

1) Family number: 20584056 (US1691546A)

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Title: CANE MILL

Abstract: application Serial No. 465,958 ; nor do I claim herein a. cane grinding installation comprising a plurality of pairs of toothed pre-crushing rolls, with the rolls of the preceding pair having a less number of teeth than the rolls of the preceding pair, or other features claimed in my application Serial No. 509,251 "What I claim is: 1. In a cane mill, two cooperating crushing and juice expressing rolls, each having circumferential grooves forming ribs, the ribs of one roll adapted to mesh with those of the other roll, and each roll having generally longitudinally disposed grooves extending between the ends of said rolls and interrupting the ribs thereon to form teeth to hook into and draw in the cane, the longitudinal grooves in the upper roll having portions diverging from a point intermediate the ends of said roll in such a manner that the teeth formed at the ends of said grooves will attack the cane passing between said rolls before the teeth formed at the apex of the grooves, the longitudinal grooves in the lower roll having portions diverging from a point intermediate the ends of said rolls in such a manner that the teeth formed at the apex of said grooves will attack the cane passing between said rolls before the teeth formed at the ends of said grooves, and means to drive said rolls, said means including means to drive one of said rolls at a greater surface speed than the other. In a cane mill, two cooperating cane crushing and juice expressing rolls, each having circumferential grooves forming ribs, the ribs of one roll adapted to mesh with those of the other roll and each roll having generally longitudinally disposed grooves extending between the ends of said rolls and interrupting the ribs thereon to form teeth to hook in to and draw in the cane, the longitudinal grooves in one of said rolls having portions diverging from a point intermediate the ends of said roll in such a manner that the teeth formed at the ends of said grooves will attack the cane passing between said rolls before the teeth formed at the apex of the grooves, the longitudinal grooves in the other of said rolls having portions diverging from a point intermediate the ends of said rolls in such a manner that the teeth formed at the apex of said grooves will attack the cane passing between said rolls before the teeth formed at the ends of said grooves, and means to drive said rolls, said means including means to drive one of said rolls at a greater surface speed than the other. In Witness whereof, I have hereunto set my hand on the 11th day of February, 1921. _p

Classifications:

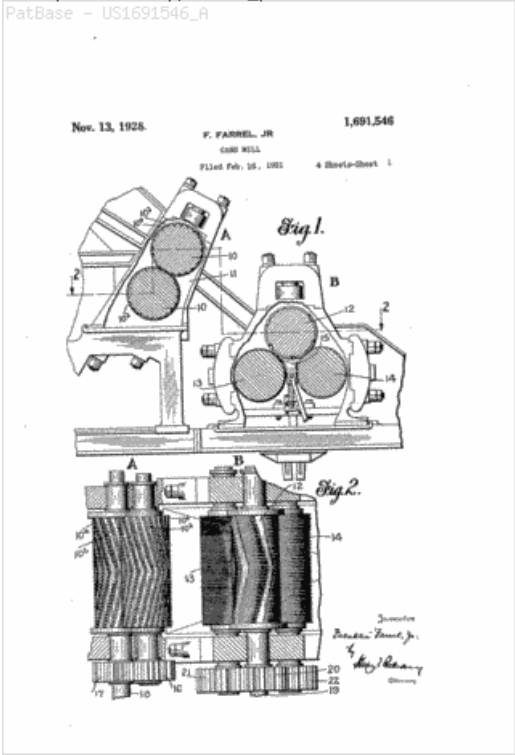
International (IPC 8-9): C13B10/06 (Advanced/Invention)

International (IPC 1-7): C13D1/06

CPC: C13B10/06

European: C13B10/06

US: 100/176



Family:

Publication number	Publication date	Application number	Application date
US1691546 A	19281113	US19210445527	19210216

Priority:

US19210445527 19210216

Probable Assignee:

FARREL BIRMINGHAM CO INC

Assignee(s): (std):

FARREL BIRMINGHAM CO INC

Inventor(s): (std):

FARREL JR FRANKLIN

Inventor(s):

JR FRANKLIN FARREL

2) Family number: 18228066 (GB175903A)

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Title: Improvements in cane crushers

Abstract: 175,903. Goold, L. W., (Fulton Iron Works Co.). March 4, 1921. Roller mills.-A sugar-cane crusher is provided with two precrushers, the rolls of the first being driven at a greater speed than those of the second. The rolls 4 of the first precrusher may have circumferential crushing-ribs 5 which are larger than the ribs 7 of the rolls 6 of the second precrusher. The cane is fed to the rolls 4 through a shoot 9, and the partly crushed cane is conducted from the first to the second crusher

by a shoot 10. A shoot 11 may lead the cane from the second crusher to the rolls 1, 2 of the cane mill. The rolls 4, 6 may be geared together by wheels 12, 14 respectively, and one crusher driven from the other by sprocket gearing 16, 17, 18. Reference has been directed by the Comptroller to Specification 146,280, as open to inspection under Sect, 91 (3) (a) of the Act.

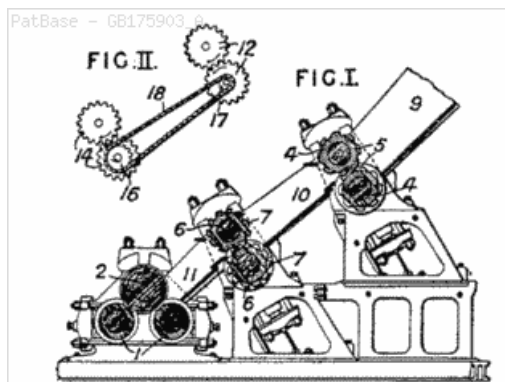
Classifications:

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

International (IPC 1-7): C13D1/06

CPC: C13B10/06

European: C13B10/06



Family:

Publication number	Publication date	Application number	Application date
GB175903 A	19220302	GB19210007073	19210304

Priority:

GB19210007073 19210304

Probable Assignee: FULTON IRON WORKS COMPANY

Assignee(s): (std): FULTON IRON WORKS COMPANY

Assignee(s): FULTON IRON WORKS CO

3) Family number: 58582246 (US2016201150A)

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Title: MILL JUICER FOR PLANTS

Abstract: The invention relates to a mill juicer for plants, in which the transmission of power to the mill is novel owing to the design of the structure on which the juice extraction mechanisms are mounted, the elements that allow the set of rollers to rotate. In order to absorb the misalignment resulting from the operation and the construction of the mill, the invention includes the use of efficient elements, for example: self-aligning bearings mounted on a bearing block designed to support the loads of the mill, while allowing misalignment and maintaining lubrication of the bearing. The assembly of gear motors is mounted on the solid shaft of each of the rollers, the arrangement of three rollers rotates in opposing directions and having finishes for directing the material to a central zone and producing greater friction between the material to be processed and the rollers, thereby providing an efficient juice extraction.

Classifications:

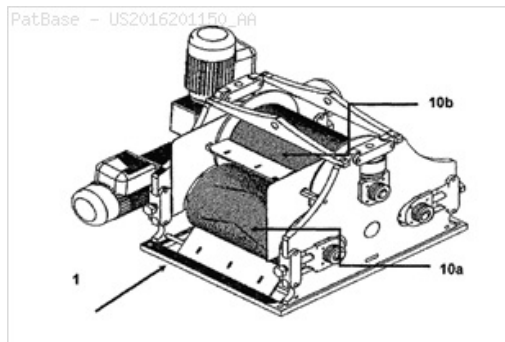
International (IPC 8-9): B02C4/02 B02C4/08 B02C4/20 B02C4/28

B02C4/30 B30B9/20 C13B10/06 (Advanced/Invention)

CPC: B02C4/08 B02C4/28 B30B9/20 B02C4/30 B02C4/02 B02C4/20

C13B10/06

US: 241/234



Family:

Publication number	Publication date	Application number	Application date
BR112015019198 A2	20170718	BR20151119198	20140717
DE602014041478 D1	20190314	DE201460041478T	20140717
EP3037556 A1	20160629	EP20140837134	20140717
EP3037556 A4	20160629	EP20140837134	20140717
EP3037556 B1	20190220	EP20140837134	20140717
MX2013009588 A1	20150220	MX20130009588	20130820
MX340153 B	20160617	MX20130009588	20130820
US2016201150 AA	20160714	US20140912637	20140717
WO15026216 A1	20150226	WO2014MX00109	20140717

Priority:

MX20130009588 20130820

EP20140837134 20140717

WO2014MX00109 20140717

Probable Assignee: RODRIGUEZ CISNEROS ISAIAS

Assignee(s): (std): ISAIAS RODRIGUEZ CISNEROS ; RODRIGUEZ CISNEROS ISAIAS ; TRANSMISION Y LUBRICACION INDUSTRIAL DE CV SA

Assignee(s): TRANSMISION Y LUBRICACION INDUSTRIAL DE CV SA ; RODRIGUEZ CISNEROS ISAIAS LEON

Inventor(s): (std): RODRIGUEZ ALCARAZ EMMANUEL ; RODRIGUEZ CISNEROS ISAIAS ; EMMANUEL RODRIGUEZ ALCARAZ ; ALCARAZ EMMANUEL RODRIGUEZ

Inventor(s): RODRIGUEZ ALCARAZ EMMANUEL 37538 LEON

Agent(s): GRUENECKER PATENT U RECHTSANWALTE PARTG MBB; INCHINGALO SIMONA

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
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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

4) Family number: 18043748 (GB137357A)

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Title: Improvements in and relating to sugar cane mills

Abstract: 137,357. Wilson, J. Dec. 31, 1918. Roller mills.-In sugar-cane mills comprising an inclined series of pairs of equal rollers, the lower rollers are driven at progressively increasing speeds, and the top rollers are geared to, and driven at slightly higher speeds than, the companion bottom rollers. In the gearing for driving three pairs of rollers shown in Figs. 1 and 2, the driving-shaft A is geared by pinions C - F to a shaft B provided with a pinion G geared by idle pinions I, J to pinions K, L on shafts T, V respectively, the pinion G being greater than the pinion K and less than the pinion L. The shafts T, B, V are connected by the usual tail-bars to the lower rollers of the three pairs. The rollers of each pair are geared together by pinions P, Q, Fig. 2, the pinion P having one or more teeth more than the pinion Q. The shafts T, B, V may be supported by channel-bars H of mild steel. When more than three pairs of rollers are employed, an additional pinion, geared to the additional lower rollers and to the driving-shaft, is provided. In a mill having two pairs of rollers, the driving-shaft may be geared to a pinion which is arranged between, and gears with, pinions on the lower rollers.

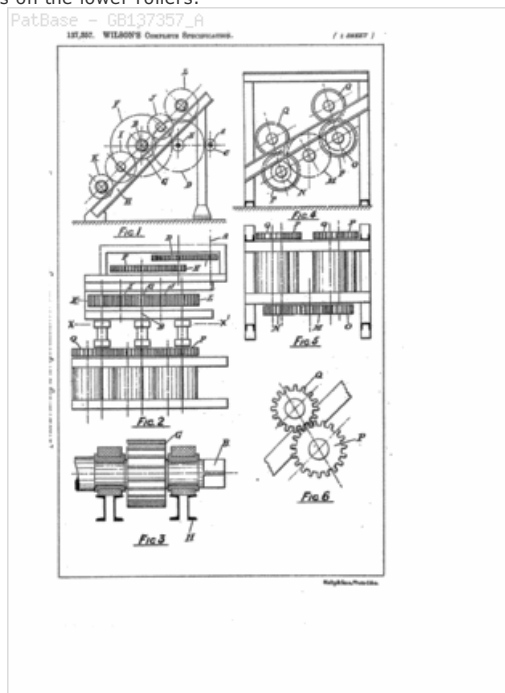
Classifications:

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

International (IPC 1-7): C13D1/06

CPC: C13B10/06

European: C13B10/06



Family:

Publication number	Publication date	Application number	Application date
GB137357 A	19200115	GB19180021879	19181231

Priority:

GB19180021879 19181231

Probable Assignee:

WILSON JOHN

Assignee(s): (std):

WILSON JOHN

Assignee(s):

JOHN WILSON

5) Family number: 18121137 (GB165948A)

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Title: Improvements in cane-crushing and juice-expressing apparatus

Abstract: 165,948. Goold, R. L., (Fulton Iron Works Co.). April 7, 1920. Roller mills.-A combined cane-crushing and juice-expressing apparatus comprises a number of sets of peripherally-ribbed rolls by which the cane is successively acted upon, the sets of rolls having grooves of successively decreasing fineness, and additional sets of juice-expressing rolls to which the cane is delivered from the sets of graduated rolls. The juice-expressing rolls may have peripheral ribs and grooves. The first two sets of rolls may be constructed as two-roll crushers, the rolls in each pair having equal ribs and grooves, but the second crusher having peripheral ribs of less pitch than the ribs of the first crusher. The set of juice-expressing rolls arranged in advance of the second crusher may include three co-operating rolls having peripheral ribs of less pitch than the ribs of the second crusher and a second set of three cooperating rolls arranged in advance of the first three-roll set and having peripheral ribs of less pitch than the rolls of the first set. There may be a succession of three-roll juice-expressing mills arranged in advance of the other three-roll sets, the rolls of each mill having peripheral ribs of less pitch than the ribs of the set of rolls which is in advance of the second crusher. As shown, the first and second crushers A, B comprise pairs of rolls having peripheral ribs 6, 7 which are preferably V-shaped. The ribs 6, Fig. 2, of one of the rolls A extend into the grooves in the other roll, and the ribs 7 of the rolls B are of less pitch and smaller than the ribs 6. The peripheral ribs 8 of the first three-roll mill C, D, E are finer than the ribs of the second crusher B, and the ribs 9 of the rolls C, D, E are of less pitch than the ribs 8 of the first mill.

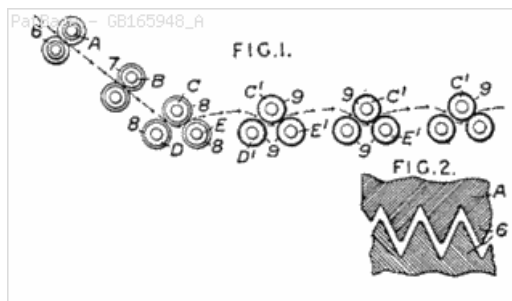
Classifications:

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

International (IPC 1-7): C13D1/06

CPC: C13B10/06

European: C13B10/06



Family:

Publication number	Publication date	Application number	Application date
GB165948 A	19210707	GB19200009723	19200407

Priority:

GB19200009723 19200407

Probable Assignee:

FULTON IRON WORKS COMPANY

Assignee(s): (std):

FULTON IRON WORKS COMPANY

Assignee(s):

FULTON IRON WORKS CO

6) Family number: 23600395 (US6039276A)

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Title: APPARATUS AND METHOD FOR CRUSHING SUGAR CANE

Abstract: An apparatus for crushing sugar cane to extract the juice has opposed crushing rolls at least one of which is formed with juice channels which are temporarily plugged by bagasse after the juice has entered into the channel. Further rotation of the rolls removes the trapped juice away from the cane blanket and the bagasse plug is then scraped out of the top of the channel to allow the juice to drain. The juice is drained away from the cane blanket and is not reabsorbed thereby. Efficiency of juice removal is improved. Further efficiency improvements are obtained by having pairs of crushing rolls positioned above each other such that the cane blanket moves in a generally vertical direction.

Classifications:

International (IPC 8-9): C13B10/02 C13B10/06 C13D1/02

C13D1/06 (Advanced/Invention);

C13D1/06 (Advanced/Non-invention);

C13D1/06 (Core/Invention);

C13D (Subclass/Invention)

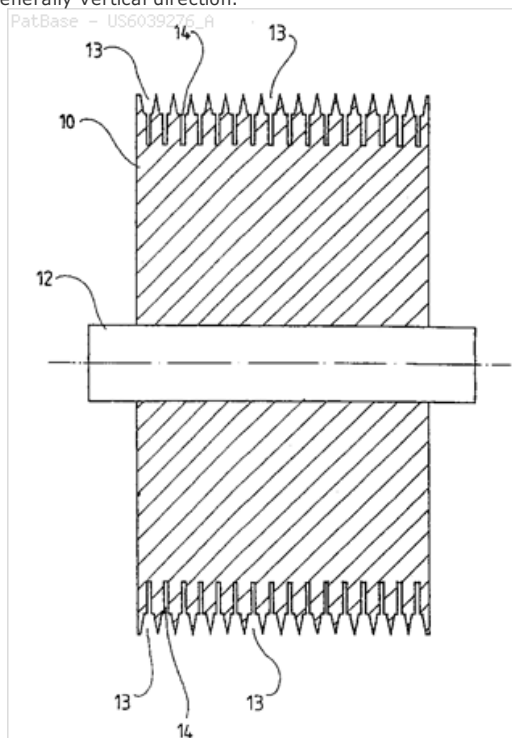
International (IPC 1-7): B02C19/12 B30B9/02 C13C1/00 C13C1/02

C13C1/06 C13D C13D 1/06 C13D01/06 C13D1/02 C13D1/06

CPC: C13B10/06

European: C13B10/06

US: 241/159 241/236 241/293 241/30



Family:

Publication number	Publication date	Application number	Application date
AP1008 A	20010920	AP19980001393	19970509
AP9801393 A0	19981231	AP19980001393	19970509
AT251224 E	20031015	AT19970917950T	19970509
AU199726281 A1	19971209	AU19970026281	19970509
AU335696 A0	19961128	AU1996P003356	19961101
AU710719 B2	19990930	AU19970026281	19970509
AU993096 A0	19960613	AU1996P009930	19960520
BRPI9709325 A	19990810	BR1997PI09325	19970509
BRPI9709325 B1	20100810	BR1997PI09325	19970509
CA2257091 AA	19981119	CA19972257091	19970509
CN1075558 C	20011128	CN19971094828	19970509
CN1219204 A	19990609	CN19971094828	19970509
CU22984 A3	20040909	CU19980000177	19981120
CZ294310 B6	20041110	CZ19980003756	19970509
CZ375698 A3	19990414	CZ19980003756	19970509

CZ9803756 A3	19990414	CZ19980003756	19970509
DE69725328 D1	20031106	DE19976025328	19970509
DE69725328 T2	20040729	DE19976025328T	19970509
DK0923651 T3	20040202	DK19970917950T	19970509
EP0923651 A1	19990623	EP19970917950	19970509
EP0923651 A4	20020102	EP19970917950	19970509
EP0923651 B1	20031001	EP19970917950	19970509
ID16931 A	19971120	ID19970001654	19970519
IN183328 A	19991120	IN1997CA00889	19970519
JP2000510705 T2	20000822	JP19970541259T	19970509
JP3477556 B2	20031210	JP19970541259T	19970509
KR100427961 B1	20040616	KR19980709344	19970509
KR20000015795 A	20000315	KR19980709344	19970509
NZ332705 A	19990225	NZ19970332705	19970509
OA10925 A	20011026	OA19980000223	19981118
TH26522 B	20090902	TH19971001835	19970514
TH79824 A	20060907	TH19971001835	19970514
US6039276 A	20000321	US19980191145	19981113
VN4357 A1	20040726	VN19980000954	19970509
WO9744494 A1	19971127	WO1997AU00291	19970509
ZA9704319 A	19971120	ZA19970004319	19970519

Priority:

AU1996PN09930 19960520 AU1996PO09930 19960520 AU1996PN03356 19961101
AU1996PO03356 19961101 AU19970026281 19970509 WO1997AU00291 19970509
KR19980709344T 19981119 KR19980709344 19981119

Probable Assignee: BUNDABERG FOUNDRY ENGINEERS LTD

Assignee(s): (std): BANDABERG CASTING ENGINEERING ; BANDABERG CASTING ENGINEERING CO LTD ; BATSTONE DRUCE B ; BUNDABERG FOUNDRY ENG LTD ; HATT RAYMOND J ; WILSON DAVID J

Assignee(s): WILSON DAVID JOHN ; HATT RAYMOND JOHN ; BUNDABERG FOUNDRY ENGINEERS LTD ; BUNDABERG WALKERS ENGINEERING LTD ; BATSTONE DRUCE BARRY ; BANDABERG CASTING ENGINEERING CO

Inventor(s): (std): BATSTONE DRUCE HARRY ; BATSTOON DRUCK B ; HART LEMOND J ; DRUCE B BATSTONE ; RAYMOND J HATT ; RAYMOND JOHN HATT ; DRUCK B BATSTOON ; LEMOND J HATT ; DRUCE BARRY BATSTONE ; DAVID JOHN WILSON ; DAVID J WILSON ; BATSTONE DRUCE BARRY ; WILSON DAVID JOHN ; HATT RAYMOND JOHN ; WILSON DAVID J ; BATSTONE BARRY ; WILSON JOHN ; HATT JOHN

Inventor(s): DRUCE HARRY BATSTONE

Agent(s): CULLENS PATENT AND TRADE MARK ATTORNEYS; CULLENS PTY LTD; SPRUSON AND FERGUSON; GOUDREAU GAGE DUBUC

Designated states: AL AM AT AU AZ BA BB BE BF BG BR BY CA CH CN CU CZ DE DK EE ES FI FR GB GE GH GR HU IE IL IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MC MD MG MK MN MW MX NL NO NZ PL PT RO RU SD SE SG SI SK SZ TJ TM TR TT UA UG US UZ VN YU

7) Family number: 22860487 (FR1286832A)

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Title: PRESSE A EFFETS MULTIPLES POUR REDUCTION DE L'HUMIDITE DES PRODUITS VEGETAUX OU CHIMIQUES PRESS EFFECT FOR MULTIPLE REDUCTION HUMIDITY OR CHEMICAL PLANT PRODUCTS (Machine translation)

Abstract: Source: FR1286832A [FR] (Claim 1) 1. Trois cylindres presseurs en metal special, rainures, les deux cylindres inferieurs etant en outre munis de gorges pour ecoulement de l'eau;

Machine translation: (Claim 1) 1. Three special metal pressure rollers, grooved, the two lower rollers further being provided with grooves for flow of water;

Classifications:

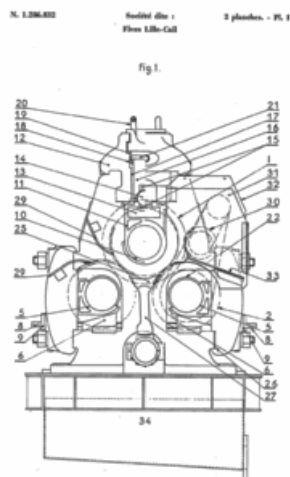
International (IPC 8-9): B30B9/20 C13B10/06 (Advanced/Invention)

International (IPC 1-7): F26B17/20

CPC: B30B9/20 C13B10/06

European: B30B9/20 C13B10/06

PatBase - FR1286832_A



Family:

Publication number	Publication date	Application number	Application date
FR1286832 A	19620309	FR19610850784	19610126

Priority:

FR19610850784 19610126

Probable Assignee:

FIVES LILLE CAIL

Assignee(s): (std):

FIVES LILLE CAIL

8) Family number: 31650843 (BRPI9605323A)

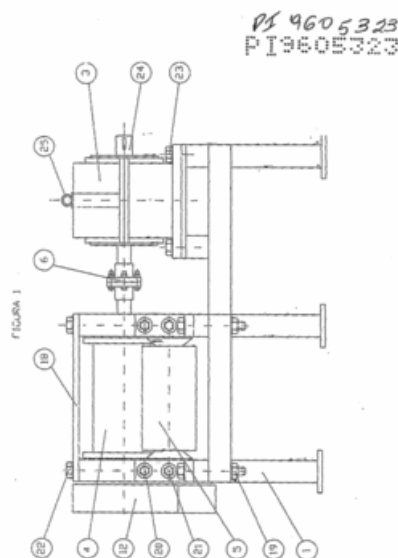
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Title: Engenho para moer cana Machine for grinding cane (Machine translation)

Abstract: Source: BRPI9605323A [PT] [Source: Claim 1] REIVINDICACOES 1 degrees) "ENGENHO PARA MOER CANA", caracterizado por constituir-se de moendas (4) (5) feitas de aco e frizadas, dotadas de mancais (17) com rolamentos (35) dispostas em cavaletes (2), sendo o 5 conjunto apoiado sobre uma base (1) e um rcdutor de velocidade (3) interligado por acoplamento (6) que fornece a rotacao de trabalho por acionamento de motor eletrico, motor a combustao ou roda d 'agua. 2 degrees) "ENGENHO PARA MOER CANA" de acordo com a reivindicacao 1, caracterizado por cavaletes abertos (2) onde os suportes (19) to fecham os mancais e permitem a regulagem de abertura e fechamento das moendas (4) (5) pelos parafusos de regulagem (21), e tambem um virador de bagacos movel de ferro fundido (31) que acompanha a regulagem das moendas. **Machine translation:** [Source: Claim 1] CLAIMS 1 degrees) "DEVICE for GRINDING cane", characterized by constitute Mills (4) (5) made of stainless steel and frizadas, fitted with bearings (17) with bearings (35) arranged on sawhorses (2) 5 set supported on a base (1) and a rcdutor of speed (3) connected by coupling (6) which provides the rotation of work for electric motor drive, IC engine or wheel d ' water. 2 degrees) "DEVICE for GRINDING cane" according to claim 1, characterized by open stands (2) where the brackets (19) to close the bearings and allow the adjustment of the opening and closing of the mills (4) (5) by regulating screws (21), and also a flipper of bagacos mobile iron (31) that accompanies the regulation of mills.

Classifications:**International (IPC 8-9):** C13B10/06 (Advanced/Invention)**International (IPC 1-7):** C13D1/06

PatBase - BRPI9605323_A

**Family:**

Publication number	Publication date	Application number	Application date
BRPI9605323 A	19980728	BR1996PI05323	19961022

Priority:

BR1996PI05323 19961022

Probable Assignee:

BATISTA RAIMUNDO CARLOS

Assignee(s): (std):

BATISTA RAIMUNDO CARLOS

Inventor(s): (std):

BATISTA RAIMUNDO CARLOS

Inventor(s):

RAIMUNDO CARLOS BATISTA