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(12) **United States Design Patent** (10) **Patent No.:** **US D804,766 S**
McKinnon et al. (45) **Date of Patent:** **** Dec. 5, 2017**

(54) **WHEEL**
(71) Applicant: **ROTACASTER WHEEL LTD**
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3,882,885 A 5/1975 McCain
3,944,094 A 3/1976 Compton
3,961,694 A 6/1976 Murakami
4,006,810 A 2/1977 Kornylak
4,223,753 A 9/1980 Bradbury et al.
4,335,889 A 6/1982 Cather, Jr. et al.

(Continued)

(73) Assignee: **ROTACASTER WHEEL LTD**, Tighes Hill (AU)

FOREIGN PATENT DOCUMENTS

(**) Term: **14 Years**

AU 561380 B2 5/1987
CA 2622950 A1 3/2007

(Continued)

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OTHER PUBLICATIONS

Related U.S. Application Data

Facility Safety Management magazine dated Apr. 2011, Self-Supporting & Balanced.

(Continued)

(63) Continuation of application No. 13/138,032, filed as application No. PCT/AU2010/001419 on Oct. 25, 2010, now Pat. No. 9,248,698.

Primary Examiner — Cynthia Ramirez

(51) **LOC (10) Cl.** **12-05**

(74) *Attorney, Agent, or Firm* — TraskBritt, P.C.

(52) **U.S. Cl.** **D34/29**
USPC **D34/29**

(57) **CLAIM**

(58) **Field of Classification Search**
USPC D34/29, 35; 301/5.23; 29/894;
198/786, 787, 789; D8/375, 499
CPC B65G 13/10; B65G 13/08; B65G 13/07;
B65G 13/071; B65G 2207/34
See application file for complete search history.

The ornamental design for a wheel, as shown and described.

DESCRIPTION

(56) **References Cited**

The application is also related to U.S. patent application Ser. No. 29/419,172, filed Apr. 25, 2012, now U.S. Pat. No. D676,214, the contents of the entirety of which is also incorporated herein by this reference.

U.S. PATENT DOCUMENTS

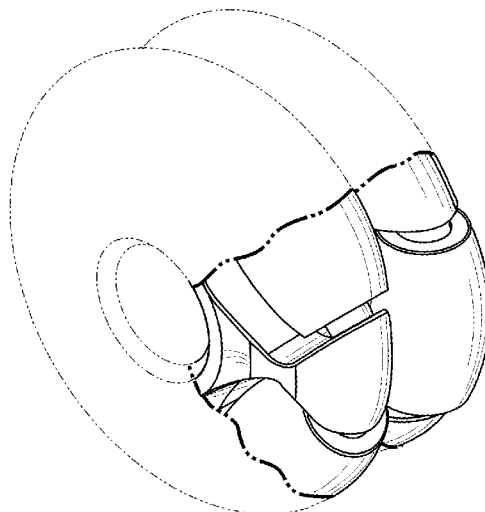
FIG. 1 is a perspective view of a wheel showing our new design;

1,326,679 A 12/1919 MacBeth
3,040,371 A 6/1962 Rice et al.
3,363,735 A 1/1968 Hotchkiss
3,465,843 A 9/1969 Guinot
3,621,961 A 11/1971 Stumpf
3,647,236 A 3/1972 Hayes
3,655,212 A 4/1972 Krass
3,666,285 A 5/1972 Fertig
3,789,947 A 2/1974 Blumrich
3,878,927 A 4/1975 Murakami

FIG. 2 is a side view thereof;
FIG. 3 is a front view thereof;
FIG. 4 is a top view thereof; and,
FIG. 5 is the other side view thereof.

The dash-dot-dot broken lines in the figures are for the purpose of illustrating portions of the wheel and form no part of the claimed design.

1 Claim, 2 Drawing Sheets



(56)

References Cited

FOREIGN PATENT DOCUMENTS

U.S. PATENT DOCUMENTS

4,460,189 A 7/1984 Goff et al.
 4,598,782 A 7/1986 Ilon et al.
 4,681,330 A 7/1987 Misawa
 4,715,460 A 12/1987 Smith et al.
 D294,074 S 2/1988 Sogge
 4,926,952 A 5/1990 Farnam
 D309,254 S 7/1990 Guile
 4,981,203 A 1/1991 Kornylak
 5,035,314 A 7/1991 Kornylak
 D318,791 S 8/1991 Guile
 5,118,124 A 6/1992 Storay
 5,213,176 A 5/1993 Oroku et al.
 D340,342 S 10/1993 Nummelin et al.
 5,323,867 A 6/1994 Griffin et al.
 5,404,984 A 4/1995 Hagman
 5,415,215 A 5/1995 Covert et al.
 5,445,399 A 8/1995 Salvucci
 5,536,074 A 7/1996 Hsu et al.
 5,779,251 A 7/1998 Meier et al.
 5,947,491 A 9/1999 Meier et al.
 5,971,693 A 10/1999 Story et al.
 D426,692 S 6/2000 Swanink
 D439,721 S 3/2001 Swanink
 6,315,109 B1 11/2001 Dean
 6,340,065 B1 1/2002 Harris
 6,341,788 B1 1/2002 Ciccone
 6,357,765 B1 3/2002 Heien
 6,364,328 B1 4/2002 Stahler, Sr.
 6,394,203 B1 5/2002 Harris
 6,547,340 B2 4/2003 Harris
 6,619,823 B2 9/2003 Dai
 6,796,618 B2 9/2004 Harris
 6,857,707 B2 2/2005 Guile
 6,923,457 B2 8/2005 Nogaki
 D516,767 S 3/2006 Layne
 7,083,174 B2 8/2006 Kane
 7,219,903 B2 5/2007 Grooters et al.
 7,318,628 B2 1/2008 Guile
 7,431,148 B2 10/2008 Li et al.
 7,500,682 B1 3/2009 Del Marmol
 7,566,102 B2 7/2009 Guile
 7,621,355 B2 11/2009 Chu et al.
 7,641,288 B1 1/2010 Baker et al.
 7,878,284 B1 2/2011 Shultz
 7,980,335 B2 7/2011 Potter
 D658,843 S 5/2012 Wedemeyer
 D676,214 S 2/2013 McKinnon et al.
 8,496,299 B2 7/2013 Brudniok
 8,556,279 B2 10/2013 McKinnon
 2002/0057010 A1 5/2002 Harris
 2004/0256818 A1 12/2004 Amsili
 2005/0134106 A1 6/2005 Guile
 2007/0096541 A1 5/2007 Guile
 2008/0018167 A1 1/2008 Fuji
 2009/0278325 A1 11/2009 Geels et al.
 2012/0019048 A1 1/2012 McKinnon et al.

CN 101417586 A 4/2009
 CN 201342911 Y 11/2009
 CN 201881894 U 6/2011
 CN 202011305 U 10/2011
 CN 102700358 A 10/2012
 DE 3702660 A1 8/1988
 GB 1408820 A 10/1975
 GB 2242173 A 9/1991
 GB 2242858 A 10/1991
 JP 11227404 A 8/1999
 JP 2000335726 A 12/2000
 JP 2003267259 A 9/2003
 JP 2003276402 A 9/2003
 JP 2004359149 A 12/2004
 JP 3726558 B2 12/2005
 JP 200722342 A 2/2007
 JP 4003082 B2 11/2007
 JP 4483206 B2 6/2010
 KR 101013676 B1 2/2011
 KR 1020120056950 A 6/2012
 WO 0012327 A1 3/2000
 WO 0179007 A1 10/2001
 WO 0224471 A1 3/2002
 WO 0246031 A1 6/2002
 WO 2004014667 A1 2/2004
 WO 2010127985 A1 11/2010
 WO 2011047443 A1 4/2011
 WO 2011148017 A1 12/2011

OTHER PUBLICATIONS

Material Handling Wholesaler magazine dated Oct. 2, 2009, New ergonomic Rotatruck Self Supporting Hand Truck nominated for annual NSW Safe Work Award.
 DorsaVi outcome summary of handtruck assessment and comparison, date issued Jun. 5, 2011.
 DorsaVi handtruck assessment-full report, dated Apr. 2011.
 Roll Flex & Ergo Roll, <http://www.wergotechinc.com/op_ergo_roll.htm> (as archived by Internet Archive WayBackMachine with a date range of Oct. 21, 2008 to Sep. 28, 2010).
 The freedom of motion! <www.marx-rollentechnik.de/englisch/index.php>, at least Oct. 9, 2009 (as archived by Internet Archive WayBackMachine search run on Aug. 15, 2012).
 All-side rollers, <<http://www.traporol.de/all-side-rollers.html>>, at least Oct. 19, 2008 (as archived by Internet Archive WayBackMachine search run on Aug. 15, 2012).
 Kornylak Corporation, Conveyor Wheels, Omni Directional, BiDirectional, Powered & Robot Wheels, <<http://www.kornylak.com/wheels/wheels.html>>, (as archived by Internet Archive WayBackMachine search run on Aug. 15, 2012).
 PCT International Preliminary Report on Patentability and Written Opinion, PCT/AU2010-001419, dated Apr. 24, 2012.

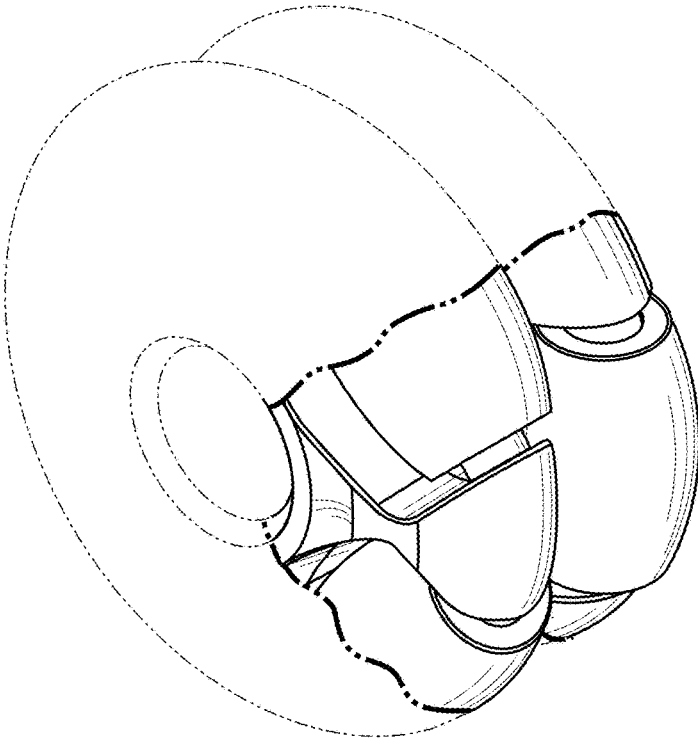


FIG. 1

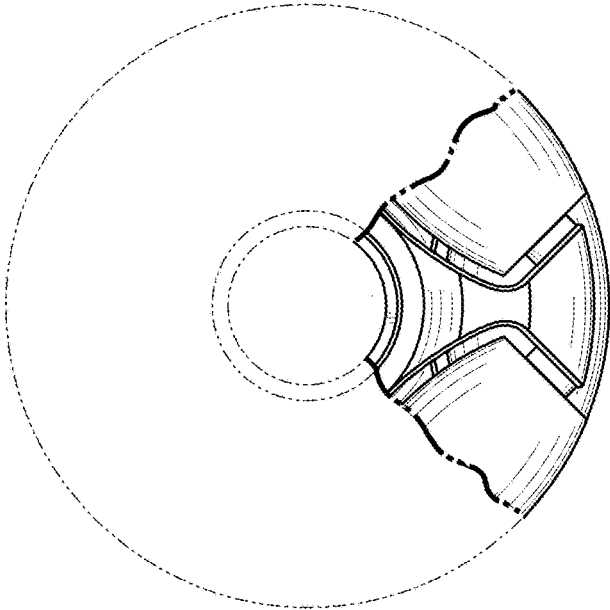


FIG. 2

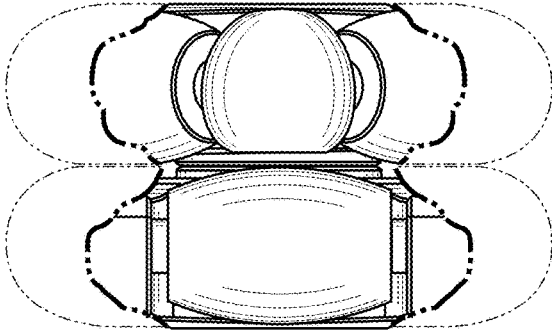


FIG. 3

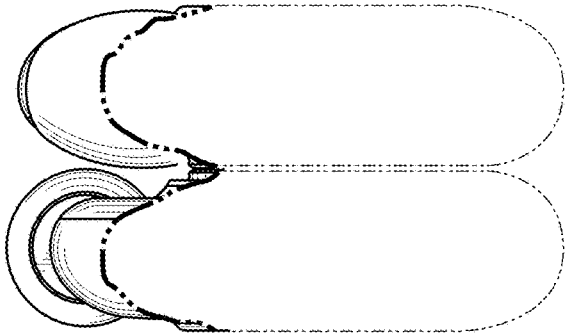


FIG. 4

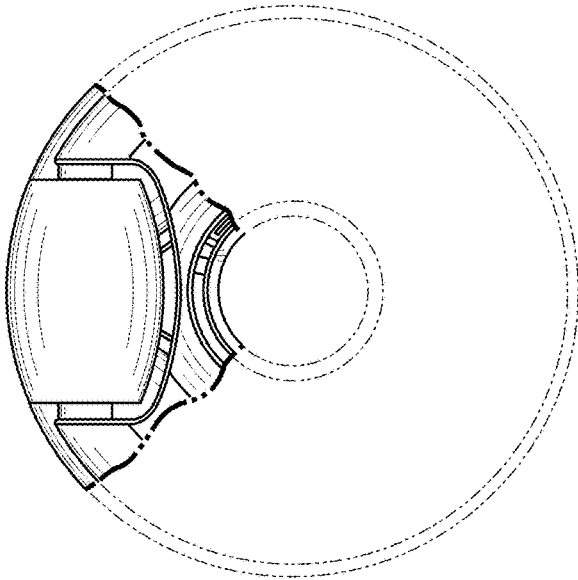


FIG. 5