

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
22 August 2002 (22.08.2002)

PCT

(10) International Publication Number
WO 02/064039 A3

(51) International Patent Classification⁷: **A61B 17/28**,
17/00, B23B 31/117

(21) International Application Number: PCT/IB02/00377

(22) International Filing Date: 8 February 2002 (08.02.2002)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/267,889 10 February 2001 (10.02.2001) US

(71) Applicant (for all designated States except US): **PREC-IMED S.A.** [CH/CH]; L'Echelette 7, CH-2534 Orvin (CH).

CH, CN, CO, CR, CU, CZ (utility model), CZ, DE (utility model), DE, DK (utility model), DK, DM, DZ, EC, EE (utility model), EE, ES, FI (utility model), 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 (utility model), 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), 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).

Published:

— with international search report

(88) Date of publication of the international search report:
13 February 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.

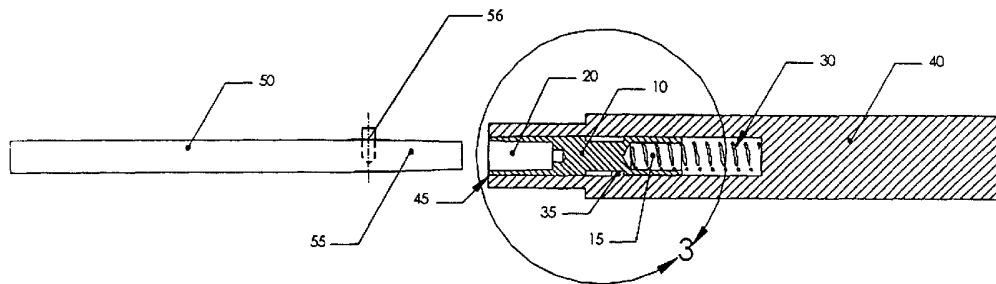
(72) Inventor; and

(75) Inventor/Applicant (for US only): **LECHOT, André**
[CH/CH]; Sous L'Eau-Belle 24, CH-2534 Orvin (CH).

(74) Agent: **BUGNION S.A.**; P.O. Box 375, CH-1211 Genève 12 (CH).

(81) Designated States (national): AE, AG, AL, AM, AT (utility model), AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA,

(54) Title: MODULAR TOOL CONNECTION ASSEMBLY



(57) Abstract: A modular tool connection assembly includes a housing which defines the main axis of assembly with a linear bore for containing the components of the assembly. The housing contains a connector component presenting a first taper portion. The connector is retained in the linear bore of the housing with a spring interposed between the connector and the housing. A tool containing a second taper portion is placed in axial engagement with the first taper causing the components to be securely connected. The spring limits the force applied between the taper portions allowing them to be disconnected easily.

WO 02/064039 A3

INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB 02/00377

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61B17/28 A61B17/00 B23B31/117

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)

IPC 7 A61B B23B

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 297 10 025 U (AESCULAP AG & CO KG) 14 August 1997 (1997-08-14) the whole document	1, 2, 4
A	US 5 554 154 A (ROSENBERG NORMAN) 10 September 1996 (1996-09-10) abstract; figure 2	1-4
A	US 6 096 042 A (HERBERT TIMOTHY JAMES) 1 August 2000 (2000-08-01) abstract; figure 1	1-4



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents:

- *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* 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* 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* 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.
- *Z* document member of the same patent family

Date of the actual completion of the international search

12 November 2002

Date of mailing of the international search report

19/11/2002

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

Hansen, S

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IB 02/00377

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
DE 29710025	U	14-08-1997	DE 29710025 U1	14-08-1997
US 5554154	A	10-09-1996	NONE	
US 6096042	A	01-08-2000	AU 1133397 A	01-08-1997
			WO 9724991 A1	17-07-1997
			EP 1011479 A1	28-06-2000
			JP 2000516109 T	05-12-2000