



(51) International Patent Classification:

A61B 19/00 (2006.01) H05B 37/02 (2006.01)
A61B 1/06 (2006.01)

(21) International Application Number:

PCT/US2009/063022

(22) International Filing Date:

3 November 2009 (03.11.2009)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

12/267,798 10 November 2008 (10.11.2008) US

(71) Applicant (for all designated States except US): **STERIS CORPORATION** [US/US]; 5960 Heisley Road, Mentor, OH 44060-1834 (US).

(72) Inventors: **KUSNER, Mark**; 687 Echo Drive, Gates Mills, OH 44040 (US). **CENTANNI, Michael, A.**; 7335 Beresford Avenue, Parma, OH 44130 (US).

(74) Agent: **KUSNER, Mark**; Kusner & Jaffe, 6151 Wilson Mills Road, Suite 310, Highland Heights, OH 44143 (US).

(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, CL, 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, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, 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, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, SM, 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))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

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

22 July 2010

(54) Title: METHOD AND APPARATUS FOR ELECTRONIC ADJUSTMENT OF ILLUMINANCE OF SURGICAL LAMP

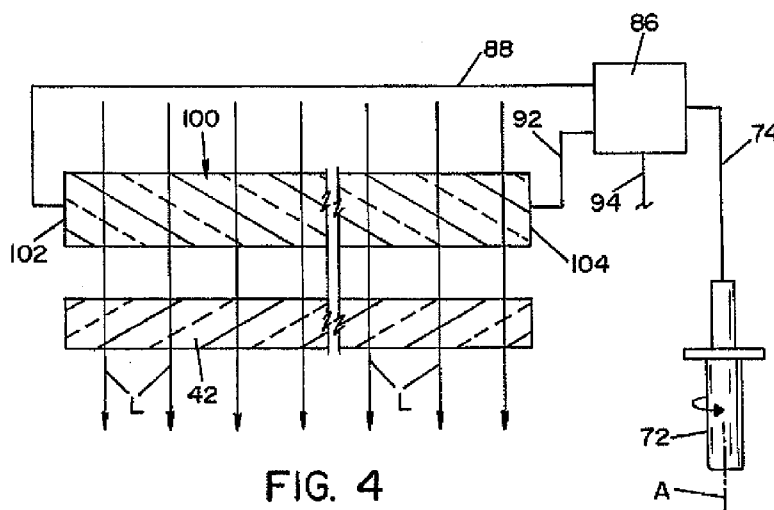


FIG. 4

(57) Abstract: The present invention provides a surgical lamp for illuminating a surgical site. The surgical lamp includes a housing that defines an internal cavity. A light source is disposed within the internal cavity of the housing for producing a light field at a surgical site that is remote from the housing. A voltage sensitive device is disposed between the light source and the surgical site. The voltage sensitive device has light transmissive properties that change in response to a biasing voltage applied thereto. Control means control the biasing voltage to the voltage sensitive device.

A. CLASSIFICATION OF SUBJECT MATTER*A61B 19/00(2006.01)i, A61B 1/06(2006.01)i, H05B 37/02(2006.01)i*

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)

A61B 19/00; A61C 13/00; F21S 1/02; F21V 23/00; F21V 7/04; H04N 5/222

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

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

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

eKOMPASS(KIPO internal) & Keywords: surgical lamp, operation room, illuminance, adjustment, voltage sensitive

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4884008 A1 (BOSSLER; HANS J. et al.) 28 November 1989 See Figs. 1A-1B, Col.3 Line 39-Col.4 Line 39	1-33
A	US 5497295 A1 (GEHLY; JOEL C.) 05 March 1996 See Figs 1, 5, Col.4 Line 58-Col.5 Line 55	1-33
A	US 5383105 A1 (AGUT; GERARD) 17 January 1995 See Col.4 Lines 4-60	1-33
A	US 6160582 A1 (HILL; WOLFRAM) 12 December 2000 See Fig.1 Col.3 Lines 4-21	1-33
A	US 5375049 A1 (WITT; JURGEN) 20 December 1994 See Col.3 Lines 3-32	1-33



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 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 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

31 MAY 2010 (31.05.2010)

Date of mailing of the international search report

31 MAY 2010 (31.05.2010)

Name and mailing address of the ISA/KR

Korean Intellectual Property Office
Government Complex-Daejeon, 139 Seonsa-ro, Seo-
gu, Daejeon 302-701, Republic of Korea

Facsimile No. 82-42-472-7140

Authorized officer

OH Seung Jae

Telephone No. 82-42-481-8469



INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2009/063022

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 4884008 A1	28.11.1989	EP 0299196 A2 EP 0299196 A3 EP 0299196 B1 JP 05-086001 B JP 1038901 A JP 1876951 C	18.01.1989 30.08.1989 20.05.1992 09.12.1993 09.02.1989 07.10.1994
US 5497295 A1	05.03.1996	None	
US 5383105 A1	17.01.1995	EP 0544559 A1 JP 05-329170 A JP 06-022501 B2	02.06.1993 14.12.1993 30.03.1994
US 6160582 A1	12.12.2000	EP 0933973 A2 EP 0933973 A3 EP 0933973 B1	04.08.1999 23.05.2001 25.06.2003
US 5375049 A1	20.12.1994	EP 0548589 A1 EP 0548589 B1	30.06.1993 10.01.1996