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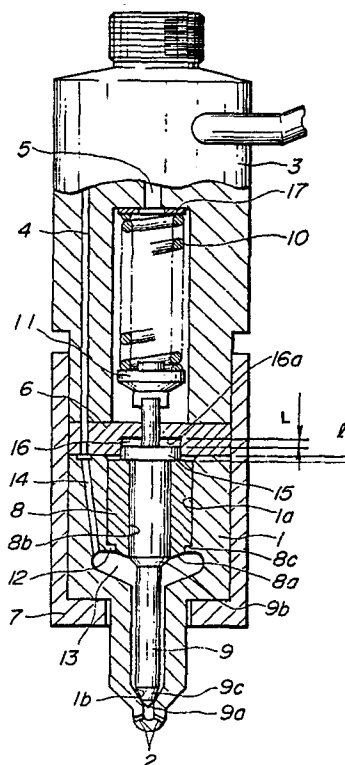
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54 **Fuel injector.**

57 An auxiliary sleeve (8) is movable together with a needle valve (9) at a first stage of lift so that a larger pressure receiving area (8a+9b+9c) is subjected to fuel pressure for driving the needle valve (9). At the second stage of lift, the needle valve (9) is movable solely so that a smaller pressure receiving area (9b+9c) is subjected to fuel pressure for driving the needle valve. A single nozzle spring (10) is utilized for urging the needle valve (9) and the auxiliary sleeve (8) in a predetermined direction.

FIG.1





DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
X	DE-C- 581 476 (BOSCH) * page 1, line 47 - page 2, line 45; figure 1 *	1	F 02 M 45/08
A	---	5-8	
X	FR-A-2 333 973 (BOSCH) * page 3, lines 15-31; page 4, lines 5-13; claim 3; figures 2,4 *	1,2	
Y	---	9	
A	---	3-8	
P,X	EP-A-0 280 401 (LUCAS LIMITED) * column 1, line 48 - column 2, line 54; figure *	1	
P,A	---	5-8	
E	GB-A-2 215 397 (LUCAS LIMITED) * claims 1,2; page 3, line 18 - page 5, line 31; figures 1,2 *	1-5	
Y	FR-A-2 050 592 (FFSA) * page 2, line 26 - page 3, line 24; figures 1-3 * -----	9	TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			F 02 M
The present search report has been drawn up for all claims			
Place of search BERLIN		Date of completion of the search 04-07-1990	Examiner NOVELLI B.
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ----- & : member of the same patent family, corresponding document	