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• Shibata, Yoshihiko
Okayama-Shi, Okayama-Ken 704 (JP)
• Shimizu, Yoichi
Okayama-Shi, Okayama-Ken 703 (JP)

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(71) Applicant: JAPAN GORE-TEX, INC.
Setagaya-ku Tokyo 156 (JP)

(74) Representative: Jones, Andrée Zena et al
CRUIKSHANK & FAIRWEATHER
19 Royal Exchange Square
Glasgow, G1 3AE Scotland (GB)

(72) Inventors:
• Hamasaki, Sadakatsu
Okayama-Shi, Okayama-Ken 709-08 (JP)

(54) Humidifier assembly

(57) The invention provides an assembly of humidification elements (10) for use in a humidifier unit. The elements consist of porous polymeric membranes (1,2) and support materials formed into planar envelope-type or hollow tubular configurations which are treated with a water- and oil repellent organic polymer in such a way that at least a portion of the structure forming the pores

is coated with the organic polymer, yet the pore volume and air permeability of the porous materials are only minimally affected. Assemblies having spiral-wound, folded, and parallel arrangements of elements are disclosed.

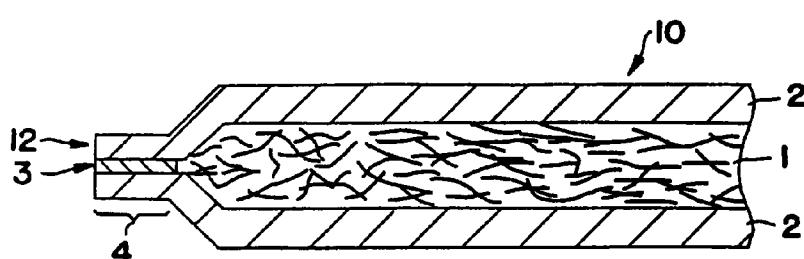


FIG. 1



DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
D, Y	US-A-5 273 689 (HAMASAKI SADAKATU) 28 December 1993 * column 1, line 44 - line 54; claims 1,2; figures * * claim 2 * ---	1,8-15	F24F6/04
A		5-7	
Y	US-A-5 156 780 (KENIGSBERG YITZCHAK ET AL) 20 October 1992 * column 1, line 13 - line 21 * * column 4, line 33 - column 5, line 12 * * column 5, line 21 - line 31 * * claim 1 * ---	1,8-15	
A		2-7, 14-17	
A	EP-A-0 395 100 (ASAHI GLASS CO LTD ;OSAKA GAS CO LTD (JP)) 31 October 1990 * page 1, line 1 - line 4 * * page 1, line 42 - line 48 * * page 3, line 48 - page 5, line 37 * * page 6, line 2 - line 27 * ---	1-17	
A	PATENT ABSTRACTS OF JAPAN vol. 018, no. 127 (M-1569), 2 March 1994 & JP-A-05 312364 (DAIKIN IND LTD), 22 November 1993, * abstract; figure * ---	2-7	TECHNICAL FIELDS SEARCHED (Int.Cl.6)
A	PATENT ABSTRACTS OF JAPAN vol. 011, no. 086 (M-572), 17 March 1987 & JP-A-61 240045 (MITSUBISHI ELECTRIC CORP), 25 October 1986, * abstract; figure * ---	2-7	F24F
D, A	US-A-5 318 731 (YOKOYA HISAO ET AL) 7 June 1994 * figures 2,15-18 * -----	1-17	
The present search report has been drawn up for all claims			
Place of search	Date of completion of the search	Examiner	
THE HAGUE	20 December 1996	Van Dooren, M	
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ----- & : member of the same patent family, corresponding document	