

**Search history**

Search 1: FT=(Washer and socket and tool and torque and bolt and nut) (Results 1591)

Search 2: 1 and PD<2013-12-17 (Results 1305)

Search 3: 2 and (Tooth\* w2 surface) (Results 20)

**Title:** FACET JOINT IMPLANTS AND DELIVERY **TOOLS**

**Abstract:** A spinal joint distraction system is disclosed and may include a driver assembly with a tubular shaft, a pair of implant holder arms, an implant distractor, an internal actuator, and a distractor knob, the system also including a delivery device with a tubular shaft, a receiving assembly, and a pair of forks, where the delivery device is adapted for slidable insertion of the driver assembly, the system also including an implant, a chisel, and an injector. Several embodiments of an implant are disclosed as well a method of placing an implant.

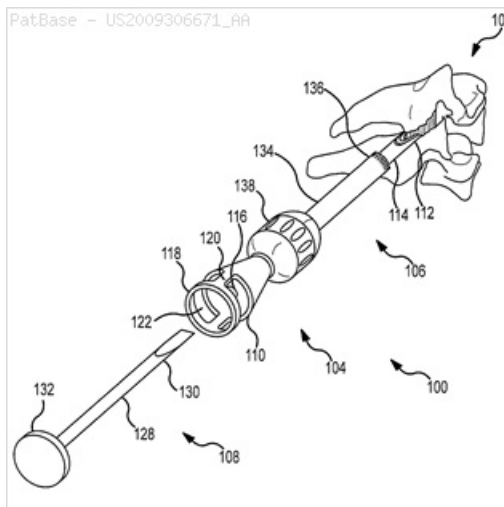
**Classifications:**

**International (IPC 8-9):** A61B17/00 A61B17/02 A61B17/16 A61B17/17 A61B17/32 A61B17/56 A61B17/58 A61B17/60 A61B17/70 A61B17/80 A61B17/86 A61B17/88 A61B19/00 A61B90/00 A61F11/00 A61F2/00 A61F2/28 A61F2/30 A61F2/44 A61F2/46 H04L12/703 (Advanced/Invention); A61B17/00 A61B17/02 A61B17/064 A61B17/17 A61B17/32 A61B17/80 A61B17/86 A61B19/00 A61B90/00 A61F2/28 A61F2/30 A61F2/46 (Advanced/Non-invention); A61B17/00 A61B17/02 A61B17/16 A61B17/56 A61B17/58 A61B17/60 A61B17/68 A61B17/70 A61B17/88 A61B19/00 A61F11/00 A61F2/44 (Core/Invention); A61B19/00 (Core/Non-invention)

**CPC:** A61B17/863 A61B17/8811 A61B17/7062 A61B17/7065 A61B17/8822 A61B17/8819 A61F2002/2835 A61F2002/30377 A61F2002/30378 A61F2002/30777 A61F2002/30785 A61F2002/30789 A61F2002/30828 A61F2002/30843 A61F2002/30848 A61F2002/30878 A61F2002/30904 A61F2002/4475 A61F2002/4629 A61F2/4611 H04L45/28 A61B17/562 A61B17/8014 A61B17/8855 A61B2017/00557 A61F2002/30438 A61F2002/30579 A61F2002/30841 A61F2220/0041 A61B2017/00424 A61B2017/00429 A61B2017/320028 A61B2017/0256 A61B17/0642 A61B17/1604 A61B17/1659 A61B17/1671 A61B17/1735 A61B17/1757 A61B17/7044 A61B17/7059 A61B17/8004 A61B17/8625 A61B2019/304 A61B2019/307 A61B2090/034 A61F2002/30622 A61F2220/0016 A61F2/447 A61F2/4405 A61F2/4455 A61B2090/031 A61F2/442 A61B17/025 A61B2090/037 A61B17/7074 A61B17/7064

**European:** A61B17/02J A61B17/16C A61B17/16R A61B17/16S4 A61B17/17R A61B17/17S4 A61B17/56J A61B17/70P2 A61B17/80A A61B17/86B2 A61B17/88A2C A61B17/88A2G A61B17/88A2H A61F2/44A K61B17/00G2 K61B17/00G4 K61B17/00N8 K61B17/02J2 K61B17/064B K61B17/32E2R K61B17/70B8 K61B17/70K K61B17/70P2 K61B17/80A2 K61B17/86B K61B17/88C2B K61B19/30F2 K61B19/30H K61F2/30A3T7N K61F2/30A3W16 K61F2/30L2P K61F220/00T7

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**Family:**

| Publication number | Publication date | Application number | Application date |
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| EP2328492 A2       | 20110608         | EP20090758782      | 20090605         |
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| EP2389127 B1       | 20180124         | EP20090793627      | 20091210         |
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| EP3049031 A2       | 20160803         | EP20140849663      | 20140917         |
| EP3049031 A4       | 20170329         | EP20140849663      | 20140917         |
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| WO10030994 A3 | 20100527 | WO2009US56841 | 20090914 |
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| US20170495391  | 20170424 | US20180892152  | 20180208 |                |          |

**Probable Assignee:** PROVIDENCE MEDICAL TECHNOLOGY INC

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**Assignee(s):** PROVIDENCE TECHNOLOGY INC ; SPECK PRODUCT DESIGN INC

**Inventor(s):** (std): CARVER JONATHAN ; DRUKER JOSHUA ; EYSTER EDWARD FLETCHER ; LEUGERS MARTIN ; LIOU EDWARD ; LOMBROZO PETER ; MCCORMACK BRUCE M ; PROVIDENCE MEDICAL TECHNOLOGY INC ; SCHUMMERS DAVID MICHAEL ; SMITH JEFFREY D ; TANAKA SHIGERU ; TU KURIN

**Agent(s):** SMART AND BIGGAR; RUHRMANN ANDREA ELIZABETH; MILLER JAMES LIONEL WOOLVERTON; LLOYD ROBIN; DORSEY AND WHITNEY LLP INTELLECTUAL PROPERTY DEPARTMENT; POLSINELLI SHUGHART PC; POLSINELLI PC; DORSEY AND WHITNEY LLP; SCOTT M; JOHNSON WADE S; SMITH SCOTT M

**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 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 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

**Title:** MODULE ATTACHMENT APPARATUS AND METHOD

**Abstract:** Exemplary systems and methods described herein can be used to secure a rail to a module or the rail to a support using a **nut** that can be inserted at a desired point of mounting. Another exemplary system describes a flashing to be inserted under a roof shingle, wherein the flashing is secured to a support for a rail or module. Yet another exemplary system describes a clamp that secures a rail or module and is adjustable along the length of a post. Spacers can be added to the post to extend the adjustment range of the clamp.

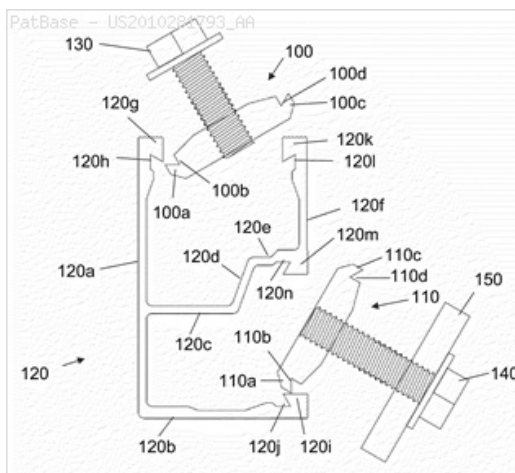
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**International (IPC 8-9):** A47B96/06 E04B1/38 E04B7/18 E04D1/36 E04D13/00 E04D13/147 E04D13/18 F16B2/06 F16B2/10 F16B2/12 F16B2/18 F16B27/00 F16B37/04 F16B39/28 F16L3/24 F16M13/00 F16M13/02 F24J2/52 H01Q1/12 H02S20/23 (Advanced/Invention); F16B37/04 F24J2/46 (Advanced/Non-invention)

**CPC:** F24J2/5249 E04D13/1476 F24J2/523 F24J2/5245 F24J2/5258 F24J2002/4661 H01Q1/1207 Y02B10/20 Y02E10/47 F16B37/045 F24J2/5203 Y02B10/12 Y10T24/44974 Y10T403/1683 Y10T403/4677 Y10T403/4682 Y10T403/7067 H02S20/23 F24J2/52 F16M13/02 E04D13/00 F24S25/00 F24S25/10 F24S25/30 F24S25/61 F24S25/615 F24S25/636 F24S2025/6002

**European:** E04D13/147D2 F24J2/52A20B F24J2/52A20C4B F24J2/52A4 F24J2/52A8 H01Q1/12B R16B37/04E R24J2/46P8 Y02B10/12 Y02B10/20 Y02E10/47

**US:** 1/1 136/244 136/251 24/569 24/569P 248/148 248/205.1 248/205.100S 248/214 248/216.1 248/222.13 248/222.14 248/222.140S 248/226.11 248/226.110P 248/226.110S 248/228.1 248/228.2 248/228.5 248/229.1 248/231.31 248/231.41 248/231.410P 248/237 248/238 248/72 248/72P 403/21 403/257 403/259 403/374.3 403/374.300P 411/183 411/185 411/186 411/80 411/84 411/85 52/173.1 52/173.100P 52/173.100S 52/173.3 52/27 52/58 52/698 52/698P 52/710 52/711

**Family:**

| Publication number | Publication date | Application number | Application date |
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| US2010281793 AA    | 20101111         | US20090470697      | 20090522         |
| US2010282920 AA    | 20101111         | US20090470682      | 20090522         |
| US2010284737 AA    | 20101111         | US20090470588      | 20090522         |
| US2011232222 AA    | 20110929         | US20110156443      | 20110609         |
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| US2011284708 AA    | 20111124         | US20110196183      | 20110802         |
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| US2015365044 AA    | 20151217         | US20150716190      | 20150519         |
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**Priority:**

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**Probable Assignee:** SUNRUN SOUTH LLC

**Assignee(s):** (std): MAINSTREAM ENERGY CORP ; MAINTREAM ENERGY CORP ; MCPHEETERS GREG ; MILLER ETHAN ; OESTREICH CHRIS ; OESTREICH CHIRS ; SUNRUN SOUTH LLC ; SUNRUN SOUTII LLC

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**Inventor(s):** (std): OESTREICH CHRIS ; OESTREICH CH

**Title:** **TORQUE** WRENCH

**Abstract:** A **torque** wrench in which the torquing forces are applied to the article **torqued** equally and oppositely in a diametrically opposed manner. The body of the wrench comprises a two-part metal frame which permits the wrench to be significantly lighter than prior art wrenches. The applied forces are provided by four hydraulic cylinders mounted in a frame, equally spaced about a central opening in which the member to be **torqued** is gripped. The fluid power cylinders apply force to the legs of a rotatable drive means which, in turn, rotates the member **torqued**. In order to provide rotation in both directions, each cylinder of the wrench is pivotable to engage two adjacent legs of the drive means and thereby permit the drive means to selectively rotate in opposite directions. The hydraulic wrench according to the invention is provided with a self-contained hydraulic system in order to create a completely portable unit which is generally free from hydraulic contamination.

**Classifications:**

**International (IPC 8-9):** B25B13/46 B25B21/00 B25B23/00

B25B23/14 (Advanced/Invention);

B25B13/00 B25B21/00 B25B23/00 B25B23/14 (Core/Invention)

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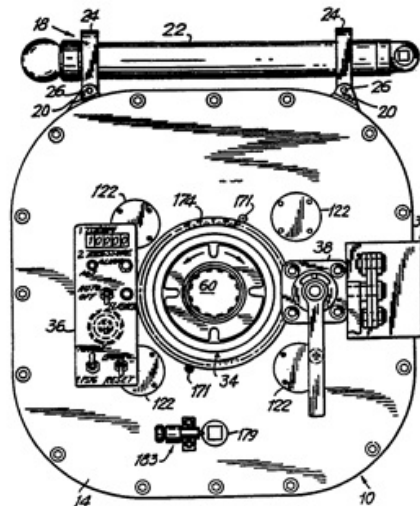
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**European:** B25B21/00 B25B21/00C B25B21/00D2 B25B23/00 B25B23/14

**US:** 29/407.02 81/467 81/57.39 81/573.9 81/58.1 81/581

PatBase - US5056384\_A



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
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| IL98201 A0         | 19920621         | IL19910098201      | 19910521         |
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**Probable Assignee:** SERGAN ANTHONY J

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**Agent(s):** OSLER HOSKIN AND HARCOURT LLP; DR SHLOMO COHEN AND CO

**Designated states:** AT BE BR CA CH DE DK ES FI FR GB GR IE IT JP KR LI LU MC NL NO SE

**Title:** RAISED ISLAND ABRASIVE AND PROCESS OF MANUFACTURE

**Abstract:** Abrasive sheet materials, abrasive sheet materials with island distributions of abrasive particles, processes for manufacture of abrasive sheet materials with minimized abrasive content, processes for attaching abrasive particles exclusively on the top surface of raised islands in monolayers, and processes for attaching raised island foundation structures to inexpensive flexible backing sheets are described. The process for manufacturing the abrasive sheeting provides an economical method for providing improved quality abrasive sheeting, while also allowing for greater control over the shape and distribution of abrasive islands on the sheet than is available from present processes of manufacture.

**Classifications:**

**International (ipc 8-9):** B23P25/00 B24B1/00 B24B27/00 B24B37/00 B24B37/04 B24B45/00 B24B5/00 B24B7/00 B24B9/00 B24D11/00 B24D18/00 B24D3/00 B24D3/28 B24D9/10 B29B11/16 B29B9/00 B29B9/08 C09K3/14 (Advanced/Invention); B24B1/00 B24B7/00 B24D11/00 B24D18/00 B24D3/00 C09K3/14 (Core/Invention)

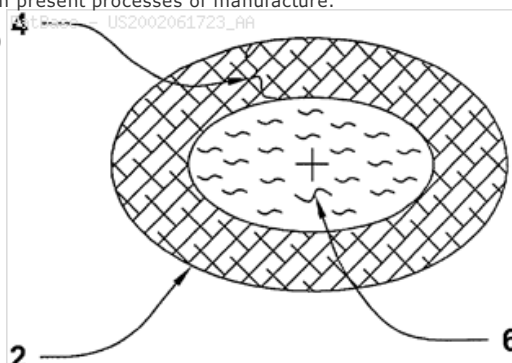
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**European:** B24B1/00 B24B37/00 B24B37/04B B24B37/12 B24B37/14 B24B37/24F B24B37/26 B24B45/00 B24B5/00 B24B7/00 B24B9/00 B24D11/00 B24D11/00B B24D18/00 B24D9/10 C09K3/14C

**US:** 264/11 264/12 264/13 264/15 29/527.1 29/527.2 451/178

451/259 451/259P 451/28 451/285 451/286 451/287 451/290 451/36 451/360 451/41 451/449 451/494 451/527 451/527P 451/53 451/530 451/533 451/539 451/548 451/548P 451/550 451/56 451/56P 451/59 51/293 51/293S 51/298 51/300 51/300S 51/309



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| EP1207015 A2       | 20020522         | EP20010309698      | 20011116         |
| EP1207015 A3       | 20030730         | EP20010309698      | 20011116         |
| JP2002200566 A2    | 20020716         | JP20010352985      | 20011119         |
| US2002061723 AA    | 20020523         | US20010015478      | 20011213         |
| US2004235406 AA    | 20041125         | US20040824107      | 20040414         |
| US2005032469 AA    | 20050210         | US20040816275      | 20040816         |
| US2005118939 AA    | 20050602         | US20050029761      | 20050105         |
| US2008299875 AA    | 20081204         | US20080221265      | 20080730         |
| US2010003904 AA    | 20100107         | US20080217565      | 20080707         |
| US5910041 A        | 19990608         | US19970812012      | 19970306         |
| US6149506 A        | 20001121         | US19980168057      | 19981007         |
| US6752700 BB       | 20040622         | US20010015478      | 20011213         |
| US6769969 BA       | 20040803         | US20000715448      | 20001117         |
| US7520800 BB       | 20090421         | US20040816275      | 20040816         |
| US7632434 BB       | 20091215         | US20040824107      | 20040414         |
| US8062098 BB       | 20111122         | US20080217565      | 20080707         |
| US8256091 BB       | 20120904         | US20080221265      | 20080730         |
| US8545583 BB       | 20131001         | US20050029761      | 20050105         |

**Priority:**

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| US19970812012 19970306 | US19980168057 19981007 | US20000715448 20001117 |
| US20010015478 20011213 | US20030418257 20030416 | US20040816275 20040401 |
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| US20080217565 20080707 | US20080221265 20080730 |                        |

**Probable Assignee:** KELTECH ENGINEERING INC

**Assignee(s):** (std): DUESCHER WAYNE O ; KELTECH ENGINEERING ; KELTECH ENGINEERING INC

**Inventor(s):** (std): DUESCHER WAYNE O

**Inventor(s):** DUESCHER WAYNE

**Agent(s):** TSURUTA JUNICHI; NISHIYAMA MASAYA; HIGUCHI SOTOJI; ISHIDA TAKASHI; MARK A LITMAN AND ASSOCIATES PA YORK BUSINESS CENTER; MARK A LITMAN AND ASSOCIATES PA; YORK BUSINESS CENTER

**Designated states:** AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

**Title:** ELECTRICALLY CONTROLLED AUTOMATED DEVICES TO OPERATE, SLOW, GUIDE, STOP AND SECURE, EQUIPMENT AND MACHINERY FOR THE PURPOSE OF CONTROLLING THEIR UNSAFE, UNATTENDED, UNAUTHORIZED, UNLAWFUL HAZARDOUS AND/OR LEGAL USE, WITH REMOTE CONTROL AND ACCOUNTABILITY WORLDWIDE

**Abstract:** This application describes completely in many unique ways and detail all the devices to reduce a vehicle's speed and/or reduce a machines RPM's and/or stop any piece of equipment's as well as guide it if mobile through automated controls. First to slow it down, and guide it and/or control it if necessary (i.e., other pieces of equipment). Secondly it discusses how to stop any piece of equipment completely. And thirdly, the invention secures it in a safe stationary position either entirely or any number of specific moving parts. Many of these systems are initially here described to slow, reduce speed, steer, stop and/or secure equipment functions. However, they also can be used to increase a piece of equipment's functions. In other words their variations are completely capable to serve any remote or automated controls on a vehicle in the future to provide full robotics systems, e.g., for automated transportation systems, automated manufacturing, etc., either through individually isolated remote control systems and/or interfaced with other off-board systems through communication links, gateway computers, computer networks and the world wide web for inexpensive long distance monitoring and remote control. The invention focuses on the automobile industry but as has always been maintained throughout all these applications these devices and systems are designed to control every piece of equipment. The invention includes various accountable protocols and commercial developments to control speed, brake and steering for an automobile shut down to be performed through automation to a safe controlled secured deactivated state to be considered as a basis for a standard in aggressive vehicle remote control and/or to control and guide a vehicle and/or piece of equipment through many different automated systems.

**Classifications:**

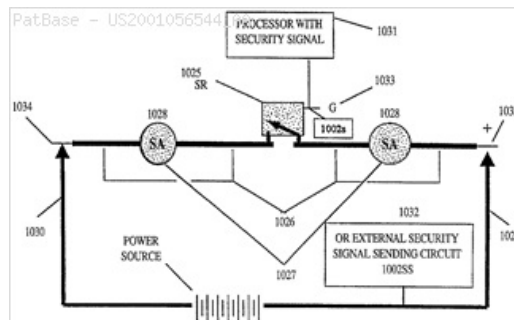
**International (IPC 8-9):** B29C65/00 B32B37/00 B60R25/00 B60R25/02 B60R25/04 B60R25/042 B60R25/08 B60R25/10 B60R25/102 B60R25/25 B60R25/30 B60R25/33 B61C17/12 B61G5/10 B67D5/36 B67D7/04 B67D7/38 C04B37/00 E06B1/56 E06B5/11 F17D1/08 G01C21/34 G01S5/02 G05B11/01 G05B15/00 G05B23/02 G05D1/00 G06F13/00 G06F19/00 G06F7/04 G06Q99/00 G07C5/08 G08B13/22 G08C17/00 G08C17/02 G09F3/03 H04B7/185 H04L29/10 H04L9/00 H04M11/00 H04Q1/00 H04Q7/00 H05B1/00 (Advanced/Invention); G06Q99/00 (Advanced/Non-invention); B32B37/00 B60R25/00 B60R25/04 B60R25/08 B60R25/10 B61C17/00 B61G5/00 B67D7/00 B67D7/38 E06B1/56 E06B5/10 F17D1/00 G01S5/02 G05B15/00 G05B23/02 G06F13/00 G06F19/00 G06F7/02 G06Q99/00 G07C5/00 G08C17/00 H04B7/185 H04M11/00 H04Q1/00 (Core/Invention)

**International (IPC 1-7):** B32B31/00 B60K31/00 B60R25/00 B60R25/04 B60R25/10 B61C17/12 B61G5/10 B67D5/04 B67D5/36 E06B1/56 E06B5/11 F17D1/08 G01S5/02 G05B11/01 G05B15/00 G05B23/02 G06F11/30 G06F12/14 G06F13/00 G06F17/00 G06F17/60 G06F19/00 G06F7/00 G06F7/04 G08B5/22 G08C17/00 G08C17/02 H04B7/185 H04L29/10 H04L9/00 H04M11/00 H04Q1/00 H04Q7/00

**CPC:** B60R25/04 B60R25/252 B60R25/255 B60R25/257 B60R2325/101 G06Q99/00 B60R25/302 B60R25/305 H04Q9/00 G06Q30/02 B60R25/042 B60R25/08 B60R25/102 B60R25/33 B60R2325/205 B60R2325/304 B60T7/18 B60T8/4266 B60T8/4863 B60W50/029 B60W2550/402 F02D41/021 F02D41/042

**European:** B60R25/02 B60R25/04 B60R25/042 B60R25/08 B60R25/102 B60R25/25B B60R25/25D B60R25/25F B60R25/30B B60R25/30D B60R25/33 B60T7/18 B60T8/42A6 B60T8/48B4D B60W50/029 F02D41/02C G06F17/60 G06Q30/02 G06Q90/00 L60R325/10B L60R325/20D L60R325/30D L60W550/40A R02D41/04B

**US:** 156/308.4 156/325 156/499 180/17 180/170 180/170S 219/243 219/535 219/544 701/1 701/1P 701/2 701/209 701/209S 701/29 701/29P 701/31.4 701/31.400P 701/36 701/36S 701/400 701/400S 713/193 713/193P 713/200 726/2 726/2P



**Family:**

| Publication number | Publication date | Application number | Application date |
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| AT418451 E         | 20090115         | AT19990930355T     | 19990618         |
| AU199923221 A1     | 19990802         | AU19990023221      | 19990115         |
| AU199946908 A1     | 20000105         | AU19990046908      | 19990618         |
| AU199946908 A5     | 20000105         | AU19990046908      | 19990618         |
| AU200032439 A1     | 20000914         | AU20000032439      | 20000225         |
| AU200032439 A5     | 20000914         | AU20000032439D     | 20000225         |
| AU200057384 A1     | 20010102         | AU20000057384      | 20000615         |
| AU200057384 A5     | 20010102         | AU20000057384D     | 20000615         |
| AU2001234479 AA    | 20010731         | AU20010234479      | 20010119         |
| AU2001259245 AA    | 20011112         | AU20010259245      | 20010430         |
| AU200134479 A1     | 20010731         | AU20010034479      | 20010119         |
| AU200134479 A5     | 20010731         | AU20010034479      | 20010119         |
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| AU200159245 A5     | 20011112         | AU20010059245D     | 20010430         |
| CA2318139 AA       | 20000714         | CA19992318139      | 19990115         |
| CA2335155 AA       | 20001214         | CA19992335155      | 19990618         |
| CA2335155 C        | 20090901         | CA19992335155      | 19990618         |
| CA2397911 AA       | 20020718         | CA20012397911      | 20010119         |
| CA2397911 C        | 20070508         | CA20012397911      | 20010119         |
| CA2637877 AA       | 19991223         | CA19992637877      | 19990618         |
| DE69940161 D1      | 20090205         | DE19996040161      | 19990618         |
| EP1053138 A1       | 20001122         | EP19990903125      | 19990115         |
| EP1053138 A4       | 20030716         | EP19990903125      | 19990115         |
| EP1121245 A1       | 20010808         | EP19990930355      | 19990618         |
| EP1121245 A4       | 20040331         | EP19990930355      | 19990618         |
| EP1121245 B1       | 20081224         | EP19990930355      | 19990618         |
| US2001056544 AA    | 20011227         | US20000738901      | 20001218         |
| US2003221118 AA    | 20031127         | US20030401041      | 20030328         |
| US2004049324 AA    | 20040311         | US20030654992      | 20030905         |
| US2006287783 AA    | 20061221         | US20060439238      | 20060524         |
| US2008091309 AA    | 20080417         | US20070841234      | 20070820         |
| US6647328 BB       | 20031111         | US20000738901      | 20001218         |
| US7259357 BB       | 20070821         | US20030654992      | 20030905         |
| WO0051360 A1       | 20000831         | WO2000US04737      | 20000225         |

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| WO0078057 A1 | 20001221 | WO2000US16381 | 20000615 |
| WO0078057 C2 | 20020711 | WO2000US16381 | 20000615 |
| WO0154044 A1 | 20010726 | WO2001US01645 | 20010119 |
| WO0184274 A2 | 20011108 | WO2001US13809 | 20010430 |
| WO0184274 A3 | 20020221 | WO2001US13809 | 20010430 |
| WO9936297 A1 | 19990722 | WO1999US00919 | 19990115 |
| WO9936297 B1 | 19991007 | WO1999US00919 | 19990115 |
| WO9936297 C2 | 19991111 | WO1999US00919 | 19990115 |
| WO9965681 A1 | 19991223 | WO1999US13668 | 19990618 |
| WO9965681 B1 | 20000203 | WO1999US13668 | 19990618 |

**Priority:**

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| US19980071392P 19980115 | US19980089783P 19980618 | WO1999US00999 19990115  |
| WO1999US00919 19990115  | US19990122108P 19990226 | US19990139759P 19990615 |
| US19990140029P 19990617 | US19990149029P 19990617 | CA19992335155 19990618  |
| WO1999US13668 19990618  | US19990357373 19990720  | US19990149029P 19990813 |
| US20000176818P 20000119 | WO2000US04737 20000225  | US20000200872P 20000501 |
| WO2000US16381 20000615  | US20000738901 20001218  | WO2001US01645 20010119  |
| WO2001US13809 20010430  | US20030401041 20030328  | US20030654992 20030905  |
| US20060439238 20060524  | US20070841234 20070820  |                         |

**Probable Assignee:** KLINE AND WALKER LLC

**Assignee(s):** (std): KLINE AND WALKER L L C ; KLINE AND WALKER LLC ; WALKER RICHARD C

**Inventor(s):** (std): RICHARD C WALKER ; WALKER RICHARD ; WALKER RICHARD C

**Agent(s):** OSLER HOSKIN AND HARCOURT LLP; MOFFAT AND CO; HOFMANN HARALD ET AL; WILMER CUTLER PICKERING HALE AND DORR LLP; WILMERHALE/NEW YORK; WILMERHALE NEW YORK

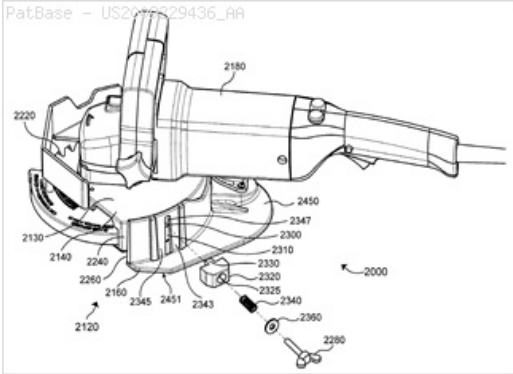
**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EE ES FI FR GA GB GD GE GH GM GN GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

**Title:** UNDERCUT SAW HEIGHT ADJUSTMENT, HANDLE, BLADE GUARD IMPROVEMENTS

**Abstract:** An undercut saw including a motor, a drive shaft rotated by the motor, a blade mount mechanically linked to the drive shaft, the blade mount allowing a saw blade to be mounted and a fixed blade guard circumscribing a portion of the saw blade. The fixed blade guard includes a top plate and a height adjustment skirt in telescoping attachment joined by fasteners. A guide washer including a guide washer slot runner is configured to move up and down in a slot on the height adjustment skirt.

**Classifications:**

**International (IPC 8-9):** B23D45/16 B23D51/01 B26B25/00 B26D5/00 B27B9/04 (Advanced/Invention); B23D51/00 B26D5/00 B27B9/00 (Core/Invention)  
**CPC:** Y10T83/546 B27B9/02 B27B5/08  
**European:** B27B5/08 B27B9/02  
**US:** 30/371 30/371P 30/373 30/388 30/390 30/390S 30/517 30/517S 83/373 83/373P



**Family:**

| Publication number | Publication date | Application number | Application date |
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| US2009229436 AA    | 20090917         | US20090401839      | 20090311         |
| US2012204430 AA    | 20120816         | US20120455495      | 20120425         |
| US8671581 BB       | 20140318         | US20120455495      | 20120425         |

**Priority:**

US20080035704P 20080311      US20090401839 20090311      US20120455495 20120425

**Probable Assignee:** CRAIN CUTTER CO INC

**Assignee(s):** (std): CRAIN CUTTER CO INC ; CRAIN CUTTER COMPANY INC ; CRAIN LANCE D ; NGUYEN TAN D

**Inventor(s):** (std): CRAIN LANCE D ; NGUYEN TAN D

**Agent(s):** SCHNECK AND SCHNECK; THOMAS

**Title:** Improved clamping device.

**Abstract:** The present invention relates to an improved design of vice, especially, it is used to clamp the irregular-shaped work pieces and traditional work pieces, and mainly, two sets of movable clamping claws (1001) coupled and slided with the fixed jaw (1101) and two sets of movable clamping claw (1001) coupled with the motion jaw (1201) are used to firmly clamp and hold the work piece.

**Classifications:**

**International (IPC 8-9):** B23Q1/00 B25B1/20

B25B1/24 (Advanced/Invention);

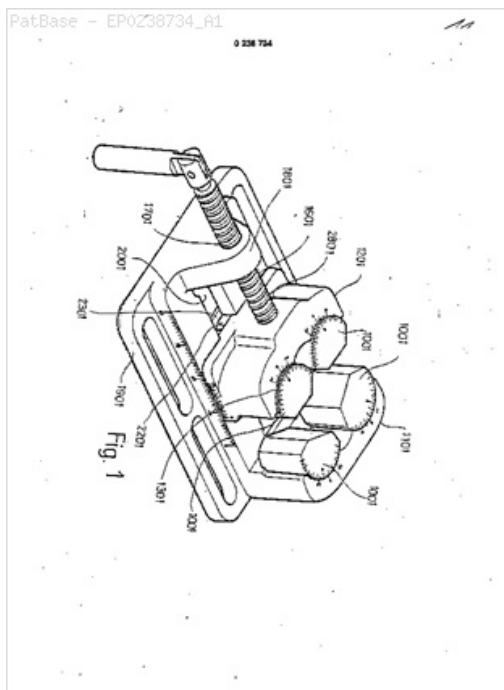
B23Q1/00 B25B1/00 (Core/Invention)

**International (IPC 1-7):** B23Q1/00 B25B1/02 B25B1/10 B25B1/20

B25B1/24 B25B5/16

**CPC:** B25B1/20 B25B1/2426 B25B1/2436 B25B1/2494

**European:** B25B1/20 B25B1/24B2B3 B25B1/24B3B B25B1/24E



**Family:**

| Publication number | Publication date | Application number | Application date |
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| AU198539843 A1     | 19860918         | AU19850039843      | 19850313         |
| AU586816 B2        | 19890727         | AU19850039843      | 19850313         |
| CA1265169 A1       | 19900130         | CA19840470585      | 19841228         |
| EP0238734 A1       | 19870930         | EP19860301397      | 19860226         |
| GB2171035 A1       | 19860820         | GB19850000068      | 19850103         |
| GB8500068 A0       | 19850213         | GB19850000068      | 19850103         |
| ZA8509765 A        | 19860808         | ZA19850009765      | 19851220         |

**Priority:**

CA19840470585 19841228

GB19850000068 19850103

AU19850039843 19850313

EP19860301397 19860226

**Probable Assignee:** YANG T H

**Assignee(s):** (std): TAI HER YANG ; YANG T H ; YANG TAI HER

**Inventor(s):** (std): YANG TAI HER

**Inventor(s):** TAI HER YANG

**Agent(s):** DAVIES COLLISON CAVE; DAVIES COLLISON CAVE PTY LTD; GOWLING LAFLEUR HENDERSON LLP

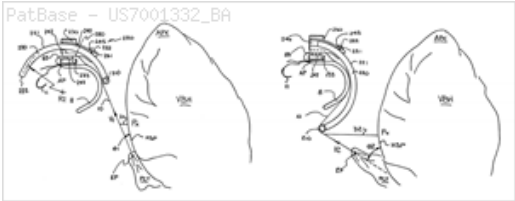
**Designated states:** AT BE CH DE FR IT LI LU NL SE

Title: SURGICAL DEFLECTOR **TOOL**

**Abstract:** A suture deflector for retracting a body tissue by deflecting a surgical suture that is simultaneously attached to a body tissue and a surgical retractor. The suture deflector imparts a deflecting force on the surgical suture to retract a body tissue between a first and second retracted position. The suture deflector consists of a securing mechanism for attaching the suture deflector to a surgical retractor and a deflection member extending from the securing mechanism. The deflection member includes a suture contacting section that is configured so as to prevent the severing of the surgical suture when it is deflected by the suture deflector. In certain embodiments, the deflection member includes a connecting section that extends between the securing mechanism and the suture contacting section and that is also movable relative to the securing mechanism in order to impart a deflecting force on the surgical suture.

**Classifications:**

**International (IPC 8-9):** A61B1/32 A61B17/00 A61B17/02 A61B17/30 (Advanced/Invention);  
A61B17/00 A61B17/30 (Advanced/Non-invention);  
A61B1/32 A61B17/02 (Core/Invention);  
A61B17/00 A61B17/30 (Core/Non-invention)  
**International (IPC 1-7):** A61B17/00 A61B17/02  
**CPC:** A61B17/0206 A61B2017/00243 A61B2017/308  
**European:** A61B17/02A K61B17/00E1C K61B17/30S2  
**US:** 600/210



**Family:**

| Publication number | Publication date | Application number | Application date |
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| AU200113749 A1     | 20010606         | AU20010013749      | 20001108         |
| AU200113749 A5     | 20010606         | AU20010013749D     | 20001108         |
| CA2289871 AA       | 20010508         | CA19992289871      | 19991108         |
| CA2389620 AA       | 20020430         | CA20002389620      | 20001108         |
| US7001332 BA       | 20060221         | US20000111899      | 20001108         |
| WO0134034 A1       | 20010517         | WO2000CA01336      | 20001108         |
| WO0134034 C1       | 20011108         | WO2000CA01336      | 20001108         |

**Priority:**

CA19992289871 19991108      CA20002389620 20001108      WO2000CA01336 20001108

**Probable Assignee:** CORONEO INC

**Assignee(s):** (std): CARTIER RAYMOND ; CORONEO INC ; PAOLITTO ANTHONY ; VALENTINI VALERIO

**Inventor(s):** (std): CARTIER RAYMOND ; PAOLITTO ANTHONY ; VALENTINI VALERIO

**Inventor(s):** VALERIO VALENTINI ; RAYMOND CARTIER ; ANTHONY PAOLITTO

**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 SZ TD TG TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

**Title:** Reversible ratchet wrench including thin-walled sockets

**Abstract:** A light-weight, low-profile **socket** wrench system includes a set of cylindrical thin-walled **sockets**, each having a through axial opening sufficiently large to allow a **bolt** engaged by a **nut** of a size corresponding to that of the **nut**-receiving opening to pass through the axial opening and extend beyond the **nut**, and a ratchet wrench releasably engageable with the **socket** for applying rotational **torque** directly to a peripheral surface of the **socket**. In a preferred embodiment, the **socket** has a round peripheral surface around which a multiplicity of teeth are distributed, and the head of the ratchet wrench has a circular cylindrical opening in which the **socket** is releasably maintained with its teeth directly engaged by teeth on a pawl.

**Classifications:**

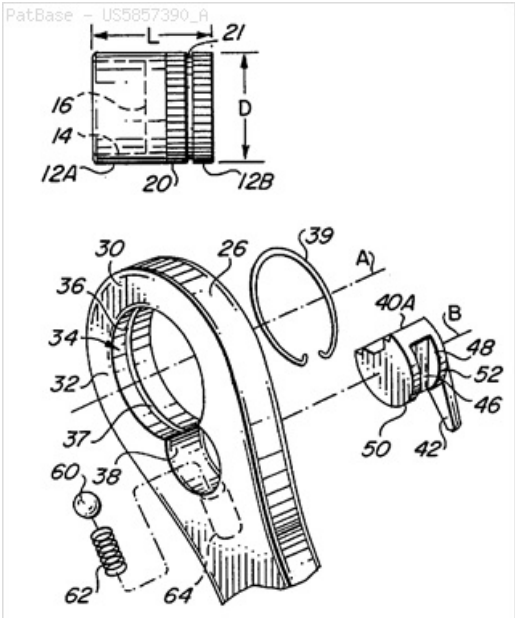
**International (IPC 8-9):** B25B13/06 B25B13/46 (Advanced/Invention); B25B13/00 (Core/Invention)

**International (IPC 1-7):** B25B13/46

**CPC:** B25B13/06 B25B13/463

**European:** B25B13/06 B25B13/46B1B

**US:** 81/124.3 81/62 81/620 81/63



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| CA2223217 AA       | 19980604         | CA19972223217      | 19971201         |
| CA2223217 C        | 20011009         | CA19972223217      | 19971201         |
| US5857390 A        | 19990112         | US19960772929      | 19961224         |

**Priority:**

US19960772929 19961204      US19960772929 19961224      CA19972223217 19971201

**Probable Assignee:**

WHITEFORD CARLTON L

**Assignee(s):** (std):

WHITEFORD CARLTON L

**Inventor(s):** (std):

WHITEFORD CARLTON L

**Agent(s):**

G RONALD BELL AND ASSOCIATES

**Title:** ILLUMINATION SYSTEM FOR DENTISTRY APPLICATIONS

**Abstract:** A dental illumination system includes an adjustable self-supporting frame and a lamp head coupled to the frame. The lamp head includes a housing and a spacer having formations that is adapted to removably mechanically couple the lamp head to a reference device, again having formations, for facilitating illumination of a tooth by a light source contained within the lamp head. The spacer and lamp head may be formed integrally. If formed separately, both the lamp head and the spacer may include formations.

**Classifications:**

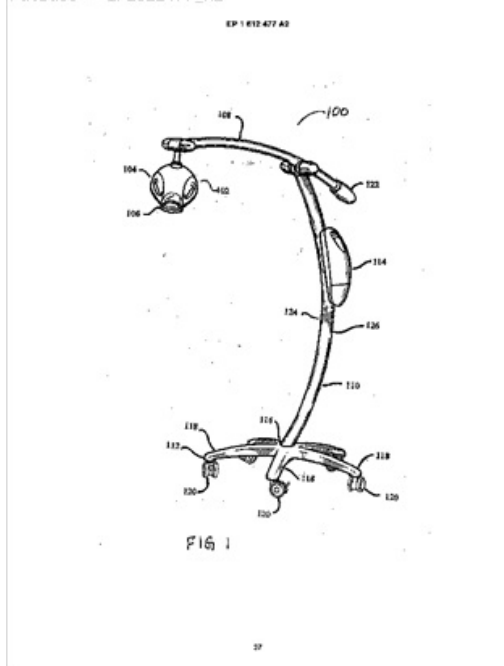
**International (IPC 8-9):** A61B1/06 A61B1/24 A61B19/00 A61C1/08 A61C17/00 A61C19/00 A61C19/06 A61C3/00 A61C5/00 A61G15/14 A61G15/16 F21S6/00 F21V33/00 (Advanced/Invention); F21W131/202 (Advanced/Non-invention)

**CPC:** F21L14/04 F21V21/06 F21W2131/20 A61C19/00

A61B2017/00115 A61C19/003 A61C19/004 A61C19/04 A61C19/043 A61C19/066 G09B23/283 H05B41/2855 Y02B20/185 A61B2090/504 A61G15/16 A61B90/35 A61B90/30 A61K6/0643 A61K6/08 A61K8/19 A61K8/20 A61K8/21 A61K8/24 A61Q11/00

**European:** A61C19/00 A61C19/00D A61C19/00D1 A61C19/04P A61C19/06B1 G09B23/28D H05B41/285C4 K61B17/00C2 K61B19/26F2 K61B19/52B K61C19/04 K61C19/06B1 Y02B20/18D2

PatBase - EP1612477\_A2

**Family:**

| Publication number | Publication date | Application number | Application date |
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| AU2005202887 AA    | 20060119         | AU20050202887      | 20050701         |
| AU2005202888 AA    | 20060119         | AU20050202888      | 20050701         |
| AU2005202888 BB    | 20120216         | AU20050202888      | 20050701         |
| CA2511276 AA       | 20060102         | CA20052511276      | 20050630         |
| CA2511277 AA       | 20060102         | CA20052511277      | 20050630         |
| CA2511277 C        | 20160816         | CA20052511277      | 20050630         |
| EP1612477 A2       | 20060104         | EP20050254132      | 20050630         |
| EP1612477 A3       | 20060503         | EP20050254132      | 20050630         |
| EP1612477 B1       | 20180228         | EP20050254132      | 20050630         |
| EP1614394 A2       | 20060111         | EP20050254131      | 20050630         |
| EP1614394 A3       | 20061102         | EP20050254131      | 20050630         |
| HK1079415 A3       | 20060407         | HK20060102050      | 20060216         |

**Priority:**

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|-------------------------|-------------------------|-------------------------|
| US20040585224P 20040702 | US20040604577P 20040825 | US20040631267P 20041126 |
| US20050641462P 20050104 | US20050641469P 20050104 | US20050641461P 20050104 |
| US20050641468P 20050104 | US20050647580P 20050126 | US20050647612P 20050126 |
| US20050647593P 20050126 | US20050647725P 20050126 | US20050647723P 20050126 |
| US20050658517P 20050303 | US20050664696P 20050322 | US20050594297P 20050325 |
| US20050594327P 20050330 | CA20052511276 20050630  | CA20052511277 20050630  |

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**Assignee(s):** (std): DISCUS DENTAL LLC ; DISCUS DENTAL IMPRESSIONS INC

**Assignee(s):** DISCUS DENTAL IMPRESSIONS LLC ; DANTA RANDALL ; DECKERT CURT KENNETH ; ORLOFF MARC ; QUAN CHRISTOPHER ; GRAMBUSH DOUGLAS H ; KENNEDY BRIAN ; HAYMAN ROBERT ; QUAN CHRISTOPHER N ; DORFMAN WILLIAM ; KARTEN STUART ; PIOREK STEVE ; QUAN NANCY ; ROSENBLLOOD KEN ; ROSE ERIC PAUL ; VU DAC ; SCHROEDER DENNIS ; SHABANY YOUNES

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