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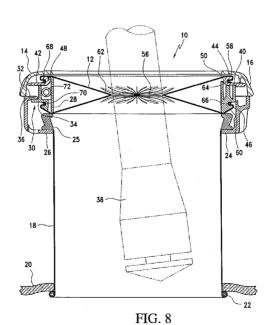
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(54) Title: HAND ASSISTED LAPAROSCOPIC DEVICE



(57) Abstract: A seal assembly (10) for permitting hand (38) assisted laparoscopic procedures includes a seal cap (14) having an iris seal (12) positioned within a housing (16). The housing includes a lower seal ring (28) having a track (40) which supports an upper seal ring (42) for relative rotational motion, wherein the iris seal is supported between the upper seal ring and the lower seal ring for rotation between an open orientation and a closed orientation. The seal assembly also includes a retractor (18) extending from the seal cap, a spring (72) biasing the upper seal ring relative to the lower seal ring, and a ratchet mechanism (74) controlling motion of the upper seal ring relative to the lower seal ring.



INTERNATIONAL SEARCH REPORT

International application No PCT/US2007/086005

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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								
Electronic data base consulted during the international search (name of data base and, where practical, search terms used)								
EPO-In	ternal	1						
C. DOCUMENTS CONSIDERED TO BE RELEVANT								
Category*	Citation of document, with indication, where appropriate, of the re	levant passages	Relevant to claim No.					
Υ	US 2005/020884 A1 (HART C.C. & P E.D.) 27 January 2005 (2005-01-2 paragraphs [0006], [0010], [00 [0044] - [0048]; figures 6-11	1–18						
Y	US 5 211 370 A (POWERS R.J.) 18 May 1993 (1993-05-18) column 2, line 7 - line 50; claim	ms 3-5;	1-18					
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Furt	ther documents are listed in the continuation of Box C.	X See patent family annex.	<u> </u>					
	categories of cited documents :							
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INTERNATIONAL SEARCH REPORT

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Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 2005020884	A1	27-01-2005	US	2006084842 A1	20-04-2006
US 5211370	Α	18-05-1993	NONE		