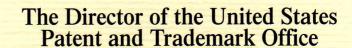
The United States of America



Has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

Therefore, this

United States Patent

Grants to the person(s) having title to this patent the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States of America or importing the invention into the United States of America, and if the invention is a process, of the right to exclude others from using, offering for sale or selling throughout the United States of America, or importing into the United States of America, products made by that process, for the term set forth in 35 U.S.C. 154(a)(2) or (c)(1), subject to the payment of maintenance fees as provided by 35 U.S.C. 41(b). See the Maintenance Fee Notice on the inside of the cover.

David J. Kappas

Director of the United States Patent and Trademark Office

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If the application for this patent was filed on or after December 12, 1980, maintenance fees are due three years and six months, seven years and six months, and eleven years and six months after the date of this grant, or within a grace period of six months thereafter upon payment of a surcharge as provided by law. The amount, number and timing of the maintenance fees required may be changed by law or regulation. Unless payment of the applicable maintenance fee is received in the United States Patent and Trademark Office on or before the date the fee is due or within a grace period of six months thereafter, the patent will expire as of the end of such grace period.

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If the application for this patent was filed on or after June 8, 1995, the term of this patent begins on the date on which this patent issues and ends twenty years from the filing date of the application or, if the application contains a specific reference to an earlier filed application or applications under 35 U.S.C. 120, 121, or 365(c), twenty years from the filing date of the earliest such application ("the twenty-year term"), subject to the payment of maintenance fees as provided by 35 U.S.C. 41(b), and any extension as provided by 35 U.S.C. 154(b) or 156 or any disclaimer under 35 U.S.C. 253.

If this application was filed prior to June 8, 1995, the term of this patent begins on the date on which this patent issues and ends on the later of seventeen years from the date of the grant of this patent or the twenty-year term set forth above for patents resulting from applications filed on or after June 8, 1995, subject to the payment of maintenance fees as provided by 35 U.S.C. 41(b) and any extension as provided by 35 U.S.C. 156 or any disclaimer under 35 U.S.C. 253.



US008113995B1

(12) United States Patent Hsu

(10) Patent No.: US 8,113,995 B1 (45) Date of Patent: Feb. 14, 2012

| (54) | ELLIPTICAL EXERCISE MACHINE WITH |
|------|---|
| | ADJUSTABLE STRIDE |

- (75) Inventor: Eric Hsu, Taipei County (TW)
- (73) Assignee: Limax International, Inc (TW)
- (*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.
- (21) Appl. No.: 13/109,068
- (22) Filed: May 17, 2011

Related U.S. Application Data

- (63) Continuation-in-part of application No. 12/985,390, filed on Jan. 6, 2011.
- (51) Int. Cl. A63B 22/04 (2006.01) A63B 22/00 (2006.01)

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(57) ABSTRACT

An elliptical exercise machine includes two swing rods connected pivotally to a base, a flywheel, two supporting rods connected pivotally between the flywheel and the swing rods, two pedal rods slidable respectively on the supporting rods, and a motion transmitting device. The device includes a fixed member fixed on the base, a rotatable member locked releaseably on the fixed member at a selected angular position, two cranks connected pivotally to the rotatable member, and two links each having a first pivot portion connected pivotally to the corresponding pedal rod, a second pivot portion connected pivotally to the corresponding swing rod, and a third pivot portion connected pivotally to the corresponding crank. The links are driven by the cranks to move the pedal rods forwardly and rearwardly on the supporting rods, respectively.