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(54) **Quick load mechanism for a surgical suturing apparatus**

(57) A surgical suturing apparatus includes a flexible member having a proximal end and a distal end. The proximal end has a handle attached thereto and the distal end has a suturing body attached thereto. The handle is operatively connected to the suturing body. The suturing body includes a suture housing (3614) in which a needle and drive assembly (3738) are housed for movement of

the needle (3628) with a suture (3612) secured thereto about an arcuate path facilitating application of a suture to tissue. A mechanism (3670) is provided for accommodating and operating different sized needles (3628) and different sized sutures (3612) while maintaining the operative connection between the handle and the suturing body.

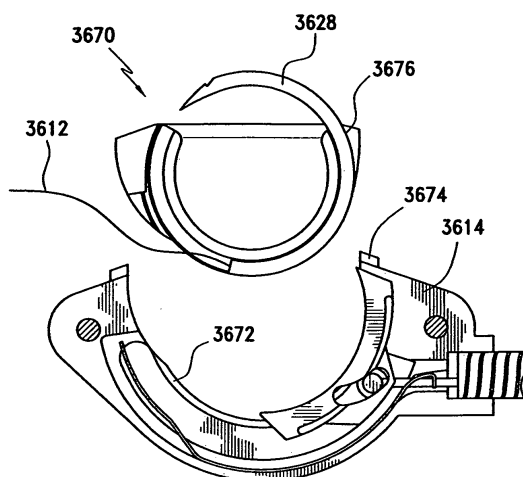


FIG. 85



European Patent
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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)
X	EP 0 724 861 A (UNITED STATES SURGICAL CORP [US]) 7 August 1996 (1996-08-07) * figures 1A-7 * * column 2, lines 3-9 * * column 4, line 48 - column 5, line 2 * * column 7, lines 7-11, 57-59 * * column 8, lines 6-19 * -----	1-12	INV. A61B17/04 ADD. A61B17/06
X	US 2003/233104 A1 (GELLMAN BARRY N [US] ET AL) 18 December 2003 (2003-12-18) * figures 3A-B * * paragraphs [0109], [0110] * -----	1-12	
X	US 2003/083674 A1 (GIBBENS GEORGE H [US] GIBBENS III GEORGE H [US]) 1 May 2003 (2003-05-01) * figures 5, 139-149, 167-174 * * paragraphs [0003], [0004], [0349], [0372] - [0377] * -----	1-12	
Y		2-5	
Y	US 2006/069396 A1 (MEADE JOHN C [US] ET AL) 30 March 2006 (2006-03-30) * figures 3A-B, 5, 5A-6B, 15, 16, 30, 31 * * paragraphs [0053], [0064], [0069] - [0071] * -----	2-5	TECHNICAL FIELDS SEARCHED (IPC) A61B
Y	WO 02/102226 A (SUTURTEK INC [US]; MEADE JOHN T [US]; DELOUGHERY NIAL G [IE]; BRECHER) 27 December 2002 (2002-12-27) * figures 2, 3A-3B, 6, 7A-7B, 11B, 18 * * page 4, line 14 - page 5, line 5 * * page 10, lines 2-9 * * page 21, lines 11-17 * * page 25, lines 6-10 * ----- -/--	2-5	
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 4 June 2008	Examiner Dennler, Samuel
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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EP 07 25 1391

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 6 071 289 A (STEFANCHIK DAVID [US] ET AL) 6 June 2000 (2000-06-06) * figures 17,18 * * column 6, line 59 - column 7, line 5 * -----	1,6-12	
A	US 5 306 281 A (BEURRIER HENRY R [US]) 26 April 1994 (1994-04-26) * figures 1,2 * * column 2, lines 18-29 * -----	1-12	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (IPC)
Place of search Munich		Date of completion of the search 4 June 2008	Examiner Dennler, Samuel
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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EPO FORM 1503 03.82 (P04C01)

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

EP 07 25 1391

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
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04-06-2008

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0724861	A	07-08-1996	CA 2166665 A1	12-07-1996
			US 5645552 A	08-07-1997

US 2003233104	A1	18-12-2003	US 2007088372 A1	19-04-2007

US 2003083674	A1	01-05-2003	NONE	

US 2006069396	A1	30-03-2006	NONE	

WO 02102226	A	27-12-2002	AU 2002256296 B2	07-12-2006
			CA 2450662 A1	27-12-2002
			CN 1722989 A	18-01-2006
			EP 1406545 A2	14-04-2004
			JP 2004533880 T	11-11-2004
			MX PA03011392 A	07-03-2005

US 6071289	A	06-06-2000	AU 3507100 A	04-10-2000
			WO 0054667 A1	21-09-2000

US 5306281	A	26-04-1994	NONE	

专利名称(译)	用于手术缝合设备的快速加载机构		
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CPC分类号	A61B1/005 A61B1/00087 A61B1/00094 A61B1/00133 A61B1/0014 A61B1/2736 A61B1/313 A61B5/026 A61B5/0261 A61B17/00491 A61B17/0466 A61B17/0469 A61B17/0482 A61B17/0487 A61B17/0493 A61B17/06066 A61B17/062 A61B34/20 A61B90/36 A61B2017/00022 A61B2017/00292 A61B2017/00296 A61B2017/00407 A61B2017/00469 A61B2017/00477 A61B2017/00561 A61B2017/0479 A61B2017/0496 A61B2017/06076 A61B2017/0608 A61B2017/06185 A61B2017/306 A61B2090/037 A61B2090/0811 A61B2090/374 A61B2090/378		
优先权	11/394163 2006-03-31 US 11/394175 2006-03-31 US 11/394155 2006-03-31 US 11/394178 2006-03-31 US 11/394169 2006-03-31 US 11/394125 2006-03-31 US		
其他公开文献	EP1839585B1 EP1839585A2		
外部链接	Espacenet		

摘要(译)

一种手术缝合装置，包括具有近端和远端的柔性构件。近端具有附接到其上的手柄，并且远端具有附接到其上的缝合体。手柄可操作地连接到缝合体。缝合体包括缝合线外壳（3614），针和驱动组件（3738）容纳在其中，用于移动针（3628），缝合线（3612）围绕弓形路径固定到其上，从而有利于缝合线施加到组织上。提供了一种机构（3670），用于容纳和操作不同尺寸的针（3628）和不同尺寸的缝合线（3612），同时保持手柄和缝合体之间的操作连接。

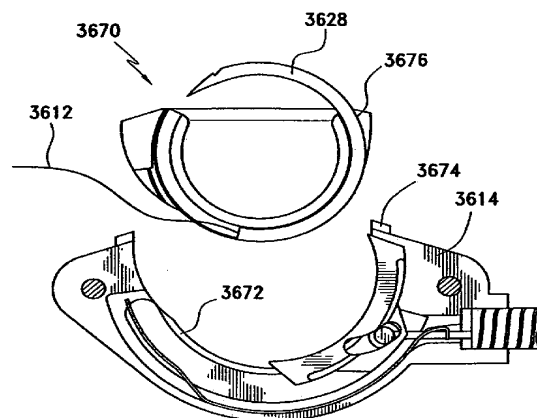


FIG. 85