

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
24 July 2008 (24.07.2008)

PCT

(10) International Publication Number
WO 2008/088929 A3

- (51) **International Patent Classification:**
A61B 17/22 (2006.01)
- (21) **International Application Number:**
PCT/US2008/050074
- (22) **International Filing Date:** 3 January 2008 (03.01.2008)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
60/880,222 12 January 2007 (12.01.2007) US
- (71) **Applicant (for all designated States except US):** WILSON-COOK MEDICAL INC. [US/US]; P.O. Box 271 15-4191, 4900 Bethania Station Road, Winston-salem, NC 27105-4191 (US).
- (72) **Inventor; and**
- (75) **Inventor/Applicant (for US only):** DUCHARME, Richard, W. [US/US]; 317 Crowne Oak Circle, Winston-Salem, NC 27106 (US).
- (74) **Agent:** COPELAND, Trevor, K.; Brinks Hofer Gilson & Lione, P.O. Box 10087, Chicago, IL 60610 (US).

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

- Published:**
 - with international search report
 - before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) **Date of publication of the international search report:**
16 October 2008

(54) **Title:** LITHOTRIPSY BASKET DRILL

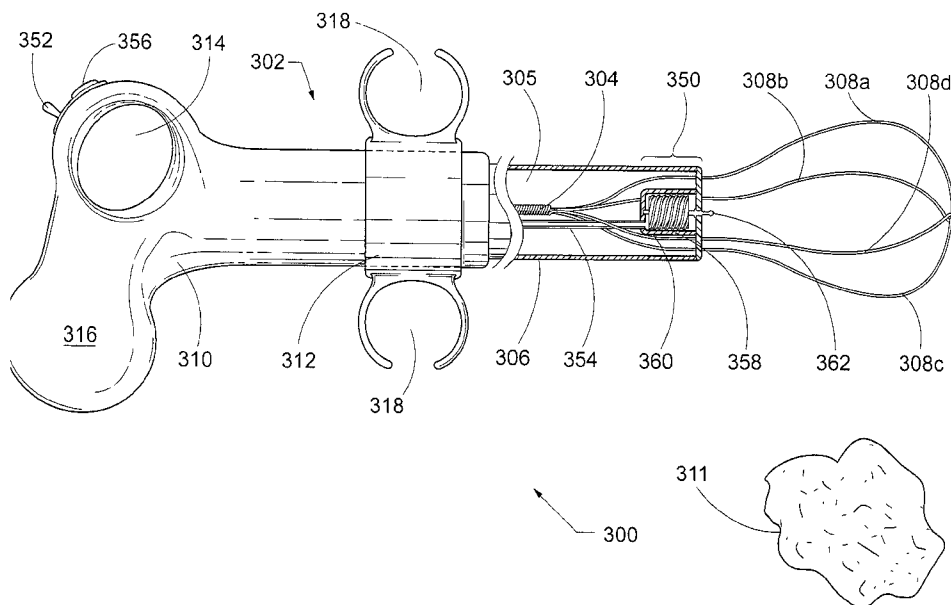


Fig. 3

(57) **Abstract:** A lithotripter device (300) embodiment is provided including a lithotripter that has a proximal handle (302), an elongate shaft (306) extending distally from the handle with a lumen extending through a major length of the elongate shaft, and a wire basket (308) distally attached to a drive wire (304). The drive wire extends through the lumen of the elongate shaft and is operatively connected to the handle. The device includes a drill mechanism assembly (350) with a drill bit (362) disposed near the distal end of the elongate shaft.

WO 2008/088929 A3

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2008/050074

A. CLASSIFICATION OF SUBJECT MATTER INV. A61B17/22				
According to International Patent Classification (IPC) or to both national classification and IPC				
B. FIELDS SEARCHED				
Minimum documentation searched (classification system followed by classification symbols) A61B				
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched				
Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal				
C. DOCUMENTS CONSIDERED TO BE RELEVANT				
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.		
X	DE 894 606 C (KAROL KARL) 26 October 1953 (1953-10-26) the whole document -----	1, 3, 4, 7-11		
X	US 2005/059981 A1 (POLL WAYNE L [US]) 17 March 2005 (2005-03-17) page 1, paragraph 5-9 page 3, paragraph 34 - page 5, paragraph 47 figure 14 -----	1-3, 7-9, 11, 20		
A	----- -/--	10		
<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"><input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C.</td> <td style="width: 50%; border: none;"><input checked="" type="checkbox"/> See patent family annex.</td> </tr> </table>			<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C.	<input checked="" type="checkbox"/> See patent family annex.
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C.	<input checked="" type="checkbox"/> See patent family annex.			
* Special categories of cited documents :				
<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> 'A*' document defining the general state of the art which is not considered to be of particular relevance 'E' earlier document but published on or after the International filing date 'L¹' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) 'O' document referring to an oral disclosure, use, exhibition or other means 'P¹' document published prior to the international filing date but later than the priority date claimed </td> <td style="width: 50%; border: none;"> 'T' later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention 'X' document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone 'Y¹' document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. '&' document member of the same patent family </td> </tr> </table>			'A*' document defining the general state of the art which is not considered to be of particular relevance 'E' earlier document but published on or after the International filing date 'L ¹ ' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) 'O' document referring to an oral disclosure, use, exhibition or other means 'P ¹ ' document published prior to the international filing date but later than the priority date claimed	'T' later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention 'X' document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone 'Y ¹ ' document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. '&' document member of the same patent family
'A*' document defining the general state of the art which is not considered to be of particular relevance 'E' earlier document but published on or after the International filing date 'L ¹ ' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) 'O' document referring to an oral disclosure, use, exhibition or other means 'P ¹ ' document published prior to the international filing date but later than the priority date claimed	'T' later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention 'X' document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone 'Y ¹ ' document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. '&' document member of the same patent family			
Date of the actual completion of the international search <p style="text-align: center;">21 May 2008</p>		Date of mailing of the international search report <p style="text-align: center;">03/09/2008</p>		
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016		Authorized officer <p style="text-align: center;">Kakoulis, Marios</p>		

INTERNATIONAL SEARCH REPORT

International application No

PCT/US2008/050074

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category-	Citation of document, with indication where appropriate, of the relevant passages	Relevant to claim No
X	DE 35 22 649 A1 (ECONOMIC DEV TRUST REG [LI]) 23 January 1986 (1986-01-23) page 5, line 1 - page 6, line 4 page 13, lines 10-22 page 15, line 20 - page 18, line 4 page 20, line 16 - page 21, line 37 figures 1,7 -----	1,3,11
X	US 4 790 812 A (HAWKINS JR IRVIN F [US] ET AL) 13 December 1988 (1988-12-13) column 1, line 5 - column 2, line 22 column 3, line 9 - column 5, line 38 figures 1,12 -----	1,2,20
X	US 2003/014058 A1 (CHERFAS DANIEL [US] ET AL) 16 January 2003 (2003-01-16) page 1, paragraphs 1,2,16,17 page 2, paragraph 25-28 figures 7-10 -----	1,11
X	DE 35 42 667 A1 (WOLF GMBH RICHARD [DE]) 5 June 1986 (1986-06-05) page 4, paragraph 5 - page 9, paragraph 2 page 12, paragraph 4 - page 13, paragraph 1 -----	1,11
X	JP 59 151949 A (KOGYO GIJUTSUIN; HOSOYA FIREWORKS) 30 August 1984 (1984-08-30) figure 3 -----	1,11

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2008/050074

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. **LxJ** Claims Nos.: **12~19**
because they relate to subject matter not required to be searched by this Authority, namely:
Rule 39.1(iv) PCT - Method for treatment of the human or animal body by surgery
2. Claims Nos/
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically.
3. **J_J** Claims Nos.: ,
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additi onal sheet

1. As all required additional search fees were timely paid by the applicant, this international search report covers allsearchable claims.
2. As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

see annex

Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM POT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-4,7-11,20

The drill mechanism assembly comprises a fluid-driven turbine.

2. claims: 5,6

The lithotripter device comprises a wire guide lumen structure.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/US2008/050074

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
UE 894606	C	26-10-1953	NONE
US 2005059981	A1	17-03-2005	NONE
DE 3522649	A1	23-01-1986	NONE
US 4790812	A	13-12-1988	NONE
US 2003014058	A1	16-01-2003	US 2004059342 A1 25-03-2004
DE 3542667	A1	05-06-1986	NONE
JP 59151949	A	30-08-1984	OP 1454600 C 25-08-1988 JP 61036930 B 21-08-1986