



- (51) International Patent Classification:
E06B 9/322 (2006.01)
- (21) International Application Number:
PCT/US2013/050080
- (22) International Filing Date:
11 July 2013 (11.07.2013)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
61/671,212 13 July 2012 (13.07.2012) US
13/939,699 11 July 2013 (11.07.2013) US
- (71) Applicant: NEWELL WINDOW FURNISHINGS, INC.
[US/US]; 4110 Premier Drive, High Point, North Carolina 27265 (US).
- (72) Inventors: DEFENBAUGH, Michael; 1247 Winding Branch Circle, Dunwoody, Georgia 30338 (US). HYDE, Tim; 1661 Bush Street #7, San Francisco, California 94109 (US). JOHNSON, Brian Bellamy; 6301 Azalea Garden Drive, Atlanta, Georgia 30338 (US). MAUST, Joshua; 1506 Queen Anne Court, Roswell, Georgia 30350

(US). MORALES, Miguel; 2243 Asbury Square, Atlanta, Georgia 30346 (US).

(74) Agent: WILLIAMSON, Dennis J.; Moore & Van Allen, PLLC, P.O. Box 13706, Research Triangle Park, North Carolina 27709 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV,

[Continued on next page]

(54) Title: WINDOW COVERING AND OPERATING SYSTEM

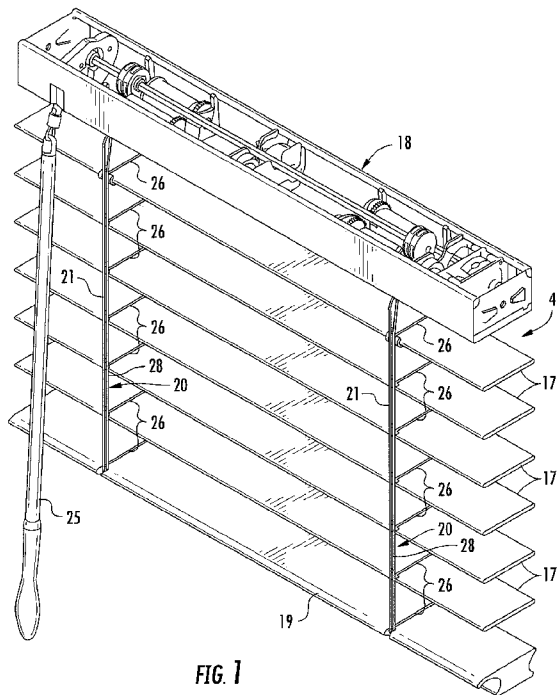


FIG. 1

(57) Abstract: A window covering includes a head rail that supports a panel by lift cords such that one end of the panel may be raised and lowered relative to the head rail. An operating system controls movement of the panel and includes spools coupled to the lift cords such that rotation of the spools retracts and extends the lift cords. A shaft is connected to a spool of the lift spool assembly and to a brake and a spring motor. The spring motor applies a motor force to the shaft and the brake applies a brake force to the shaft such that the forces generated by the spring motor and brake hold the panel in the desired position.

WO 2014/011883 A3



MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK,
SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, KM, ML, MR, NE, SN, TD, TG).

Published:

— *with international search report (Art. 21(3))*

Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

(88) Date of publication of the international search report:

16 July 2015

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US2013/50080

A. CLASSIFICATION OF SUBJECT MATTER
 IPC(8) - E06B 9/322 (2013.01)
 USPC - 160/170
 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(8) - E06B 9/24, 9/26, 9/264, 9/28, 9/30, 9/303, 9/32, 9/322, 9/56, 9/60, 9/62, 9/68, 9/80, 9/90; F03G 1/00 (2013.01)
 USPC - 160/133, 170, 171, 178.1R, 192, 241, 292, 299, 307, 309, 313, 315, 319, 405; 185/39, 45

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
 CPC - E06B 9/32, 9/322, 9/60, 9/90, 2009/3225 (2013.01)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 PatBase, Google Patents, Google

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|--------------|--|--------------------------------|
| X -- Y | US 2006/0000561 A1 (ANDERSON et al) 05 January 2006 (05.01.2006) entire document | 11-19 ----- 25-31 |
| X -- Y | US 2009/0242332 A1 (ANDERSON et al) 01 October 2009 (01.10.2009) entire document | 20-24 ----- 1-9,25,32-34 |
| Y | US 6,571,853 B1 (CIUCA et al) 03 June 2003 (03.06.2003) entire document | 1-9 |
| Y | US 2,701,611 A (GRIESSER) 08 February 1955 (08.02.1955) entire document | 1-9 |
| Y | US 2004/0177933 A1 (HILLMAN et al) 16 September 2004 (16.09.2004) entire document | 9,26-34 |

Further documents are listed in the continuation of Box C.

| | |
|---|--|
| * Special categories of cited documents: | "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention |
| "A" document defining the general state of the art which is not considered to be of particular relevance | "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone |
| "E" earlier application or patent but published on or after the international filing date | "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art |
| "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) | "&" document member of the same patent family |
| "O" document referring to an oral disclosure, use, exhibition or other means | |
| "P" document published prior to the international filing date but later than the priority date claimed | |

| | |
|---|---|
| Date of the actual completion of the international search 22 November 2013 | Date of mailing of the international search report 11 DEC 2013 |
| Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201 | Authorized officer: Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774 |