

PCT

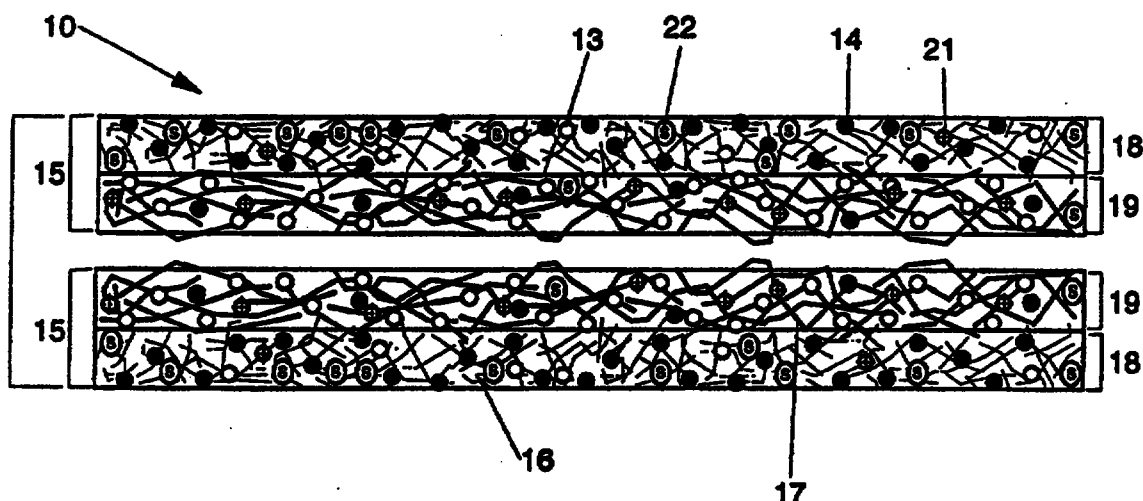
WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 : D21H 17/59, 27/38, 17/07, 21/22		A1	(11) International Publication Number: WO 96/19616																		
			(43) International Publication Date: 27 June 1996 (27.06.96)																		
(21) International Application Number: PCT/US95/15420		(81) Designated States: AL, AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MK, MN, MX, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SK, TJ, TM, TT, UA, UZ, VN, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG), ARIPO patent (KE, LS, MW, SD, SZ, UG).																			
(22) International Filing Date: 28 November 1995 (28.11.95)																					
(30) Priority Data: 08/359,124 19 December 1994 (19.12.94) US																					
(71) Applicant: THE PROCTER & GAMBLE COMPANY [US/US]; One Procter & Gamble Plaza, Cincinnati, OH 45202 (US).		Published With international search report.																			
(72) Inventors: AMPULSKI, Robert, Stanley; 5674 Red Oak Drive, Fairfield, OH 45014 (US). MONTEITH, Joel, Kent; 2887 St. Route #232, Bethel, OH 45106 (US). OSTENDORF, Ward, William; 6331 Oregon Pass, West Chester, OH 45069 (US). PHAN, Dean, Van; 6512 Tylers Crossing, West Chester, OH 45069 (US). TROKHAN, Paul, Dennis; 1356 Warvel Road, Hamilton, OH 45013 (US).		<table border="1"><thead><tr><th colspan="2">REPLACED SHEETS</th><th>SG</th></tr></thead><tbody><tr><td>☒</td><td>Description</td><td>: paged 11 to paged 17</td></tr><tr><td>☒</td><td>Claim(s)</td><td>: paged 51 to paged 54</td></tr><tr><td>☐</td><td>Drawing(s)</td><td>: paged to paged</td></tr><tr><td>☐</td><td>Abstract</td><td>: paged to paged</td></tr><tr><td colspan="3">DATE OF RECEIPT</td></tr></tbody></table>		REPLACED SHEETS		SG	☒	Description	: paged 11 to paged 17	☒	Claim(s)	: paged 51 to paged 54	☐	Drawing(s)	: paged to paged	☐	Abstract	: paged to paged	DATE OF RECEIPT		
REPLACED SHEETS				SG																	
☒	Description	: paged 11 to paged 17																			
☒	Claim(s)	: paged 51 to paged 54																			
☐	Drawing(s)	: paged to paged																			
☐	Abstract	: paged to paged																			
DATE OF RECEIPT																					
(74) Agents: REED, T., David et al.; The Procter & Gamble Company, 5299 Spring Grove Avenue, Cincinnati, OH 45217 (US).																					

(54) Title: TISSUE PAPER PRODUCT COMPRISING A QUATERNARY AMMONIUM COMPOUND, A POLYSILOXANE COMPOUND AND BINDER MATERIALS



(57) Abstract

Tissue paper products comprising a two-component chemical softener composition and binder materials, either permanent or temporary wet strength binders, and/or dry strength binders are disclosed. The two-component chemical softening composition comprises a quaternary ammonium compound and a polysiloxane compound. Preferred quaternary ammonium compounds include dialkyl dimethyl ammonium salts such as di(hydrogenated)tallow dimethyl ammonium chloride and/or di(hydrogenated)tallow dimethyl ammonium methyl sulfate. Preferred polysiloxanes include amino-functional polydimethyl polysiloxanes wherein less than about 10 mole percent of the side chains on the polymer contain an amino-functional group.

11, 52-54