(19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 20 September 2007 (20.09.2007)

PCT

English

(10) International Publication Number WO 2007/106850 A3

(51) International Patent Classification: *E02B 5/08* (2006.01) *B01D 33/056* (2006.01)

(21) International Application Number:

PCT/US2007/063963

(22) International Filing Date: 14 March 2007 (14.03.2007)

(22) The Hational Fining Date: 14 March 2007 (14.05.2007)

(26) Publication Language: English

(30) Priority Data:

(25) Filing Language:

11/374,678 14 March 2006 (14.03.2006) US

(63) Related by continuation (CON) or continuation-in-part (CIP) to earlier application:

US 11/374,678 (CIP) Filed on 14 March 2006 (14.03.2006)

- (71) Applicant (for all designated States except US): HY-DRO-DYNE ENGINEERING, INC. [US/US]; 19345 U.S. Highway 19 North, Suite 204, Clearwater, FL 33764 (US).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): CONROY, Jay, Ryan [US/US]; 1009 South Bayshore Boulevard, Apartment 101, Safety Harbor, FL 34695 (US).
- (74) Agents: FREEBURG, Ruth, E. et al.; Larson & Larson, PA, 11199 69th Street North, Largo, FL 33773-5504 (US).

- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US (patent), UZ, VC, VN, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

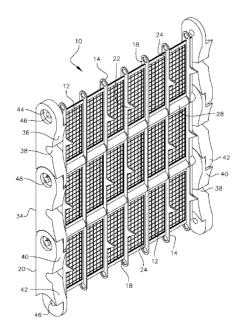
- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))
- of inventorship (Rule 4.17(iv))

Published:

with international search report

[Continued on next page]

(54) Title: FILTER GRID ASSEMBLY



(57) Abstract: A filter apparatus (106, 106A) separates fine particles such as pine needles, threads, hairs and seeds from a liquid influent. A rotating grid assembly (10) has multiple grid sections (12) mounted by top-to-bottom connected links (14), supporting a filter media (52) having specified openings (60) sufficient for entrainment of miniscule particles. Grid sections (12) are interchanged for collection and discharge of various sized particles using the same apparatus (106, 106A).





WO 2007/106850 A3



 before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

 $\textbf{(88)} \ \ \textbf{Date of publication of the international search report:}$

17 January 2008

INTERNATIONAL SEARCH REPORT

International application No.
pct/us07/63963

A. CLASSIFICATION OF SUBJECT MATTER IPC: E02B 5/08(2006.01);B01D 33/056(2006.01)			
USPC: 210/232, 160, 400,400 According to International Patent Classification (IPC) or to both national classification and IPC			
Control of the contro			
B. FIELDS SEARCHED			
Minimum documentation searched (classification system followed by classification symbols)			
U.S.: 210/232, 160, 400			
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched none			
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) none			
C. DOCUMENTS CONSIDERED TO BE RELEVANT			
Category *			Relevant to claim No.
A	US 5,788,839 A (Gargan, Jr. et al.) 04 August 1998 (04.08.1998) see entire document.	1-24
A	A US 5,800,701 A (Larson) 01 September 1998 (01.09.1998), see entire document.		1-24
•			
		-	
	Let 1 in the continuation of Day C	See notent family annay	
	Further documents are listed in the continuation of Box C. Special categories of cited documents: "T" later document published after the international filing date or price.		national filing date or priority
,	defining the general state of the art which is not considered to be of	date and not in conflict with the application principle or theory underlying the inventory	ation but cited to understand the
particular	relevance	"X" document of particular relevance; the c	
	plication or patent published on or after the international filing date	considered novel or cannot be consider when the document is taken alone	ed to involve an inventive step
	which may throw doubts on prority claim(s) or which is cited to the publication date of another citation or other special reason (as	"Y" document of particular relevance; the considered to involve an inventive step with one or more other such document	when the document is combined
"O" document referring to an oral disclosure, use, exhibition or other means		obvious to a person skilled in the art	
"P" document published prior to the internationalfiling date but later than the priority date claimed		"&" document member of the same patent family	
Date of the actual completion of the international search		Date of mailing of the international search report Authorized officer	
19 October 2007 (19.10.2007) Name and mailing address of the ISA/US			
Mail Stop PCT, Attn: ISA/US			
Commissioner for Patents P.O. Box 1450		Thomas M. Lithgow	
Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201 Telephone No. 571-272-1700			
racsimile No	. (3/1) 4/3-3201		

Form PCT/ISA/210 (second sheet) (April 2005)