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(54) Method and apparatus for heating a fluid employing a gas containing sulfur oxides and water.

(57) A fluid which is to be heated by a gas (in 17) containing sulfur oxides and water vapour is passed through the inner tube(s) (25) of a multi-pipe heat exchanger (21) and recovered from the outermost tube (26) thereof at such a temperature that the outer surface temperature of the outermost tube (26) is always above the acid dew point, thereby avoiding acid corrosion of the outermost tube (26) of the heat exchanger (21).

In an embodiment, the heat exchanger (21) is of the double pipe type, but whichever type is employed, the heat transfer characteristics and/or sizes of the tubes of the heat exchanger (21) are selected to provide an outer surface temperature exceeding the acid dew point for reasonable and/or acceptable ranges of fluid flow rates and pressure drops therethrough.

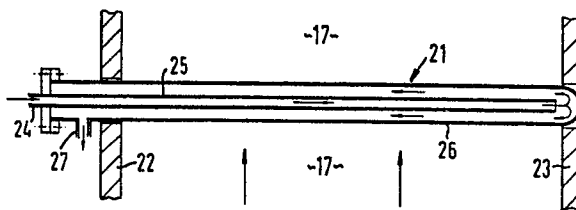


FIG. 2

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DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int. Cl. ³)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
X	<u>FR - A - 632 424</u> (CHARDARD) * abstract; figure 3 * --	1-9	F 24 H 1/00 1/40 9/00
	<u>DE - C - 254 462</u> (DEUTSCHE ECONO-MISER-WERKE) * figure 1 * --	1,2,5-7 9,10	
	<u>DE - C - 315 672</u> (ILLING) * the whole document * --	1,5,6,9	TECHNICAL FIELDS SEARCHED (Int. Cl. ³)
	<u>DE - A - 2 338 548</u> (WAAGNER-BIRO) * page 2, last paragraph; page 3, paragraph 1; figure 3 * -----	1,6	F 24 H F 28 F F 28 D F 22 D F 22 B
			CATEGORY OF CITED DOCUMENTS
			X: particularly relevant A: technological background O: non-written disclosure P: intermediate document T: theory or principle underlying the invention E: conflicting application D: document cited in the application L: citation for other reasons
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The present search report has been drawn up for all claims			
Place of search The Hague	Date of completion of the search 07-04-1981	Examiner VAN GESTEL	