. These and other deviations from the particular embodiments shown will be apparent to those skilled in the art, particularly in view of the foregoing disclosure.

Claims

1. A workout station comprising: an exercise structure; a platform configured to support said exercise structure thereon; and a canopy assembly including a frame coupled to said platform and a cover supported over said platform by said frame; and wherein said platform includes a frame, and a plurality of legs coupled to said frame of said platform, each of said legs including a bottom portion and an opposite top portion, each said bottom portion being configured to rest on an underlying supporting surface, and each said top portion being adjustably coupled to said frame of said platform to facilitate the leveling of said platform by raising and lowering each said leg with respect to said platform.
2. The workout station of claim 1, wherein said frame of said platform includes a first beam extending along a first direction and a second beam extending along a second direction parallel to said first direction.
3. The workout station of claim 2, wherein: said exercise structure includes a first bottom portion configured to support at least a portion of the weight of said exercise structure; said first bottom portion is disposed over said first beam; said exercise structure includes a second bottom portion configured to support at least a portion of the weight of said exercise structure; and said second bottom portion is disposed over said second beam.
4. The workout station of claim 3, wherein: said first bottom portion of said exercise structure is fixed to said first beam; and said second bottom portion of said exercise structure is fixed to said second beam.

5. The workout station of claim 4, wherein: said exercise structure includes a first beam extending along a third direction that is parallel to said first direction; said first beam of said exercise structure forms said first bottom portion of said exercise structure and is disposed over said first beam of said frame of said platform; said exercise structure includes a first column extending upward from said first beam of said exercise structure; said exercise structure includes a second beam extending along a fourth direction that is parallel to said second direction; said second beam of said exercise structure forms said second bottom portion of said exercise structure and is disposed over said second beam of said frame of said platform; and said exercise structure includes a second column extending upward from said second beam of said exercise structure.

6. The workout station of claim 2, wherein: said frame of said platform includes a third beam extending along a third direction that is perpendicular to said first direction, said third beam of said frame of said platform including a first end and an opposite second end; said frame of said platform includes a fourth beam extending along a fourth direction that is parallel to said third direction, said fourth beam of said frame of said platform including a first end and an opposite second end; said first beam of said frame of said platform includes a first end and an opposite second end; said second beam of said frame of said platform includes a first end and an opposite second end; said first end of said first beam of said frame of said platform is coupled to said first end of said third beam of said frame of said platform; said second end of said first beam of said frame of said platform is coupled to said first end of said fourth beam of said frame of said platform; said first end of said second beam of said frame of said platform is coupled to said second end of said third beam of said frame of said platform; and said second end of said second beam of said frame of said platform is coupled to said second end of said fourth beam of said frame of said platform.

7. The workout station of claim 6, wherein: said plurality of legs includes a first leg disposed proximate said first end of said first beam of said frame of said platform and proximate said first end of said third beam of said frame of said platform; said plurality of legs includes a second leg disposed proximate said second end of said first beam of said frame of said platform and proximate said first end of said fourth beam of said frame of said platform; said plurality of legs includes a third leg disposed proximate said first end of said second beam of said frame of said platform and proximate said second end of said third beam of said frame of said platform; and said plurality of legs includes a fourth leg disposed proximate said second end of said second beam of said frame of said platform and proximate said second end of said fourth beam of said frame of said platform.

8. The workout station of claim 7, further comprising a first panel supported by and between said first beam of said frame of said platform, said second beam of said frame of said platform, said third beam of said frame of said platform, and said fourth beam of said frame of said platform.

9. The workout station of claim 6, wherein: said frame of said platform further includes a fifth beam extending along a direction that is parallel to said first direction; said fifth beam includes a first end and an opposite second end; said frame of said platform further includes a sixth beam extending along said third direction; said sixth beam includes a first end and an opposite second end; said frame of said platform further includes a seventh beam extending along said fourth direction; said seventh beam includes a first end and an opposite second end; said frame of said platform further includes an eighth beam extending along a direction that is parallel to said first direction; said eighth beam includes a first end and an opposite second end; said frame of said platform further includes a ninth beam extending along said third direction; said ninth beam includes a first end and an opposite second end; said frame of said platform further includes a tenth beam extending along said fourth direction; said tenth beam includes a first end and an opposite second end; said first end of said fifth beam of said frame of said platform is coupled to said second end of said sixth beam of said frame of said platform; said second end of said fifth beam of said frame of said platform is coupled to said second end of said seventh beam of said frame of said platform; said first end of said sixth beam is coupled to at least one of said first end of said second beam of said frame of said platform and said second end of said third beam of said frame of said

platform; said first end of said seventh beam is coupled to at least one of said second end of said second beam of said frame of said platform and said second end of said fourth beam of said frame of said platform; said first end of said eighth beam of said frame of said platform is coupled to said first end of said ninth beam of said frame of said platform; said second end of said eighth beam of said frame of said platform is coupled to said first end of said tenth beam of said frame of said platform; said second end of said ninth beam is coupled to at least one of said first end of said first beam of said frame of said platform and said first end of said third beam of said frame of said platform; said second end of said tenth beam is coupled to at least one of said second end of said first beam of said frame of said platform and said first end of said fourth beam of said frame of said platform.

10. The workout station of claim 9, wherein said plurality of legs includes a first leg disposed proximate said first end of said first beam of said frame of said platform; said plurality of legs includes a second leg disposed proximate said second end of said first beam of said frame of said platform; said plurality of legs includes a third leg disposed proximate said first end of said second beam of said frame of said platform; said plurality of legs includes a fourth leg disposed proximate said second end of said second beam of said frame of said platform; said plurality of legs includes a fifth leg disposed proximate said first end of said fifth beam of said frame of said platform; said plurality of legs includes a sixth leg disposed proximate said second end of said fifth beam of said frame of said platform; said plurality of legs includes a seventh leg disposed proximate said first end of said eighth beam of said frame of said platform; and said plurality of legs includes an eighth leg disposed proximate said second end of said eighth beam of said frame of said platform.

11. The workout station of claim 10, further comprising a first floor panel, a second floor panel, and a third floor panel, and wherein: said first floor panel is supported by and between said first beam, said second beam, said third beam, and said fourth beam of said frame of said platform; said second floor panel is supported by and between said second beam, said fifth beam, said sixth beam, and said seventh beam of said frame of said platform; and said third floor panel is supported by and between said first beam, said eighth beam, said ninth beam, and said tenth beam of said frame of said platform.

12. The workout station of claim 9, further comprising a first floor panel, a second floor panel, and a third floor panel, and wherein: said first floor panel is supported by and between said first beam, said second beam, said third beam, and said fourth beam of said frame of said platform; said second floor panel is supported by and between said second beam, said fifth beam, said sixth beam, and said seventh beam of said frame of said platform; and said third floor panel is supported by and between said first beam, said eighth beam, said ninth beam, and said tenth beam of said frame of said platform.

13. The workout station of claim 12, further comprising: a fourth floor panel supported on said first floor panel; a fifth floor panel supported on said second floor panel; and a sixth floor panel supported on said third floor panel.

14. The workout station of claim 12, further comprising a second panel supported on said first panel.

15. The workout station of claim 1, wherein: said frame of said platform is supported by said plurality of legs; said exercise structure is supported by said platform; and said frame of said canopy is supported by said platform.

16. The workout station of claim 1, wherein: said platform includes a first support beam and a second support beam; said exercise structure defines a footprint on said platform; said footprint including a first portion disposed over said first support beam; and said footprint includes a second portion disposed over said second support beam.

17. The workout station of claim 16, wherein: said first portion of said footprint has a center; said center of said first portion of said footprint is disposed over said first support beam; said second portion of said footprint has a center; said center of said second portion of said footprint is disposed

over said second beam.

18. The workout station of claim 17, wherein: said exercise structure is a weight rack having a first side frame, a second side frame, and one or more transverse members coupling said first side frame to said second side frame; said first support beam extends along a first direction; said second support beam extends along a second direction; said first side frame has an elongated bottom member extending along said first direction and defining said first portion of said footprint; said second side frame has an elongated bottom member extending along said second direction and defining said second portion of said footprint.

19. The workout station of claim 18, wherein: said first support beam is substantially parallel to said second support beam; said first support beam defines a plurality of attachment apertures; said second support beam defines a second plurality of attachment apertures; said elongated bottom member of said first side frame is substantially parallel to said elongated bottom member of said second side frame; said elongated bottom member of said first side frame defines a third plurality of attachment apertures; and said elongated bottom member of said second side frame defines a fourth plurality of attachment apertures; and wherein said first plurality of attachment apertures includes a greater number of attachment apertures than said third plurality of attachment apertures; said second plurality of attachment apertures includes a greater number of apertures than said fourth plurality of attachment apertures; said apertures of said third plurality of attachment apertures are arranged to align with different subsets of attachment apertures of said first plurality of attachment apertures; and said apertures of said fourth plurality of attachment apertures are arranged to align with different subsets of attachment apertures of said second set of attachment apertures; and whereby a position of said weight rack on said platform can be adjusted by selectively aligning said third plurality of attachment apertures with a particular one of said subsets of attachment apertures of said first set of attachment apertures, and selectively aligning said fourth plurality of attachment apertures with a particular one of said subsets of attachment apertures of said second set of attachment apertures.

20. A workout station comprising: a weight rack including a tubular frame, said tubular frame including a plurality of bottom tubes arranged together to rest on a flat surface; a platform configured to support said weight rack thereon, said platform including a plurality of support beams arranged to correspond to said bottom tubes of said weight rack, said platform additionally including a plurality of leveling legs, said bottom tubes of said weight rack being mechanically fastened to said support beams of said platform; and a canopy disposed to shade at least a portion of said platform.
