

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
19 September 2002 (19.09.2002)

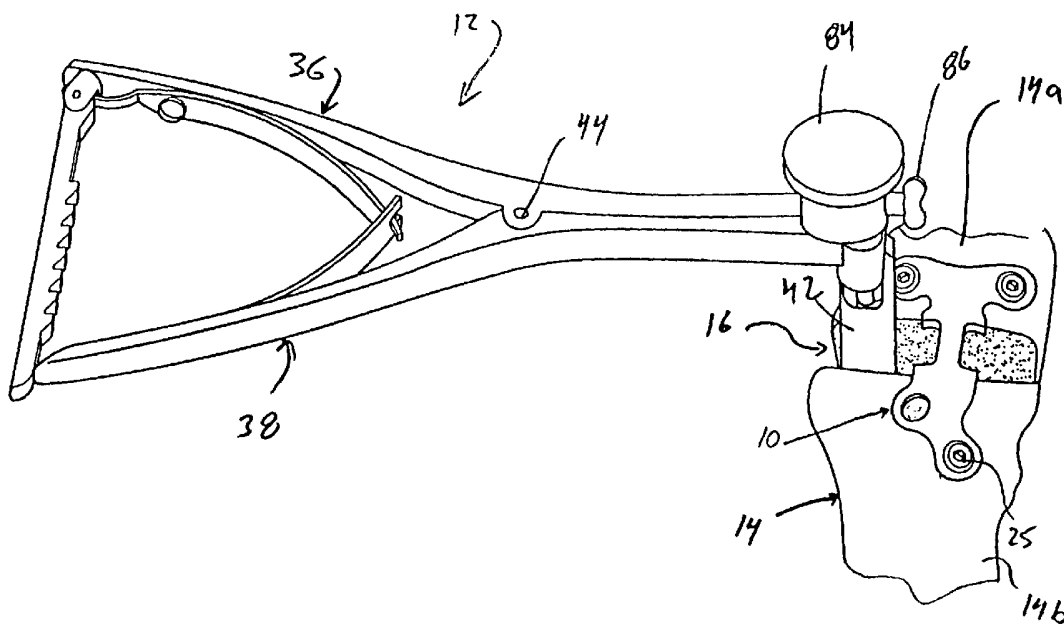
PCT

(10) International Publication Number  
WO 02/071924 A3

- (51) International Patent Classification<sup>7</sup>: A61F 5/01, A61B 17/56
- (21) International Application Number: PCT/US02/07604
- (22) International Filing Date: 13 March 2002 (13.03.2002)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 09/808,260 14 March 2001 (14.03.2001) US
- (63) Related by continuation (CON) or continuation-in-part (CIP) to earlier application:  
US 09/808,260 (CON)  
Filed on 14 March 2001 (14.03.2001)
- (71) Applicant (for all designated States except US): ELECTRO-BIOLOGY, INC. [US/US]; 6 Upper Pond Road, Parsippany, NJ 07054 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): STERETT, William [US/US]; 118 Aspen Meadows Drive - Arrowhead, Edwards, CO 81632 (US). BAILEY, Kirk, J. [US/US]; 33 Wards Road, Blairstown, NJ 07825 (US). ROUSSEAU, Patrick [US/US]; 40 Millbrook Stillwater Road, Hardwick, NJ 07825 (US).
- (74) Agents: OLSON, Stephen, T. et al.; Harness, Dickey & Pierce, P.L.C., P.O. Box 828, Bloomfield Hills, MI 48303 (US).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),

[Continued on next page]

(54) Title: BONE PLATE AND RETRACTOR ASSEMBLY



(57) Abstract: A system for performing osteotomies includes a bone plate (10) and a retractor assembly (12). The bone plate (10) generally includes a first mounting portion (18) for attachment to a first bone portion (14a) a second mounting portion (20) for attachment to a second bone portion (14b), and an intermediate portion (22) connecting the first mounting portion (18) and the second mounting portion (20). The retractor assembly (12) includes first and second handle members (36, 38) coupled for relative movement about a first pivot axis and first and second jaw members (40, 42) coupled to the first and second handle members (36, 38), respectively.



WO 02/071924 A3



Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR,  
GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent  
(BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,  
NE, SN, TD, TG).

*MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW*), Eurasian patent  
(AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent  
(AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU,  
MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI,  
CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

— of inventorship (Rule 4.17(iv)) for US only

**Declarations under Rule 4.17:**

— as to applicant's entitlement to apply for and be granted  
a patent (Rule 4.17(ii)) for the following designations AE,  
AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA,  
CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES,  
FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG,  
MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU,  
SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG,  
UZ, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS,

**Published:**

— with international search report

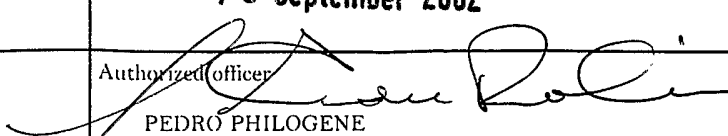
**(88) Date of publication of the international search report:**

23 January 2003

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US02/07604

<b>A. CLASSIFICATION OF SUBJECT MATTER</b>		
IPC(7) : A 61F 5/01; A61B 17/56 US CL : 606/69, 88 According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b>		
Minimum documentation searched (classification system followed by classification symbols) U.S. : 606/69, 88,207,208,89,205,206,70,60,72,71,151,104,215		
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 practicable, search terms used)		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,159,217 A (Robie et al.) 12 December 2000, see entire document	9-14
X,P	US 6,224,602 B1 (Hayes) 1 May 2001, see entire document	1-5,20,21
X,P	US 6,336,930 B1 (Stalcup et al.) 8 January 2002, see entire document	1-5,20,21
X,P	US 6,235,032 B1 (Link) 22 May 2001, see entire document	1-5,20,21
X	US 4,905,679 A (Morgan) 6 March 1990, see entire document	1-5,20,21
X	US 5,147,361 A (Ojima et al.) 15 September 1992, see entire document	1-5, 20,21
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.		
* Special categories of cited documents:	"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
"A" document defining the general state of the art which is not considered to be of particular relevance	"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
"E" earlier document published on or after the international filing date	"Y"	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
"L" 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)	"&"	document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means		
"P" document published prior to the international filing date but later than the priority date claimed		
Date of the actual completion of the international search 11 JUNE 2002	Date of mailing of the international search report 19 September 2002	
Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-8230	Authorized officer  PEDRO PHILOGENE Telephone No. (703) 308-2252	

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US02/07604

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,324,290 A (Zdeblick et al.) 28 June 1994, see entire document	1-5,20,21
X	US 5,474,553 A (Baumgart) 12 December 1995, see entire document	1-5,20,21

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US02/07604**Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)**

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

1.  Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
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.  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 II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)**

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

Please See Extra Sheet.

1.  As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
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.:

**Remark on Protest**

- The additional search fees were accompanied by the applicant's protest.  
 No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US02/07604

BOX II. OBSERVATIONS WHERE UNITY OF INVENTION WAS LACKING

This ISA found multiple inventions as follows:

This application contains claims directed to more than one species of the generic invention. These species are deemed to lack Unity of Invention because they are not so linked as to form a single inventive concept under PCT Rule 13.1. In order for more than one species to be searched, the appropriate additional search fees must be paid. The species are as follows:

FIGS 1-3.  
FIGS 1,4-9.

The claims are deemed to correspond to the species listed above in the following manner:

FIGS 1-3 relating to claims 1-8,15-21.  
FIGS 1,4-9 relating to claims 9-14

The following claims are generic: NONE.

the inventions are distinct, each from the other because of the following reasons: in claims 1-8 and 15-21, applicant is claiming a bone plate and in claims 9-14, applicant is claiming a retractor assembly. these two inventions are disclosed as different combinations which are not connected in design, operation or effect. These combinations are independent because they have different modes of operation, different functions and different effects. Therefore, because of the reasons given above, and because of a separate status in the art as shown by their different classification, the restriction for examination purpose as indicated is proper.