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# MAGNETIC FRACTIONAL WEIGHT PLATES FOR AN ADJUSTABLE WEIGHT-LIFTING DEVICE


## Abstract

Magnetic fractional weight plates for use with an adjustable weight-lifting device, such as dumbbell and barbell is disclosed. Each magnetic fractional weight plate includes a body. The body may have a pie-like structure, an arc-like configuration, or a three-quadrant circular configuration. The body magnetically attaches to a weight plate of the adjustable weight-lifting device. In some implementations, the magnetic fractional weight plate includes protrusions extending from the body. The protrusions insert into grooves in the weight plate. In one example, each magnetic fractional weight plate weighs approximately 1.25 pounds, thereby enabling a user to add 2.5 pounds of incremental weights to the adjustable weight-lifting device. The magnetic fractional weight plates attach directly to the interfacing weight plates and avoid their removal each time the user adds or removes the weight plates to customize their workout intensity.



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## Background/Summary

CROSS-REFERENCE TO RELATED APPLICATIONS [0001] The present application claims benefit of U.S. Provisional Application No. 63/552,580, filed Feb. 12, 2024; which is incorporated herein in its entirety and referenced thereto.

BACKGROUND OF THE INVENTION

Field of the Invention

[0002] The present invention relates to the field of exercise equipment, and in particular, relates to a magnetic fractional weight plate for use with an adjustable weight-lifting device, such as a dumbbell.

Description of the Prior Art

[0003] It is known that weight-lifting devices such as dumbbells or barbells are used by fitness enthusiasts for a wide range of exercises targeting different muscle groups such as upper body, lower body, and core workouts. Typically, the dumbbells come in various weights and enable the fitness enthusiasts to gradually increase resistance as they build strength. The dumbbells designs have evolved to encompass fixed-weight dumbbells and adjustable dumbbells. The fixed-weight dumbbells are typically manufactured in increments of five pounds (5 lbs), 10 pounds, etc. The adjustable dumbbells consist of a handle and weight plates that are adjusted to different weight increments. The adjustable dumbbells also come with limited weight increments, typically in 5 or 10 pounds increments. While these weight increments are enough for general fitness needs, they do not allow for finer/smaller weight adjustments, say 1 to or 2.5 pounds.

[0004] In order to overcome the above problem, fractional weight plates have been introduced. The fractional weight plates add smaller weight increments, such as 1 to 2.5 pounds increments, to the dumbbells. The fractional weight plates enable the fitness enthusiasts to gradually progress their workouts and target specific muscle groups more effectively. An example of adding fractional weight plates to the dumbbells is disclosed in a U.S. Pat. No. 11,324,988, entitled “Weight modification clamp and method” (“the '988 Patent”). The '988 Patent discloses a weight modification clamp includes first and second hingedly connected plates configured to be coupled to a bar of a weight-lifting device, such as a dumbbell, barbell or a kettlebell. First end portions of the first and second plates are pivotably connected and movable about a rotational axis so that opposing second end portions of the first and second plates are movable between a closed orientation and an open orientation and along a plane substantially perpendicular to the rotational axis. The first and second plates define a central opening configured to receive and retain the bar therein.

[0005] Another example is disclosed in a U.S. Pat. No. 10,252,098, entitled “Fine weight-adjustment device for free-weight fitness equipment” (“the '098 Patent”). The '098 Patent discloses a device for fine weight adjustment of a host apparatus. The host apparatus can be a free weight or similar having a bar with a bar diameter. The device can have an annular or disc-shaped body. The annular body can have an inner disc perimeter defining a central aperture having a diameter substantially similar to the bar diameter of the host apparatus. The annular body can also have a slot extending through the annular body from an outer perimeter to the central aperture defining a first disc end and a second disc end separated by a slot width. The annular body can be formed of a material having an elasticity sufficient to allow axial flexibility that returns the annular body to its original shape after being deformed to fit around the bar of the host apparatus.

[0006] Although the above discussed disclosures are useful, they still have problems and present

incomplete solutions. For example, the fractional weight plates are primarily used for traditional dumbbells as they clamp onto a handle of the dumbbell. Clamping the fractional weight plates to the handle may come in contact with the user's hand holding the handle and hinder their exercise routine. Further, in case the user needs to use another dumbbell of different weight, then the user has to remove the fractional weight plates and add them to the different dumbbells. Other fine weight-adjustment devices typically mount at the distal ends of the dumbbells. As a result, the user has to remove all the weights before mounting the fine weight-adjustment devices back onto the dumbbells.

[0007] Therefore, there is a need in the art to provide an improved magnetic weight plate for use with an adjustable weight-lifting device such as a dumbbell that can be used without having to remove from the weight plates.

SUMMARY OF THE INVENTION

[0008] It is an object of the present invention to provide improved magnetic fractional weight plates for use with an adjustable weight-lifting device such as a dumbbell.

[0009] It is another object of the present invention to provide magnetic fractional weight plates that connect directly to the weight plates of the weight-lifting device.

[0010] It is another object of the present invention to provide magnetic fractional weight plates that connect directly to interfacing weight plates and avoid removal of the magnetic fractional weight plates while adding or removing additional weight plates to the adjustable weight-lifting device (dumbbell, for example).

[0011] In order to achieve one or more objects, the present invention provides magnetic fractional weight plates for use with an adjustable weight-lifting device, such as a dumbbell. Each magnetic fractional weight plate includes a body. The body may have a pie-like structure, an arc-like configuration, or three quadrant circular configuration. The body magnetically attaches to a weight plate of the adjustable weight-lifting device. In some implementations, the body includes magnetic members flushed with the surface of the body. The magnetic members vary in shape and size and facilitate the connection of the body to the weight plate of the adjustable weight-lifting device.

[0012] In one aspect, the magnetic fractional weight plate includes protrusions positioned over the body. The protrusions are either made up of metal or magnetic members. The protrusions insert into grooves in the weight plates. Here, the body or the protrusions are configured to magnetically attach to opposing weight plates of the adjustable weight-lifting device.

[0013] Each magnetic fractional weight plate weighs approximately 1.25 pounds, thereby enabling a user to add incremental weights of 2.5 pounds to the adjustable weight-lifting device.

[0014] In one advantageous feature of the present invention, the magnetic fractional weight plates attach directly to the interfacing weight plates and avoid their removal each time the user adds or removes the weight plates to customize their workout intensity.

[0015] In another advantageous feature of the present invention, the magnetic fractional weight plates attach magnetically to the weight plates of the adjustable weight-lifting device. This ensures a secure fit that prevents them from falling off during workouts, and eliminates the risk of accidents and distractions while exercising.

[0016] In another advantageous feature of the present invention, each magnetic fractional weight plate weighs approximately 1.25 pounds, allowing users to add 2.5 pounds incrementally to their adjustable weight-lifting device.

[0017] These and other objects of the present subject matter will be apparent from review of the following specification and the accompanying drawings.

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## Description

## BRIEF DESCRIPTION OF THE DRAWINGS

[0018] FIG. **1** illustrates an environment in which magnetic fractional weight plates are implemented, in accordance with one embodiment of the present invention.

[0019] FIG. **2**A, FIG. **2**B, FIG. **2**C, FIG. **2**D, and FIG. **2**E, illustrate a front perspective view, a bottom view, a side view, a side perspective view and a top perspective view, respectively of the magnetic fractional weight plate, in accordance with one embodiment of the present invention.

[0020] FIG. **3** illustrates an adjustable weight-lifting device, in accordance with prior art.

[0021] FIG. **4** illustrates the user lifting the adjustable weight-lifting device connecting the magnetic fractional weight plates, in accordance with one embodiment of the present invention.

[0022] FIG. **5** illustrates an environment in which magnetic fractional weight plates are implemented, in accordance with another embodiment of the present invention.

[0023] FIG. **6**A, FIG. **6**B, FIG. **6**C and FIG. **6**D illustrate a bottom view, a side view, a bottom perspective view and a side perspective view, respectively of the magnetic fractional weight plate, in accordance with another embodiment of the present invention.

[0024] FIG. **7** illustrates a rack holding an adjustable weight-lifting device and the magnetic fractional weight plates, in accordance with another embodiment of the present invention.

[0025] FIG. **8** illustrates an environment in which magnetic fractional weight plates are implemented, in accordance with another embodiment of the present invention.

[0026] FIG. **9**A, FIG. **9**B, FIG. **9**C and FIG. **9**D illustrate a bottom perspective view, a front view, a top perspective view and a top view, respectively of the magnetic fractional weight plate, in accordance with another embodiment of the present invention.

[0027] FIG. **10** illustrates a rack holding an adjustable weight-lifting device and the magnetic fractional weight plates, in accordance with another embodiment of the present invention.

## DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0028] The following detailed description set forth below in connection with the appended drawings is intended as a description of exemplary embodiments in which the presently disclosed invention may be practiced. The term “exemplary” used throughout this description means “serving as an example, instance, or illustration,” and should not necessarily be construed as preferred or advantageous over other embodiments. The detailed description includes specific details for providing a thorough understanding of the presently disclosed magnetic fractional weight plates. However, it will be apparent to those skilled in the art that the presently disclosed invention may be practiced without these specific details. In some instances, well-known structures and devices are shown in functional or conceptual diagram form in order to avoid obscuring the concepts of the presently disclosed magnetic fractional weight plates.

[0029] In the present specification, an embodiment showing a singular component should not be considered limiting. Rather, the invention preferably encompasses other embodiments including a plurality of the same component, and vice-versa, unless explicitly stated otherwise herein. Moreover, the applicant does not intend for any term in the specification to be ascribed an uncommon or special meaning unless explicitly set forth as such. Further, the present invention encompasses present and future known equivalents to the known components referred to herein by way of illustration.

[0030] It will be understood that, although the terms first, second, third, etc. may be used herein to describe various elements, components, regions, and/or sections, these elements, components, regions, and/or sections should not be limited by these terms. These terms are only used to distinguish one element, component, region, and/or section from another element, component, region, and/or section.

[0031] It will be understood that the elements, components, regions, and sections depicted in the figures are not necessarily drawn to scale.

[0032] Although the present invention provides a description of magnetic fractional weight plates,

it is to be further understood that numerous changes may arise in the details of the embodiments of the magnetic fractional weight plates. It is contemplated that all such changes and additional embodiments are within the spirit and true scope of this disclosure.

[0033] The following detailed description is merely exemplary in nature and is not intended to limit the described embodiments or the application and uses of the described embodiments. As used herein, the word “exemplary” or “illustrative” means “serving as an example, instance, or illustration.” Any implementation described herein as “exemplary” or “illustrative” is not necessarily to be construed as preferred or advantageous over other implementations. All of the implementations described below are exemplary implementations provided to enable persons skilled in the art to make or use the embodiments of the disclosure and are not intended to limit the scope of the disclosure.

[0034] Various features and embodiments of magnetic fractional weight plates are explained in conjunction with the description of FIGS. **1**-**10**.

[0035] FIG. **1** shows an environment **10** in which magnetic fractional weight plates **12** are implemented, in accordance with one embodiment of the present invention. Magnetic fractional weight plates **12** connect to an adjustable weight-lifting device **14**. An example of weight-lifting device **14** includes, but not limited to, dumbbell, barbell, etc. A user **16** holds a handle **18** and lifts adjustable weight-lifting device **14** containing a plurality of weight plates **20** (and magnetic fractional weight plates **12**) connected to handle **18**.

[0036] Referring now to FIG. **2**A, FIG. **2**B, FIG. **2**C, FIG. **2**D, and FIG. **2**E, a front perspective view, a bottom view, a side view, a side perspective view and a top perspective view, respectively of a magnetic fractional weight plate **12** is shown, in accordance with one embodiment of the present invention. Magnetic fractional weight plates **12** is made of a metal or any suitable material. In one example, magnetic fractional weight plate **12** is made of a magnetic material. In one implementation, each magnetic fractional weight plate **12** is configured to weigh about 1.25 pounds (1.25 lbs.). A person skilled in the art understands that magnetic fractional weight plate **12** can be configured with incremental smaller weights of about 1.5, 2, 2.5 pounds without departing from the scope of the present invention. Magnetic fractional weight plate **12** includes a body **30**. Body comes in a quarter-circle configuration or pie slice or arc-like configuration. Body **30** presents an inner curvature **32**. Body **32** includes tapered sections **34** extending from inner curvature **32**. Further, body **30** includes an outer curvature **36**. Outer curvature **36** connects tapered sections **34** and forms a pie-like structure together with inner curvature **32** and tapered sections **34**. In one implementation, outer curvature **36** includes a step-like structure **38**, as can be seen from at least FIG. **2**C, and FIG. **2**D.

[0037] Magnetic fractional weight plate **12** presents a first end **42** and a second end **44**. First end **42** indicates a bottom end and second end **44** indicates a top end. In the present embodiment, body **30** encompasses protrusions **40**. Protrusions **40** extend from body **30** towards first end **42**. In one example, protrusions **40** come in rectangular configuration. It should be understood that protrusions **40** can come in any other shape including, but not limited to, semi-circular, circular, square, triangle, etc. In some implementations, body **30** encompasses a first cut-section **46**, and second cut-sections **48**. In one example, each of first cut-section **46** and second cut-sections **48** may come in any shape. First cut-section **46** and second cut-sections **48** may be formed by cutting a groove/portion of body **30** at a suitable depth enabling user **16** to place his/her hands while connecting magnetic fractional weight plates **12** to weight plate **20**. Optionally, step-like structure **38** protrudes out from adjustable dumbbell **14** and enables to user **16** to install/uninstall magnetic fractional weight plate **12** to weight plate **20**.

[0038] In one implementation, the entire magnetic fractional weight plate **12** (i.e., both body **30** and protrusions **40**) is made of a magnetic member. In some implementations, body **30** is made of a metal and protrusions **40** are made of magnetic members. Optionally, body **30** is made of metal and protrusions **40** are made of magnetic members. A person skilled in the art understands body **30**

enabling magnetic connection with weight plates **20** in a variety of ways falls within the scope of the present invention.

[0039] Now referring to FIG. **3**, a perspective view of adjustable weight-lifting device **14** is shown, as known in the art. Adjustable weight-lifting device **14** rests in a rack **22**. As known, adjustable weight-lifting device **14** encompasses a housing **24** allowing user **16** to adjust handle **16** to connect to opposite weight plates **20** for lifting them together. As known, handle **16** enables connecting opposite weight plates **20** with a weight interval: 5-pound, 10-pound, 15-pound, 20-pound, 25-pound, etc. Housing **24** typically connects to a first weight plate **20** interfacing handle **16**. First weight plate **20** encompasses a gap **26** and provides access to grooves **28** in (first) weight plate **20**.

[0040] In order to connect magnetic fractional weight plate **12** to weight plate **20**, first end **42** of magnetic fractional weight plate **12** is made to face weight plate **20**. Subsequently, protrusions **40** are made to insert into grooves **28** enabling the magnetic connection between magnetic fractional weight plate **12** and weight plate **20**. Here, user **16** adds a pair of magnetic fractional weight plates **12** i.e., each magnetic fractional weight plate **12** to opposite weight plates **20**. As each magnetic fractional weight plate **12** weighs 1.25 pounds, two magnetic fractional weight plates **12** add a total of 2.5 pounds to adjustable weight-lifting device **14**. After connecting, user **16** adjusts handle **16** to connect to required weight plates **20** depending on the weight requirement and lifts adjustable weight-lifting device **14** connecting magnetic fractional weight plates **12**, as shown in FIG. **4**.

[0041] Referring now to FIG. **5**, an environment **100** in which magnetic fractional weight plates **102** are implemented is shown, in accordance with another embodiment of the present invention. Magnetic fractional weight plates **102** connect to an adjustable weight-lifting device **104** having a handle **106** connecting to weight plates **105**. An example of weight-lifting device **104** includes, but not limited to, dumbbell, barbell, etc. Adjustable weight-lifting device **104** sits on a rack **107**, as shown in FIG. **7**. When not in use, magnetic fractional weight plates **102** are placed on a side of adjustable weight-lifting device **104** over rack **107**. As specified above, adjustable weight-lifting device **104** presents interfacing grooves **108**, such as first groove **110**, and second grooves **112**. First groove **110** comes in a circular configuration. Second grooves **112** come in an arc-like configuration. Handle **106** presents a housing **114** that enables operation of handle **106** to connect to weight plates **105**.

[0042] FIG. **6**A, FIG. **6**B, FIG. **6**C and FIG. **6**D show a bottom view, a side view, a bottom perspective view and a side perspective view, respectively of magnetic fractional weight plate **102**. Magnetic fractional weight plate **102** is made of a metal or any suitable material. In one example, magnetic fractional weight plates **102** is made of magnetic material. In one implementation, each magnetic fractional weight plate **102** is configured to weigh about 1.25 pounds (1.25 lbs.). A person skilled in the art understands that magnetic fractional weight plate **102** can be configured with an incremental smaller weights of about 1.5, 2, 2.5 pounds without departing from the scope of the present invention.

[0043] Magnetic fractional weight plate **102** includes a body **120**. Body **120** presents a first end **122** and a second end **124**. First end **122** indicates a bottom end and second end **124** indicates a top end. Body **120** encompasses a first section **126**, and a second section **128** extending from first section **126**. In one example, first section **126** comes in a three quadrant circular configuration. Optionally, first section **126** comes in a semi-circular configuration. Second section **128** extends from first section **126** and comes in the shape of an arc. In the present embodiment, body **120** encompasses first protrusions **130**. First protrusions **130** extend from body **120** towards first end **122**. In one example, each first protrusion **130** comes in an arc configuration and faces opposite first protrusion **130**. In some implementations, body **120** presents a second protrusion **132**. Second protrusion **132** comes in a circular configuration and positions in between first protrusions **130**. Further, body **120** presents a plurality of cut-sections **134**. Cut-sections **134** may come in any shape and position adjacent to first protrusions **130** and second protrusion **132**. In some implementations, cut-sections **134** help to hold magnetic fractional weight plate **102**.

[0044] In one implementation, the entire magnetic fractional weight plate **102** (i.e., both body **120** and protrusions **130**, **132**) is made of a magnetic member. In some implementations, body **120** is made of a metal, and first protrusions **130** and second protrusion **132** are made of magnetic members. Optionally, body **120** is made of metal and first protrusions **130** and second protrusion **132** are made of magnetic members. A person skilled in the art understands body **120** enabling magnetic connection with weight plate **20** in a variety of ways falls within the scope of the present invention.

[0045] As specified above, FIG. **7** shows magnetic fractional weight plates **102** placed over rack **107** when not in use. In order to connect magnetic fractional weight plates **102** to adjustable weight-lifting device **104**, a user (not shown) removes magnetic fractional weight plates **102** from rack **107** and connects magnetic fractional weight plates **102** to interfacing grooves **108**. Specifically, the user connects magnetic fractional weight plates **102** such that first protrusions **130** sit in second grooves **112**, and second protrusion **130** sits in first groove **110**. The user adds a pair of magnetic fractional weight plates **102** i.e., each magnetic fractional weight plate **102** to opposite weight plates **105**. As each magnetic fractional weight plate **102** weighs 1.25 pounds, two magnetic fractional weight plates **102** add a total of 2.5 pounds to adjustable weight-lifting device **104**. After connecting, the user adjusts handle **106** to connect to required weight plates **105** depending on the need and lifts adjustable weight-lifting device **104** connecting magnetic fractional weight plates **102**.

[0046] FIG. **8** shows an environment **200** in which magnetic fractional weight plates **202** are implemented, in accordance with another embodiment of the present invention. Magnetic fractional weight plates **202** connect to an adjustable weight-lifting device **204** having a handle **207** connecting to weight plates **205**. Adjustable weight-lifting device **204** sits on a rack **208**. In this embodiment, weight adjuster **206** positions at the distal end of weight plates **205**. Further, rack **208** includes a fractional weight plate receiving section **210** for receiving magnetic fractional weight plates **202** when not in use, as shown in FIG. **10**. In the present embodiment, adjustable weight-lifting device **204** presents interfacing grooves **212** at weight plates **205**.

[0047] FIG. **9**A, FIG. **9**B, FIG. **9**C and FIG. **9**D show a bottom perspective view, a front view, a top perspective view and a top view, respectively of magnetic fractional weight plate **202**. Magnetic fractional weight plate **202** is made of a metal or any suitable material. In one example, magnetic fractional weight plates **202** is made of a magnetic material. In one implementation, each magnetic fractional weight plate **202** is configured to weigh about 1.25 pounds. A person skilled in the art understands that magnetic fractional weight plate **202** can be configured with an incremental smaller weights of about 1.5, 2, 2.5 pounds without departing from the scope of the present invention.

[0048] Magnetic fractional weight plates **202** includes a body **220**. Body **220** comes in an arc-like configuration. Body **220** encompasses a first section **222**. First section **222** comes in an oval cylindrical configuration and positions at the center of body **220**. Body **220** presents first protrusions **224**, each positioned adjacent to first section **222** (at both sides). First protrusions **224** extend from body **222**. First protrusions **224** present first cut-sections **226** formed by chipping off a portion of material from first protrusions **224**. Further, body **222** presents second protrusions **228** extending at distal end. Second protrusions **228** extend from body **222**, and present second cut-sections **230** formed by chipping off a portion of material from second protrusions **228**. As can be seen, second protrusions **228** are curved inwards facing first protrusions **224**.

[0049] In order to connect to magnetic fractional weight plates **202** to adjustable weight-lifting device **204**, a user (not shown) removes magnetic fractional weight plates **202** from rack **208** and connects magnetic fractional weight plates **202** to interfacing grooves **212**, as shown in FIG. **8**. Specifically, the user connects magnetic fractional weight plates **202** such that first protrusions **224** sit in interfacing grooves **212**, and second protrusions **228** sit above first weight plate **205**. The user adds a pair of magnetic fractional weight plates **202** i.e., each magnetic fractional weight plate **202**

to opposite weight plates **205**. As each magnetic fractional weight plate **202** weighs 1.25 pounds, two magnetic fractional weight plates **202** add a total of 2.5 pounds to adjustable weight-lifting device **204**. After connecting, the user adjusts handle **207** to connect to required weight plates **205** depending on the need and lifts adjustable weight-lifting device **204** connecting magnetic fractional weight plates **202**.

[0050] Although the present description is explained considering the magnetic fractional weight plates magnetically attach to the adjustable dumbbells, a person skilled in the art understands that it is possible to magnetically attach to the weight plates of the barbell without coming in contact with a bar of the barbell, in order to increase fractional weight of the barbell. Such implementations or modifications thereof fall within the scope of the present invention.

[0051] Furthermore, the disclosed magnetic fractional weight plate may include a body having only a pie-like structure, an arc-like configuration, or three quadrant circular configuration. The entire body may magnetically attach to the weight plate. Optionally, a portion of the body may include magnetic members for attachment to the weight plate. In another aspect, the body may include one or more magnetic members flush with its surface. The magnetic members may be positioned variably across the body and serve to magnetically connect the body to the weight plate. In some implementations, the protrusions extending from the body may function as magnetic members for connection to the weight plate. Additionally, the magnetic fractional weight plate may feature grooves along the body and receive protrusions extending from the weight plate. Those skilled in the art will understand that the combinations of the features described above for the magnetic fractional weight plate fall within the scope of the present invention.

[0052] It should be understood that the presently disclosed magnetic fractional weight plates connect directly to the weight plates themselves and do not interfere with the operation of the handle and adjusting of the weights/weight plates. When compared to U.S. Pat. No. 11,324,988, entitled “Weight modification clamp and method” (“the '988 Patent”), the presently disclosed magnetic fractional weight plates do not come in contact with the user once they are placed over the weight plates of the adjustable weight-lifting device, such as adjustable dumbbells. Further, the presently disclosed magnetic fractional weights are configured to be placed closer to the handle unlike in some of the prior art disclosures where the fine weight-adjustment devices are placed at the distal ends of the weight plates. Due to the placement of the magnetic fractional weight plates at interfacing weight plates, the user does not have to remove and re-add the magnetic fractional weight plates each time the user adds or removes the weight plates. Further, the magnetic fractional weight plates connect to the weight plates magnetically and avoids falling over when the user is working out.

[0053] A person skilled in the art appreciates that the magnetic fractional weight plates can come in a variety of shapes and sizes depending on the need and comfort of the user. Further, many changes in the design and placement of components may take place without deviating from the scope of the presently disclosed magnetic fractional weight plates.

[0054] In the above description, numerous specific details are set forth such as examples of some embodiments, specific components, devices, methods, in order to provide a thorough understanding of embodiments of the present invention. It will be apparent to a person of ordinary skill in the art that these specific details need not be employed, and should not be construed to limit the scope of the invention.

[0055] In the development of any actual implementation, numerous implementation-specific decisions must be made to achieve the developer's specific goals, such as compliance with system-related and business-related constraints. Such a development effort might be complex and time-consuming, but may nevertheless be a routine undertaking of design, fabrication, and manufacture for those of ordinary skill. Hence as various changes could be made in the above constructions without departing from the scope of the invention, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and

not in a limiting sense.
[0056] The foregoing description of embodiments is provided to enable any person skilled in the art to make and use the invention. Various modifications to these embodiments will be readily apparent to those skilled in the art, and the novel principles and invention disclosed herein may be applied to other embodiments without the use of the innovative faculty. It is contemplated that additional embodiments are within the spirit and true scope of the disclosed invention.

## Claims

**1**. A magnetic fractional weight plate for use in exercise equipment, comprising: a body configured to magnetically attach to a weight plate of an adjustable weight-lifting device, wherein said body has a quarter-circle configuration or three-quadrant circular configuration.
**2**. The magnetic fractional weight plate of claim 1, further comprises protrusions extending from said body, wherein said body or said protrusions are configured to magnetically attach to said weight plate of said adjustable weight-lifting device, and wherein said protrusions insert into grooves in said weight plate.
**3**. The magnetic fractional weight plate of claim 1, wherein said adjustable weight-lifting device comprises one of a dumbbell and a barbell.
**4**. The magnetic fractional weight plate of claim 2, wherein said protrusions come in rectangular configuration.
**5**. The magnetic fractional weight plate of claim 2, wherein said protrusions comprise first protrusions and a second protrusion, and wherein each of said first protrusions comes in an arc configuration, and said second protrusion comes in a circular configuration.
**6**. The magnetic fractional weight plate of claim 5, wherein said first protrusions and said second protrusion insert into said grooves in said weight plate.
**7**. The magnetic fractional weight plate of claim 1, wherein said magnetic fractional weight plate has a weight of 1.25 or 2.5 pounds.
**8**. The magnetic fractional weight plate of claim 2, wherein said protrusions comprises a first section, first protrusions, and second protrusions, wherein said first section positions at the center of said body, wherein said first protrusions position at sides of said first section, and wherein said second protrusions position at distal ends of said body.
**9**. The magnetic fractional weight plate of claim 8, wherein said first protrusions insert into said grooves in said weight plate.
**10**. A magnetic fractional weight plate for use in exercise equipment, comprising: a pair of magnetic fractional weight plates, each magnetic fractional weight plate comprising: a body; and protrusions extending from said body, wherein said pair of magnetic fractional weight plates magnetically attach to interfacing weight plates of an adjustable weight-lifting device for adding fractional weights to said adjustable weight-lifting device, and wherein said adjustable weight-lifting device is an adjustable dumbbell.
**11**. The magnetic fractional weight plate of claim 10, wherein said body comes in a quarter-circle configuration.
**12**. The magnetic fractional weight plate of claim 10, wherein said body comes in a three quadrant circular configuration.
**13**. The magnetic fractional weight plate of claim 10, wherein said protrusions come in rectangular configuration.
**14**. The magnetic fractional weight plate of claim 13, wherein said protrusions comprise a first protrusions and a second protrusion, wherein each of said first protrusions comes in an arc configuration, and said second protrusion comes in a circular configuration.
**15**. The magnetic fractional weight plate of claim 14, wherein said first protrusions and said second protrusion insert into grooves in said weight plate.

**16**. The magnetic fractional weight plate of claim 10, wherein said magnetic fractional weight plate has a weight of 1.25 or 2.5 pounds.

**17**. The magnetic fractional weight plate of claim 10, wherein said protrusions comprises a first section, first protrusions, and second protrusions, wherein said first section positions at the center of said body, wherein said first protrusions position at sides of said first section, and wherein said second protrusions position at distal ends of said body.

**18**. The magnetic fractional weight plate of claim 17, wherein said first protrusions insert into grooves in said weight plate.

**19**. A method of providing a magnetic fractional weight plate for use in exercise equipment, said method comprising the steps of: providing a body; and magnetically attaching said body to a weight plate of an adjustable weight-lifting device.

**20**. The method of claim 19, further comprising: providing protrusions extending from said body; and inserting protrusions in grooves of said weight plate.