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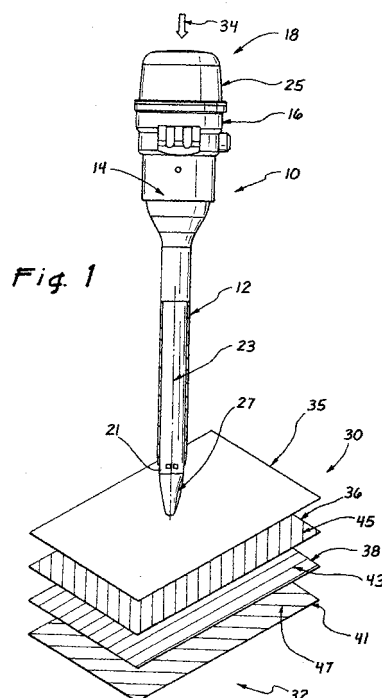
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(54) **Bladeless Obturator**

(57) The invention is directed towards a bladeless obturator (18) for wedging through muscle fiber layers (41,43,45) to safely cut through to the abdominal cavity (32) in order to apply a cannula (12). The invention comprises a bladeless obturator (18) having a tip (27) with an outer surface including a pair of side surfaces (54,56) separated by intermediate surfaces (50,52), wherein the intermediate surfaces define a geometric shape which at the distal end is in more parallel alignment with the fibers of a second layer of muscle tissue after the obturator has penetrated a first layer of muscle tissue along the direction of orientation of the fibers of the first layer.





EUROPEAN SEARCH REPORT

Application Number
EP 11 19 1179

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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A	US 6 030 406 A (DAVIS JOHN W [US] ET AL) 29 February 2000 (2000-02-29) * column 4, line 64 - column 5, line 8; figure 1 *	1,11,12	
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A	WO 97/40758 A1 (STORZ KARL GMBH & CO [DE]; MANHES HUBERT [FR]) 6 November 1997 (1997-11-06) * page 6, line 5 - line 8; figure 2 * * page 7, line 15 - line 19 *	1,11	TECHNICAL FIELDS SEARCHED (IPC) A61B
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The present search report has been drawn up for all claims			
Place of search Berlin		Date of completion of the search 21 February 2012	Examiner Nice, Philip
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
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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

专利名称(译)	无叶闭孔器		
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其他公开文献	EP2428171B1 EP2428171A2		
外部链接	Espacenet		

摘要(译)

本发明涉及一种无刀片填塞器 (18)，用于楔入肌纤维层 (41,43,45) 以安全地切入腹腔 (32)，以便应用套管 (12)。本发明包括无刀片填塞器 (18)，其具有尖端 (27)，其外表面包括由中间表面 (50,52) 分开的一对侧表面 (54,56)，其中中间表面限定几何形状，其在在填塞器沿着第一层纤维的取向方向穿透第一层肌肉组织之后，远端与第二层肌肉组织的纤维更加平行对齐。

