

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
15 January 2009 (15.01.2009)

PCT

(10) International Publication Number
WO 2009/007780 A3

(51) International Patent Classification:

A61B 5/026 (2006.01) A61H 23/04 (2006.01)

(21) International Application Number:

PCT/IB2007/004616

(22) International Filing Date: 26 October 2007 (26.10.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/863,052 26 October 2006 (26.10.2006) US

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:

23 July 2009

(54) Title: SYSTEM AND METHOD FOR DEEP VEIN THROMBOSIS PREVENTION AND DIAGNOSIS

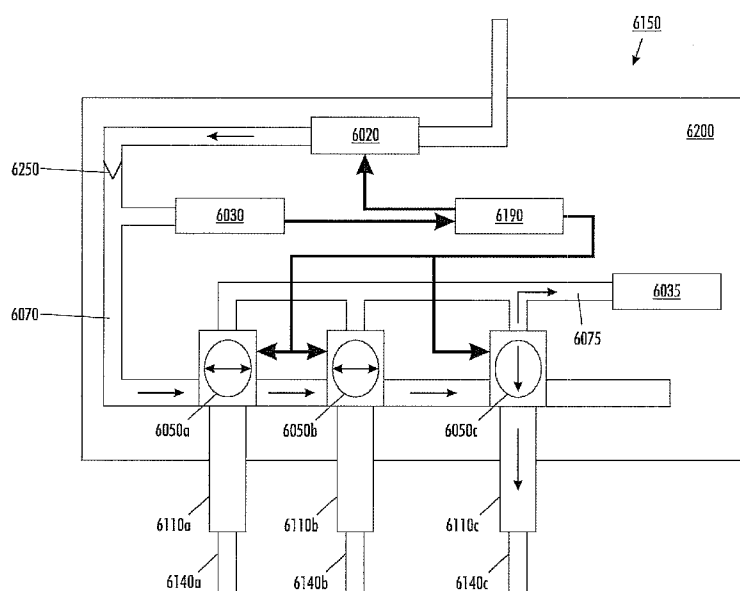


FIG. 4

(57) Abstract: A system and method prevents and diagnoses deep vein thrombosis in a body limb by providing a pressure sleeve having a plurality of individually fillable cells, the pressure sleeve being configurable to be placed around a body limb. A source fills each fillable cell individually, and a pressure sensor measures a pressure in a fillable cell. A controller establishes a fill sequence of each individually fillable cell and a fill time for each individually fillable cell. The controller causes a first individually fillable cell of the pressure sleeve to be filled to a predetermined pressure and causes the pressure of first individually fillable cell of the pressure sleeve to be measured while a second individually fillable cell of the pressure sleeve is filled. The controller determines a presence of deep vein thrombosis in a body limb having the pressure sleeve therearound based upon a measured pressure change in the first individually fillable cell of the pressure sleeve. The monitored pressure changes

reflects the effect of venous obstruction on naturally occurred venous flow fluctuations like those caused by the respiratory cycle, and/or artificially created fluctuations like those caused by inflation of a second pressure cell. Relevant data can be collected during routine system application for deep vein thrombosis prevention on a 24/7 basis. In the case deep vein thrombosis is suspected, a controlled and more sophisticated study can be triggered using the same system.

INTERNATIONAL SEARCH REPORT

International application No

PCT/IB2007/004616

A. CLASSIFICATION OF SUBJECT MATTER
 INV. A61B5/026 A61H23/04

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)
 A61B

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

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

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 172 697 A (KOVEN PAUL G [US] ET AL) 22 December 1992 (1992-12-22)	1,6-12, 17, 27-29, 74, 78-84, 89, 105-107
Y	abstract column 5, line 45 - column 6, line 7 figures 5,5a ----- -/--	32,38, 42-46, 48,62, 69,98, 110, 114-118, 120,134, 141-143

☒ Further documents are listed in the continuation of Box C.

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Date of the actual completion of the international search

26 May 2009

Date of mailing of the international search report

09/06/2009

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INTERNATIONAL SEARCH REPORT

International application No

PCT/IB2007/004616

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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International application No

PCT/IB2007/004616

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