

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
13 May 2004 (13.05.2004)

PCT

(10) International Publication Number
WO 2004/040574 A1

(51) International Patent Classification⁷: **G11B 23/00**, 7/24

J. [US/US]; 3510 Andalusia Court, Green Bay, WI 54301 (US).

(21) International Application Number:
PCT/US2003/033834

(74) Agents: **FRANKS, James, R.** et al.; Bayer Polymers LLC, 100 Bayer Road, Pittsburgh, PA 15205-9471 (US).

(22) International Filing Date: 27 October 2003 (27.10.2003)

(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, EG, 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, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10/281,662 28 October 2002 (28.10.2002) 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, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(71) Applicants (*for all designated States except US*): **BAYER POLYMERS LLC** [US/US]; 100 Bayer Road, Pittsburgh, PA 15205-9741 (US). **FLEXITY LLC** [US/US]; 2325 Pamperin Road, Green Bay, WI 54313 (US).

(72) Inventors; and

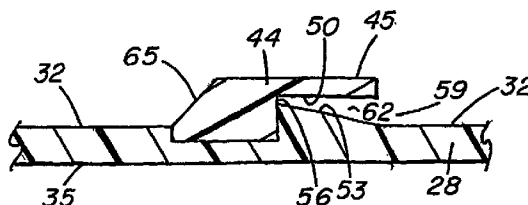
(75) Inventors/Applicants (*for US only*): **BOISSON-NEAULT, Ronald, A.** [US/US]; 8302 Hilltop Circle, Imperial, PA 15126 (US). **PISIPATI, Ramesh, M.** [US/US]; 2663 Ravenwood Court, Wexford, PA 15090 (US). **GELARDI, Anthony, L.** [US/US]; P.O. Box 7213, Cape Porpoise, ME 04014 (US). **WITTKOPF, Eugene, W.** [US/US]; 3096 Maple Grove Road, Auamico, WI 54713 (US). **GELARDI, Tatiana, L.** [US/US]; P.O. Box 2757, Kennebunkport, ME 04046 (US). **BARBEE, David,**

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

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.

(54) Title: DIGITAL DATA STORAGE ASSEMBLY ABSTRACT OF THE DISCLOSURE



(57) Abstract: A digital data storage assembly (2), e.g., a flexible thin film compact disc, is described. Digital data storage assembly (2) includes, (a) a thin film data storage carrier (11), having substantially opposed first (14) and second (17) surfaces, a aperture (20) defined in part by a pair of substantially opposed arcuate sides (97, 97') and a pair of substantially opposed substantially straight sides (94, 94'), and at least one tab (23, 26) extending partially into aperture (20). The assembly (2) also includes, (b) a rigid support (29) having substantially opposed first (32) and second (35) surfaces, and an aperture (38). The assembly (2) further includes, (c) a locking device (41) positioned at least partially around aperture (38) of rigid support (29). Locking device (41) includes at least one shelf (44, 47) extending out over a portion of the first surface (32) of rigid support (29). The shelf (e.g., 44) and a portion (e.g., 53) of the first surface (32) of rigid support (29) residing thereunder together define a slot (e.g., 62), having an open end (59) and a closed end (56). The second surface (17) of thin film data storage carrier (11) abuts at least a portion of the first surface (32) of rigid support (29). The aperture (20) of data storage carrier (11), and the aperture (38) of rigid support (29) are substantially aligned. Thin film data storage carrier (11) is reversibly fixed to rigid support (29) by means of the tab (e.g., 23 and 26) of data storage carrier (11) being reversibly received within the slot (e.g., 62 and 62'). Also described is a thin film data storage carrier support (5), and a thin film data storage carrier (11) having an aperture (20).