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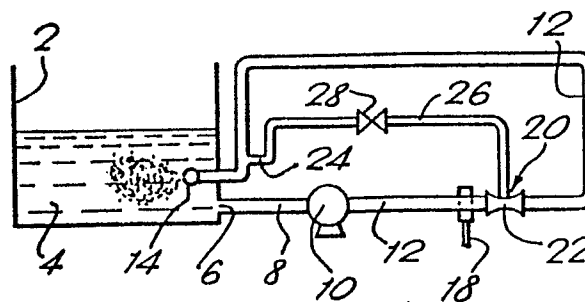
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(54) **Dissolving gas in liquid.**

(57) In order to dissolve a gas such as oxygen in a liquid, typically aqueous, a stream of liquid is taken from tank (2) by a pump (10) and pressurised thereby. Oxygen is introduced into the stream via a conduit (18) upstream of a venturi (20). Turbulence created as the stream passes through the venturi (20) helps to disperse the oxygen as fine bubbles in the stream. The dispersion is then conducted to a sparge pipe (14) and introduced into the main volume (4) of liquid in the tank (2). The bubbles are thereby sheared into very small bubbles that readily dissolve in or are consumed by the volume (4) of liquid. Some of the gas in the dispersion is separated therefrom at a relatively downstream position and drawn along a pipe (26) back into the stream at a relatively upstream position by the action of the stream passing through the venturi (20). A valve (28) is operable to regulate the rate at which gas is so recycled.

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. 4)
A	US-A-4 163 712 (K.C. SMITH) * claim 1; figure 1 * & GB - A - 1 455 567 (Cat. D,A)	1,7	B 01 F 3/04
A	WO-A-8 101 700 (BOC) * claims 1, 3, 5; figure 1 *	1,3,7, 8,11	
A	DE-C- 739 665 (GEBRÜDER SULZER) * claim; figure *	1,3,7	
A	US-A-4 124 660 (J. STERLINI) * figures 1, 2 *	1,3,7	
A	DE-B-1 204 636 (SHELL INTERNATIONALE RESEARCH MAATSCHAPPIJ) * claim 1; figure 1 *	4-6	TECHNICAL FIELDS SEARCHED (Int. Cl. 4)
A	US-A-3 778 038 (J.F. EVERSOLE) * claim 1; figures 1b-3 *	4-6	A 23 L 2/26 B 01 F 3/04 B 01 F 5/00 B 01 F 5/04 B 01 F 5/06 B 01 F 11/02 B 01 F 13/02 C 02 F 3/12
The present search report has been drawn up for all claims			
Place of search BERLIN		Date of completion of the search 27-03-1987	Examiner KUEHN P
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			