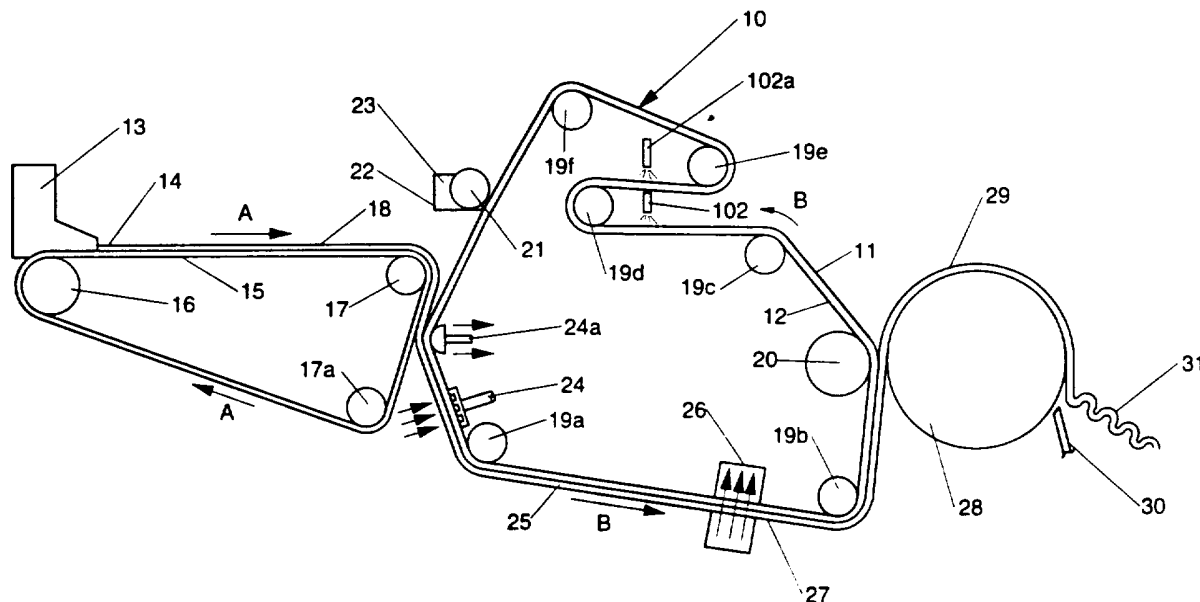




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p>(51) International Patent Classification ⁶ : D21H 17/72</p>	<p>A3</p>	<p>(11) International Publication Number: WO 96/24719 (43) International Publication Date: 15 August 1996 (15.08.96)</p>
<p>(21) International Application Number: PCT/US96/01145 (22) International Filing Date: 22 January 1996 (22.01.96) (30) Priority Data: 08/381,250 31 January 1995 (31.01.95) US (71) Applicant: THE PROCTER & GAMBLE COMPANY [US/US]; One Procter & Gamble Plaza, Cincinnati, OH 45202 (US). (72) Inventors: TROKHAN, Paul, Dennis; 1356 Warvel Road, Hamilton, OH 45013 (US). PHAN, Dean, Van; 6512 Tylers Crossing, West Chester, OH 45069 (US). (74) Agents: REED, T., David et al.; The Procter & Gamble Company, 5299 Spring Grove Avenue, Cincinnati, OH 45217 (US).</p>	<p>(81) Designated States: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, ARIPO patent (KE, LS, MW, SD, SZ, UG), Eurasian patent (AZ, BY, KG, KZ, RU, TJ, TM), 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).</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: 26 September 1996 (26.09.96)</p>	

(54) Title: SOFT TISSUE PAPER CONTAINING AN OIL AND A POLYHYDROXY COMPOUND



(57) Abstract

Tissue paper having an enhanced bulk and tactile softness through incorporation of an effective amount of a polyhydroxy compound and an oil is disclosed. Preferably, from about 0.05 % to about 2.0 % of the polyhydroxy compound, on a dry fiber weight basis, and from about 0.05 % to about 2.0 % of an oil, on a dry fiber weight basis, are incorporated in the tissue paper. These nonionic compounds have high rates of retention when applied to wet tissue paper webs according to the process described herein. Tissue embodiments of the present invention may further comprise a quantity of strength additive, such as starch, to increase paper strength.

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INTERNATIONAL SEARCH REPORT

Inter national Application No
PCT/US 96/01145

A. CLASSIFICATION OF SUBJECT MATTER
IPC 6 D21H17/72

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)
IPC 6 D21H

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 practical, search terms used)

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	US,A,5 449 551 (TANIGUCHI KENJI) 12 September 1995 see column 3, line 9 - line 12 see column 3, line 55 - line 56 see claim 1 ---	1
X	US,A,3 818 533 (SCHEUER F) 25 June 1974 see claim 4 ---	1
A	WO,A,89 01072 (PAPER CHEMISTRY LAB INC) 9 February 1989 see page 17, line 6 - page 18, line 30; claims 12,16 ---	1
A	US,A,5 334 289 (TROKHAN PAUL D ET AL) 2 August 1994 cited in the application --- -/--	

Further documents are listed in the continuation of box C. Patent family members are listed in annex.

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Date of the actual completion of the international search 12 June 1996	Date of mailing of the international search report 01.08.96
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Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (- 31-70) 340-2040, Tx. 31 651 epo nl. Fax: (- 31-70) 340-3016	Authorized officer Sony, 0
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INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 96/01145

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US,A,5 334 286 (VAN PHAN DEAN ET AL) 2 August 1994 -----	

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US96/01145

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
Claim 5 and following claims had not yet received when the International Search Report was issued

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

information on patent family members

International Application No

PCT/US 96/01145

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