

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
4 December 2008 (04.12.2008)

(10) International Publication Number  
**WO 2008/146291 A3**

- (51) International Patent Classification:  
A61B 17/04 (2006.01)
- (21) International Application Number:  
PCT/IL2008/000731
- (22) International Filing Date:  
29 May 2008 (29.05.2008)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
60/924,738 30 May 2007 (30.05.2007) US
- (71) Applicant (for all designated States except US): **T.A.G. MEDICAL PRODUCTS A LIMITED PARTNERSHIP** [IL/IL]; Kibbutz Gaaton, 25130 Doar-na Oshrat (IL).
- (71) Applicants and  
(72) Inventors: **OREN, Ran** [IL/IL]; Kibbutz Gaaton, 25130 Doar-na Oshrat (IL). **MOOR, Dan** [IL/IL]; Kibbutz Gaaton, 25130 Doar-na Oshrat (IL).
- (72) Inventors; and  
(75) Inventors/Applicants (for US only): **LAFOSSE, Laurent** [FR/FR]; 3 Ave. de Chavoires, F-74940 Annecy-le-Vieux (FR). **NAHMIAS, Shai** [IL/IL]; 6 Rakefet Street, 42225 Nahariya (IL).
- (74) Agents: **G. E. EHRlich (1995) LTD.**, et al.; 11 Menachem Begin Street, 52521 Ramat Gan (IL).

- (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 (Art. 21(3))

(88) Date of publication of the international search report:  
25 February 2010

(54) Title: PIERCING IMPLEMENT PARTICULARLY USEFUL AS A MEDICAL IMPLEMENT FOR PIERCING BODY TISSUE, AND METHOD OF USING SUCH IMPLEMENT FOR APPLYING A SUTURE TO THE BODY TISSUE

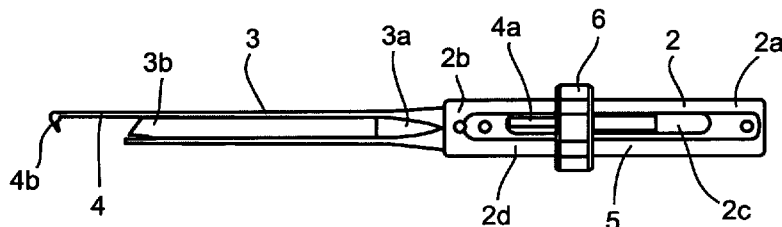


Fig. 1

(57) Abstract: An implement, particularly useful as a medical implement for applying a suture to a body tissue, includes a handle and shaft formed with a pair of channels extending from the proximal end of the handle through the distal end of the shaft and through a pair of jaws carried at the distal end of the shaft. The pair of channels converge towards each other to a cross-over point, and then diverging away from each other where existing at the distal end of the shaft. The channels are dimensioned to enable a piercing instrument to be passed first through one of the channels to pierce the body with a first bore, and then through the other of the channels to pierce the body with the second bore, such that the two bores have entry ends precisely spaced a predetermined distance from each other, and exit ends precisely spaced a larger predetermined distance from each other.

WO 2008/146291 A3

INTERNATIONAL SEARCH REPORT

International application No.

PCT/IL 08/00731

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - A61B 17/04 (2009.01)

USPC - 606/144, 606/150

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)

USPC: 606/144, 606/150

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

USPC: 606/144, 606/150, 606/139

See Search Terms Below

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

pubWEST(PGPB,USPT,EPAB,JPAB); Google

Search Terms Used: sutur\$3, guide, entrance, exit, first, second, jaw, channel, bore, slid\$4, tissue, bone, pierc\$3

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,562,686 A (SAUER et al) 08 October 1996 (08.10.1996) entire document, especially col 2, ln 12-24, col 2, ln 36-60, col 5, ln 3-25, col 5, ln 36, col 6, ln 13-23, fig 1, 1A, 3B, 15-19	1-19
Y	US 2007/0073342 A1 (STONE et al) 29 March 2007 (29.03.2007) para [0050]	1-19
Y	US 2002/0065526 A1 (OREN et al) 30 May 2002 (30.05.2002) para [0007], Ab	1-19
Y	US 2006/0167475 A1 (BISCHOF et al) 27 July 2006 (27.07.2006) para [0009]	6, 16

Further documents are listed in the continuation of Box C.

\* 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 application or patent 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

"&" document member of the same patent family

Date of the actual completion of the international search

04 March 2009 (04.03.2009)

Date of mailing of the international search report

26 MAR 2009

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US, Commissioner for Patents

P.O. Box 1450, Alexandria, Virginia 22313-1450

Facsimile No. 571-273-3201

Authorized officer:

Lee W. Young

PCT Helpdesk: 571-272-4300

PCT OSP: 571-272-7774