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Charlton

(54) **HIT STRONG POWER TRAINER SYSTEMS**

(76) Inventor: **Edward Charlton**, Egg Harbor Township, NJ (US)

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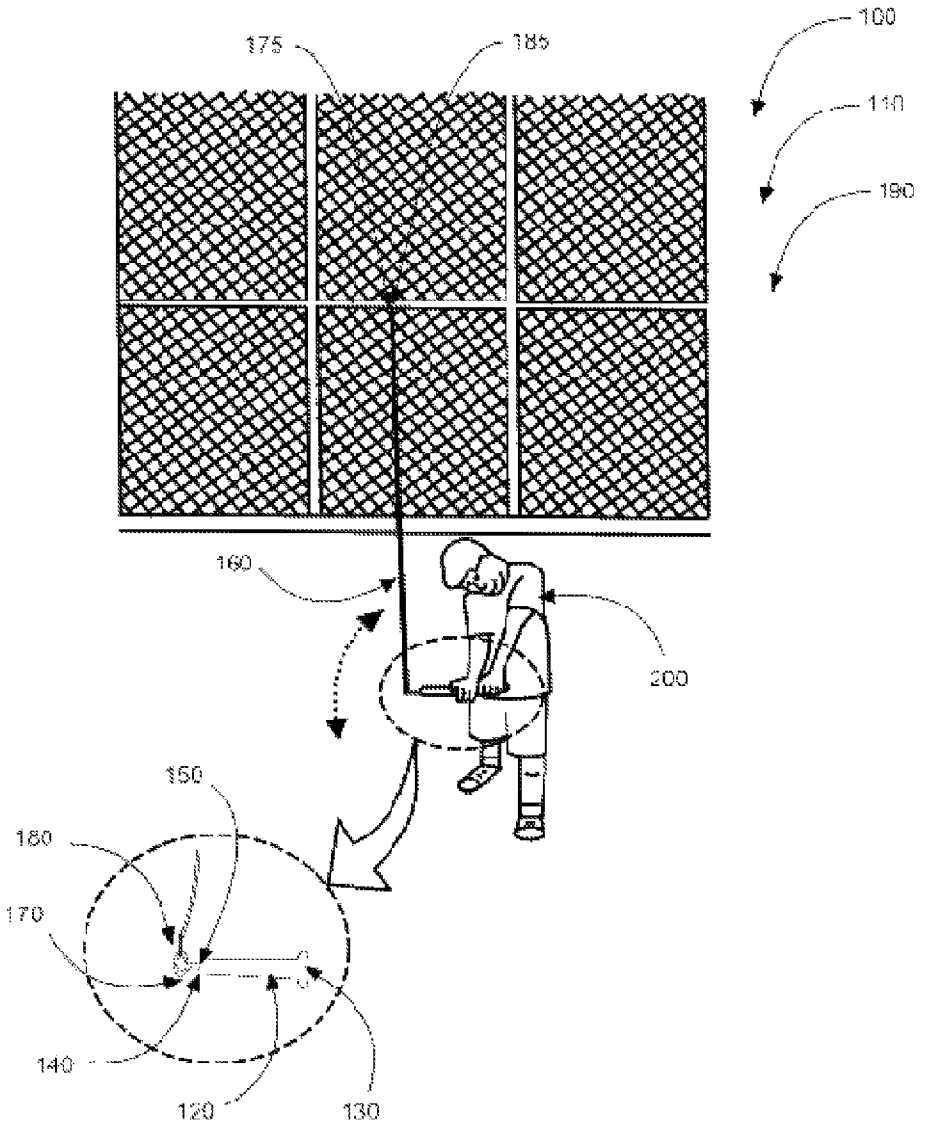
(57) **ABSTRACT**

An exercising apparatus for strengthening particular variable muscle groups comprising a handle member including a threaded attacher and an elastic tether with a first and a second anchor at each of its two ends. The handle member comprises an elongated tubular plastic shaft with a length of twelve inches or less and has a proximal end comprising a knob and a distal end. The threaded attacher comprises a ferrous eye hook and is fixed to the distal end of the handle member. The first anchor is fixed to the first end of the elastic tether and is removably clip-connected to the threaded attacher so as to connect the elastic tether to the handle member. The second anchor is fixed to the second end of the elastic tether and is removably clip-connected to a stationary vertical structure comprising a fence.



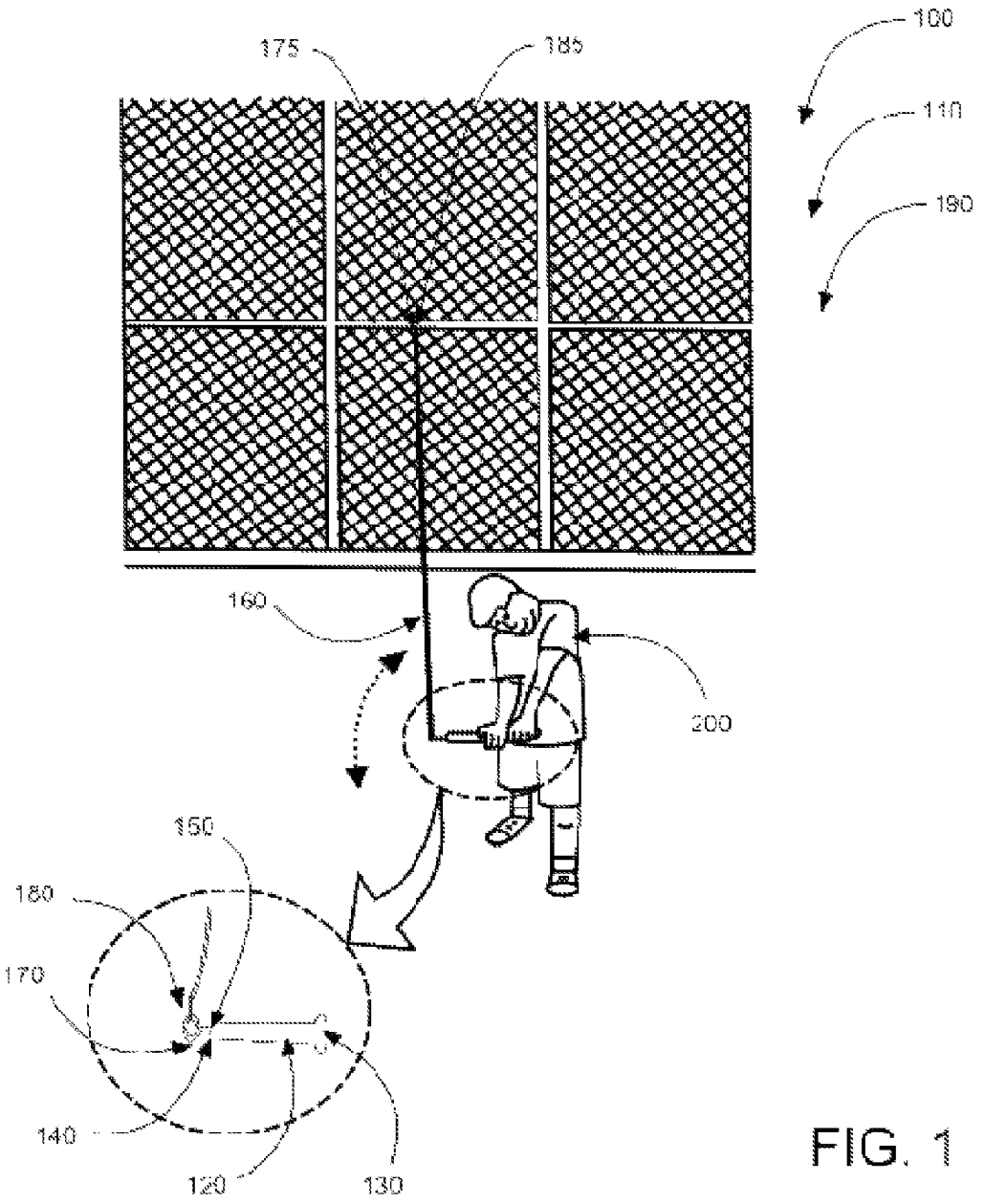


FIG. 1

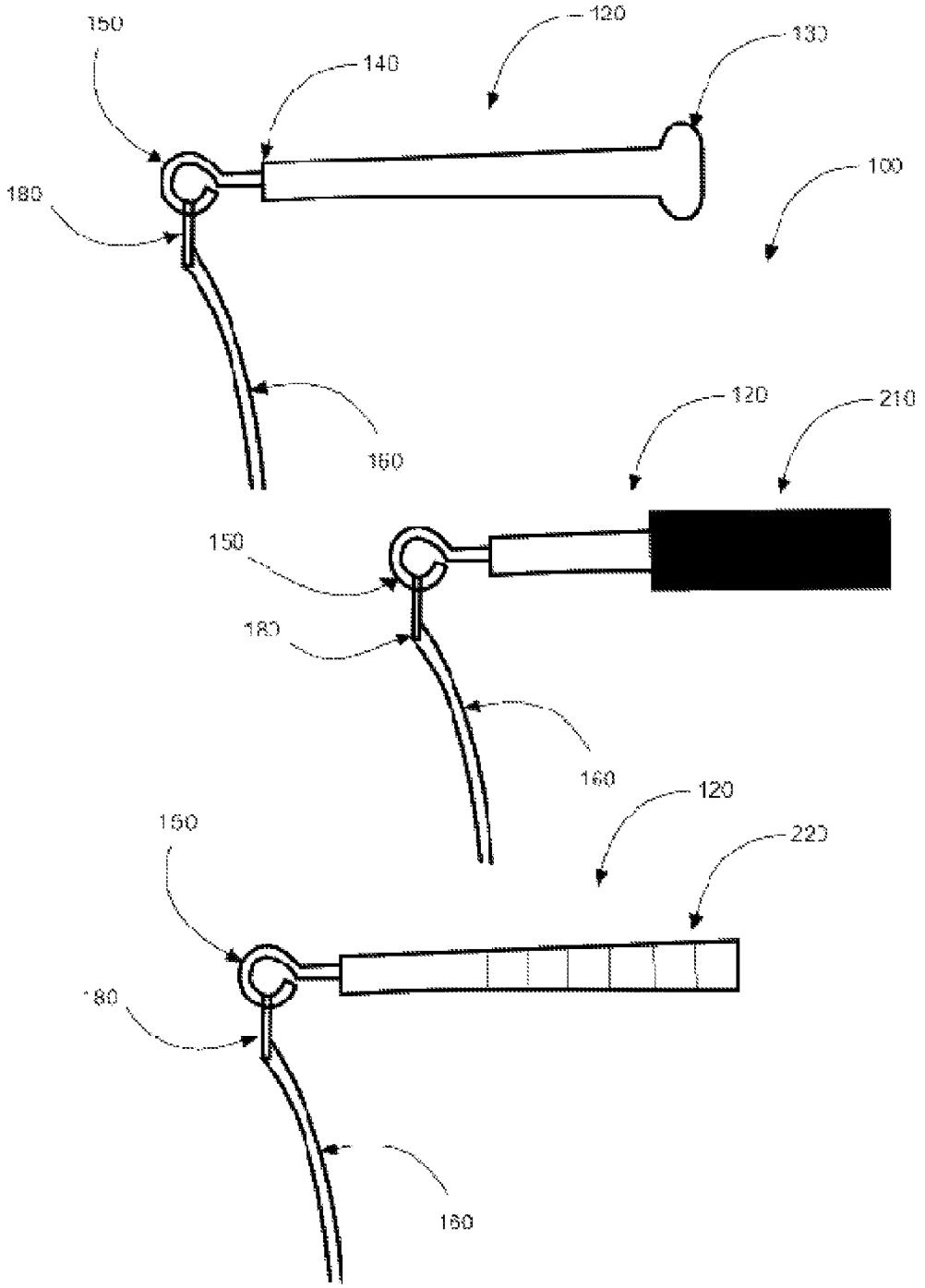

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FIG. 2

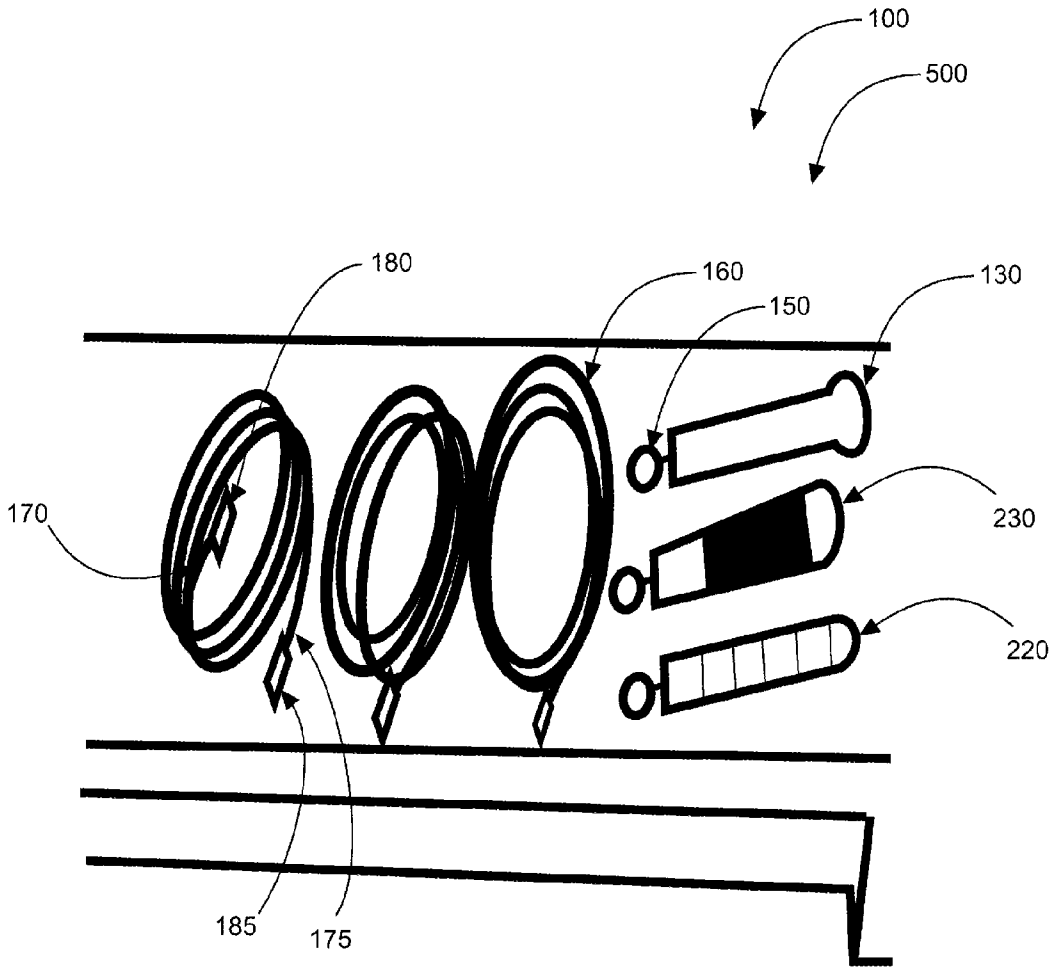

FIG. 3

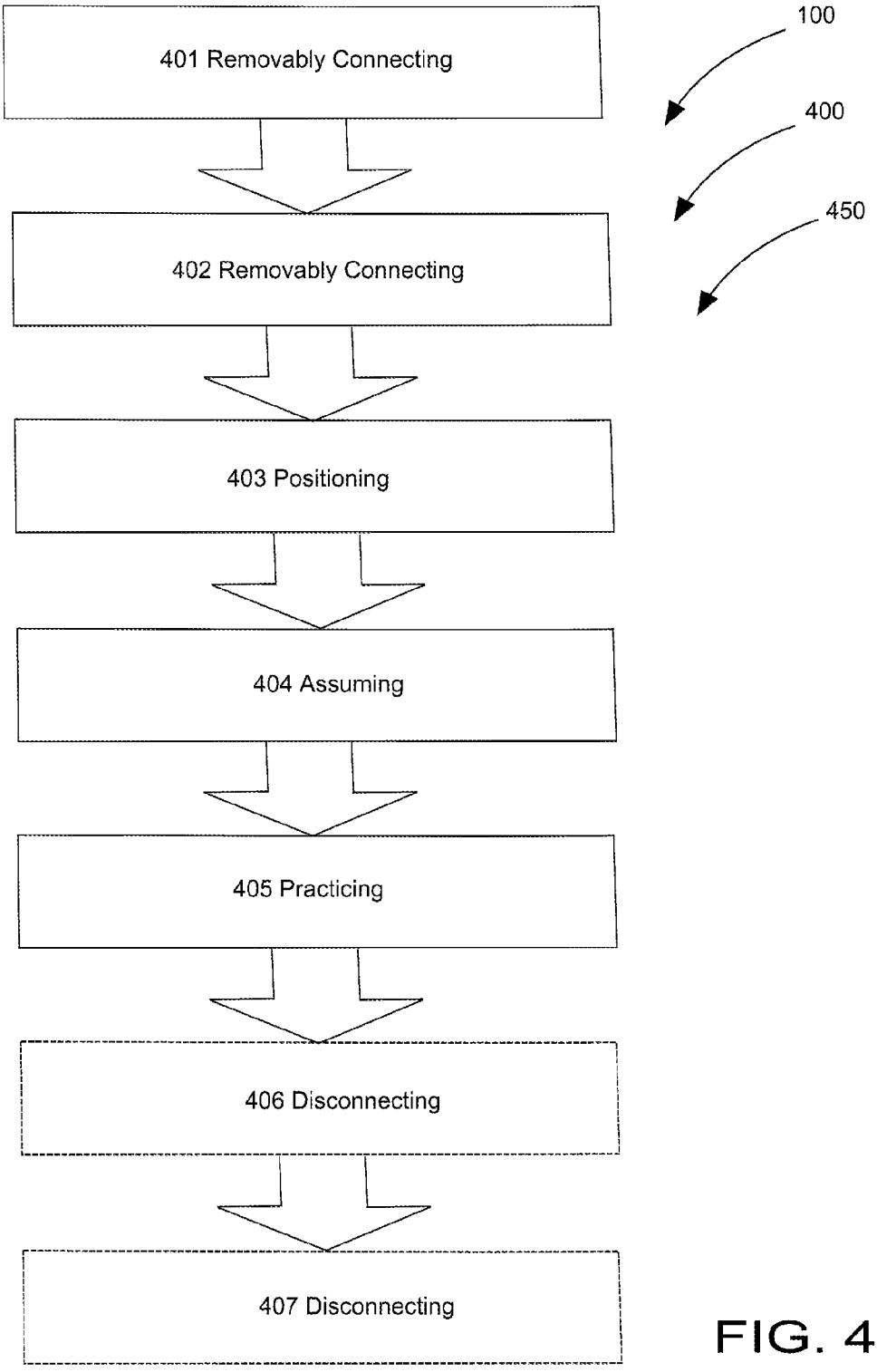
401 Removably Connecting
402 Removably Connecting
403 Positioning
404 Assuming
405 Practicing
406 Disconnecting
407 Disconnecting
100
400
450

FIG. 4

HIT STRONG POWER TRAINER SYSTEMS

CROSS-REFERENCE TO RELATED APPLICATION

[0001] The present application is related to and claims priority from prior provisional application Ser. No. 61/265,859, filed Dec. 2, 2009 which application is incorporated herein by reference.

BACKGROUND OF THE INVENTION

[0002] 1. Field of the Invention

[0003] The present invention relates generally to the field of exercising apparatuses for strengthening muscles and more specifically relates to an exercising apparatus that strengthens the muscles of a user which are used in a swinging motion applied during various sports such as tennis or baseball.

[0004] 2. Description of the Related Art

[0005] Regular physical activity provides enormous health benefits. It helps reduce heart disease, cancer, type 2 diabetes, and many other diseases and metabolic conditions. Regular fitness exercise is also highly beneficial for weight reduction, weight maintenance, and may improve brain chemistry to reduce depression. By contrast, health studies that have monitored the wellbeing of large groups of people over many years clearly show that inactivity significantly increases the risk of overweight, obesity and chronic diseases.

[0006] Many people regularly go to the gym to improve their health and fitness. Unfortunately the use of gyms is costly and some people simply cannot afford to regularly exercise in a gym. Further, many people play various ball sports and use specific muscle groups for these sports. Gyms may not have the equipment which is necessary and appropriate to train these specific muscle groups.

[0007] Therefore a need exists for a device which effectively allows an athlete to perform the natural athletic motions of one specific sporting activity, using sport specific components and resistance bands to strengthen all substantially related muscle groups. The device may be tailored toward different sporting activities such as hitting a baseball, softball, hockey puck, or tennis ball.

[0008] Various attempts have been made to solve the above-mentioned problems such as those found in U.S. Pat. Nos. 3,618,942, 6,413,196, 1,137,349, 5,269,512, 2,848,234, and 7,134,968. This prior art is representative of exercising apparatuses for strengthening muscles. None of the above inventions and patents, taken either singly or in combination, is seen to describe the invention as claimed.

[0009] Ideally, an exercising apparatus that strengthens the muscles of a user which are used in a swinging motion applied during various sports such as tennis or baseball should be easy to use, easy to transport, provide the correct exercises for specific sports in an uncomplicated and efficient manner, would operate reliably and be manufactured at a modest expense. Thus, a need exists for a reliable exercising system to provide the correct exercises for specific sports and to avoid the above-mentioned problems.

BRIEF SUMMARY OF THE INVENTION

[0010] In view of the foregoing disadvantages inherent in the known exercising apparatuses for strengthening muscles art, the present invention provides a novel Hit Strong Power Trainer System. The general purpose of the present invention, which will be described subsequently in greater detail is to provide an exercising apparatus that strengthens the muscles of a user.

[0011] An exercising apparatus for strengthening particular muscle groups is disclosed herein comprising a handle member including a threaded attacher, and an elastic tether with an anchor at each of its two ends. The handle member preferably comprises an elongated tubular plastic shaft with a length of twelve inches or less. The handle member has a proximal end comprising a knob and a distal end. The threaded attacher may comprise a ferrous eye hook and is fixed to the distal end of the handle member.

[0012] The elastic tether may comprise a rubber core and polypropylene covering and has a first end and a second end. The rubber core and polypropylene covering alternate between tension and compression states caused by the movements of a user. The device further comprises a first anchor and a second anchor. The first anchor which preferably comprises a carabiner clip is fixed to the first end of the elastic tether and is removably clip-connected to the threaded attacher so as to connect the elastic tether to the handle member. The second anchor which preferably comprises a carabiner clip is fixed to the second end of the elastic tether and is removably clip-connected to a stationary vertical structure comprising a fence.

[0013] The device may be tailored toward different sporting activities, such as hitting a baseball, golf ball, hockey puck, or tennis ball via exchanging the elongated tubular plastic shaft with a ball bat lower portion or hockey stick upper portion, a tennis racquet lower portion or a golf club upper portion.

[0014] A kit is also disclosed herein, including at least one handle member, at least one threaded attacher, at least one elastic tether having a first end and a second end, at least one first anchor, at least one second anchor, at least one ball bat lower portion, at least one hockey stick upper portion, at least one tennis racquet lower portion, at least one golf club upper portion, and a set of user instructions.

[0015] Further, a method of using an exercising apparatus for strengthening particular muscle groups and building up muscle memory is disclosed herein comprising the steps of removably connecting an elastic tether to an end portion of a handle member via a first anchor, removably connecting the elastic tether to a fence, door, pole, or other stationary object via a second anchor, positioning the handle member in the hands of a user, assuming a natural stance of a specific sports action, practicing the specific sports action to develop muscle memory, disconnecting the elastic tether from the fence, door, pole, or other stationary object and disconnecting the elastic tether from the handle member, when the activity is completed.

[0016] The present invention holds significant improvements and serves as a Hit Strong Power Trainer System. For purposes of summarizing the invention, certain aspects, advantages, and novel features of the invention have been described herein. It is to be understood that not necessarily all such advantages may be achieved in accordance with any one particular embodiment of the invention. Thus, the invention may be embodied or carried out in a manner that achieves or optimizes one advantage or group of advantages as taught herein without necessarily achieving other advantages as may be taught or suggested herein. The features of the invention which are believed to be novel are particularly pointed out and distinctly claimed in the concluding portion of the specifica-

tion. These and other features, aspects, and advantages of the present invention will become better understood with reference to the following drawings and detailed description.

BRIEF DESCRIPTION OF THE DRAWINGS

[0017] The figures which accompany the written portion of this specification illustrate embodiments and method(s) of use for the present invention, Hit Strong Power Trainer Systems, constructed and operative according to the teachings of the present invention.

[0018] FIG. **1** shows a perspective view illustrating an exercising apparatus in an in-use condition according to an embodiment of the present invention.

[0019] FIG. **2** is a perspective view illustrating the exercising apparatus according to various embodiments of the present invention of FIG. **1**.

[0020] FIG. **3** is a perspective view illustrating the exercising apparatus according to an embodiment of the present invention of FIGS. **1** and **2**.

[0021] FIG. **4** is a flowchart illustrating a method of use according to an embodiment of the present invention of FIGS. **1-3**.

[0022] The various embodiments of the present invention will hereinafter be described in conjunction with the appended drawings, wherein like designations denote like elements.

DETAILED DESCRIPTION

[0023] As discussed above, embodiments of the present invention relate to an exercising apparatus for strengthening muscles and more specifically relates to an exercising apparatus which strengthens the muscles of a user which are used in performing a swinging motion as in sports like tennis or baseball.

[0024] Referring to the drawings by numerals of reference there is shown in FIG. **1**, a perspective view illustrating an exercising apparatus **110** in an in-use condition **190** according to an embodiment of the present invention.

[0025] Hit Strong Power Trainer Systems **100** of the present invention preferably comprises an exercising apparatus **110** for strengthening particular variable muscle groups and building up muscle memory. Hit Strong Power Trainer Systems **100** comprises a handle member **120** having a proximal end **130** and a distal end **140**, a threaded attacher **150** which is fixed to distal end **140** of handle member **120** and an elastic tether **160** having a first end **170** and a second end **175**. First anchor **180** is fixed to first end **170** of elastic tether **160** and second anchor **185** is fixed to second end **175** of elastic tether **160**. First anchor **180** is removably clip-connected to threaded attacher **150** so as to attach elastic tether **160** to handle member **120** and second anchor **185** is removably clip-connected to a stationary vertical structure.

[0026] First end **170** of elastic tether **160** may be removably connected to distal end **140** of handle member **120** via first anchor **180**. Further, second end **175** of elastic tether **160** may be removably connected to a fence, door, pole, or other such stationary object via second anchor **185**. User **200** then may grab handle member **120**, assume a natural stance of a specific sports action and practice the specific sports action to develop muscle memory thereby creating in-use-condition **190**.

[0027] Hit Strong Power Trainer Systems **100** thereby comprises an exercising apparatus **110** that can be used to strengthen specific muscle groups used to perform a specific sport related motion or swing motion. User **200** may swing handle member repeatedly **120**, thereby repeatedly performing specific swing motions. User **200** may build muscle memory by increasing the tension on elastic tether **160** and by performing the same motion repeatedly.

[0028] Referring now to FIG. **2**, a perspective view illustrating the exercising apparatus **110** according to various embodiments of the present invention of FIG. **1**.

[0029] As described previously, Hit Strong Power Trainer Systems **100** preferably comprises handle member **120**. Handle member **120** preferably comprises an elongated tubular smooth plastic shaft with a length of twelve inches or less and a diameter of ¾ inch-1½ inches, having a proximal end **130** and a distal end **140**. However, handle member may comprise any suitable length or diameter so as to accommodate different users with different hand sizes. Handle member **120** preferably comprises smooth plastic, however, handle member **120** may be made of any suitable material such as rubber or wood and may comprise any kind of suitable surface texture, which may be rough or coarse. Proximal end **130** may comprise a knob so as to provide more stability for the hands of a user **200** when gripping handle member **120**.

[0030] Handle member **120** may preferably comprise an elongated tubular plastic shaft. FIG. **2** demonstrates various embodiments of handle member **120** which may be used to accommodate various preferences of user **200**. Handle member **120** may comprise various handles for mimicking different sport equipment. Handle member **120** may comprise a baseball bat lower portion, a hockey stick upper portion **210**, a tennis racquet lower portion **220**, a golf club upper portion, or various other modified sports equipment handles, each of which may preferably be modified to a length of approximately 12 inches, and each of which comprises a threaded attacher **150**. User **200** may pick a handle member **120** according to his practice preferences and practice the appropriate strokes or swings with the handle member **120**. Different types of handle members **120** give user **200** the opportunity to train and improve a variety of strokes and swings associated with different types of sports, thereby exercising different muscle groups specific to the sport.

[0031] Elastic tether **160** may be removably connected to handle member **120** via first anchor **180**. Second end **175** of elastic tether **160** may be connected to a fence, door, pole, or other stationary object via second anchor **185**. User **200** may connect second end **175** of elastic tether **160** at a preferred height which is suitable for the desired practice strokes. User further may use Hit Strong Power Trainer Systems **100** indoors or outdoors, in a gym or at home. User **200** then may grab handle member **120**, assume a natural stance of a specific sports action and practice and improve the specific sports action. User **200** may pull or swing handle member **120** away from fence thereby using muscles to create tension on elastic tether **160** which is connected to fence and handle member **120**. User **200** thereby repeatedly uses the same muscle groups needed for a specific sports action and thereby develops muscle memory and improves hitting techniques.

[0032] Referring now to FIG. **3**, a perspective view illustrating the exercising apparatus **110** according to an embodiment of the present invention of FIGS. **1** and **2**.

[0033] Handle member **120** has a proximal end **130** and a distal end **140** and comprises threaded attacher **150** which is fixed to distal end **140** of handle member **120**. Threaded attacher **150** comprises a threaded portion which is screwed and/or threaded into the distal end **140** of handle member **120**,

and a hook portion. Threaded attacher **150** preferably comprises a ferrous eye hook. However, threaded attacher **150** may comprise a non-ferrous eyehook or any other suitable attacher, such as clips, and be made of any other suitable material, such as plastic or rubber.

[0034] As previously mentioned, Hit Strong Power Trainer Systems **100** further comprises elastic tether **160**. Elastic tether **160** preferably comprises a durable rubber core with polypropylene covering and which may repeatedly alternate between tension and compression states. However, elastic tether **160** may comprise of an elongate elastic rubberized resistance cable or any other suitable durable material which is able to repeatedly alternate between tension and compression states.

[0035] Elastic tether **160** comprises first end **170** and second end **175**. First anchor **180** is fixed to first end **170** and second anchor **185** is fixed to second end **175**. First anchor **180** and second anchor **185** preferably comprise plastic carabiner clips. However first anchor **180** and second anchor **185** may comprise steel carabiner clips, hooks, or any other suitable attachment means and may be made of any durable suitable material, such as steel or rubber. First anchor **180**, which preferably comprises a plastic carabiner clip, is removably clip-connected to threaded attacher **150** and second anchor **185**, which preferably comprises a plastic carabiner clip, is removably clip-connected to a stationary vertical structure comprising a fence, door, pole, or other stationary object.

[0036] Hit Strong Power Trainer Systems **100** may be sold as kit **500** comprising the following parts: at least one handle member **120**, at least one ball bat lower portion **230**, at least one hockey stick upper portion **210**, at least one tennis racquet lower portion **220**, at least one golf club upper portion, at least one threaded attacher **150**, at least one elastic tether **160** having first end **170** and second end **175**, at least one first anchor **180**, at least one second anchor **185**, and a set of user instructions.

[0037] Hit Strong Power Trainer Systems **100** may be manufactured and provided for sale in a wide variety of sizes and shapes for a wide assortment of applications. Upon reading this specification, it should be appreciated that, under appropriate circumstances, considering such issues as design preference, user preferences, marketing preferences, cost, structural requirements, available materials, technological advances, etc., other kit contents or arrangements such as, for example, including more or less components, customized parts, different color combinations, parts may be sold separately, etc., may be sufficient.

[0038] Referring now to FIG. **4**, a flowchart **400** illustrating a method of use **450** according to an embodiment of the present invention of FIGS. **1-3**.

[0039] In accordance with the embodiments of the present invention a preferred method of use **450** is disclosed herein comprising the following steps: step one **401** removably connecting an elastic tether **160** to a distal end **140** portion of a handle member **120** via a first anchor **180**; step two **402** removably connecting elastic tether **160** to a fence, door, pole, or other stationary object via a second anchor **185**; step three **403** positioning handle member **120** in the hands of a user **200**; step four **404** assuming a natural stance of a specific sports action; step five **405** practicing specific sports action to develop muscle memory; step six **406** disconnecting elastic tether **160** from fence, door, pole, or other stationary object; and step seven **407** disconnecting elastic tether **160** from handle member **120**.

[0040] It should be noted that the steps described in the method of use can be carried out in many different orders according to user preference. Upon reading this specification, it should be appreciated that, under appropriate circumstances, considering such issues as design preference, user preferences, marketing preferences, cost, structural requirements, available materials, technological advances, etc., other methods of use arrangements such as, for example, different orders within above-mentioned list, elimination or addition of certain steps, including or excluding certain maintenance steps, etc., may be sufficient.

[0041] The embodiments of the invention described herein are exemplary and numerous modifications, variations and rearrangements can be readily envisioned to achieve substantially equivalent results, all of which are intended to be embraced within the spirit and scope of the invention. Further, the purpose of the foregoing abstract is to enable the U.S. Patent and Trademark Office and the public generally, and especially the scientist, engineers and practitioners in the art who are not familiar with patent or legal terms or phraseology, to determine quickly from a cursory inspection the nature and essence of the technical disclosure of the application.

What is claimed is new and desired to be protected by Letters Patent is set forth in the appended claims:

1. An exercising apparatus for strengthening particular variable muscle groups comprising:
- a handle member having a proximal end and a distal end;
- a threaded attacher;
- an elastic tether having a first end and a second end; and
- a first anchor and a second anchor;
- wherein said threaded attacher is fixed to said distal end of said handle member;
- wherein said first anchor is fixed to said first end of said elastic tether;
- wherein said second anchor is fixed to said second end of said elastic tether;
- wherein said first anchor is removably clip-connected to said threaded attacher; and
- wherein said second anchor is removably clip-connected to a stationary vertical structure, such that a user may perform at least one exercise.

2. The exercising apparatus of claim **1** wherein said handle member comprises an elongated tubular shaft comprising plastic.

3. The exercising apparatus of claim **1** wherein said proximal end comprises a knob.

4. The exercising apparatus of claim **1** wherein said handle member comprises a ball bat lower portion.

5. The exercising apparatus of claim **1** wherein said handle member comprises a hockey stick upper portion.

6. The exercising apparatus of claim **1** wherein said handle member comprises a tennis racquet lower portion.

7. The exercising apparatus of claim **1** wherein said handle member comprises a golf club upper portion.

8. The exercising apparatus of claim **1** wherein said handle member comprises a length of twelve inches or less.

9. The exercising apparatus of claim **1** wherein said threaded attacher comprises a ferrous eye hook.

10. The exercising apparatus of claim **1** wherein said threaded attacher comprises a non-ferrous eye hook.

11. The exercising apparatus of claim **1** wherein said elastic tether comprises an elongate elastic rubberized resistance cable.

12. The exercising apparatus of claim **11** wherein said elastic tether comprises a rubber core and polypropylene covering.

13. The exercising apparatus of claim **1** wherein said first anchor and said second anchor comprise carabiner clips.

14. The exercising apparatus of claim **13** wherein said carabiner clips comprise plastic.

15. The exercising apparatus of claim **13** wherein said carabiner clips comprise metal.

16. The exercising apparatus of claim **12** wherein said rubber core and polypropylene covering are able to alternate between tension and compression states.

17. The exercising apparatus of claim **1** wherein said stationary vertical structure comprises a fence.

18. An exercising apparatus for strengthening particular variable muscle groups comprising:

a handle member,

having an elongated tubular plastic shaft with a length of twelve inches or less,

having a proximal end comprising a knob and a distal end;

a threaded attacher comprising a ferrous eye hook,

wherein said threaded attacher is fixed to said distal end of said handle member;

an elastic tether comprising a rubber core and polypropylene covering having a first end and a second end,

wherein said rubber core and polypropylene covering can alternate between tension and compression states;

a first anchor and a second anchor comprising plastic carabiner clips,

wherein said first anchor is fixed to said first end of said elastic tether and is removably clip-connected to said threaded attacher, and

wherein said second anchor is fixed to said second end of said elastic tether and is removably clip-connected to a stationary vertical structure comprising a fence, such that a user may perform at least one exercise.

19. The exercising apparatus for strengthening particular variable muscle groups of claim **18** wherein said exercising apparatus for strengthening particular variable muscle groups comprises a kit including said at least one handle member, at least one ball bat lower portion, at least one hockey stick upper portion, at least one tennis racquet lower portion, at least one golf club upper portion, said at least one threaded attacher, said at least one elastic tether having said first end and said second end, said at least one first anchor, said at least one second anchor, and a set of user instructions.

20. A method of using an exercising apparatus for strengthening particular variable muscle groups comprising the steps of:

removably connecting an elastic tether to a an end portion of a handle member via a first anchor;

removably connecting said elastic tether to a fence, door, pole, or other stationary object via a second anchor;

positioning said handle member in the hands of a user;

assuming a natural stance of a specific sports action;

practicing said specific sports action to develop muscle memory;

disconnecting said elastic tether from said fence, door, pole, or other stationary object; and

disconnecting said elastic tether from said handle member.

* * * * *