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(71) Applicant and

(72) Inventor: **LEE, Woojin** [US/US]; 69 East Street, Hopkinton, MA 01748 (US).

(74) Agent: **DRISCOLL, David, M.**; 1201 Canton Avenue, Milton, MA 02286 (US).

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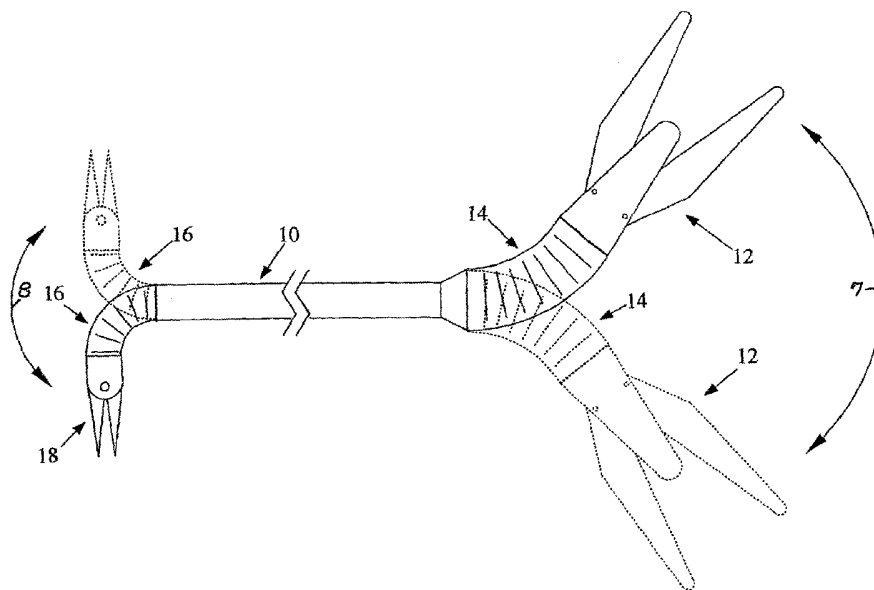
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(54) Title: SURGICAL INSTRUMENT



(57) Abstract: An endoscopic or laparoscopic instrument includes a distal tool, a rigid or flexible elongated shaft that supports the distal tool, and a proximal handle or control member, where the tool and the handle are coupled to the respective distal and proximal ends of the elongated shaft via bendable motion members. The tool and the tool motion member are coupled to the handle and the handle motion member via cables and a push rod in such a way that the movement of the handle with respect to the elongated shaft in any direction is replicated by the tool at the distal end of the shaft. The magnitude of the tool motion with respect to the handle motion may be scaled depending on the size of the handle motion member with respect to that of the tool motion member.



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# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/33881

<b>A. CLASSIFICATION OF SUBJECT MATTER</b> IPC(7) : A61B 17/00 US CL : 606/1 According to International Patent Classification (IPC) or to both national classification and IPC																										
<b>B. FIELDS SEARCHED</b> Minimum documentation searched (classification system followed by classification symbols) U.S. : 606/1,  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) EAST-INSTRUMENT, HAND TOOL, BENDS, ARTICULATS, TOOL, END EFFECTOR																										
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>																										
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.																								
X --- Y	US 5,454,827 A (AUST, ET AL.) 03 October 1995 (03.10.1995), SEE FIG. 1-5; COL. 4 LINES 8-37	1-4,8,10-12,25,29,31-34,36-38,46 AND 50 ----- 18,19,21-24,45,49,60																								
--- Y	US 5,273,026 A (WILK) 28 December 1993 (28.12.1993), SEE FIG. 2; COL. 2 LINES 11-33; COL. 4 LINES 29-54	----- 19,21-24,49																								
--- Y	US 5,405,344 A (WILLIAMSON, ET AL.) 11 April 1995 (11.04.1995), SEE FIG. 9; COL. 5 LINES 34-41.	----- 45																								
--- Y	US 5,702,408 A (WALES, ET AL.) 30 December 1997 (30.12.1997), SEE COL. 6 LINES 11-59.	----- 18 AND 60																								
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.																										
<table border="0"> <tr> <td colspan="2">* Special categories of cited documents:</td> <td>"T"</td> <td>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</td> </tr> <tr> <td>"A"</td> <td>document defining the general state of the art which is not considered to be of particular relevance</td> <td>"X"</td> <td>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</td> </tr> <tr> <td>"E"</td> <td>earlier application or patent published on or after the international filing date</td> <td>"Y"</td> <td>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</td> </tr> <tr> <td>"L"</td> <td>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)</td> <td>"&amp;"</td> <td>document member of the same patent family</td> </tr> <tr> <td>"O"</td> <td>document referring to an oral disclosure, use, exhibition or other means</td> <td></td> <td></td> </tr> <tr> <td>"P"</td> <td>document published prior to the international filing date but later than the priority date claimed</td> <td></td> <td></td> </tr> </table>			* 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		
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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 Glenn K. Dawson <i>Shawn N. Greene for</i> Telephone No. 703-308-0858																								