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(54) **STABLE EXERCISE APPARATUS**

(52) **U.S. Cl. .... 482/130; 482/142**

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(21) **Appl. No.: 13/288,960**

(57) **ABSTRACT**

(22) **Filed: Nov. 3, 2011**

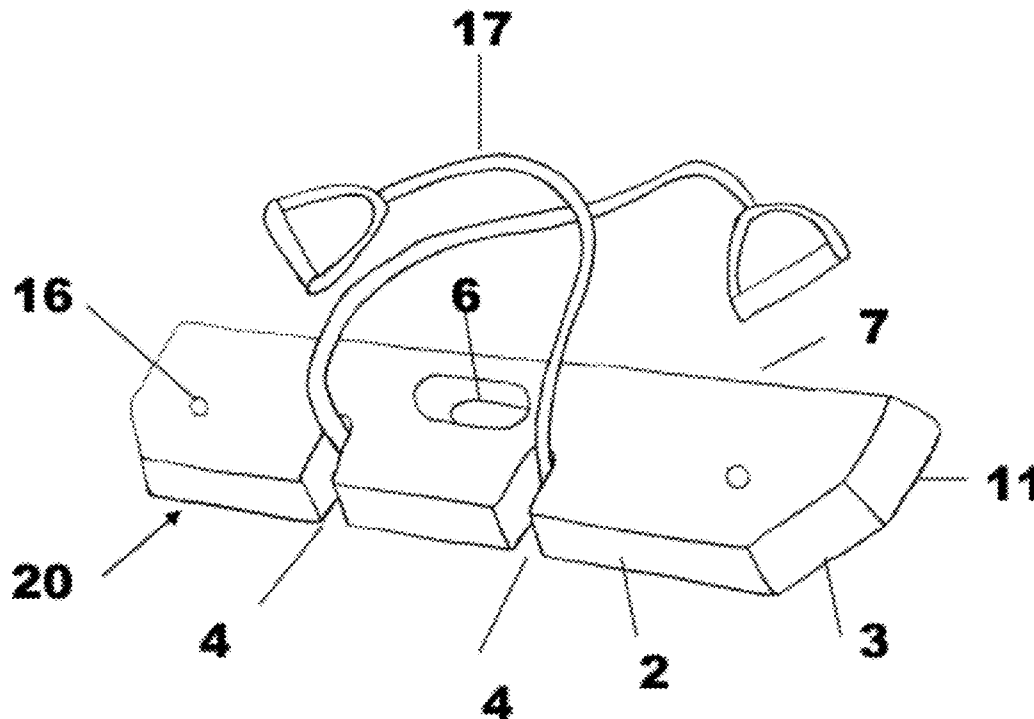
**Related U.S. Application Data**

(60) **Provisional application No. 61/410,015, filed on Nov. 4, 2010.**

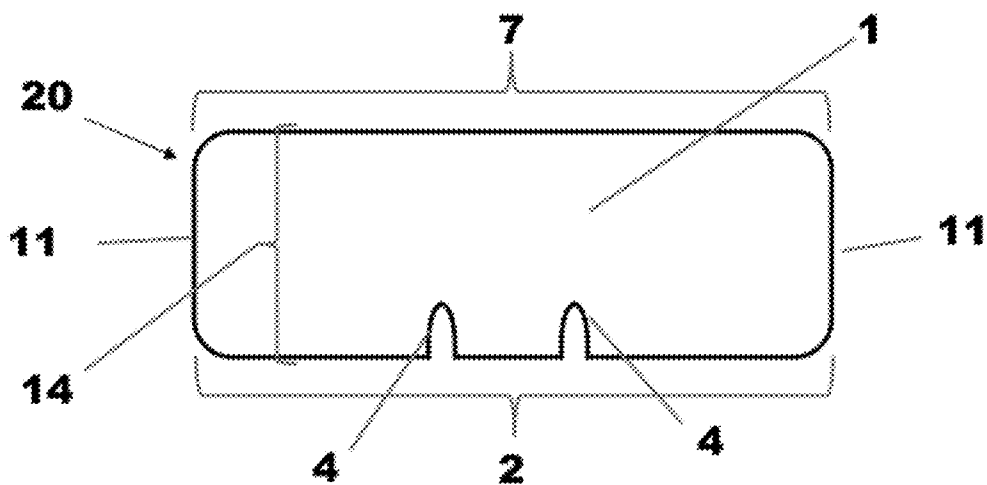
**Publication Classification**

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**A63B 21/04** (2006.01)  
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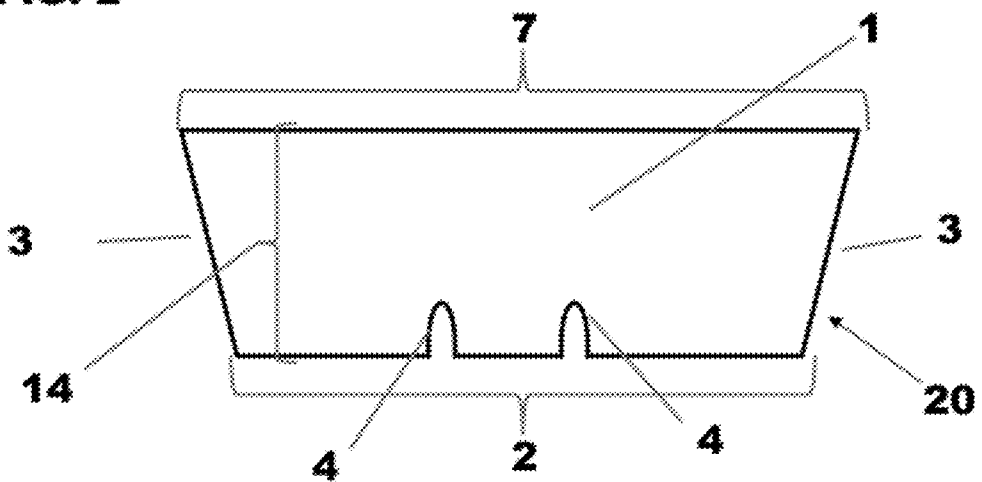
The present invention relates to an exercise apparatus and methods of use thereof. The invention includes an exercise apparatus having an exercise platform for receiving a user and at least one resistive element receiving system. The exercise apparatus is useful for aiding a user to perform exercises with proper form and added resistance while minimizing the load bearing on the user's back and joints. Also, the exercise apparatus is also useful for aiding a user to perform raised heel squat exercises with proper form and added resistance while minimizing any load bearing.



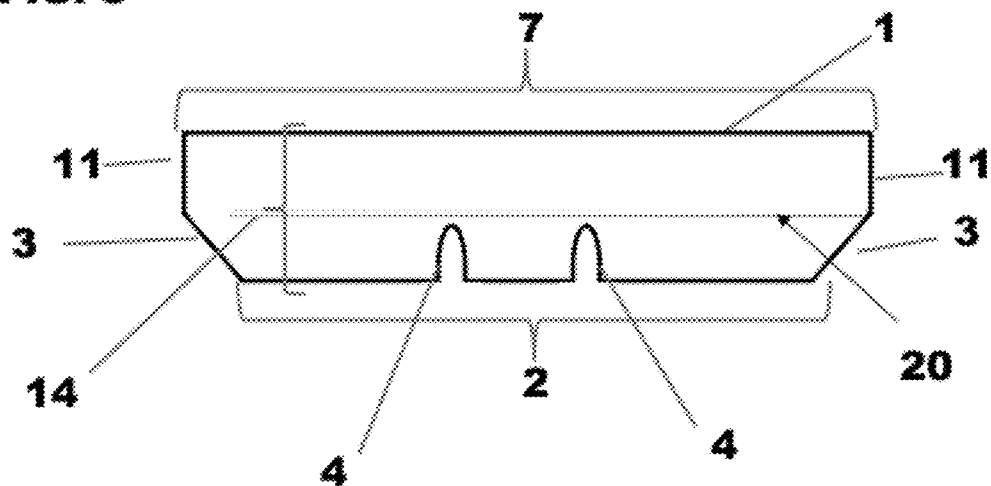
**FIG. 1**



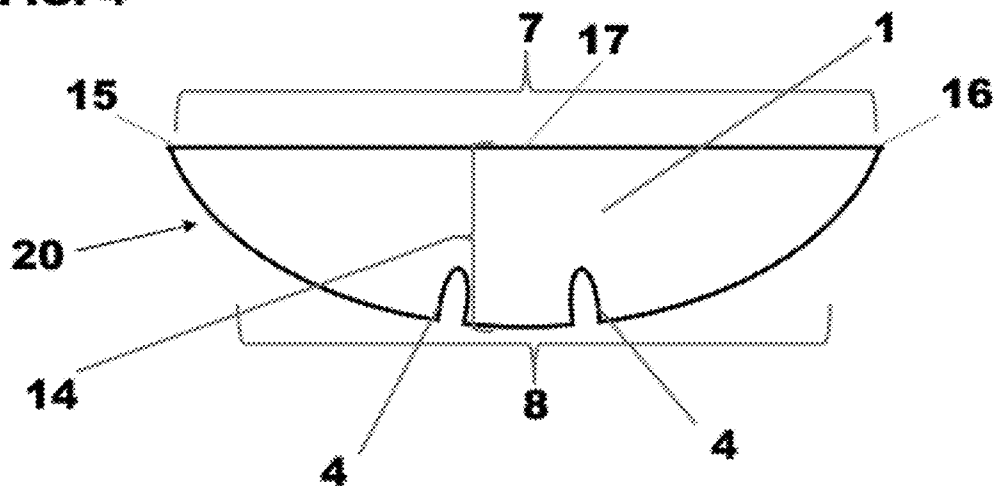
**FIG. 2**



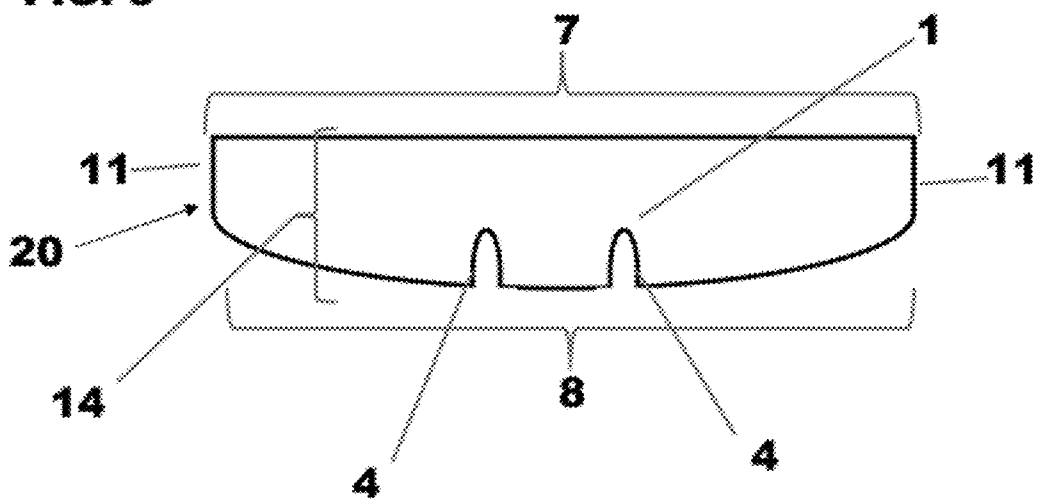
**FIG. 3**



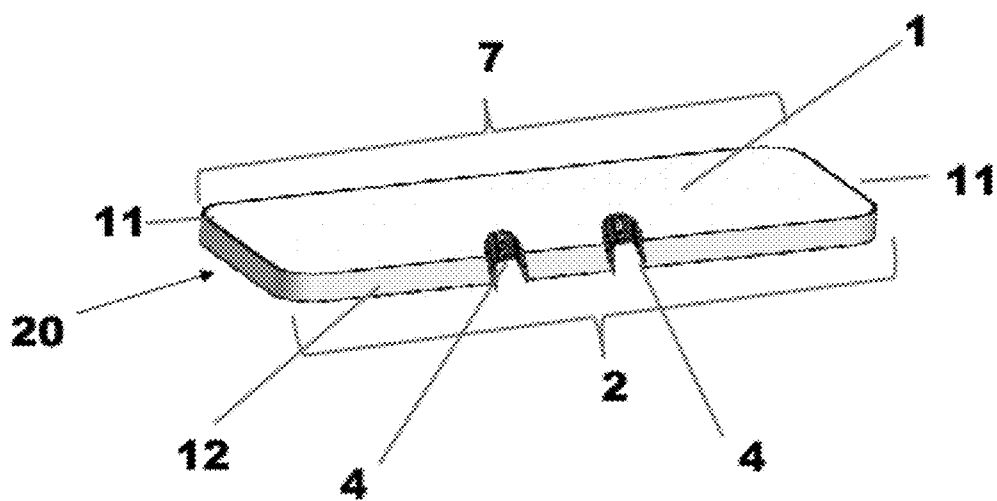
**FIG. 4**



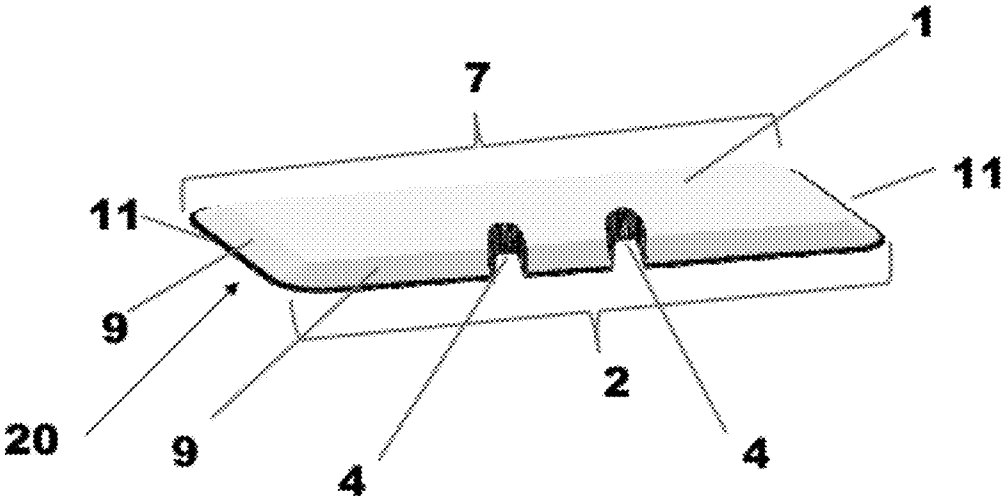
**FIG. 5**



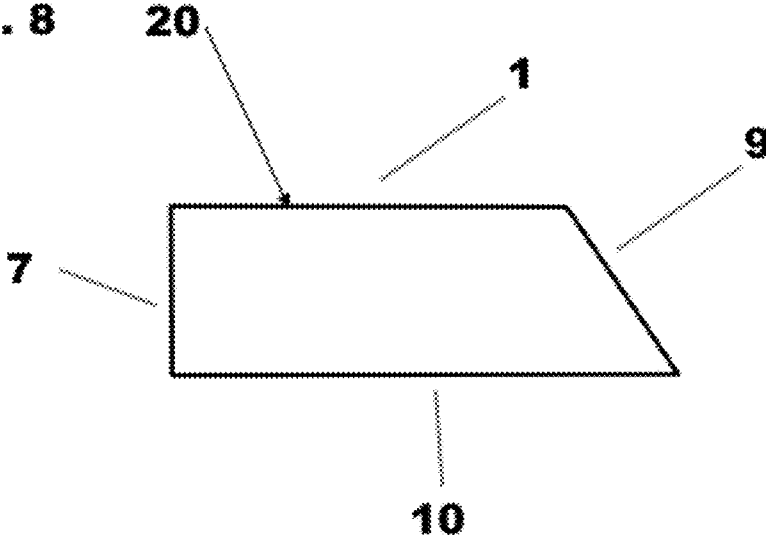
**FIG. 6**



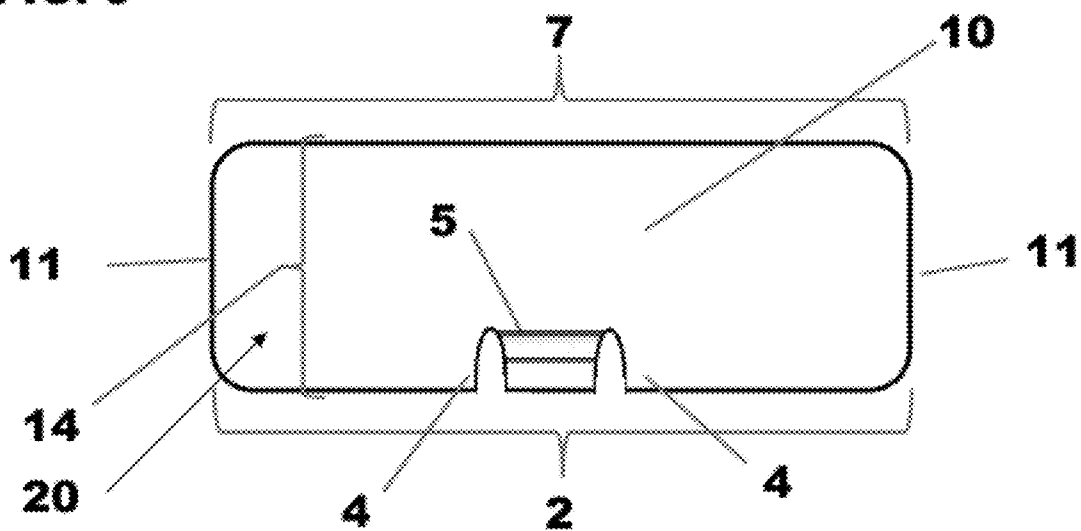
**FIG. 7**



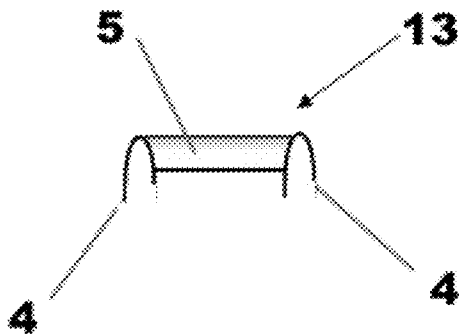
**FIG. 8**



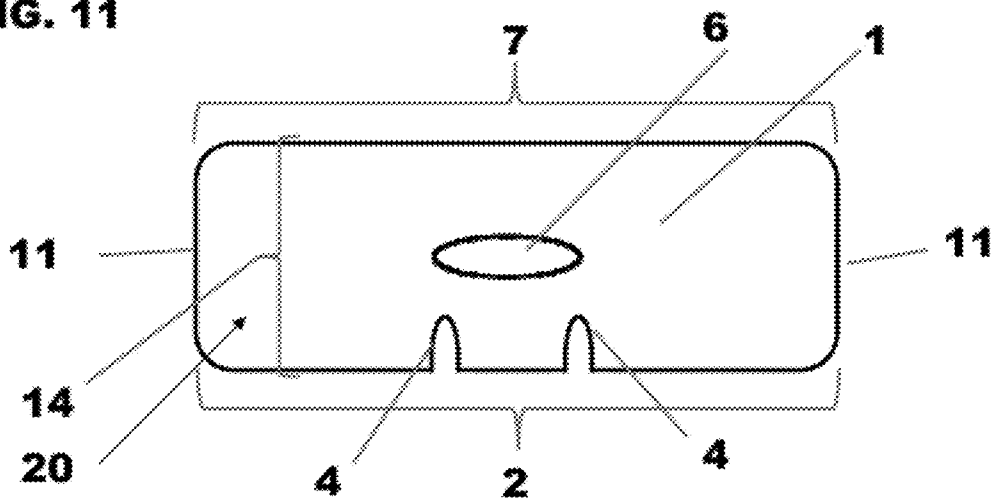
**FIG. 9**



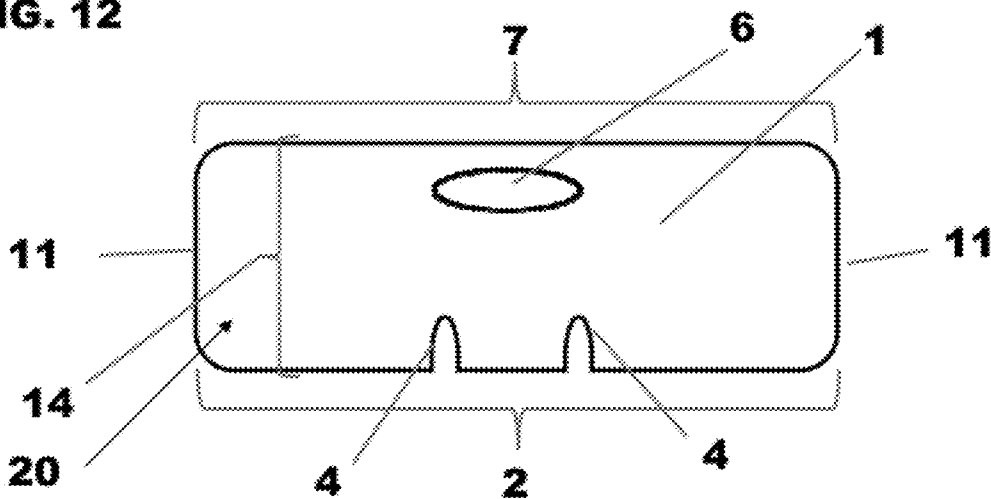
**FIG. 10**



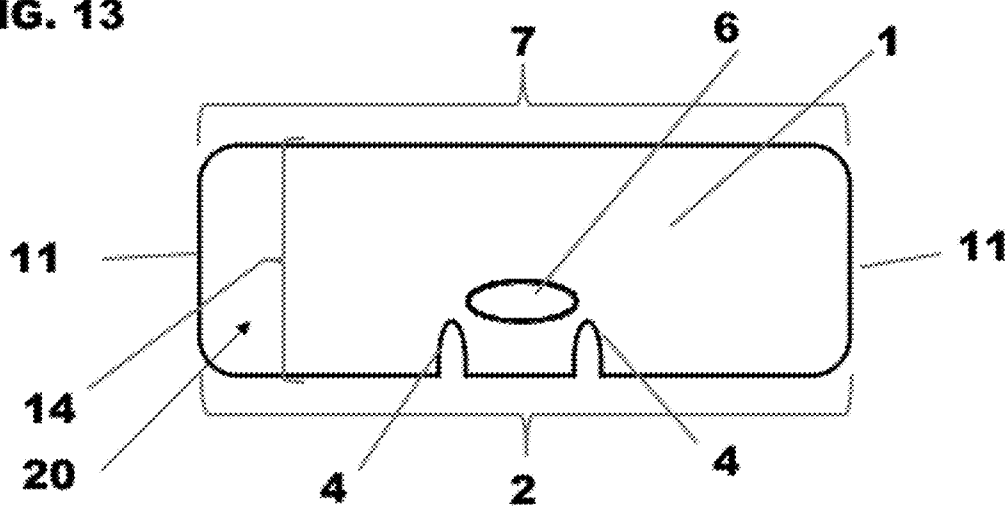
**FIG. 11**



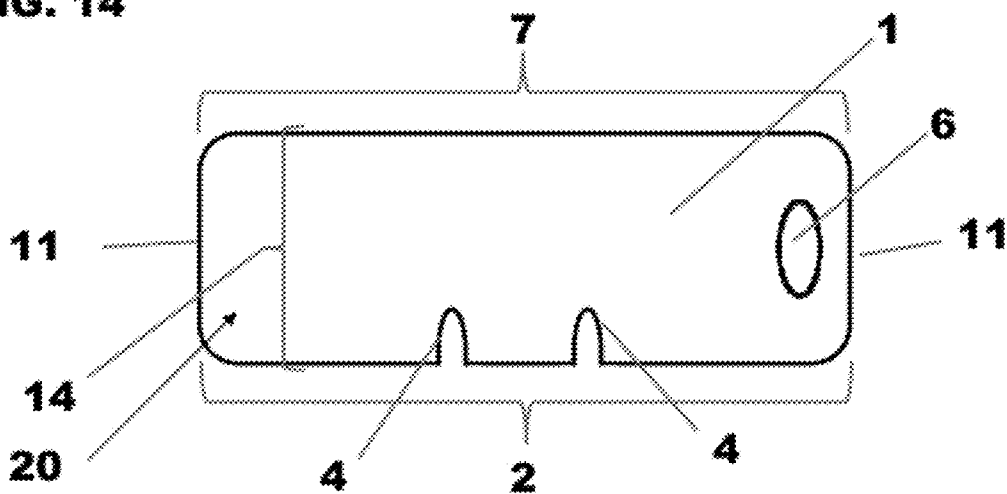
**FIG. 12**



**FIG. 13**

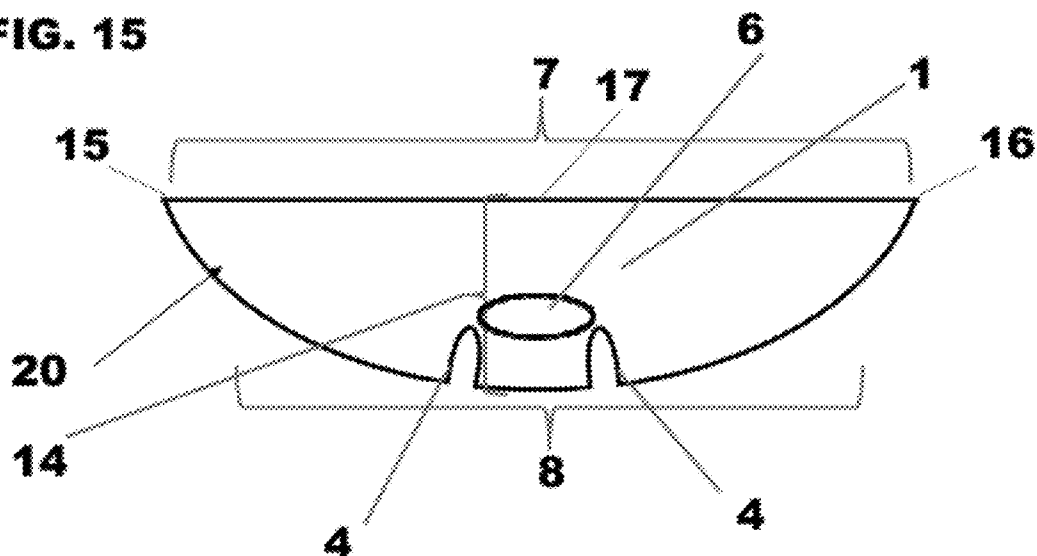


**FIG. 14**

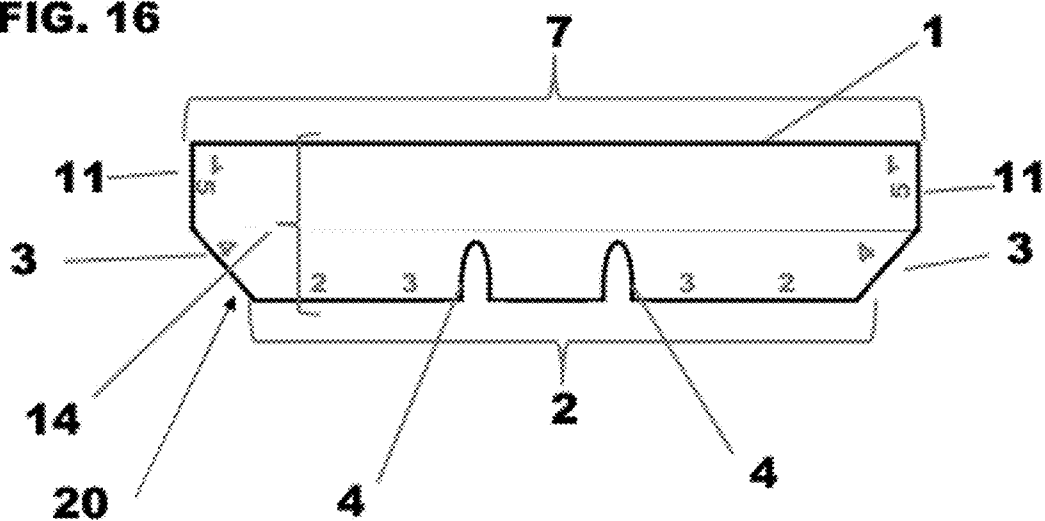




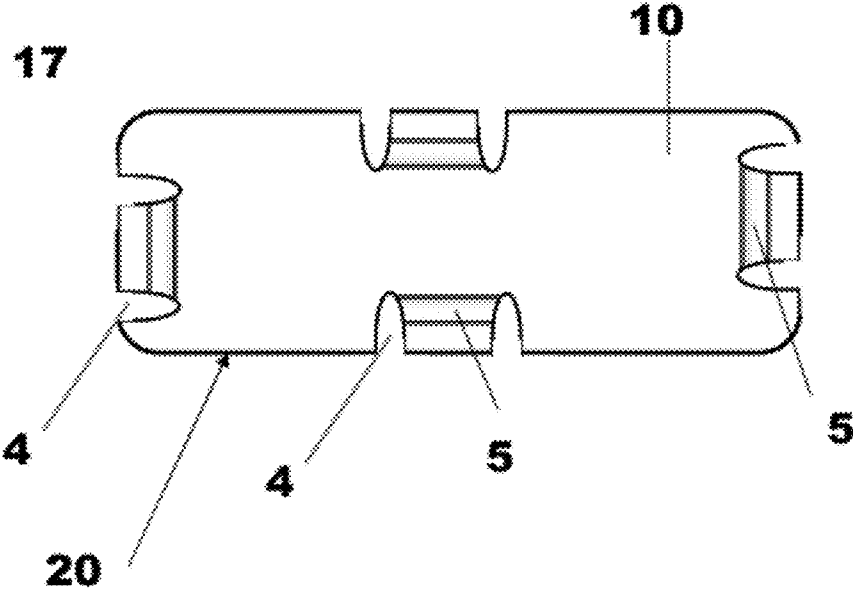
**FIG. 15**



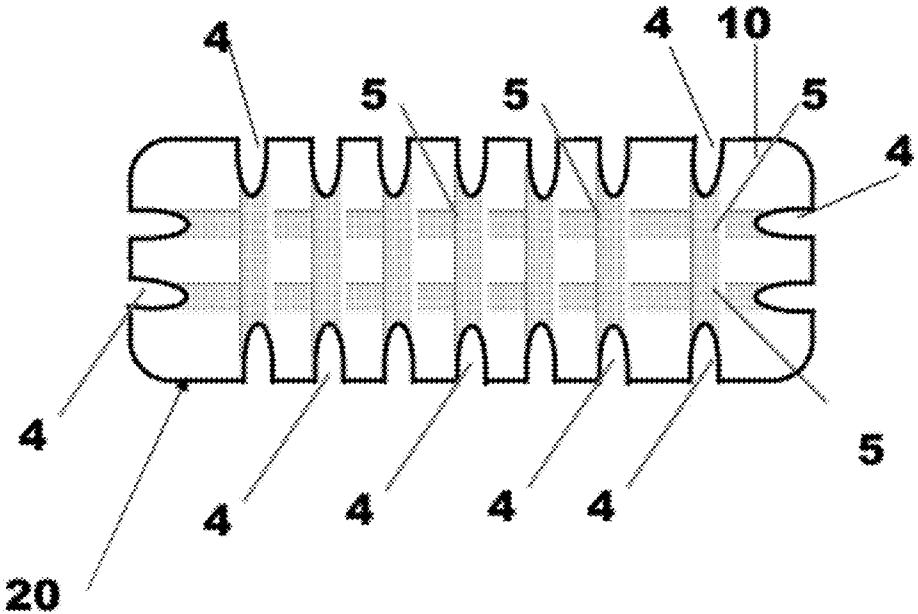
**FIG. 16**



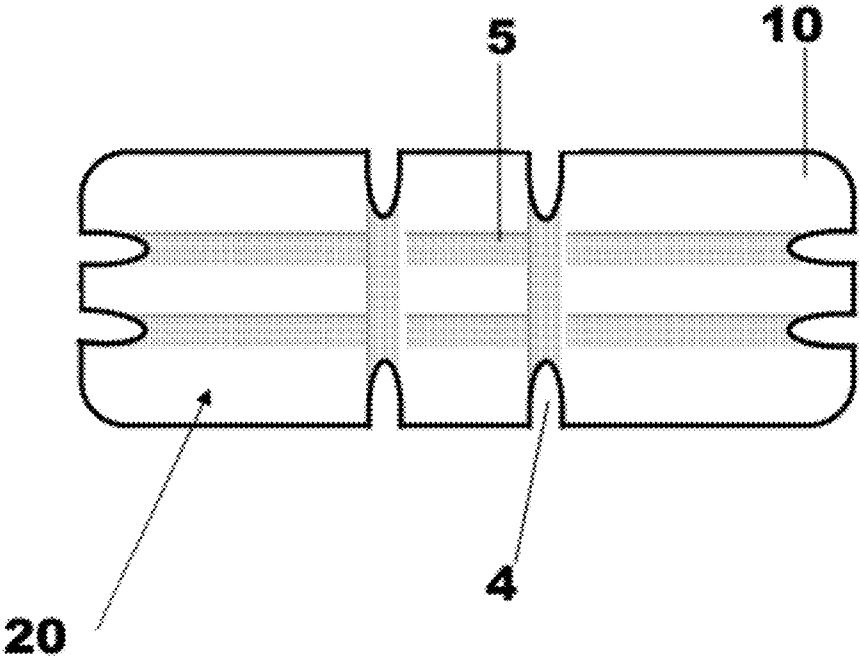
**FIG. 17**



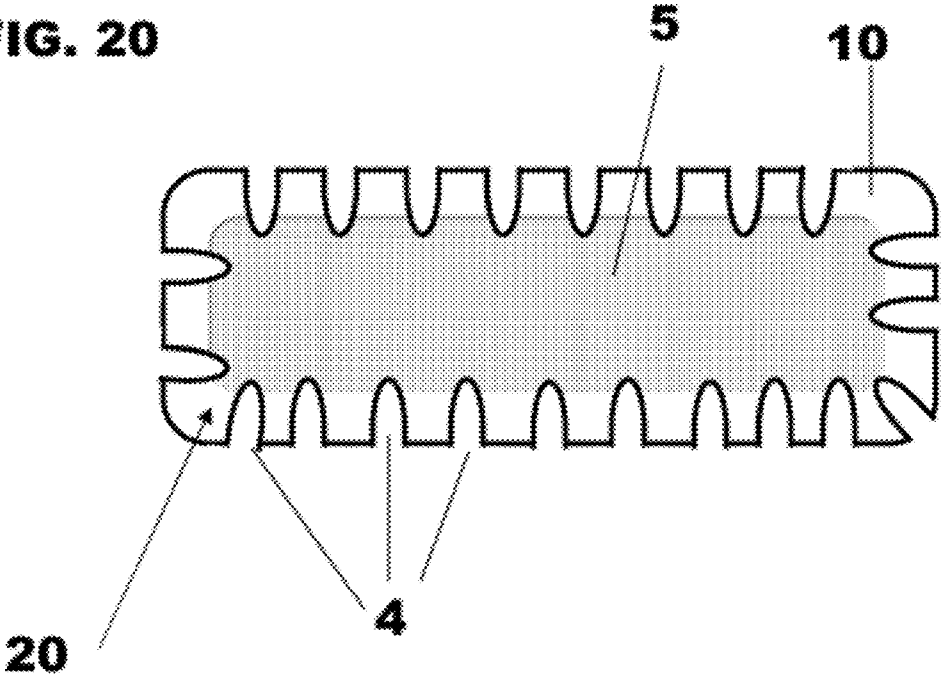
**FIG. 18**



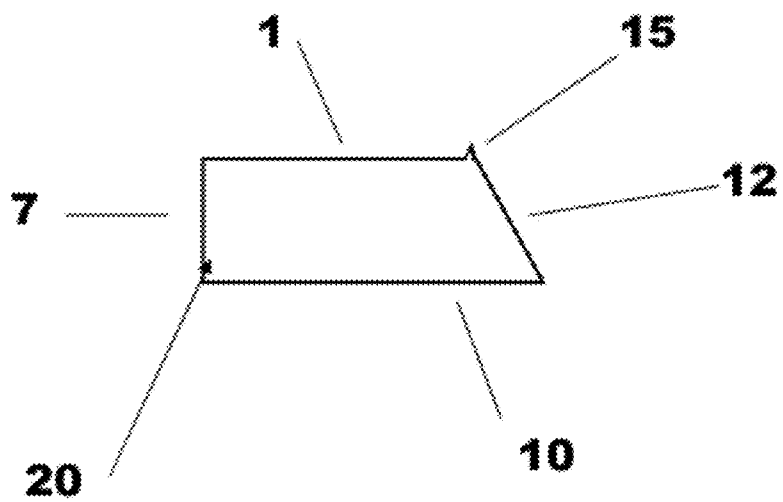
**FIG. 19**



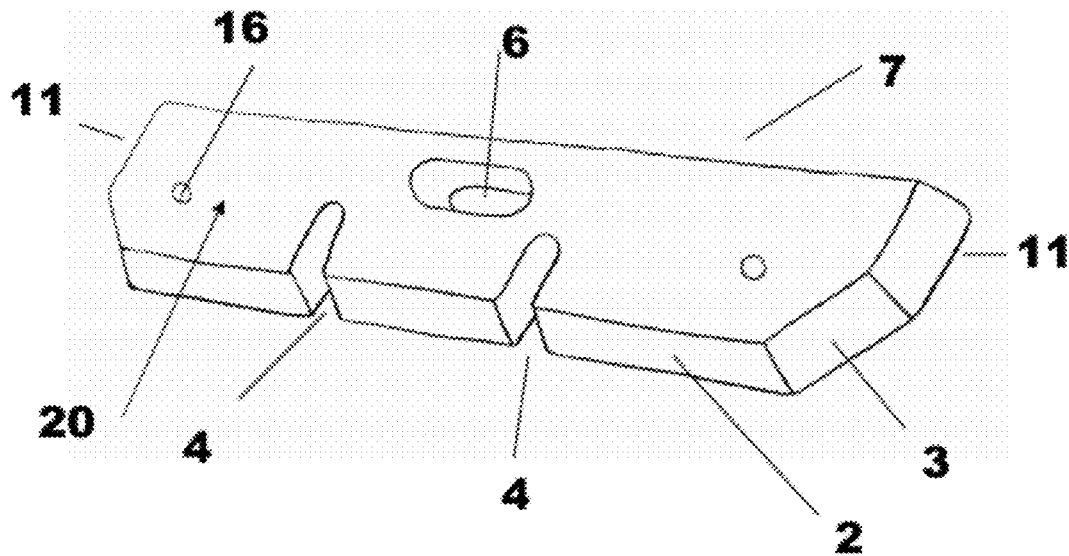
**FIG. 20**



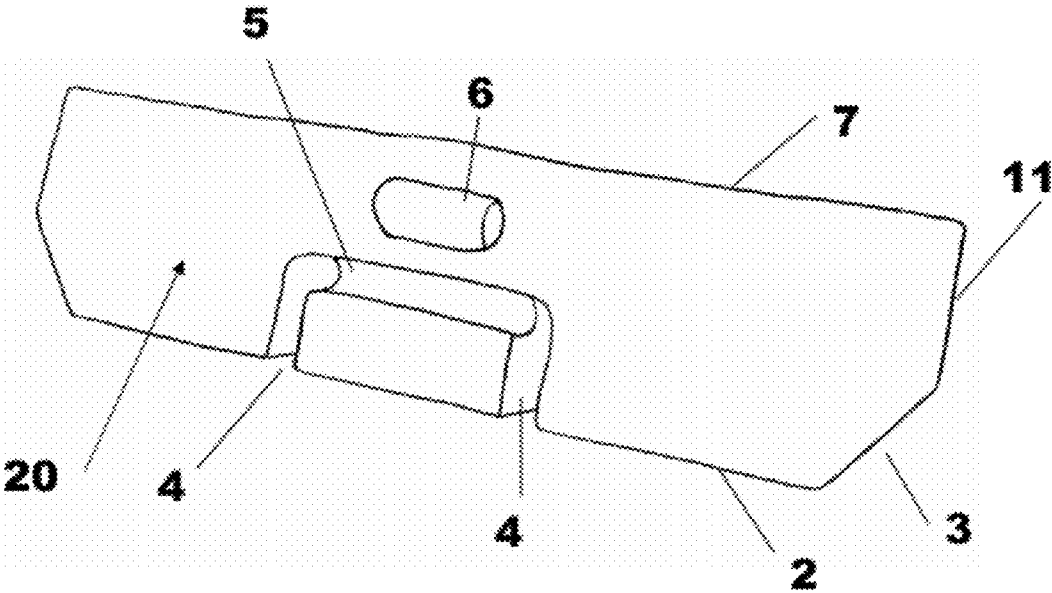
**FIG. 21**



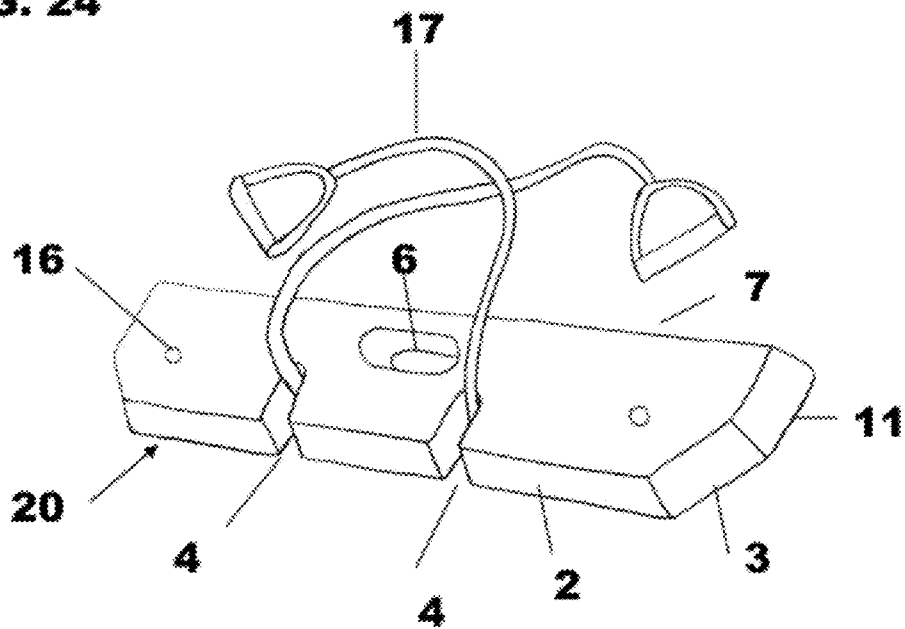
**FIG. 22**



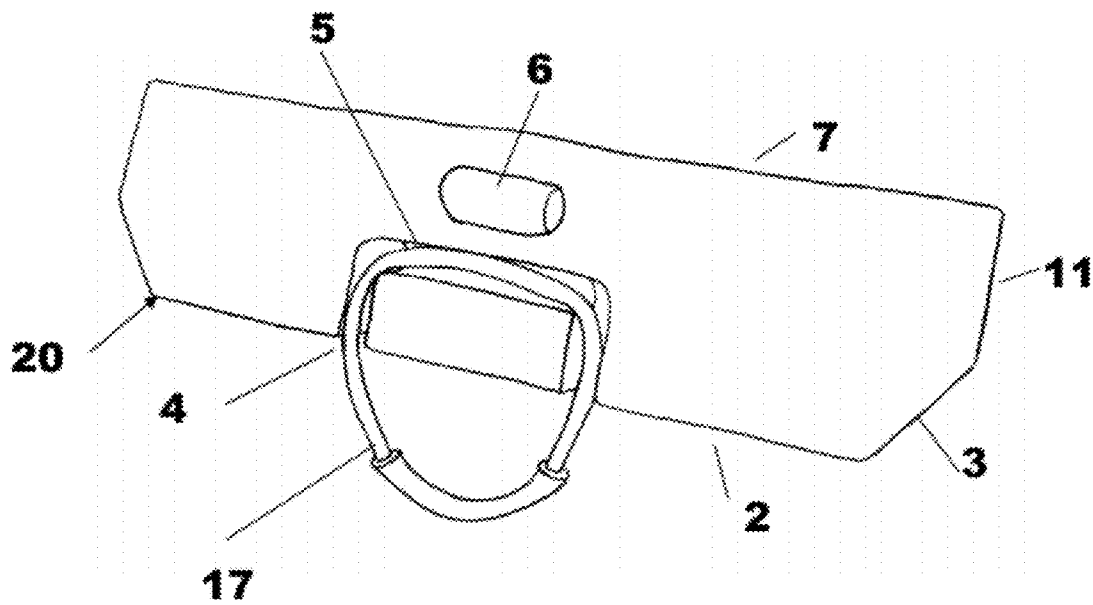
**FIG. 23**



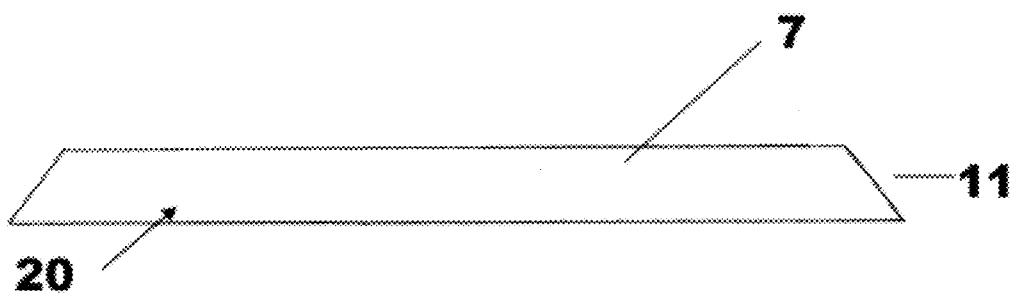
**FIG. 24**



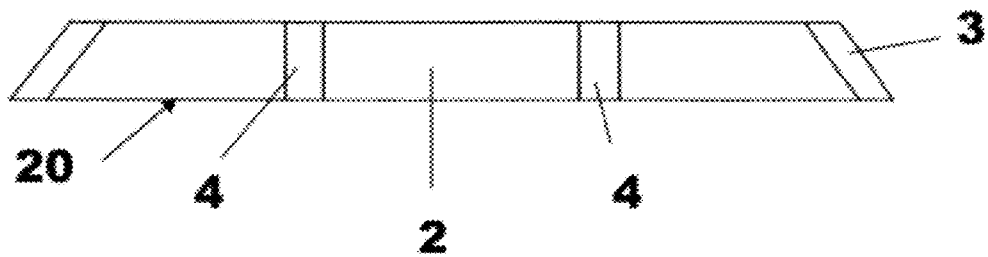
**FIG. 25**



**FIG. 26**



**FIG. 27**



**STABLE EXERCISE APPARATUS****CROSS-REFERENCE TO RELATED APPLICATION**

**[0001]** The Application claims benefit of U.S. Provisional Application No. 61/410,015, filed Nov. 4, 2010.

**FIELD OF THE INVENTION**

**[0002]** The present invention relates to an exercise apparatus and methods of use thereof. In particular, the invention includes an exercise apparatus that is useful for engaging muscles during exercise movements with resistance while minimizing any load bearing on the user's back and joints. Further, the exercise apparatus of the invention provides stability and the user can concentrate on executing a movement with proper form. The exercise apparatus includes a platform and a resistive element receiving system.

**BACKGROUND OF THE INVENTION**

**[0003]** Exercise devices intended to provide balance and strength training for a person's core muscles, including the muscles of the abdomen and back, are known. These devices often include an unsteady platform that tends to rotate, tilt, twist, or otherwise move. A person is to stand and attempt to keep his or her balance on the platform. A user is able to exercise core muscles by regaining his or her balance. Examples of patents disclosing a balancing device for core strengthening include U.S. Pat. No. 4,182,521 and U.S. Pat. No. 7,008,359.

**[0004]** Exercise devices that provide a step device upon which a person may perform cardiovascular exercises are known. These step devices may also be used to perform various strength training exercises. Step devices often include the ability to adjust the height of the step and a step surface that includes a resilient surface upon which a user will step. Examples of patents disclosing exercise devices providing a step device include U.S. Pat. No. 5,683,331 and U.S. Pat. No. 5,562,575.

**[0005]** In addition, exercise devices are known that provide a platform surface with one or more resistive elements. Such exercise devices may have a stable or unstable platform surface. Known resistive elements that may be used in connection with such exercise devices include coiled springs and elastic bands. A user may grasp and pull a terminal end of the resistive element in order to strengthen various muscle groups. Examples of patents disclosing such exercise devices providing one or more resistive elements include U.S. Pat. No. 3,893,667 and U.S. Pat. No. 6,558,301.

**[0006]** While these devices perform their intended functions, a need exists for a versatile exercise device that enables a person to perform exercises with proper form and added resistance while providing stability and minimizing any load bearing on the user's back and joints. Further, a device or apparatus is needed that provides an option of using resistive elements to enhance such exercises or combine multiple exercise movements working multiple parts of the body.

**BRIEF DESCRIPTION OF THE DRAWINGS**

**[0007]** One or more preferred embodiments of the present invention are described in detail with reference to the accompanying drawings, wherein the similar elements are referred to with the same or similar reference numerals. The drawings described herein are illustrative and exemplary of the present

invention, and are made merely for the purposes of providing a full and enabling disclosure of the present invention. The drawings are not intended, nor are they to be construed, to limit the scope of patent protection afforded the present invention.

**[0008]** FIG. 1 is a plain view of a top of the exercise apparatus.

**[0009]** FIG. 2 is a plain view of a top of an alternative embodiment of the exercise apparatus having a polygonal shape.

**[0010]** FIG. 3 is a plain view of a top of the exercise apparatus having a polygonal shape with stabilizing lengths 11 and third positioning lengths 3.

**[0011]** FIG. 4 is a plain view of a top of an alternative embodiment of the exercise apparatus having an elliptical shape.

**[0012]** FIG. 5 is a plain view of a top of the exercise apparatus having an elliptical shape with stabilizing lengths 11.

**[0013]** FIG. 6 is a perspective view (demonstrating a 3-dimensional view) of the exercise apparatus depicting the platform height 12.

**[0014]** FIG. 7 is a perspective view (demonstrating a 3-dimensional view) of the exercise apparatus depicting a beveled edge 9.

**[0015]** FIG. 8 is a plain view of a side of the exercise apparatus showing the platform surface 1 and ground surface 10.

**[0016]** FIG. 9 is a plain view of the bottom of the exercise apparatus showing the resistive element receiving system 13 having two receiving notches 4 connected by a receiving groove 5.

**[0017]** FIG. 10 is a plain view of the resistive element receiving system 13 having two receiving notches 4 connected by a receiving groove 5.

**[0018]** FIG. 11 is a plain view of a top of the exercise apparatus showing handle 6 placement in the center of the platform.

**[0019]** FIG. 12 is a plain view of a top of the exercise apparatus showing handle 6 placement in an alternative embodiment in the center of the platform and near the first positioning length 7.

**[0020]** FIG. 13 is a plain view of a top of the exercise apparatus showing handle 6 placement in an alternative embodiment in the center of the platform and near the second positioning length 2.

**[0021]** FIG. 14 is a plain view of a top of the exercise apparatus showing handle 6 placement in an alternative embodiment near a stabilizing length 11.

**[0022]** FIG. 15 is a plain view of a top of the exercise apparatus showing handle 6 placement in the center of the platform and near the positioning arc 8.

**[0023]** FIG. 16 is a plain view of a top of the exercise apparatus showing indicia on the platform surface 1.

**[0024]** FIG. 17 is a plain view of a bottom, or ground surface, of the exercise apparatus showing an embodiment of the resistive element receiving system 13 configuration having multiple receiving notches 4 connected by multiple receiving grooves 5.

**[0025]** FIG. 18 is a plain view of a bottom, or ground surface, of the exercise apparatus showing another embodiment of the resistive element receiving system 13 configuration having multiple receiving notches 4 connected by multiple receiving grooves 5.



[0026] FIG. 19 is a plain view of a bottom, or ground surface, of the exercise apparatus showing another embodiment of the resistive element receiving system 13 configuration having multiple receiving notches 4 connected by multiple receiving grooves 5.

[0027] FIG. 20 is a plain view of a bottom, or ground surface, of the exercise apparatus showing another embodiment of the resistive element receiving system 13 configuration having multiple receiving notches 4 connected by a single receiving groove 5.

[0028] FIG. 21 is a plain view of a side of the exercise apparatus showing the platform surface 1, ground surface 10, beveled edge 12, first positioning length 7, and traction texture 15.

[0029] FIG. 22 is a perspective view (demonstrating a 3-deminsional view) of an embodiment of the exercise apparatus from the top depicting the first positioning length 7, second positioning length 2, third positioning length 3, stabilizing length 11, receiving notches 4, handle 6, and attachment receiving notch 16.

[0030] FIG. 23 is a perspective view (demonstrating a 3-deminsional view) of an embodiment of the exercise apparatus from the bottom, or ground surface, depicting the first positioning length 7, second positioning length 2, third positioning length 3, stabilizing length 11, receiving notches 4, handle 6, and receiving groove 5.

[0031] FIG. 24 is a perspective view (demonstrating a 3-deminsional view) of an embodiment of the exercise apparatus from the top depicting the first positioning length 7, second positioning length 2, third positioning length 3, stabilizing length 11, receiving notches 4, handle 6, attachment receiving notch 16, and a resistive element 17 in the resistive element receiving system 13.

[0032] FIG. 25 is a perspective view (demonstrating a 3-deminsional view) of an embodiment of the exercise apparatus from the bottom, or ground surface, depicting the first positioning length 7, second positioning length 2, third positioning length 3, stabilizing length 11, receiving notches 4, handle 6, receiving groove 5, and a resistive element 17 in the resistive element receiving system 13.

[0033] FIG. 26 is a plain view of the first positioning length 7 from the rear of the exercise apparatus.

[0034] FIG. 27 is a plain view of the second positioning length 2 from the front of the exercise apparatus.

#### SUMMARY

[0035] The present invention includes an exercise apparatus for aiding a user in proper exercise form. The exercise apparatus may aid a user in proper exercise form for any exercise movement that is aided by the exercise apparatus. Exemplary exercises include, without limitation, those that work the upper extremities, lower extremities, core muscle group, back muscles, abdominal muscles, and any other muscle group. Such exercises include without limitation squats, raised heal squats, modified squats, push-ups, bicep curls, tricep curls, shoulder raises, shoulder lifts, lunges, calf raises, hip extensions, inner/outer thigh raises, military press, shoulder press, and other exercises known in the art.

[0036] The exercise apparatus is a platform capable of receiving a user and includes at least a platform surface, a ground surface, a platform height, a platform width, and a first positioning length.

[0037] The exercise apparatus may include a beveled edge. The beveled edge provides stability to the platform. A suitable

beveled edge results in the platform surface being smaller than the ground surface of the apparatus.

[0038] The exercise apparatus may include a resistive element system. Such a system allows a user to add resistance such as by using a resistance band. The resistive element receiving system minimizes wear on resistance bands. The resistance element receiving system includes at least one receiving notch. In another embodiment, the resistance element receiving system includes at least two receiving notches connected by a receiving groove that connects a first receiving notch to a second receiving notch. In an alternate embodiment, the resistance element receiving system includes multiple receiving notches connected by at least one receiving groove. The receiving notches and groove are positioned such that a resistance band can be placed through the notches and groove in a continuous manner.

[0039] The platform height of the exercise apparatus may range from about 0.1 to about 12 inches. Preferably, the platform height is from about 0.75 to about 2.0 inches. More preferably, the platform height is about 1.5 inches.

[0040] The platform width of the exercise apparatus may range from about 1 to about 40 inches. Preferably, the platform width is from about 3 inches to about 13 inches. More preferably, the platform width is about 5.5 inches.

[0041] The platform may include indicia. Such indicia may indicate foot placement or provide workout instruction. The indicia may be on the platform surface.

[0042] The platform may be enclosed in a non-slip covering. Such covering may enclose the apparatus as a whole or may partially cover the apparatus.

[0043] The platform may include traction texture. Such traction texture may cover the apparatus as a whole or partially cover the apparatus.

[0044] In one embodiment, the exercise apparatus is a platform capable of receiving a user and includes a platform surface, a ground surface, a platform height, a platform width, a first positioning length, a second positioning length, and a stabilizing length. The stabilizing length is shorter than the first positioning length. The first positioning length is perpendicular to the second positioning length. The stabilizing length connects the first positioning length to the second positioning length. The platform includes a beveled edge on the stabilizing length and the second positioning length. The platform includes at least one resistive element receiving system.

[0045] In another embodiment, the exercise apparatus is a platform capable of receiving a user and includes a platform surface, a ground surface, a platform height, a platform width, a first positioning length, a second positioning length, a third positioning length and a stabilizing length. The third positioning length is shorter than the first positioning length. The stabilizing length is shorter than the first positioning length. The stabilizing length is perpendicular to the first positioning length. The second positioning length is shorter than the first positioning length. The stabilizing length connects the first positioning length to the third positioning length. The third positioning length connects the stabilizing length to the second positioning length. The platform includes a beveled edge on the stabilizing length, the second positioning length, and the third positioning length. The platform includes at least one resistive element receiving system.

[0046] In yet another embodiment, the exercise apparatus is a platform capable of receiving a user and includes a platform surface, a ground surface, a platform height, a platform width,

a first positioning length, and a positioning arc. The positioning arc initiates at a first end of the first positioning length and extends as an arc to a second end of the first positioning length. The platform includes a beveled edge on the positioning arc. The platform includes at least one resistive element receiving system.

#### DETAILED DESCRIPTION

**[0047]** The present invention relates to an exercise system apparatus and methods of use thereof. In accordance with the present invention, an exercise platform useful in performing exercises has been discovered. In particular, it has been discovered that using an exercise platform or apparatus of the invention aids a person to perform exercises with proper form and added resistance while providing stability and minimizing the load bearing on the user's back and joints.

##### **[0048]** I. Composition

**[0049]** As illustrated in the drawings, the exercise apparatus **20** comprises a generally rectangular, planar platform **1** which is substantially rigid. The exercise apparatus may be fabricated of any suitable material that provides substantial rigidity but can be easily positioned by a user. For example, but without limitation, the exercise apparatus may be fabricated of a suitable material such as wood, plastic, or a composite material. A skilled artisan will recognize that the suitable material depends upon structural integrity, manufacturing process, and ease of use by user, among other factors. Preferably, the exercise apparatus is fabricated from wood, plastic, or a composite material. More preferably, the exercise apparatus is fabricated from wood or plastic. More preferably, the exercise apparatus is fabricated from wood.

##### **[0050]** A. Exercise Apparatus

**[0051]** The exercise apparatus **20** is of sufficient size to permit a person to perform exercises such as squats and modified squats thereon without compromising correct positioning. The exercise apparatus **20** generally has a rectangular, plank shape with at least a first positioning length **7** and a second positioning length **2** (FIG. 1). The exercise apparatus **20** may have at least a first positioning length **7**, a second positioning length **2**, and at least two stabilizing lengths **11** (FIG. 1). Alternatively, the exercise apparatus **20** has at least a first positioning length **7**, a second positioning length **2**, and at least two third positioning lengths **3** (FIG. 2). Further, the exercise apparatus **20** has at least a first positioning length **7**, a second positioning length **2**, at least two stabilizing lengths **11**, and at least two third positioning lengths **3** (FIG. 3).

**[0052]** The exercise apparatus **20** has a rectangular shape with a first positioning length **7** of about 3 to 80 inches. The first positioning length correlates to the height or inseam length of the user. By way of example, but not limiting, a user who is about 60 to 68 inches tall may fit a first positioning length **7** of about 30.75 inches, while a user who is less than about 60 inches tall may fit a first positioning length **7** with a length of about 15.25 inches and a user who is greater than about 68 inches tall may fit a first positioning length **7** of about 55 inches. The first positioning length **7** is about 14 to 65 inches in length. Preferably, the first positioning length **7** is about 3, 5, 10, 15, 20, 25, 27, 29.5, 30, 30.75, 31.5, 32, 35, 40, 45, 48, 50, 55, 57, 60, and 63 inches or more. More preferably, the first positioning length **7** is about 30.75 inches.

**[0053]** The exercise apparatus **20** has a platform width that is configured to aide in stabilizing the exercise apparatus while in use. A stable platform allows the user to concentrate on executing exercises with proper form. The platform width

of the present invention provides a stable and non-wobbly exercise apparatus. An unstable platform requires a user to concentrate on maintaining balance on the unstable device in addition to concentrating on executing exercises with proper form. The stability of the present invention allows the user to focus on executing exercises with proper form without introducing the need to compensate during the exercise execution for an unstable foundation. The stability of the exercise apparatus of the present invention may aide users who may have balance deficiencies in executing exercises with proper form.

**[0054]** Generally, the exercise apparatus **20** has a platform width **14** of about 1 to 40 inches. The platform width **14** may correlate to the length of the user's feet. By way of example, but without limiting, a user with a foot length of about 9 inches may prefer a platform width **14** of about 5.5 inches, while a user with a foot length of 12 inches may prefer a platform width **14** of about 8 inches. Preferably, the platform width **14** is about 4 to 8 inches. More preferably, the platform width **14** is about 5.5 inches.

**[0055]** The exercise apparatus **1** may be of a polygonal shape (FIGS. 2 and 3). The second positioning length **2** is shorter than the first positioning length (FIGS. 2 and 3). As such, the corners of the second positioning length **2** are angled to create a third positioning length **3**, and thus a polygonal shape. These corners may be removed, creating an angle greater than 90° from the second positioning length **2**. The corners may also be removed, creating an angle greater than 90° from the second positioning length **2** and more than 90° from the stabilizing length **11**. The third positioning length **3** encourages proper foot placement during modified squatting exercises where the foot is angled outward. As a polygonal shape, the first positioning length **7** may have a length of that described above with the second positioning length **2** being about 11 to 59 inches in length. Preferably, the second positioning length **2** is about 11, 16, 21, 23, 25.5, 26.75, 27.5, 28, 31, 36, 41, 46, 51, 53, 56, or 59 inches. More preferably, the second positioning length **2** is about 26 inches.

**[0056]** The stabilizing length **11** may be perpendicular and adjacent to the first positioning length **7** (FIGS. 1 and 3). The stabilizing length **11** may also be perpendicular and adjacent to the second positioning length **2**, connecting the first positioning length **7** to the second positioning length **2** (FIG. 2). Also, the stabilizing length **11** may be perpendicular and adjacent to the first positioning length **7** and adjacent to the third positioning length **3**, connecting the first positioning length **7** to the third positioning length **3** (FIG. 3).

**[0057]** The stabilizing length **11** is generally less than the platform width **14**. Preferably, the stabilizing length **11** is about 0.5 to 12 inches. More preferably, the stabilizing length **11** is about 0.5, 0.75, 1, 1.5, 1.75, 2, 2.5, 2.75, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7, 7.5, 8, 8.5, 9, 9.5, 10, 10.5, 11, 11.5, or 12 inches. More preferably, the stabilizing length **11** is about 3 inches.

**[0058]** The third positioning length **3** may connect the second positioning length **2** to the stabilizing length **11** (FIG. 3). The third positioning length **3** is at an angle less than 90° to the first positioning length **7**. The third positioning length **3** may also be the length at an angle less than 90° to the first positioning length **7**, connecting the second positioning length **2** to the first positioning length **7**. Preferably, the third positioning length **3** is at an angle of about 0° to 89°. Preferably, the third positioning length **3** is at an angle of about 0.15, 30, 45, 60, 75, or 89°. More preferably, the third positioning length **3** is at an angle of about 45°.

**[0059]** The third positioning length **3** is generally less than the platform width **14** (FIGS. **2** and **3**). Preferably, the third positioning length **3** is about 2 to 12 inches. More preferably, the third positioning length **3** is about 0.5, 0.75, 1, 1.5, 1.75, 2, 2.5, 2.75, 3, 3.25, 3.5, 3.75, 4, 4.5, 5, 5.5, 6, 6.5, 7, 7.5, 8, 8.5, 9, 9.5, 10, 10.5, 11, 11.5, or 12 inches. More preferably, the third positioning length **3** is about 3.75 inches.

**[0060]** The exercise apparatus **20** may be of an elliptical shape or half elliptical shape (FIGS. **4** and **5**). The elliptical shaped exercise apparatus has a first positioning length **7** and at least one positioning arc **8**. The positioning arc initiates at the initiating point of the first positioning length **15** and extends as an arc to the opposite end of the first positioning length **16** (FIG. **4**). The positioning arc **8** may initiate at the end of a first stabilizing length **11** and extend as an arc to the end of a second stabilizing length **11** (FIG. **5**). At the theoretical center of the first positioning length **17**, the platform width **14** is about 1 to 40 inches. Preferably, the platform width **14** is about 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, or 20 inches. More preferably, the platform width **14** is about 5.5 inches.

**[0061]** The exercise apparatus **20** has a platform height **12** that allows proper positioning to perform squatting and modified squatting exercises (FIG. **6**). The platform height **12** may be from about 0.1 to about 20 inches. Preferably, the platform height **12** is about 0.75 to 2.0 inches. More preferably, the platform height **12** is about 1.5 inches.

**[0062]** The exercise apparatus **20** of the present invention may be any shape that provides a stable platform and aides the user in executing proper form. The exercise apparatus preferably includes a first positioning length and a stabilizing length, which both provide stability to the exercise apparatus. As can be appreciated, numerous shapes can provide a stable platform and are contemplated herein.

**[0063]** In an alternate embodiment, the exercise apparatus may include a beveled edge **9** (FIG. **7**). The beveled edge enhances stability of the exercise apparatus and encourages proper foot placement. The beveled edge **9** may be on the first positioning length **7**, second positioning length **2**, third positioning length **3**, stabilizing length **11**, positioning arc **8** or any combination thereof. The beveled edge **9** is beveled from the ground surface **10** towards the platform surface **1**, creating an angled beveled edge (FIG. **8**). The angle of the beveled edge **9** may be selected from the following angles, including about 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 60, 65, 70, and 75, or more degrees. Preferably, the beveled edge **9** is at about 20° to 45° angle. More preferably, the beveled edge **9** is at about 25° angle.

#### **[0064]** B. Resistive Element Receiving System

**[0065]** The exercise apparatus **20** includes at least one resistive element receiving system **13** (FIG. **10**). The resistive element receiving system **13** may be arranged in many different configurations and, in part, the configuration depend upon the number of resistive element receiving systems included in the exercise apparatus. In one embodiment, the resistive element receiving system includes one receiving notch **4** capable of receiving a resistive element **17**. In another embodiment, the resistive element receiving system includes a receiving notch **4** and a receiving groove **5**. In another embodiment, the resistive element receiving system includes at least two receiving notches **4** and at least one receiving groove **5** (FIGS. **9** and **10**). In alternative embodiments, the

resistive element receiving system includes more than **2** receiving notches **4** and more than one receiving groove **5**. For example, the exercise apparatus may have 1, 2, 3, 4, 5, or more resistive element receiving systems (FIG. **17-20**).

**[0066]** It is contemplated that a resistive element **17** such as a resistance band or tube is placed in the receiving system **13** and used by the user to add resistance to exercises performed while using the exercise apparatus. The receiving notches **4** and groove **5** are rounded to minimize wear on the resistive elements. The receiving notches and receiving grooves may be configured in any means in which a resistive element can be received or placed in the receiving notches and receiving grooves such that it can be used to add resistance to an exercise while minimizing wear on the resistive element. Appreciatively, the receiving notches and grooves can be configured in numerous configurations which are too numerous to identify herein. By way of example, the following embodiments of configurations are included without limitation. In one embodiment the receiving notches **4** are located generally parallel to each other and perpendicular to the receiving groove **5** (FIGS. **9**, **10**, and **17**). A first receiving notch **4** is connected to a receiving groove **5** such that about a 90° angle is formed. A second receiving notch **4** is connected to the receiving groove **5** opposite of the first receiving notch **4** such that about a 90° angle is formed. In another embodiment, multiple receiving notches are located along the general perimeter of the exercise apparatus and at least one receiving groove connects to each receiving notch (FIG. **20**). In another embodiment, multiple receiving notches are located along the perimeter of the exercise apparatus and receiving grooves connect at least two receiving notches (FIGS. **18** and **19**). Receiving grooves may intersect with other receiving grooves (FIGS. **18** and **19**).

#### **[0067]** 1. Receiving Notch

**[0068]** In yet another embodiment, at least one receiving notch is located within the perimeter of the exercise apparatus, such that a hole from the platform surface to the ground surface is formed. Such a located receiving notch may be connected to other receiving notches through one or more receiving grooves.

**[0069]** The width of a receiving notch **4** is the width necessary to receive the resistive element and allow movement or flexation of the resistive element. By way of example, the width of the receiving notches **4** may be about 0.1 to about 15 inches. Preferably, the width of the receiving notch **4** is about 0.25 to about 1.0 inches. More preferably, the width of the receiving notch **4** is about 0.75 inches.

**[0070]** The depth of the receiving notch **4** is that of the platform height **12**, creating an opening on the platform surface **1** and the ground surface **10** of the exercise apparatus.

#### **[0071]** 2. Receiving Groove

**[0072]** The receiving groove is located on the ground surface of the invention. The purpose of the receiving groove is to receive a resistive element and allow movement or flexation of the resistive element while minimizing wear on the resistive element (FIGS. **24** and **25**). The length of a receiving groove **5** is the length necessary to receive the resistive element and allow movement or flexation of the resistive element. In one embodiment, the receiving groove connects to at least one receiving notch. In another embodiment, the receiving groove **5** is the length necessary to connect at least two receiving notches **4** such that a resistive element enters a first receiving notch **4**, travels the length of the receiving groove **5**, and exits a second receiving notch **4**. The user may hold the

resistive element on the entering side and the resistive element on the exiting side while the resistive element remains in the receiving system 13. Alternatively, the user may hold the resistive element at the entering side and the opposite side of the resistive element contains a knot or other blocking device known in the art that prevents the resistive element from slipping out of the receiving notch.

**[0073]** In another embodiment, the receiving groove is the length and width necessary to connect multiple receiving notches. By way of example, without limitation, a receiving groove may connect a first receiving notch located on a first stabilizing length to a second receiving notch located on a second stabilizing length. A receiving groove may connect a first receiving notch located on a first positioning length to a second receiving notch located on a first stabilizing length. A receiving groove may connect a first receiving notch located on a first positioning length to a second receiving notch located on a first positioning length and a third, fourth, or fifth receiving notch located on the first positioning length. It can be appreciated that the length of the receiving groove may depend upon the size of the apparatus and location of the receiving notches. Preferably, the receiving groove 5 is about 0.11 to 80 or more inches in length. More preferably, the length of the receiving groove 5 is about 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 or 16 inches in length. More preferably, the length of the receiving groove 5 is about 9 inches in length.

**[0074]** The width of a receiving groove 5 is the width necessary to receive the resistive element and allow movement or flexation of the resistive element. By way of example, the width of the receiving groove 5 is about 0.1 to about 40 inches. Preferably, the width of the receiving groove 5 is about 0.25 to about 1.0 inches. More preferably, the width of the receiving groove 5 is about 0.75 inches.

**[0075]** The depth of the receiving groove 5 is the depth necessary to receive the resistive element and allow movement or flexation of the resistive element. The receiving groove 5 depth is less than the platform height 12. By way of example, the depth of the receiving groove 5 is about 0.2 to about 1.5 inches. Preferably, the depth of the receiving groove 5 is about 0.25 to about 1.0 inches. More preferably, the depth of the receiving groove 5 is about 0.75 inches.

**[0076]** The resistive element 17 received by the resistive element receiving system 13 may be any resistive element 17 known in the art that provides resistance to a user. Suitable resistive elements of the invention include, without limitation, elements with elastic or stretchable properties such as resistance bands, resistance tubes, resistance cords, and other elastic elements known in the art.

#### **[0077]** C. Handle

**[0078]** The exercise apparatus may include at least one handle 6 to facilitate carrying of the platform (FIG. 11). The handle 6 may be of any suitable construction such as a strap of flexible material affixed to the platform. The handle 6 may be molded, carved, or constructed within the platform. By way of example, the handle 6 is about a 4 inch by about 1.5 inch by about 1.5 inch opening in the platform. A skilled artisan will recognize that the actual size and location of the handle may vary depending on various factors including structural integrity of platform material, comfort of user, and practicability of manufacture, among other factors. Preferably, the handle 6 is located in the center of the platform (FIG. 11), in the center of the platform and closer to the first positioning length 7 with the handle 6 length parallel to the first positioning length 7 (FIG. 12), in the center of the platform and closer to the

second positioning length 2 with the handle 6 length parallel to the second positioning length 2 (FIG. 13), or close and parallel to at least one stabilizing length 11 (FIG. 14). More preferably, the handle 6 is located in the center of the platform and closer to the first positioning length 7 with the handle 6 length parallel to the first positioning length 7. In this position, the handle 6 is about 0.2 to 3 inches from the first positioning length 7. Specifically, it is preferred that the handle 6 is about 0.75, 1, 1.25, or 1.5 inches from the first positioning length 7. More preferably, the handle 6 is about 1 inch from the first positioning length 6.

**[0079]** Alternatively, it is preferred that the handle 6 is located in the center of the platform and closer to the second positioning length 2 with the handle 6 length parallel to the second positioning length 2 (FIG. 13). In this position, the handle 6 is about 0.2 to 3 inches from the second positioning length 2. Specifically, it is preferred that the handle 6 is about 0.75, 1, 1.25, or 1.5 inches from the second positioning length 2. More preferably, the handle 6 is about 1 inch from the second positioning length 2.

**[0080]** In another preference, the handle 6 is located parallel to at least one stabilizing length 11 (FIG. 14). In this position, the handle 6 is about 0.2 to 3 inches from at least one stabilizing length 11. Specifically, it is preferred that the handle 6 is about 0.75, 1, 1.25, or 1.5 inches from the stabilizing length 11. More preferably, the handle 6 is about 1 inch from the stabilizing length 11.

**[0081]** In yet another preference, the handle 6 is located close to and generally parallel the positioning arc 8 (FIG. 15). The handle 6 may be located at any position along the positioning arc. In this position, the handle 6 is about 0.2 to 3 inches from the positioning arc 8. Specifically, it is preferred that the handle 6 is about 0.75, 1, 1.25, or 1.5 inches from the positioning arc 8. More preferably, the handle 6 is about 1 inch from the positioning arc 8.

**[0082]** In another embodiment, the handle may be a strap attached to the exercise apparatus or the strap may be attached to the handle of the exercise apparatus. The strap may be made of any material known in the art including without limitation metal, fabric, plastic, leather, nylon, and combinations thereof. The strap may be affixed or attached to the exercise apparatus by any means known in the art including, without limitation, glue, adhesive, screws, nails, hook and loop fasteners, or any combination thereof. The strap may be attached to any area of the exercise apparatus.

#### **[0083]** D. Exercise Apparatus Enhancement Options

**[0084]** The exercise apparatus may also include a non-skid material preferably made from any material known in the art including, but not limited to, foam rubber, neoprene, or another non-skid, non-slip material. The non-skid material may cover the entire apparatus or portions of the apparatus. The non-skid material may be located on the ground surface 10 to prevent slippage of the apparatus. The non-skid material may be located on the platform surface 1, beveled edges 9, or combination thereof to prevent slippage of the user's foot from the platform.

**[0085]** The exercise device may include attachments. Such attachments may include independent handles to use as push-up bars, a balancing bar to steady the user during use, as well as other attachments known to be useful for exercise known in the art. The exercise device may further include attachment receiving notches 16 (FIGS. 22 and 24). Such attachment receiving notches 16 provide a placement for the attachment on the exercise apparatus. The attachment receiving notch 16

is preferably an indentation on the exercise platform that is shaped to receive the attachment and minimize slipping of the attachment. The exercise apparatus may include more than one attachment receiving notch 16.

**[0086]** Further, the exercise apparatus may include a traction texture 15 on the outer perimeter of the platform surface 1 to prevent or minimize slippage of the user's foot off of the platform (FIG. 21). The traction texture 15 may be located on the first positioning length 7 edge, second positioning length 2 edge, third positioning length 3 edge, stabilizing length 11 edge, positioning arc 8 edge, or a combination thereof. Suitable traction texture 15 are textures known in the art including, without limitation, a ridge, groove, bump, or other texture that minimizes slippage of a user's foot. The traction texture 15 may include a series of ridges, grooves, bumps, other textures known in the art or combinations thereof.

**[0087]** The exercise apparatus may include indicia. The indicia may indicate correct placement of the user's feet according to a prescribed workout (FIG. 16). The indicia may also indicate the prescribed workout.

**[0088]** Additionally, the exercise apparatus may be constructed such that the apparatus collapses, telescopes, folds, or otherwise can be made smaller for ease of storage or travel.

**[0089]** II. Exercises Using the Exercise Apparatus

**[0090]** Generally, a user places their feet either near the edge of the platform or on the platform such that a portion of the heel is on the platform and the remaining portion of the foot is off of the platform. Further, a user may place their entire foot on the platform. The user may be in a standing, sitting, or lying down position.

**[0091]** A user may sit in a chair with feet placed on the platform of the exercise apparatus and grasp the resistive element running through the resistive element receiving system with his or her hands extended downwardly. The user may then raise each arm or hand in various movements to exercise various muscles of the body. The user may also attach the resistive element to the foot or ankle and extend or retract the foot or leg in various movements to exercise various muscles of the body.

**[0092]** Additionally, a user may stand with feet placed on the platform of the exercise apparatus and grasp the resistive element running through the resistive element receiving system with his or her hands extended downwardly. The user may then raise each arm in various movements to exercise various muscles of the body. Further, the user may extend legs in various movements to exercise various muscles of the body. The user may also attach the resistive element to the foot or ankle and extend or retract the foot or leg in various movements to exercise various muscles of the body.

**[0093]** Further, a user may stand with feet placed on the platform of the exercise apparatus such that a portion of the heel is on the platform and the remaining portion of the foot is off the platform. The user may grasp the resistive element running through the resistive element receiving system with his or her hands extended downwardly and then raise each arm in various movements to exercise various muscles of the body. Further, the user may extend legs in various movements to exercise various muscles of the body. The user may also attach the resistive element to the foot or ankle and extend or retract the foot or leg in various movements to exercise various muscles of the body.

**[0094]** A user may stand with feet placed on the platform of the exercise apparatus such that a portion of the heel is on the platform and the remaining portion of the foot is off the

platform and perform squats or modified squats. Preferably, the heels are located on the platform at positions indicated by indicia (FIG. 16). The remaining portion of the foot is on the ground in front of the heel placement indicia as indicated by the prescribed workout. For example, in position "2", the heel is on the board and the remaining portion of the foot is on the ground directly in front of position "2"; however, in position "4" the heel is on the board and the remaining portion of the foot is on the ground with the toes pointed outward from position "4." The entire foot may be located on the ground next to a position indicated by indicia. For example, in position "1" of the prescribed workout, both the heel and the remaining portion of the foot are located next to position "5" indicia on the board.

**[0095]** A prescribed workout using the exercise apparatus includes at least one movement exercising at least one muscle utilizing the exercise apparatus. An exemplary prescribed workout includes, but is not limited by, the following example. The user stands erect and then bends knees to about a 90 degree angle to perform one repetition in multiple positions. In position 1, the user places their feet on the ground next to "5" on the platform and then performs 10 repetitions of squats. In position 2, the user places their heels on the respective "2" indicia on the platform and the remaining portion of their feet on the ground. The user performs 10 repetitions of squats in this position. In position 3, the user places their heels on the respective "3" indicia on the platform and the remaining portion of their feet on the ground. The user performs 10 repetitions of squats in this position. In position 4, the user places their heels on the respective "4" indicia on the platform and the remaining portion of their feet on the ground with toes positioned outward from the "4" indicia. The user performs 10 repetitions of squats in this position. In position 5, the user places their heels on the respective "5" indicia on the platform and the remaining portion of their feet on the ground with toes pointed towards the sides. The user performs 10 repetitions of squats in this position. The user has completed one set and may do multiple sets.

**[0096]** It will readily be understood by one having ordinary skill in the relevant art that the present invention has broad utility and application. Furthermore, any embodiment discussed and identified as being "preferred" is considered to be part of a best mode contemplated for carrying out the present invention. Other embodiments also may be discussed for additional illustrative purposes in providing a full and enabling disclosure of the present invention. Moreover, many embodiments, such as adaptations, variations, modifications, and equivalent arrangements, will be implicitly disclosed by the embodiments described herein and fall within the scope of the present invention.

**[0097]** Accordingly, while the present invention is described herein in detail, it is to be understood that this disclosure is illustrative and exemplary of the present invention, and is made merely for the purposes of providing a full and enabling disclosure of the present invention. The detailed disclosure herein is not intended, nor is to be construed, to limit the scope of patent protection afforded the present invention.

#### DEFINITIONS

**[0098]** The term "first positioning length" refers to the longest length of the exercise apparatus, which functions to provide proper leg width for performing squats at the first

position. The first positioning length is located opposite of the second positioning length and adjacent to the stabilizing length.

**[0099]** The term “second positioning length” refers to the length parallel and opposite of the first positioning length. The second positioning length is located opposite of the first positioning length and adjacent to the stabilizing length.

**[0100]** The term “stabilizing length” refers to the length perpendicular and adjacent to the first positioning length. The stabilizing length may also be perpendicular and adjacent to the second positioning length, connecting the first positioning length to the second positioning length. Also, the stabilizing length may be perpendicular and adjacent to the first positioning length and adjacent to the third positioning length, connecting the first positioning length to the third positioning length.

**[0101]** The term “third positioning length” refers to the length connecting the second positioning length to the stabilizing length. The third positioning length is at an angle less than 90° to the first positioning length. The third positioning length may also be the length at an angle less than 90° to the first positioning length, connecting the second positioning length to the first positioning length.

**[0102]** The term “positioning arc” refers to the arc formed by connecting one end of the first positioning length to the opposite end of the first positioning length.

**[0103]** The term “exercise apparatus” refers to the invention as a whole.

**[0104]** The term “platform surface” refers to the top surface of the exercise apparatus, which is the surface that receives the user. The platform surface is a planar surface located opposite and parallel to the ground surface.

**[0105]** The term “ground surface” refers to the bottom surface of the exercise apparatus, which is in contact with or communicates with the floor or ground. The ground surface is a planar surface located opposite and parallel to the platform surface.

**[0106]** The term “platform width” refers to the widest length between the first and second positioning lengths.

**[0107]** The term “platform height” refers to the distance between the ground surface and the platform surface.

What is claimed is:

**1.** An exercise apparatus for aiding a user in proper squat exercise form comprising:

- a. a platform for receiving a user having a platform surface, a ground surface, a platform height, a platform width, a first positioning length, a second positioning length, and a stabilizing length, wherein the stabilizing length is shorter than the first positioning length;
- b. a beveled edge, wherein the beveled edge is on the stabilizing length and the second positioning length; and,
- c. a resistive element receiving system, wherein the resistive element receiving system comprises at least one receiving notch.

**2.** The exercise apparatus of claim **1**, wherein the platform height is selected from the range consisting essentially of about 0.5 to about 2.0 inches.

**3.** The exercise apparatus of claim **1**, wherein the platform width is selected from the range consisting essentially of about 3 to about 12 inches.

**4.** The exercise apparatus of claim **1**, wherein the platform includes indicia indicating foot placement.

**5.** The exercise apparatus of claim **1**, wherein at least a portion of the platform is enclosed in a non-slip covering for gripping contact.

**6.** The exercise apparatus of claim **1**, further comprising a resistive element.

**7.** The exercise apparatus of claim **1**, wherein the resistive element receiving system further comprises at least one receiving groove.

**8.** An exercise apparatus for aiding a user in proper squat exercise form comprising:

- a. a platform for receiving a user having a platform surface, a ground surface, a platform height, a platform width, a first positioning length, a second positioning length, a stabilizing length and a third positioning length, wherein the third positioning length is shorter than the first positioning length, wherein the stabilizing length is shorter than the first positioning length, wherein the stabilizing length is perpendicular to the first positioning length, and wherein the second positioning length is shorter than the first positioning length;
- b. a beveled edge, wherein the beveled edge is on the stabilizing length, the second positioning length, and the third positioning length; and,
- c. a resistive element receiving system, wherein the resistive element receiving system comprises at least one receiving notch.

**9.** The exercise apparatus of claim **8**, wherein the platform height is selected from the range consisting essentially of about 0.5 to about 2.0 inches.

**10.** The exercise apparatus of claim **8**, wherein the platform width is selected from the range consisting essentially of about 3 to about 12 inches.

**11.** The exercise apparatus of claim **8**, wherein the platform includes indicia indicating foot placement.

**12.** The exercise apparatus of claim **8**, wherein at least a portion of the platform is enclosed in a non-slip covering for gripping contact.

**13.** The exercise apparatus of claim **8**, further comprising a resistive element.

**14.** The exercise apparatus of claim **8**, wherein the resistive element receiving system further comprises at least one receiving groove.

**15.** An exercise apparatus for aiding a user in proper squat exercise form comprising:

- a. a platform for receiving a user having a platform surface, a ground surface, a platform height, a platform width, a first positioning length, and a positioning arc, wherein the positioning arc initiates at a first end of the first positioning length and extends as an arc to a second end of the first positioning length opposing the first end;
- b. a beveled edge, wherein the beveled edge is on the positioning arc; and,
- c. a resistive element receiving system, wherein the resistive element receiving system comprises at least one receiving notch.

**16.** The exercise apparatus of claim **15**, wherein the platform height is selected from the range consisting essentially of about 0.5 to about 2.0 inches.

**17.** The exercise apparatus of claim **15**, wherein the platform width is selected from the range consisting essentially of about 3 to about 12 inches.

**18.** The exercise apparatus of claim **15**, wherein the platform includes indicia indicating foot placement.

**19.** The exercise apparatus of claim **15**, wherein at least a portion of the platform is enclosed in a non-slip covering for gripping contact.

**20.** The exercise apparatus of claim **15**, further comprising a resistive element.

**21.** The exercise apparatus of claim **15**, wherein the resistive element receiving system further comprises at least one receiving groove.

**22.** A method of using an exercise apparatus for aiding a user in executing an exercise with proper form, wherein the exercise apparatus comprises:

- a. a platform for receiving a user having a platform surface, a ground surface, a platform height, a platform width, a

first positioning length, a second positioning length, and a stabilizing length, wherein the stabilizing length is shorter than the first positioning length;

- b. a beveled edge, wherein the beveled edge is on the stabilizing length and the second positioning length; and,
- c. a resistive element receiving system, wherein the resistive element receiving system comprises at least one receiving notch.

**23.** The exercise apparatus of claim **22**, wherein the resistive element receiving system further comprises at least one receiving groove.

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