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(54) Title: BIOMASS TREATMENT APPARATUS

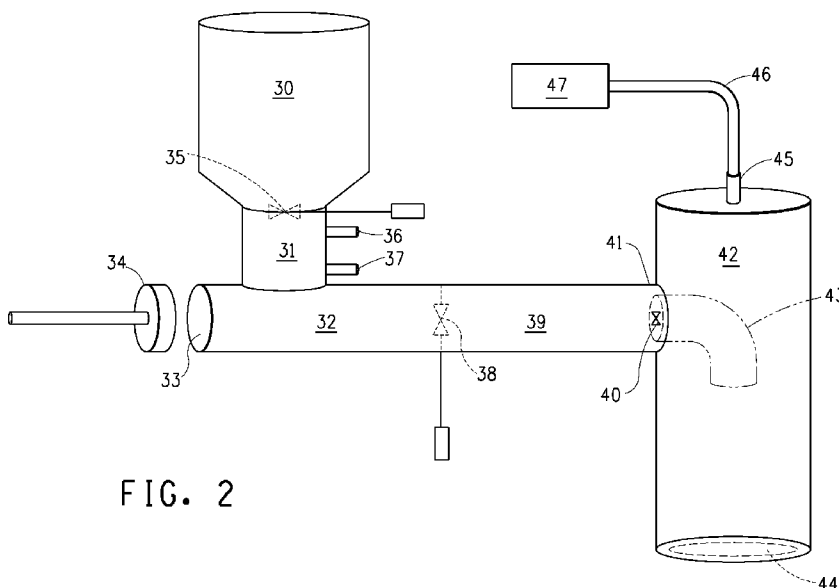


FIG. 2

(57) Abstract: An apparatus was developed for; treatment of biomass in which reactants are added to biomass and the biomass mixture is moved through the apparatus without compacting under force of a non- compacting piston (34). Treatment systems used in this reactor result in effectively treated biomass that is particularly suitable for subsequent saccharification to produce fermentable sugars.

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
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C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	US 6 416 621 B1 (KARSTENS TIES [DE]) 9 July 2002 (2002-07-09)  column 9, line 20 - column 11, line 25 figure 5	1-11, 26, 27 12-25
X Y	US 5 171 592 A (HOLTZAPPLE MARK [US] ET AL) 15 December 1992 (1992-12-15)  column 3, line 41 - line 54 column 9, line 4 - column 10, line 38 figure 2	26, 27 12-25
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<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.		
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