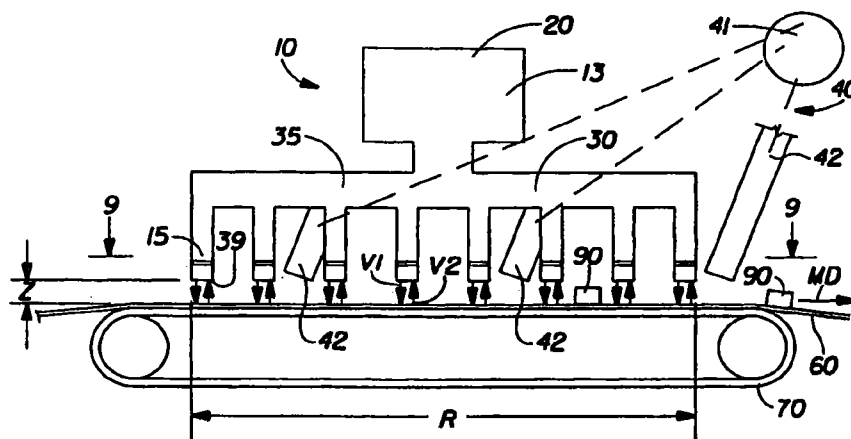




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 7 : D21F 11/14, 5/18, 5/00		A1	(11) International Publication Number: WO 00/01883
			(43) International Publication Date: 13 January 2000 (13.01.00)
(21) International Application Number: PCT/US99/14718 (22) International Filing Date: 29 June 1999 (29.06.99) (30) Priority Data: 09/108,844 1 July 1998 (01.07.98) US 09/108,847 1 July 1998 (01.07.98) US (71) Applicant: THE PROCTER & GAMBLE COMPANY [US/US]; One Procter & Gamble Plaza, Cincinnati, OH 45202 (US). (72) Inventor: STIPP, Gordon, Keith; 8099 Chestershire Drive, Cincinnati, OH 45241 (US). (74) Agents: REED, T., David et al.; The Procter & Gamble Company, 5299 Spring Grove Avenue, Cincinnati, OH 45217-1087 (US).		(81) Designated States: AE, AL, AM, AT, AT (Utility model), AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, CZ (Utility model), DE, DE (Utility model), DK, DK (Utility model), EE, EE (Utility model), ES, FI, FI (Utility model), GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK (Utility model), SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, 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, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>	
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(54) Title: PROCESS FOR REMOVING WATER FROM FIBROUS WEB USING OSCILLATORY FLOW-REVERSING IMPINGEMENT GAS



(57) Abstract

A process and an apparatus for removing water from a fibrous web are disclosed. The process comprises providing a fibrous web having a moisture content from about 10 % to about 90 %; providing an oscillatory flow-reversing impingement gas having frequency of from 15 Hz to 1500 Hz; providing a gas-distributing system comprising a plurality of discharge outlets designed to emit the oscillatory flow-reversing impingement gas onto the web; and impinging the oscillatory flow-reversing gas onto the web through the plurality of discharge outlets, thereby removing moisture from the web. The apparatus comprises a web support designed to receive a fibrous web thereon and to carry it in a machine direction; at least one pulse generator designed to produce oscillatory flow-reversing air or gas; and at least one gas-distributing system in fluid communication with the pulse generator for delivering the oscillatory flow reversing air or gas to the web. The gas-distributing system terminates with a plurality of discharge outlets juxtaposed with the web support such that the web support and the discharge outlets form an impingement distance therebetween, the plurality of the discharge outlets comprising a predetermined pattern defining an impingement area of the web.



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