



(12) **United States Patent**
Workman et al.

(10) **Patent No.:** **US 9,510,990 B2**
(45) **Date of Patent:** **Dec. 6, 2016**

(54) **GAIT TRAINING APPARATUSES,
ATTACHMENTS FOR GAIT TRAINING AND
RELATED METHODS**

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(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 1589 days.

(21) Appl. No.: **12/861,665**

(22) Filed: **Aug. 23, 2010**

(65) **Prior Publication Data**
US 2012/0042917 A1 Feb. 23, 2012

(51) **Int. Cl.**
A61H 3/00 (2006.01)
A61H 3/04 (2006.01)

(52) **U.S. Cl.**
CPC **A61H 3/008** (2013.01); **A61H 3/04**
(2013.01); **A61H 2201/163** (2013.01); **A61H**
2201/1621 (2013.01); **A61H 2201/1635**
(2013.01); **A61H 2201/1652** (2013.01); **Y10T**
29/49826 (2015.01)

(58) **Field of Classification Search**
USPC 135/66, 67; 182/3, 231, 232; 248/328,
248/329, 330.1; 486/66, 68, 69
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,459,066	A *	1/1949	Duke	297/5
2,625,202	A *	1/1953	Richardson et al.	482/68
2,719,568	A *	10/1955	Webb	482/68
3,711,877	A *	1/1973	Averill	5/87.1
3,999,228	A *	12/1976	Thomas	5/83.1
4,164,350	A *	8/1979	Zeijdel et al.	482/69
4,211,426	A *	7/1980	Motloch	280/87.041
5,333,333	A *	8/1994	Mah	5/87.1
5,603,677	A *	2/1997	Sollo	482/69
6,845,736	B1 *	1/2005	Anderson	119/796
7,275,554	B2 *	10/2007	Mullholland	135/67
7,294,094	B1 *	11/2007	Howle	482/69
7,468,023	B2 *	12/2008	Wu et al.	482/69
2005/0250624	A1 *	11/2005	Yu	482/69

* cited by examiner

Primary Examiner — Noah Hawk

(57) **ABSTRACT**

Attachments, apparatuses, and methods for partial weight bearing gait training are described. Attachments for partial weight bearing gait training may include a structure sized and configured for attachment to a walker, an undampened elastic member, and a harness. Apparatuses may include a walker with a walker frame and at least two wheels, a harness support base frame connected to the walker, a suspension arm coupled to the harness support base frame, an undampened elastic member connected to the suspension arm, and a harness connected to the undampened elastic member. Related methods of assembling a gait training apparatus and of using a gait training device are also described.

2 Claims, 7 Drawing Sheets

