

7-22-2008

## Body Limb Movement Limiter

Susan Davis Allen

*Arkansas State University - Main Campus, allens17@erau.edu*

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Allen, S. D. (2008). Body Limb Movement Limiter. , (). Retrieved from <https://commons.erau.edu/db-mechanical-engineering/12>

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US007402147B1

(12) **United States Patent**  
**Allen**

(10) **Patent No.:** **US 7,402,147 B1**  
(45) **Date of Patent:** **Jul. 22, 2008**

(54) **BODY LIMB MOVEMENT LIMITER**

(76) Inventor: **Susan Davis Allen**, 418 W. Matthews Ave., Jonosboro, FL (US) 72401

(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 304 days.

(21) Appl. No.: **11/099,381**

(22) Filed: **Apr. 4, 2005**

**Related U.S. Application Data**

(63) Continuation-in-part of application No. 09/992,611, filed on Nov. 19, 2001, now abandoned.

(60) Provisional application No. 60/249,312, filed on Nov. 17, 2000.

(51) **Int. Cl.**  
**A61F 5/00** (2006.01)

(52) **U.S. Cl.** ..... **602/20; 602/5; 602/19**

(58) **Field of Classification Search** ..... **602/5, 602/19, 20, 26, 16; 128/869, 876, 878, 873, 128/874, 875; 473/450; 273/317.2**  
See application file for complete search history.

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*Primary Examiner*—Kim M Lewis

(74) *Attorney, Agent, or Firm*—Peter Loffler

(57) **ABSTRACT**

A body limb movement limiter restrains the movement of a person's arm so as to protect the person's shoulder or restrains the movement of a person's lower leg with respect to the upper leg so as to protect the person's knee. The device uses a housing having a reel disposed therein with a tether attached thereto and a shear thickening non-Newtonian fluid disposed within the housing so that the fluid acts on the reel during a payout procedure of the tether. The housing is attached to a strap secured about the torso of the person while the free end of the tether is secured about the person's arm. Alternately, a pair of arms are pivotally secured to each other within a housing having the non-Newtonian fluid therein for limiting movement of one arm with respect to the other.

**7 Claims, 7 Drawing Sheets**

