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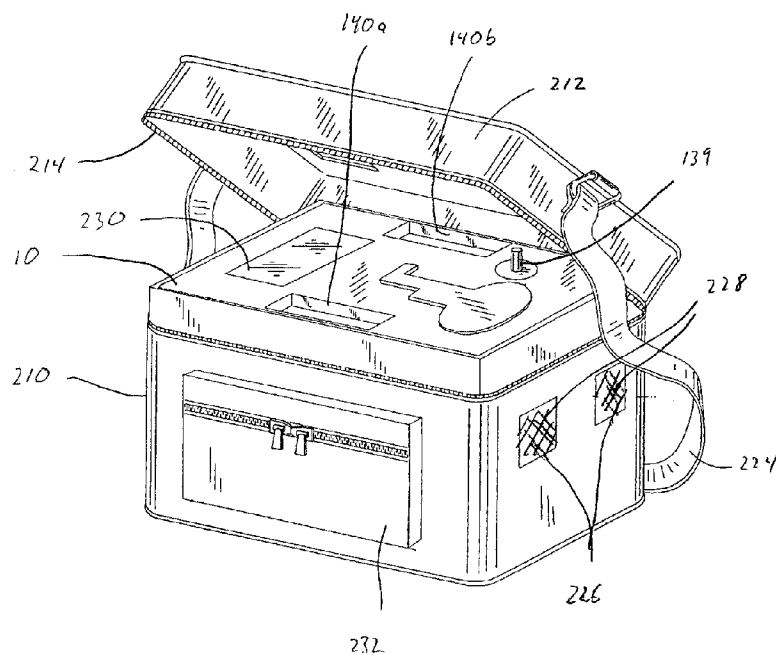
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[Continued on next page]

(54) Title: PORTABLE OXYGEN CONCENTRATOR



(57) Abstract: A portable oxygen concentrator (10) includes a pressure swing absorption system (12A, 12B) adapted to generate a flow of oxygen enriched gas and a battery (148) adapted to provide power to the pressure swing absorption system. The oxygen concentrator has a total weight of less than about 10 lbs, has a maximum flow of 100 % O₂ equivalent gas of about 0.9 lpm, has a total volume less than about 800 in³, and gas a battery life of at least about 8 hours. The present invention also using a liquefaction or transfill system in combination with such an oxygen concentrator.

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B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) IPC(8) - B01D (all subclasses) USPC - 96 (all subclasses) 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) GOOGLE: pressure swing absorption, adsorption, trans-fill, oxygen, concentrator, sound, decibel, dBA, battery, ratio, weight, mass, duration, time, hour, piston, compressor PubWEST (USPT, PGPB, USOC, EPAB, JPAB): pressure swing absorption, compact, portable, lightweight, travel, hour, battery life, bag,		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2002/0053286 A1 (CZABALA) 9 May 2002 (09.05.2002) Entire document, particularly para [0002], [0004], [0033], [0035], [0038], [0041], [0045], [0046], [0050], [0061]. Fig 3-7.	1-18
Y	US 6,551,384 B1 (ACKLEY et al.) 22 April 2003 (22.04.2003). Entire document, particularly col 1, ln 1-13; col 10, ln 1-5.	1-12
Y	US 6,520,176 B1 (DUBOIS et al.) 18 February 2003 (18.02.2003). Entire document, particularly col 3, ln 64 ? col 4, ln 2; col 5, ln 5-10; Fig 1, 2.	13-15
Y	US 2002/0096174 A1 (HILL et al.) 25 July 2002 (25.07.2002). Entire document, particularly para [0005], [0037], [0038], [0053], [0096].	2, 5, 16-18
Y	US 5,988,165 A (RICHEY II, et al.) 23 November 1999 (23.11.1999). Col 8, ln 62-63; col 10, ln 57-60.	9
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