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(71) Applicant (for all designated States except US): **FOS-ECO INTERNATIONAL LIMITED** [GB/GB]; Coleshill Road, Fazeley, Tamworth, Staffordshire B78 3TL (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **MORALES, Rodolfo, Davila** [MX/MX]; Bohemia 9 No. 15, Bosques Del Lago, CUAUTI-Estado de Mexico (MX). **GARCIA,**

Lino, Demedices [MX/MX]; Calle 26 No. 56, Col. Guadalupe-Proletaria, C P 076070 (MX).

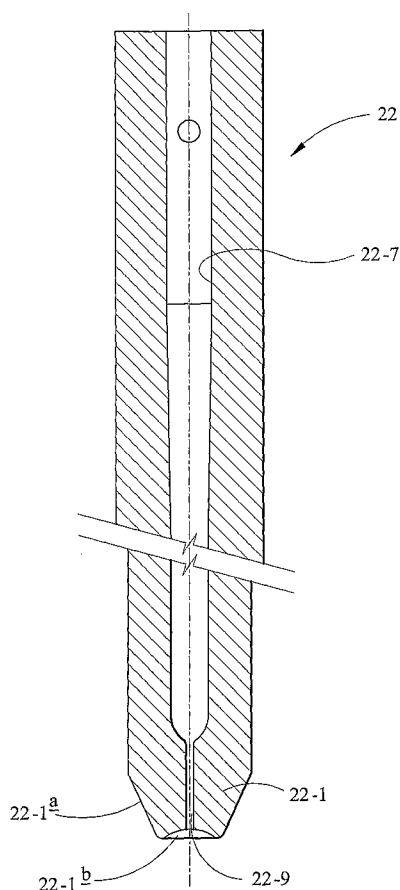
(74) Agent: **MOSEY, Stephen, George**; Marks & Clerk, Alpha Tower, Suffolk Street, Queensway, Birmingham B1 1TT (GB).

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(54) Title: TUNDISH STOPPER ROD FOR CONTINUOUS MOLTEN METAL CASTING



(57) Abstract: Stopper rod (22) for the continuous casting of molten metal have a stopper rod body (22-3), and a stopper rod tip (22-1) at a lower end of the stopper rod body. The stopper rod tip defines a frustoconically shaped exterior surface (22-1a) which terminates in a recessed nose (22-1b). The recessed nose has most preferably a curvilinear surface (e.g., a spherical segment), but non-curvilinear surfaces (e.g., prismatic, pyramidal, triangular, and quadrangular surfaces) may alternatively be employed. The frustoconically shaped exterior surface (22-1a) of the stopper rod tip most preferably forms an angle with respect to a horizontal plane which is sufficiently great so as to increase the velocity of the flowing molten metal to reduce the boundary layer thickness thereof adjacent the nozzle and stopper rod tip surfaces so as to minimize the deposition of inclusions thereon. Preferably the angle θ is greater than 70° and less than 85° .



FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT,
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