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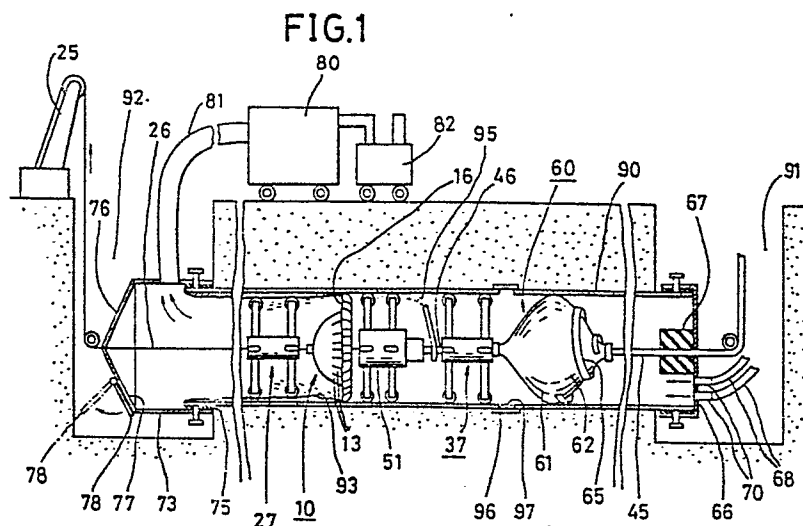
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(54) **Cleaning apparatus for pipes.**

(57) A cleaning apparatus for a pipe (90) which comprises a scratching device (10) having a plurality of scratching segments being radially elongated and being disposed around the axis of the scratching device (10) so as to contact elastically and annularly to the interior surface of the pipe (90) as a whole at scratching portions (16) formed at outer peripheries thereof, and driving means (25) for moving the scratching device (10) in the pipe (90). The apparatus may

have a grinding device (37) which is connected to the scratching device (10) at back position thereof and has an injection pipe (46) for injecting mixed flow (95) of compressed air and abrasive material from at least one nozzle formed at the outer end of a radially elongated portion of the injection pipe (46), and a rotating means (51) of the injection pipe (46).





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.4)
X	US-A-1 627 045 (McGEEHAN) * Whole document *	1	B 08 B 9/04
Y		2-4	
X	FR-A- 398 910 (WHITNEY PIPE CLEANING CO.) * Whole document *	1	
Y		2	
Y	US-A-2 157 421 (McFARLAND) * Page 2, lines 45-71; figure 1 *	3	
Y	FR-A- 765 116 (GUTMANN) * Page 2, lines 54-62; figures 1,2 *	4	TECHNICAL FIELDS SEARCHED (Int. Cl.4)
A	FR-A-2 355 236 (ROULAND) * Whole document *	4	B 08 B B 24 C
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 31-07-1987	Examiner VOLLER J.P.G.
<p>CATEGORY OF CITED DOCUMENTS</p> <p>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</p> <p>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</p>			

