

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
22 November 2001 (22.11.2001)

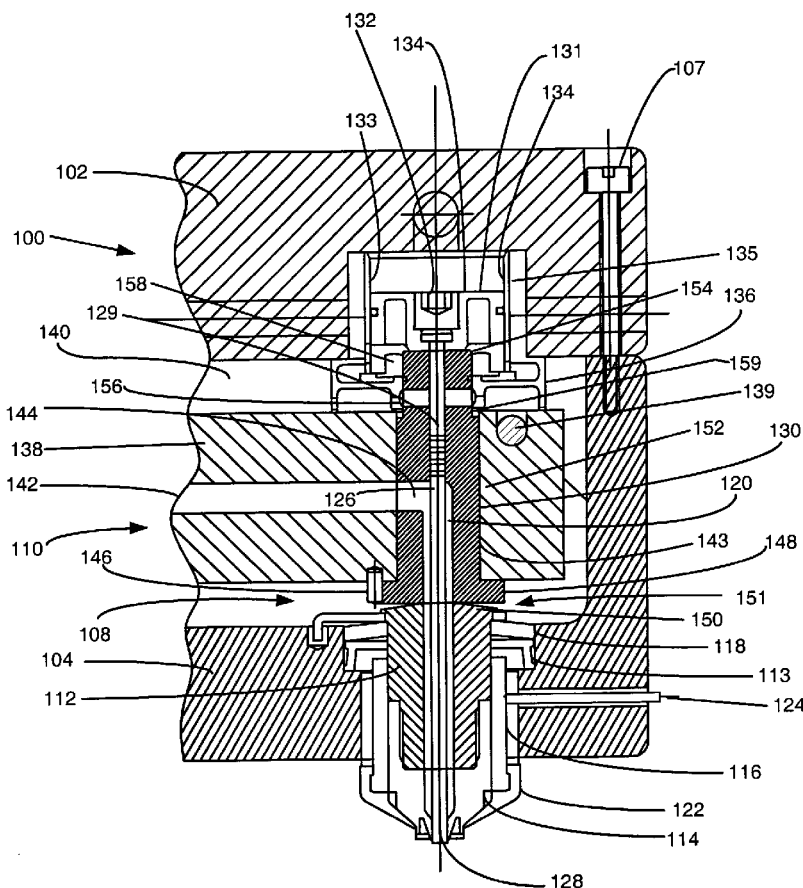
PCT

(10) International Publication Number
WO 01/87570 A1

- (51) International Patent Classification⁷: **B29C 45/27**
- (21) International Application Number: PCT/CA01/00258
- (22) International Filing Date: 28 February 2001 (28.02.2001)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
09/575,353 19 May 2000 (19.05.2000) US
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- (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).

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(54) Title: IMPROVED HOT RUNNER SEALING APPARATUS AND METHOD



(57) Abstract: The present invention relates to an apparatus and method for injecting molten plastic. The apparatus and method includes a novel non-flat sealing interface therein that prevents the premature leakage of molten plastic. A nozzle with a non-flat sealing surface is brought into intimate contact with a manifold or bushing. Within the manifold, the bushing and the nozzle is a melt channel for communication of molten plastic to the mold. Thermal expansion at the non-flat interface as well as an initial preload creates a concentrated sealing pressure distribution that prevents leakage of the molten plastic from the melt channel. In one embodiment of the present invention, the bushing has a passageway through which a valve-stem is inserted for closing off a gate in the nozzle.

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