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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
1 November 2001 (01.11.2001)

PCT

(10) International Publication Number
WO 01/81801 A2

(51) International Patent Classification[7]: F16K

(21) International Application Number: PCT/US01/13697

(22) International Filing Date: 26 April 2001 (26.04.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/199,795 26 April 2000 (26.04.2000) US

(71) Applicant: **FMC CORPORATION** [US/US]; 200 E. Randolph Drive, Chicago, IL 60187 (US).

(72) Inventors: **BARTLETT, Christopher, D.**; 8506 Shadow Valley Lane, Spring, TX 77388 (US). **CUNNINGHAM, Christopher, E.**; 3511 Walnut Forrest Court, Spring, TX 77388 (US). **CANNING, Andrew, J.**; 15 Boquhanran Place, Clydebank, Dunbartonshire (GB). **CAIN, David, E.**; 1502 Anvil Drive, Houston, TX 77090 (US). **JONES, Taylor, L.**; 5403 Forest Haven, Houston, TX 77066 (US). **COUTO, Paulo, A.**; Rua Gustavo Sampaio, 710/2002 Leme, Rio de Janeiro (BR).

(74) Agent: **QUERY, Henry, C., Jr.**; 504 S. Pierce Ave., Wheaton, IL 60187 (US).

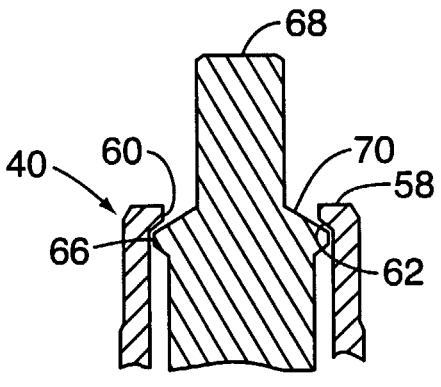
(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.

(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:
— *without international search report and to be republished upon receipt of that report*

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.

(54) Title: COMBINATION POPPET AND GATE VALVE



(57) Abstract: The present invention is directed to a valve for controlling the flow of fluid through a component which includes a flow conduit extending therethrough. The valve comprises a first closure member for controlling the flow of fluid through the conduit, a second closure member for controlling the flow of fluid through the conduit, and a valve stem which is connected to both the first and second closure members. The stem is responsive to an external force to move the first and second closure members from a closed position, in which the fluid is blocked from flowing through the conduit by both the first and second closure members, to an open position, in which the fluid is permitted to flow through the conduit past both the first and second closure members.

WO 01/81801 A2