

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
14 October 2004 (14.10.2004)

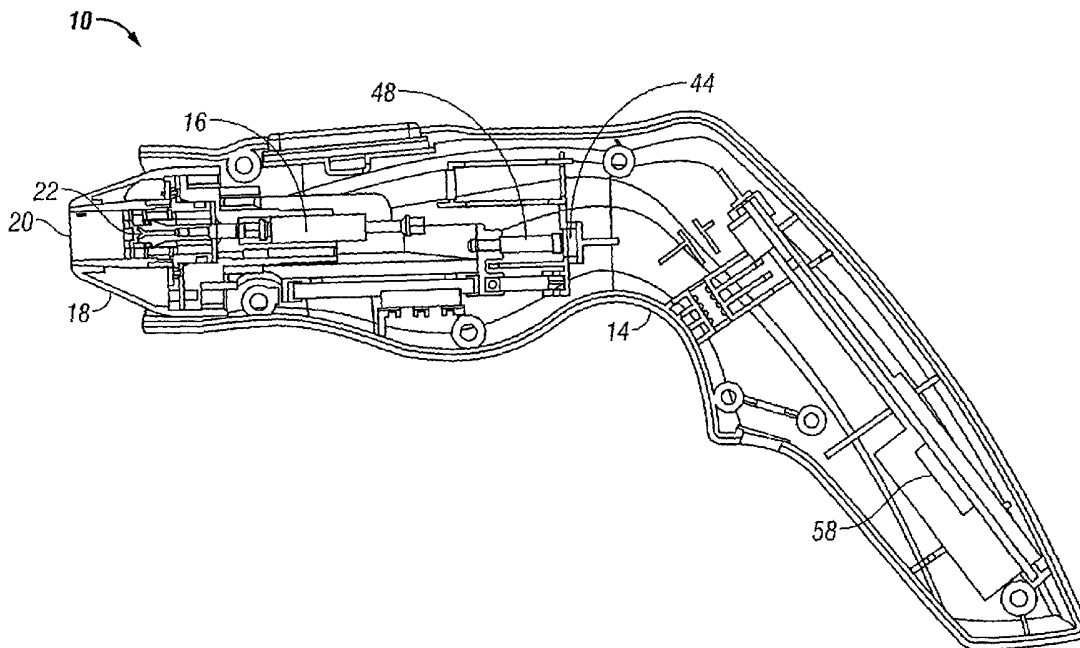
PCT

(10) International Publication Number
WO 2004/087253 A3

- (51) International Patent Classification⁷: **A61B 18/18**
- (21) International Application Number:
PCT/US2004/009118
- (22) International Filing Date: 25 March 2004 (25.03.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
10/397,976 25 March 2003 (25.03.2003) US
- (71) Applicant (for all designated States except US): **THERMAGE, INC.** [US/US]; 4058 Point Eden Way, Hayward, CA 94545 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **LEVINSON, Mitch** [US/US]; 7924 Spyglass Court, Pleasanton, CA 94588 (US). **WEBER, Bryan** [US/US]; 2612 Tahoe Drive, Livermore, CA 94550 (US). **STERN, Roger, A.** [US/US]; 10418 Palo Vista Road, Cupertino, CA 95014 (US).
- (74) Agent: **DAVIS, Paul**; Heller Ehrman White & McAuliffe LLP, 275 Middlefield Road, Menlo Park, CA 94025-3506 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, 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, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, 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, HU, IE, IT, LU, MC, NL, 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

[Continued on next page]

(54) Title: RF ELECTRODE ASSEMBLY FOR HANDPIECE



(57) Abstract: An RF device (10) has a support structure (18). An RF electrode (20), coupled to the support structure (18), includes conductive and dielectric portions. A cooling member (22), coupled to the support structure, is configured to cool a back surface of the RF electrode (20). The cooling member (22) is distanced from the back surface of the RF electrode (20).

WO 2004/087253 A3



(88) Date of publication of the international search report:
29 December 2004

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/US04/09118

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A61B 18/18

US CL : 606/41

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)

U.S. : 606/41, 42, 48-50; 607/101-105

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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 6,413,255 B1 (STERN) 02 July 2002 (02.07.2002), See the whole document	1-5,7- 13,15,16,27,29,35,39- 43,45-57,59,60,84- 89,91-105,107- 133,135-188 ----- 6,14,44,58,90,134
X --- Y	US 2002/0151887 A1 (STERN et al) 17 October 2002 (17.10.2002), See the whole document	1-5,7-13,15-33,35- 43,45-57,59-68,70- 78,80-89,91-133,135- 188 ----- 6,14,34,44,58,69,79, 90,134
Y	US 6,081,749 A (INGLE et al) 27 June 2000 (27.06.2000), See the whole document	6,14,34,44,58,69,79, 90,134

Further documents are listed in the continuation of Box C.

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 application or patent 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

24 August 2004 (24.08.2004)

Date of mailing of the international search report

18 NOV 2004

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. (703) 305-3230

Authorized officer

Linda Dvorak

Telephone No. (703) 308-0858

Sheila H. Venev
Paralegal Specialist
Tech. Center 3700