



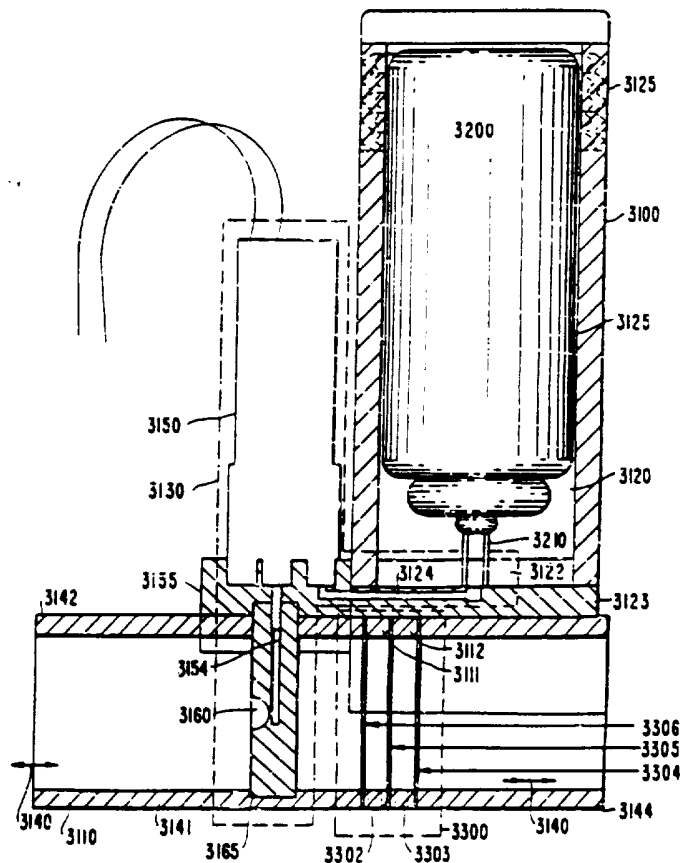
INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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<p>(21) International Application Number: PCT/US92/01815 (22) International Filing Date: 3 March 1992 (03.03.92) (30) Priority data: 664,758 5 March 1991 (05.03.91) US (71) Applicant: MIRIS MEDICAL CORPORATION [US/US]; 1157 Triton Drive, Suite B, Foster City, CA 94404 (US). (72) Inventors: GOODMAN, David, E. ; 25 Williams Street, Brookline, MA 02146 (US). RUBSAMEN, Reid, M ; 102 El Camino Real, Berkeley, CA 94705 (US). (74) Agent: ISACKSON, Robert, M.; Davis Hoxie Faithfull & Hapgood, 45 Rockefeller Plaza, New York, NY 10111 (US).</p>	<p>(81) Designated States: AT (European patent), BE (European patent), CA, CH (European patent), DE (European patent), DK (European patent), ES (European patent), FR (European patent), GB (European patent), GR (European patent), IT (European patent), JP, LU (European patent), MC (European patent), NL (European patent), SE (European patent).</p> <p>Published <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i></p> <p>(88) Date of publication of the international search report: 29 October 1992 (29.10.92)</p>	

(54) Title: DELIVERY OF AEROSOL MEDICATIONS FOR INSPIRATION

(57) Abstract

Apparatus (3130) methods for delivering an amount of aerosolized medicine ((3200) for inspiration by a patient in response to the occurrence of appropriate delivery point or points in the patient's detected breath flow. The aerosol medication may be administered as one or more pulses having a pulse width, shape, and frequency that will maximize the respirable fraction of the aerosolized compound being administered. The delivery points may be predetermined or determined from a prior inspiratory flow for depositing the selected medication at one or more desired locations in the patient's airway. Changes in the patient's breath flow patterns during the course of an aerosolized medication inspiration therapy program may be detected and used to adjust the controlled amount of medication to be delivered in a given administration and/or to inform the patient of the patient's condition or change in condition.



* (Referred to in PCT Gazette No. 27/1992, Section III)

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US92/01815

A. CLASSIFICATION OF SUBJECT MATTER																				
IPC(5) : A61M 11/00, 15/00, 15/08 US CL : 128/200.14, 200.16, 200.23, 203.12, 204.23 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. : 128/200.14, 200.16, 200.23, 203.12, 204.23																				
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Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)																				
C. DOCUMENTS CONSIDERED TO BE RELEVANT																				
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.																		
Y	Respiratory Care; July 1984, Vol. 29, #7; Sulliran et al.; Pneumotachographs: Theory and Clinical Application; pp. 736-749 (See Figure 10 and p 745+)	16,29,44,56																		
Y	US.A, 4,984,158 (HILLSMAN) 08 January 1991 (See Figure 2)	116-129																		
Y	Eur Journal Respirator Dis.; 1981, Vol. 62; Newman et al; How Should A pressurized B-Adrenergic Bronchodilator Be Inhaled? pp 3-20 (See p.8 and Fig. 1)	1-15, 17-28, 30-43, 45-55, 57-115, 130-146																		
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Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. NOT APPLICABLE		Authorized officer <i>Patents Division</i> AARON J. LEWIS NGUYEN NGOC-HO INTERNATIONAL DIVISION Telephone No. (703) 308-0858																		