

Search history

Search 1: FT=(sugarcane* and crushing* and roller* and feed* and screw* and pressure*) (Results 129)
Search 2: (1) AND IPC=(A01 OR C13 OR A23) (Results 100)
Search 3: (2) AND IPC=(C13) (Results 34)

1) Family number: 782024 (US3597163A)

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Title: SOLVENT EXTRACTION APPARATUS

Abstract: ABSTRACT OF THE DISCLOSURE

A solvent extraction apparatus in which sub-divided solids are moved through at least two extraction stages, 15 extracting liquid being circulated independently in each stage, and the extraction liquid being moved from stage to stage countercurrent relative to the movement of the solids.

Classifications:

International (IPC 8-9): B01D11/02 B01J8/08 C13B10/10

C13D1/10 (Advanced/Invention);

B01D11/02 B01J8/08 C13D1/00 (Core/Invention)

International (IPC 1-7): B01D11/00 B01D11/02 C13D1/00 C13D1/02

C13D1/10 C13D1/12

CPC: B01D11/023 C13B10/10

European: B01D11/02M4B C13B10/10

US: 127/45 127/6 422/281

PatBase - US3597163_A

Aug. 3, 1971

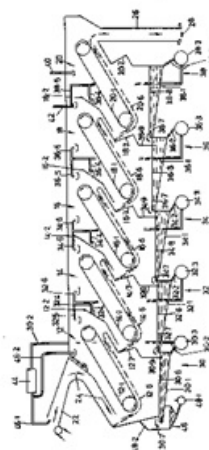
A. VAN HENGEL

3,597,163

Filed Oct. 21, 1969

SOLVENT EXTRACTION APPARATUS

5 Sheets-Sheet 1



INVENTOR
ANTHONIE VAN HENGEL
BY *[Signature]*
ATTORNEY

Family:

Publication number	Publication date	Application number	Application date
BE740491 A	19700401		19691020
DE1952961 A1	19700506	DE19691952961	19691021
DE1952961 B2	19761028	DE19691952961	19691021
DE1952961 C3	19770630	DE19691952961	19691021
FR2021152 A1	19700717	FR19690035908	19691020
GB1283573 A	19720726	GB19690051529	19691021
JP48020698 B4	19730622	JP19690084153	19691021
NL162139 B	19791115	NL19690015875	19691021
NL162139 C	19800415	NL19690015875	19691021
NL6915875 A	19700423	NL19690015875	19691021
US3597163 A	19710803	US19690868178	19691021

Priority:

ZA19680006802 19681021 ZA19690000626 19690128

Probable Assignee: HULETT'S SUGAR

Assignee(s): (std): HULETT'S SUGAR

Assignee(s): HULETT'S SUGAR CORP LTD ; HULETT S SUGAR CORP LTD ; HULETT S SUGAR CORP LTD DURBAN NATAL SUEDAFRIKA ; HULETT S SUGAR DURBAN ZUID AFR CORP LTD ; HULETT S SUGAR DURBAN ZUID AFRICA CORP LTD

Inventor(s): (std): HENGEL ANTHONIE VAN

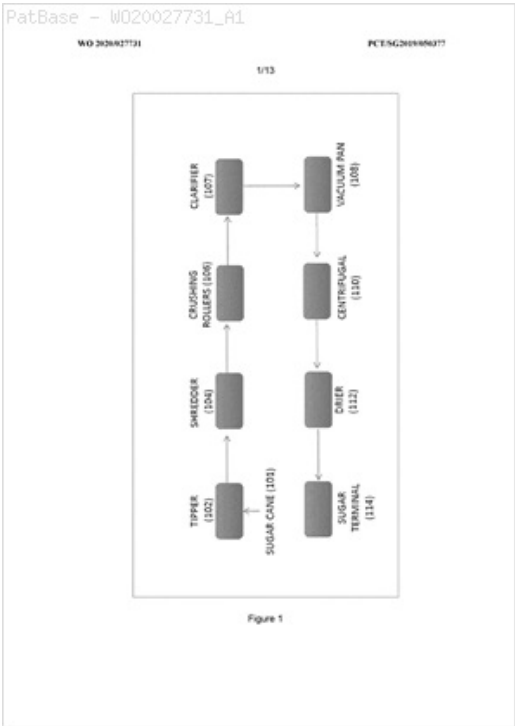
Inventor(s): HENGEL ANTHONIE VAN DURBAN NATAL ; ANTHONIE VAN HENGEL

Title: PROCESS FOR SUGAR PRODUCTION

Abstract: The application relates to a method for producing a sugar product and a system thereof comprising receiving a first input in a control system representative of a pre-treatment sugar composition characteristic and/or an additive; receiving a second input representative of a post-treatment sugar product target specification; using the control system to determine at least one operating parameter for addition of the additive to the pre-treatment sugar and adding the additive based on the at least one determined operating parameter, wherein the at least one determined operating parameter is determined from at least: the first input, the second input, and a correlation relating at least the first input and the second input to the at least one operating parameter; and treating the pre-treatment sugar composition by addition of the additive to produce a post-treatment sugar product with a characteristic that is at or nearer to the target specification than the characteristic of the pre-treatment sugar composition. The system includes at least one spray system for addition of an additive to a pre-treatment sugar composition; at least one sensor for determining one or both of a pre-treatment sugar composition characteristic, or an additive characteristic, and a post-treatment sugar product characteristic and a control system configured to operate as mentioned above.

Classifications:

International (IPC 8-9): A23L33/10 C13B10/00
G01N13/02 (Advanced/Invention);
G01N33/02 (Advanced/Non-invention)
CPC: A23L33/10 C13B10/00 G01N33/02



Family:

Publication number	Publication date	Application number	Application date
SG10201806479U A1	20200227	SG20181006479	20180730
WO20027731 A1	20200206	WO2019SG50377	20190730

Priority:

SG20181006479 20180730 SG20181007139 20180823

Probable Assignee: NUTRITION SCIENCE DESIGN PTE LTD

Assignee(s): (std): NUTRITION SCIENCE DESIGN PTE LTD

Inventor(s): (std): KANNAR DAVID

Inventor(s): DAVID KANNAR

Agent(s): FPA PATENT ATTORNEYS ASIA PTE LTD

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JO JP KE KG KH KM KN KP KR KW KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

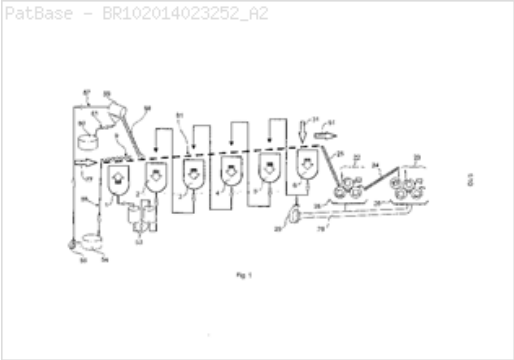
Title: EXTRACAO HIDRODINAMICA DE CALDOS DE BIOMASSAS DE ORIGEM VEGETAL E DESENVOLVIMENTO DE EQUIPAMENTOS EXTRACTION hydrodynamics ORIGIN biomasses BROTHS PLANT AND EQUIPMENT DEVELOPMENT (Machine translation)

Abstract: Source: BR102014023252A [PT] RESUMO EXTRACAO HIDRODINAMICA DE CALDOS DE BIOMASSAS DE ORIGEM VEGETAL E DESENVOLVIMENTO IDE: EQUIPAMENTOS Processo de extracao hidrodinamica de caldos de biomasses de origem vegetal e equipamentos de uma planta fabril de pequenas dimensoes e alta capacidade de processamento projetada para a extracao de acucars e/ou subprodutos destinados a obtencao de alcoois de primeira, segunda e terceira geracoes de biomassas de qualquer origem vegetal; extraem caldos ricos em acucars de sacarose, frutose e glucose contidos no interior do tecido vegetal para propiciar a materia prima base para inumeras industrias de processamento tais como a alimenticia, farmaceutica, bebidas, petroquimica, quimica, energia entre outras, constituido por equipamento cujo processo hidrodinamico de extracao de caldos de biomassas e altamente eficiente, opera de forma energetica racionalizada em concordancia com o trinomio: custo - beneficio - meio ambiente. A extracao hidrodinamica de caldos de sacarose de biomassa de origem vegetal desta patente aplica de uma maneira simples e eficaz os conceitos de hidrostática, basicos no deslocamento de fluidos, com o objetivo de obter e facilitar os mecanismos de extracao por lixiviacao e difusao/osmose predominante no processo de extracao de caldos com racionalizacao dos recursos envolvidos e diminuicao da energia

despendida no processo com consequentes reducoes nos custos de operacao, manutencao e aquisicao de equipamentos, com aumento da capacidade produtiva e reducao do custo de processamento por toneladas de materia-prima manipulada, com tolerancia ao aumento do percentual de impurezas mineraiis e vegetais atenuando os seus efeitos danosos sobre o desgaste dos equipamentos e reduzindo o consumo de produtos quimicos em etapas posteriores a extracao do caldo.

Machine translation: SUMMARY extraction hydrodynamics ORIGIN biomasses BROTHS VEGETABLE AND DEVELOPMENT IDE: EQUIPMENT extraction process hydrodynamics of biomasses broths of plant and equipment of a manufacturing plant of small dimensions and high processing capacity designed for the extraction of sugars and / or by-products for obtaining alcohols first, second and third generations of biomasses of any plant; extract rich broths in sugars sucrose, fructose and glucose contained within the plant tissue to provide the raw material base for numerous processing industries such as food, pharmaceutical, beverage, petrochemical, chemical, energy, among others, consists of equipment which process hydrodynamic extraction of biomasses broths and highly efficient, operates energetic streamlined shape in agreement with the trinomial: cost - benefit - environment. The extraction hydrodynamics of vegetable biomass saccharose broth of this invention applies a simple and effective way the concepts of hydrostatic, basic displacement of fluid, in order to obtain and facilitate extraction mechanisms by lixiviation and diffusion / predominant Osmosis in the process of extraction of broths with rationalization of resources involved and decreased energy expended in the process with consequent reductions in operation costs, maintenance and acquisition of equipment, with increased capacity and reduction of the processing cost per ton of raw material manipulated with tolerance to increase the percentage of mineral and vegetable impurities mitigating its harmful effects on the wear of equipment and reducing the consumption of chemical products in later stages the extraction of the juice.

Classifications:
International (IPC 8-9): C13B10/02 (Advanced/Invention)



Family:

Publication number	Publication date	Application number	Application date
BR102014023252 A2	20160322	BR20141023252	20140916

Priority:
BR20141023252 20140916

Probable Assignee: CAROBENO ROBERTO

Assignee(s): (std): CAROBENO ROBERTO

Assignee(s): ROBERTO CAROBENO

Inventor(s): (std): CAROBENO ROBERTO

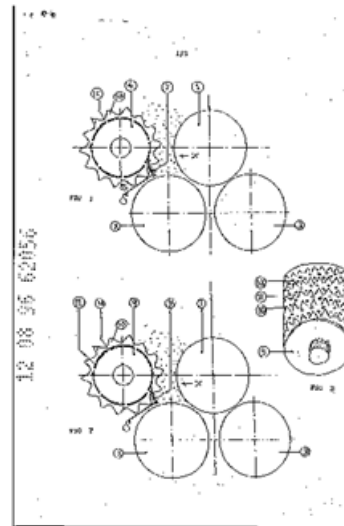
Inventor(s): ROBERTO CAROBENO

4) Family number: 11085085 (AU199662056A) © PatBase

Title: IMPROVED SUGARCANE MILLING SYSTEM

Abstract: 2 A Sugar cane milling system two roll or three roll(1,2,3) crushing mill 4 modules in tandem and one or more of these mill modules is/are provided in addition and adjacent to it, at least one Toothed Feeder Roller, with or without 6 perforations and with juice drainage means in the form of a scraper cum short S' deflector(7) for feeding a compact mat of prepared cane/bagasse directly to the nip 8 of the crushing rolls of the said module/s (without needing a closed stationary o, pressure chute which is generally required in the existing sugarcane mill feeding system), prepared cane mat is fed almost at the same speed as the surface speed of '...crushing mill rolls without sharp change in direction and separating out the S12 superficial ju ce and including Pressurised Juice Extracting conveyor for removing :o0, the extra unabsorb;:d juice as well as squeezing out the absorbed juice out of cush- I 14 cush.(Reffig 1 fig 2). ss.0000.

Classifications:
International (IPC 8-9): C13B45/00 C13B5/02 (Advanced/Invention)
International (IPC 1-7): C13C1/02 C13H3/00

**Family:**

Publication number	Publication date	Application number	Application date
AU199662056 A1	19980219	AU19960062056	19960812
AU732606 B2	20010426	AU19960062056	19960812

Priority:

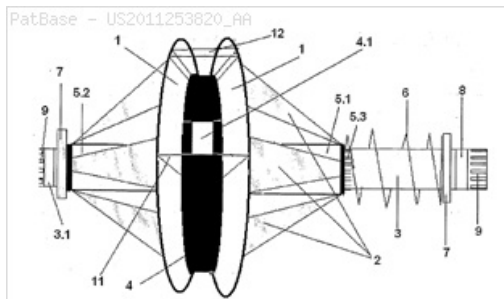
AU19960062056 19960812

Probable Assignee: NIKAM BHAUSAHEB BAPURAO**Assignee(s):** (std): BHAUSAHEB BAPURAO NIKAM ; NIKAM BAPUSAHEB BHAURAO**Assignee(s):** NIKAM BHAUSAHEB BAPURAO**Inventor(s):** (std): NIKAM BHAUSAHEB BAPURAO ; NIKAM BAPUSAHEB BHAURAO**Inventor(s):** BHAUSAHEB BAPURAO NIKAM ; BAPUSAHEB BHAURAO NIKAM**Agent(s):** WRAYS; WRAYS PTY LTD**5) Family number: 45439110 (US2011253820A)**

© PatBase

Title: CRUSHING SYSTEM WITH TWO ROTATING DISK SECTIONS AND USES THEREOF

Abstract: The present invention relates to a crushing system with two rotating disk sections which allows applying high pressures without the problem of raw material rejection and with a reduced number of crushing cycles, thus shortening the crushing time. Pressure is gradually distributed between the two similar rotating disk sections which are arranged face to face and connected to non-aligned shafts, such that the lower sides of the disk sections remain always joined. The disk section mounting assembly is independent and has different features, forming a fixed part and a movable part for adjusting the vegetable mass being compacted. This crushing system has structural features that allow different uses (in isolation, in tandem or in combination), and the serial combination thereof in appropriate industrial infrastructures or in harvesters of standing crops, such as sugar cane.

Classifications:**International (IPC 8-9):** B02C7/00 B30B9/02 B30B9/20 C13B10/02 C13B10/06 C13D1/02 (Advanced/Invention)**International (IPC 1-7):** C13D1/02**CPC:** B02C7/00 B02C7/005 C13B10/06 C13B10/12**European:** B02C7/00 B02C7/00B C13B10/06 C13B10/12**US:** 241/101.2 241/101.200P 241/198.1 241/198.100S**Family:**

Publication number	Publication date	Application number	Application date
BRPI0805556 A2	20100824	BR2008PI05556	20081210
CN102316991 A	20120111	CN200980156516	20091201
EP2377617 A1	20111019	EP20090831328	20091201
IN02708KN2011 A	20120113	IN2011KN02708	20110629
US2011253820 AA	20111020	US20090139247	20091201
WO10066016 A1	20100617	WO2009BR00442	20091201

Priority:

BR2008PI05556 20081210

WO2009BR00442 20091201

Probable Assignee: DE ALMEIDA TIAGO ANDRADE

Assignee(s): (std): DE ALMEIDA TIAGO ANDRADE ; DE SOUSA GOMIDE ANTONIO AUGUSTO FELIX ; CORRADI ADEMAR LUIS ; SOUSA GOMIDE ANTONIO AUGUSTO FELIX DE ; LUIS CORRADI ADEMAR ; ALMEIDA TIAGO ANDRADE DE

Assignee(s): DE SOUZA GOMIDE ANTONIO AUGUSTO FELIX ; ADEMAR LUIS CORRADI

Inventor(s): (std): CORRADI ADEMAR LUIS ; LUIS CORRADI ADEMAR

Inventor(s): ADEMAR LUIS CORRADI

Agent(s): GEURTS FRANCISCUS ANTONIUS

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

6) Family number: 34405116 (US2009241944A) © PatBase

Title: BIOMASS PROCESSOR

Abstract: A process (10) and apparatus (2) for extracting juice from a fibrous material. The process (10) comprises a step of feeding the fibrous material (13) into a receiving chamber (30) having a fluid contained therein. The fibrous material (13) is then combined with the fluid in the receiving chamber (30) to form a first fluid mixture. The first fluid mixture is then passed through at least one cell disruptor device (40) to facilitate at least partial release of juice from the fibrous material into the first fluid mixture, thereby forming a second fluid mixture having a relatively higher released juice content than said first fluid mixture with relatively finely disrupted fibrous material suspended therein. The second fluid mixture is then collected.

Classifications:

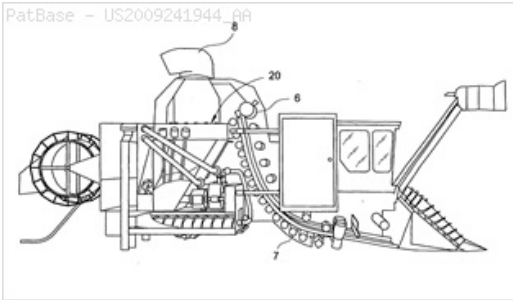
International (IPC 8-9): B01J3/00 C13B10/02 C13B10/04 C13B10/06 C13B10/08 C13B45/00 C13B5/00 C13B5/02 C13B5/04 C13B5/08 C13D1/02 C13D1/06 C13K1/02 C13K11/00 (Advanced/Invention); C13D (Subclass/Invention)

International (IPC 1-7): C13D1/02 C13D1/04 C13D1/06 C13D1/08

CPC: C13B10/02 C13B10/06 C13B10/08

European: C13B10/02 C13B10/06 C13B10/08

US: 127/2 127/2P 127/43 127/43S



Family:

Publication number	Publication date	Application number	Application date
AU2006303815 AA	20070426	AU20060303815	20061019
AU2006303815 BB	20111117	AU20060303815	20061019
AU2012200873 AA	20120308	AU20120200873	20120215
BRPI0617630 A2	20110802	BR2006PI17630	20061019
CN101305102 A	20081112	CN200680041965	20061019
CN101305102 B	20110921	CN200680041965	20061019
DE602006043902 D1	20150115	DE200660043902T	20061019
EP1945822 A1	20080723	EP20060804417	20061019
EP1945822 A4	20100519	EP20060804417	20061019
EP1945822 B1	20141203	EP20060804417	20061019
ES2531082 T3	20150310	ES20060804417T	20061019
IN02009KN2008 A	20090116	IN2008KN02009	20080519
IN308246 B	20190308	IN2008KN02009	20080519
JP2009511074 T2	20090319	JP20080535847T	20061019
JP5215859 B2	20130619	JP20080535847T	20061019
PL1945822 T3	20150630	PL20060804417T	20061019
US2009241944 AA	20091001	US20060083765	20061019
US7959736 BB	20110614	US20060083765	20061019
VN20179 A1	20181225	VN20080001201	20080520
WO07045035 A1	20070426	WO2006AU01551	20061019
ZA200804289 A	20090826	ZA20080004289	20061019

Priority:

AU20050905818 20051020 AU20060303815 20061019 WO2006AU01551 20061019
EP20060804417 20061019 AU20120200873 20120215

Probable Assignee: AUSTFIELD TECHNOLOGIES PTY LTD

Assignee(s): (std): AUSTFIELD TECHNOLOGIES PTY LTD ; BIOMASS TECH PTY LTD ; BIOMASS TECHNOLOGIES PTY LTD ; CULLINGER TREVOR ESSEX

Assignee(s): BIOMASS TECHNOLOGIES PTY LTD SURRY HILLS

Inventor(s): (std): CULLINGER TREVOR ; ESSEX CULLINGER TREVOR ; CULLINGER TREVOR ESSEX

Inventor(s): CULLINGER TREVOR ESSEX KIRWAN ; TREVOR ESSEX CULLINGER

Agent(s): FB RICE; FB RICE PTY LTD; BIOMASS TECHNOLOGIES PTY LTD; LEGALVISION ILP PTY LTD; MURGITROYD AND CO; THACKER DARRAN AINSLEY ET AL; THACKER DARRAN AINSLEY; DE ELZABURU ALBERTO; THE NATH LAW GROUP; NATH LAW GROUP; JERALD L; STANLEY N

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

Title: "FIXED SHAFT SUGARCANE CRUSHING MILL"

Abstract: Abstract Disclosed is a fixed shaft sugarcane mill (100). The fixed shaft sugarcane mill (100) comprises a base frame (20), a pair of side frames (30), a fixed shaft assembly (60), a pair of cylinders (70), an oil circulation system and a chute. The fixed shaft sugarcane mill (100) includes a plurality of drive bearings that act as a support for at least two rollers (32) and internal gearboxes (34, 36) thereby eliminating the need for separate bearings. The fixed shaft sugarcane mill (100) improves efficiency of a drive unit due to elimination of journal bearings and extra bearings required for supporting the at least two rollers (32).

Classifications:

International (IPC 8-9): B65G43/08 C13B10/06 (Advanced/Invention)

Family:

Publication number	Publication date	Application number	Application date
IN03100MU2013 A	20150717	IN2013MU03100	20130930

Priority:

IN2013MU03100 20130930

Probable Assignee: SHINDE PANDURANG RAMCHANDRA

Assignee(s): (std): SHINDE PANDURANG RAMCHANDRA

Inventor(s): (std): SHINDE PANDURANG RAMCHANDRA

Title: METHODS AND SYSTEMS FOR PROCESSING BIOMASS MATERIAL

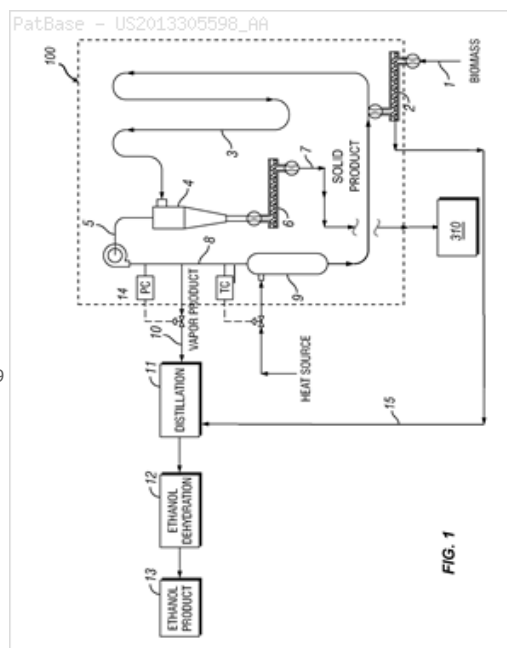
Abstract: Embodiments of the present invention provide for production and recovery of volatile organic compounds and higher hydrocarbons from biomass material. One embodiment comprises contacting a solid component of a biomass material with a digestive solvent to form a digested biomass stream, and at least a portion of the digested biomass is further thermocatalytically treated to generate higher hydrocarbons. The solid component is generated by a method comprising introducing a biomass material to a compartment of a solventless recovery system, wherein the biomass material contains one or more volatile organic compounds; contacting the biomass material with a superheated vapor stream in the compartment to vaporize at least a portion of an initial liquid content in the biomass material; separating a vapor component and a solid component from the heated biomass material; retaining at least a portion of the gas component for use as part of the superheated vapor stream.

Classifications:

International (IPC 8-9): A23K1/00 A23K1/16 A23K1/18 A23K10/14 B01D1/14 B09B3/00 C07C29/76 C07C29/78 C07C29/80 C07C29/82 C07C31/08 C10G1/00 C10G1/02 C10G1/04 C10G3/00 C10L1/02 C10L1/16 C10L1/18 C10L1/182 C10L10/02 C10L3/08 C12F3/10 C12N1/22 C12N9/00 C12P1/00 C12P19/00 C12P19/02 C12P5/00 C12P5/02 C12P7/00 C12P7/06 C12P7/08 C12P7/10 C12P7/14 C13B10/02 C13K1/02 D21C1/02 D21C3/06 (Advanced/Invention); C12F3/10 C12N9/00 (Advanced/Non-invention)

International (IPC 1-7): A23K1/00 C12F3/10

CPC: A23K10/18 A23K20/163 A23K50/10 A23K50/20 A23K50/30 A23K50/75 A23K40/20 A23K10/12 C10G1/002 C10G1/02 C10G3/46 C10G3/50 C12F3/10 C12P5/02 C12P5/026 C12P7/10 C10G1/04 Y02E50/16 Y02E50/17 Y02P30/20 C07C29/76 C07C29/80 C07C29/82 C10L1/182 C10L10/02 C10L2200/0469 C10L2270/023 C12P7/14 Y02T50/678 Y02E50/343 C12P5/00 C12P7/00 C12P7/06
US: 1/1 127/36 426/53 426/635 426/636 435/132 435/135 435/140 435/147 435/150 435/157 435/160 435/161 435/162 435/166 435/99 44/451 568/913 585/240



Family:

Publication number	Publication date	Application number	Application date
AU2013262755 AA	20131121	AU20130262755	20130516
AU2013262755 BB	20151001	AU20130262755	20130516
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AU2013262758 BB	20150723	AU20130262758	20130516
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BR112014028024 A2	20170725	BR20141128024	20130516
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WO13173562 A1	20131121	WO2013US41309	20130516
WO13173563 A1	20131121	WO2013US41313	20130516
WO13173567 A1	20131121	WO2013US41323	20130516
WO13173569 A1	20131121	WO2013US41327	20130516
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Priority:

US20120648109P 20120517	US20130786844P 20130315	US20130786941P 20130315
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Probable Assignee: SHELL OIL CO

Assignee(s): (std): SHELL INT RESEARCH ; SHELL INT RES MIJ BV ; SHELL OIL CO ; SHELL INT RES MAARSCHAPPIJ BV

Assignee(s): SHELL INT RESEARCH MAARSCHAPPIJ BV ; SHELL INT RESEARCH MAATCHAPPIJ BVCAREL VAN BYLANDTLAAN 30NL-2596 HRTHE HAGUENL ; SHELL INT RESEARCH MIJ BV ; SHELL INT RESEARCH MIJ BVCAREL VAN BYLANDTLAAN 30NL-2596 HRTHE HAGUENL ; WEIDER PAUL RICHARD ; SHELL INT RESEARCH MIJ BESLOTEN VENNOTSHAP ; SHELL INT RESEARCH MAARSCHAPPIJ BVCAREL VAN BYLANDTLAAN 30NL-2596 HRTHE HAGUENL ; SHELL INT RESEARCH MAATSCHAPPU BVCAREL VAN BYLANDTLAAN 30NL-2596 HRTHE HAGUENL ; SHELL INT RESEARCH MAATSCHAPPU BV ; BLACKBOURN ROBERT LAWRENCE ; HAMILTON PHILLIP GUY ; KREITMAN KEITH MICHAEL ; RADTKE COREY WILLIAM

Inventor(s): (std): RADTKE COREY WILLIAM ; KREITMAN KEITH MICHAEL ; HAMILTON PHILLIP GUY ; HAMILTON PHILLIP GUY ; COREY WILLIAM RADTKE ; PHILLIP GUY HAMILTON ; KEITH MICHAEL KREITMAN ; WEIDER PAUL RICHARD ; BLACKBOURN ROBERT LAWRENCE

Inventor(s): KREITMAN KEITH MICHAELUS ; RADTKE COREY WILLIAMUS ; HAMILTON PHILLIP GUYUS ; BLACKBOURN ROBERT LAWRENCEUS ; WEIDER PAUL RICHARDUS

Agent(s): PIZZEYS PATENT AND TRADE MARK ATTORNEYS; PIZZEYS PATENT AND TRADE MARK ATTORNEYS PTY LTD; SPRUSON AND FERGUSON; NORTON ROSE FULBRIGHT CANADA LLP SENCRL SRL; MATTHEZING ROBERT MAARTEN; YAMAMOTO OSAMU; TAKEUCHI SHIGEO; ONO SHINJIRO; KOBAYASHI YASUSHI; LUONG HUYEN

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: SUGARCANE SEPARATION

Abstract: A material-feeding roll comprises a cylindrical body being at least partly composed of an elastomeric material having longitudinal apertures disposed therethrough and a plurality of tines extending therefrom.

Classifications:

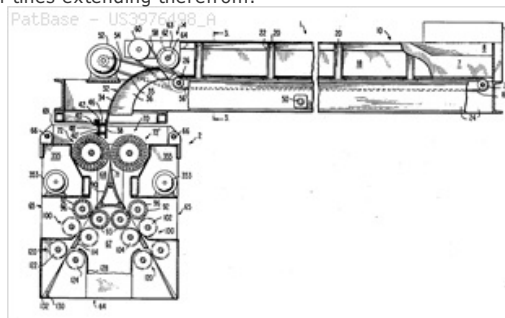
International (IPC 8-9): C13B5/04 C13C1/02
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CPC: Y10T156/1067 C13B5/04 Y10T83/6584 Y10T83/9493

European: C13B5/04

US: 127/2 152/7 156/259 193/2R 198/415 198/624 83/425 83/856 99/537

**Family:**

Publication number	Publication date	Application number	Application date
CA1006410 A1	19770308	CA19730184439	19731029
GB1452971 A	19761020	GB19730050411	19731030
US3976498 A	19760824	US19720305098	19721109

Priority:

US19720305098 19721109

Probable Assignee: CANADIAN CANE EQUIP

Assignee(s): (std): CANADIAN CANE EQUIP

Assignee(s): CANADIAN CANE EQUIPMENT LTD ; HER MAJESTY IN RIGHT OF CANADA AS REPRESENTED BY M ; HER MAJESTY IN RIGHT OF CANADA REPRESENTED BY MINISTER OF IND SCIENCE AND TECHNOLOGY AS ; HODGE DONALD W ; MASON WILLIAM CW ; TILBY SYDNEY E

Inventor(s): (std): HODGE DONALD W ; TILBY SYDNEY E ; HODGE DONALD WILLIAM ; MASON WILLIAM C W ; TILBY SYDNEY EDWARD

Inventor(s): MASON WILLIAM CW

Title: HIGH FORCE AND HIGH STRESS DESTRUCTURING OF CELLULOSIC BIOMASS

Abstract: A process for mechanical destructuring of cellulosic biomass was developed that makes use of a short application of high compression, impact, and shearing forces. The biomass may be destructured using a specific energy input that is less than 40 percent of the total combustible energy of the biomass. The destructured biomass, with or without saccharification and/or in-feed glycosyl hydrolase enzymes, may be used in feed applications.

Classifications:

International (IPC 8-9): A23K1/12 A23K1/14 A23K1/165 A23K10/30 A23K10/32 A23K20/163 A23K20/189 A61K31/717 A61K38/47 C08B30/02 C08B30/12 C08H8/00 C12P19/02 C12P19/14 C12P19/20 C12P7/10 C12P7/14 C13K1/02 C13K13/00 (Advanced/Invention)

CPC: C12P19/14 A61K31/717 A61K38/47 C12Y302/01004

C12P2201/00 C08B30/02 C12P19/20 C12P7/14 C08B30/12

A23K10/30 A23K20/189 C08H8/00 C12P7/10 C12P19/02 C13K1/02

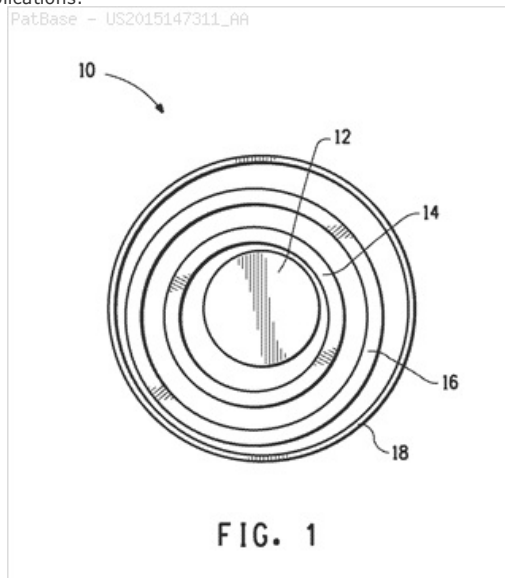
C13K13/002 Y02E50/16 Y02P60/877

US: 127/29 127/67 424/94.61 426/2 426/61 426/623 426/63 426/72

435/106 435/110 435/115 435/125 435/126 435/134 435/136

435/137 435/139 435/144 435/145 435/158 435/160 435/162

435/167 435/95 435/96 435/99 514/57 536/56

**Family:**

Publication number	Publication date	Application number	Application date
BR112016011654 A2	20170808	BR20161111654	20141121
BR112016011693 A2	20170808	BR20161111693	20141121
CN106028831 A	20161012	CN201480064129	20141121
CN106414561 A	20170215	CN201480073884	20141121
EP3087190 A1	20161102	EP20140809245	20141121
EP3094668 A1	20161123	EP20140809569	20141121
US2015147311 AA	20150528	US20140546225	20141118
US2015147786 AA	20150528	US20140546250	20141118
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WO15077573 A1	20150528	WO2014US66835	20141121

Priority:

US20130908158P 20131124 US20140014313P 20140619 US20140546225 20141118
US20140546250 20141118 WO2014US66846 20141121 WO2014US66835 20141121

Probable Assignee: DUPONT US HOLDING LLC

Assignee(s): (std): DU PONT ; EIDU PONT DE NEMOURS AND CO

Assignee(s): DUPONT US HOLDING LLC ; E I DU PONT DE NEMOURS AND CO ; DANISCO UK LTD ; DANISCO US INC

Inventor(s): (std): FAGAN PAUL JOSEPH ; HUANG ZHENG ZHENG ; SLANAC DANIEL A ; SHPILSKY ANTON ; GALLAGHER F GLENN ; PERELMAN AARON ; DE SILVA WATHUDURA INDIKA NAMAL ; ROMERO MILLAN LUIS FERNANDO ; WALSH MARIA ; LIU GUANGLIANG GARY ; CLARKSON KATHLEEN A ; TEUNISSEN PAULA JOHANNA MARIA ; SHARMA VIVEK ; SHETTY JAYARAMA K ; MILLAN LUIS FERNANDO ROMERO

Inventor(s): WATHUDURA INDIKA NAMAL DE SILVA ; PAUL JOSEPH FAGAN ; F GLENN GALLAGHER ; ZHENG ZHENG HUANG ; GUANGLIANG GARY LIU ; AARON PERELMAN ; LUIS FERNANDO ROMERO MILLAN ; ANTON SHPILSKY ; DANIEL A SLANAC ; MARIA WALSH ; KATHLEEN A CLARKSON ; VIVEK SHARMA ; JAYARAMA K SHETTY ; PAULA JOHANNA MARIA TEUNISSEN

Agent(s): MATTHEWS DEREK PETER ; HERRELL JR ROGER W

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

11) Family number: 33705291 (WO08029163A2)

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Title: PROCESSING OF SWEET SORGHUM FOR BIOETHANOL PRODUCTION

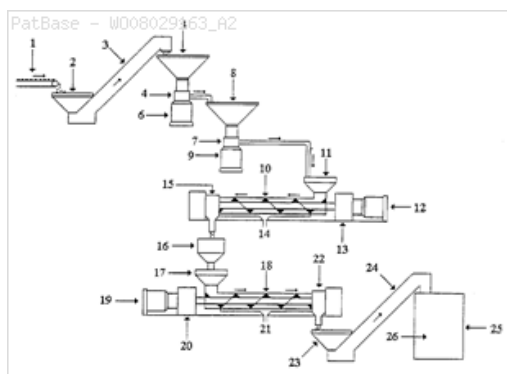
Abstract: A method of processing sweet sorghum cane for sugar extraction is disclosed. The method comprises passing the cane into a first cutter (4) to cut the material coarsely and then passing the material into a second cutter (7) to cut it into fine fibres. The fibrous material is then passed to a press (10) to extract sugar juice for fermentation in a bioethanol production plant (25).

Classifications:

International (IPC 8-9): A23L1/09 A23P1/00 C12P7/10 C13B10/00 C13B10/02 C13B5/00 C13K1/02 (Advanced/Invention)

CPC: C12P7/10 C13B10/02 C13K1/02 Y02E50/16 A23P1/00

European: A23P1/00 C12P7/10 C13B10/02 C13C1/00 C13D1/00 C13K1/02 Y02E50/16



Family:

Publication number	Publication date	Application number	Application date
GB200617762 A0	20061018	GB20060017762	20060908
GB2447062 A1	20080903	GB20060017762	20060908
WO08029163 A2	20080313	WO2007GB03395	20070910
WO08029163 A3	20080828	WO2007GB03395	20070910

Priority:

GB20060017762 20060908

Probable Assignee: NASAMAX LTD

Assignee(s): (std): BADALOV ARSEN ; NASAMAX LTD

Assignee(s): NASAMAX LIMITED

Inventor(s): (std): BADALOV ARSEN

Inventor(s): ARSEN BADALOV

Agent(s): FRANK B DEHN CO

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

12) Family number: 22004305 (US2340228A)

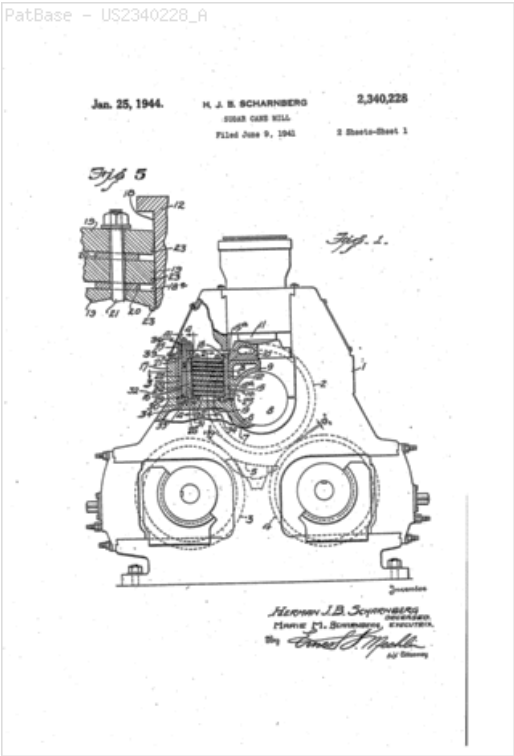
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Title: SUGAR-CANE MILL

Abstract: 1. In a thrust bearing having a fixed element and a movable element spaced therefrom, means interposed between said elements for transmitting a bearing force component from the movable element to the fixed element While permitting the movable element to move in a direction transversely of the direction of the bearing force component, said means comprising a plurality of plates, each of said plates having a pair of opposed convex edges adapted to rollingly engage said elements, spaced means for maintaining said plates in spaced apart parallel relation, and means for retaining said plates and said spaced means in assembled relation.

Classifications:

International (IPC 8-9): C13B10/06 F16C13/02 (Advanced/Invention)
International (IPC 1-7): C13D1/06
CPC: C13B10/06 F16C13/02
European: C13B10/06 F16C13/02
US: 100/165 384/420



Family:

Publication number	Publication date	Application number	Application date
US2340228 A	19440125	US19410397345	19410609

Priority:

US19410397345 19410609

Probable Assignee: MARIE M SCHARNBERG
Assignee(s): (std): MARIE M SCHARNBERG
Inventor(s): (std): SCHARNBERG MARIE M

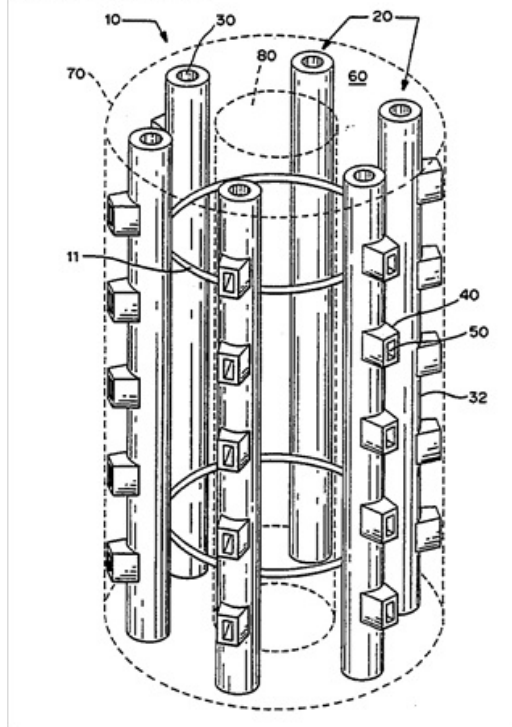
13) Family number: 13177321 (US5369884A) © PatBase

Title: INSERTLESS PERFORATED MILL ROLL

Abstract: An insertless perforated mill roll body adapted to be detachably sleeved upon a roller shaft for the grinding of a fluid-containing material such as sugar cane and extracting fluid such as sucrose juice therefrom. The insertless perforated mill roll body includes a plurality of shish-ke-bab-like fluid channel strings to be encased in the roll body, each fluid channel string including a hollow fluid channel preferably defined by a channel wall member which generally extends between the two axial ends of the roll body with a plurality of fluid passage members affixed thereto. The roll body is formed by casting a castable material such as cast iron or steel to enclose the fluid channel strings, whereupon a hollow center bore is provided to receive the shaft therethrough. Each fluid passage member contains at least one generally radially extending fluid passage to allow communication between the outer periphery of the mill roll body and the fluid channel. The fluid passages are inherently cast in the roll body without the need to use externally applied inserts and the fluid passage members can be fixedly secured within the roll body by a retaining force developed during the casting process without any external means thus eliminating the insert fall-off problems experienced in the prior art perforated mill rolls while preserving and enhancing all the advantages thereof.

Classifications:

International (IPC 8-9): B22D19/00 B30B9/20 C13B10/00
C13B10/02 C13B10/06 C13B10/12 C13D1/00 C13D1/02 C13D1/06
C13D1/12 (Advanced/Invention);
B22D19/00 (Advanced/Non-invention)
International (IPC 1-7): B02C004/02 B02C004/28 B02C4/00
B02C4/02 B02C4/28 B02C9/00 B22D19/00 B23P15/00 B30B9/20
C13D001/06 C13D1/00 C13D1/02 C13D1/06 C13D1/12 C13D9/06
F16C33/34
CPC: B30B9/20 C13B10/06 Y10T29/4956 Y10T29/49563
European: B30B9/20 C13B10/06
US: 241/2 241/28 241/293 29/895.3 29/895.32 298/953.2 492/46

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Publication number	Publication date	Application number	Application date
AP396 A	19950809	AP19930000601	19931207
AP9300601 A0	19940131	AP19930000601	19931207
AT141859 E	19960915	AT19930902937T	19931222
AU199352045 A1	19940707	AU19930052045	19931129
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BRPI9305112 A	19940816	BR1993PI05112	19931217
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ES2094044 T3	19970101	ES19940902937T	19931222
HU218225 B	20000628	HU19950001679	19931222
HU71880 A2	19960228	HU19950001679	19931222
HU9501679 A0	19950828	HU19950001679	19931222
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MX9307075 A1	19940630	MX19930007075	19931112
NZ258985 A	19971024	NZ19930258985	19931222
OA9953 A	19951211	OA19930060446	19931203
PH30604 A	19970731	PH19930045573	19930118
PL172685 B1	19971128	PL19930309627	19931222
PL309627 A1	19951030	PL19930309627	19931222
RU95113496 A1	19970710	RU19950113496	19950621
SG49064 A1	19980518	SG19960005708	19931222
TH14008 B	20021226	TH19931002287	19931214
TH19150 A	19960614	TH19931002287	19931214
US5369884 A	19941206	US19920994917	19921222
US5655717 A	19970812	US19940348698	19941202
WO9414603 A1	19940707	WO1993GB02631	19931222
ZA9309385 A	19940809	ZA19930009385	19931215

Priority:

US19920994917 19921222

WO1993GB02631 19931222

US19940348698 19941202

Probable Assignee: CHEN CHUNG CHI IRVING

Assignee(s): (std): AABUINGU CHIYUNNCHI CHIEN ; CHEN ; CHEN CHUNG CHI IRVING ; CHEN CHUNGCHI ; CHEN IRVING ; CHEN IRVING C ; IRVING CHUNG CHI CHEN ; CHEN IRVING CHUNG CHI ; CHEN IRVING C C ;
Assignee(s): CHUNG CHI CHEN IRVING
Irving Chung-Chi ; CHEN IRVING CHUNG CHI HONGKONG HK ; IRVING C CHEN ; PERIASAMY MUTHUNADAR P
Inventor(s): (std): CHEN CHUNG CHI ; CHEN IRVING C ; CHEN IRVING CHUNG CHI ; IRVING CHUNG CHI CHEN ; CHEN IRVING C C ; CHUNGCHI CHEN ; AABUINGU CHIYUNNCHI CHIEN ; CHUNG CHI CHEN IRVING
Inventor(s): PERIASAMY MUTHUNADAR P ; Irving Chung-Chi ; Chen ; CHUNG CHI CHEN ; CHEN IRVING CHUNG CHI HONGKONG HK ; IRVING C CHEN ; CHEN CHUNGCHI
Agent(s): WATERMARK PATENT AND TRADE MARKS ATTORNEYS; WATERMARK INTELLECTUAL PROPERTY PTY LTD; BERESKIN AND PARR; VILLASECA; XIMENA CASTELLANOS ABONDANO
Designated states: AT AU BB BE BF BG BJ BR BY CA CF CG CH CI CM CZ DE DK ES FI FR GA GB GN GR HU IE IT JP KP KR KZ LK LU LV MC MG ML MN MR MW NE NL NO NZ PL PT RO RU SD SE SK SN TD TG UA US UZ VN

14) Family number: 33515338 (US2007029252A)

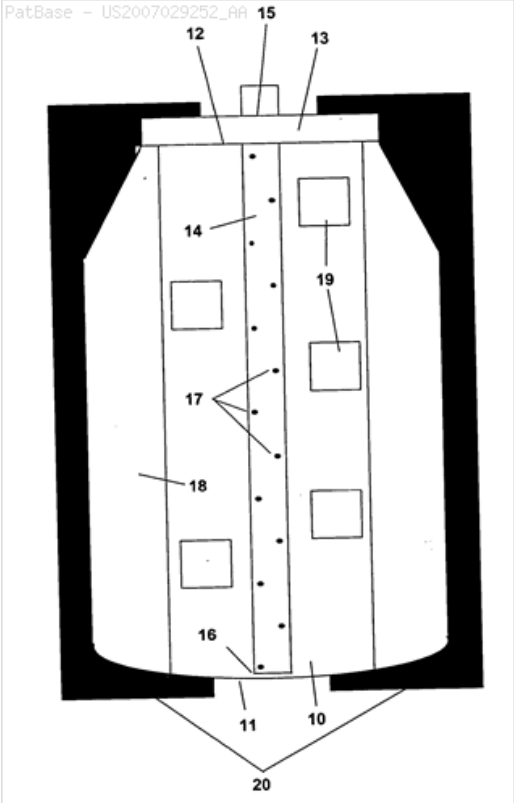
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Title: SYSTEM AND PROCESS FOR BIOMASS TREATMENT

Abstract: A system including an apparatus is presented for treatment of biomass that allows successful biomass treatment at a high solids dry weight of biomass in the biomass mixture. The design of the system provides extensive distribution of a reactant by spreading the reactant over the biomass as the reactant is introduced through an injection lance, while the biomass is rotated using baffles. The apparatus system to provide extensive assimilation of the reactant into biomass using baffles to lift and drop the biomass, as well as attrition media which fall onto the biomass, to enhance the treatment process.

Classifications:

International (IPC 8-9): B09B3/00 C02F11/00 C02F11/02 C02F3/00 C07H3/02 C10L1/00 C12M1/02 C12M1/40 C12N C12P1/00 C12P19/00 C12P19/02 C12P19/14 C12P7/00 C12P7/06 C12P7/08 C12P7/18 C12P7/56 C13K1/02 (Advanced/Invention); C07H3/02 C12N15/09 C12P19/14 (Advanced/Non-invention); B09B3/00 C02F11/00 C02F11/02 C02F3/00 C07H3/00 C10L1/00 C12M1/02 C12M1/40 C12P1/00 C12P19/00 C12P7/00 C12P7/02 C12P7/40 C13K1/00 (Core/Invention); C07H3/00 C12N15/09 C12P19/00 (Core/Non-invention)
International (IPC 1-7): C12M1/40 C12P1/00 C12P19/02 C12P7/08
CPC: B09B3/00 C12M23/56 C12M27/10 C12M27/20 C12M29/00 D21C5/00 D21C11/0007 C12M45/02 Y02E50/10 C12P7/08 C12P19/02 C12P2201/00 Y02E50/17 C12P7/02 C12P5/00 C12P7/10 C12P7/16 C12P7/18 C12P7/28 C12P7/40 C12P13/04 Y02E50/16 C12M45/09 C12M27/02 Y02E50/343 Y02W10/45
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US: 127/37 162/22 210/603 426/7 435/105 435/105P 435/132 435/161 435/161P 435/161S 435/41 435/41P 435/41S 435/72 435/72P 435/99



Family:

Publication number	Publication date	Application number	Application date
BRPI0612207 A2	20101026	BR2006PI12207	20060412
BRPI0612937 A2	20101207	BR2006PI12937	20060412
BRPI0612937 B1	20150707	BR2006PI12937	20060412
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US7910338 BB	20110322	US20060402756	20060412
US7932063 BB	20110426	US20060402757	20060412
US7998713 BB	20110816	US20060402573	20060412
US8512979 BB	20130820	US20100705683	20100215
WO06110891 A2	20061019	WO2006US14020	20060412
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WO06110899 A3	20070329	WO2006US14144	20060412
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Priority:

US20050670437	20050412	US20050670437	20050412	US20050670437P	20050412
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US20100705683	20100215				

Probable Assignee: SUSTAINABLE TECHNOLOGY CORP

Assignee(s): (std):	ALLIANCE SUSTAINABLE ENERGY ; DU PONT ; DUNSON JAMES B ; DUNSON JAMES B JR ; TUCKER MELVIN ; ELANDER RICHARD ; LYONS ROBERT C ; HENNESSEY SUSAN ; FRIEND JULIE ; HAMES BONNIE ; HENNESSEY SUSAN M ; TUCKER MELVIN P ; ELANDER RICHARD T ; TUCKER MELVIN P III ; DUNSON JR JAMES B ; MIDWEST RESEARCH INST ; EIDU PONT DE NEMOURS AND CO ; TUCKER III MELVIN P
Assignee(s):	MIDWEST RESEARCH INST425 VOLKER BOULEVARDKANSAS CITYMO64110US ; SUSTAINABLE TECHNOLOGY CORP ; MIDWEST RESEARCH INSTITUTE ; ALLIANCE FOR SUSTAINABLE ENERGY LLC ; ALLIANCE FOR SUSTAINABLE ENERGY LLC425 VOLKER BOULEVARDKANSAS CITYMO64110-2241US ; EI DU PONT DE NEMOURS AND CO1007 MARKET STREETWILMINGTONDE19898US ; EI DU PONT DE NEMOURS AND CO WILMINGTON ; DUPONT US HOLDING LLC ; EI DUPONT DE NEMOURS AND CO ; UNITED STATES DEPARTMENT OF ENERGY ; ENERGY UNITED STATES DEPARTMENT OF ; ENERGY UNITED STATE DEPARTMENT OF ; E I DU PONT DE NEMOURS AND COMPANY ; EI DU PONT DE NEMOURS AND CO ; E I DUPONT DE NEMOURS AND COMPANY ; E I DU PONT DE NEMOURS CO ; E I DU PONT DE NEMOURS AND CO
Inventor(s): (std):	DUNSON JAMES B ; TUCKER MELVIN ; ELANDER RICHARD ; LYONS ROBERT C ; HENNESSEY SUSAN ; FRIEND JULIE ; HAMES BONNIE ; HENNESSEY SUSAN M ; TUCKER MELVIN P ; DUNSON JAMES B JR ; ELANDER RICHARD T ; TUCKER MELVIN P III ; RICHARD ELANDER ; MELVIN TUCKER ; SUSAN M HENNESSEY ; JAMES B DUNSON ; JULIE FRIEND ; BONNIE HAMES ; HENNESSEY SUSAN MARIE ; SUSAN HENNESSEY ; TUCKER III MELVIN P ; DUNSON JR JAMES B ; TUCKER MELVIN P
Inventor(s):	SUSAN MHENNESSEY ; DUNSON JAMES ; LYONS ROBERT ; TUCKER MELVINUS ; ELANDER RICHARDUS ; HENNESSEY SUSANUS ; DUNSON JAMES BUS ; LYONS ROBERT C ARVADA ; TUCKER MELVIN LAKEWOOD ; ELANDER RICHARD EVERGREEN ; DUNSON JAMES B NEWARK ; ROBERT C LYONS ; DUNSON JAMES BJR ; TUCKER MELVIN PIII

Agent(s): TORYS LLP; MARKS AND CLERK LUXEMBOURG LLP; MATTHEWS DEREK PETER; E I DU PONT DE NEMOURS AND COMPANY, LEGAL PATENT RECORDS CENTER; E I DU PONT DE NEMOURS AND CO LEGAL PATENT RECORDS CENTER; E I DU PONT DE NEMOURS AND COMPANY,LEGAL PATENT RECORDS CENTER

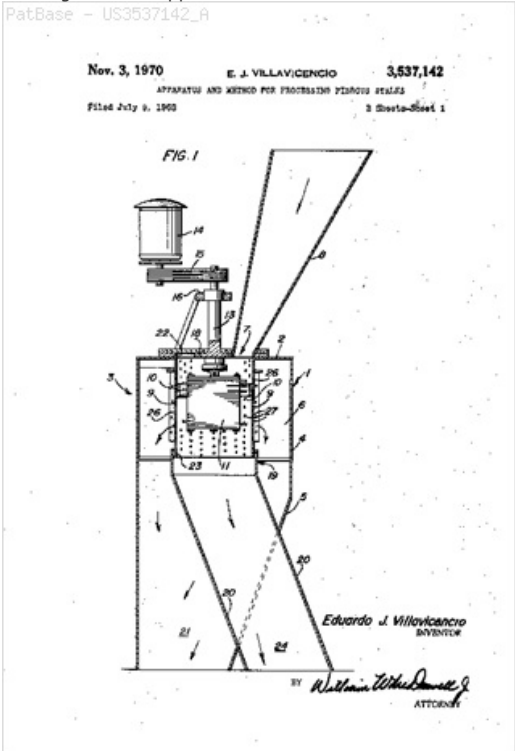
Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LC LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

15) Family number: 616446 (US3537142A) © PatBase

Title: APPARATUS AND METHOD FOR PROCESSING FIBROUS STALKS

Abstract: ABSTRACT OF THE DISCLOSURE
Apparates for processing fragments of crushed fi-brous stalks containing pith to separate the pith and the fiber including a vertically disposed casing forming a closed Chamber with a feed opening at the top and an out-let at the bottom, a cylindrical screening element inside said casing and mounted so that the feed opening leads to the interior of the screening element, a rotor assembly coaxially mounted inside the screening element and hav-ing a plurality of hammers laterally extending to close proximity -with the screening element and arranged to centrifugally and helically propel fragments to be pro-cessed through the treating zone defined by the cylindrical screening element and separate the pith fraction from the fiber fraction in the course of the travel through the screening element. According to the method the fragments are centrifugally and helically propelled and gravity fed through the treating zone defined by a vertical cylindrical screening element, in the absense of any extraneous arti-ficially created air pressure differenti als, so that a layer of axially aligned oriented fragments is formed on the inner surface of the screening element and the pith is separated by the rolling and rubbing action of the fragments on each other and is forced to the exterior of the screening element by centrifugai forces applied.

Classifications:
International (ipc 8-9): D01B1/10 (Advanced/Invention);
D01B1/00 (Core/Invention)
International (ipc 1-7): C13C1/02 D01B1/26 D01B1/30 D21B
CPC: D01B1/10
European: D01B1/10
US: 19/26 19/260



Family:

Publication number	Publication date	Application number	Application date
BR6803861 A0	19730116	BR19680203861	19681111
ES369294 A1	19710501	ES19690369294	19690708
ES388788 A1	19740301	ES19710388788	19710302
FR1591212 A	19700427		19681031
US3537142 A	19701103	US19680743344	19680709

Priority:
US19680743344 19680709

Probable Assignee: GRACE W R AND CO

Assignee(s): (std): GRACE W R AND CO

Assignee(s): W R GRACE AND C ; W R GRACE AND CO ; GRACE W E CO

Inventor(s): (std): VILLAVICENCIO EDUARDO JOEL ; VILLAVICENCIO E

Inventor(s): EDUARDO JOEL VILLAVICENCIO

16) Family number: 700505 (US3373679A) © PatBase

Title: Process for treating sucrose-bearing fibrous materials

Abstract: ABSTRACT OF THE DISCLOSURE
Su.-ar cane n,aterial, raw cane or bagasse, is processed throu, h a rollin- mill or shredder to rupture the cells and expose the fibers, and then conveyed to a mechanical press having substantial drainage ' openings and capable of sustaining pressure on the material. Hot fluid such as steam is added to the rmaterial during the time it is bein.- conveyed to increase its

temperature to at least 160' F. and preferably to within a range of 180' F. to 200' F. The heated material is fed directly into the press and liquid is expressed from the material with subs,antially reduced power required to drive the press.

Classifications:

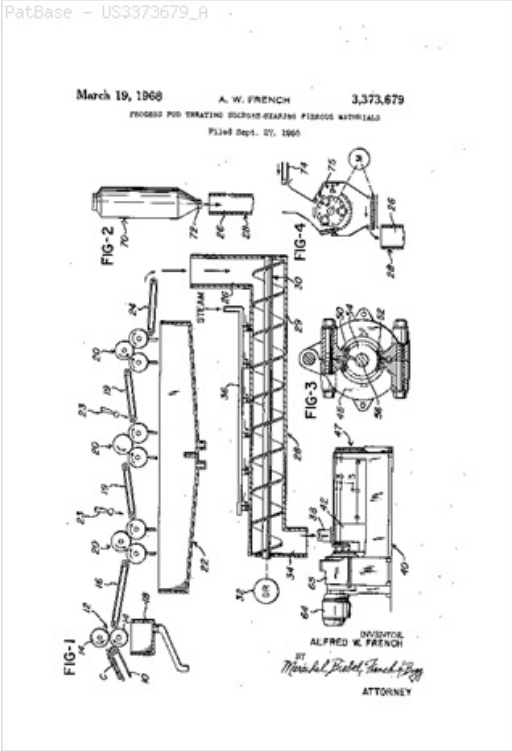
International (IPC 8-9): C13B10/02 C13B15/00 (Advanced/Invention)

International (IPC 1-7): C13D1/02

CPC: C13B10/02 C13B20/00

European: C13B10/02 C13B20/00

US: 100/37 100/38 100/74 100/92



Family:

Publication number	Publication date	Application number	Application date
GB1155632 A	19690618	GB19660043164	19660927
US3373679 A	19680319	US19650490329	19650927

Priority:

US19650490329 19650927

Probable Assignee:

FRENCH OIL MILL MACHINERY

Assignee(s): (std):

FRENCH OIL MILL MACHINERY

Assignee(s):

THE FRENCH OIL MILL MACHINERY COMPANY

Inventor(s): (std):

FRENCH ALFRED W

17) Family number: 22787561 (US3199793A) © PatBase

Title: AUTOMATIC FEED OF SUGAR CANE AT OPTIMUM RATES TO SUGAR CANE MILLS

Abstract: (Claim 1) 1. In a crushing mill for sugar cane having a conveyor for transporting the cane to a chute discharging the cane ... for passage between rotated crushing rolls; the combination of (A) sensing means responsive to changes in the average height of cane across said conveyor at a location in advance of said chute; fin (B) drive means for the conveyor including a substantially constant speed prime mover, a variable displacement, piston-type hydraulic pump driven by said prime mover, a fixed displacement piston-type hydraulic motor in closed circuit connection with said pump so as to be driven by hydraulic fluid circulated by said hydraulic pump at a speed exactly determined by the displacement of said pump, and mechanical transmission means connecting said hydraulic motor to the conveyor so that the latter is driven ... at a linear speed corresponding to the displacement of said pump; and (C) control means actuated by said sensing means and operative to vary the displacement of said hydraulic pump as an inverse function of the average height of cane to which said sensing means responds, thereby to accurately maintain a predetermined volumetric rate of feed of cane to the crushing rolls.

Classifications:

International (IPC 8-9): B65G43/08 (Advanced/Invention);

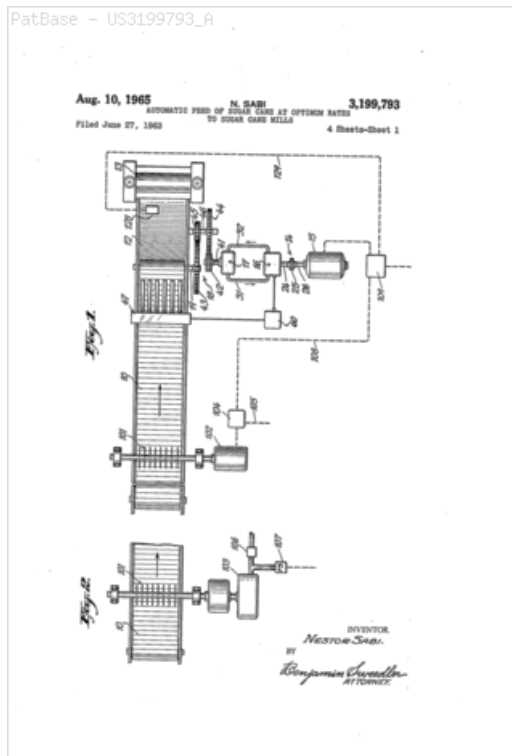
B65G43/08 (Core/Invention)

International (IPC 1-7): C13C1/04

CPC: B65G43/08

European: B65G43/08

US: 100/155R 100/43 100/45 198/810.01 241/223 241/34 60/431 60/445

**Family:**

Publication number	Publication date	Application number	Application date
US3199793 A	19650810	US19630291075	19630627

Priority:

US19630291075 19630627

Probable Assignee:

HYDRAULICS INC

Assignee(s): (std):

HYDRAULICS INC

Inventor(s): (std):

NESTOR SABI

Inventor(s):

SABI NESTOR

18) Family number: 22894578 (FR1289762A)

© PatBase

Title: INSTALLATION POUR LA DIFFUSION CONTINUE DE LA CANNE A SUCRE INSTALLATION FOR STREAMING OF SUGAR CANE (Machine translation)

Abstract: Source: FR1289762A [FR] (Claim 1) Fonctionnement. - En resument brievement le fonctionnement de l'appareil, de la canne lavée de diverses longueurs allant jusqu'à 6 m est recue au poste 10 pour être transportée jusqu'au poste d'éperrage 12 ou on lave de nouveau la canne et où la séparation par flottage est effectuée.

Machine translation: (Claim 1) Operation. - As briefly summarize the operation of the device, cane dishes washed in varying lengths up to 6 m is received at station 10 to be transported to the station 12 or stone removal washed again and the cane or separation by flotation is effected.

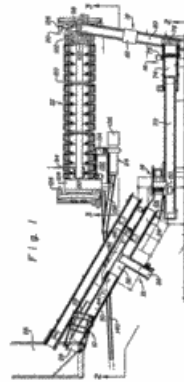
Classifications:

International (IPC 8-9): C13B10/02 (Advanced/Invention)

International (IPC 1-7): C13D1/00

CPC: C13B10/02

European: C13B10/02

N. 1.000701 Soudet die : 2 planches - P. 1
Micro Manufacturing Co**Family:**

Publication number	Publication date	Application number	Application date
FR1289762 A	19620406	FR19610860520	19610502

Priority:

FR19610860520 19610502

Probable Assignee:

RIETZ MFG CO

Assignee(s): (std):

RIETZ MFG CO

Assignee(s):

RIETZ MANUFACTURING CO

19) Family number: 30301600 (US4326036A)

© PatBase

Title: PRODUCTION OF ETHANOL FROM SUGAR CANE

Abstract: An integrated process is provided for producing ethanol from sugar cane. Harvested cane is chopped and shredded to provide a mass of fiber and juice which is digested in a first digester with a hemicellulase enzyme. Fibrous residue is separated by centrifuge and passed to a second digester for digestion with a mixed culture of a cellulase enzyme and an ethanol-producing culture. Fibrous residue from is pressed to provide a recycle juice extract and then burned to provide at least part of the heat energy requirement of the process. Juice extracts from digesters separated by centrifuges are combined, sterilized, flashed and passed to a fermentor for fermentation with an ethanol-producing microorganism. Ethanol is recovered from the process by separation utilizing a membrane.

Classifications:

International (IPC 8-9): C12P7/06 (Advanced/Invention);
C12P7/02 (Core/Invention)

International (IPC 1-7): C12B C12C11/00 C12F C12P19/02
C12P7/06 C12P7/08 C12P7/10 C12P7/14 C12P7/16 C12P7/28
C12R1/00 C12R1/01 C12R1/04 C12R1/07 C12R1/71 C12R1/85
C12R1/865 C12R1/885 C13D C13F

CPC: Y02P20/125 C12P7/06 Y02E50/17

European: C12P7/06 Y02E50/17

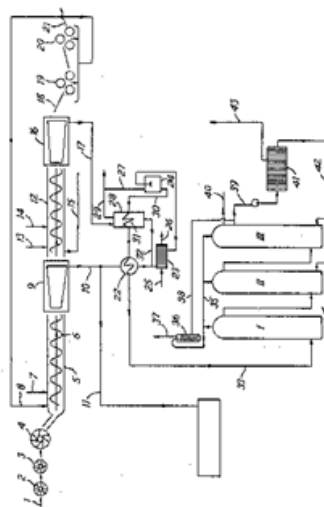
US: 435/161 435/162 435/163 435/72

PatBase - US4326036_A

U.S. Patent

Apr. 20, 1982

4,326,036



Family:

Publication number	Publication date	Application number	Application date
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AU531852 B2	19830908	AU19800062846	19800930
BR8006653 A	19810422	BR19800006653	19801016
GB2060688 A1	19810507	GB19800033224	19801015
GB2060688 B2	19831019	GB19800033224	19801015
MW3980 A	19820310	MW19800000039	19801014
US4326036 A	19820420	US19800197538	19801016
ZA8006361 A	19811028	ZA19800006361	19801016
ZW23080 A	19810325	ZW19800000230	19801007

Priority:

GB19790036060 19791017 GB19800033224 19801015

Probable Assignee: HAYES F W AND LENNON D C

Assignee(s): (std): HAYER F ; HAYES F ; HAYES F W ; HAYES F W AND LENNON D C ; LENNON D C ; LENNON D ; HAYES FRANK WYNN ; LENNON DERIK CARLTON ; HAYES FRANK W ; LENNON DEREK CARLTON

Assignee(s): HAYES F W LENNON D C ; LENNON DC ; HAYES FW ; HAYES FW LENNON DC ; DEREK CARLTON LENNON ; DEREK CARLTON LENNON A BRITISH SUBJECT

Inventor(s): (std): HAYER F ; HAYES FRANK W ; HAYES F ; HAYES F W ; HAYES FRANK WYNN

Inventor(s): FRANK WYNN HAYES ; F W HAYES

Agent(s): PHILLIPS ORMONDE FITZPATRICK

20) Family number: 19889609 (US1792502A)

© PatBase

Title: SUGAR-CANE-CRUSHING APPARATUS

Abstract: 1. A scraper plate for cane crushing apparatus having a pressure roll and a shredding roll, said plate having teeth along an edge thereof, said teeth being adapted to enter grooves in the pressure roll disposed at one side of said plate, and a plurality of ribs upon the side of said plate opposite the pressure roll, said ribs being adapted to coact with the shredding roll to shred cane passed therebetween, said ribs being radii all beyond the periphery of said shredding roll

Classifications:

International (IPC 8-9): C13B10/06 (Advanced/Invention)

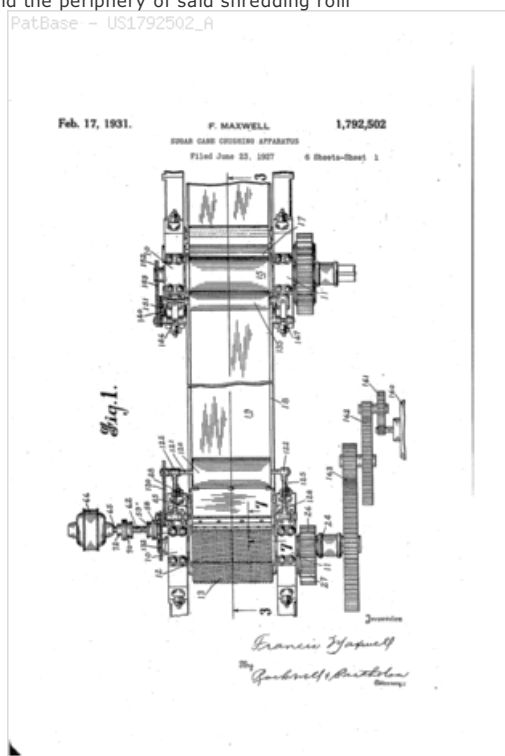
International (IPC 1-7): C13C1/04

CPC: C13B10/06

European: C13B10/06

US: 100/166 100/167 100/171

PatBase - US1792502_A

**Family:**

Publication number	Publication date	Application number	Application date
US1792502 A	19310217	US19270200889	19270623

Priority:

US19270200889 19270623

Probable Assignee: FRANCIS MAXWELL

Assignee(s): (std): FRANCIS MAXWELL

Inventor(s): (std): FRANCIS MAXWELL

Inventor(s): MAXWELL FRANCIS

21) Family number: 55308688 (BR102012005001A)

© PatBase

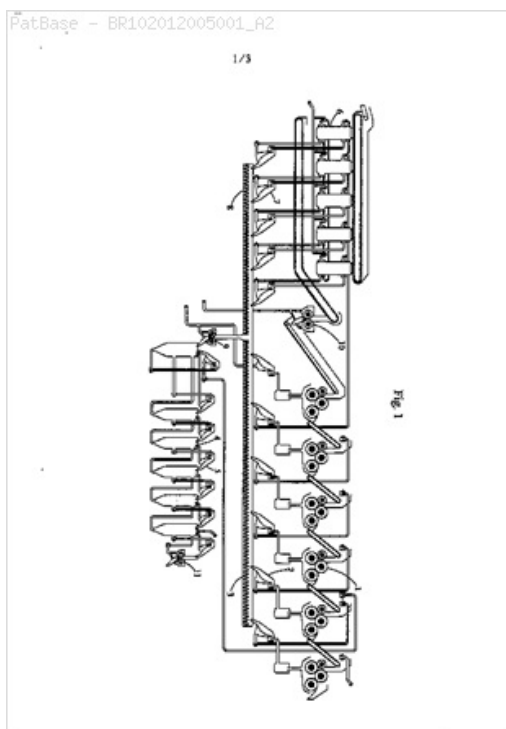
Title: PROCESSO DE EXTRAÇÃO DE CALDO COM MOENDAS LAVANDO A CANA DESFIBRADA APOS O DESFIBRADOR E

SEPARANDO O BAGACILHO GERADO NO DESFIBRADOR E NAS MOENDAS EXTRAINDO SEU CALDO EM SEPARADO
 PROCESS juice extraction mills WASHING WITH A CANE shredded AFTER THE SHREDDER AND SEPARATING The
 bagacilho GENERATED IN SHREDDER AND GETTING YOUR JUICE IN mills SEPARATELY (Machine translation)

Abstract: Source: BR102012005001A [PT] 1 Resumo "PROCESSO DE EXTRACAO DE CALDO COM MOENDAS LAVANDO A CANA DESFIBRADA APOS O DESFIBRADOR E SEPARANDO O BAGACILHO GERADO NO DESFIBRADOR E NAS MOENDAS EXTRAINDO SEU CALDO EM SEPARADO" aumenta a moagem e o rendimento na extracao, reduzindo o consumo de energia na extracao do caldo. Explora uma forma inedita de extrair caldo. As moendas recebem a cana desfibrada com 90 percent das celulas rompidas, o processo preve lavar a cana desfibrada com caldo diluido e extrair caldo exposto fora das celulas da cana desfibrada antes de chegar as moendas extraindo por lavagem, diluindo o caldo exposto fora das celulas rompidas. O caldo diluido arrasta o bagacilho que sera separado da cana desfibrada. As moendas comprimem o bagaco entre os rolos e atrita contra a bagaceira gerando mais bagacilho que sera acrescentado ao bagacilho do desfibrador e tera seu caldo extraido por lavagem em contra corrente com agua, ou por compressao entre rolos. A energia consumida no preparo da cana para a moagem e da ordem de 50 percent da energia consumida nos seis temos de moenda, e seu efeito nao esta sendo totalmente aproveitado. A cana desfibrada chega as moendas com parte do caldo ja extraido sem consumir mais energia. **Machine translation:** 1 summary "juice extraction PROCESS WITH mills WASHING The CANA shredded AFTER THE SHREDDER AND SEPARATING The bagacilho GENERATED IN SHREDDER AND IN mills GETTING YOUR JUICE IN SEPARATE" increases the grinding and the yield on the extraction, reducing energy consumption in the extraction the broth. Explore a inedita way to extract juice. The mills receive the cane shredded with 90 percent of the cells broken, the process predicts wash the cane shredded with diluted broth and extract exposed juice out of sugarcane cells shredded before reaching the mills drawing by washing, diluting the juice exposed out of the broken cells. The broth diluted drag the bagacilho which will be separated from the shredded cane. The mills compress the bagasse between the rolls and rubs against bagaceira generating more bagacilho that will be added to bagacilho the shredder and will have your broth extracted by washing in counterflow with water, or by compression between rollers. The energy consumed in the preparation of the cane for milling and around 50 percent of the energy consumed in the six we have to mill, and its effect is not being fully tapped. The shredded cane reaches the mills with some of the broth already extracted without consuming more energy.

Classifications:

International (IPC 8-9): B30B9/20 C13B10/12 (Advanced/Invention)



Family:

Publication number	Publication date	Application number	Application date
BR102012005001 A2	20131126	BR20121005001	20120306

Priority:

BR20121005001 20120306

Probable Assignee:

OSCAR NISHIMURA

Assignee(s): (std):

OSCAR NISHIMURA

Inventor(s): (std):

NISHUMURA OSCAR

Inventor(s):

OSCAR NISHUMURA

22) Family number: 37057714 (GB191512265A)

© PatBase

Title: Improvements in Rolls for Sugar Cane Mills.

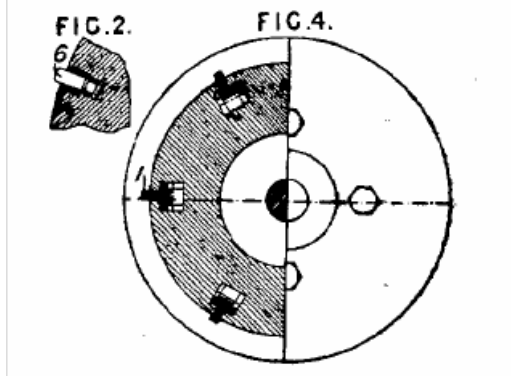
Abstract: 12,265. Erkelens, A. M. Aug. 25. Roller mills.-Rollers for sugar-cane mills are provided with a number of projecting resilient studs 6, Fig. 2, or bars 1, Fig. 4, which grip the canes for feeding and then yield under pressure so as to be substantially flush with the surface of the roll.

Classifications:

International (IPC 8-9): C13B10/06 (Advanced/Invention)

CPC: C13B10/06

European: C13B10/06

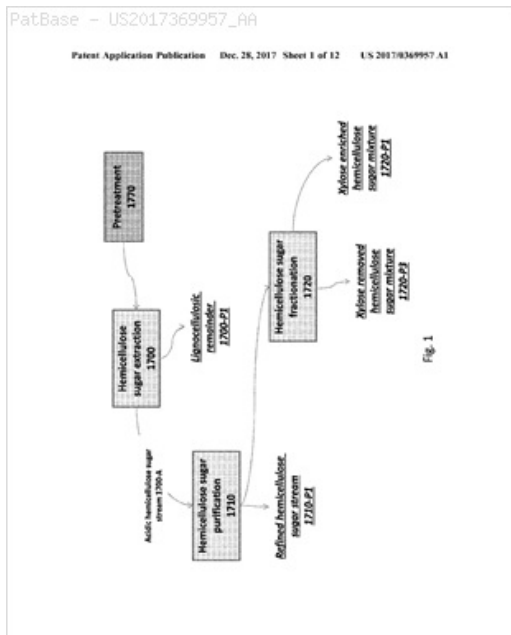
**Family:**

Publication number	Publication date	Application number	Application date
GB191512265 A	19160210		00000000

Probable Assignee: ERKELENS ABRAHAM MARIE
Assignee(s): (std): ERKELENS ABRAHAM MARIE
Assignee(s): ABRAHAM MARIE ERKELENS
Inventor(s): (std): ERKELENS ABRAHAM MARIE
Inventor(s): ABRAHAM MARIE ERKELENS

23) Family number: 62923735 (US2017369957A)

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Title: METHODS FOR EXTRACTING AND CONVERTING HEMICELLULOSE SUGARS**Abstract:** The present disclosure relates to systems, methods, and processes for the production of sugars and conversion products from biomass.**Classifications:****International (IPC 8-9):** C07D307/48 C08B37/00 C08B37/14 C12P7/18 C13K1/02 C13K11/00 C13K13/00 (Advanced/Invention)**CPC:** C08B37/0057 C08H8/00 C13K1/02 C13K11/00 C13K13/00 C13K13/002 C13K13/007 C12P7/18**US:** 1/1 435/158**Family:**

Publication number	Publication date	Application number	Application date
BR112017014667 A2	20180605	BR20171114667	20160106
CN107108543 A	20170829	CN201680005281	20160106
DE602016023793 D1	20191121	DE201660023793T	20160106
EP3242871 A1	20171115	EP20160735376	20160106
EP3242871 A4	20180606	EP20160735376	20160106
EP3242871 B1	20191106	EP20160735376	20160106
US2017369957 AA	20171228	US20160541544	20160106
WO16112134 A1	20160714	WO2016US12384	20160106

Priority:

US20150100791P 20150107 US20150249801P 20151102 EP20160735376 20160106
 WO2016US12384 20160106 US20160541544 20160106

Probable Assignee: VIRDIA INC**Assignee(s): (std):** VIRDIA INC**Assignee(s):** VIRDIA INC RACELAND**Inventor(s): (std):** LAPIDOT NOA ; CARDEN ADAM TYLER ; LAWSON JAMES ALAN ; STOUT BRENDON CHRISTOPHER ; JANSEN ROBERT ; TRAVISANO PHILIP

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UB UG UZ VC VN ZA ZM ZW

US: 127/2 127/42 127/43 460/123



Inventor(s): MILLER ROBERT BOOTHE EDMONTON ALBERTA CANADA ; ROBERT B MILLER

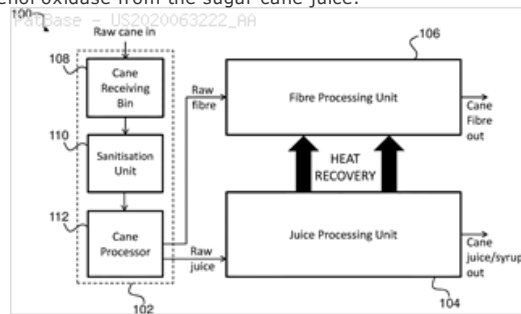
Title: SYSTEM FOR AND METHOD OF PROCESSING SUGAR CANE

Abstract: A method of processing raw sugar cane juice, comprising: reducing the pH of the sugar cane juice to a pH at which microbiological activity is substantially eliminated; separating chlorophyll from the sugar cane juice; separating particles having a diameter greater than 0.5 microns from the sugar cane juice; denaturing polyphenol oxidase (PPO) in the sugar cane juice by pasteurisation; separating the denatured polyphenol oxidase from the sugar cane juice.

Classifications:

International (IPC 8-9): A23L2/04 A23L2/68 A23L2/70 A23L2/72 A23L29/30 A23L3/16 A23L3/32 C13B10/10 C13B10/12 C13B20/00 C13B20/16 C13B20/18 C13B25/00 (Advanced/Invention)

CPC: A23L2/04 A23L2/68 A23L2/70 A23L2/72 A23L3/16 A23L3/32 A23L3/3508 C13B10/00 C13B10/06 C13B20/00 C13B20/16 A23L29/30 A23V2002/00 C13B25/00

**Family:**

Publication number	Publication date	Application number	Application date
AU2018263278 AA	20191205	AU20180263278	20180413
CN110799655 A	20200214	CN201880040601	20180413
EP3619328 A1	20200311	EP20180794411	20180413
IN201917048779 A	20200117	IN201917048779	20191128
US2020063222 AA	20200227	US20180610023	20180413
WO18201183 A1	20181108	WO2018AU50338	20180413

Priority:

AU20170901576 20170501 WO2018AU50338 20180413

Probable Assignee: BIOMASS TECH PTY LTD

Assignee(s): (std): BIOMASS TECH PTY LTD

Assignee(s): BIOMASS TECHNOLOGIES PTY LTD

Inventor(s): (std): MAXWELL SCOTT A ; DIAMOND MARK ; SCOTT MAXWELL A ; BROWN RODNEY A

Agent(s): LEGALVISION ILP PTY LTD; WILLIAMS POWELL; FB RICE PTY LTD

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JO JP KE KG KH KM KN KP KR KW KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: PROCESSING BIOMASS

Abstract: Biomass (e.g., plant biomass, animal biomass, and municipal waste biomass) is processed to produce useful products, such as fuels. For example, systems are described that can use feedstock materials, such as cellulosic and/or lignocellulosic materials, to produce ethanol and/or butanol, e.g., by fermentation.

Classifications:

International (IPC 8-9): A23K1/00 A23K1/12 A23K1/14 A23K10/32

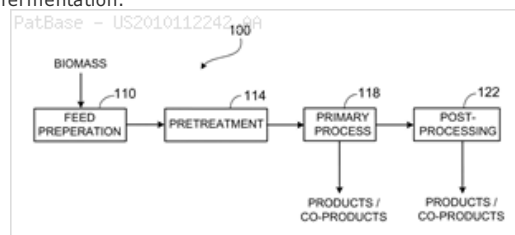
A23K3/00 B01J19/08 B09B3/00 B09B5/00 B27K5/00 C01B3/32 C02F3/30 C07D307/50 C07H1/00 C08B1/00 C08B16/00 C08H C08H5/04 C08H7/00 C08H8/00 C08J C08J3/12 C08J3/20 C08J3/28 C08J7/12 C08L C08L1/02 C08L1/08 C08L101/16 C08L97/02 C10B53/02 C10G C10G1/00 C10G15/00 C10G15/10 C10G3/00 C10G32/00 C10G32/04 C10G49/12 C10L C10L1/02 C10L1/04 C10L3/00 C10L5/44 C12M1/00 C12M1/107 C12M1/33 C12N1/10 C12N1/12 C12N9/24 C12P C12P1/00 C12P13/00 C12P17/04 C12P19/00 C12P19/02 C12P19/04 C12P19/12 C12P19/14 C12P21/00 C12P3/00 C12P5/00 C12P5/02 C12P7/02 C12P7/04 C12P7/06 C12P7/08 C12P7/10 C12P7/14 C12P7/16 C12P7/40 C12P7/42 C12P7/44 C12P7/46 C12P7/52 C12P7/54 C12P7/56 C12P7/64 C13K1/00 C13K1/02 D21B1/00 D21B1/02 D21B1/04 D21B1/10 D21C1/00 D21C1/02 D21C1/04 D21C1/06 D21C1/10 D21C3/04 D21C5/00 D21H1/08 F01K13/00 F01K13/02 F01K21/00 F01K7/16 F01K9/00 F22B1/00 (Advanced/Invention); C02F11/04 C08H7/00 C08J3/28 C08L97/02 C12M1/107 C12N13/00 C12N9/00 C12P7/10 C12P7/16 (Advanced/Non-invention); C08H8/00 C08J3/28 C08L1/00 C08L97/00 C10G1/00 C10L1/00 C10L5/40 (Core/Invention); C08H C08J C08L (Subclass/Invention)

International (IPC 1-7): C08H5/04 C08J3/28 C08L1/02 C08L97/02 C10G1/00 C10L1/02 C10L5/44

CPC: C08L2666/02 Y02A40/818 C10G2300/1003 C12P7/54 C10L1/02 C12P2203/00 C10L2200/0469 C10L2250/04 C10L2290/26 C10L2290/36 C12P7/02 C12P19/02 D21B1/10 D21H11/08 F01K7/16 F01K9/00 F01K13/02 C12P7/14 C12P19/14 C12M21/04 C12M45/20 C12N9/2405 Y02E50/14 Y02E50/17 Y02E50/32 Y02E50/343 Y02P30/20 F22B1/00 C08H8/00 C08L1/02 C08L97/02 C10G1/00 C10G2300/1014 C12P3/00 C12P5/00 C12P7/04 C12P7/10 C12P7/16 C12P2201/00 C10G3/00 C10G15/00 C10G32/00 C10G49/12 C10L5/44 C12M21/12 C12M45/00 C12M45/02 Y02E50/10 Y02E50/16 Y02E50/30 C10L5/403 C10L5/442 C10L5/445 C10L5/46 C10L2250/06 C10L2290/02 C10L2290/28 C10L2290/34 C10L2290/38 C10L2290/48 D21C9/00 D21C9/002 D21C9/007

European: C08H8/00 C08L1/02 C08L97/02 C10G1/00 C10G15/00 C10G3/00 C10G32/00 C10G49/12 C10L5/44 C12M1/00 C12M21/04 C12M21/12 C12M45/00 C12M45/02 C12M45/20 C12P3/00 C12P5/00 C12P7/04 C12P7/10 C12P7/16 M12M510/05 M12M516/04 M12P201/00 Y02E50/10 Y02E50/16 Y02E50/30

US: 1/1 122/16.1 162/158 162/192 162/198 162/50 162/50S 166/158 166/192 166/50 203/27 204/157.63 204/157.68 428/22 428/22P 435/105 435/134 435/136 435/139 435/140 435/141 435/142 435/145 435/146 435/155 435/155P 435/155S 435/157 435/158 435/159 435/160 435/160P 435/162 435/165 435/166 435/166S 435/167 435/167P 435/183 435/201 435/41 435/41S 435/72 435/72S 435/78 435/99 435/99P 522/88 524/14 524/35 536/124 536/124S 536/56 536/56S 549/489 585/240 585/240S 585/242 585/242S 585/733 585/733S 60/645

**Family:**

Publication number	Publication date	Application number	Application date
AP200904863 A0	20090630	AP20090004863	20071026
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Priority:

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JP20190070304	20190402				

Probable Assignee: XYLECO INC

Assignee(s): (std): GREEK LUCK CORP US ; KSILEKO INK ; KSILKO INK ; MARSHALL MEDOFF ; MEDOFF MARSHALL ; XYLECO INC

Assignee(s): XYLECO INCL-271 SALEM STREETWOBURNMA01801US ; XYLECO INCL - 271 SALEM STREETWOBURNMA01801US ; XYLECO INC271 SALEM STREET, UNIT LWOBURNMA01801US ; GREEK LUCK CORP

Inventor(s): (std): MEDOFF MARSHALL ; MEDOFF MARSHAL ; MARSHALL MEDOFF

Inventor(s): MEDOFF MARSHALLUS ; MEDOFF MARSCHALL ; XYLECO INC

Agent(s): SPRUSON AND FERGUSON; SMART AND BIGGAR; CHARIG RAYMOND JULIAN; SIMPSON MARK GEOFFREY; ANDROMEDA BA SH; REINHOLD COHN AND PARTNERS; KAWAMOTO KAZUYA; SHIMIZU HATSUSHI; OSAKABE SUGURU; HENRY GOH S PTE LTD; XYLECO INC CELIA LEBER; CELIA H; LEBER PATENT LAW PC; LEBER IP LAW; LEBER CELIA H; NABINGER ROBERT C ET AL

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

27) Family number: 42971778 (US2009050134A)

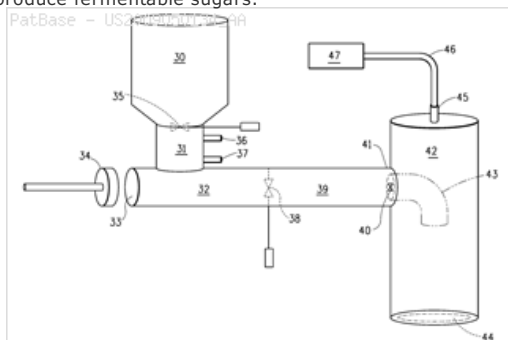
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Title: BIOMASS TREATMENT METHOD

Abstract: A method for treating biomass was developed that uses an apparatus which moves a biomass and dilute aqueous ammonia mixture through reaction chambers without compaction. The apparatus moves the biomass using a non-compressing piston. The resulting treated biomass is saccharified to produce fermentable sugars.

Classifications:

International (IPC 8-9): B01J19/18 B09B3/00 C02F11/00 C02F11/02 C08B1/00 C08H8/00 C12P19/00 C12P19/14 C13K1/02 (Advanced/Invention); C12P7/10 (Advanced/Non-invention); C08B1/00 C12P19/00 C13K1/00 (Core/Invention)
International (IPC 1-7): C12P19/00
CPC: C08H8/00 C13K1/02 Y02E50/16
European: C08H8/00 C13K1/02
US: 127/1 127/29 127/36 127/37



Family:

Publication number **Publication date** **Application number** **Application date**

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EP2190883 A2	20100602	EP20080836743	20080818
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WO09045653 A2	20090409	WO2008US73418	20080818
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Priority:

US20070843142 20070822 EP20080836743 20080818 WO2008US73418 20080818

Probable Assignee: SUSTAINABLE TECHNOLOGY CORP

Assignee(s): (std): ALLIANCE SUSTAINABLE ENERGY ; DU PONT ; ELANDER RICHARD T ; LYONS ROBERT C ; FRIEND JULIE ; MIDWEST RESEARCH INST ; EIDU PONT DE NEMOURS AND CO ; TUCKER III MELVIN P

Assignee(s): TUCKER MELVIN P III ; SUSTAINABLE TECHNOLOGY CORP ; EI DU PONT DE NEMOURS AND CO ; E I DU PONT DE NEMOURS CO ; EI DU PONT DE NEMOURS AND CO WILMINGTON ; ENERGY UNITED STATES DEPARTMENT OF ; ALLIANCE FOR SUSTAINABLE ENERGY LLC ; ALLIANCE FOR SUSTAINABLE ENERGY LLC GOLDEN ; E I DU PONT DE NEMOURS AND COMPANY ; MIDWEST RESEARCH INSTITUTE ; DUPONT US HOLDING LLC ; E I DU PONT DE NEMOURS AND CO

Inventor(s): (std): LYONS ROBERT ; TUCKER III MELVIN ; ELANDER RICHARD ; JULIE FRIEND ; TUCKER MELVIN P III ; TUCKER III MELVIN P ; FRIEND JULIE ; LYONS ROBERT C ; ELANDER RICHARD T

Inventor(s): MELVIN P TUCKER III ; RICHARD T ELANDER ; ROBERT C LYONS ; TUCKER MELVIN P

Agent(s): HOULIHAN2; HOULIHAN2 PTY LTD; HOULIHAN2; TORYS LLP; MARKS AND CLERK LUXEMBOURG LLP; HIRSCH AND ASSOCIES; HOFFMANN BENJAMIN; DE ELZABURU ALBERTO; E I DU PONT DE NEMOURS AND COMPANY,LEGAL PATENT RECORDS CENTER; E I DU PONT DE NEMOURS AND CO LEGAL PATENT RECORDS CENTER; LHULIER CHRISTINE M

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

28) Family number: 1175807 (FR2278767A)

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Title: MULTI-STAGE EXTN OF SUGAR FROM CANE BAGASSE - BY REPEATED WASHINGS IN PROGRESSIVELY WEAKER JUICES WITH DEAERATION IN EACH STAGE

Abstract: In each stage bagasse is stirred into suspension in a washing juice, the suspension deaerated and then pumped in turbulent flow through pipework leading to a separator, e.g. a screen, where enriched juice is sepd. from the bagasse; this whole process is repeated several times, the washing juice being circulated counter-current to the bagasse so that as bagasse progressively loses its sugar it is put into suspension in the next stage with correspondingly weaker washing juice each time. Pref. part of the juice sepd. from bagasse in one stage is recycled in the suspension of the same stage. The multi-stage, counter-current extraction improves mass transfer and gives a higher yield of product. Deaeration suppresses capillary retention of juice in the bagasse.

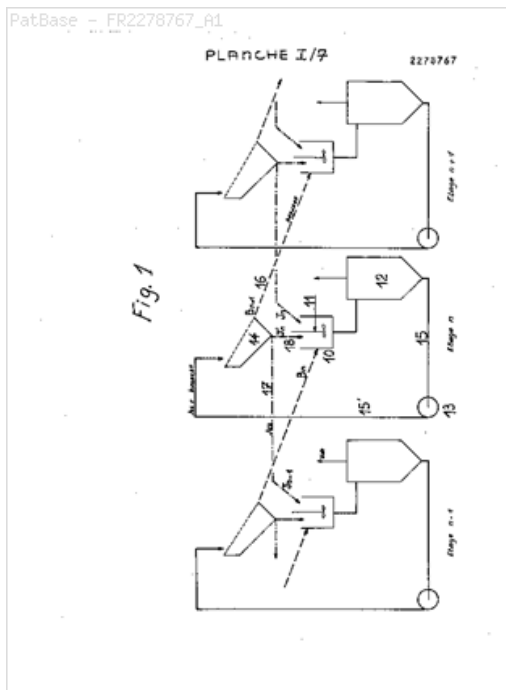
Classifications:

International (IPC 8-9): C13B10/02 (Advanced/Invention)

International (IPC 1-7): C12D1/02 C13D1/02 C13D1/06 C13D1/08 C13D1/10 C13D1/12 C13D3/16

CPC: C13B10/02

European: C13B10/02



Family:

Publication number	Publication date	Application number	Application date
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BR7502168 A	19760303	BR19750002751	19750409
DOP1975002298 A	19831027	DO19750002298	19750410
EG11688 A	19770815	EG19750000211	19750412
FR2278767 A1	19760213	FR19740012706	19740411
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IN139832 A	19760807	IN1975CA01101	19750603
MX3024 U	19800215	MX19750002341U	19750407
PH12411 A	19790207	PH19750017404D	19750407
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Priority:

FR19740012706 19740411 AU19750080035 19750410

Probable Assignee: BABCOCK F C

Assignee(s): (std): BABCOCK F C ; EIVESCAIL BABCOCK ; FIVES CAIL BABCOCK ; MAXIME RIVIERE ; RIVIERE M ; RIVIERE FIVES CAIL BABCOCK Y MAXIME

Assignee(s): RIVIERE MAXIME ; FIVES CAIL BABCOCK Y MAXIME RIVIERE ; FIVES CAIL BABCOCK ; FIVES CAIL ; BABCOCK F C AND RIVIERE M ; BABCOCK FC AND RIVIERE M

Inventor(s): (std): PIPHAIS P ; PITHOIS P ; PITHOIS PHILIPPE ; RIVIERE MAXIME ; RIVIERE M ; RIVIERE M ; PITHOIS PHILIPPE

Inventor(s): MAXIME RIVIERE ; PHILIPPE PITHOIS AND MAXIME RIVIERE ; PHILIPPE PITHOIS ET MAXIME RIVIERE ; PHILIPPE PITHOIS

29) Family number: 20444814 (GB849727A)

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Title: Improvements in or relating to sugar cane mills

Abstract: 849,727. Sugar-cane mills. SOC. FIVES LILLE-CAIL. June 26, 1959 [June 26, 1958], No. 22007/59. Class 59 In a sugar - cane mill having a feed roller, a delivery roller and an upper intermediate roller, the roller drive is effected through the shaft of one of the lower rollers the position of the axis of which is fixed. As shown, the shaft 7 of the delivery roller 6 is driven from a motor-driven shaft 8 through a coupling 9. The shaft 3 of the upper roller 2 is driven from the shaft 7 through gears 10, 11 and the shaft 5 of the feed roller 4 driven from the shaft 7 through gears 12, 13. The roller 2 is movable towards the roller 6 against the pressure of the sugar cane by pressure fluid acting on a piston 18 movable in a cylinder formed in a head member 17. The shafts 3, 5 of the rollers 2, 4 are adjustable by means of adjustable wedges 26, 33 respectively. In a modification, the piston has an integral rod mounted in an externally screwthreaded head plug adjustable in a screwthreaded bore in the head member. In a further modification, the drive is effected through the shaft of the feed roller.

Classifications:

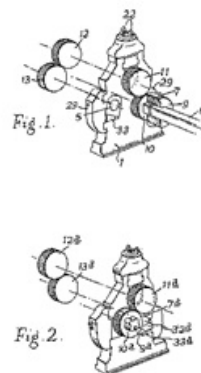
International (IPC 8-9): C13B10/06 (Advanced/Invention)

International (IPC 1-7): C13C1/04

CPC: C13B10/06

European: C13B10/06

PatBase - GB849727_A

**Family:**

Publication number	Publication date	Application number	Application date
GB849727 A	19600928	GB19590022007	19590626

Probable Assignee: FIVES LILLE CAIL

Assignee(s): (std): FIVES LILLE CAIL

Assignee(s): SOCIETE FIVES LILLE CAIL

30) Family number: 43952862 (US2009312537A)

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Title: CARBOHYDRATES

Abstract: Carbohydrates having functional groups, such as carboxylic acid groups and methods of making such carbohydrates.

Classifications:

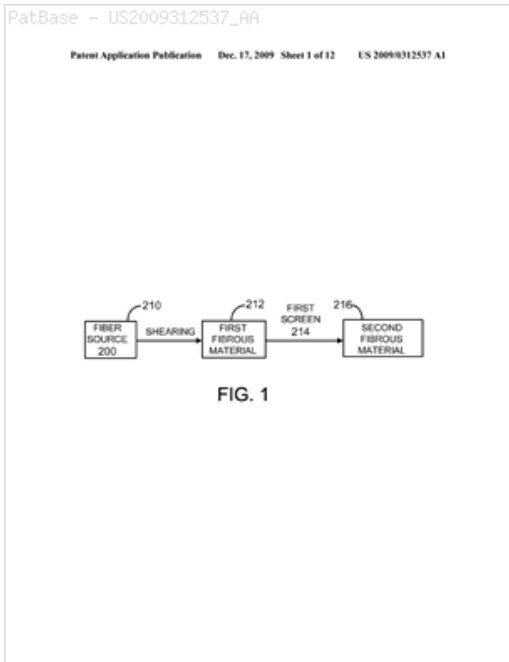
International (IPC 8-9): A01H5/00 A23J1/00 A23J1/16 A23K1/00 A23K1/06 A23K1/12 A23K1/14 A23K1/16 A23K1/16S A23K1/18 A23K1/20 A23K10/00 A23K10/12 A23K10/14 A23K10/30 A23K10/32 A23K10/33 A23K10/37 A23K10/38 A23K20/00 A23K20/142 A23K20/163 A23K20/189 A23K3/03 A23K30/00 A23K40/00 A23K40/10 A23K50/00 A23K50/10 A23K50/80 A23L1/025 A23L1/09 A23L1/10 A23L1/29 A23L13/00 A23L19/00 A23L29/30 A23L33/00 A23L33/125 A23L33/17 A23L5/00 A23L5/30 A23L7/10 A61K31/191 A61K31/439 A61K31/475 A61K36/00 A61K36/899 A61K38/14 A61K38/48 A61K41/00 A61K8/97 A61P31/04 A61Q19/00 B01D39/04 B01D39/18 B01J19/08 B01J19/10 B01J19/12 B01J20/24 C07C1/20 C07H1/00 C07K2/00 C08B1/00 C08B15/04 C08B15/06 C08B3/00 C08B30/02 C08B37/00 C08B37/14 C08B5/04 C08H C08H1/00 C08H5/04 C08H8/00 C08J11/16 C08J3/28 C08J7/18 C08L1/02 C08L5/14 C08L97/02 C10G1/00 C10L1/02 C10L5/44 C12N1/14 C12N9/00 C12N9/04 C12N9/10 C12N9/20 C12N9/24 C12N9/26 C12N9/34 C12N9/42 C12N9/56 C12P C12P1/00 C12P1/02 C12P1/04 C12P13/00 C12P13/02 C12P13/04 C12P13/06 C12P13/08 C12P13/12 C12P13/14 C12P13/20 C12P13/22 C12P13/24 C12P19/00 C12P19/02 C12P19/04 C12P19/14 C12P19/44 C12P19/52 C12P19/54 C12P19/62 C12P19/64 C12P29/00 C12P7/02 C12P7/06 C12P7/08 C12P7/10 C12P7/16 C12P7/40 C12P7/42 C12P7/46 C12P7/52 C12P7/56 C12P7/62 C13K1/00 C13K1/02 C13K13/00 D21C3/02 D21C5/00 D21C9/00 G01N23/00 G01N33/00 G01N33/68 G21G5/00 (Advanced/Invention); A23K50/30 A23K50/40 A23K50/75 A23L3/26 B01J19/08 B60H1/00 C07C4/00 C08B1/00 C08H8/00 C08L97/02 C12N9/00 C12N9/42 C12N9/44 C12P1/00 C12P19/00 C12P19/14 C12P7/40 C12P7/42 C12P7/62 C12R1/885 D21C5/00 H01J37/00 H01J37/06 H01J37/317 (Advanced/Non-invention); A23K1/00 B01J19/00 C07H1/00 C08B1/00 C08B15/00 C08B3/00 C08B37/00 C08H8/00 C08H99/00 C08J11/00 C08J3/00 C10L5/00 C10L5/40 C12P19/00 C12P5/00 C13K1/00 D21C3/00 (Core/Invention); A23K B01J C08B C08H C08J C10L C12P C13K D21C (Subclass/Invention)

International (IPC 1-7): A23K1/00 A23K1/18 B01J19/08 C08B15/06 C08B37/00 C08H5/04 C08H8/00 C08L97/02 C10L1/00 C10L5/54 C12P1/00 G01N33/00

CPC: D21C3/02 C08B15/04 C08B15/06 C10L5/44 D21C3/22 D21C5/00 Y02P60/873 Y02W30/705 A23K10/32 A23K10/33 C08B1/00 C13K13/00 B01J19/08 C12R1/885 A23K20/189 A23K40/10 A23L5/00 A23L5/30 C12P7/42 C12P7/62 A23K50/30 A23K50/40 A23K50/75 C12N9/00 A23K10/00 A23K10/12 A23K10/30 A23K20/163 A23K50/10 A23K50/80 A61K8/97 A61Q19/00 A23K10/37 A23K40/00 A23L5/36 A23L7/115 B01D39/18 C08H8/00 C08J3/28 C08L1/02 C08L5/14 C12P13/04 C12P19/44 C13K1/02 D21C5/005 D21C9/001 Y02A40/818 Y02E50/10 Y02E50/16 Y02E50/17 Y02E50/30 Y02P60/877 A23V2002/00 C12P7/10 C12P7/16 C12P7/40 C12P7/46 C12P7/56 C12P13/06 C12P13/08 C12P13/12 C12P13/14 C12P13/20 C12P13/222 C12P13/227 C12P13/24 C12P19/02 C12P19/14 C12P2201/00 C12P2203/00 A61K8/9717 A61K8/9722 A61K8/9728 A61K8/9789 A61K8/9794 A61P31/04

European: A23K1/00C1 A23K1/14 A23K1/16L A23K1/18K A23K1/18S A61K8/97 A61Q19/00 B01D39/18 C08B15/04 C08H8/00 C08L1/02 C08L5/14 C10L5/44 C12P13/04 C12P19/44 C13K1/02 D21C3/02 D21C3/22 D21C5/00 D21C5/00B D21C9/00B Y02E50/10 Y02E50/30

US: 1/1 127/36 127/37 162/50 165/41 204/157.63 210/500.1 210/500.100S 250/492.3 250/492.300S 424/94.65 424/94.650P 426/2 426/240 426/240S 426/2P 426/52 426/52S 426/53 426/53S 426/61 426/61S 426/615S 426/618 426/618S 426/624 426/624S 426/63 426/634 426/634S 426/635 426/635S 426/636 426/636S 430/273.1 430/296 435/101 435/101S 435/106 435/106S 435/107 435/107S 435/108 435/108S 435/109 435/109S 435/110 435/110S 435/113 435/113S 435/115 435/115S 435/116 435/116S 435/135 435/136 435/139 435/141 435/145 435/146 435/160 435/161 435/163 435/165 435/171 435/183 435/183P 435/183S 435/190 435/190P 435/193 435/193S 435/198 435/198S 435/201 435/201S 435/205 435/205S 435/209 435/209P 435/209S 435/222 435/222S 435/41 435/41S 435/64 435/64S 435/99 514/285 514/285S 514/299 514/299S 514/3.1 514/3.100S 514/305 514/305S 514/574 514/574S 536/123.1 536/123.100S 536/124 536/124S 536/18.7 536/18.700S 536/30 536/30P 536/38 536/55.1 536/55.100S 536/56 536/56S 536/63 536/63P 585/240 585/469



Family:

Publication number	Publication date	Application number	Application date
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AR104793 AB	20170816	AR2016P101538	20160527
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US2012316376 AA	20121213	US20120590015	20120820
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Priority:

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US20160234944	20160811	AU20160225857	20160908	US20170431600	20170213
US20170657013	20170721	US20190568775	20190912		

Probable Assignee: XYLECO INC

Assignee(s): (std): KSILEKO INK ; MEDOFF MARSHALL ; XYLECO INC

Assignee(s): XYLECO INC WAKEFIELD ; XYLECO INC WOBURN

Inventor(s): (std): MEDOFF MARSHALL ; MARSHALL MEDOFF

Inventor(s): MEDOFF MARSHALL BROOKLINE

Agent(s): SPRUSON AND FERGUSON; SMART AND BIGGAR; STOLMAR AND PARTNER PATENTANWAELE PARTG MBB; SIMPSON MARK GEOFFREY; POTTER CLARKSON LLP; VON FUENER NICOLAI; DE ELZABURU ALBERTO; REINHOLD COHN AND PARTNERS; EVROMARKPAT; ETAZH 3 EVROMARKPAT; FULYA SUMERALP; XYLECO INC; XYLECO INC CELIA LEBER; LEBER PATENT LAW PC; CELIA H; WILMER CUTLER PICKERING HALE AND DORR LLP; LANDO AND ANASTASI LLP; BABINEAU JAMES W ET AL

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

31) Family number: 43952891 (US2009314487A)

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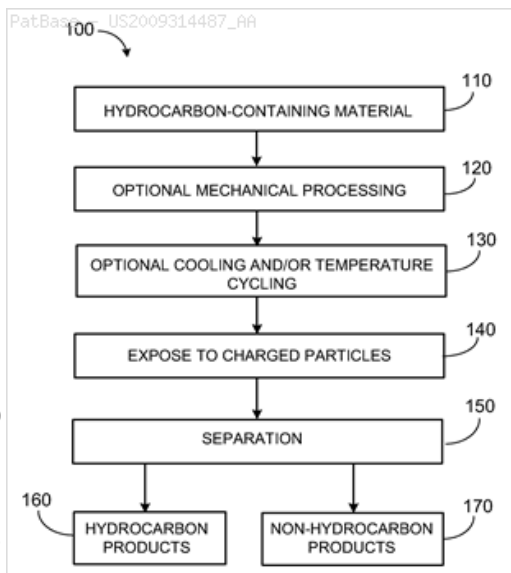
Title: PROCESSING HYDROCARBONS

Abstract: Systems and methods that include providing, e.g., obtaining or preparing, a material that includes a hydrocarbon carried by an inorganic substrate, and exposing the material to a plurality of energetic particles, such as accelerated charged particles, such as electrons or ions.

Classifications:

International (IPC 8-9): A23K10/12 A23L5/00 B01J19/08 B02C19/18 B09B3/00 C07C1/00 C07C4/00 C08B1/00 C08H8/00 C10G1/00 C10G1/04 C10G11/00 C10G15/00 C10G15/08 C10G15/10 C10G3/00 C10G35/04 C10G47/00 C10G65/02 C10L1/02 C10L1/04 C12P1/00 C12P19/00 C12P19/02 C12P19/14 C12P5/00 C12P5/02 C12P7/02 C12P7/04 C12P7/10 C12P7/14 C12P7/16 C12P7/40 C13K1/02 D21B1/02 D21B1/10 D21C1/00 E21B36/00 E21B43/00 E21B43/24 E21B43/28 G06F15/00 G06F9/30 G06F9/44 G21G5/00 G21K5/00 H01M8/1007 H01M8/1011 H01M8/16 H01M8/22 H05G2/00 (Advanced/Invention);

C07G1/00 C08B1/00 C08B30/02 C08H8/00 C08L97/02 C09K8/592
 C10G11/00 C10G15/10 C10G3/00 C10G35/04 C10G47/00 C10L1/04
 C12P19/04 D21B1/02 (Advanced/Non-invention);
 B01J19/08 B02C19/00 C07C1/00 C07C4/00 C10G1/00 C10G11/00
 C10G15/00 C10G3/00 C10G35/00 C10G47/00 C10G65/00 C10L1/00
 E21B36/00 E21B43/00 E21B43/16 G21G5/00 (Core/Invention)
International (IPC 1-7): B01J19/08 C10G1/00 C10G11/00
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 C10L1/04 C08B1/00 C12P7/10 C12P7/14 C12P19/14 Y02E50/16
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European: C10G1/00 C10G11/00 C10G15/08 C10G15/10 C10G3/00
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US: 1/1 166/247 166/247P 166/272.3 204/157.15 204/157.150S
 204/157.6 204/157.63 204/157.630P 204/157.65 204/157.9 204/164
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 564/296 585/240 712/16 712/16P 712/214 712/214S 712/216 712/216S 712/217 712/E9.023 712/E9.028 712/E90.23S
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Family:

Publication number	Publication date	Application number	Application date
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AR082179 AA	20121121	AR2009P101571	20090430
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AR105586 AB	20171018	AR2016P102371	20160803
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AR105588 AB	20171018	AR2016P102373	20160803
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US10500560 BB	20191210	US20180056979	20180807
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Priority:

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US20180052016	20180801	US20180056979	20180807	US20190660641	20191022

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

32) Family number: 20207966 (GB925606A)

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Title: Improvements in sugar cane crushing mills

Abstract: 925,606. Sugar-cane mills. W. M. LIVIE. Oct. 20, 1961 [Oct. 31, 1960], No. 37782/61. Class 59. A sugar-cane mill comprises two or more spaced sets of crushing rollers, first means for feeding prepared cane to the inlet side of the first set of rollers, a closed shoot on the outlet side of each set of rollers adapted to receive the crushed cane from that set, second means for feeding crushed cane from each closed shoot to the next set of rollers, means for turning over the crushed cane at least partially during its passage from one set of rollers to the next and means for collecting expressed juice from the cane during and after its passage through each set of rollers. As shown in Fig. 1, sugar cane is fed to crushing rollers 23, 24 by means of conveyers 21, 22 and the crushed cane passes through a closed shoot comprising a top plate 56 and a bottom plate 60A, Fig. 17, which may be provided with one or more steps 60, the crushed cane being fed from the closed shoot to crushing rollers 28, 29 by means of a conveyer 25. The plate 60A may be replaced by a conveyer. Maceration fluids under pressure are supplied to the closed shoot through pipes 26, 27. The conveyer 25 is driven at slightly greater speed than the rollers 28, 29 so as, in conjunction with the step(s) 60 or the second conveyer, to turn over the crushed cane to assist in the further extraction of the juice therefrom. The conveyers 21, 22, 25 are provided with transverse gripping slats and are closed at the sides by vertical plates. The conveyers 21, 22 may be downwardly inclined. Further sets of crushing rollers have closed shoots and associated feeding means disposed therebetween. The crushing rollers are each provided with axially-spaced circumferential grooves. Expressed juice from the crushing rollers 23, 24 is collected in a trough 53, Fig. 11. The upper roller 23 is associated with scraper 56 and the lower roller 24 has juice grooves associated with a scraper. Means are provided for adjusting the spacing between the rollers of each pair of crushing rollers. In a modification, Fig. 3, the cane is fed to crushing rollers 33, 34, 35 and the crushed cane passes to a closed shoot 36 from which it is fed to crushing rollers 42, 43 by means of conveyers 40, 41.

Classifications:

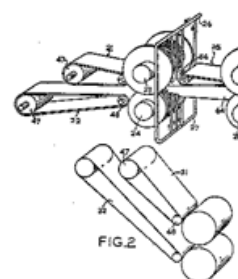
International (IPC 8-9): C13B10/06 (Advanced/Invention)

International (IPC 1-7): C13C1/04

CPC: C13B10/06

European: C13B10/06

PatBase - GB925606_A



Family:

Publication number	Publication date	Application number	Application date
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Priority:

AU19600066095 19601231

Probable Assignee: WILLIAM MARSHALL LIVIE

Assignee(s): (std): WILLIAM MARSHALL LIVIE

33) Family number: 59635985 (WO16105007A3)

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Title: METHOD FOR PREPARING COAL BRIQUETTE

Abstract: An embodiment of the present invention provides a method for preparing a coal briquette by, in a molten iron manufacturing apparatus comprising: i) a melting and gasifying furnace into which reduced iron is inserted; and ii) a reducing furnace connected to the melting and gasifying furnace and providing reduced iron, inserting reduced iron into a dome part of the melting and gasifying furnace, followed by rapid heating. A method for preparing a coal briquette according to an

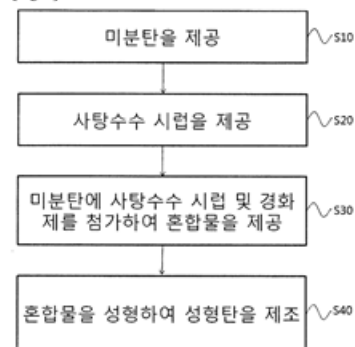
embodiment of the present invention comprises the steps of: i) providing pulverized coal; ii) providing sugar cane syrup; iii) adding the sugar cane syrup and a hardener to the pulverized coal to provide a mixture; and iv) molding the mixture to provide a coal briquette.

Classifications:

International (IPC 8-9): C10L10/00 C10L5/04 C10L5/10 C10L5/14 C10L5/16 C10L5/36 C10L9/10 C13B10/02 C13B20/06 C21B13/00 (Advanced/Invention)
CPC: C10L5/04 C10L2200/0254 C21B13/00 C10L2200/0263 C10L2200/0268 C10L2200/0272 C10L2200/0295 C10L2200/04 C10L2290/22 C10L2290/24 C10L5/361 C10L2290/04 C10L2290/28 C10L2290/32 C13B10/02 C13B20/06 C10L5/10 C10L5/14 C10L5/143 C10L5/146

PatBase - W016105007_A2

[Fig. 1]



S10 ... Provide pulverized coal
 S20 ... Provide sugar cane syrup
 S30 ... Add sugar cane syrup and hardener to pulverized coal to provide mixture
 S40 ... Mold mixture to prepare coal briquette

Family:

Publication number	Publication date	Application number	Application date
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Priority:

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 KR20140187759 20141224 WO2014KR12784 20141224 WO2015KR13611 20151211

Probable Assignee: POSCO

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Agent(s): ZECH STEFAN MARKUS; YOU ME PATENT AND LAW FIRM

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

34) Family number: 37058993 (GB191510876A)

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Abstract: 10,876. Nicolai, G. July 29, 1914, [Convention date]. Roller mills.-Three-roll mills of the sugarcane type, having hydraulic-pressure compensation bearings for the top roll or the two lower rolls, have the bagasse bridge arranged so that it can be adjusted for varying feed during running, the cutting-edge being pressed against the second roll, and the predetermined ratio between the feed and discharge gaps maintained constant. The roll bearings are also formed with spherical surfaces, so as to allow of uneven feed. Fig. 1 shows the arrangement when the hydraulic-pressure compensation is applied to the top roll. The support B for the bagasse bridge is mounted in bearings 1 at each end so as to be capable of horizontal movement by intervening connexions and screw 22, and vertical movement by the wedge 6, the cutting-edge K being maintained in contact with, the roll by means of the parallel links 10, 11, one of which is adjustable in length. In the form in which the hydraulic-pressure compensation is applied to the lower rolls, the lower bearing 1 of the bridge B is replaced by an eccentric arrangement of shafts adjustable by a pawl and lever, the lower link of the parallelogram being changed to an adjustable link connected between one eccentric and the horizontal adjusting-screw on the bearing of the first lower roll. The bagasse bridge is adjustably mounted on its support by means of set-screws and may have an hydraulic

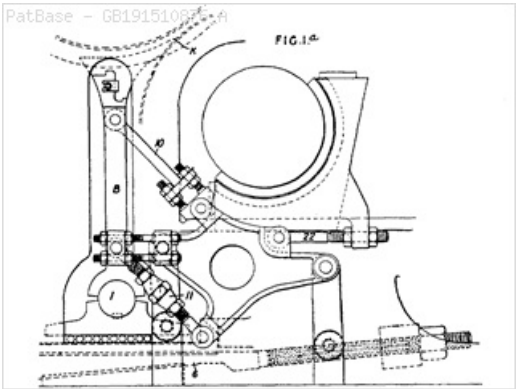
compensation. The bearings for the rolls are provided with bushes shaped to receive bearings the outer faces of which are spherical, the centre of the sphere being the axis of the roll, so that the rolls can adjust under, the pressure obliquely without throwing undue strain on the bearings.

Classifications:

International (IPC 8-9): C13B10/06 (Advanced/Invention)

CPC: C13B10/06

European: C13B10/06



Family:

Publication number	Publication date	Application number	Application date
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