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61/364,861 16 July 2010 (16.07.2010) US(71) Applicant (for all designated States except US): **HIGH-MARK RENEWABLES RESEARCH LIMITED PARTNERSHIP** [CA/CA]; P.O. Box 130, Vegreville, Alberta T9C 1R1 (CA).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **KOTELKO, Peter** [CA/CA]; Box 1217, Vegreville, Alberta T9C 1S4 (CA). **KOTELKO, Mike** [CA/CA]; Box 721, Vegreville, Alberta T9C 1R8 (CA). **CARAGANIS, George** [CA/CA]; 304 Norwood Court, Sherwood Park, Alberta T8A 5T5 (CA). **FOSTER, Glen** [CA/CA]; PO Box 95, 106 Parkside Drive, Oak Bluff, Manitoba R0G 1N0 (CA).(74) Agents: **FRITZ, Joachim, T.** et al.; BORDEN LADNER GERVAIS LLP, World Exchange Plaza, 100 Queen Street, Suite 1100, Ottawa, Ontario K1P 1J9 (CA).

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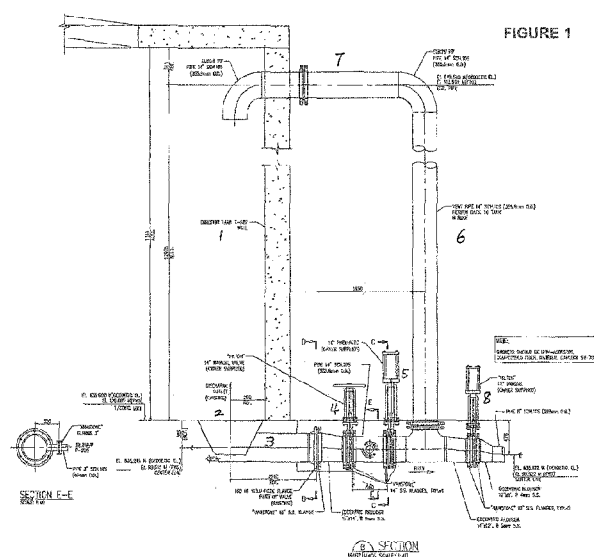
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(54) Title: GRIT REMOVAL SYSTEM



(57) **Abstract:** A grit removal system for tanks with a need to remove settled solids (e.g., anaerobic digester tank) is described. The system is especially suitable for a large tank, preferably having a flat floor, and it works well while submerged under a liquid. Specifically, a periphery-driven rack & pinion mechanism drives a shaft to rotate about a center pivot, and scrapes settled solids towards tank periphery, where the solids fall into a pit on the tank floor. A drainage opening inside the pit, when opened by a valve, is used to flush out the solids through a standpipe into a settlement tank for final dewatering and solid disposal. The system is compatible for continuous tank operation, and is useful for stirring tanks requiring periodic sediment removal.