

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
8 June 2006 (08.06.2006)

PCT

(10) International Publication Number
WO 2006/060741 A3

- (51) International Patent Classification:
B01J 19/08 (2006.01)
- (21) International Application Number:
PCT/US2005/043815
- (22) International Filing Date:
2 December 2005 (02.12.2005)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:

11/003,034	3 December 2004 (03.12.2004)	US
11/003,516	3 December 2004 (03.12.2004)	US
11/003,894	3 December 2004 (03.12.2004)	US
11/006,344	7 December 2004 (07.12.2004)	US
11/007,395	8 December 2004 (08.12.2004)	US
11/007,556	8 December 2004 (08.12.2004)	US
11/188,478	25 July 2005 (25.07.2005)	US
- (71) Applicant (for all designated States except US):
SHARPER IMAGE CORPORATION [US/US];
650 Davis Street, San Francisco, California 94111 (US).

- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **TAYLOR, Charles, E.** [US/US]; 2731 St. Thomas Drive, Punta Gorda, Florida 33950 (US). **PARKER, Andrew, J.** [US/US]; 261 Montego Key, Novato, California 94949 (US). **BOTVINNIK, Igor, Y.** [US/US]; 21 Salvatore Drive, Novata, California 94949 (US). **LAU, Shek Fai** [US/US]; 137 Beach Park Blvd., Foster City, California 94404 (US). **SNYDER, Gregory, S.** [US/US]; 1542 Pershing Drive, #e, San Francisco, California 94129 (US). **REEVES, John Paul** [US/CN]; 16d CDW Building 388 Castle Peak Road, Hong Kong (CN).
- (74) Agents: **GOULD, Robert, M.** et al.; **BELL, BOYD & LLOYD LLC**, P.O Box 1135, Chicago, Illinois 60690-1135 (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, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI,

[Continued on next page]

(54) Title: AIR CONDITIONER DEVICE WITH INDIVIDUALLY REMOVABLE DRIVER ELECTRODES

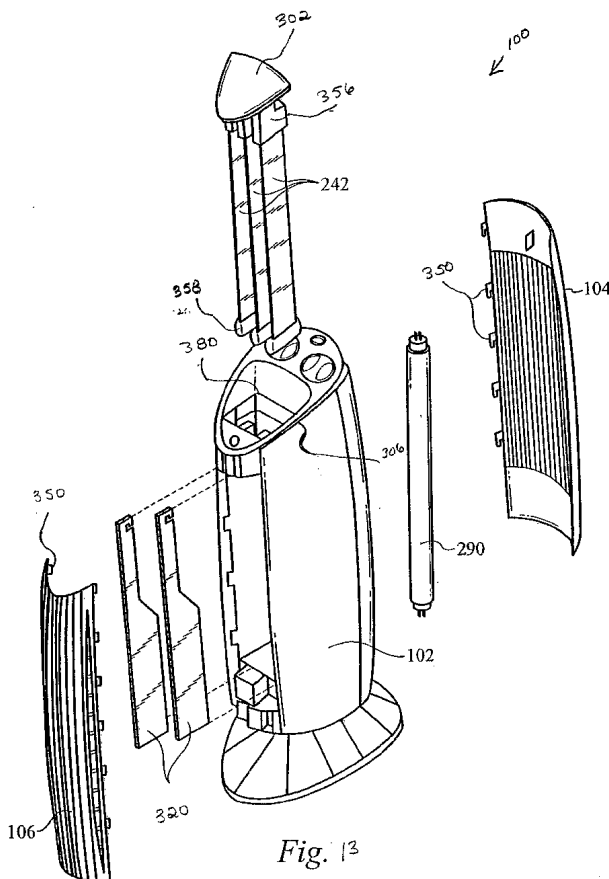


Fig. 13

(57) Abstract: An air-conditioning device includes a housing, a grill coupled to the housing, an ion generator located in the housing and configured to create ions in a flow of air, and a driver electrode located within the housing and removable from the housing, the driver electrode being located on an interior surface of the grill.

WO 2006/060741 A3



NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(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, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT,

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:
9 April 2009

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/43815

A. CLASSIFICATION OF SUBJECT MATTER

IPC: **B01J 19/08(2006.01)**

USPC: 422/186.04,186.3;96/95,98

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. : 422/186.04,186.3; 96/95,98

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)

WEST

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category. *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 4,789,801 A (LEE) 6 December 1998, Figs. 2 and 3.	1-24
Y	US 6,176,977 B1 (TAYLOR et al.) 23 January 2001, Fig.2	1-24
Y	US 6,163,098 A (TAYLOR et al.) 19 December 2000, col. 5, lines 1-19.	1-24
Y	US 4,541,847 A (OIE et al.) 17 September 1985, abstract and paragraph crossing cols. 3 and 4.	7
Y	US 4,264,343 A (NATARAJAN et al.) 28 April 1981, abstract; Fig. 16 and paragraph crossing cols. 7 and 8.	8-9
Y	US 6,042,637 A (WEINBERG) 28 March 2000, paragraph crossing cols. 3 and 4.	9
Y	US 5,879,435 A (SATYAPAL et al.) 9 March 1999, see abstract.	24

Further documents are listed in the continuation of Box C.

See patent family 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 application or patent 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

13 March 2008 (13.03.2008)

Date of mailing of the international search report

24 MAR 2008

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

Kishor Mayekar

Telephone No. (571) 272-1300

ROBERT A. THOMAS
LEGAL SPECIALIST

