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(54) **Cleaning apparatus**

(57) A cleaning apparatus adapted for use in fuel hydrant pipelines and the like when that pipeline is full of product, comprises a sledge (10) carrying magnets (3) carried below a deck (1) of the sledge for removing magnetically susceptible particles and a suction foot (4) attached to a hose (7) via a swivel connection (5). The other end of the hose is connected to vacuum generat-

ing means so that a reduced pressure area is generated below the suction foot (4). The sledge (10) is adapted to enter the pipeline via features thereof, such as risers, which are of a smaller diameter than the main pipeline. The sledge (10) is movable through the pipeline, for example, by using draw wires attached to (holes) 6 in the deck (1).

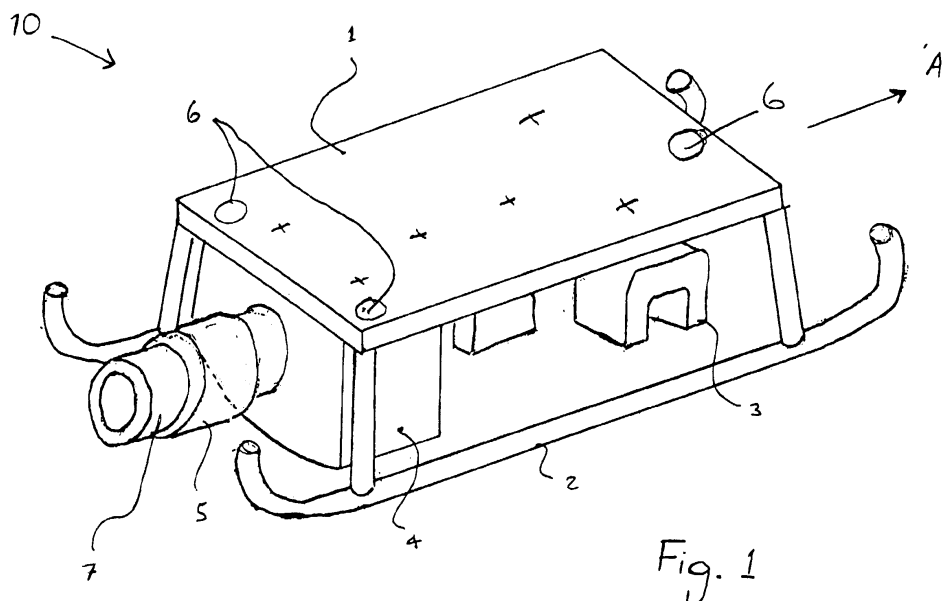


Fig. 1



European Patent  
Office

## EUROPEAN SEARCH REPORT

Application Number  
EP 98 30 9951

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)		
X	PATENT ABSTRACTS OF JAPAN vol. 016, no. 366 (M-1291), 7 August 1992 (1992-08-07) -& JP 04 115039 A (TOKYO ELECTRIC POWER CO INC:THE;OTHERS: 02), 15 April 1992 (1992-04-15) * abstract; figures 1,3 *	1,2,5,9, 10	B08B9/04		
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A	US 5 461 746 A (BANI K NIRANJAN ET AL) 31 October 1995 (1995-10-31) * abstract; figures 1,2 * * column 1, line 7 - line 9 * * column 1, line 28 - line 32 * * column 3, line 18 - line 36 * -----	6	<table border="1"> <thead> <tr> <th>TECHNICAL FIELDS SEARCHED (Int.Cl.6)</th> </tr> </thead> <tbody> <tr> <td>B08B E03F</td> </tr> </tbody> </table>	TECHNICAL FIELDS SEARCHED (Int.Cl.6)	B08B E03F
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The present search report has been drawn up for all claims					
Place of search <b>THE HAGUE</b>		Date of completion of the search <b>22 December 1999</b>	Examiner <b>Plontz, N</b>		
<table border="0"> <tr> <td style="vertical-align: top;"> <b>CATEGORY OF CITED DOCUMENTS</b>  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 </td> <td style="vertical-align: top;"> 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  -----  &amp; : member of the same patent family, corresponding  document </td> </tr> </table>				<b>CATEGORY OF CITED DOCUMENTS</b> 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
<b>CATEGORY OF CITED DOCUMENTS</b> 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				

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**ANNEX TO THE EUROPEAN SEARCH REPORT  
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
The members are as contained in the European Patent Office EDP file on  
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