

Title (en)

ELECTROMECHANICAL MECHANISM FOR CONTROLLING FRACTIONAL WEIGHT LIFTING PLATES IN WORKOUT STATIONS

Title (de)

ELEKTROMECHANISCHER MECHANISMUS ZUR STEUERUNG FRAKTIONIERTER GEWICHTSHEBEPLATTEN IN TRAININGSGERÄTEN

Title (fr)

MÉCANISME ÉLECTROMÉCANIQUE POUR LE CONTRÔLE DE POIDS FRACTIONNAIRES DANS UNE STATION DE MUSCULATION

Publication

EP 2422851 A4 20130807 (EN)

Application

EP 10766527 A 20100420

Priority

- BR 2010000133 W 20100420
- BR PI0901360 A 20090422

Abstract (en)

[origin: US2011294628A1] An electromechanical mechanism for controlling fractional weight lifting plates is installed in a weight tower of a workout station and includes two vertical columns, joined at the top by a crossbeam and at the bottom by a base, on which there rests a stack of unit weights that can be vertically moved by a steel cable. The tower includes a pulley that deflects the steel cable coming from a lower part of the tower towards a center of the tower, where it is attached to the unit weights. Mounted on either side of a central pulley is a fractional weight pulley having a coupling and a linear actuator for translating a steel cable, which hangs vertically down inside a tube attached to the crossbeam and to the base of the tower, the cylindrical fractional weight being held at the end of the steel cable in the tube.

IPC 8 full level

A63B 21/075 (2006.01); **A63B 21/00** (2006.01); **A63B 21/16** (2006.01); **A63B 24/00** (2006.01)

CPC (source: EP KR US)

A63B 21/0628 (2015.10 - EP US); **A63B 21/063** (2015.10 - EP US); **A63B 21/075** (2013.01 - KR); **A63B 21/154** (2013.01 - EP US);
A63B 2071/0063 (2013.01 - EP US); **A63B 2220/805** (2013.01 - EP US)

Citation (search report)

- [A] US 2009023561 A1 20090122 - ROSS GLENN D [US], et al
- [A] WO 03105968 A1 20031224 - LEE BYUNG-DON [KR]
- [A] WO 9830286 A1 19980716 - AGATON FITNESS AB [SE], et al
- [A] EP 0850667 A2 19980701 - NEWFORM S P A [IT]
- [A] WO 2005056123 A1 20050623 - LEE BYUNG DON [KR]
- See references of WO 2010121336A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

DOCDB simple family (publication)

US 2011294628 A1 20111201; BR PI0901360 A2 20110104; CN 102264439 A 20111130; CN 102264439 B 20140528;
EP 2422851 A1 20120229; EP 2422851 A4 20130807; JP 2012524554 A 20121018; KR 20120013295 A 20120214;
WO 2010121336 A1 20101028

DOCDB simple family (application)

US 201013148194 A 20100420; BR 2010000133 W 20100420; BR PI0901360 A 20090422; CN 201080003766 A 20100420;
EP 10766527 A 20100420; JP 2012506293 A 20100420; KR 20117012152 A 20100420