

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
23 October 2003 (23.10.2003)

PCT

(10) International Publication Number
WO 03/087459 A1

(51) International Patent Classification⁷: **D06F 21/04**,
23/02, 33/00, 37/04, 37/10, 37/22, 37/26, 37/28, 37/30,
37/42, 39/04, 39/12, 39/14, 58/04, 58/06, 58/08, 58/22,
58/26, 58/28, F16H 1/16, 7/08, 7/20, 19/00, 63/00, 63/02,
G05G 15/04, 15/08, F16M 7/00, A47B 91/00

(21) International Application Number: PCT/NZ03/00065

(22) International Filing Date: 10 April 2003 (10.04.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
518290 10 April 2002 (10.04.2002) NZ
525195 4 April 2003 (04.04.2003) NZ

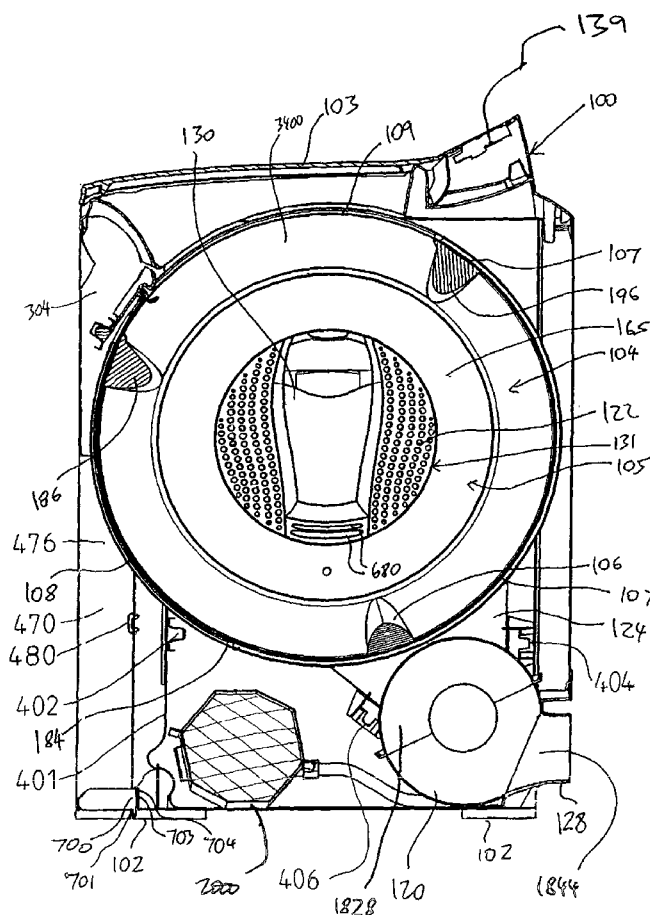
(71) Applicant (for all designated States except US): **FISHER
& PAYKEL APPLIANCES LIMITED** [NZ/NZ]; 78
Springs Road, East Tamaki, 1706 Auckland (NZ).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **GUINIBERT,
Allen, James** [NZ/NZ]; 178 Mt Albert Road, Mt Al-
bert, 1004 Auckland (NZ). **JACKSON, Russell, Joseph**
[NZ/NZ]; 137 Maraetai Drive, Maraetai, 1705 Auckland
(NZ). **JOHNSON, Hugh, Griffith** [NZ/NZ]; 34 Scarbor-
ough Terrace, Parnell, 1001 Auckland (NZ). **ABRAHAM,
Bradley, Clive** [NZ/NZ]; 28 Copperfield Terrace, How-
ick, 1704 Auckland (NZ). **PITT, Daniel, Keith, Raphael**
[NZ/NZ]; 5/78 Owens Road, Epsom, 1003 Auckland (NZ).
ESKILDSSEN, Olaf, Adrian, Hojland [NZ/NZ]; 3/2 Cot-
ton Street, St Johns, 1006 Auckland (NZ). **GRAMADA,
Radu** [NZ/NZ]; 34 Cornwall Park Avenue, Epsom, 1003
Auckland (NZ). **MCGREGOR, Bruce, Reginald, Frank**
[NZ/NZ]; 6 West Street, Papakura, 1703 Auckland (NZ).
FRAZERHURST, Geoffrey, Simon [NZ/NZ]; 5 Marvon
Downs Avenue, Pakuranga, 1706 Auckland (NZ). **VE-
LANDIA, Armando, Morles** [VE/NZ]; 31 Commodore
Parry Road, Milford, 1309 Auckland (NZ). **HILGERS,**

[Continued on next page]

(54) Title: A LAUNDRY APPLIANCE



(57) Abstract: A laundry machine (100) with a horizon-
tal rotating drum (104) which includes a drum hatch (108)
comprises a section of the cylindrical wall (107). A motor
(1800) is connected to drive rotation of the drum (104) via
a belt (1810) tensioned via a pair of yoke (2900) mounted
pulleys (2910). A hatch engaging member (2001) is actu-
able to grasp and hold the drum hatch (108) relative to the
cabinet (101). The operating system includes: 1) an open-
ing operation in which the drum hatch (108) is grabbed
by the hatch engaging member (201) and the drum (104)
is rotated to expose an opening; 2) a closing operation in
which the drum (104) is rotated to re-close the opening
with the drum hatch (108); and 3) a drying operation. Also
disclosed are: A) heating arrangement; B) clothes extend-
ing outside drum detecting means; C) drum rotation light
sensor; D) self-levelling foot arrangement; E) filter seal ar-
rangements; F) hatch engaging system; G) cabinet casing
arrangement; H) dryer control system.

WO 03/087459 A1



Andy, Alexander [NL/NZ]; 57 Grey Street, Onehunga, 1006 Auckland (NZ). **HIRST, Daryl, Leonard** [NZ/NZ]; 7 Omana Heights Drive, Maraetai, 1705 Auckland (NZ).

(74) Agents: ADAMS, Matthew, D et al.; A J Park, 6th Floor Huddart Parker Building, PO Box 949, 6015 Wellington (NZ).

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

(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).

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.