



(43) International Publication Date  
20 December 2012 (20.12.2012)

- (51) International Patent Classification:  
*D04H 1/45* (2006.01)      *D04H 1/4291* (2012.01)  
*D04H 1/435* (2012.01)
- (21) International Application Number:  
PCT/US2012/042492
- (22) International Filing Date:  
14 June 2012 (14.06.2012)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
61/497,260      15 June 2011 (15.06.2011)      US  
13/523,410      14 June 2012 (14.06.2012)      US
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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ,

CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(88) Date of publication of the international search report:  
4 April 2013

(54) Title: STITCH BONDED CREPED FABRIC CONSTRUCTION

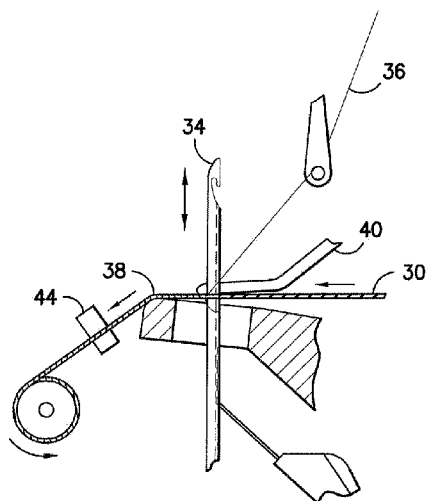


FIG. -1-

(57) Abstract: A stitch-bonded fabric construction in which broadly spaced parallel linear stitch lines are applied through a very low weight fibrous substrate to stabilize the substrate in the machine direction. Texture is imparted by applying significant overfeed conditions to the stitching substrate thereby causing a substantial bunching of the substrate at the stitching position. The resulting product has an arrangement of alternating ridges and valleys running predominantly in the cross-machine direction. The stabilizing linear stitch lines lock in the puckered texture.



**A. CLASSIFICATION OF SUBJECT MATTER*****D04H 1/45(2006.01)i, D04H 1/435(2012.01)i, D04H 1/4291(2012.01)i***

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)

D04H 1/45; D05B 35/08; B32B 5/04; B32B 3/06; A47K 7/02; D03D 27/00; B32B 3/10; D04H 5/02; H05H 1/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) &amp; Keywords: stitched bonded creped fabric, spunbonded, stretch, overfeed

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2008-0166520 A1 (ZAFIROGLU, D. P. et al.) 10 July 2008 See abstract, claim 1, paragraphs [0052], [0058], [0090].	1-19
A	US 2003-0207637 A1 (WILDEMAN, M.) 6 November 2003 See abstract, claims 1-2, paragraphs [0010]-[0012].	1-19
A	US 2008-0280094 A1 (WILDEMAN, M. et al.) 13 November 2008 See abstract, claims 1-2, paragraph [0037].	1-19
A	US 5623888 A (ZAFIROGLU, D. P.) 29 April 1997 See abstract, claims 1-9.	1-19
A	US 6124001 A (SUGITA, Y. et al.) 26 September 2000 See abstract, claims 10, 12, column 1, lines 56-column 2, lines 32.	1-19

 Further documents are listed in the continuation of Box C. See patent family annex.

\* Special categories of cited documents:

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"&amp;" document member of the same patent family

Date of the actual completion of the international search

31 JANUARY 2013 (31.01.2013)

Date of mailing of the international search report

**01 FEBRUARY 2013 (01.02.2013)**

Name and mailing address of the ISA/KR



Facsimile No. 82-42-472-7140

Authorized officer

YANG, In Su

Telephone No. 82-42-481-8131



**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International application No.

**PCT/US2012/042492**

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US20080166520 A1	10.07.2008	CN 101578412 A	11.11.2009
		US 7875334 B2	25.01.2011
		WO 2008-086260 A1	17.07.2008
US20030207637 A1	06.11.2003	US 6593256 B1	15.07.2003
US20080280094 A1	13.11.2008	EP 2144749 A1	20.01.2010
		US 2012-030893 A1	09.02.2012
		US 8060973 B2	22.11.2011
		WO 2008-137909 A1	13.11.2008
US5623888 A	29.04.1997	EP 0695382 A1	07.02.1996
		EP 0695382 B1	09.07.1997
		JP 03-452320 B2	18.07.2003
		JP 08-509271 A	01.10.1996
		KR 10-1996-0702026 A	28.03.1996
		WO 94-24353 A1	27.10.1994
US6124001 A	26.09.2000	EP 0688665 A2	27.12.1995
		EP 0688665 B1	11.10.2006
		JP 03-366759 B2	01.11.2002
		JP 03-376111 B2	29.11.2002
		JP 03-400115 B2	21.02.2003
		JP 08-001840 A	09.01.1996
		JP 08-001842 A	09.01.1996
		JP 08-174764 A	09.07.1996
		JP 3366759 B2	14.01.2003
		JP 3376111 B2	10.02.2003
		JP 3400115 B2	28.04.2003
		KR 10-0162706 B1	01.12.1998
		US 05702798A A	30.12.1997