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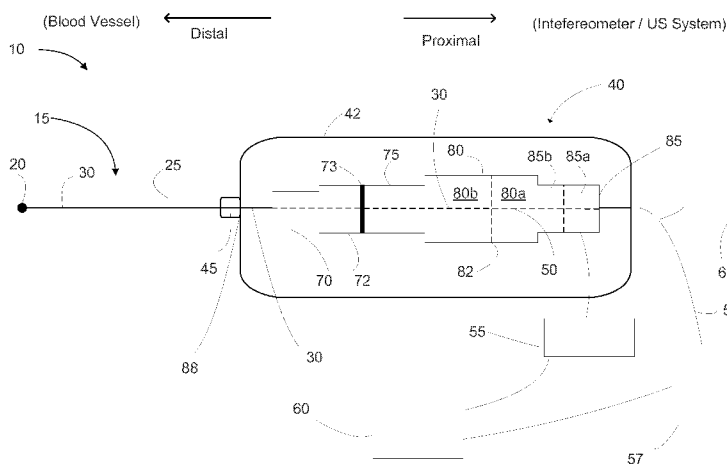


Figure 1

(57) Abstract: In one aspect, the invention relates to one or more rotatable elements and one or more stationary element such that the elements are arranged along a common axis of rotation co-linear with or substantially parallel to an optical path. The optical path is a portion of a sample arm of an interferometer. Further, the rotatable and stationary elements are configured to couple electrical signals and optical signals between a data collection probe and an interface unit or other component of an imaging system. In one embodiment, the data collection probe is a combination ultrasound and OCT probe. In one aspect, the invention relates to a rotary joint in which the optical fiber and a fiber optic rotary joint lie in the center of one or more conductive elements of an electrical rotary joint which are annularly disposed around one or both of the optical fiber and optical rotary joint.

INTERNATIONAL SEARCH REPORT

International application No.

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - A61B 8/12 (2013.01)

USPC - 600/462

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

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USPC - 600/300, 407, 425, 427, 437, 440, 443, 444, 445, 459, 462, 463, 466, 473, 476, 478

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

PubWEST (PGPB, USPT, EPAB, JPAB); PatBase; Google (Patents, Scholar, Web)

Search Terms: Catheter, scope, imaging, camera, video, optic, fiber, fibre, illumination, light, stationary, rotational, couple, attach, communicate, connect, joint, annular, ring, winding, plural, multiple, additional, second, first, many, ferrite, iron, ratio, electrical,

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X ===== Y	US 2010/0234736 A1 (CORL) 16 September 2010 (16.09.2010) Fig. 4-5; Para [0043]-[0051]	1, 3, 7-8, 11, 15, 17-22, 24-25 =====
Y	US 5,039,193 A (SNOW et al.) 13 August 1991 (13.08.1991) Fig. 1; col 4, ln 25-47, col 4, ln 48-63	2, 4-6, 9-10, 12-14, 16, 23, 26-33
Y	US 2005/0279914 A1 (DIMSDALE et al.) 22 December 2005 (22.12.2005) Abstract; Fig. 4; Para [0026], [0028]	2, 5-6, 9-10, 12-14, 16, 27-33
Y	US 2008/0114254 A1 (MATCOVITCH et al.) 15 May 2008 (15.05.2008) Para [0068]	4, 14, 16, 23
Y	US 2008/0114254 A1 (MATCOVITCH et al.) 15 May 2008 (15.05.2008) Para [0068]	26-33
Y	US 6,612,304 B1 (CISE et al.) 02 September 2003 (02.09.2003) Fig. 1-5; col 5, ln 49 to col 6, ln 3	6

Further documents are listed in the continuation of Box C.

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