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(54) **COMBINATIONAL SCISSOR-GRASPER TOOL FOR USE IN LAPAROSCOPY**

(57) Disclosed is a four-jawed combinational scissor-grasper surgical tool for use in laparoscopy. Cutting and grasping functionalities are respectively enabled via movement of a pair of such specially contoured jaw mem-

bers sliding against or splaying apart from the other pair. Also disclosed are means for achieving selectable interlocking of jaw members and mechanical linkage for their actuation by human user.

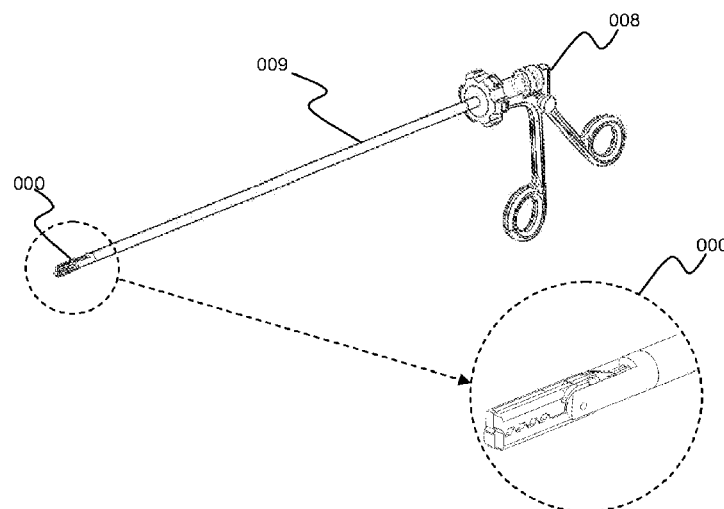


Fig. 3



EUROPEAN SEARCH REPORT

Application Number
EP 18 21 1650

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	US 5 637 111 A (SUTCU MAZ [US] ET AL) 10 June 1997 (1997-06-10) * paragraphs [0087] - [0219]; figures 1-22 *	1-10	INV. A61B17/295
E	EP 2 368 504 A1 (TYCO HEALTHCARE [US]) 28 September 2011 (2011-09-28) * paragraphs [0028] - [0047]; figures 1-6 *	1-10	
A	US 2007/179525 A1 (FRECKER MARY I [US] ET AL) 2 August 2007 (2007-08-02) * paragraphs [0176] - [2019]; figures 19-22 *	1-10	
A	US 2010/057085 A1 (HOLCOMB MATTHEW D [US] ET AL) 4 March 2010 (2010-03-04) * paragraphs [0073] - [0128]; figures 1-38 *	1-10	
			TECHNICAL FIELDS SEARCHED (IPC)
			A61B
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 4 September 2019	Examiner Horrix, Doerte
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 18 21 1650

5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

04-09-2019

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专利名称(译)	用于腹腔镜检查的组合剪式抓取工具		
公开(公告)号	EP3524185A3	公开(公告)日	2019-10-16
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[标]申请(专利权)人(译)	直观外科手术操作公司		
申请(专利权)人(译)	Intuitive Surgical公司运营，INC.		
当前申请(专利权)人(译)	Intuitive Surgical公司运营，INC.		
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优先权	1852MUM2010 2010-06-23 IN PCT/IB2011/052723 2011-06-22 WO		
其他公开文献	EP3524185A2		
外部链接	Espacenet		

摘要(译)

公开了一种用于腹腔镜检查的四爪组合式剪刀式抓取器手术工具。切割和抓握功能分别通过一对这样的特殊轮廓的钳口构件相对于另一对滑动或张开而移动来实现。还公开了用于实现钳口构件的选择性互锁和用于由人类使用者致动的机械连接的装置。

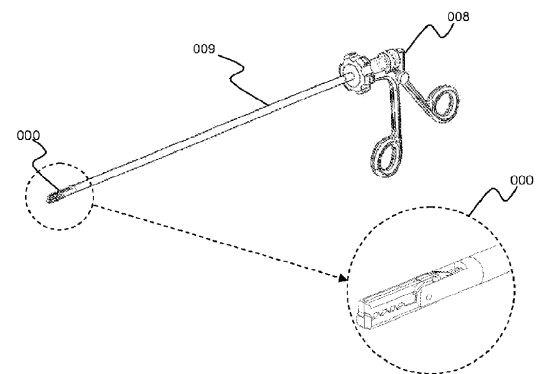


Fig. 3