

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
16 February 2006 (16.02.2006)

PCT

(10) International Publication Number
WO 2006/017023 A3

(51) International Patent Classification:
A61B 18/18 (2006.01)

(21) International Application Number:
PCT/US2005/023107

(22) International Filing Date: 30 June 2005 (30.06.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10/888,682 10 July 2004 (10.07.2004) US

(71) Applicant and

(72) Inventor: **MODESITT, Bruce, D.** [US/US]; 120 Wingate Avenue, San Carlos, CA 94070 (US).

(74) Agent: **LEVINE BAGADE LLP**; 2483 East Bayshore Road, Suite 100, Palo Alto, CA 94303 (US).

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

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

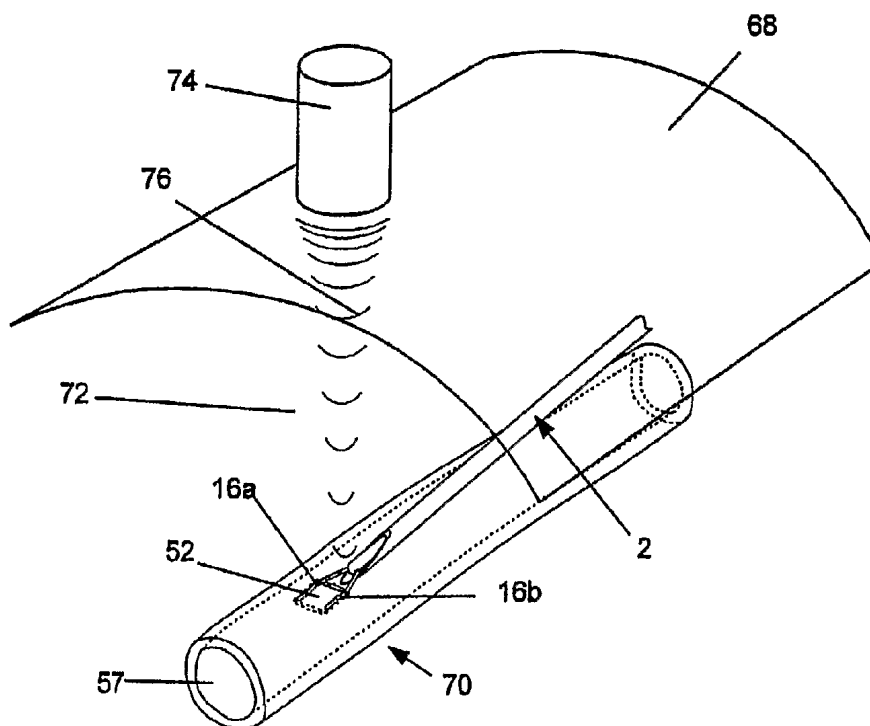
(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, 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

(88) Date of publication of the international search report:
2 April 2009

(54) Title: BIOLOGICAL TISSUE CLOSURE DEVICE AND METHOD



(57) Abstract: Devices and methods for biological tissue closure are disclosed. Arteriotomy closure and hemostasis devices and methods are disclosed. A device that can provide a lateral tension across an opening in the tissue and apply energy to seal the tissue is disclosed. Methods for using the device are also disclosed.

WO 2006/017023 A3

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/23107

A. CLASSIFICATION OF SUBJECT MATTER

IPC: A61B 18/18(2006.01)

USPC: 606/41

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)

U.S. : 606/41,45-50; 607/101,102

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 practicable, search terms used)

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 6,179,832 B1 (JONES et al) 30 January 2001, whole document	1-9,18-23,25-38,41,51-59,75-78 ----- 10-17,24,39,40,42-50,60-69
X --- Y	US 5,437,665 A (MUNRO et al) 01 August 1995, whole document	1-9,26-31 ----- 10-17,24
A	US 5,709,224 A (BEHL et al) 20 January 1998, whole document	1-69 and 75-78

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

☐ See patent family annex.

* Special categories of cited documents:		"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A"	document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E"	earlier application or patent published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&"	document member of the same patent family
"O"	document referring to an oral disclosure, use, exhibition or other means		
"P"	document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search

06 May 2008 (06.05.2008)

Date of mailing of the international search report

05 JUN 2008

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Facsimile No. (571) 273-3201

Authorized officer

Linda Dvorak

Telephone No. (703) 308-0858

Chris Heald
Jos