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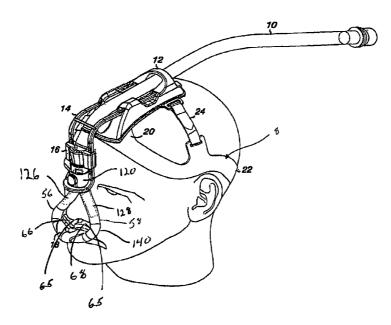
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(54) Title: COMPOSITE MASKS AND METHODS FOR POSITIVE AIRWAY PRESSURE THERAPIES



6 (57) Abstract: Composite masks 18 for providing positive pressure airway therapies are disclosed. The composite masks 18 include 2 an upper body 120 and a lower body 140. The lower body 140 is secured to a lower portion of the upper body 120. The upper body 120 supports at least a portion of the lower body 140. A first branch 126 of the upper body 120 may be secured to a first tube 56 of the lower body 140 and a second branch 128 of the upper body 120 may be secured to a second tube 58 of the lower body 140. An airway interface 65 may be in fluid communication with a first lumen 166 of the first tube 56 and may also be in fluid communication with a second lumen 168 of a second tube 58.



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a. classification of subject matter INV. A61M16/06 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) A61M 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 practical, search terms used) EPO-Internal C. DOCUMENTS CONSIDERED TO BE RELEVANT Category* Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. X US 5 687 715 A (LANDIS ROBERT M [US] ET 1-4,AL) 18 November 1997 (1997-11-18) 10-15 column 5, line 49 - column 6, line 54; figure 1 X US 6 405 729 B1 (THORNTON W KEITH [US]) 1-5,718 June 2002 (2002-06-18) 10-15 column 8, line 24 - column 9, line 23; figures 4.5 X US 2006/081250 A1 (BORDEWICK STEVEN S [US] 1,3,6,7 ET AL) 20 April 2006 (2006-04-20) paragraph [0045]; figure 5 Α WO 2005/076874 A (RIC INVESTMENTS LLC 1-9[US]) 25 August 2005 (2005-08-25) paragraph [0111]; figures 30,31 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 "A" document defining the general state of the art which is not considered to be of particular relevance invention *E* earlier document but published on or after the international "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 "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 citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means document published prior to the international filing date but later than the priority date claimed in the art. "&" document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 29 January 2008 05/02/2008 Name and mailing address of the ISA/ Authorized officer European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040, Tx. 31 651 epo nl, Fax: (+31–70) 340–3016 Kroeders, Marleen

INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 5687715	Α	18-11-1997	NONE		
US 6405729	B1	18-06-2002	NONE		— — — — — — — — — — — — — — — — — — —
US 2006081250	A1	20-04-2006	EP EP WO	1799291 A2 1819402 A2 2006044118 A2	27-06-2007 22-08-2007 27-04-2006
WO 2005076874	А	25-08-2005	AU BR CA EP JP US	2005213358 A1 PI0507505 A 2555268 A1 1713547 A2 2007520321 T 2005205096 A1 2007000495 A1	25-08-2005 26-06-2007 25-08-2005 25-10-2006 26-07-2007 22-09-2005 04-01-2007