

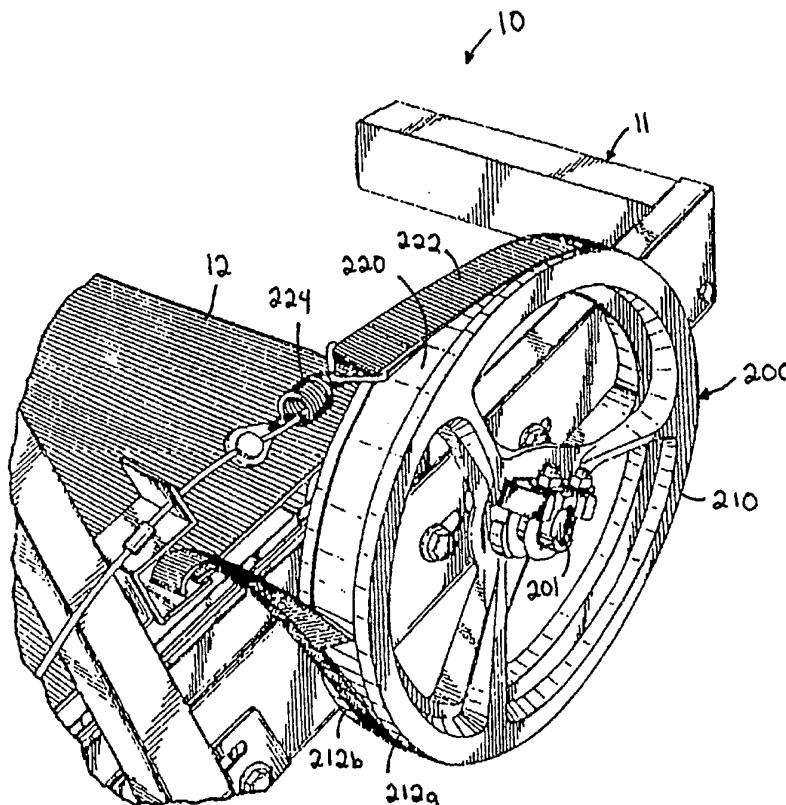


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(21) International Application Number: PCT/US94/01038 (22) International Filing Date: 27 January 1994 (27.01.94) (30) Priority Data: 08/009,458 27 January 1993 (27.01.93) US (71) Applicant: NORDICTRACK, INC. [US/US]; 104 Peavey Road, Chaska, MN 55318 (US). (72) Inventors: NYLEN, James, E.; 7219 109th Circle N., Champlin, MN 55316 (US). ROSE, Steven, A.; 708 E. Minnehaha Pkwy., Minneapolis, MN 55417 (US). WOOD, Terrence, D.; 6971 Hickory Circle, Fridley, MN 55432 (US). (74) Agent: SMITH, Stephanie, J.; NordicTrack, Inc., Legal Dept. E-471, 11 Peavey Road, Chaska, MN 55318 (US).	(81) Designated States: AT, AU, BB, BG, BR, BY, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, MG, NO, NZ, PL, PT, RO, RU, SE, UA, VN, European patent (AT, BE, CH, DE, DK, ES, 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 <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i> (88) Date of publication of the international search report: 15 September 1994 (15.09.94)	

(54) Title: FLYWHEEL RESISTANCE MECHANISM FOR EXERCISE EQUIPMENT**(57) Abstract**

The present invention provides a flywheel resistance mechanism (200) for exercise equipment. The flywheel (210) rotates subject to frictional resistance created by contact between a drag strap (222) and an outer cylindrical surface (220) on the flywheel (210). The outer cylindrical surface (220) has a surface roughness of between fifteen (15) microinches and one hundred and fifty (150) microinches.



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INTERNATIONAL SEARCH REPORT

International Application No.

PCT/US 94/01038

A. CLASSIFICATION OF SUBJECT MATTER
IPC 5 A63B21/015

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)

IPC 5 A63B

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.
A	US,A,4 981 294 (DALEBOUT ET AL.) 1 January 1991 see column 3, line 62 - column 4, line 40; figures ---	1,11,19
A	EP,A,0 058 052 (HERBERT TERRY & SONS LIMITED) 18 August 1982 see page 4, last paragraph; figure ---	1,11,19
A	US,A,4 023 795 (PAULS) 17 May 1977 cited in the application see column 3, line 43 - line 57; figures 1,5,6 ---	1,11,19
A	US,A,5 072 929 (PETERSON ET AL.) 17 December 1991 cited in the application see abstract; figures 2,4 -----	1,11,19



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INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US-A-4981294	01-01-91	US-E- RE34478	14-12-93
EP-A-0058052	18-08-82	NONE	
US-A-4023795	17-05-77	CA-A- 1077988 DE-A, C 2656893	20-05-80 23-06-77
US-A-5072929	17-12-91	AU-A- 8003791 WO-A- 9119547	07-01-92 26-12-91