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INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶:

B32B 5/26, 7/14, D05C 17/00, B32B
31/00

(11) International Publication Number:

WO 97/06946

A3

(43) International Publication Date:

27 February 1997 (27.02.97)

(21) International Application Number:

PCT/IB96/01093

(22) International Filing Date:

21 August 1996 (21.08.96)

(30) Priority Data:

08/517,283

21 August 1995 (21.08.95)

US

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(81) Designated States: AL, AM, AT, AT (Utility model), AU (Petty patent), AZ, BB, BG, BR, BY, CA, CH, CN (Utility model), CZ (Utility model), DE, DE (Utility model), DK, DK (Utility model), EE, ES, FI, FI (Utility model), GB, GE, HU, IL, IS, JP (Utility model), KE, KG, KP (Inventor's certificate), 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, US, UZ, VN, ARIPO patent (KE, LS, MW, SD, SZ, UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, 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).

Published

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.

(88) Date of publication of the international search report: 20 March 1997 (20.03.97)

(54) Title: COMPOSITE RAVEL-FREE NEEDLEWORK FABRIC AND METHOD OF PRODUCING SAME

(57) Abstract

A composite laminated, non distortable needlework fabric material comprised of a primary layer of non-elastic, open-mesh woven needlework fabric material having a uniform gridwork pattern with mesh apertures defined by wrap and weft threads and a relatively thin secondary mesh-stabilizing layer of sheer non-elastic, random-spun synthetic fiber sheet material coextensively inferfaced with the primary layer and permanently bonded at its interfaced surface to the adhesive coated and impregnated crest portions of the wrap and weft threads of the woven needlework material. The sheer secondary layer is bonded to the primary layer by an adhesive which in heated liquid form is: initially applied to the crest portions of the wrap and weft threads on the upper surface of a moving web of the primary layer of woven needlework fabric; permitted to cool and partially cure; and thereafter reactivated to a near melted state. The moving web of the primary layer of woven needlework fabric with reactivated adhesive is united at its upper surface, under pressure and cooling, with a moving web of the sheer random-spun synthetic fiber sheet material to form the composite laminated needlework fabric material.

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INTERNATIONAL SEARCH REPORT

It attonal Application No PCT/IB 96/01093

A. CLASSIFICATION OF SUBJECT MATTER IPC 6 B32B5/26 B32B7/14 D05C17/00 B32B31/00 According to International Patent Classification (IPC) or to both national classification and IPC Minimum documentation searched (classification system followed by classification symbols) B32B D05C D04H IPC 6 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) C. DOCUMENTS CONSIDERED TO BE RELEVANT Category ' Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. 1,3,4 X US 4 778 706 A (KATZ MARCELLA M) 18 October 1988 cited in the application 2,5-7 see column 4, line 32 - line 57; claims; figures 1-7; examples 1,2 8-11 see column 6, line 41 - column 7, line 6 X US 4 623 573 A (KATZ MARCELLA M) 18 1,3,4 November 1986 cited in the application see column 6, line 8 - line 42; claims; figures; example 2 8-11 see column 7, line 37 - column 8, line 32 US 4 640 529 A (KATZ MARCELLA M) 3 2,5-7February 1987 see column 5, line 1 - line 25; claims 11,13,16 -/--Χ Patent family members are listed in annex. X Further documents are listed in the continuation of box C. Special categories of cited documents: "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the "A" document defining the general state of the art which is not considered to be of particular relevance invention "E" earlier document but published on or after the international "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such docu-"O" document referring to an oral disclosure, use, exhibition or other means ments, such combination being obvious to a person skilled in the art. document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family Date of mailing of the international search report Date of the actual completion of the international search 10,02.97 30 January 1997 Authorized officer 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 Pamies Olle, S

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INTERNATIONAL SEARCH REPORT

Ir ational Application No PCT/IB 96/01093

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT	<u> </u>
altegory Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
US 2 777 779 A (K.J. HARWOOD ET AL.) 15 January 1957 see the whole document	8-11

INTERNATIONAL SEARCH REPORT

Information on patent family members

In tional Application No
PCT/IB 96/01093

Patent document cited in search report	Publication date	Patent family member(s)		Publication date	
US-A-4778706	18-10-88	NONE			
US-A-4623573	18-11-86	CA-A- EP-A- JP-B- JP-A- US-A-	1239861 0207289 6028934 61283537 4668325	02-08-88 07-01-87 20-04-94 13-12-86 26-05-87	
US-A-4640529	03-02-87	CA-A- DE-A- DE-T- EP-A- JP-A-	1266721 3688419 3688419 0218922 62078000	13-03-90 17-06-93 13-01-94 22-04-87 10-04-87	
US-A-2777779	15-01-57	US-A-	2719337	04-10-55	