

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
23 May 2002 (23.05.2002)

PCT

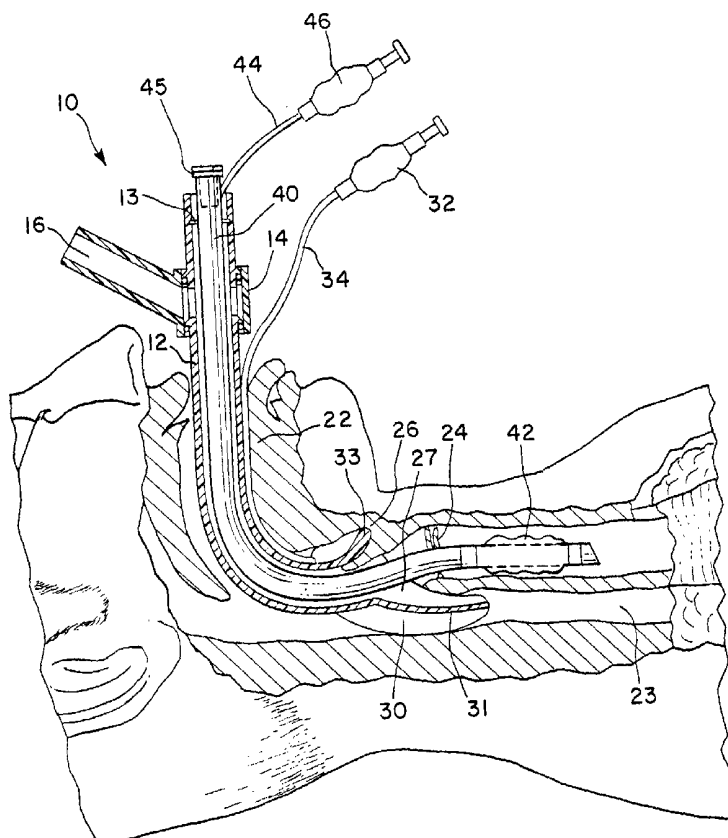
(10) International Publication Number
WO 02/040079 A3

- (51) International Patent Classification⁷: A61M 16/00
- (72) Inventor: CHRISTOPHER, Kent, L.; 9086 East Colorado Circle, Denver, CO 80231 (US).
- (21) International Application Number: PCT/US01/45614
- (74) Agents: CARSON, W., Scott et al.; Dorr, Carson, Sloan & Birney, P.C., 3010 E. 6th Avenue, Denver, CO 80206 (US).
- (22) International Filing Date: 30 October 2001 (30.10.2001)
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, 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, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:

60/252,347	20 November 2000 (20.11.2000)	US
09/840,194	23 April 2001 (23.04.2001)	US
09/908,380	18 July 2001 (18.07.2001)	US
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, 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,

[Continued on next page]

(54) Title: LARYNGEAL MASK AIRWAY



(57) Abstract: A laryngeal mask airway (10) has a curved tubular guide (12) for insertion through the patient's mouth and oropharynx. After insertion of the guide (12), the beveled distal opening of the guide (12) abuts the laryngeal inlet (27), while the guide's proximal opening remains outside the patient's mouth. A laryngeal mask (30) surrounds the distal opening of the guide (12) to substantially seal the laryngeal inlet (27) about the distal opening of the guide (12). A ventilation port (16) adjacent to the proximal opening of the guide (12) supplies air/oxygen through the guide (12) into the patient's lungs. An endotracheal tube (40) can then be advanced along the length of guide (12) and through the patient's larynx (24) without interrupting ventilation.



WO 02/040079 A3



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).

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

29 August 2002

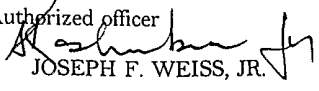
Published:

— with international search report

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/US01/45614

A. CLASSIFICATION OF SUBJECT MATTER																	
IPC(7) : A 61 M 16/00 US CL : 128/200.26																	
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. : 128/200.26, 207.14, 207.15																	
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 - airway, intubate, intubation, trachea, tracheal, endotracheal, tube, mask, LMA, laryngeal, respiration, ventilation																	
C. DOCUMENTS CONSIDERED TO BE RELEVANT																	
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.															
Y	US 5,694,929 A (CHRISTOPHER) 09 December 1997, Figs 5-10 & supporting text.	1-46															
Y	US 5,964,217 A (CHRISTOPHER) 12 October 1999, See figs 5-10 & supporting text.	1-46															
Y	US 6,079,409 A (BRAIN) 27 June 2000, Fig 2 & supporting text.	1-46															
Y	US 5,682,880 A (BRAIN) 04 November 1997, Fig 1 & 4 & supporting text.	1-46															
Y	US 5,303,697 A (BRAIN) 19 April 1994, Fig 3 & supporting text.	1-46															
Y	US 6,119,695 A (AUGUSTINE et al) 19 September 2000, Figs 11-17, note element 44 & supporting text.	6, 16, 18-22, 32, 36-40 & 45															
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.																	
* Special categories of cited documents: <table border="0" style="width: 100%;"> <tr> <td style="width: 30%;">"A" document defining the general state of the art which is not considered to be of particular relevance</td> <td style="width: 10%;">"T"</td> <td>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</td> </tr> <tr> <td>"E" earlier document published on or after the international filing date</td> <td>"X"</td> <td>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</td> </tr> <tr> <td>"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)</td> <td>"Y"</td> <td>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</td> </tr> <tr> <td>"O" document referring to an oral disclosure, use, exhibition or other means</td> <td>"&"</td> <td>document member of the same patent family</td> </tr> <tr> <td>"P" document published prior to the international filing date but later than the priority date claimed</td> <td></td> <td></td> </tr> </table>			"A" document defining the general state of the art which is not considered to be of particular relevance	"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	"E" earlier document published on or after the international filing date	"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	"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)	"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	"O" document referring to an oral disclosure, use, exhibition or other means	"&"	document member of the same patent family	"P" document published prior to the international filing date but later than the priority date claimed		
"A" document defining the general state of the art which is not considered to be of particular relevance	"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															
"E" earlier document published on or after the international filing date	"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															
"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)	"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															
"O" document referring to an oral disclosure, use, exhibition or other means	"&"	document member of the same patent family															
"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	Date of mailing of the international search report																
06 MARCH 2002	12 JUN 2002																
Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231	Authorized officer  JOSEPH F. WEISS, JR.																
Facsimile No. (703) 305-3230	Telephone No. (703) 308-0858																

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US01/45614

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6,003,514 A (PAGAN) 21 December 1999, See entire document.	1-46
A	US 5,896,858 A (BRAIN) 27 April 1999, See entire document.	1-46
A	US 5,720,275 A (PATIL et al) 24 February 1998, See entire document.	1-46
A	US 5,197,463 A (JESHURAN) 30 March 1993, See entire document.	1-46
A	US 4,892,095 A (NAKHGEVANY) 09 January 1990, See entire document.	1-46
A	US 4,848,331 A (NORTHWAY-MEYER) 18 July 1989, See entire document.	1-46
A	US 4,327,720 A (BRONSON et al) 04 May 1982, See entire document.	1-46