IPO's copy
9805666-6.

PCT WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 : G11B 5/48 — A1

(11) International Publication Number: WO 97/43757

(43) International Publication Date: 20 November 1997 (20.11.97)

(21) International Application Number: PCT/GB97/00503

(22) International Filing Date: 24 February 1997 (24.02.97)

(30) Priority Data:
08/644,878 10 May 1996 (10.05.96) US

(71) Applicant: INTERNATIONAL BUSINESS MACHINES CORPORATION [US/US]; Armonk, NY 10504 (US).

(71) Applicant *(for MC only)*: IBM UNITED KINGDOM LIMITED [GB/GB]; P.O. Box 41, North Harbour, Portsmouth, Hampshire PO6 3AU (GB).

(72) Inventors: BROOKS, William, Woodrow, Jr.; 628 22nd Street N.E., Rochester, MN 55906 (US). HILLMAN, Wesley, LeRoy; 1070 Dunne Avenue, Morgan Hill, CA 95037 (US). PALMER, Darrell, Dean; 1090 Foxhurst Way, San Jose, CA 95120 (US). SIMMONS, Randall, George; 7180 Stoesser Court, San Jose, CA 95120 (US). VOSS, Steven, Harry; 2841 75th Street N.E., Rochester, MN 55901 (US). SHUM, Wing, Chun; 3589 Deedham Drive, San Jose, CA 95148 (US).

(74) Agent: LING, Christopher, John; IBM United Kingdom Limited, Intellectual Property Dept., Hursley Park, Winchester, Hampshire SO21 2JN (GB).

(81) Designated States: CN, CZ, HU, JP, KR, PL, RU, SG, VN, European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

Published
With international search report.

(54) Title: A MULTI-PIECE INTEGRATED SUSPENSION ASSEMBLY FOR A MAGNETIC STORAGE SYSTEM

(57) Abstract

An integrated suspension (50) for a slider (48) in a magnetic storage system (40) has a simplified structure that is relatively easy to manufacture. The novel integrated suspension (50) may be assembled from separate pieces, including a load beam (58), a flexure (60) and a mounting plate (62). The load beam (58) provides rigid structural support of the flexure (60). The flexure (60) includes a flexible member (74) and leads (64) integrally formed thereon. A section of the flexible member (74) is fixedly attached to the load member, and another section having the slider (48) mounted thereon presses against a pivot projection (92) in the load beam for gimbal motions. An interlocking structure is provided to limit the extent of gimbal motions of the flexible member (74), comprising a tab (94) extending from the flexible member (74) into an aperture in the load beam. Alternatively, a tang (122) is formed in the flexible member (112) which is used to form a clip which serves to limit gimbal motions as it interacts with the load beam.

