

(19)



Europäisches Patentamt

European Patent Office

Office européen des brevets



(11)

EP 1 067 238 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
02.05.2001 Bulletin 2001/18

(51) Int Cl. 7: D21F 7/08

(43) Date of publication A2:
10.01.2001 Bulletin 2001/02

(21) Application number: 00850126.4

(22) Date of filing: 06.07.2000

(84) Designated Contracting States:
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE

Designated Extension States:
AL LT LV MK RO SI

(30) Priority: 09.07.1999 US 350711

(71) Applicant: ALBANY INTERNATIONAL CORP.
Albany, New York 12204 (US)

(72) Inventor: Joyce, Michael J.
Clifton Park, New York 12065 (US)

(74) Representative: Giver, Sören Bo et al
Awapatent AB,
P.O. Box 5117
200 71 Malmö (SE)

(54) Multi-axial press fabric

(57) A multi-axial press fabric includes a base fabric and several layers of staple fiber material attached to the base fabric by needling. The base fabric has at least one layer assembled by spirally winding a woven fabric strip. The base fabric takes the form of an endless loop. The yarns of the woven fabric strip accordingly lie in directions different from the machine- and cross-machine directions of the base fabric, giving the base fabric multi-axial characteristics. Individual fibers in the several layers of staple fiber material attached to the base fabric are predominantly oriented at oblique angles relative to the machine direction of the press fabric. More specifically, they form a crisscrossed angular web.

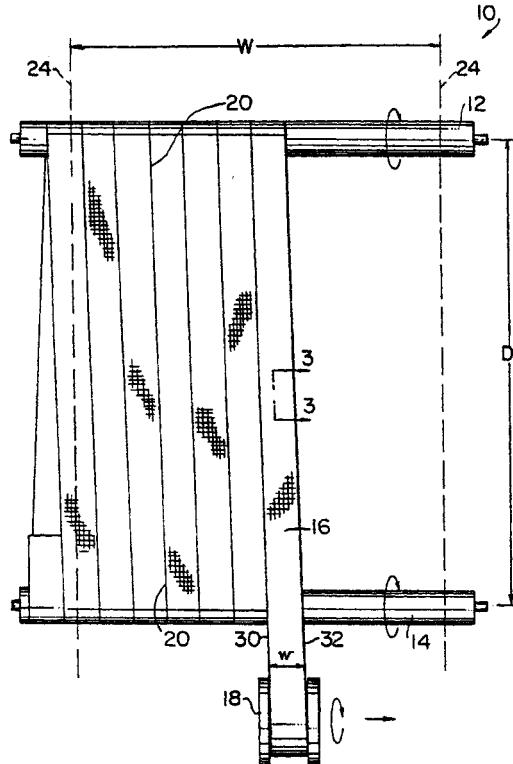


FIG.1



DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
D, A	US 5 360 656 A (REXFELT JAN ET AL) 1 November 1994 (1994-11-01) * abstract; claim 1; figures * * column 4, line 19 - column 5, line 50 * ---	1	D21F/08
A	US 5 202 170 A (HSU CHIEN-YEH ET AL) 13 April 1993 (1993-04-13) * abstract; figures * -----	1	
TECHNICAL FIELDS SEARCHED (Int.Cl.7)			
D21F			
The present search report has been drawn up for all claims			
Place of search	Date of completion of the search		Examiner
THE HAGUE	15 March 2001		Helpiö, T.
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	

ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.

EP 00 85 0126

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on. The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

15-03-2001

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5360656 A	01-11-1994	SE 468602 B AT 129536 T AT 167536 T AU 654165 B AU 9098691 A BR 9107186 A CA 2119784 A,C DE 69114144 D DE 69114144 T DE 69129639 D DE 69129639 T EP 0563150 A EP 0665329 A ES 2078730 T ES 2117311 T FI 932608 A,B, FI 951522 A JP 3027414 B JP 6503385 T NO 304750 B NO 972476 A SE 9004009 A WO 9211411 A SE 469335 B SE 9203442 A	15-02-1993 15-11-1995 15-07-1998 27-10-1994 22-07-1992 03-11-1993 09-07-1992 30-11-1995 04-04-1996 23-07-1998 15-10-1998 06-10-1993 02-08-1995 16-12-1995 01-08-1998 08-06-1993 31-03-1995 04-04-2000 14-04-1994 08-02-1999 30-05-1997 18-06-1992 09-07-1992 21-06-1993 17-11-1992
US 5202170 A	13-04-1993	NONE	