



(51) International Patent Classification:

F23D 14/58 (2006.01) *F23D 14/12* (2006.01)
F23G 7/06 (2006.01) *F23D 14/70* (2006.01)

(21) International Application Number:

PCT/GB2015/053781

(22) International Filing Date:

10 December 2015 (10.12.2015)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

1422247.5 15 December 2014 (15.12.2014) GB

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(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, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, 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, SA, 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, ST, 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, 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))

(54) Title: EFFLUENT GAS INLET ASSEMBLY FOR A RADIANT BURNER

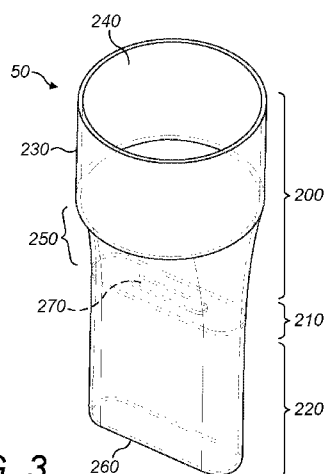


FIG. 3

(57) Abstract: An inlet assembly (50) for a burner and a method are disclosed. The inlet assembly (50) comprises: an inlet nozzle defining an inlet aperture (240) coupleable with an inlet conduit providing an effluent gas stream for treatment by the burner, a non-circular outlet aperture (260), and a nozzle bore extending along a longitudinal axis between the inlet aperture (240) and the outlet aperture (260) for conveying the effluent gas stream from the inlet aperture (240) to the outlet aperture (260) for delivery to the combustion chamber of the burner, the nozzle bore having an inlet portion (200) extending from the inlet aperture (240), an outlet portion (220) extending to the non-circular outlet aperture (260), and a baffle portion (210) with a reduced baffle aperture (270) in-between. In this way, the non-circular outlet aperture (260) provides a non-circular effluent gas stream flow into the combustion chamber. The non-circular effluent gas flow enables a greater volume of effluent gas stream to be introduced into the combustion chamber whilst still achieving or exceeding the required levels of abatement. This is because a non-circular effluent gas stream provides a reduced distance along which diffusion and reaction needs to occur compared to that of an equivalent circular effluent gas stream. Hence, an increased volume of effluent gas stream can be abated, compared to that of an equivalent circular effluent gas stream.

