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- (71) Applicant (for all designated States except US): **AL-
TERG, INC.** [US/US]; 48438 Milmont Drive, Fremont,
CA 94538 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **KUEHNE, Eric
Richard** [US/US]; 48438 Milmont Drive, Fremont, CA
94538 (US). **LOEW, Christopher** [US/US]; 48438
Milmont Drive, Fremont, CA 94538 (US). **MANGSETH,**

Glen, R. [US/US]; 48438 Milmont Drive, Fremont, CA 94538 (US). **KRIEG, Kenneth, R.** [US/US]; 48438 Milmont Drive, Fremont, CA 94538 (US). **GRENEWET-ZKI, David P.** [US/US]; 48438 Milmont Drive, Fremont, CA 94538 (US). **JUE, Clifford, T.** [US/US]; 48438 Milmont Drive, Fremont, CA 94538 (US). **DONALD, Trevor, L.** [GB/US]; 48438 Milmont Drive, Fremont, CA 94538 (US).

(74) Agents: **PAI, Frances, L.** et al.; SHAY GLENN LLP, 2755 Campus Drive, Suite 210, San Mateo, CA 94403 (US).

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(54) Title: DIFFERENTIAL AIR PRESSURE SYSTEMS AND METHODS OF USING AND CALIBRATING SUCH SYSTEMS FOR MOBILITY IMPAIRED USERS

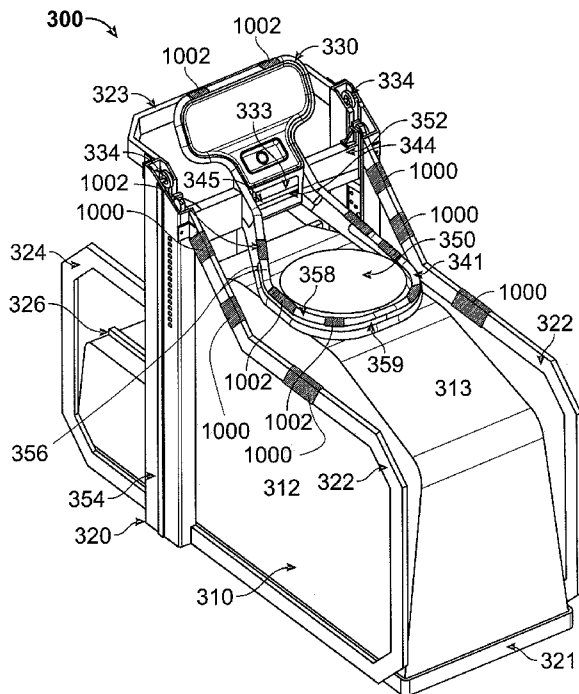
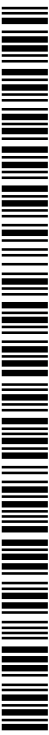


FIG. 2A

(57) Abstract: Described herein are various embodiments of differential air pressure systems and methods of using and calibration such systems for individuals with impaired mobility. The differential air pressure systems may comprise an access assist device configured to help a mobility impaired user to stand in a pressure chamber configured to apply a positive pressure on a portion of the user's body in the seals pressure chamber. The system may further comprise load sensors configured to measure the user's weight exerted inside and outside the chamber. The system may be calibrated by determining a relationship between the actual weight of the user and the pressure in the chamber, where the actual weight of the user may be measured by more than one load sensor and at least one load sensor is not in the chamber.





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TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

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USPC - 623/26

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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USPC: 623/26

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

IPC(8): A61F 2/72 (2012.01) (keyword limited, see terms below)

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Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

PubWEST(PGPB, USPT, EPAB, JPAB), Google Scholar, Thomson Innovation. Search terms used: pressure, exercise, rehabilitation, motor, skill, lower, body, load, weight, sensor, monitor, measure, antigravity, low, reduced, light, chamber, bubble, injured, recover, stroke, human, person, patient, second, dual, two multiple, multi, plurality, several, nu

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2009/151750 A1 (WHALEN et al.) 23 April 2009 (23.04.2009) entire document, especially: Fig 1, Fig 9, Abstract, para [0006], [0015]-[0018], [0040]-[0045], [0053]-[0055], [0060], [0078], [0095], [0096]	1-50
A	US 2003/0153438 A1 (GORDON et al.) 14 August 2003 (14.08.2003) entire document	1-50

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"&" document member of the same patent family

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P.O. Box 1450, Alexandria, Virginia 22313-1450

Facsimile No. 571-273-3201

Authorized officer:

Lee W. Young

PCT Helpdesk: 571-272-4300

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