

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
27 December 2002 (27.12.2002)

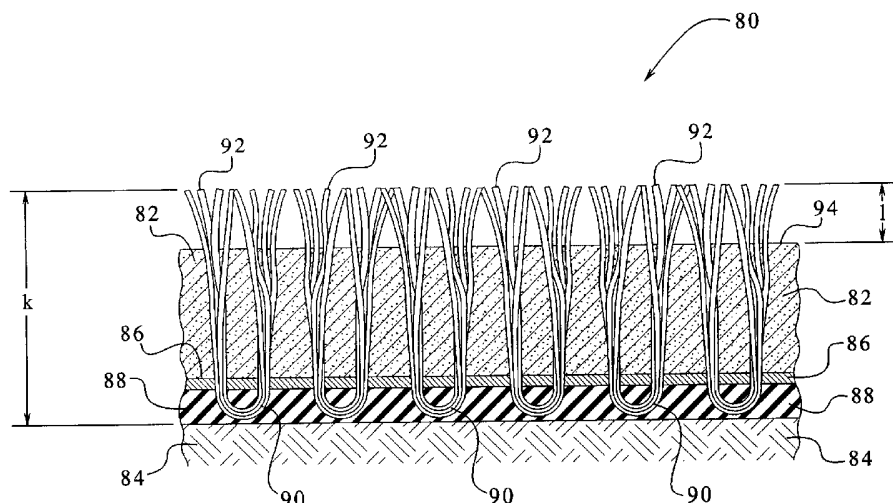
PCT

(10) International Publication Number
WO 02/103115 A3

- (51) International Patent Classification⁷: A01N 3/00, B32B 3/02, 5/16
- (74) Agent: CONNORS, Robert, W.; Bell, Boyd & Lloyd LLC, P.O. Box 1135, Chicago, IL 60690-1135 (US).
- (21) International Application Number: PCT/US01/43524
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW.
- (22) International Filing Date: 16 November 2001 (16.11.2001)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 09/727,276 30 November 2000 (30.11.2000) US; 09/816,524 23 March 2001 (23.03.2001) US
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- (71) Applicant: AVTURF L.L.C. [US/US]; 53 West Jackson Boulevard, Suite 1524, Chicago, IL 60604 (US).
- (72) Inventors: CARR, Patrick; 8637 Brookside Drive, Tinley Park, IL 60477 (US). COLLETT, Dale, L.; 3692 Highway 67, Sedalia, CO 80135 (US). SCHOMBURG, William, L.; #6 Drawbridge, Suite #5, Springfield, IL 62704 (US). SULLIVAN, Thomas, M.; 10317 South Longwood Drive, Unit L-7, Chicago, IL 60643 (US).
- Published: — with international search report

[Continued on next page]

(54) Title: ARTIFICIAL TURF FOR AN AIRPORT FILED



(57) Abstract: The present invention includes a safety system for airports and airfields (30). The present invention includes a method for installing an aesthetically pleasing artificial turf (32) that repels birds and other animals and a sub-surface that supports the weight of an aircraft, enhances water drainage and enables the accessibility of airport vehicles to all parts of a runway or taxiway (34). The sub-surface is also adaptable to be an arresting bed that slows the motion of a runway airplane. The present invention further, includes a repelling artificial turf, which includes synthetic fibers (172) as well as stiff fibers or fibers otherwise uncomfortable for an animal or bird. Still further, the present invention includes a multi-pigmented artificial turf adaptable to define a plurality of different shapes and patterns. The multi-colored turf can define numbers, letters and airport symbols .



WO 02/103115 A3



(88) Date of publication of the international search report:
1 May 2003

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US01/43524

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A01N 3/00; B32B 3/02, 5/16

US CL : 428/17, 85, 87, 92, 95, 96, 212, 323; 119/712, 713; 273/Dig 13

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)

U.S. : 428/17, 85, 87, 92, 95, 96, 212, 323; 119/712, 713; 273/Dig 13

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
NONE

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

Please See Extra Sheet.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6,048,282 A (PROVOST et al) 11 April 2000, col. 4, lines 24-67.	1-155
Y	US 5,958,527 A (PROVOST) 28 September 1999, col. 5, lines 16-67.	1-155
A	US 5,986,551 A (PUEYO et al) 16 November 1999, col. 3, lines 43-65.	154-155
Y	US 4,396,653 A (TOMARIN) 02 August 1983, col. 3, lines 1966.	1-153
A	US 5,672,352 A (CLARK et al) 30 September 1997, col. 7, lines 46-62.	154-155
Y	US 5,586,408 A (BERGEVIN) 24 December 1996, col. 3, lines 37-67.	1-153

Further documents are listed in the continuation of Box C.

See patent family annex.

* 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 invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier document published on or after the international filing date	"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 documents, such combination being obvious to a person skilled in the art
"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)	"&"	document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means		
"P" document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search

10 DECEMBER 2002

Date of mailing of the international search report

28 JAN 2003

Name and mailing address of the ISA/US
Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231

Facsimile No. (703) 305-3230

Authorized officer

ABRAHAM BAHTA

Telephone No. (703) 308-4412

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US01/43524**Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)**

This international 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:

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.