

12 **EUROPEAN PATENT APPLICATION**

21 Application number: 80304048.4

51 Int. Cl.³: **D 02 G 1/20**
D 02 G 3/34

22 Date of filing: 12.11.80

30 Priority: 13.11.79 US 93199
16.06.80 US 159691

43 Date of publication of application:
20.05.81 Bulletin 81/20

88 Date of deferred publication of search report: 16.12.81

84 Designated Contracting States:
AT BE CH DE FR GB IT LI LU NL SE

71 Applicant: **MILLIKEN RESEARCH CORPORATION**
P.O. Box 1927
Spartanburg South Carolina 29304(US)

72 Inventor: **Eschenbach, Paul William**
Route 1, 100 Lakeland Moore
Spartanburg South Carolina 29369(US)

74 Representative: **Pears, David Ashley et al,**
REDDIE & GROSE 16 Theobalds Road
London WC1X 8PL(GB)

54 **Twisted slub yarn and apparatus and method of making the yarn.**

57 A novelty slub yarn is produced by combining a false twisted core yarn and effect yarn in an air jet. The average feed rate of the effect yarn exceeds that of the core yarn but the effect yarn feed rate is intermittently reduced and abruptly increased in a randomly timed manner to produce randomly distributed slubs 51 with circular filament coils 53. The feed rate changes are established by a path deviating device which

increases and abruptly reduces the path length for the effect yarn with a rebound at the end of the path length reduction such that each slub 51 is closely followed by a small nub 54. In a modified embodiment the path deviating device reduces the core yarn path length as it increases the effect yarn path length and vice versa.

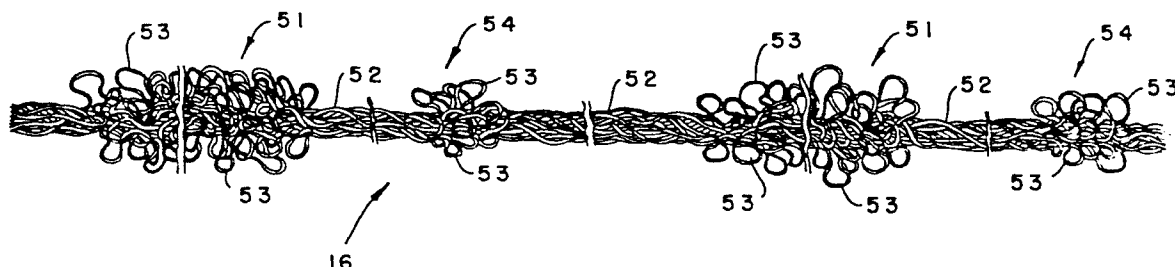


FIG. -3-



European Patent
Office

EUROPEAN SEARCH REPORT

0028939

Application number
EP 80 30 4048

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int. Cl.)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
	<u>US - A - 4 159 619 (AKZONA)</u> * Claims 1,5,7,8; column 2, lines 3-27, 55-60; column 3, lines 15-20, 37-42; figure 3; column 4, lines 5-46 * ---	1,2,4, 5,6,9, 12	D 02 G 1/20 D 02 G 3/34
	<u>US - A - 4 058 968 (OWENS-CORNING)</u> * Claims 1,2,5,6,10,17,18,20-22; figures 2,3; column 7, lines 1-11 * ---	1,3,5, 6,11, 14,15	
A	<u>US - A - 4 016 715 (BURLINGTON)</u> * Claims 1-4. * ---	9	TECHNICAL FIELDS SEARCHED (Int. Cl.) D 02 G 1/20 D 02 G 1/16 D 02 G 3/34 D 01 H 5/36
A	<u>US - A - 3 113 413 (KODAK)</u> * Claim 1; figure 5; column 6, lines 40-52; column 4, line 66 to column 5, line 2 * -----	2,5,7, 12	
			CATEGORY OF CITED DOCUMENTS X: particularly relevant A: technological background O: non-written disclosure P: intermediate document T: theory or principle underlying the invention E: conflicting application D: document cited in the application L: citation for other reasons
The present search report has been drawn up for all claims			& member of the same patent family. corresponding document
Place of search The Hague		Date of completion of the search 25.09.1981	Examiner CATTOIRE