



(51) International Patent Classification:
A61B 1/01 (2006.01)

(21) International Application Number:
PCT/US2008/081717

(22) International Filing Date:
30 October 2008 (30.10.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
11/981,134 31 October 2007 (31.10.2007) US

(71) Applicant (for all designated States except US):
ETHICON ENDO-SURGERY, INC [US/US]; 4545
Creek Road, Cincinnati, Ohio 45242 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BAKOS, Gregory J.** [US/US]; 6330 Redwood Court, Mason, Ohio 45040 (US). **GHABRIAL, Ragae** [US/US]; 4075 Sharon Park Lane, Apt. 9, Cincinnati, Ohio 45241 (US). **STE-FANCHIK, David** [US/US]; 5792 Cabernet Court, Morrow, Ohio 45152 (US). **VAKHARIA, Omar J.** [US/US]; 2243 Sussex Avenue, Cincinnati, Ohio 45230 (US).

(74) Agents: **JOHNSON, Philip S.** et al.; One Johnson & Johnson Plaza, New Brunswick, New Jersey 08933 (US).

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

AO, 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, ST, 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, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, 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 (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(88) Date of publication of the international search report:
13 August 2009

(54) Title: ENDOSCOPIC OVERTUBES

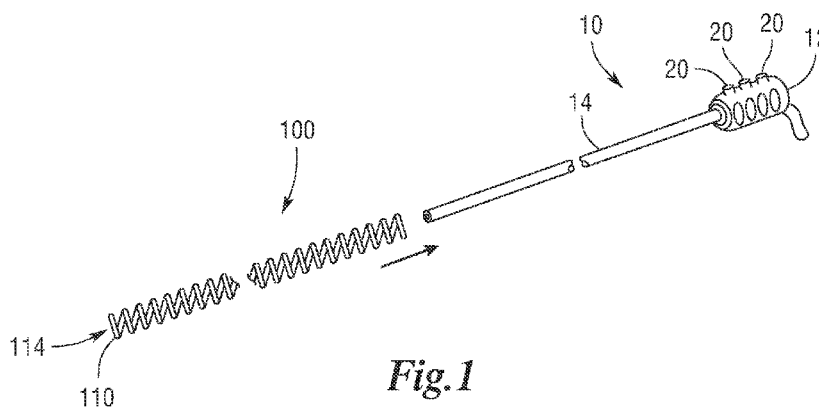


Fig. 1

(57) Abstract: An overtube for use with an endoscopic surgical instrument. In various embodiments, the overtube may comprise a substantially flexible helically wound continuous member forming a series of helical coils that define a hollow passage sized to receive a portion of the endoscopic surgical instrument therethrough. The coils may be configured to selectively interlock with each other to stiffen the overtube. An actuation system may be employed to steer the overtube and selectively stiffen it. Some embodiments include a second substantially flexible helically wound member that may be selectively wound between the first substantially flexible helically wound member or segments thereof.



INTERNATIONAL SEARCH REPORT

International application No
PCT/US2008/081717

A. CLASSIFICATION OF SUBJECT MATTER

INV. A61B1/01

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 B60G A61M G02B

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 4 770 188 A (CHIKAMA TOSHIO [JP]) 13 September 1988 (1988-09-13) column 1, lines 9-13 column 2, lines 20-66 column 3, lines 6-11 figures 1,3-5	1-10, 12, 13, 15
X	JP 2002 369791 A (PENTAX CORP) 24 December 2002 (2002-12-24) paragraphs [0013], [0014], [0019], [0021]; figures 1-4,7 ----- -/--	1, 2, 9

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

☒ See patent family annex.

* Special categories of cited documents:

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

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)

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

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

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

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.

8 document member of the same patent family

Date of the actual completion of the international search

26 June 2009

Date of mailing of the international search report

06/07/2009

Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040,
Fax: (+31-70) 340-3016

Authorized officer

Mecking, Nikolai

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2008/081717

C(Continuation), DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 30 08 120 A1 (OLYMPUS OPTICAL CO) 18 September 1980 (1980-09-18) page 14, lines 10-17 page 15, lines 6-30 page 16, lines 23-30 page 18, lines 1-15 figure 7A	1,2
X	JP 2003 088494 A (PENTAX CORP) 25 March 2003 (2003-03-25) paragraph [0033]; figures 2,6-8	1,2,9
X	JP 2004 065745 A (PENTAX CORP) 4 March 2004 (2004-03-04) paragraph [0011]; figures 1-4	1,2,9
X	US 2007/233043 A1 (DAYTON PETER L [US] ET AL) 4 October 2007 (2007-10-04)	10,11,14
A	paragraphs [0006], [0027], [0029], [0033], [0042] - [0044] figures 3-6A,7,9A,9G,9H	3-7,19
A	EP 1 477 106 A (OLYMPUS CORP [JP]) 17 November 2004 (2004-11-17) paragraphs [0018], [0019]	8,15,21
X	US 5 405 073 A (PORTER DAVID S [US]) 11 April 1995 (1995-04-11) column 4, line 47 - column 5, line 16 column 6, lines 58-64 figures 1,5,11,12	16-21
A	US 5 976 074 A (MORIYAMA HIROKI [JP]) 2 November 1999 (1999-11-02) column 20, line 35 - column 21, line 45; figure 15	1,2,6
A	US 2007/233040 A1 (MACNAMARA FRANCIS T [US] ET AL) 4 October 2007 (2007-10-04) paragraphs [0029], [0031], [0032]; figures 1-3	1,10

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2008/081717

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 4770188	A	13-09-1988	JP 1027762 Y2 JP 56009402 U	23-08-1989 27-01-1981
JP 2002369791	A	24-12-2002	NONE	
DE 3008120	A1	18-09-1980	GB 2045964 A US 4329980 A	05-11-1980 18-05-1982
JP 2003088494	A	25-03-2003	NONE	
JP 2004065745	A	04-03-2004	JP 4172966 B2	29-10-2008
US 2007233043	A1	04-10-2007	EP 2007463 A1 WO 2007114867 A1	31-12-2008 11-10-2007
EP 1477106	A	17-11-2004	CN 1610517 A WO 2004017824 A1 JP 3905320 B2 JP 2002253477 A JP 2002253648 A US 2005000553 A1	27-04-2005 04-03-2004 18-04-2007 10-09-2002 10-09-2002 06-01-2005
US 5405073	A	11-04-1995	NONE	
US 5976074	A	02-11-1999	NONE	
US 2007233040	A1	04-10-2007	CA 2646747 A1 EP 2010039 A1 WO 2007114869 A1	11-10-2007 07-01-2009 11-10-2007