

Search history

Search 1: TAC=('L-shaped' W3 (bar OR body OR member OR element)) and PD<20162010 (Results 0)
Search 2: FT=('L-shaped' W3 (bar OR body OR member OR element)) and PD<20162010 (Results 0)
Search 3: FT=((('L-shaped) OR (L shaped)) W3 (bar OR body OR member OR element)) and PD<20162010 (Results 52497)
Search 4: 3 AND (FT = (surgical OR anastomosis) near (device OR instrumen)) (Results 171)
Search 5: 4 AND (FT = groov*) (Results 107)
Search 6: 4 AND (FT = groov* OR cut*) (Results 122)
Search 7: 4 AND (FT = groov* OR cut* OR recess) (Results 122)
Search 8: 4 AND (FT = groov* OR cut* OR recess) (Results 126)
Search 9: 8 AND (FT = hammer* OR strik* OR slap) (Results 6)
Search 10: FT = (surgical OR anastomosis) near (device OR instrumen) (Results 13429)
Search 11: 8 near (FT = hammer* OR strik* OR slap) (Results 0)
Search 12: 10 AND (FT = hammer* OR strik* OR slap) (Results 309)
Search 13: 12 AND (FT = (groov* OR cut* OR recess) near end) (Results 107)
Search 14: 13 AND (FT = handle) (Results 83)
Search 15: FT = (surgical OR anastomosis) near (device* OR instrument*) (Results 33388)
Search 16: 15 AND (FT = hammer* OR strik* OR slap) (Results 835)
Search 17: 16 AND (FT = (groov* OR cut* OR recess) near end) (Results 256)
Search 18: 17 AND (FT = handle) (Results 208)
Search 19: 18 AND (FT = thread AND suture) (Results 20)
Search 20: 18 AND (FT = thorax OR chest) (Results 8)

Title: SYSTEM FOR THE IMMOBILIZATION OF VERTEBRAE

Abstract: Source: US5571109A For a rapid and accurate performance of surgery for the immobilization of vertebrae an implantation system is suggested in the case of which the surgical implements such as drills, chisels, bone milling or routing implements, implant guide implements, cooperate with an ancillary device, which renders possible an exact and speedy mounting of the respectively desired implement. The ancillary device may be an elongated guide instrument which comprises guide rails or a guide cylinder and a spreading device. A spacer, which is inserted into a gap between vertebrae after the same have been urged apart, may also be designed in the form of an auxiliary device.

Classifications:

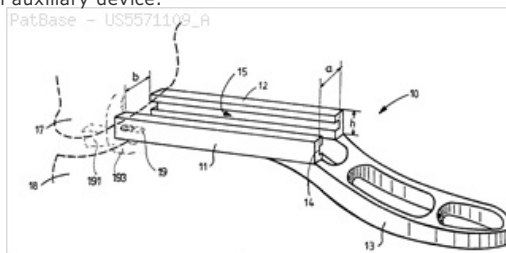
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US: 606/61 606/86.00A 606/86A 606/90 606/99

**Family:**

Publication number	Publication date	Application number	Application date
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Priority:

CA19942129938 19940811 DE19934328690 19930826 DE19945008271 19940715

Probable Assignee: SDGI HOLDINGS INC**Assignee(s):** (std): MAN CERAMICS GMBH ; SDGI HOLDINGS INC**Assignee(s):** BERTAGNOLI RUDOLF ; SOFAMOR DANKE IRELAND LTD ; MAN CERAMICS GMBH 94469 DEGGENDORF DE**Inventor(s):** (std): BERTAGNOLI RUDOLF DR MED ; BERTAGNOLI RUDOLF**Inventor(s):** BERTAGNOLI RUDOLF DR MED D 37073 GOETTINGEN DE ; BERTAGNOLI RUDOLF DRMED**Agent(s):** MARKS AND CLERK**Designated states:** AT CH DE FR GB IT LI

Title: DISTRACTOR FOR USE IN SPINAL SURGERY

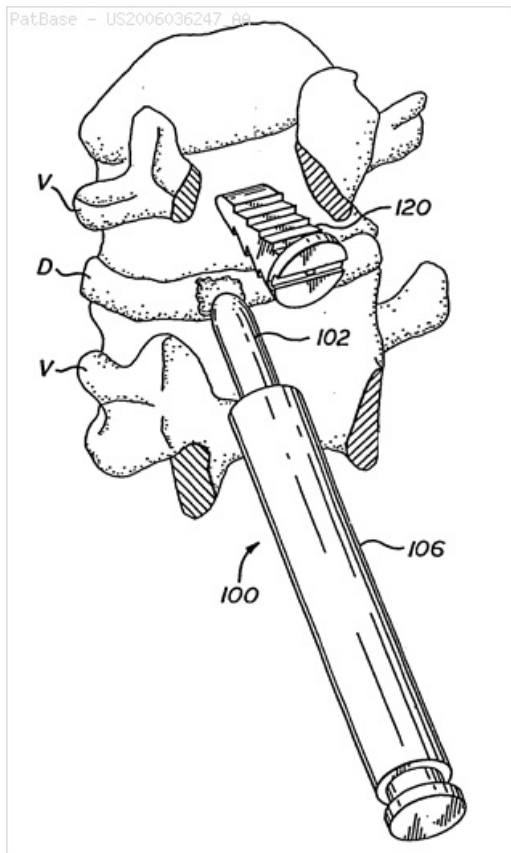
Abstract: Source: US2006036247A Apparatus and a method of inserting spinal implants is disclosed in which an intervertebral space is first distracted, a hollow sleeve having teeth at one end is then driven into the vertebrae adjacent that disc space. A drill is then passed through the hollow sleeve removing disc and bone in preparation for receiving the spinal implant which is then inserted through the sleeve.

Classifications:

International (ipc 8-9): A61B17/00 A61B17/02 A61B17/064 A61B17/16 A61B17/17 A61B17/22 A61B17/32 A61B17/3205 A61B17/56 A61B17/58 A61B17/70 A61B17/80 A61B17/86 A61B17/88 A61B17/92 A61B19/00 A61F2/00 A61F2/02 A61F2/28 A61F2/30 A61F2/44 A61F2/46 A61F5/00 A61L27/00 (Advanced/Invention); A61B17/00 A61B17/02 A61B17/16 A61B17/17 A61B17/22 A61B17/32 A61B17/34 A61B17/70 A61B17/80 A61B17/86 A61B17/88 A61B17/92 A61B19/00 A61F2/00 A61F2/02 A61F2/28 A61F2/30 A61F2/46 A61L27/12 A61L27/22 (Advanced/Non-invention); A61B17/02 A61B17/16 A61B17/22 A61B17/32 A61B17/56 A61B17/58 A61B17/70 A61B17/88 A61F2/44 A61F2/46 (Core/Invention); A61B17/00 A61B17/02 A61B17/32 A61B17/34 A61B17/88 A61B19/00 A61F2/00 A61F2/28 A61F2/30 A61F2/46 A61L27/00 (Core/Non-invention)

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Probable Assignee: WARSAW ORTHOPEDIC INC

Assignee(s): (std): KARLIN TECHNOLOGY INC ; MICHELSON GARY K ; MICHELSON GARY KARLIN ; SDGI HOLLDDINGS INC ; SDGI HOLDINGS INC ORG N D GES ; SOFAMOR DANEK GROUP INC ; SDGI HOLDINGS INC ; WARSAW ORTHOPEDIC INC

Assignee(s): MICHELSON GARY KARLIN VENICE CALIF US ; SDGI HOLDINGS INC ORGNDGESDSTAATES DELAWARE ; MICHELSON GARY KARLIN VENICE CALIF ; SDGI HOLDINGS INC ORG N D GES D STAATES DELAWARE ; MEDTRONIC SOFAMOR DANEK INC ; GARY KARLIN MICHELSON ; KARLIN MICHELSON GARY

Inventor(s): (std): MICHELSON GARY K ; MICHELSON GARY K M D ; MICHELSON GARY KARLIN ; KARLIN MICHELSON GARY

Inventor(s): MICHELSON GARY ; GARY KARLIN MICHELSON ; MICHELSON GARY KARLIN VENICE CALIF

Agent(s): PHILLIPS ORMONDE FITZPATRICK; SMART AND BIGGAR; MARTIN AND FERRARO LLP

Designated states: AL AM AT AU AZ BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CZ DE DK EE ES FI FR GA GB GE GN GR HU IE IS IT JP KE KG KP KR KZ LI LK LR LS LT LU LV MC MD MG MK ML MN MR MW MX NE NL NO NZ PL PT RO RU SD SE SG SI SK SZ TJ TM TR TT UA UG UZ VN

Title: Photoablation with infrared radiation

Abstract: Source: US2002068924A Infrared **surgical** photoablation **instruments** are disclosed for creating lesions in tissue, including cardiac tissue for treatment of arrhythmias and other diseases. The hand held instruments are especially useful in open **chest** or port access cardiac surgery for rapid and efficient creation of curvilinear lesions to serve as conduction blocks. Photoablative instruments are disclosed that emit radiation at a wavelength in a range from about 800 nm to about 1000 nm, and preferably emit at a wavelength in a range of about 915 nm to about 980 nm. Radiation at a wavelength of 915 nm or 980 nm is commonly preferred, in some applications, because of the optimal absorption of infrared radiation by cardiac tissue at these wavelengths.

Classifications:

International (ipc 8-9): A61B1/00 A61B1/04 A61B1/05 A61B1/06 A61B1/07 A61B1/313 A61B17/00 A61B17/125 A61B18/00 A61B18/02 A61B18/04 A61B18/12 A61B18/14 A61B18/16 A61B18/18 A61B18/20 A61B18/22 A61B18/24 A61B19/00 A61B5/00 A61B5/06 A61F2/958 A61L2/10 A61L29/08 A61M25/00 A61M25/01 A61M25/10 A61N5/06 (Advanced/Invention); A61B1/00 A61B17/00 A61B17/22 A61B18/00 A61B18/02 A61B18/14 A61B18/20 A61B18/22 A61B19/00 A61M25/00 A61N5/06 A61N7/02 (Advanced/Non-invention); A61B1/04 A61B18/04 A61B18/14 A61B18/18 A61B18/20 A61L2/10 A61L29/00 A61M25/01 A61N5/06 (Core/Invention); A61B17/00 A61B17/22 A61B18/00 A61B18/14 A61B18/20 A61B19/00 A61N7/00 (Core/Non-invention)

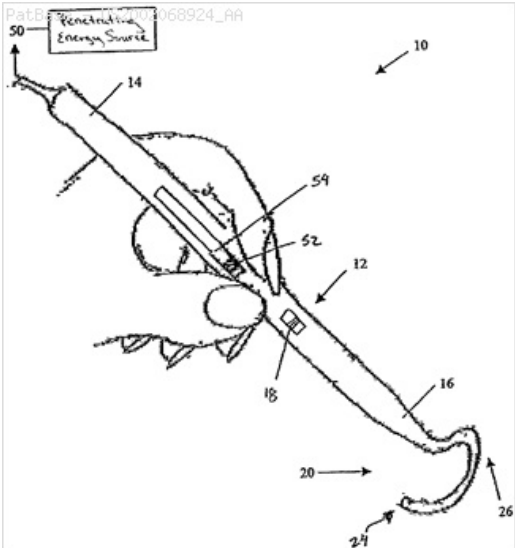
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Family:

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Probable Assignee: CARDIOFOCUS INC

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Inventor(s): (std): ARNOLD JEFFREY M ; BAXTER L S ; BAXTER LCOLN S ; BAXTER LINCOLN ; BAXTER LINCOLN S ; BAXTER LONCOLN S ; E L SINOFSKY ; EDWARD L SINOFSKY ; EL SINOFSKY ; FARR N ; FARR NORMAN ; FARR NORMAN E ; JEFFREY M ARNOLD ; MELSKEY GERALD ; N FARR ; N FERR ; NORMAN E FARR ; NORMAN FARR ; SAGON STEPHEN ; SAGON STEPHEN W ; SINOFSKY E L ; LINCOLN S BAXTER ; LS BAXTER ; L S BAXTER ; SINOFSKY EDWARD L ; WIELER WILLIAM E ; WIELER E ; SINOFSKY L ; MCINTYRE T ; MCINTYRE JON T ; MACLEAN BRIAN ; FARR E ; BAXTER S ; FERR N ; STANCAMPIANO ALFRED

Inventor(s): WIELER WILLIAM ; WIELER WILLIAM E POCASSET ; WILLIAM E WIELER ; ARNOLD JEFFREY ; SINOFSKY EDWARD L DENNIS ; LCOLN S BAXTER ; MACLEAN BRIAN NEWTON ; MCINTYRE JON T NEWTON ; SINOFSKY EDWARD ; JON T MCINTYRE ; BRIAN MACLEAN ; BAXTER LCOLN S CENTERVILLE

Agent(s): DAVIES COLLISON CAVE; DAVIES COLLISON CAVE PTY LTD; RICHES MCKENZIE AND HERBERT LLP; PATENTANWAELTE STREHL SCHUEBEL HOPF AND PARTNER; STREHL SCHUEBEL HOPF AND PARTNER; CURELL MIREIA; NUTTER MCCLENNEN AND FISH LLP; LEASON ELLIS LLP; ENGELLENNER THOMAS J; THOMAS J; BIELUNIS MICHELLE Z; MICHELLE Z; DOYLE MICHAEL P; MICHAEL P; ELLIS EDWARD J ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Title: Medical instrument working end creating very high pressure gradients

Abstract: Source: US2001037106A A micro-catheter system utilizing a microjoule pulsed electrical discharge between first and second electrodes in a recessed lumen at the catheter working end for creating a cavitating volume of electrolytic fluid composition including a pharmacologic agent. The expansion and collapse of media at a high repetition rate creates acoustic waves that propagate distally from the working end of the micro-catheter to disrupt thrombus. The expansion and collapse of such cavitation bubbles "jet" the pharmacologic agent at a controlled velocity into the acoustically-disrupted thrombus to further depolymerize the thrombus. The catheter system includes a computer-controller for independent modulation of (i) all aspects of pharmacologic agent delivery, and (ii) all parameters of electrical discharge to "tailor" the combined acoustic wave effects and pharmacologic agent effects to dissolve thrombus rapidly and efficiently.

Classifications:

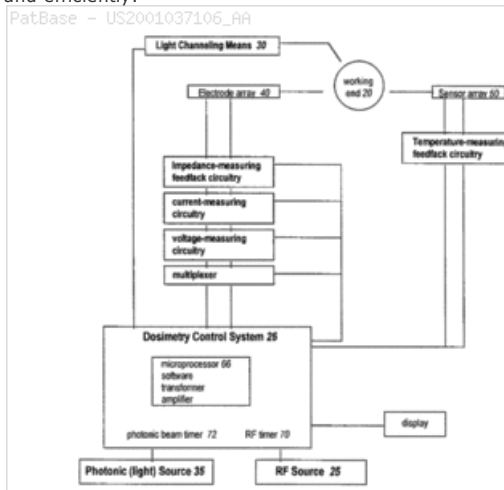
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US6669694 BB	20031230	US20010017582	20011207
US6911028 BB	20050628	US20030346877	20030118
US7549987 BB	20090623	US20040830372	20040422
US7674259 BB	20100309	US20030681625	20031007
US7892229 BB	20110222	US20050158930	20050622
US8016823 BB	20110913	US20050244329	20051005
US8187269 BB	20120529	US20100947228	20101116
US8197470 BB	20120612	US20080197104	20080822
US8216217 BB	20120710	US20080197096	20080822
US8221401 BB	20120717	US20080197084	20080822
US8221403 BB	20120717	US20080197111	20080822
US8313485 BB	20121120	US20080255394	20081021
US8444636 BB	20130521	US20060329381	20060110
US8574226 BB	20131105	US20080258145	20081024
US8579892 BB	20131112	US20080167155	20080702
US8758341 BB	20140624	US20090465927	20090514
US8858549 BB	20141014	US20120420487	20120314
US9113944 BB	20150825	US20120681193	20121119
US9204889 BB	20151208	US20110229997	20110912
US9433457 BB	20160906	US20100719808	20100308
US9468487 BB	20161018	US20130872669	20130429
US9615875 BB	20170411	US20140216601	20140317
WO09009398 A1	20090115	WO2008US69094	20080702
WO09026528 A1	20090226	WO2008US74039	20080822
WO10085460 A1	20100729	WO2010US21447	20100120

Priority:

EP20080781301	20080702	EP20080798501	20080822	EP20100002715	20080822
EP20120180176	20080822	US19980181906	19981028	US19980049711	19980327
US19980080248P	19980401	US19980080244P	19980401	US19980106026P	19981028
US19980106025P	19981028	US20000254487P	20001209	US20000230556P	20000905
US20050158930	20050622	US20050643045P	20050111	US20060329381	20060110
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WO2008US74039	20080822	US20100719808	20100308	US20090274162P	20090813
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Agent(s): FETHERSTONHAUGH AND CO; WUESTHOFF AND WUESTHOFF PATENTANWALTE PARTG MBB; KRAUS AND WEISERT PATENTANWALTE PARTGMBB; PRICE NIGEL JOHN KING; JOHN H SHADDUCK; SHAY GLENN LLP; LEVINE BAGADE HAN LLP; TOWNSEND AND TOWNSEND AND CREW LLP; LEVINE BAGADE HAM LLP; BAGADE SANJAY S ET AL; SHAY JAMES R ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: TISSUE BONDING SYSTEM AND METHOD FOR CONTROLLING A TISSUE SITE DURING ANASTOMOSIS

Abstract: Source: US2001007069A A method and system for performing anastomosis uses an anvil to control and support a tissue site during an anastomosis procedure involving tissue bonding techniques such as tissue welding and adhesive tissue bonding. The anvil is particularly useful for supporting a wall of a coronary artery during attachment of a graft vessel in a coronary artery bypass graft procedure. The anvil is inserted into a pressurized or unpressurized target vessel and is pulled against an inner wall of the target vessel causing tenting of the thin tissue of the vessel wall. A graft vessel is then advanced to the anastomosis site and an end of the graft vessel is positioned adjacent an exterior of the target vessel. When tissue welding is used, a graft vessel fixture is positioned over the tissue surfaces to be welded in order to clamp the graft and target vessel tissue together. The tissue contacting surfaces of the anvil and/or graft vessel fixture are provided with one or more energy applying surfaces. Energy in the form of RF power, laser energy or ultrasonic energy is then applied to the compressed graft and target vessel tissue to weld the vessels together. When adhesive bonding is used, the adhesive may be applied to mating surfaces of the graft and/or target vessels either before or after the vessels are brought into contact. After tissue bonding is complete, an incision is formed in the wall of the target vessel to allow blood flow between the target vessel and the graft vessel. The incision may be made with an electro-cautery cutting device.

Classifications:

International (IPC 8-9): A61B1/32 A61B17/00 A61B17/02 A61B17/04 A61B17/06 A61B17/068 A61B17/072 A61B17/08 A61B17/10 A61B17/11 A61B17/115 A61B17/122 A61B17/32 A61B17/34 A61B19/00 A61F2/04 A61F2/06 (Advanced/Invention); A61B17/00 A61B17/04 A61B17/06 A61B17/064 A61B17/068 A61B17/072 A61B17/08 A61B17/10 A61B17/11 A61B17/115 A61B17/122 A61B17/32 A61B19/00 A61B90/00 A61F2/06 (Advanced/Non-invention); A61B17/03 A61B17/04 A61B17/064 A61B17/32 A61B17/34 A61F2/04 (Core/Invention); A61B17/00 A61B17/04 A61B17/068 A61B17/12 A61B19/00 A61F2/06 (Core/Non-invention)

International (IPC 1-7): A61B17/00 A61B17/04 A61B17/064 A61B17/08 A61B17/11 A61B17/115 A61F2/06

CPC: A61B2017/1121 A61B1/00131 A61B2017/00199 A61B2017/00323 A61B2017/0243 A61B2017/308 A61B17/0057 A61B17/00491 A61B17/0206 A61B17/06166 A61B17/0686 A61B17/07207 A61B17/08 A61B17/10 A61B17/32 A61B2017/00654 A61B2017/00893 A61B2017/0688 A61B2017/1103 A61B2017/1157 A61B90/50 A61B2090/08021 A61B2017/0641 A61B34/30 A61B34/70 A61B90/361 A61B2034/742 A61B17/0644 A61B17/0482 A61B17/064 A61B17/11 A61B17/115 A61B2017/07214 A61B2017/07278 A61B17/1155 A61B2017/07228 A61B2017/07264 A61B2017/2926 A61B2017/2937 A61B2017/2939 A61B2017/320052 A61B17/1152 A61B17/0469 A61B17/072 A61B17/122 A61B2017/00243 A61B2017/07285 A61B2017/1107 A61B2017/1135 A61B2090/037 A61F2/064

European: A61B1/00H A61B17/00L A61B17/00P A61B17/02A A61B17/064 A61B17/064D A61B17/072 A61B17/072B A61B17/08 A61B17/11 A61B17/115 A61B17/115B A61B17/115C A61B19/22 A61F2/06C K61B17/00C5 K61B17/00E1C K61B17/00E3G6C K61B17/00L K61B17/00P11G K61B17/00S21 K61B17/02H2 K61B17/04E K61B17/04G K61B17/064A K61B17/064D K61B17/068B4 K61B17/068P K61B17/06S K61B17/072 K61B17/072H K61B17/072H12C K61B17/072H16 K61B17/072H18 K61B17/072H4 K61B17/08 K61B17/10 K61B17/115 K61B17/115B K61B17/115R K61B17/11A K61B17/11B K61B17/11E K61B17/11P K61B17/122 K61B17/29J K61B17/29J6C6 K61B17/29J6L K61B17/30S2 K61B17/32 K61B17/32K K61B19/22B K61B19/22J4 K61B19/26 K61B19/30H K61B19/48B2 K61B19/52D K61F2/06C

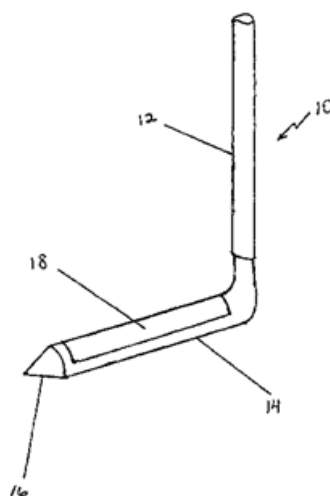
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Family:

Publication number	Publication date	Application number	Application date
AU200066098 A5	20010219	AU20000066098	20000727
DE10084856 B4	20100805	DE20001084856	20000727
DE10084856 T	20030612	DE20001084856T	20000727
DE10084856 T0	20030612	DE20001084856T	20000727
DE10084856 T1	20030612	DE20001084856T	20000727
US2001007069 AA	20010705	US20000725232	20001129
US2001021857 AA	20010913	US20010842792	20010427
US2001023353 AA	20010920	US19990363255	19990728
US2003023253 AA	20030130	US20020253376	20020924
US2003028205 AA	20030206	US20020253347	20020924
US2004260342 AA	20041223	US20040897783	20040723
US2005033329 AA	20050210	US20040898611	20040723
US2005075657 AA	20050407	US20040988325	20041112
US2005131428 AA	20050616	US20040988335	20041112
US2005154406 AA	20050714	US20040988326	20041112
US2006116699 AA	20060601	US20060332611	20060113
US2006241660 AA	20061026	US20060378127	20060317
US2007119902 AA	20070531	US20070670877	20070202
US2007233163 AA	20071004	US20070756260	20070531
US2008027472 AA	20080131	US20070865893	20071002
US2010069934 AA	20100318	US20090577589	20091012
US2010155453 AA	20100624	US20100715268	20100301
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US6391038 BB	20020521	US19990363255	19990728
US6398797 BB	20020604	US20000725232	20001129
US6478804 BB	20021112	US20010842792	20010427

PatBase - US2001007069_AA

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Figure 1A

US6994714 BB	20060207	US20020253376	20020924
US7014644 BA	20060321	US20020136007	20020430
US7063712 BB	20060620	US20020253347	20020924
US7217285 BB	20070515	US20040897783	20040723
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WO0108601 A2	20010208	WO2000US20418	20000727
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Priority:

US19990363255	19990728	US20000725232	20001129	US20010842792	20010427
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GROUP LLP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CR CU CY CZ DE DK DM
DZ EE ES FI FR GA GB GD GE GH GM GN GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR
LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN
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Title: METHODS AND **INSTRUMENTATION** FOR THE **SURGICAL** CORRECTION OF HUMAN THORACIC AND LUMBAR SPINAL DISEASE FROM THE LATERAL ASPECT OF THE SPINE

Abstract: Source: US2002091390A An improved method and instrumentation for performing spinal surgery, including discectomy, interbody fusion and rigid internal fixation of the spine, from the lateral aspect of the spine is disclosed. The surgical procedure can be performed through a very small incision. The instrumentation of the present invention, all of which is inserted from a lateral position into the spine in the preferred embodiment, comprises a guide pin, a distractor, an extended outer sleeve, an inner sleeve an adjustable drill and an implant driver. The distractor of the present invention is driven into the disc for spacing apart and realigning the adjacent vertebrae. It further functions as an alignment rod for inserting the extended outer sleeve which is a hollow tubular member capable of maintaining said spacing and alignment of two adjacent vertebrae and defines a protected space through which subsequent instruments which may include, but are not limited to, a drill and a diameter reducing inner sleeve may be passed, as well as a spinal implant. The remainder of the surgical procedure consisting of the removal of spinal material across the disc, fusion, and rigid internal stabilization via the implant may all be performed via the closed space within the extended outer sleeve.

Classifications:

International (IPC 8-9): A61B17/02 A61B17/064 A61B17/16 A61B17/17 A61B17/22 A61B17/32 A61B17/56 A61B17/88 A61F2/44 A61F2/46 (Advanced/Invention);

A61B17/00 A61B17/70 A61B17/80 A61B17/86 A61B17/92 A61B19/00 A61F2/00 A61F2/02 A61F2/28 A61F2/30 (Advanced/Non-invention)

International (IPC 1-7): A61B17/56 A61B17/58 A61F2/30

CPC: A61B17/1671 A61B17/025 A61B17/0642 A61B17/1604

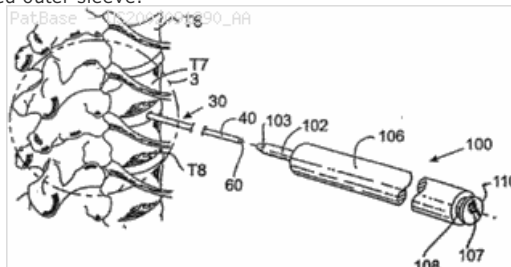
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European: A61B17/02J A61B17/064B A61B17/16S4 A61B17/17S4 A61B17/32E A61F2/44F A61F2/44F2 A61F2/46B7 K61B17/00A K61B17/00E1D K61B17/02J K61B17/02J2 K61B17/064A K61B17/064T K61B17/064T2 K61B17/16C K61B17/17 K61B17/17S4 K61B17/295B K61B17/32 K61B17/70K K61B17/80S K61B17/86 K61B17/86N K61B17/88S K61B17/92M K61B19/30F4 K61F2/00T4 K61F2/28G K61F2/30A1W1 K61F2/30A2K4H K61F2/30A2Y3 K61F2/30A2Y3T K61F2/30A3T K61F2/30A3T4 K61F2/30A3T5 K61F2/30A3T7 K61F2/30B9 K61F2/30L K61F2/30L2A K61F2/30L2A4 K61F2/30L2A9P K61F2/30L2A9Q K61F2/30L2B4 K61F2/30L2K K61F2/30L2Q K61F2/30L2Z K61F2/30M4 K61F2/44D K61F2/44H K61F2/44M K61F2/44N K61F2/46B22 K61F2/46B30 K61F2/46B35P K61F2/46B44 K61F2/46B7 K61F2/46G9 K61F2/46S K61F210/00A K61F220/00T K61F220/00T7 K61F230/00K4 K61F230/00Y3 K61F310/00A2A K61F310/00A2E K61F310/00A2R24 K61F310/00L6E

US: 606/247 606/247S 606/279 606/279S 606/61 606/86.00A 606/86.00AP 606/86A 623/16.11 623/17.11 623/17.110S 623/17.16



Family:

Publication number	Publication date	Application number	Application date
US2002091390 AA	20020711	US20020100701	20020318

Priority:

US19880205935 19880613	US19910698674 19910510	US19930074781 19930610
US20020100701 20020318	US19940219626 19940328	US19950480461 19950607
US19950394836 19950227		

Probable Assignee: SDGI HOLDINGS INC

Assignee(s): MICHELSON GARY KARLIN ; SDGI HOLDINGS INC ; WARSAW ORTHOPEDIC INC

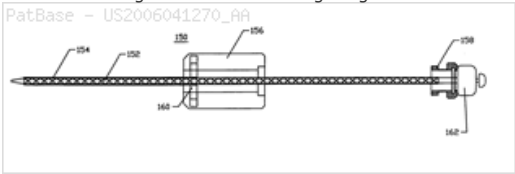
Inventor(s): (std): MICHELSON GARY KARLIN

Title: MEDICAL ACCESS SHEATH

Abstract: Source: US2006041270A An expandable sheath is insertable into a patient through an incision. Once inserted and advanced to the target surgical site, the sheath can be expanded to an enlarged diameter. The wall of the sheath is fabricated from a tubular structure comprising filamentous elements that extend axially and at least partially circumferentially along the length of the sheath. The tubular filamentous material is drawn or expanded axially to create the small diameter configuration that is inserted into the patient. A standoff attaches the distal end of the tubular filamentous material to the sheath hub by way of radially movable anchors. Additional filamentous tubular material extends out the proximal end of the hub. A compression mechanism forces the additional filamentous tubular material in the distal direction which causes axial compression and radial or diametric dilation of the working length of the sheath, that part of the sheath that extends beyond the proximal end of the hub. Radial dilation is accomplished with no substantial change in sheath working length.

Classifications:

International (IPC 8-9): A61M29/00 (Advanced/Invention);
A61M29/00 (Core/Invention)
CPC: A61B17/3439 A61B17/3462
European: A61B17/34G4H A61B17/34H
US: 606/198



Family:

Publication number	Publication date	Application number	Application date
US2006041270 AA	20060223	US20050124903	20050509

Priority:

US20040569519P 20040507 US20050124903 20050509

Probable Assignee: ONSET MEDICAL CORP
Assignee(s): (std): LENKER JAY ; NANCE EDWARD J ; TCHULLUIAN ONNIK
Assignee(s): ONSET MEDICAL CORP
Inventor(s): (std): LENKER JAY ; NANCE EDWARD J ; TCHULLUIAN ONNIK
Inventor(s): NANCE EDWARD
Agent(s): KNOBBE MARTENS OLSON AND BEAR LLP

Title: TISSUE REPAIR IMPLANT AND DELIVERY DEVICE AND METHOD

Abstract: Source: US2011178534A A device for the repair of tissue and methods of use and manufacturing thereof are described herein. Applications for the use of the device include, e.g., repair of atrial septal defects (ASD), patent foramen ovale (PFO), left atrial appendage closure and stent graft fixation among other applications throughout the anatomy. The implant portion of the device is available in a variety of sizes and configurations to accommodate the vast complexity of the target anatomy.

Classifications:

International (IPC 8-9): A61B17/00 A61B17/03 A61B17/04

A61B17/06 A61B17/062 A61B17/064 A61B17/08 A61B17/10

A61B17/11 A61B17/12 A61B17/122 A61F2/00 A61F2/14 A61F2/24

A61F2/848 G01P1/07 G1P1/07 (Advanced/Invention);

A61B17/04 A61B17/064 (Advanced/Non-invention)

CPC: A61B17/0466 A61B17/064 A61B17/068 A61B2017/0061

A61B2017/00623 A61B2017/00637 A61B2017/00663

A61B2017/00668 A61B2017/00867 A61B2017/0414 A61B2017/0641

A61B17/06166 A61B2017/0409 A61B17/08 A61B2017/0427

A61B2017/0647 A61B2017/081 A61B2017/0648 A61B2017/0435

A61B17/0057 A61B17/10 A61B2017/00575 A61B2017/00579

A61B2017/00632 A61B2017/0408 A61B2017/0412 A61B2017/0437

A61B2017/0464 A61F2/2427 A61F2/2409 A61B2017/00243 A61F2/2412 A61F2/243 A61F2/2448 A61F2220/0016 A61B17/0401

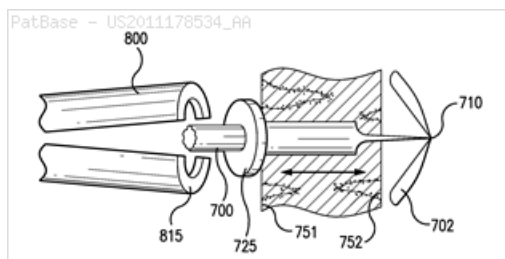
A61F2/2418 A61B17/0487 A61B2017/0488

European: A61B17/00P A61B17/04A K61B17/00P5 K61B17/00P5B K61B17/00P5W K61B17/04A24R K61B17/04A4

K61B17/04A50 K61B17/04A7

US: 1/1 606/139 606/139P 606/144 606/144P 606/151 606/151S 606/213 606/213P 606/215 606/216 606/232 606/232S

623/2.11 623/2.17 623/2.4



Family:

Publication number	Publication date	Application number	Application date
CA2825184 AA	20130719	CA20112825184	20110120
CA2825186 AA	20130719	CA20112825186	20110120
CA2825263 AA	20130719	CA20112825263	20110120
CA2825265 AA	20130719	CA20112825265	20110120
CA2906203 AA	20150911	CA20142906203	20140317
CA2951906 AA	20161209	CA20152951906	20150611
CA2952077 AA	20161209	CA20152952077	20150610
CN105246417 A	20160113	CN201480024498	20140317
CN106535820 A	20170322	CN201580037981	20150611
CN106572850 A	20170419	CN201580040349	20150610
EP2525721 A1	20121128	EP20110735203	20110120
EP2525722 A1	20121128	EP20110735207	20110120
EP2525723 A1	20121128	EP20110735202	20110120
EP2525723 A4	20130717	EP20110735202	20110120
EP2525725 A1	20121128	EP20110735204	20110120
EP2525725 A4	20151007	EP20110735204	20110120
EP2967532 A2	20160120	EP20140763744	20140317
EP2967532 A4	20170111	EP20140763744	20140317
EP3154445 A1	20170419	EP20150806837	20150610
EP3154473 A1	20170419	EP20150806896	20150611
JP2013517107 T2	20130516	JP20120550128T	20110120
JP2013517108 T2	20130516	JP20120550129T	20110120
JP2013517109 T2	20130516	JP20120550130T	20110120
JP2013517110 T2	20130516	JP20120550131T	20110120
JP2016127934 A2	20160714	JP20160015096	20160129
JP2016182514 A2	20161020	JP20160148880	20160728
JP2016512731 T2	20160509	JP20160502577T	20140317
JP2017517343 T2	20170629	JP20160572487T	20150611
JP2017517345 T2	20170629	JP20160572519T	20150610
JP5828147 B2	20151202	JP20120550128T	20110120
JP5981348 B2	20160831	JP20120550129T	20110120
JP5981349 B2	20160831	JP20120550131T	20110120
JP6073685 B2	20170201	JP20120550130T	20110120
MX2015012594 A1	20160610	MX20150012594	20140317
SG11201507637U A1	20151029	SG20151107637	20140317
SG11201610361Q A1	20170127	SG20161110361	20150610
SG11201610363S A1	20170127	SG20161110363	20150611
US2011178534 AA	20110721	US20110010766	20110120
US2011178535 AA	20110721	US20110010774	20110120
US2011178537 AA	20110721	US20110010777	20110120
US2012022586 AA	20120126	US20110010769	20110120
US2013211426 AA	20130815	US20130828256	20130314
US2013211450 AA	20130815	US20130828347	20130314
US2014039548 AA	20140206	US20130843930	20130315
US2014296912 AA	20141002	US20140301106	20140610
US2014316458 AA	20141023	US20140321476	20140701
US2015359627 AA	20151217	US20150737408	20150611
US2016095704 AA	20160407	US20150961885	20151207
US8764795 BB	20140701	US20110010769	20110120
US9050065 BB	20150609	US20110010766	20110120
US9138211 BB	20150922	US20110010774	20110120
US9427220 BB	20160830	US20130828256	20130314

WO11091184 A1	20110728	WO2011US21946	20110120
WO11091185 A1	20110728	WO2011US21947	20110120
WO11091186 A1	20110728	WO2011US21949	20110120
WO11091189 A1	20110728	WO2011US21952	20110120
WO14146000 A2	20140918	WO2014US30868	20140317
WO14146000 A3	20141106	WO2014US30868	20140317
WO15191773 A1	20151217	WO2015US35191	20150610
WO15191923 A1	20151217	WO2015US35427	20150611
WO17100211 A1	20170615	WO2016US65196	20161206

Priority:

JP20120550130T	20110120	JP20120550131T	20110120	US20100296868P	20100120
US20100296898P	20100121	JP20160015096	20160129	JP20160148880	20160728
US20110010766	20110120	US20110010774	20110120	US20110010777	20110120
US20110010769	20110120	US20130828256	20130314	US20130828347	20130314
US20100412853P	20101112	US20100307057P	20100223	WO2011US21947	20110120
WO2011US21952	20110120	WO2011US21946	20110120	WO2011US21949	20110120
US20130843930	20130315	US20140301106	20140610	WO2014US30868	20140317
US20140321476	20140701	US20150737408	20150611	US20140010680P	20140611
US20150961885	20151207	US20140088680P	20141207	WO2015US35427	20150611
WO2015US35191	20150610				

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Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KW KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW