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(54) **CORE-STRENGTHENING DEVICE**

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(57) **ABSTRACT**

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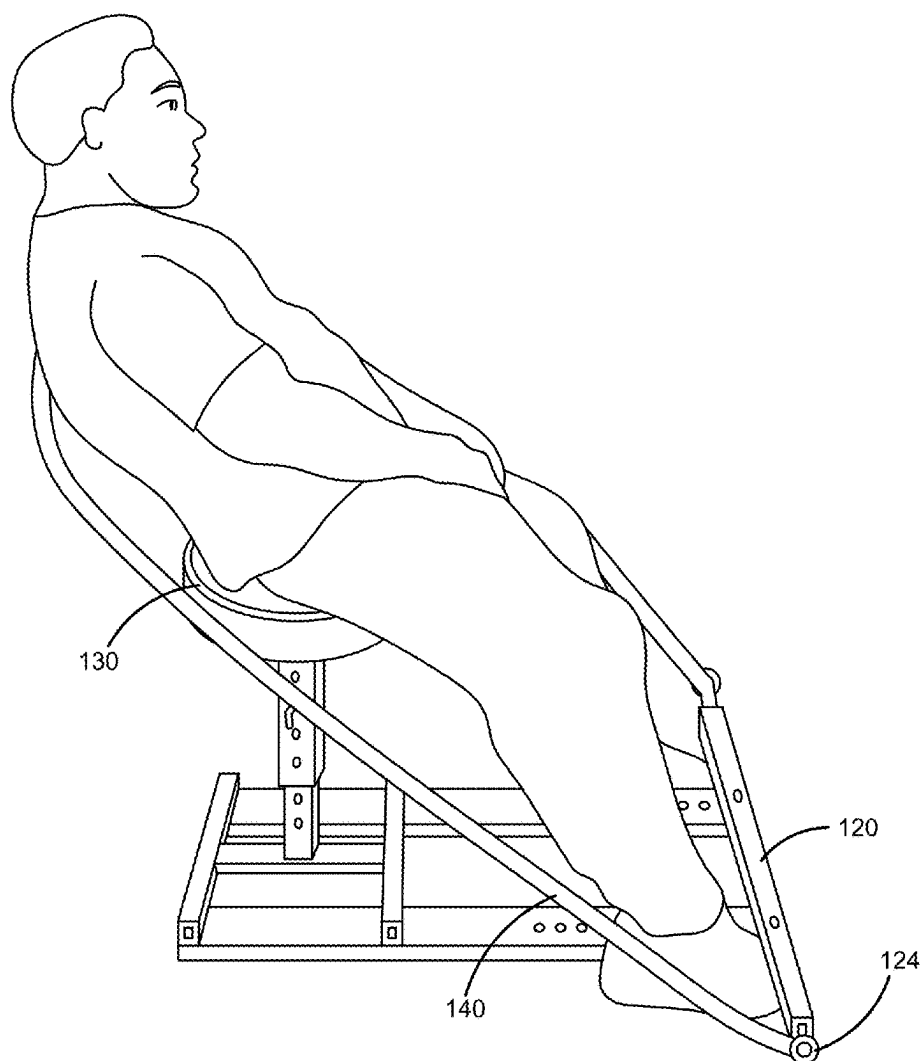
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Publication Classification

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A core-strengthening device is provided. The device is designed to facilitate seated core/abdominal exercises without the need to sit on the ground. The device comprises a base, a repositionable and potentially height-adjustable foot anchor, and a seat. The foot anchor can be adjusted both in position and height on the base to accommodate various user preferences and exercise requirements. The foot anchor may also include attachment points for resistance bands and foot pads for added comfort. The seat is connected to the base through a vertical frame member, which might also be height-adjustable. Additionally, the angle of the seat relative to the vertical axis is preferably adjustable, providing further customization for the user's exercise posture and intensity.



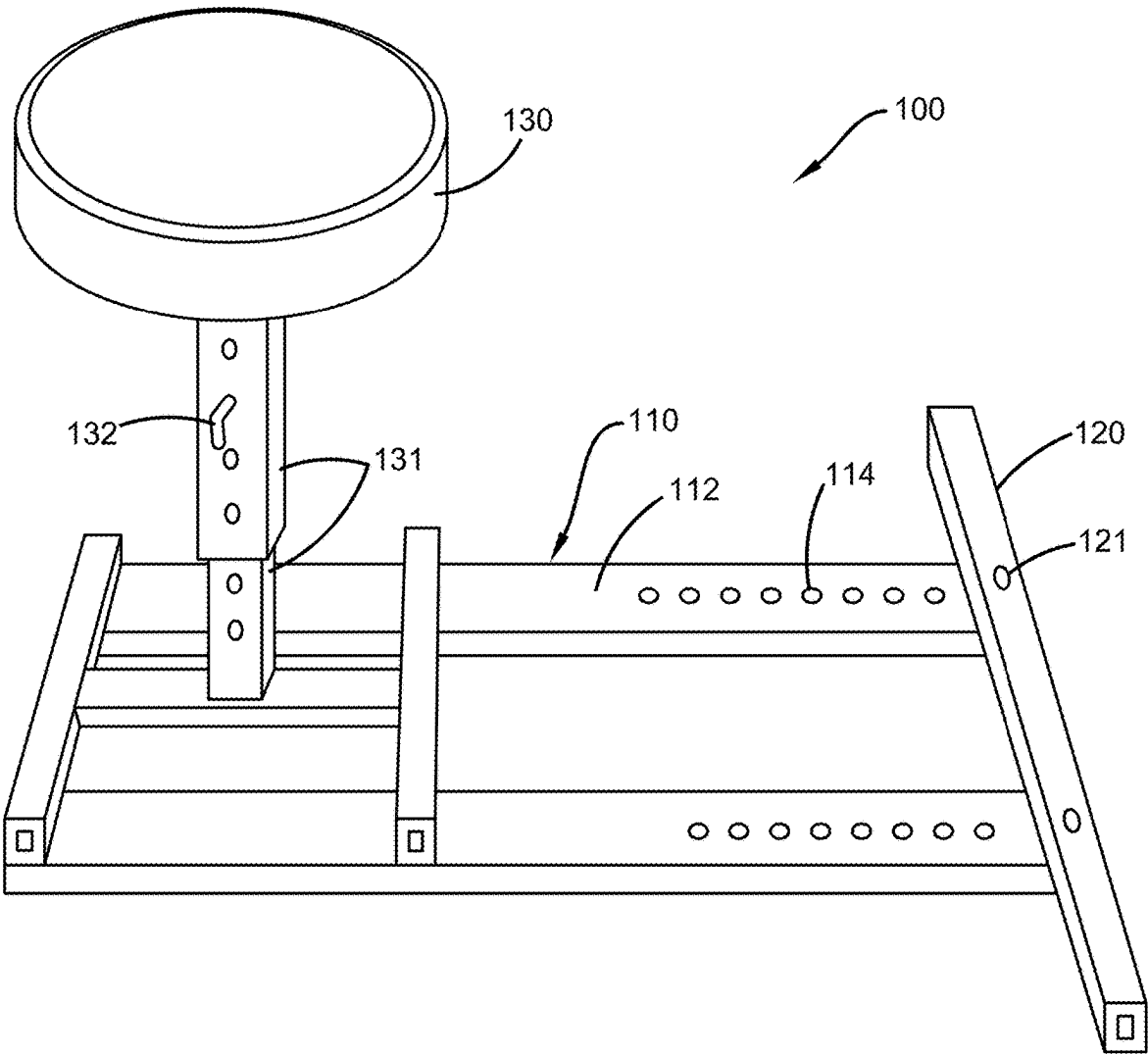
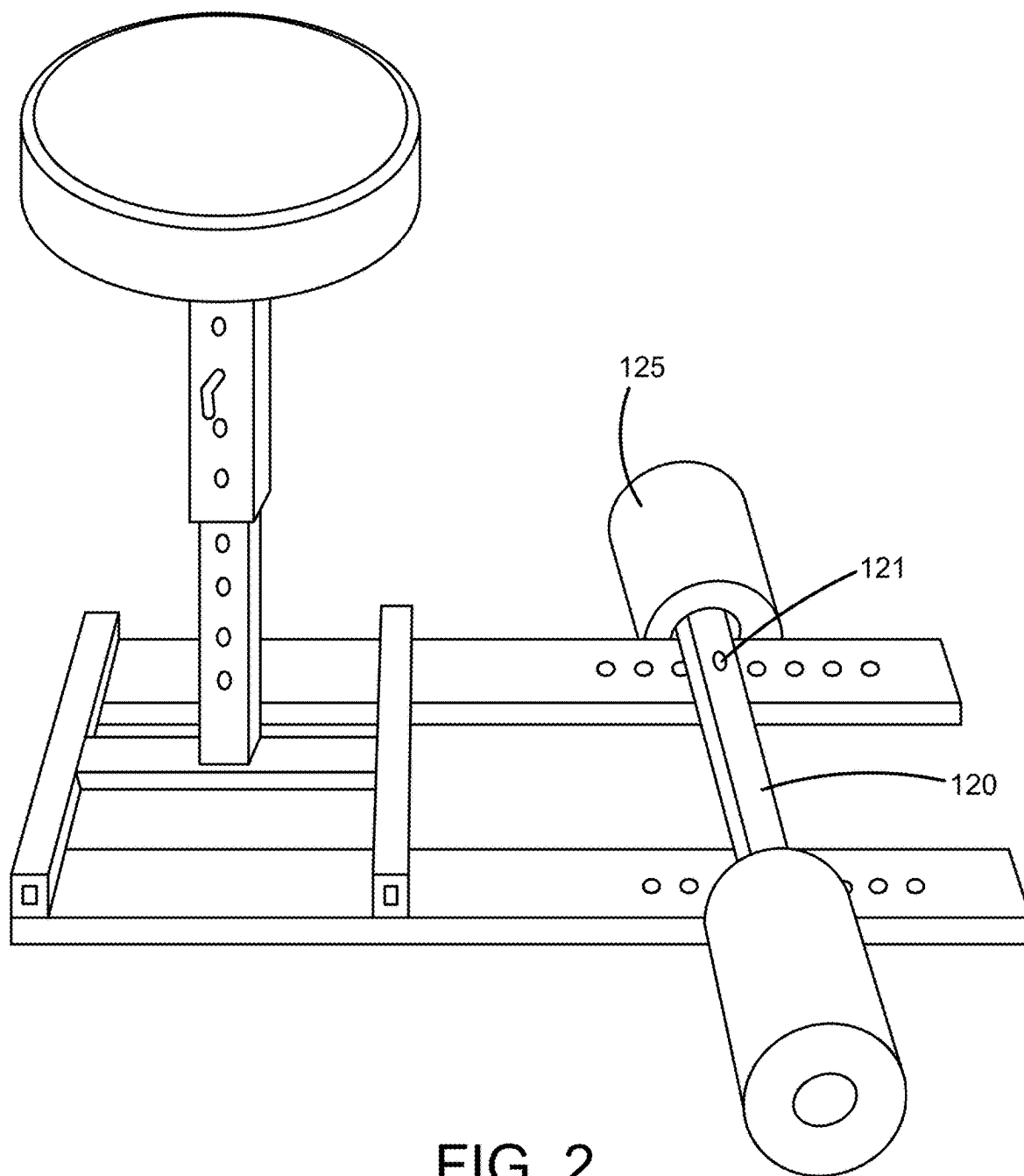


FIG. 1



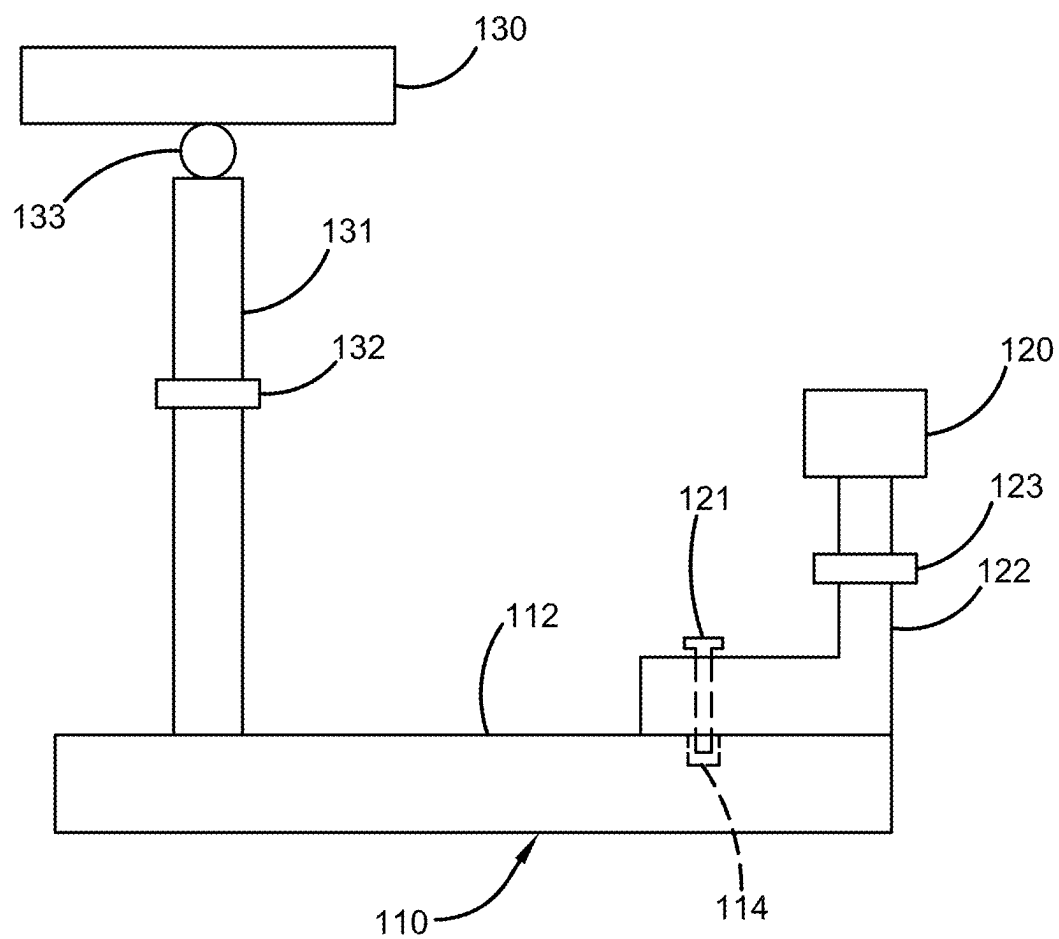


FIG. 3

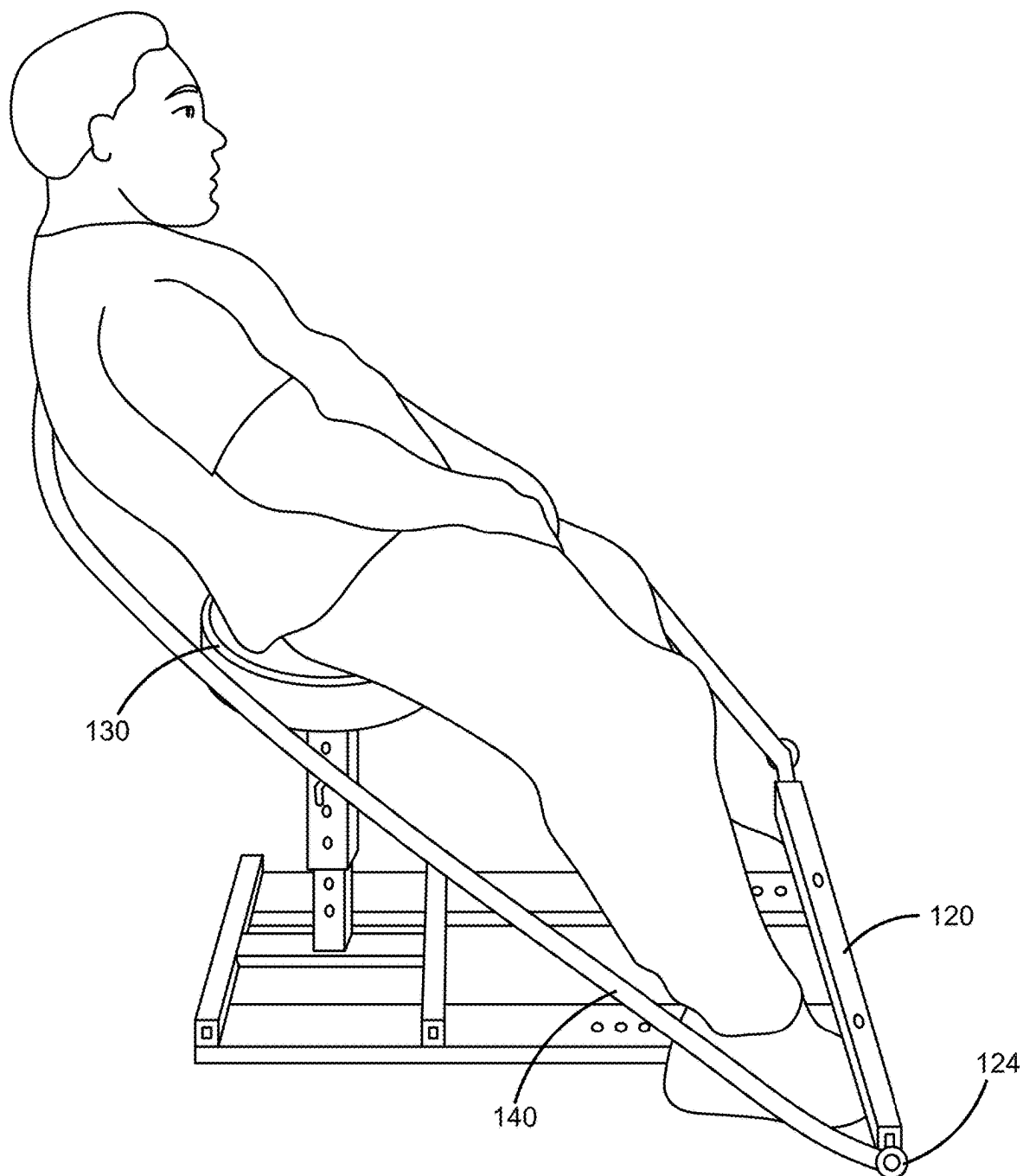


FIG. 4

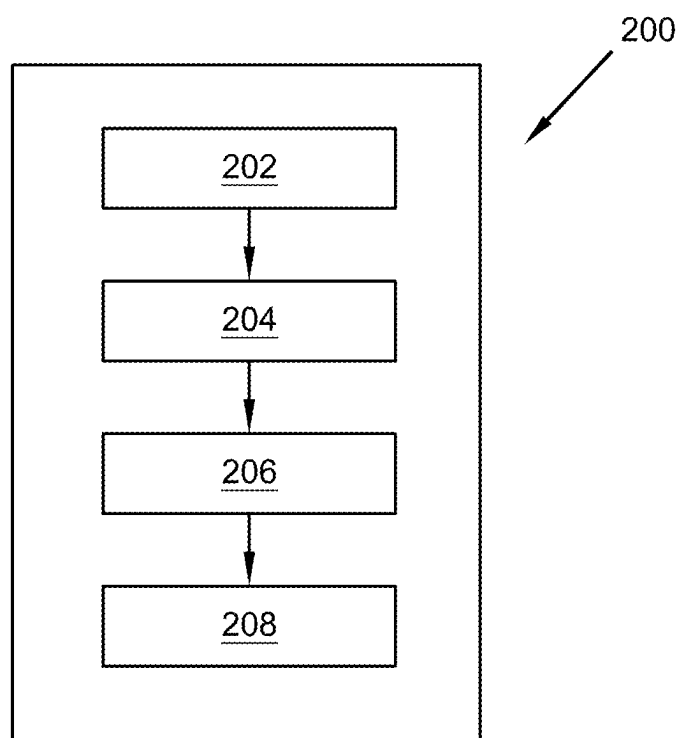


FIG. 5

CORE-STRENGTHENING DEVICE

CROSS-REFERENCE TO RELATED APPLICATION

[0001] The present application claims priority to, and the benefit of, U.S. Provisional Application No. 63/554,214, which was filed on Feb. 16, 2024, and is incorporated herein by reference in its entirety.

FIELD OF THE INVENTION

[0002] The present invention relates generally to the field of exercise equipment. More specifically, the present invention relates to an exercise device designed for seated core/abdominal workouts, featuring a base, a repositionable and height-adjustable foot anchor, and a seat. These components offer high adjustability in terms of position, height, and angle, allowing customization to fit various user preferences and exercise requirements for seated core and abdominal exercises. Accordingly, the present disclosure makes specific reference thereto. Nonetheless, it is to be appreciated that aspects of the present invention are also equally applicable to other like applications, devices, and methods of manufacture.

BACKGROUND

[0003] Many individuals desire to strengthen their abdominal and core muscles as a means to enhance overall fitness levels and support a healthy posture, as core muscles are pivotal in maintaining balance and stability, and strengthening them can significantly contribute to overall physical health. However, traditional exercises commonly used for targeting these crucial muscle groups often necessitate sitting or lying on the ground. Such a method can prove to be inconvenient or uncomfortable for a variety of reasons, including the hardness of the flooring, which can cause discomfort or pain during the exercises. Additionally, for those with limited mobility or existing conditions that restrict movement, ground-based exercises might pose significant challenges, making it difficult for them to participate in these routines effectively and safely. This barrier can deter engagement in regular exercise, potentially impeding progress towards fitness goals.

[0004] Therefore, there exists a long-felt need in the art for an exercise device for exercising core and abdominal muscles. There also exists a long-felt need in the art for a core-strengthening device. More specifically, there exists a long-felt need in the art for a core-strengthening device that allows a user to strengthen their core and abdominal muscles without requiring that the user sit on a floor surface. In addition, there exists a long-felt need in the art for a core-strengthening device that allows a user to strengthen their core and abdominal muscles without requiring that the user sit on a floor surface, wherein the device is highly adjustable.

[0005] The subject matter disclosed and claimed herein, in one embodiment thereof, comprises a core-strengthening device. The device is designed to facilitate seated core/abdominal exercises without the need to sit on the ground. The device comprises a base, a repositionable and potentially height-adjustable foot anchor, and a seat. The foot anchor can be adjusted both in position and height on the base to accommodate various user preferences and exercise requirements. The foot anchor may also include attachment

points for resistance bands and foot pads for added comfort. The seat is connected to the base through a vertical frame member, which might also be height-adjustable. Additionally, the angle of the seat relative to the vertical axis is preferably adjustable, providing further customization for the user's exercise posture and intensity.

[0006] In this manner, the core-strengthening device of the present invention accomplishes all the foregoing objectives and provides an exercise device for exercising core and abdominal muscles. More specifically, the device allows a user to strengthen their core and abdominal muscles without requiring that the user sit on a floor surface. In addition, the device is highly adjustable for user comfort.

SUMMARY

[0007] The following presents a simplified summary to provide a basic understanding of some aspects of the disclosed innovation. This summary is not an extensive overview, and it is not intended to identify key/critical elements or to delineate the scope thereof. Its sole purpose is to present some general concepts in a simplified form as a prelude to the more detailed description that is presented later.

[0008] The subject matter disclosed and claimed herein, in one embodiment thereof, comprises a core-strengthening device. The device is comprised of an exercise device that allows a user to do seated core/abdominal exercises without the need to sit on a ground surface. The device is comprised of a base and at least one foot anchor is repositionable along a top surface of the base. During use, a user sits on at least one seat and places their feet under the foot anchor to provide resistance and stability as the user performs core/abdominal exercises on the seat.

[0009] In one embodiment, the foot anchor is also height-adjustable. The anchor may also be comprised of at least one attachment point for a resistance band, wherein the attachment point includes, but is not limited to, an eyelet or other similar structure of the like. Further, in one embodiment the anchor may also be comprised of at least one removable or non-removable foot pad for foot comfort when a user is resting their feet against the anchor during use.

[0010] The seat is attached to the base via at least one vertical frame member. In one embodiment, the member is of a fixed height. In another embodiment, the member is preferably telescopic such that the height of the member can be configured via at least one fastener such that a user can customize the height of the member relative to the base to their preference/exercise requirements. Further, the angle of the seat may be adjustable relative to a vertical axis of the frame member.

[0011] The present invention is also comprised of a method of using the device. First, a device is provided comprised of a base comprised of a seat and a foot anchor. Then, a user can adjust the position of the foot anchor along a top surface of the base and/or adjust the height of the foot anchor via a vertical frame member. Next, a user can adjust the angle of the seat via a pivot point. Optionally, a user can attach at least one resistance band to at least one attachment point of the anchor and placed around a user's body. Then, a user can sit on the seat, place their feet beneath the foot anchor, and perform core and/or abdominal exercises.

[0012] Accordingly, the core-strengthening device of the present invention is particularly advantageous as it provides an exercise device for exercising core and abdominal

muscles. More specifically, the device allows a user to strengthen their core and abdominal muscles without requiring that the user sit on a floor surface. In addition, the device is highly adjustable for user comfort. In this manner, the core-strengthening device overcomes the limitations of existing methods of core and abdominal exercising known in the art.

[0013] To the accomplishment of the foregoing and related ends, certain illustrative aspects of the disclosed innovation are described herein in connection with the following description and the annexed drawings. These aspects are indicative, however, of but a few of the various ways in which the principles disclosed herein can be employed and are intended to include all such aspects and their equivalents. Other advantages and novel features will become apparent from the following detailed description when considered in conjunction with the drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0014] The description refers to provided drawings in which similar reference characters refer to similar parts throughout the different views, and in which:

[0015] FIG. 1 illustrates a side perspective view of one potential embodiment of a core-strengthening device of the present invention in accordance with the disclosed architecture;

[0016] FIG. 2 illustrates a side perspective view of one potential embodiment of a core-strengthening device of the present invention in accordance with the disclosed architecture;

[0017] FIG. 3 illustrates a side view of one potential embodiment of a core-strengthening device of the present invention in accordance with the disclosed architecture;

[0018] FIG. 4 illustrates a side perspective view of one potential embodiment of a core-strengthening device of the present invention while a user is using the device in accordance with the disclosed architecture; and

[0019] FIG. 5 illustrates a flowchart of a method of using one potential embodiment of a core-strengthening device of the present invention in accordance with the disclosed architecture.

DETAILED DESCRIPTION

[0020] The innovation is now described with reference to the drawings, wherein like reference numerals are used to refer to like elements throughout. In the following description, for purposes of explanation, numerous specific details are set forth to provide a thorough understanding thereof. It may be evident, however, that the innovation can be practiced without these specific details. In other instances, well-known structures and devices are shown in block diagram form to facilitate a description thereof. Various embodiments are discussed hereinafter. It should be noted that the figures are described only to facilitate the description of the embodiments. They are not intended as an exhaustive description of the invention and do not limit the scope of the invention. Additionally, an illustrated embodiment need not have all the aspects or advantages shown. Thus, in other embodiments, any of the features described herein from different embodiments may be combined.

[0021] As noted above, there exists a long-felt need in the art for an exercise device for exercising core and abdominal muscles. There also exists a long-felt need in the art for a

core-strengthening device. More specifically, there exists a long-felt need in the art for a core-strengthening device that allows a user to strengthen their core and abdominal muscles without requiring that the user sit on a floor surface. In addition, there exists a long-felt need in the art for a core-strengthening device that allows a user to strengthen their core and abdominal muscles without requiring that the user sit on a floor surface, wherein the device is highly adjustable.

[0022] The present invention, in one exemplary embodiment, is comprised of a core-strengthening device comprised of an exercise device that allows a user to do seated core/abdominal exercises without the need to sit on a ground surface. The device is comprised of a base and at least one foot anchor is repositionable along a top surface of the base. During use, a user sits on at least one seat and places their feet under the foot anchor to provide resistance and stability as the user performs core/abdominal exercises on the seat.

[0023] In one embodiment, the foot anchor is also height-adjustable and may also be comprised of at least one attachment point for a resistance band. Further, in one embodiment the anchor may also be comprised of at least one removable or non-removable foot pad for foot comfort when a user is resting their feet against the anchor during use.

[0024] The seat is attached to the base via at least one vertical frame member. In one embodiment, the member is of a fixed height. In another embodiment, the member is preferably telescopic such that the height of the member can be configured via at least one fastener such that a user can customize the height of the member relative to the base to their preference/exercise requirements. Further, the angle of the seat may be adjustable relative to a vertical axis of the frame member.

[0025] The present invention is also comprised of a method of using the device. First, a device is provided comprised of a base comprised of a seat and a foot anchor. Then, a user can adjust the position of the foot anchor along a top surface of the base and/or adjust the height of the foot anchor via a vertical frame member. Next, a user can adjust an angle of the seat via a pivot point. Optionally, a user can attach at least one resistance band to at least one attachment point of the anchor and placed around a user's body. Then, a user can sit on the seat, place their feet beneath the foot anchor, and perform core and/or abdominal exercises.

[0026] Accordingly, the core-strengthening device of the present invention is particularly advantageous as it provides an exercise device for exercising core and abdominal muscles. More specifically, the device allows a user to strengthen their core and abdominal muscles without requiring that the user sit on a floor surface. In addition, the device is highly adjustable for user comfort. In this manner, the core-strengthening device overcomes the limitations of existing methods of core and abdominal exercising known in the art.

[0027] Referring initially to the drawings, FIG. 1 illustrates a side perspective view of one potential embodiment of a core-strengthening device **100** of the present invention in accordance with the disclosed architect. The device **100** is comprised of an exercise device that allows a user to do seated core/abdominal exercises without the need to sit on a ground surface. The device **100** is comprised of a base **110**. The base **110** may be any size, shape, and configuration that provides structural stability to the device **100**.

[0028] At least one foot anchor **120** is repositionable along a top surface **112** of the base **110**. During use, a user sits on at least one seat **130** and places their feet under the foot anchor **120** to provide resistance and stability as the user performs core/abdominal exercises on the seat **130**, as seen in FIG. 4. The seat **130** may be any size and shape and may be made from any material such as, but not limited to, foam, wood, etc.

[0029] In one embodiment, the anchor **120** is in a fixed position on the base **110**. In a repositionable embodiment, the anchor **120** can be repositioned along the top surface **112** of the base **110** via at least one fastener **121** of the foot anchor **120** and at least one reciprocating fastener **114** on the top surface **112**. The fasteners **114**, **121** may include, but are not limited to, a male fastener and a female fastener, a female threaded fastener and a male threaded fastener, an opening and a spring tab, etc. As a result, a user can customize the location of the foot anchor **120** relative to the top surface **112** base **110** to their preference/exercise requirements to achieve a desired foot position.

[0030] In one embodiment, the anchor **120** is also height-adjustable. In this embodiment, the anchor **120** is comprised of at least one vertical frame member **122**, as seen in FIG. 3. The member **122** is preferably telescopic such that the height of the member **122** can be configured via at least one fastener **123** such as, but not limited to, a clamp, a spring tab, a rotating fastener, a pin, etc. In this manner, a user can customize the height of the foot anchor **120** relative to the base **110** to their preference/exercise requirements.

[0031] In one embodiment, the anchor **120** is comprised of at least one attachment point **124** for a resistance band, wherein the attachment point **124** includes, but is not limited to, an eyelet or other similar structure of the like. Further, in one embodiment the anchor **120** may also be comprised of at least one removable or non-removable foot pad **125** for foot comfort when a user is resting their feet against the anchor **120** during use. The pad **125** may be made from any material, such as, but not limited to, foam, rubber, etc.

[0032] The seat **130** is attached to the base **110** via at least one vertical frame member **131**. In one embodiment, the member **131** is of a fixed height. In another embodiment, the member **131** is preferably telescopic (and/or otherwise adjustable in height) such that the height of the member **122** can be configured via at least one fastener **132** (as seen in FIG. 3) such as, but not limited to, a clamp, a spring tab, a rotating fastener, a pin, etc. In this manner, a user can customize the height of the member **131** relative to the base **110** to their preference/exercise requirements. Further, the angle of the seat **130** may be adjustable relative to a vertical axis of the frame member **131**. In this embodiment, the seat **130** attaches to the frame member via at least one pivot point **133** such as, but not limited to, a locking spring, a locking hinge, a locking ball and socket connection, etc. The pivot point **133** preferably allows the seat **130** to tilt between 90 and 270 degrees relative to the vertical axis of the frame member **131**.

[0033] The present invention is also comprised of a method of using **200** the device **100**, as seen in FIG. 5. First, a device **100** is provided comprised of a base **110** comprised of a seat **130** and a foot anchor **120** [Step 202]. Then, a user can adjust the position of the foot anchor **120** along a top surface **112** of the base **110** and/or adjust the height of the foot anchor via a vertical frame member **122** [Step 202]. Next, a user can adjust an angle of the seat **130** via a pivot

point **133** [Step 204]. Optionally, a user can attach at least one resistance band **140** to at least one attachment point **124** of the anchor **120** and placed around a user's body, as seen in FIG. 4 [Step 206]. Then, a user can sit on the seat **130**, place their feet beneath the foot anchor **120**, and perform core and/or abdominal exercises [Step 208].

[0034] Certain terms are used throughout the following description and claims to refer to particular features or components. As one skilled in the art will appreciate, different persons may refer to the same feature or component by different names. This document does not intend to distinguish between components or features that differ in name but not structure or function. As used herein "core-strengthening device" and "device" are interchangeable and refer to the core-strengthening device **100** of the present invention.

[0035] Notwithstanding the foregoing, the core-strengthening device **100** of the present invention and its various components can be of any suitable size and configuration as is known in the art without affecting the overall concept of the invention, provided that they accomplish the above-stated objectives. One of ordinary skill in the art will appreciate that the size, configuration, and material of the core-strengthening device **100** as shown in the FIGS. are for illustrative purposes only, and that many other sizes and shapes of the core-strengthening device **100** are well within the scope of the present disclosure. Although the dimensions of the core-strengthening device **100** are important design parameters for user convenience, the core-strengthening device **100** may be of any size, shape, and/or configuration that ensures optimal performance during use and/or that suits the user's needs and/or preferences.

[0036] Various modifications and additions can be made to the exemplary embodiments discussed without departing from the scope of the present invention. While the embodiments described above refer to particular features, the scope of this invention also includes embodiments having different combinations of features and embodiments that do not include all the described features. Accordingly, the scope of the present invention is intended to embrace all such alternatives, modifications, and variations as fall within the scope of the claims, together with all equivalents thereof.

[0037] What has been described above includes examples of the claimed subject matter. It is, of course, not possible to describe every conceivable combination of components or methodologies for purposes of describing the claimed subject matter, but one of ordinary skill in the art may recognize that many further combinations and permutations of the claimed subject matter are possible. Accordingly, the claimed subject matter is intended to embrace all such alterations, modifications, and variations that fall within the spirit and scope of the appended claims. Furthermore, to the extent that the term "includes" is used in either the detailed description or the claims, such term is intended to be inclusive in a manner similar to the term "comprising" as "comprising" is interpreted when employed as a transitional word in a claim.

What is claimed is:

1. A core-strengthening device comprising:
 - a base;
 - a seat attached to the base via a vertical frame member;
 - and
 - a foot anchor attached to a top surface of the base.

2. The core-strengthening device of claim 1, wherein the foot anchor is comprised of a foot pad.

3. The core-strengthening device of claim 1, wherein the foot anchor is comprised of an attachment point.

4. The core-strengthening device of claim 1, wherein the vertical frame member is telescopic.

5. A core-strengthening device comprising:

a base;

a height-adjustable seat attached to the base via a first vertical frame member; and

a height-adjustable foot anchor that is repositionable along a top surface of the base.

6. The core-strengthening device of claim 5, wherein the top surface is comprised of a first fastener and the height-adjustable foot anchor is comprised of a second fastener.

7. The core-strengthening device of claim 6, wherein the first fastener and the second fastener are comprised of a pair of reciprocating fasteners.

8. The core-strengthening device of claim 7, wherein the first fastener is comprised of a female threaded fastener.

9. The core-strengthening device of claim 7, wherein the first fastener is comprised of a male threaded fastener.

10. The core-strengthening device of claim 5, wherein the height-adjustable foot anchor is comprised of a second vertical frame member.

11. The core-strengthening device of claim 5, wherein the first vertical frame member is telescopic.

12. The core-strengthening device of claim 10, wherein the second vertical frame member is telescopic.

13. The core-strengthening device of claim 5, wherein the seat attaches to the first vertical frame member via a pivot point.

14. The core-strengthening device of claim 13, wherein the pivot point allows the seat to tilt between 90 and 270 degrees relative to a vertical axis of the first vertical frame member.

15. The core-strengthening device of claim 13, wherein the pivot point is comprised of a locking spring, a locking hinge, or a locking ball and socket connection.

16. The core-strengthening device of claim 5, wherein the foot anchor is comprised of an attachment point.

17. The core-strengthening device of claim 5, wherein the foot anchor is comprised of a foot pad.

18. A method of using a core-strengthening device, the method comprising the following steps:

providing a core-strengthening device comprised of a

base comprised of a seat and a foot anchor;

adjusting a position of the foot anchor along a top surface of the base;

adjusting an angle of the seat via a pivot point; and

sitting on the seat and placing a foot beneath the foot anchor while performing an exercise.

19. The method of using a core-strengthening device of claim 18, wherein the exercise is comprised of a core exercise or an abdominal exercise.

20. The method of using a core-strengthening device of claim 18 further comprised of attaching a resistance band to an attachment point of the foot anchor.

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