



US 20040087420A1

(19) **United States**

(12) **Patent Application Publication**

Montesquieu

(10) **Pub. No.: US 2004/0087420 A1**

(43) **Pub. Date: May 6, 2004**

(54) **DOOR/WALL/NATURAL STRUCTURE
EXERCISER ANCHOR**

(52) **U.S. Cl. 482/129; 482/121**

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(57) **ABSTRACT**

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An inexpensive, easily constructed and portable, exerciser anchor used in conjunction with progressive resistive bands that provide multiple exercise anchor points. The use of multiple progressive resistive bands 20, tubes or cords 22 with 2-point anchor knot attachments increase and provide the vector force that provides tension and resistance to the user. The multiple use of progressive resistive bands and correct placement of the bands enhances the proper biomechanic function of the joint being exercised and increases the proprioceptive trunk response while moving the extremity. The exercise anchor used in conjunction, but not limited to, with other exercise apparatus such as an exercise ball or trampoline maximizes the exercise benefit by introducing multiple elements to the exercise regimen.

(21) Appl. No.: **10/288,688**

(22) Filed: **Nov. 4, 2002**

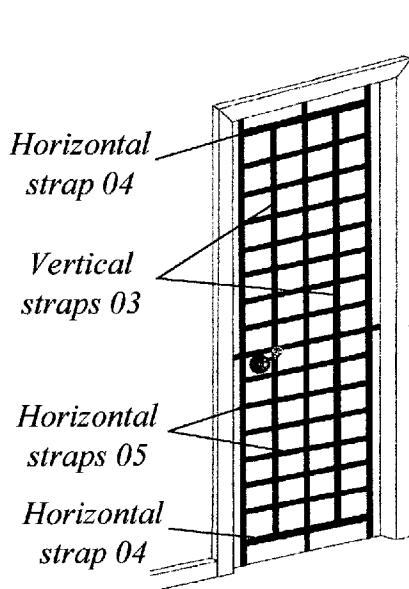
Publication Classification

(51) Int. Cl.⁷ **A63B 21/02; A63B 21/04**

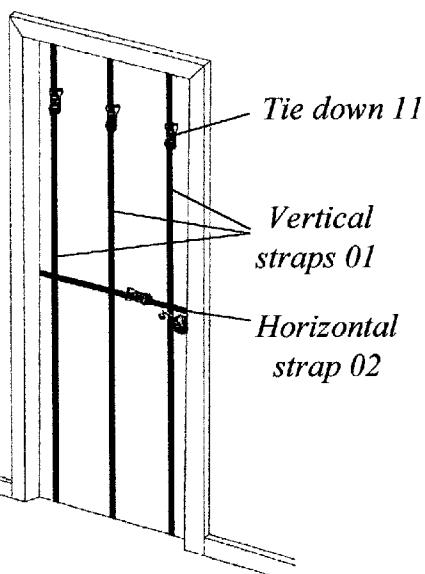
FULL DOOR STRAP EXERCISE ANCHOR

001

Front door



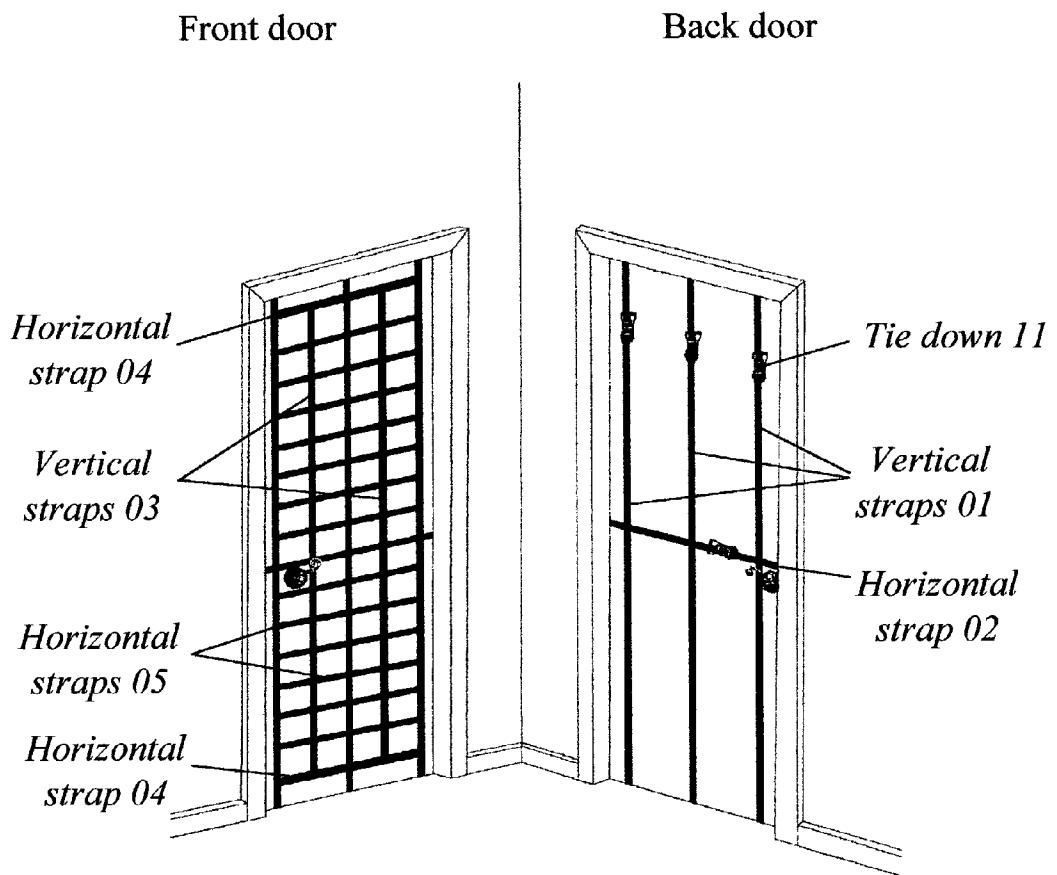
Back door



FULL DOOR STRAP EXERCISE ANCHOR

001

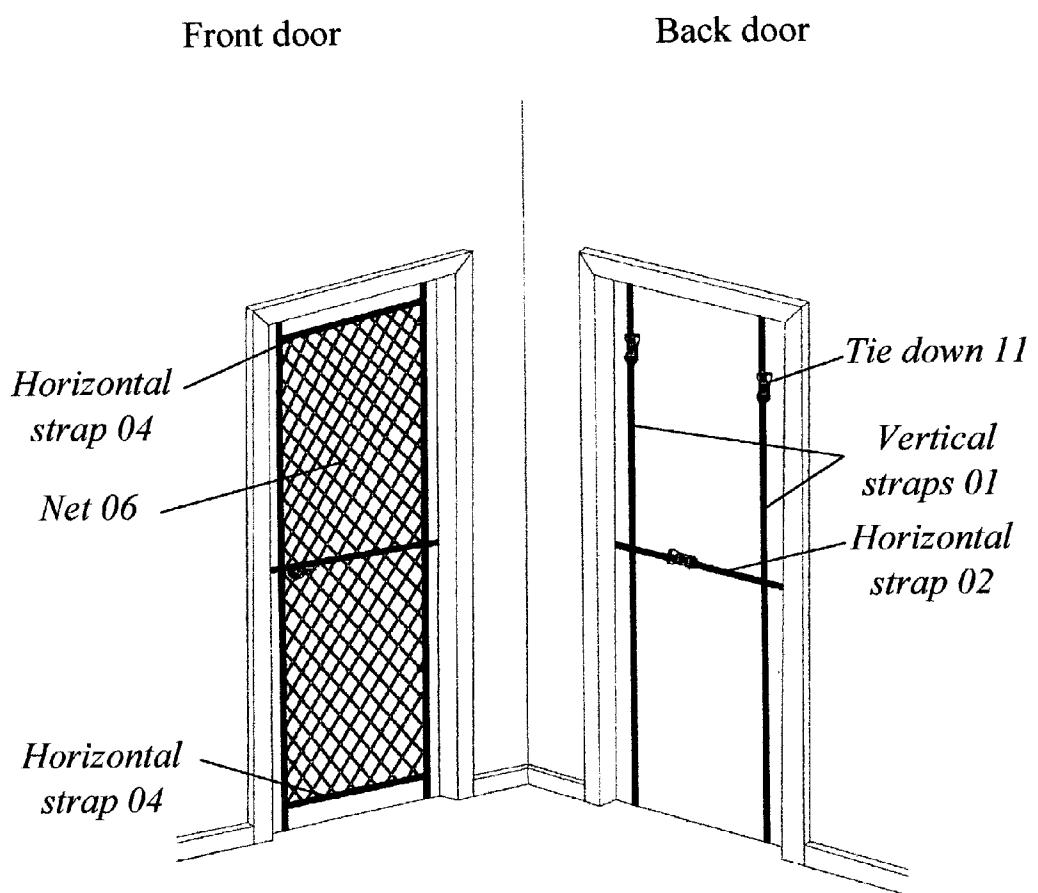
Figure 1



FULL DOOR NET EXERCISE ANCHOR

002

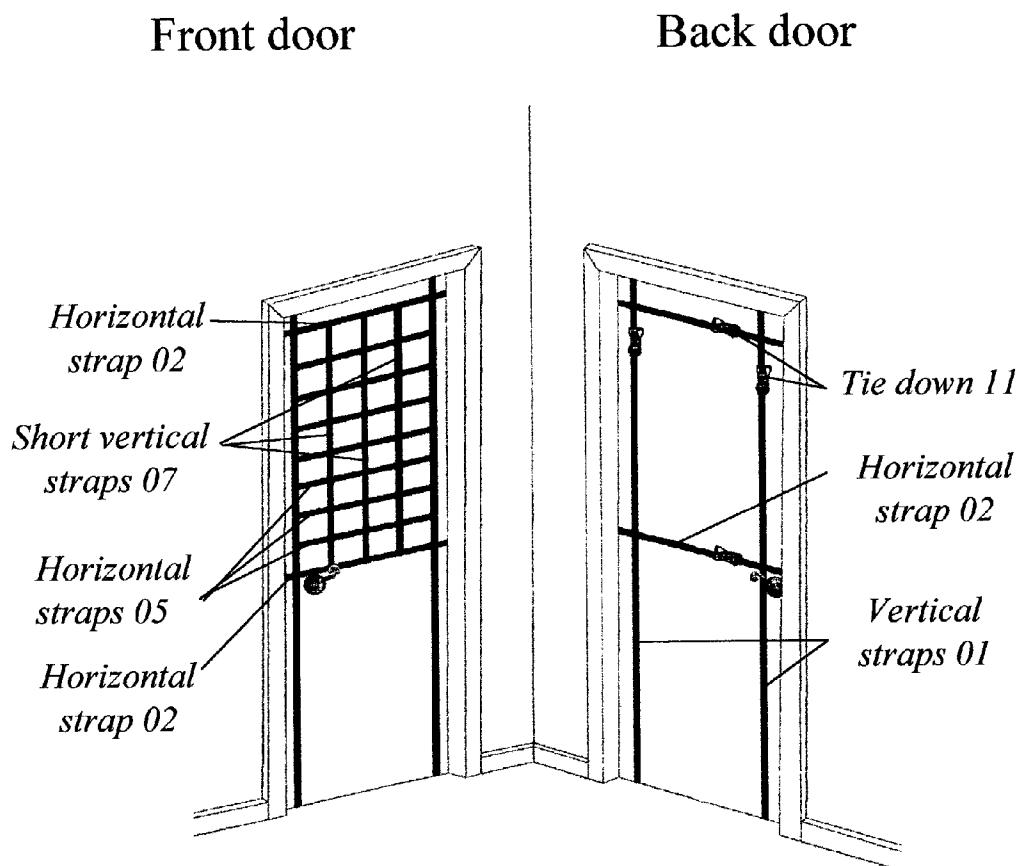
Figure 2



PARTIAL DOOR STRAP OR NET EXERCISE ANCHOR

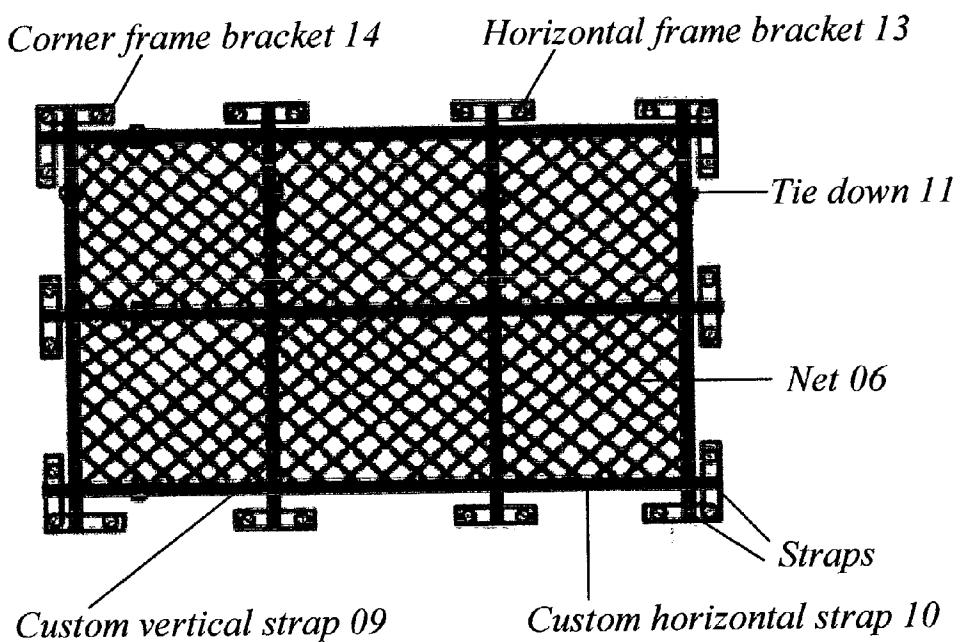
003

Figure 3



CUSTOM WALL STRAP or NET EXERCISE ANCHOR
004

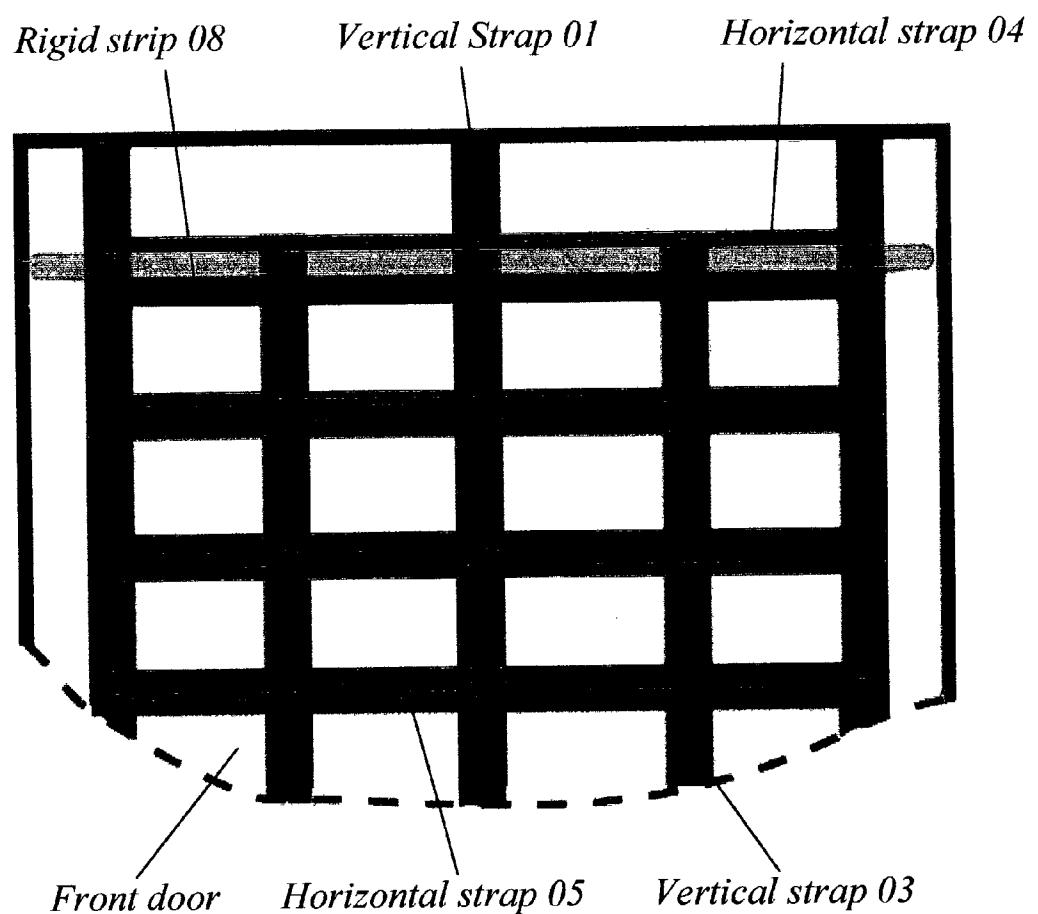
Figure 4



RIGID STRIP

Figure 5

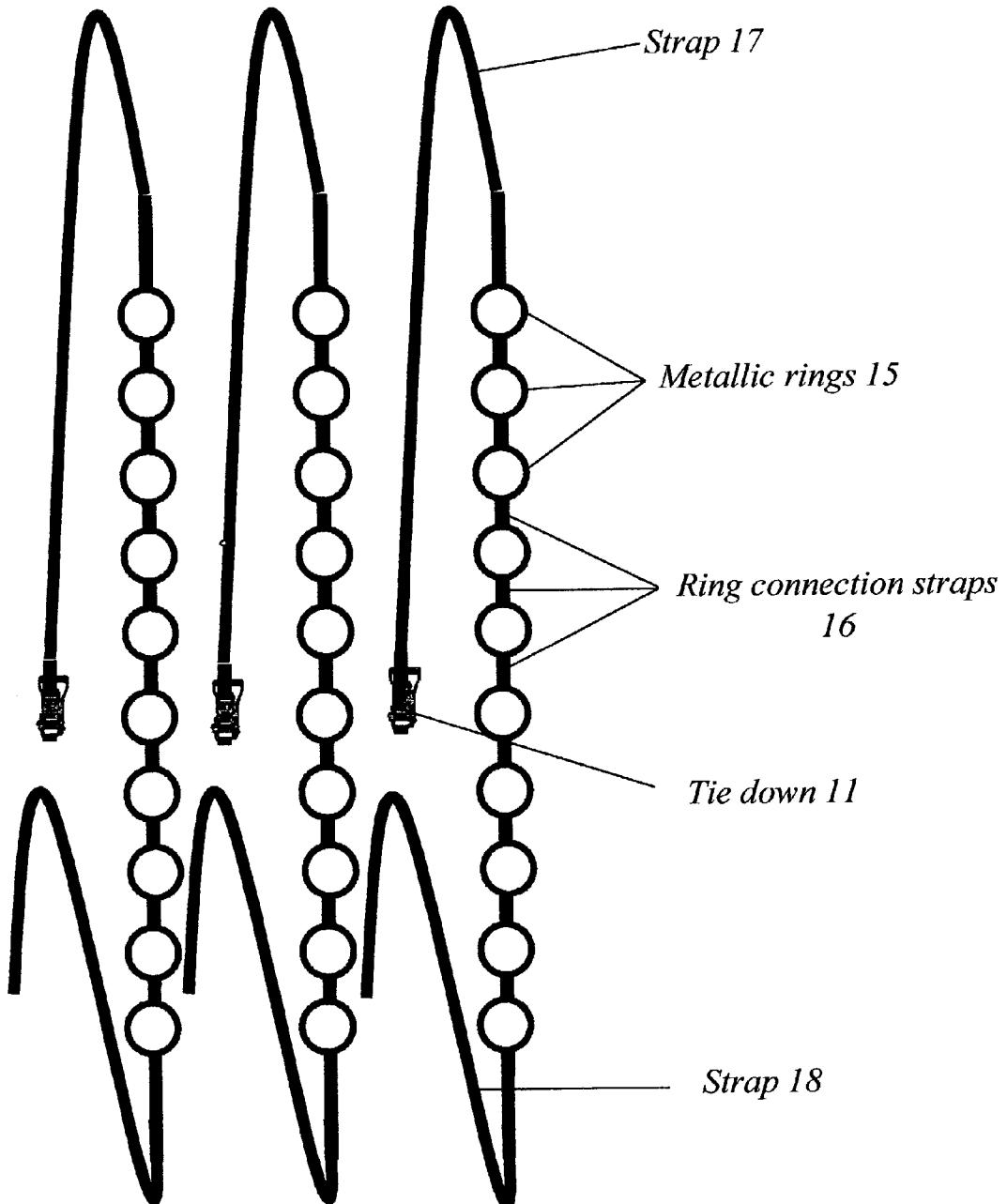
Top front door



3 MULTIPLE METALLIC RING STRAP BELTS

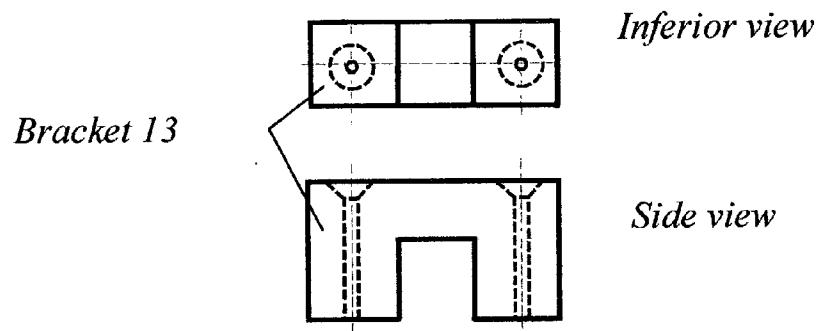
005

Figure 6



HORIZONTAL/VERTICAL FRAME BRACKET # 006

Figure 7



CORNER FRAME BRACKET # 007

Figure 8

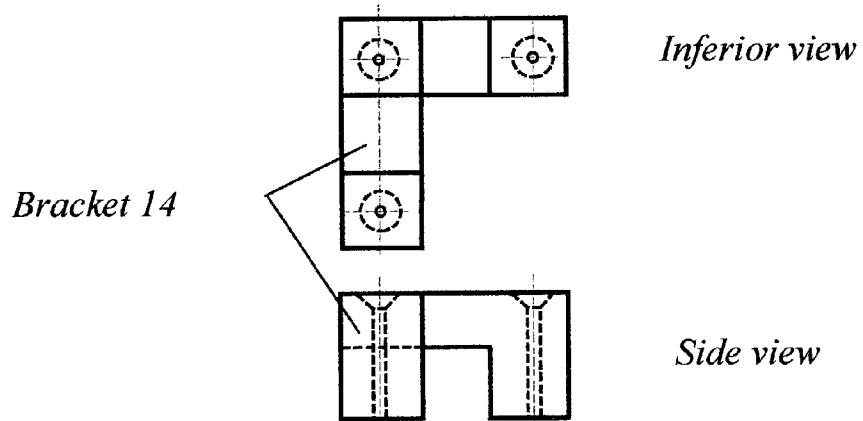


Figure 9

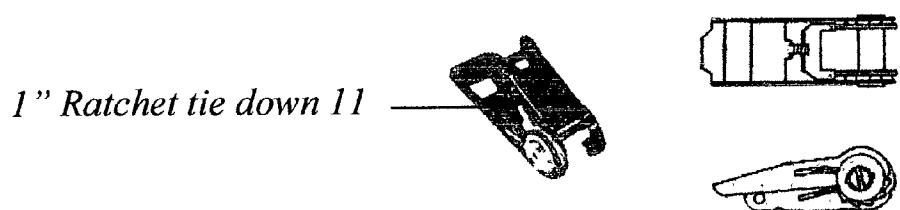


Figure 10

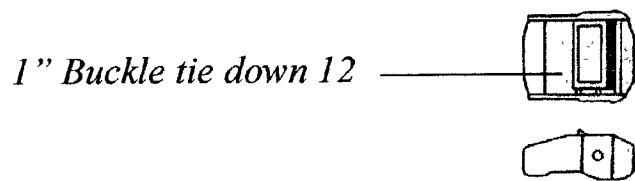


Figure 11

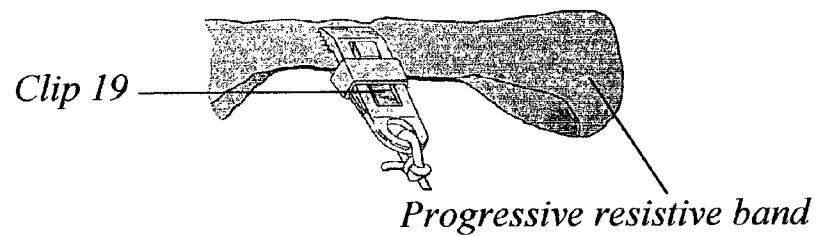
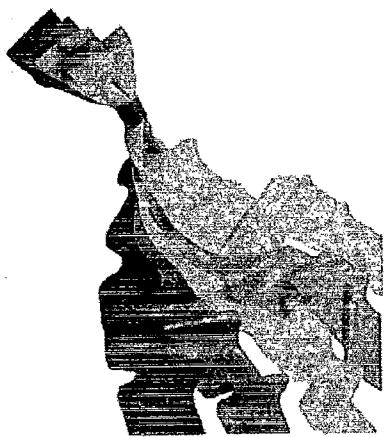


Figure 12



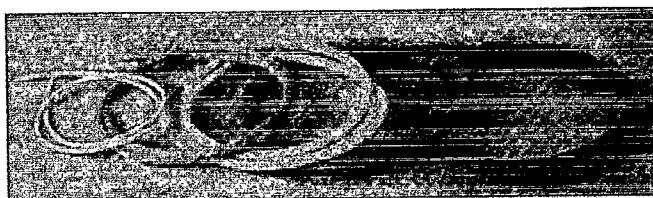
Progressive resistive bands 20

Figure 13



Handles 21

Figure 14



Progressive resistive tubes/cords 22

Figure 15

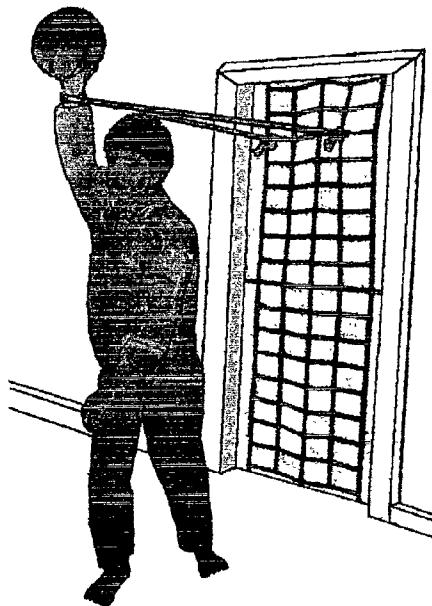


Figure 16

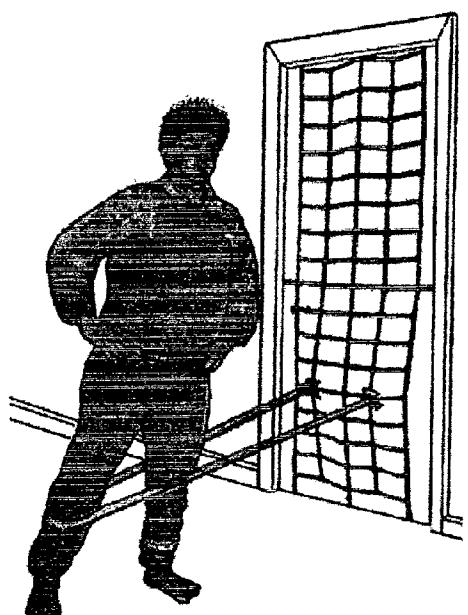


Figure 17



Figure 18



Figure 19

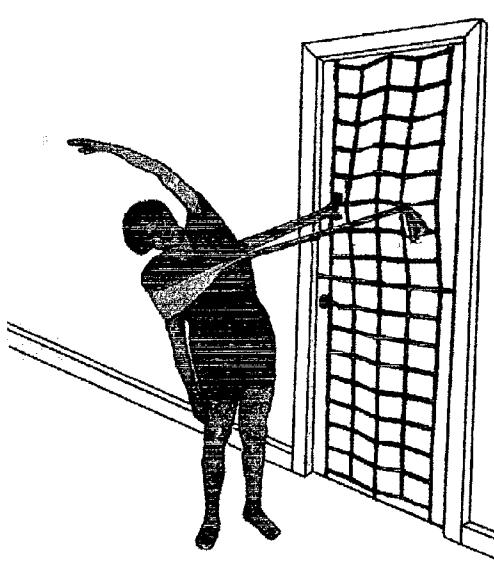


Figure 20

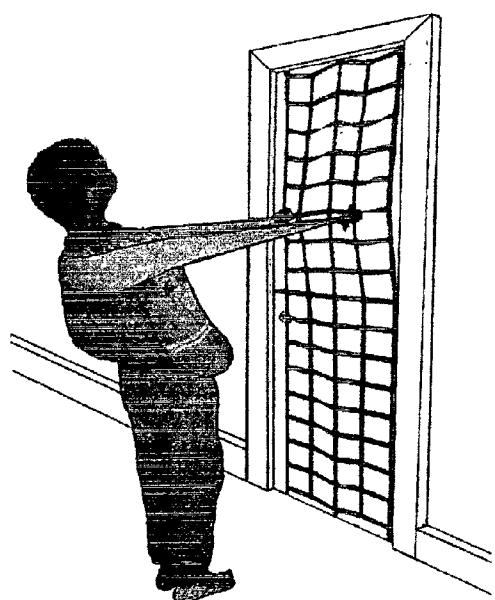


Figure 21

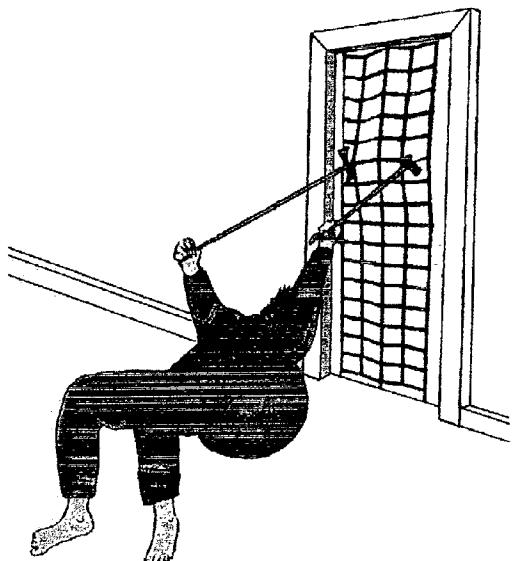


Figure 22

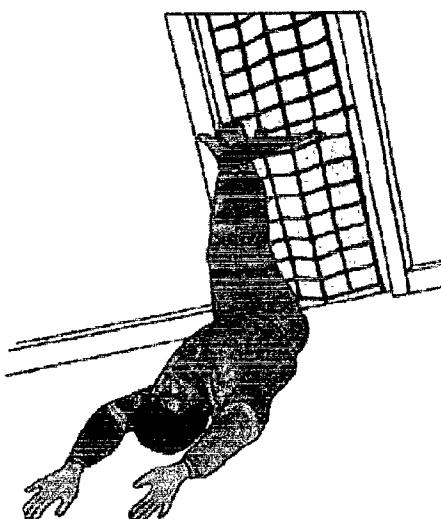
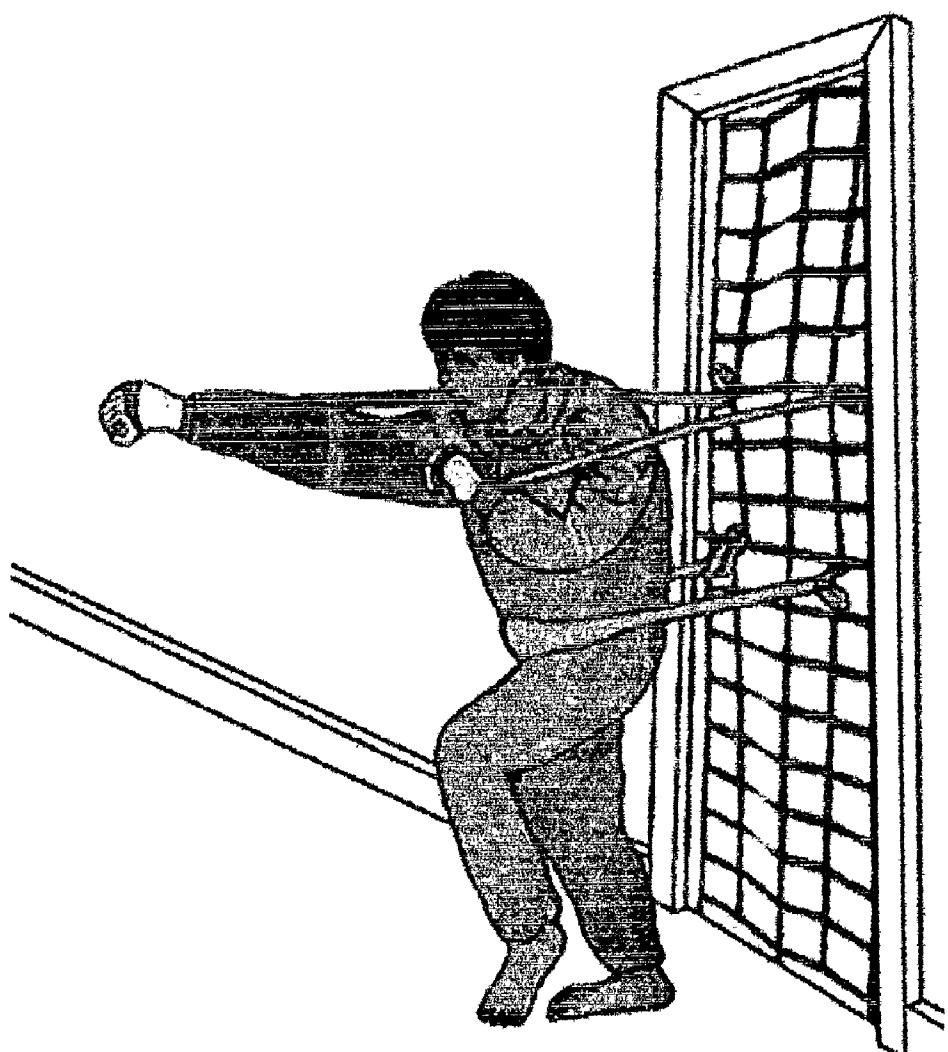


Figure 23



**DOOR/WALL/NATURAL STRUCTURE EXERCISER
ANCHOR****FEDERALLY SPONSORED RESEARCH****[0001]** Not Applicable**SEQUENCE LISTING OR PROGRAM****[0002]** Not Applicable**BACKGROUND****[0003]** 1. Field of the Invention

[0004] This invention generally relates to exercising and, in particular portable door/wall/natural structure exerciser anchors that are easily mounted upon the structure selected.

[0005] 2. Description of Prior Art

[0006] Even though exercisers are well known as prior art, there are many problems that have not previously been resolved by the prior art. Generally exercisers that are thought to maximize the exercise benefit are usually found in commercial gyms. These gyms are crowded and, many times, do not have the exerciser readily available. There is the added inconvenience of having to travel to these facilities. While some users prefer to exercise at home to bypass the inconveniences of commercial gyms, home use exercisers are also sometimes big and bulky and difficult to set up. Additionally sometimes these exercise apparatus are not as efficient at producing the maximum exercise benefit as those found in the commercial gyms. The problem is that there is no means currently available to provide a complete exercise workout without either having to go to a commercial gym or purchasing multiple pieces of home exercisers. While many attempts have been made to invent a system that is both readily portable and efficient in exercising all the different muscles and joints, none of the prior art has been able to provide the solution for the needs of the user. As previously disclosed, none of the previous inventions are either simple in construction or versatile in use. In U.S. Pat. No. 5,468,205, McFall discloses an apparatus, which utilizes an upper and lower base connected together and suspended from the door by means of mounting straps. A plurality of pulleys is provided in each base and elastic cords are mounted between aligned upper and lower pulley. Attachment eyelets are at each end of the cord to simplify attachment of the handle. One of the inherent problems with Mc Fall's exerciser is that it is not easy to install and it appears to be unsafe as it may detach itself from the Velcro attachments that keep it mounted on the door. Additionally, no means of additional resistance to the body is achievable as there is no disclosure of elastic cords or bands of different resistance elasticity. The cords mentioned can only be pulled in limited directions. The pulley construction makes this prior art bulky and complicated. The pulley orients the direction of the force and with this invention the directions are strictly limited by its placement. Zito in U.S. Pat. No. 4,109,907 also discloses a door mounted apparatus weight lifting apparatus. Pulleys are suspended from the top of the door and cords pass through the pulleys. The weight is suspended at one end of the cord and a handle is connected to the other end of the cord. Changing the weight alters the tension in this disclosure. Again the range of motion is compromised in its limitation. Franklin yet describes, in U.S. Pat. No. 4,611,

805. another type of portable exercise device that is also plagued by the same problem as the others so far mentioned. This exerciser discloses elastic cords with handles and also limited range of motion for exercise. The elastic cords disclosed offer the same elasticity and, therefore, the same tension. The spring and/or the exerciser bar have to be changed to change the tension. U.S. Pat. No. 5,277,683 by Wilkins discloses yet another portable exercise strap that can be moved from door to door. This prior art is also limited by its inability to provide a medium for a full range of exercises. The cord is also of a pre-determined elasticity and the strap or cord would need to be changed to affect a change in the tension. The exercise device for removable mounting on a door disclosed by Mazor in U.S. Pat. No. 6,059,698 limits itself by not creating an anchor point that will not stress the joint when it is being exercised. All his anchor points attach below or above the joint. This prior art does not disclose any exercise possibility at the level of the joint except for, perhaps, the ankle. Mazor's prior art is limited in its ability to provide a means for exercising a wide range of exercises for the lower extremities. Again there is not an anchor point from which to work with the hips or people that do not have biomechanical defects, such as arthritis, and those individuals that are optimally fit limit Mazor's prior art to use.

[0007] In as much as there seems to be a proliferation of portable home exercisers, all the heretofore known portable door mounted exercisers suffer from a number of disadvantages:

[0008] (a) The manufacture requires the use of substantial rigid metal components, which adds to the manufacturing cost and makes exercisers expensive

[0009] (b) The use of pulleys deflects and redirects the force of the resistance and makes the exerciser bulky.

[0010] (c) There are limited anchor points from which to exercise at the level of the joint or to indirectly challenge other muscles to aid in the movement and strengthening of the other body parts not directly being exercised.

[0011] (d) The exercisers are unable to provide a medium for multiple exercise techniques such as proprioception, neuro-muscular facilitation and balance exercises due to the pulley system used in the majority of the exercisers.

[0012] (e) The exercisers are primarily geared for strengthening or stretching exercises.

[0013] (f) Inexpensive fabrication materials that are currently available are not used in the construction of the aforementioned prior art.

[0014] (g) The exercisers do not have the possibility of providing multiple anchor points in order to exercise from multiple planes.

[0015] (h) The exercisers do not provide the possibility to simultaneously exercise joints symmetrically.

[0016] (i) None of the exercisers are truly portable.

[0017] It is a principal object of this present invention to overcome the problems of the prior art, improve and solve the problems of the prior art.

OBJECTS AND ADVANTAGES

[0018] Accordingly, besides the objects and advantages of the portable door/wall/natural structure exerciser anchor described in my above patent, several objects and advantages of the present invention are:

- [0019] (a) to provide a portable exercise anchor that is not confined to indoor use.
- [0020] (b) to provide a portable exerciser anchor that is adaptable for use with natural structures such as trees or other freestanding structures.
- [0021] (c) to provide a portable exerciser anchor that is unlimited in its application for exercise benefit.
- [0022] (d) to provide a portable exerciser anchor used in conjunction with other exercise apparatus to maximize exercise benefit
- [0023] (e) to provide a portable exerciser anchor that will simultaneously exercise muscle groups directly and indirectly
- [0024] (f) to provide a portable exercise anchor with multiple anchor points from which to exercise joints symmetrically or singularly
- [0025] (g) to provide a portable exerciser anchor that is colorful and fun to use
- [0026] (h) to provide a portable exerciser anchor that is inexpensive to manufacture
- [0027] (i) to provide a portable exerciser anchor for 3rd world countries

SUMMARY

[0028] The invention, an improved door or wall mounted exercise anchor system, is comprised of at least three vertical web straps **01**, sewn together by a horizontal strap **04** at each end to cover the width of a door, with sufficient extension lengths to wrap around the front length and back side of a door, crisscrossed in the middle with a horizontal strap **02** with sufficient extension length to wrap around the width and back side of the door with tie-down ratchets **11** attached at each extension length of vertical strap **01** and horizontal strap **02**. A plurality of attached, machine-sewn or welded horizontal straps **05** and vertical straps **03** crisscrossed to construct the exercise anchor **001**. Variable progressive resistive bands **20**, tubes or cords **22** are used in conjunction with and attached to the full door strap exercise anchor **001** with 2-point anchor knots to create a medium with tension and resistance necessary to perform the type of exercise the user chooses. The resistance bands **20**, tubes or cords **22** may also be attached by a clip attachment **19**, with safety cord attachment to avoid projection, readily available in the market. The lightweight full door strap exercise anchor can fold down into a small packet and can be easily transported in a carrying pouch.

DRAWINGS

[0029] A greater understanding of the present invention will be gained by referring to the detailed description and claims when considered in connection with the figures.

[0030] FIG. 1. Is a front and back door view of the full door strap exercise anchor **001**.

[0031] FIG. 2. Is a front and back door view of the full door strap and net exercise anchor **002**.

[0032] FIG. 3. Is a front and back door view of the partial door strap or net exercise anchor **003**.

[0033] FIG. 4. Is a front view of a custom wall strap or net exercise anchor **004**.

[0034] FIG. 5. Is a front view of rigid strip **08** inserted in the full door strap/net exercise anchors **001, 002**.

[0035] FIG. 6. Is a perspective view of 3 multiple metallic ring straps **005** with ratchet tie-downs **11**.

[0036] FIG. 7. Is an inferior and side view of a horizontal/vertical frame bracket **006**.

[0037] FIG. 8. Is an inferior and side view of a corner frame bracket **007**.

[0038] FIG. 9. Is a perspective, superior and side view of a 1" ratchet tie down **11**

[0039] FIG. 10. Is a superior and side view of a 1" buckle tie down **12**.

[0040] FIG. 11. Is a perspective view of clip attachment **19**, with safety cord attachment to avoid projection, for progressive resistive bands **20**, tubes or cords **22**.

[0041] FIG. 12. Is a perspective view of progressive resistive bands **20**.

[0042] FIG. 13. Is a perspective view of handles **21**

[0043] FIG. 14. Is a perspective view of progressive resistive tubes or cords **22**.

[0044] FIG. 15. Is a perspective view of a user using a progressive resistive band **20** with double-anchor points attached to the full door strap exercise anchor **001** while performing an over-head upper extremity exercise.

[0045] FIG. 16. Is a perspective view of a user using a progressive resistive band **20** with double-anchor points attached to the full door strap exercise anchor **001** while performing a lower extremity exercise.

[0046] FIG. 17. Is a perspective view of a user using a progressive resistive band **20** with double-anchor point knot attachments to the full door strap exercise anchor **001** while performing a lower-extremity exercise.

[0047] FIG. 18. Is a perspective view of a user using a progressive resistive band **20** with double anchor point knot attachments to the full door strap exercise anchor **001** while performing a squat exercise.

[0048] FIG. 19. Is a perspective view of a user using a progressive resistive band **20** with double-anchor point knots attached to the full door strap exercise anchor **001** while performing a side-bending exercise.

[0049] FIG. 20. Is a perspective view of a user using a progressive resistive band **20** with double-anchor point knots attached to the full door strap exercise anchor **001** while performing a back extension exercise.

[0050] FIG. 21. Is a perspective view of a user, laying prone upon an exercise ball, using 2 progressive resistive bands **20** with individual single-point anchor knots attached to the full door strap exercise anchor **001** while performing an upper extremity exercise.

[0051] **FIG. 22.** Is a perspective view of a user using a progressive resistive band **20** with a 2-point anchor knot attachments to the full door strap exercise anchor **001** while performing a lower extremity/abdominal exercise.

[0052] **FIG. 23.** Is a perspective view of a user using a plurality of progressive resistive bands **20** with a plurality of anchor point knots attached to the full door strap exercise anchor **001** while performing a combination, dynamic body exercise.

DESCRIPTION

[0053] **FIG. 1** Is a front and back door view of the full door strap exercise anchor **001** constructed in accordance with the invention. The exercise anchor is comprised of at least three vertical web straps **01**, with sufficient extension lengths to wrap around the front length and back-side of a door with tie-down ratchets **11** attached at each extension length, sewn together by a box stitch or welded with a horizontal strap **04** at each end to cover the width of a door. It is crisscrossed in the middle with a horizontal strap **02**, with sufficient extension length to wrap around the width and back side of the door with tie-down ratchets **11** attached at each extension length, sewn together by a box stitch or welded. A plurality of attached sewn or welded horizontal straps **05** and vertical straps **03** crisscrossed to construct the exercise anchor. The ratchet tie-downs **11** at each extension of vertical straps **01** and horizontal strap **02** are tied down with sufficient tension as to not allow the anchor to be loose. The exercise anchor fits the structure like a tight glove. The exercise anchor **001** is interchangeable and can be fitted both to a right or left opening door.

[0054] **FIG. 2** Is a variation of front and back door view of the full door net exercise anchor **002** constructed in accordance with the invention using a mesh net fabric **06**. The mesh net fabric exercise anchor **002** is comprised of at least 2 vertical web straps **01**, with sufficient extension lengths to wrap around the length and back-side of a door with tie-down ratchets **11** attached at each extension length, sewn together or welded, with a horizontal strap **04** at each end to cover the width of a door. It is crisscrossed in the middle of the net fabric surface with a horizontal strap **02** with sufficient extension length to wrap around the width and back-side of the door with tie-down ratchets **11** attached at each extension length. The mesh net fabric is machine sewn or welded to vertical straps **01**; horizontal strap **02** and horizontal straps **04** to form the rigid mesh net fabric exercise anchor **002**. The ratchet tie-downs **11** at each extension length of vertical straps **01** and horizontal strap **02** are tied down with sufficient tension as to not allow the net exercise anchor **002** to be loose. The net exercise anchor **002** fits the structure like a tight glove. The exercise anchor **001** is interchangeable and can be fitted both to a right or left opening door.

[0055] **FIG. 3** Is a version of the full door exercise anchor depicted as a partial door exercise anchor **003** constructed in accordance with the invention. The partial door exercise anchor **003** is comprised of at least 2 vertical web straps **01**, with sufficient extension lengths to wrap around the length and back-side of a door with tie-down ratchets **11** attached at each extension length, sewn together by a box stitch or welded with a horizontal strap **02** at each end to cover width and back side of the door with tie-down ratchets **11** attached

at each extension length, sewn together by a box stitch or welded. A plurality of attached sewn or welded horizontal straps **05** and vertical straps **07** crisscrossed to construct the partial exercise anchor **003**. As previously described in **FIG. 2**, the partial door exercise anchor may also be constructed in accordance with the invention by using the fabric net attached as previously described instead of the individual straps. As always the ratchet tie-downs **11** at each extension of vertical straps **01** and horizontal strap **02** are tied down with sufficient tension as to not allow the partial exercise anchor **003** to be loose. The partial exercise anchor **003** fits the structure like a tight glove. The exercise anchor **001** is interchangeable and can be fitted both to a right or left door opening. The partial exercise anchor **003** may be fitted to the top portion of the door to perform upper quadrant exercises or fitted to the lower portion of the door to perform trunk and lower extremity exercises.

[0056] **FIG. 4** Is a custom size wall strap and net exercise anchor **004** constructed in accordance with the invention. This custom size wall strap and net exercise anchor **004** is comprised of at least 4 custom size vertical straps **09**, as depicted in the drawing, with sufficient extension lengths to wrap around the backside of the frame and with at least 3 custom size horizontal straps **10**, one at each end and the other horizontal strap **10** in the middle, crisscrossed and sewn or welded together. The variation allows for the attachment of the net fabric **06** to be sewn or welded onto the custom size vertical straps **09** or custom size horizontal straps **10** to form the fabric net exercise anchor **004**. The other variations would be constructed with only the individual straps crisscrossed to construct a free-form exercise anchor. The custom size exercise anchor **004** is attached to the wall by corner brackets **14** and horizontal/vertical brackets **13** screwed into the wall as per this drawing. The custom size vertical straps **09** and custom size horizontal straps **10** pass through the opening of the corner brackets **14** and horizontal/vertical brackets **13** and fastened together with the tie down ratchets **11** on the back side of the mesh net fabric. While the mesh fabric net exercise anchor is depicted in this variation, multiple variations can be achieved by placing the custom size horizontal straps **10** and custom size vertical straps **09** along with the corner brackets **14** or horizontal/vertical brackets **13** in any configuration. The ratchet tie-downs **11** at each extension of custom size vertical straps **09** and custom size horizontal strap **10** are tied down with sufficient tension as to not allow the custom size wall strap or net exercise anchor **004** to be loose. The custom size wall strap or net exercise anchor **004** fits around the frame brackets **1314** like a tight glove.

[0057] **FIG. 5** Is a variation of the full door strap exercise anchor **001** varying in construction from the present invention by incorporating a rigid strip **08** composed of any type rigid material. The exercise anchor is constructed as previously described under **FIG. 1** and only varies in the form of attachment of some of the straps. The ends of vertical straps **01** or vertical straps **03** are not sewn in a box stitch or welded together instead an opening is created by only attaching the upper most and bottom edges of the straps together to allow the strip to fit snugly in the openings and extending beyond the vertical strap **01**.

[0058] **FIG. 6** Is a variation of the full door strap exercise anchor **001** varying in construction from the present invention by utilizing individual multiple metallic ring forms **15**.

As depicted in **FIG. 6**, a plurality of 2' metallic rings 15 are sewn or welded together with a 3" length ring connection strap 16 to form a 1½ length between each metal ring form. At one extremity of the metallic ring strap belt 005, strap 17 fitted with a ratchet tie down 11 is looped around it and attached by sewing together with a box stitch or welded at the other extremity of the same metallic ring strap belt 005, strap 18 is looped around and attached to form a continuous belt. The multiple ring strap belts 005 can be fitted around any structure singularly or in conjunction with other multiple ring straps belts 005. As always the ratchet tie-downs 11 at each extension of strap 17 and strap 18 are tied down with sufficient tension as to not allow the multiple ring strap belts 005 to be loose. The multiple ring strap belts 005 fits the structure like a tight glove. Although, not depicted in this figure, multiple variations of this present invention can be construed. A custom size version of this invention fitted to the waist or shoulder, with the ratchet tie-downs replaced by D rings, could also be used as another attachment point from which to provide resistance to the user and other anchor points for the progressive resistive bands 20.

[0059] **FIG. 7** Is the horizontal or vertical frame bracket 006, 13 constructed of any rigid material used to anchor the custom size exercise anchor to a wall.

[0060] **FIG. 8** Is the corner frame bracket 007, 14 constructed of any rigid material used to anchor the custom size exercise anchor to a wall.

[0061] **FIG. 9** Is the 1" ratchet tie down 11 that is used at the extension lengths of vertical strap 01, horizontal strap 02, strap 17, custom size vertical strap 09 and custom side horizontal strap 10.

[0062] **FIG. 10** Is the 1' buckle tie down 12 that is used with the extension lengths of vertical strap 01, horizontal strap 02, strap 17, custom size vertical strap 09, custom side horizontal strap 10 and multiple metallic ring strap belts 005.

[0063] **FIG. 11** Is a variation of a clip attachment 19, with safety cord attachment to avoid projection that may be used to attach the progressive resistive band to all the variations of the present invention.

[0064] **FIG. 12** Is a picture of progressive resistive bands 20 that may be used, but not limited to, with this present invention to provide the resistance necessary against the tension to create the force against which to exercise.

[0065] **FIG. 13** Is a picture of handles 21 that may be used, but not limited to, with this present invention to provide a different type of grip.

[0066] **FIG. 14** Is a picture of progressive resistive tubes or cords 22 that may be used, but not limited to, with this present invention to provide the resistance necessary against the tension to create the force against which to exercise.

[0067] **FIG. 15** Is a perspective view of a user with his arm raised overhead holding a basketball while pulling on a progressive resistive band 20 attached with 2-point anchor knots to the full door strap exercise anchor 001. The user is positioned in a manner, which demands an increased static contraction of stabilizer muscles of the upper-extremity and trunk, by the tension of the progressive resistive band 20 in preparation for the movement. Those persons skilled in the art of exercise will immediately recognize this as a typical upper-extremity strengthening exercise. The use of

the full door strap exercise anchor 001 in conjunction with the progressive resistive band 20 attached with 2-point anchor knots, enhance the user's ability to gain more exercise benefit from the movement other than just a strengthening exercise. While the progressive resistive band 20 exerts direct resistance against the user at the level of the wrist to develop strength, the 2-point anchor knots of the progressive resistive band 20 challenge the entire arm to increase static contraction of stabilizer muscles of the upper-extremity and trunk. This stability provides a greater benefit since the accuracy of the user in a throwing motion will be increased because all the muscles of the arm will be functioning in synchronism. This movement and exercise is different from the benefit of using a pulley to exert force because the movement with the use of the pulley is linear. The full door strap exercise anchor 001 challenges the user by increasing the resistance and providing a wider base of movement for the exercise. With the 2-point knot attachment, the antagonist and agonist muscles have to work in conjunction and unison to keep the user stabilized against the positive, negative and neutral forces of the resistance both by the tension of the progressive resistive band 20 and the tension of the full door strap exercise anchor 001.

[0068] **FIG. 16**. Is a perspective view of a user with an outstretched leg, pulling on a progressive resistive band 20, attached by a 2-point anchor knot to the full door strap exercise anchor 001. As always, the user is positioned in a manner, which demands an increased static contraction of stabilizer muscles of the lower-extremity, pelvic and trunk, by the tension of the progressive resistive band 20 in preparation for the movement. Those persons skilled in the art of exercise will immediately recognize this as a typical lower extremity strengthening exercise. Again as previously described under **FIG. 15**, the use of full door strap exercise anchor 001 in conjunction with the progressive resistive band 20 attached with a 2-point anchor knot, enhances the user's ability to gain more exercise benefit from the movement other than just a strengthening exercise. While the progressive resistive band 20 exerts multi-directional resistance against the user at the level below the knee developing strength, the 2-point anchor knot attachment challenges the entire body to recruit the other surrounding muscles to balance the body. The full door strap exercise anchor 001 challenges the user by increasing the resistance and providing a wider base of movement for the exercise demanding that the body incorporate the muscles necessary to maintain its balance. With the 2-point knot attachment, the antagonist and agonist muscles have to work in conjunction and unison to keep the user stabilized against the positive, negative and neutral forces of the resistance both by the tension of the progressive resistive band 20 and the tension of the full door strap exercise anchor 001. This is of great benefit to any user that may be in need of strengthening as well as in balance deficit retraining. The movement is simple and does not require the user to assume different exercise positions or access other exercise apparatus such as a baps board. Precaution must always be taken to respect the biomechanical alignment/function of the degenerative joints of the user.

[0069] **FIG. 17** Is a perspective view of another variation of a user performing another lower extremity strengthening/balance exercise as previously described in **FIG. 16**. As always, the user is positioned in a manner that creates tension to the progressive resistive band 20 in preparation for the movement. Although not depicted, this user could

attached another progressive resistive band **20** to his chest with a 2-point anchor knot attachment on the full door strap exercise anchor **001** to create more resistance tension against the body creating a more precarious balance environment with more muscle involvement. While the progressive resistive band **20** exerts multi-directional resistance against the user at the level below the knee developing strength during flexion and extension of the knee, the additional progressive resistive band **20** with the 2-point anchor knot attachment challenges the entire body to recruit the other surrounding muscles to balance the body. The full door strap exercise anchor **001** challenges the user by increasing the resistance and providing a wider base of movement for the exercise demanding that the body incorporate the muscles necessary to maintain its balance. With the 2-point knot attachment, the antagonist and agonist muscles have to work in conjunction and unison to keep the user stabilized against the positive, negative and neutral forces of the resistance both by the tension of the progressive resistive band **20** and the tension of the full door strap exercise anchor **001**. The entire gamut of exercise techniques that utilize concentric, eccentric and static components are incorporated in this method of exercise that utilizes multiple progressive resistive bands **20** with 2-point anchor knot attachment to the full door strap exercise anchor **001**. Precaution must always be taken to respect the biomechanical alignment/function of the degenerative joints of the user.

[0070] **FIG. 18** Is a perspective view of a user performing another exercise variation on the full door strap exercise anchor **001**. As always the user is positioned in a manner that creates tension to the progressive resistive band **20** in preparation for the movement. This variation of the exercise combines tension force and resistive force with gravitational pull. As the user creates more tension and resistance by pulling on the progressive resistive band **20**, the upward knee squat is more challenging because the pull against gravity has been increased. This movement is similar to a movement that could be achieved with an expensive squat machine at a commercial facility with less risk of injury because the user initially controls the resistance strength by selecting the proper progressive resistive band resistance. Multiple variations of this exercise are possible such as one leg weight-bearing stance versus 2-leg stance or power jumping exercise.

[0071] **FIG. 19** Is a perspective view of a user performing another exercise variation on the full door strap exercise anchor **001**. As always the user is positioned in a manner that creates tension to the progressive resistive band **20** in preparation for the movement. This exercise is a typical side-bending range of motion exercise used in conjunction with the progressive resistive band **20** and a 2-point anchor knot attachment becomes a strengthening and balance or PNF type exercise. Again as previously described, the use of the full door strap exercise anchor **001** in conjunction with the progressive resistive band **20** anchored with a 2-point attachment knot, enhances the user's ability to gain more exercise benefit from the movement other than just a range of motion exercise. The antagonist and agonist muscles have to work in conjunction and unison to keep the user stabilized against the positive, negative and neutral forces of the resistance both by the tension of the progressive resistive band **20** and the tension of the full door strap exercise anchor **001**. The 2-point anchor knot attachment challenges the entire body to recruit the other surrounding muscles to

balance the body. The full door strap exercise anchor **001** challenges the user by increasing, decreasing or stabilizing the resistance and providing a wider base of movement for the exercise demanding that the body incorporate the muscles necessary to maintain its balance.

[0072] **FIG. 20**. Is a perspective view of a user performing another exercise variation on the full door strap exercise anchor **001**. As always the user is positioned in a manner that creates tension to the progressive resistive band **20** in preparation for the movement. This exercise is a back extension range of motion exercise that when used in conjunction with the progressive resistive band and the 2-point anchor knot attachment becomes a strengthening as well as a balance exercise. Again as previously described, the use of the progressive resistive band **20** in conjunction with the 2-point anchor knot attachment on the full door strap exercise anchor **001** challenge the body to concentrically, eccentrically and statically utilize all the muscles in the body simultaneously. While some muscles are lengthening, the other muscles are shortening to provide the balance necessary to maintain the movement. Breathing techniques are incorporated and recommended for the full benefit of this movement.

[0073] **FIG. 21**. Is a perspective view of a user performing another exercise variation on the full door strap exercise anchor **001**. As always the user is positioned in a manner that creates tension to the progressive resistive band **20** in preparation for the movement. In this particular exercise, the user has incorporated the use of an exercise ball upon which the back is laying while he is pulling on two individual resistance bands **20** that have been attached to the full door strap exercise anchor **001** with 1-point anchor knot attachments. Although not depicted, a single resistive progressive band **20**, with the 2-point anchor knot attachment, could be used if the user wanted to obtain additional resistance. The stability ball challenges the user to balance and correctly position the shoulders as the user is attempts to either gain range of motion or strengthening exercise benefit from the movement dependent on the progressive resistive band **20** resistance chosen. By incorporating the exercise ball with the use of the full door strap exercise anchor **001**, the user combines the balance benefits of the exercise ball, the resistive tension of the progressive resistive band **20** and the full door strap exercise anchor **001**.

[0074] **FIG. 22**. Is a perspective view of a user performing another exercise variation on the full door strap exercise anchor **001**. As always the user is positioned in a manner that creates tension to the progressive resistive band **20** in preparation for the movement. The user is performing a lower-extremity/abdominal exercise. As can be appreciated by all the exercise variations shown and described in this present invention, the exercise movements depicted are those traditionally used to build strength and/or control over exercising several muscle groups. The combination of resistive bands **20** and the full door strap exercise anchor **001** provide a medium to simultaneously achieve goals of strengthening, correct posture, increase organ function, increase bone density, increase range of motion, increase trophicity of the body muscle, increase quality of movement, increase endurance and power, increase quality of the joint, ligament, capsule, synovial liquid. While the progressive resistive band exerts multi-directional resistance against the user at the level below the joint developing strength, the

2-point anchor knot attachment challenges the entire body to recruit the other surrounding muscles to balance the body. The full door strap exercise anchor **001** challenges the user by increasing, decreasing or stabilizing the resistance and providing a wider base of movement for the exercise to use the body muscles more efficiently and uniformly.

[0075] **FIG. 23.** Is a perspective view of a user performing another exercise variation on the full door strap exercise anchor **001**. As always the user is positioned in a manner that creates tension to the progressive resistive bands **20** in preparation for the movement. This variation is a high-level dynamic exercise incorporating running, jogging, punching and boxing multi-directional movements. As the user becomes more accustomed to balancing the body against the resistance of the full door strap exercise anchor **001**, greater resistive forces can be demanded. In this exercise the user, is creating a strengthening boxing movement to achieve accuracy as well as force behind each forward punching movement. The most resistive progressive resistive bands **20** available are chosen to exert the maximum resistive force behind the punching movement. The progressive resistive band **20** maintains the user in place while still challenging the body to maintain its balance against the digressive force of the forward punching movement.

Reference Numerals

[0076]

001	Full door strap exercise anchor
002	Full door net exercise anchor
003	Partial door strap or net exercise anchor
004	Custom size wall strap or net exercise anchor
005	Multiple metallic ring strap belts
006	Horizontal/vertical frame bracket
007	Corner frame bracket
01	Vertical strap with a sewn or welded tie-down attachment
02	Horizontal strap with a sewn or welded tie-down attachment
03	Vertical strap
04	Horizontal strap
05	Vertical strap
06	Net
07	Short vertical strap
08	Rigid strip
09	Custom size vertical strap
10	Custom size horizontal strap
11	Tie-down ratchet
12	Buckle tie down
13	Horizontal/vertical frame bracket
14	Corner frame bracket
15	Metallic ring
16	Ring connection strap
17	Strap with tie down
18	Strap
19	Attachment clip
20	Progressive resistive bands
21	Handles
22	Progressive resistive tubes/cords

Operation

[0077] In operation, the user must select a location to set up the exercise anchor of choice. The exercise anchor must be fitted on to a structurally sound, stable and secure support such as a door, wall or freestanding structures. Depending on the exercise anchor chosen, the environment must be conducive to incorporate all the elements of the exercise regi-

men. A quiet environment is preferred to maximize the visualization, concentration and perception of the exercise. Once the selected location has been identified, the exercise anchor is fitted as previously described onto the structure chosen. The user selects the progressive resistive band **20**, tubes or cords **22** for the selected exercise and attaches the progressive resistive band **20**, tubes or cords **22** with a 2-point anchor knot attachment to the exercise anchor that he chooses. Depending upon the complexity of the exercise chosen, the user could incorporate other exercise apparatus to enhance and modify the exercise chosen. The user can select any of the variations of the exercise anchor depending on the object of the exercise. If the user were interested in upper quadrant exercises, the partial door strap exercise anchor **003** would be appropriate for that type of exercise. Conversely, if the user is interested in lower extremity exercises than the partial door strap exercise anchor could be positioned on the lower half of the structure chosen. The increased advantages to the user will be:

[0078] (1) The user does not have to manipulate weights to provide the resistance necessary to gain strength. The use of the progressive resistive bands **20** in conjunction with the use of any of the configuration of the exercise anchor will provide all the benefit of the resistance weights provide. The user will be able to very easily change the resistance tension by choosing the progressive resistive band **20** of his choice.

[0079] (2) The user will have the ability to control the stability or instability of the exercise configuration by selecting the progressive resistive bands **20** as well as the anchor point knot attachment location to attain the maximum benefit for his exercise goals.

[0080] (3) The system is economical to use because of the low cost of production.

[0081] (4) The system is portable and transportable in a bag for use in different locations.

[0082] (5) The system allows great flexibility of construction by utilizing the same materials interchangeably, as well as, with the use different color web straps or different fabric net mesh.

I claim:

1. An exercise anchor system/method comprising the steps: attaching a combination of resistive bands **20** to the full door strap exercise anchor **001**.

a. Placing the resistive bands **20** in different positions to enable body to be exercised in all manners of exercise such as close and open chain, static, concentric and eccentric contraction into different positions.

b. Using imagery, identifying involved structure, visualizing the structure correction.

2. The exercise anchor system/method of claim 1, wherein, said exercise device comprising:

a. manipulating progressive resistive bands attached to the said exercise anchor and

b. correctly aligning the joint being exercised and

c. providing a means for controlled exercise for as many joints that need to be exercised.

- d. Pre-stressing the body core to give better support and correct compensatory posture.
- 3. The exercise anchor system/method of claim 1, wherein, said exercise device comprising:
 - a. exercise anchor system/method and progressive resistive bands used in conjunction to enable user to perform any exercise using the vector force of band with the correct application, direction, orientation and intensity achieved with the progressive resistive band.
 - b. exercise anchor system/method and progressive resistive band when attached at two corresponding anchor points will increase the outcome of the two vector forces being manipulated.
 - c. Orienting the vector force to follow the muscle fiber length.
 - d. Combining the multiple application of vector force provided by the progressive resistive band to load and unload the muscles depending on the chosen progressive resistive band.
- 4. The exercise anchor system/method of claim 1 wherein, said exercise device comprising:
 - a. exercise anchor system/method and progressive resistive band when used in conjunction to enable user to perform any exercises in different positions on the exercise anchor.
 - b. To simultaneously involve one or more muscle groups while exercising on the exercise anchor.
- 5. The exercise anchor system/method of claim 1, wherein, said exercise device comprising:
 - a. exercise anchor system/method and progressive resistive band when used in conjunction provides an inexpensive alternative to high cost exercisers.
 - b. Exerciser that is very diverse and from which many adaptations can be constructed and construed without deviating from the intent of the present invention by those well-versed in the art of exercise and manufacturing.
 - c. Aerobic exercises that increases: organ function, range of motion, increases trophycity in all kinds of muscle tissues, quality of movement, increases endurance, increases quality of bone density, cartilage, ligaments, capsule, synovium fluid, neuromuscular conduction, body's immune response, increases circulation system, increases endocrine system.

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