

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
12 August 2010 (12.08.2010)

(10) International Publication Number
WO 2010/090797 A1

(51) International Patent Classification:

F16K 31/50 (2006.01) **F16K 41/00** (2006.01)

(21) International Application Number:

PCT/US20 10/020823

(22) International Filing Date:

12 January 2010 (12.01.2010)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/149,978 4 February 2009 (04.02.2009) US

(71) Applicant (for all designated States except US):
CAMERON INTERNATIONAL CORPORATION
[US/US]; 1333 W Loop South, Suite 1700, Houston, TX
77027 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **MOSMAN, Bradley,
Wayne** [US/US]; 601 N. Park Avenue, Shawnee, OK
74801 (US).

(74) Agent: SWANSON, Tait, R.; 79 15 FM 1960 West, Suite
330, Houston, TX 77070 (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, 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, KM, 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, PE, PG, PH, PL, PT, RO, RS, RU, 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.

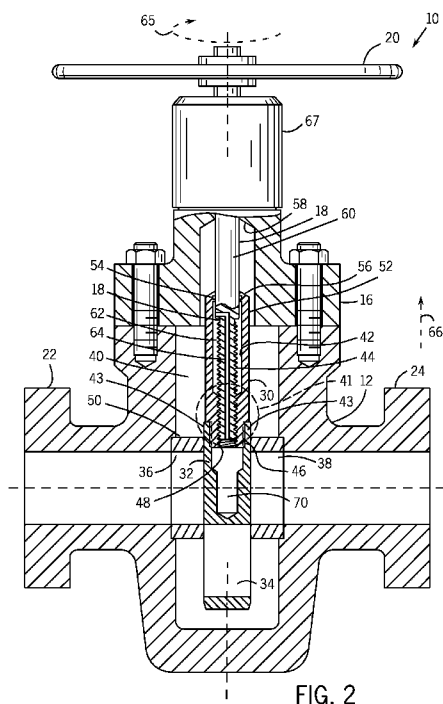
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.1 7(H))

[Continued on next page]

(54) Title: DRIVE SLEEVE AND SEALING MECHANISM FOR NON-RISING STEM GATE VALVE



(57) Abstract: A non-rising stem gate valve is provided that includes a drive sleeve (30) disposed between the gate (32) and the stem (18). The drive sleeve is coupled to the stem and isolates the moveable connection between the sleeve and the stem from fluid in the valve. The drive sleeve is also coupled to the gate such that movement of the drive sleeve along the stem moves the gate between the open and closed positions of the valve. Systems and methods incorporating the non-rising stem gate valve are also disclosed.



— as to the applicant's entitlement to claim the priority of — before the expiration of the time limit for amending the
the earlier application (Rule 4.17(Hi)) claims and to be republished in the event of receipt of
amendments (Rule 48.2(h))

Published:

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