

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau



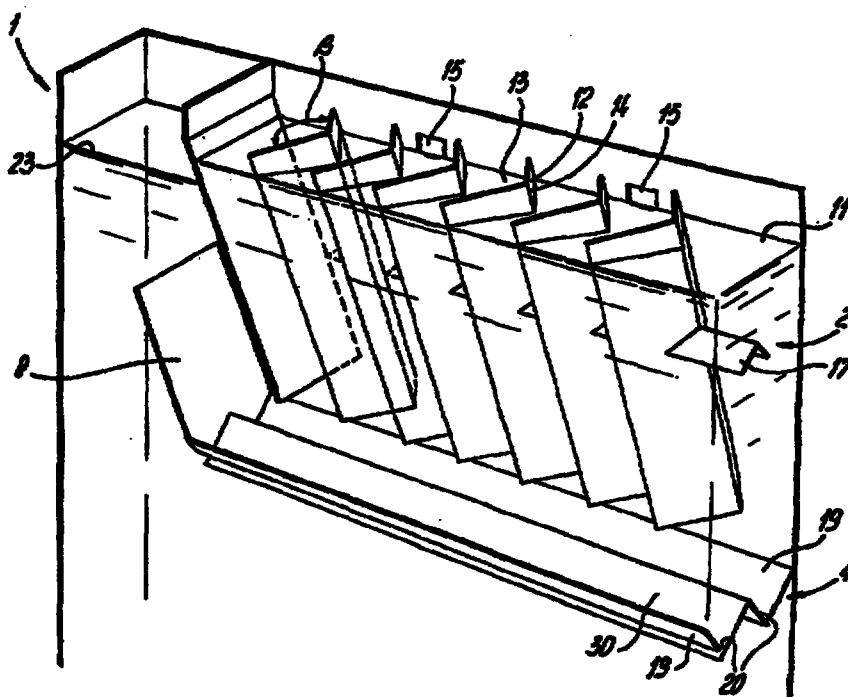
INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 : B01D 21/00, C02F 3/28, B01D 19/00		A1	(11) International Publication Number: WO 96/32177
			(43) International Publication Date: 17 October 1996 (17.10.96)
(21) International Application Number: PCT/NL96/00156		(81) Designated States: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AR, PO patent (KE, LS, MW, SD, SZ, UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).	
(22) International Filing Date: 10 April 1996 (10.04.96)			
(30) Priority Data: 1000100 10 April 1995 (10.04.95) NL			
(71) Applicant (for all designated States except US): PAQUES B.V. [NL/NL]; P.O. Box 52, NL-8560 AB Balk (NL).			
(72) Inventor; and (75) Inventor/Applicant (for US only): VELLINGA, Sjoerd, Hubertus, Jozef [NL/NL]; Pastoriestingel 9, NL-8458 CP Tjalleberd (NL).		Published With international search report.	
(74) Agent: DE BRUIJN, Leendert, C.; Nederlandsch Octrooibureau, Scheveningsweg 82, P.O. Box 29720, NL-2502 LS The Hague (NL).			

(54) Title: SETTLING DEVICE FOR A FLUID CONTAINING LIQUID, GAS AND PARTICULATE MATERIAL, AS WELL AS A CLEANING DEVICE PROVIDED HERewith AND A METHOD FOR CLEANING WASTE WATER

(57) Abstract

The present invention relates to a settling device (2) for a fluid containing liquid, gas and particulate material. The device (2) comprises liquid-discharge means (15) fitted close to the water level of the fluid and supply means for supplying the fluid at the bottom of the settling chamber. In the settling chamber one or more caps (12) are disposed with their longitudinal axis at an angle to the water level, such that fluid supplied at the bottom of the settling chamber flows obliquely up, forced along the bottom of the at least one cap. Whilst gas bubbles contained therein collect in the ridge (17) of the at least one cap. The gas collected in the ridge of the at least one cap is trapped by means of gas-discharge means (18) beneath the water level of the fluid. Preferably, use is made of a row containing a multiplicity of caps (12) which are disposed in oblique, overlapping and parallel arrangement. The caps (12) can be fitted at an angle of 60° relative to the water level and preferably have a mutual interval of about 6 cm. The invention further relates to a purifier provided with a settling device of this kind and to a method for the anaerobic purification of waste water using a settling device or purifier according to the invention.



The invention further relates to a purifier provided with a settling device of this kind and to a method for the anaerobic purification of waste water using a settling device or purifier according to the invention.