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United States Patent	12383784
Kind Code	B2
Date of Patent	August 12, 2025
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Magnetically coupled barbell pad and related methods

Abstract

A barbell pad includes a base having first and second arms, and a curved channel between the first and second arms. The first and second arms extend laterally away from the curved channel, and the first and second arms extend in opposite directions. The barbell pad also includes magnets carried by the base within the curved channel and to be magnetically coupled to a barbell, and a flexible pad coupled to the base opposite to the magnets to distribute weight load from the barbell.

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Appl. No.: **18/502222**

Filed: **November 06, 2023**

Prior Publication Data

Document Identifier	Publication Date
US 20240149099 A1	May. 09, 2024

Related U.S. Application Data

us-provisional-application US 63422673 20221104

Publication Classification

Int. Cl.: **A63B21/078** (20060101); **A63B21/072** (20060101)

U.S. Cl.:

CPC **A63B21/0783** (20151001); A63B21/0724 (20130101); A63B2209/08 (20130101)

Field of Classification Search

CPC: A63B (21/0783); A63B (21/0724); A63B (2209/08); A63B (2209/00); A63B (2209/10)

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Background/Summary

RELATED APPLICATION

(1) This application is based upon prior filed Application No. 63/422,673 filed Nov. 4, 2022, the entire subject matter of which is incorporated herein by reference in its entirety.

TECHNICAL FIELD

(2) The present disclosure relates to the field of exercise equipment, and, more particularly, to a weight lifting accessory device and related methods.

BACKGROUND

(3) Exercise is widely accepted as a means of promoting and maintaining good health and wellbeing. Many forms of exercise equipment are used. In particular, barbells are widely used for many exercise movements. Barbells consist of a long bar ranging in length from 2 to 8 feet, often with disc shaped weights attached on each end. The barbell is used for free weight training and competitive sports to perform dynamic movements, such as the bench press, back squat, front squat, and hip thrusters. During these movements (especially squats and hip thrusters), heavy weights may be used, which may cause significant pressure on the contact points between the barbell and the user's body.

SUMMARY

(4) Generally, a barbell pad comprises a base comprising first and second arms, and a curved channel between the first and second arms. The first and second arms extend laterally away from the curved channel, and the first and second arms extend in opposite directions. The barbell pad also includes a plurality of magnets carried by the base within the curved channel and to be magnetically coupled to a barbell, and a flexible pad coupled to the base opposite to the plurality of magnets to distribute weight load from the barbell.

(5) In particular, each of the plurality of magnets may comprise a curve-shaped magnet, and each of the plurality of magnets may be recessed within the curved channel. The first and second arms may be substantially parallel to each other. The curved channel may comprise a semi-circle shaped

channel, and the first and second arms may extend perpendicularly from ends of the semi-circle shaped channel. The flexible pad may comprise a first end coupled to the base, and a second end opposite to the first end, the second end being curve-shaped.
(6) In some embodiments, the plurality of magnets may comprise first and second pairs of aligned magnets, and each of the first and second pairs of aligned magnets may comprise a first magnet within the curved channel adjacent to the first arm, and a second magnet within the curved channel adjacent to the second arm and aligned with the first magnet.
(7) Also, the barbell pad may further comprise an adhesive layer between the base and the flexible pad. For example, the flexible pad may comprise a foam pad; and the base may comprise a polymer plastic material.
(8) Another aspect is directed to a method for making a barbell pad. The method includes forming a base comprising first and second arms, and a curved channel between the first and second arms. The first and second arms extend laterally away from the curved channel, and the first and second arms extend in opposite directions. The method also includes positioning a plurality of magnets carried by the base within the curved channel and to be magnetically coupled to a barbell, and coupling a flexible pad to the base opposite to the plurality of magnets to distribute weight load from the barbell.

Description

BRIEF DESCRIPTION OF THE DRAWINGS
(1) FIG. **1** is a perspective view of a barbell pad, according to the present disclosure.
(2) FIG. **2** is a side view of the barbell pad of FIG. **1**.
(3) FIG. **3** is a top plan view of the barbell pad of FIG. **1**.
(4) FIGS. **4**A and **4**B are perspective and side views of the magnet from the barbell pad of FIG. **1**, respectively.
(5) FIG. **5**A is a cross-section view of the barbell pad of FIG. **1** along line **5-5** of FIG. **3** without the magnets.
(6) FIG. **5**B is an enlarged cross-section view from FIG. **5**A without the flexible pad.
DETAILED DESCRIPTION
(7) The present disclosure will now be described more fully hereinafter with reference to the accompanying drawings, in which several embodiments of the invention are shown. This present disclosure may, however, be embodied in many different forms and should not be construed as limited to the embodiments set forth herein. Rather, these embodiments are provided so that this disclosure will be thorough and complete, and will fully convey the scope of the present disclosure to those skilled in the art. Like numbers refer to like elements throughout.
(8) Referring initially to FIGS. **1-3**, a barbell pad **100** according to the present invention is now described. The barbell pad **100** comprises a base **101** comprising first and second arms **102***a*-**102***b*, and a curved channel **103** between the first and second arms. In the illustrated embodiment, the curved channel **103** comprises a semi-circle shaped channel (i.e., an arc of 180°±10°). Of course, in other embodiments, the curved channel **103** may comprise other oblong shapes.
(9) The first and second arms **102***a*-**102***b* extend laterally away from the curved channel **103**, and the first and second arms extend in opposite lateral directions. As perhaps best seen in FIG. **2**, the first and second arms **102***a*-**102***b* may be substantially parallel to each other (i.e., ±10° of parallel), and the curved channel **103** is centrally placed between the first and second arms **102***a*-**102***b*. The first and second arms **102***a*-**102***b* extend perpendicularly from ends of the semi-circle shaped channel. As shown in FIG. **3**, the barbell pad **100** also includes a plurality of magnets **104***a*-**104***d* carried by the base **101** within the curved channel **103** and to be magnetically and releasably coupled to a barbell **105**.

(10) Referring now additionally to FIGS. **4**A-**4**B & **5**A-**5**B, each of the plurality of magnets **104***a*-**104***d* illustratively comprises a curve-shaped magnet, and each of the plurality of magnets may be partially or fully recessed within the curved channel **103**. Here, the plurality of magnets **104***a*-**104***d* comprises first and second pairs **104***a*-**104***b*, **104***c*-**104***c* of aligned magnets. As perhaps best seen in FIG. **5**A, each of the first and second pairs **104***a*-**104***b*, **104***c*-**104***c* of aligned magnets comprises a first magnet within the curved channel **103** adjacent to the first arm **102***a*, and a second magnet within the curved channel adjacent to the second arm **102***b* and aligned with the first magnet. Helpfully, in combination with the recessed first and second pairs **104***a*-**104***b*, **104***c*-**104***c* of aligned magnets, this maintains a tight magnetic coupling to the barbell **105**.

(11) As perhaps best seen in FIGS. **4**A-**4**B, each of the plurality of magnets **104***a*-**104***d* illustratively has a curved rectangular box shape. Also, each of the plurality of magnets **104***a*-**104***d* comprises a first convex side **111***a*, and a second concave side **111***b* opposite to the first convex side. The second concave side **111***b* is to be positioned within matching recesses **112***a*-**112***b* within the curved channel **103**.

(12) The barbell pad **100** also includes a flexible pad **106** coupled to the base **101** opposite to the plurality of magnets **104***a*-**104***d*. The flexible pad **106** cooperates with the base **101** to distribute weight load from the barbell **105**. The flexible pad **106** comprises a first end **107***a* coupled to the base **101**, and a second end **107***b* opposite to the first end. The second end **107***b* is illustratively curve-shaped to better cushion the associated weight carried by the barbell **105** for the user. As perhaps best seen in FIGS. **2** & **5**A, the flexible pad **106** is illustratively substantially semi-cylinder shaped.

(13) Also, the barbell pad **100** further comprises an adhesive layer **110** between the base **101** and the flexible pad **106**. For example, the flexible pad **106** may comprise a foam pad. The base **101** may comprise a rigid material with sufficient mechanical strength to not deform under typical barbell weights. For example, the base **101** may comprise a polymer plastic material, or a metallic compound.

(14) Another aspect is directed to a method for making a barbell pad **100**. The method includes forming a base **101** comprising first and second arms **102***a*-**102***b*, and a curved channel **103** between the first and second arms. The first and second arms **102***a*-**102***b* extend laterally away from the curved channel **103**, and the first and second arms extend in opposite directions. The method also includes positioning a plurality of magnets **104***a*-**104***d* carried by the base **101** within the curved channel **103** and to be magnetically coupled to a barbell **105**, and coupling a flexible pad **106** to the base opposite to the plurality of magnets.

(15) Yet another aspect is directed to a method for using a barbell pad **100** with a barbell **105** and associated desired weight. The barbell pad **100** includes a base **101** comprising first and second arms **102***a*-**102***b*, and a curved channel **103** between the first and second arms. The first and second arms **102***a*-**102***b* extend laterally away from the curved channel **103**, and the first and second arms extend in opposite directions. The barbell pad **100** also includes a plurality of magnets **104***a*-**104***d* carried by the base **101** within the curved channel **103**, and a flexible pad **106** coupled to the base opposite to the plurality of magnets to distribute weight load from the barbell. The method comprises releasably and magnetically coupling the barbell pad **100** to the barbell **105**, and performing at least weight training exercise with the barbell pad and the barbell.

(16) Advantageously, the barbell pad **100** is easily magnetically and releasably coupled to the barbell **105**. In a typical application, the user would releasably couple the barbell pad **100** to the barbell **105**, which is carrying a desired amount of weight. During one or more weight training exercises (e.g., a hip thrust exercise, a squat exercise, or other lift exercise using a barbell), the barbell pad **100** provides a cushion/distribution device to the user from the pressure from desired amount of weight.

(17) Further, the magnetic coupling is secure and strong so as not to disrupt weight training exercises from the user. As will be appreciated, one common reason for users to avoid using typical

barbell pads is the extra step of fitting the pad onto the barbell. The barbell pad **100** provides an approach to this issue with quick magnetic coupling. Another common reason for users to avoid using typical barbell pads is dislodging of the pad during exercises (e.g., shifting forward/backward/diagonally or longitudinal sliding). The barbell pad **100** provides an approach to this issue with reliable magnetic coupling. Further, the central placement of the curved channel **103** naturally balances the weight on the barbell pad **100**.

(18) Many modifications and other embodiments of the present disclosure will come to the mind of one skilled in the art having the benefit of the teachings presented in the foregoing descriptions and the associated drawings. Therefore, it is understood that the present disclosure is not to be limited to the specific embodiments disclosed, and that modifications and embodiments are intended to be included within the scope of the appended claims.

Claims

1. A barbell pad comprising: a base comprising first and second arms, and a curved channel between the first and second arms, the first and second arms extending laterally away from the curved channel, the first and second arms extending in opposite directions; a plurality of magnets carried by the base within the curved channel and configured to be magnetically coupled to a barbell; and a flexible pad coupled to the base opposite to the plurality of magnets to distribute weight load from the barbell.

2. The barbell pad of claim 1 wherein each of the plurality of magnets comprises a curve-shaped magnet; and wherein each of the plurality of magnets is recessed within the curved channel.

3. The barbell pad of claim 1 wherein the first and second arms are substantially parallel to each other.

4. The barbell pad of claim 1 wherein the curved channel comprises a semi-circle shaped channel; and wherein the first and second arms extend perpendicularly from ends of the semi-circle shaped channel.

5. The barbell pad of claim 1 wherein the flexible pad comprises a first end coupled to the base, and a second end opposite to the first end, the second end being curve-shaped.

6. The barbell pad of claim 1 wherein the plurality of magnets comprises first and second pairs of aligned magnets, each of the first and second pairs of aligned magnets comprises a first magnet within the curved channel adjacent to the first arm, and a second magnet within the curved channel adjacent to the second arm and aligned with the first magnet.

7. The barbell pad of claim 1 further comprising an adhesive layer between the base and the flexible pad.

8. The barbell pad of claim 1 wherein the flexible pad comprises a foam pad.

9. The barbell pad of claim 1 wherein the base comprises a polymer plastic material.

10. A barbell pad comprising: a base comprising first and second arms, and a semi-circle shaped channel between the first and second arms, the first and second arms extending laterally away from the semi-circle shaped channel, the first and second arms extending in opposite directions and being substantially parallel to each other; a plurality of curve-shaped magnets carried by the base within the semi-circle shaped channel and configured to be magnetically coupled to a barbell, each of the plurality of curve-shaped magnets being recessed within the semi-circle shaped channel; and a flexible pad coupled to the base opposite to the plurality of curve-shaped magnets to distribute weight load from the barbell.

11. The barbell pad of claim 10 wherein the first and second arms extend perpendicularly from ends of the semi-circle shaped channel.

12. The barbell pad of claim 10 wherein the flexible pad comprises a first end coupled to the base, and a second end opposite to the first end, the second end being curve-shaped.

13. The barbell pad of claim 10 wherein the plurality of magnets comprises first and second pairs

of aligned magnets, each of the first and second pairs of aligned magnets comprises a first magnet within the semi-circle shaped channel adjacent to the first arm, and a second magnet within the semi-circle shaped channel adjacent to the second arm and aligned with the first magnet.

14. The barbell pad of claim 10 further comprising an adhesive layer between the base and the flexible pad.

15. The barbell pad of claim 10 wherein the flexible pad comprises a foam pad; and wherein the base comprises a polymer plastic material.

16. A method for making a barbell pad comprising: Forming a base comprising first and second arms, and a curved channel between the first and second arms, the first and second arms extending laterally away from the curved channel, the first and second arms extending in opposite directions; positioning a plurality of magnets carried by the base within the curved channel and configured to be magnetically coupled to a barbell; and coupling a flexible pad to the base opposite to the plurality of magnets to distribute weight load from the barbell.

17. The method of claim 16 wherein each of the plurality of magnets comprises a curve-shaped magnet; and wherein each of the plurality of magnets is recessed within the curved channel.

18. The method of claim 16 wherein the first and second arms are substantially parallel to each other.

19. The method of claim 16 wherein the curved channel comprises a semi-circle shaped channel; and wherein the first and second arms extend perpendicularly from ends of the semi-circle shaped channel.

20. The method of claim 16 wherein the flexible pad comprises a first end coupled to the base, and a second end opposite to the first end, the second end being curve-shaped; and wherein the plurality of magnets comprises first and second pairs of aligned magnets, each of the first and second pairs of aligned magnets comprises a first magnet within the curved channel adjacent to the first arm, and a second magnet within the curved channel adjacent to the second arm and aligned with the first magnet.