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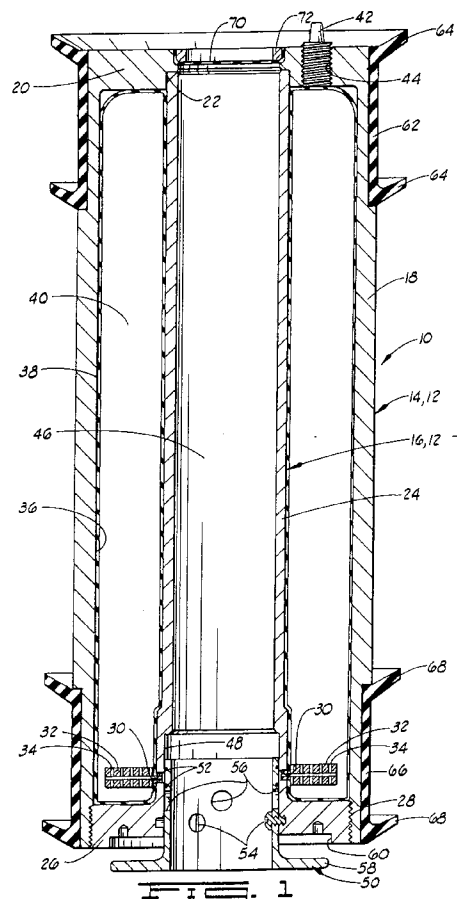
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(54) Apparatus for injecting fluid into a wellbore

(57) An apparatus for injecting fluid into a wellbore. The apparatus comprises a housing (12) and a valve sleeve (50). The housing (12) has a chamber (36) and a port (30) in communication with the chamber (36). The chamber (36) is adapted to hold a first fluid, such as a cement accelerant, therein. The valve sleeve (50) serves to open the port (30) so that the fluid first fluid is free to flow out of the chamber (36) through the port (30) in response to the flow of a second fluid, such as cement. A portion of the valve sleeve (50) extends below the housing (12) so that when the valve sleeve (50) engages a surface therebelow, the valve sleeve (50) is forced upwardly to open the port (30). The housing (12) and/or the valve sleeve (50) may be made of a non-metallic material in order to facilitate drilling of the apparatus.



EP 0 722 037 A3



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EUROPEAN SEARCH REPORT

Application Number
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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.6)
A	US-A-3 851 703 (SHIRLEY B) 3 December 1974 * column 4, line 10 - line 39; figures * ---	1	E21B33/16 E21B27/02 E21B34/06
A	US-A-2 968 351 (E.JONES) 17 January 1961 * column 5, line 19 - line 68; figures 3,4 *	1	
A	US-A-4 846 279 (BRUCE CHARLES R) 11 July 1989 * abstract; figures * ---	1	
A,D	US-A-4 361 187 (LUERS THOMAS J) 30 November 1982 * abstract; figures * -----	1	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			E21B C04B
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 4 November 1996	Examiner Weiland, T
CATEGORY OF CITED DOCUMENTS		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	
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			

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