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(54) **Injection nozzle**

(57) An injection nozzle for use in delivering fuel to a combustion space includes a valve member in the form of a valve needle (18) which is slidable within a bore (11) and engageable with a seating (12A) to control fuel flow through an outlet opening (25A, 25B). The valve needle (18) includes first and second surfaces (27, 29) of substantially conical or frusto-conical form, and a circumferential groove (26) formed in the valve needle

(18) intermediate the first and second surfaces (27, 29). The second surface (29) of the valve needle (18) is disposed eccentrically relative to the first surface (27), thereby providing the effect of a bushy spray upon relatively low amounts of valve needle lift away from the seating, whilst maintaining good spray symmetry throughout the remainder of the range of travel of the valve needle (18).

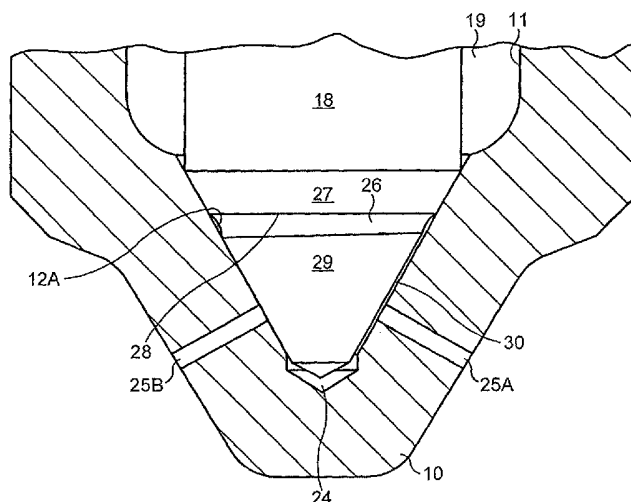


FIG. 3



European Patent
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EUROPEAN SEARCH REPORT

Application Number
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Place of search THE HAGUE		Date of completion of the search 4 March 2004	Examiner Morales, M
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**ANNEX TO THE EUROPEAN SEARCH REPORT
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