

Search history

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 Search 2: container and wash gold (Results 3)
 Search 3: punt and (wash gold) (Results 0)
 Search 4: IC=(c22b) (Results 143383)
 Search 5: gold and 4 (Results 8590)
 Search 6: wash and 5 (Results 969)
 Search 7: 4 and punt (Results 216)
 Search 8: 7 and 6 (Results 6)
 Search 9: sluice box (Results 433)
 Search 10: 9 and (wash gold) (Results 1)
 Search 11: (sluice box) and mineral and separation (Results 58)

1) Family number: 5038249 (US4592833 A)

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Title: Portable sluice box

Abstract: A portable sluice box for classification of mineral particulate from detritus or placer deposits containing the same is comprised of an infeed table including upstanding sidewalls and a bottom wall for receiving and confining a charge of mineral-containing deposits for fluid compelled movement along a path lying in a material handling plane generally coincident with the bottom wall of the table; a classification table member, including upstanding sidewalls and a foraminous separation plate having downwardly depending, opposed marginal skirts for proximal engagement with the sidewalls of the separation table interiorly thereof, the separation plate also lying within the material handling plane; a plurality of riffles disposed transversely in a laterally and longitudinally extending spaced array between the skirts, defining a series of upper flow channels intermediate the separation plate and the top edge of the riffles and a lower, mat channel intermediate the bottom wall of the classification table and the bottom edges of the riffles in order to receive a mat; and an inlet channel at the juncture of the infeed table and the classification table for admitting water along a flow path through the flow channels from a location beneath the material handling plane.

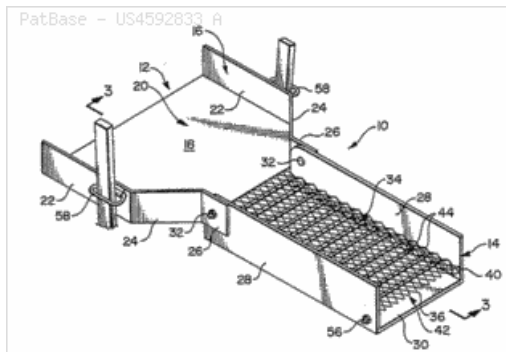
Classifications:

International (IPC 8-9): B03B5/00 B03B5/26 B03B7/00

International (IPC 1-7): B03B5/54

CPC: B03B5/26 B03B7/00

US: 209/44 209/458 209/500 209/507



Family:

Publication number	Publication date	Application number	Application date
US4592833 A	19860603	US19840570781	19840116

Priority:

US19840570781 19840116

Probable Assignee:

PERDUE VERNON

Assignee(s): (std):

PERDUE VERNON

Inventor(s): (std):

PERDUE VERNON

2) Family number: 59627383 (US2015182972 AA)

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Title: KREEGER SLUICE

Abstract: A sluice box is described comprising two walls, and a plurality of riffles. Riffles can have a first portion that extends below the bottom panel of a sluice box (or the bottom of a flow), and a second portion that extends above the bottom panel of a sluice box (or the bottom of a flow). By creating a catch in a riffle by having a portion of the riffle extend below a bottom panel of a sluice box, heavier minerals are not washed away as quickly, if at all, as with other sluices.

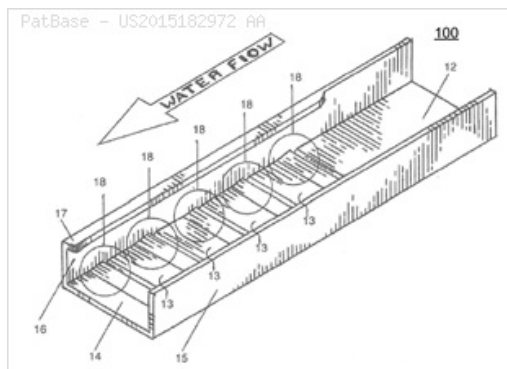
Classifications:

International (IPC 8-9): B03B4/00 B03B4/06 B03B5/00 B03B5/02

B03B5/26 B07B13/11

CPC: B03B4/00 B03B4/06 B03B5/02 B03B5/26 B07B13/113

US: 209/458 1/1



Family:

Publication number	Publication date	Application number	Application date
US2015182972 AA	20150702	US20140582178	20141223
US9586211 BB	20170307	US20140582178	20141223

Priority:

US20130921243P 20131227 US20140582178 20141223

Probable Assignee: MARSH JOHN ANTHONY

Assignee(s): (std): MARSH JOHN ANTHONY

Inventor(s): (std): MARSH JOHN ANTHONY

Agent(s): IP CLINIC AT LINCOLN LAW SCHOOL

3) Family number: 43056432 (US2009078615 AA)

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Title: SLUICE ASSEMBLY FOR SEPARATING HEAVY PARTICLES FROM SLURRY

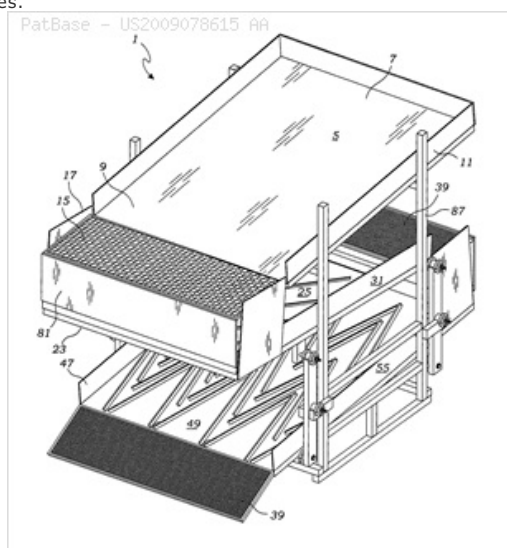
Abstract: A sluice assembly for separating heavy particles from slurry is provided. The sluice assembly includes one or more sluice boxes having decks made of plastic having a Shore D hardness between 50-75, a static coefficient of friction less than 0.3 and a kinetic coefficient of friction less than 0.2. In a preferred embodiment, the sluice assembly includes a pair of sluice boxes in which a top sluice box is positioned above the bottom sluice box so that slurry flowing from the downstream end of the first sluice box is received by the upstream end of the bottom sluice box. The bottom deck includes tapered riffles which are arranged to provide "V" shaped diverters for diverting heavier particles for collection. The sluice box upper deck may include laterally extending riffles for collection of heavier particles.

Classifications:

International (IPC 8-9): B03B B07B9/00

CPC: B03B5/26

US: 209/44 209/682



Family:

Publication number	Publication date	Application number	Application date
US2009078615 AA	20090326	US20070903015	20070920
ZA200801776 A	20090826	ZA20080001776	20080225

Priority:

US20070903015 20070920

Probable Assignee: CHUCK RAINWATER

Assignee(s): (std): CHUCK RAINWATER ; MATTHEW RAINWATER ; RAINWATER CHUCK ; RAINWATER MATTHEW

Inventor(s): (std): CHUCK RAINWATER ; MATTHEW RAINWATER ; RAINWATER CHUCK ; RAINWATER MATTHEW

Agent(s): RUSSO AND DUCKWORTH LLP

4) Family number: 29649243 (GB521481 A)

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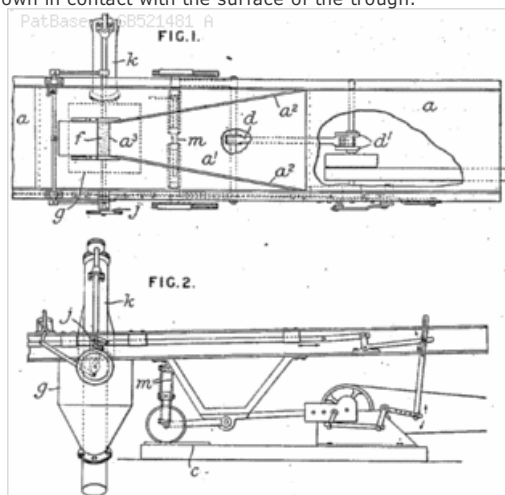
Title: Improvements in or relating to sluice boxes

Abstract: 521,481. Concentrating ores. HOLT, F. J. W., ULLMAN, A., and HONNOR, H. T. Nov. 21, 1938, No. 33849. [Class 82 (ii)] Apparatus for concentrating ores comprises an inclined trough or sluice having sections a, a', of different depths, the section a¹ being of increasing depth and preferably decreasing width in which the minerals become concentrated, the lighter material overflowing the sides a² and the concentrates being removed through an adjustable slot a' in which works an intermittently rotated vertically adjustable brush f. There may be a series of sections a, a¹ alternating along the length of the trough. The ore and water are fed to the upper end of the trough and the concentrates are removed by the brush either to a vessel g from which they are discharged by a conveyer k, or, in a modification, into each one alternately of a pair of collecting tanks. The trough is mounted on rails c and is reciprocated under control of springs by adjustable gearing d, d¹, the intermittent rotation of the brush f being effected by ratchet j driven by adjustable gearing. The inclination of the table is adjustable by means of screw and scissor gearing m. In modifications, the brush f may be continuously rotated or may be omitted, or it may be replaced by a cylinder covered with corduroy or felt; the surface of the trough may be formed with riffles, studs, or pins; or a system of pins may be supported upside down in contact with the surface of the trough.

Classifications:

International (IPC 8-9): B03B5/08

CPC: B03B5/08



Family:

Publication number	Publication date	Application number	Application date
GB521481 A	19400522	GB19380033849	19381121

Priority:

GB19380033849 19381121

Probable Assignee: AUGUST ULLMAN

Assignee(s): (std): AUGUST ULLMAN ; FRANCIS JAIME WORMALD HOLT ; HERBERT THOMAS HONNOR

5) Family number: 2329926 (GB2081608 A1)

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Title: MINERAL CONCENTRATOR

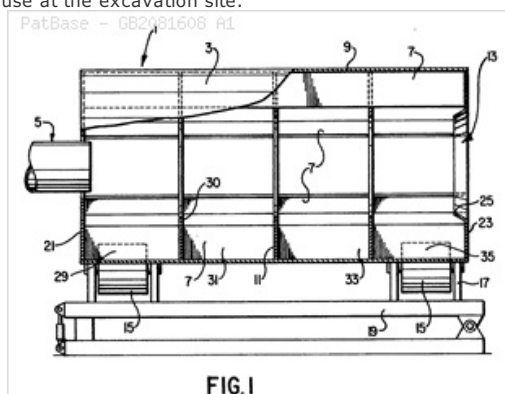
Abstract: A mineral concentrator for extracting heavy metal particles from lighter particles has annular riffles (11) and longitudinal riffles (7), the relative spacing of which causes separation of heavy mineral from waste material. Centrifugal force retains the separated minerals in the concentrator. The concentrator has a wide range of particle size feed for the extraction of heavy minerals and can extract a great percentage of very fine particles, as well as coarser particles. The concentrator can be installed in a roadworthy trailer for delivery and use at the excavation site.

Classifications:

International (IPC 8-9): B03B5/00 B03B5/02 B03B5/42 B03B5/56

International (IPC 1-7): B03B5/56

CPC: B03B5/02 B03B5/56



Family:

Publication number	Publication date	Application number	Application date
AU198169857 A1	19820128	AU19810069857	19810427
CA1153336 A1	19830906	CA19800356734	19800722
GB2081608 A1	19820224	GB19810009349	19810325

Priority:

CA19800356734 19800722

Probable Assignee: YOUNGE EARL GARRY

Assignee(s): (std): YOUNGE E G ; YOUNGE EARL G ; YOUNGE EARL GARRY

Inventor(s): (std): YOUNGE EARL G

Agent(s): CALLINANS; FISHER ADAMS KELLY CALLINANS; MEREDITH AND FINLAYSON; SPRUSON AND FERGUSON

Title: METHOD OF AND APPARATUS FOR EXTRACTION OF GOLD FROM PLACER GRAVEL

Abstract: The present invention relates to a method of extracting gold from placer gravel. Whereas conventional techniques are relatively effective in the processing of coarse gold particles, i.e. plus ten mesh tyler, the present invention finds application in recovery of gold particles of all sizes from submicroscopic through coarse nuggets larger than ten mesh tyler. A rotating sluice box uses centrifugal force to enhance the sluicing process, and a centrifugal amalgamator then extracts gold from the concentrate thus produced, under centrifugal force. Gold is removed from the mercury by conventional techniques.

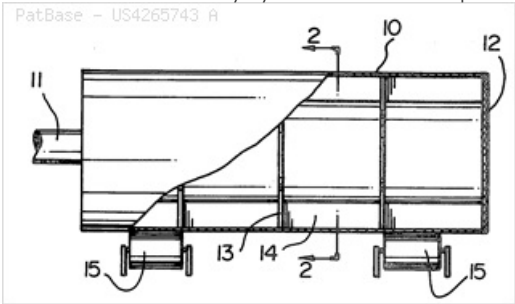
Classifications:

International (IPC 8-9): B03B11/00 B03B13/00 B03B4/00 B03B5/00 B03B7/00 C22B11/00 C22B11/10

International (IPC 1-7): B03B5/56 C22B11/12

CPC: C22B11/10 Y10S494/902

US: 209/14 209/199 209/452 494/37 494/902



Family:

Publication number	Publication date	Application number	Application date
CA1110206 A1	19811006	CA19780316785	19781123
GB2038365 A1	19800723	GB19790026943	19790802
US4265743 A	19810505	US19790050310	19790620
US4347130 A	19820831	US19810247322	19810325

Priority:

CA19780316785 19781123

Probable Assignee: YOUNGE E
Assignee(s): (std): YOUNGE E ; YOUNGE EARL G
Inventor(s): (std): YOUNGE EARL G
Agent(s): MEREDITH AND FINLAYSON

Title: METHOD FOR MINERAL SEPARATION

Abstract: (Claim 1) claim: 1. The method of removing the heavy mineral content in large volume sIlirries of beach sands and the like, comprising adding to the slurry feed a volume of magnetic heavy mineral substantially equal to the volume of the nonmagnetic and weakly magnetic heavy minerals in said slurry, stratifying said heavy minerals into a bottom layer in said feed, subjecting said stratified feed to a magnetic field to remove substantially all of the heavy mineral content, forming a slurry of said separated heavy rlineral content, recovering and removing the magnetic portion only of said heavy minerals from said last named slurry, demagnetizing said recovered ma_netic mineral, and returning the proper amount of said ma.-netic heavy _mineral to said feed slurry.

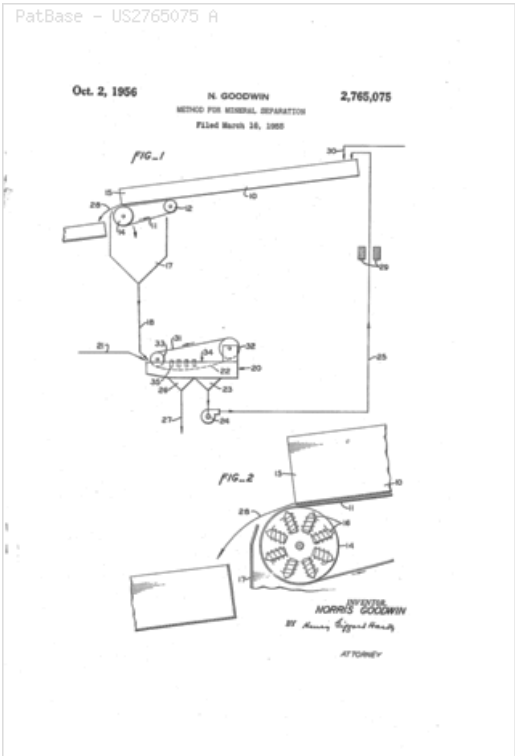
Classifications:

International (IPC 8-9): B03C1/005 B03C1/01

International (IPC 1-7): B03C1/18

CPC: B03C1/01

US: 209/40 209/478



Family:

Publication number	Publication date	Application number	Application date
US2765075 A	19561002	US19550494638	19550316

Priority:

US19550494638 19550316

Probable Assignee:

CENTRIJIG CORP

Assignee(s): (std):

CENTRIJIG CORP

Inventor(s): (std):

NORRIS GOODWIN

Inventor(s):

GOODWIN NORRIS

8) Family number: 20050359 (GB382311 A)

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Title: Improvements in the recovery of valves from alluvial material and apparatus therefor

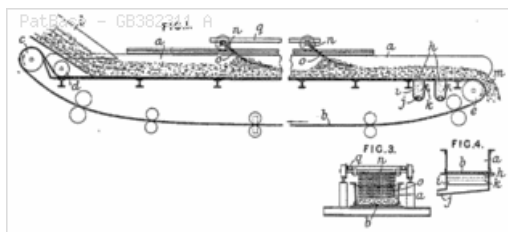
Abstract: 382,311. Washing granular materials; amalgamating. COBBE, H. N. G., 39, Victoria Street, London. July 24, 1931, No. 21117. [Class 82 (ii).] Values are recovered from alluvial deposits by passing the material with a stream of water down an inclined sluice, the heavy values sinking into the interstices of a screen or the like travelling downwardly along the bottom of the sluice and over one or more openings near the lower end of the sluice into which the values fall. To regulate the size of the values passing through the openings, the openings may be covered by perforated plates or screens or an additional travelling screen with interstices of the required dimensions may be superimposed on the main travelling screen. The upper run of an endless chain carpet b passing round rollers c, d, e moves downwardly along the bottom of an inclined sluice a to which alluvial deposit and water are supplied by a shoot l. The values are deposited in the interstices of the carpet and are washed through openings h near the lower end of the sluice into hutches i with overflows k and discharge passages j which may be lateral as shown or vertical. To assist in breaking up lumps of clayey material flexible mats, preferably chain mats o extending laterally across the sluice are suspended from bars n carried by a framework q which is reciprocated longitudinally. To recover any values which have not entered the interstices of the screen the material discharged at m at the lower end of the sluice may be passed down an inclined trough having obstructions to retain the values. Amalgamation may be practised in the sluice, the hutches, or the inclined trough.

Classifications:

International (IPC 8-9): B07B1/00

International (IPC 1-7): B03B5/72

CPC: B07B1/00 B07B2230/01



Family:

Publication number	Publication date	Application number	Application date
GB382311 A	19321024	GB19310021117	19310724

Priority:

GB19310021117 19310724

Probable Assignee:

HERVIC NUGENT GRAHAME COBBE

Assignee(s): (std):

HERVIC NUGENT GRAHAME COBBE

9) Family number: 29545559 (GB164270 A)

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Title: Improved apparatus for washing or separating ores

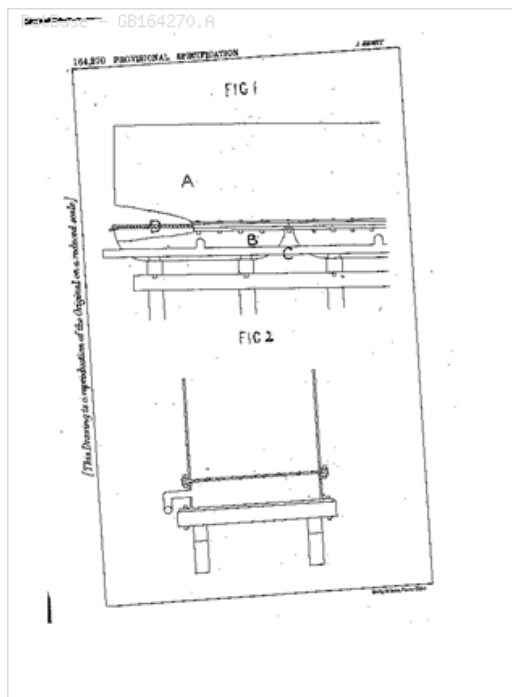
Abstract: 164,270. Whitworth, M. Aug. 31, 1920. Inclined-trough washing-apparatus jigs.-Ore and water are passed down an inclined trough A the bottom D of which is formed with backwardly inclined perforations through which water is admitted to the trough intermittently from tanks B. The tailings pass off with the water while the concentrates settle on the bottom D and may be collected against a transverse board placed across the trough.

Classifications:

International (IPC 8-9): B03B5/00 B03B5/22 B03B5/62

International (IPC 1-7): B03B5/22 B03B5/68

CPC: B03B5/22 B03B5/62



Family:

Publication number	Publication date	Application number	Application date
DE367760 A	19230126	DE1921W059067D	19210810
GB164270 A	19210609	GB19200025078	19200831

Priority:

GB19200025078 19200831 DE1921W059067 19210810

Probable Assignee: MARTIN WHITWORTH

Assignee(s): (std): MARTIN WHITWORTH

10) Family number: 68241300 (US2018015479 AA)

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Title: HYDRAULIC PARTICLE SEPARATION APPARATUS FOR PLACER MINING

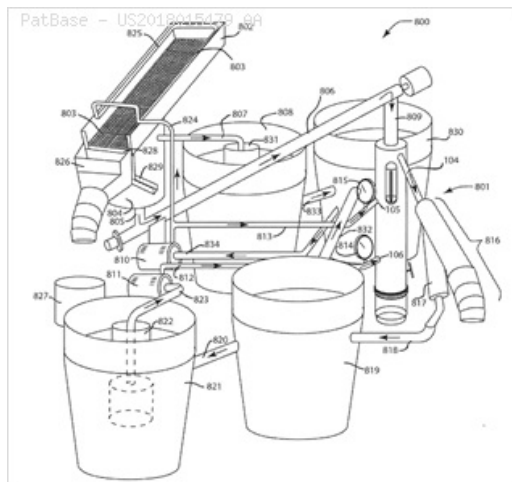
Abstract: An innovative compact high efficiency hydraulic particle separator is disclosed. Featured embodiments of the innovative separator comprise a cylindrical main body having an upper chamber and a lower chamber separated by a partition. A liquid fluid flow upwelling through the partition from the lower chamber is caused to mix with tangential jet of fluid flowing introduced above the partition in the upper chamber produces a spiral flow within the upper chamber and flows upward to the top of the apparatus. Particle mixtures containing low density and high specific gravity particles and other solids are introduced into the upper chamber are immediately contacted by the upward spiral flow, where low-density particles are immediately entrained in the spiral flow and separated from the high-density particles, swept upward and exit the apparatus. High-density particles may be forced outward and collect along the wall of the apparatus, falling through the partition to the lower chamber and settle in a collection vessel.

Classifications:

International (IPC 8-9): B03B11/00 B03B13/00 B03B5/62 B03B5/66 B03B9/00

CPC: B03B13/00 B03B2011/002 B03B5/62 B03B9/00

US: 1/1 209/159



Family:

Publication number	Publication date	Application number	Application date
US10065197 BB	20180904	US20170461272	20170316
US2018015479 AA	20180118	US20170461272	20170316

Priority:

US20160361104P 20160712 US20170461272 20170316

Probable Assignee: GRAY MICHAEL LEE

Assignee(s): (std): GRAY MICHAEL LEE ; RICHMOND JOHN

Inventor(s): (std): GRAY MICHAEL LEE ; RICHMOND JOHN
Agent(s): GILBERT SCOTT E

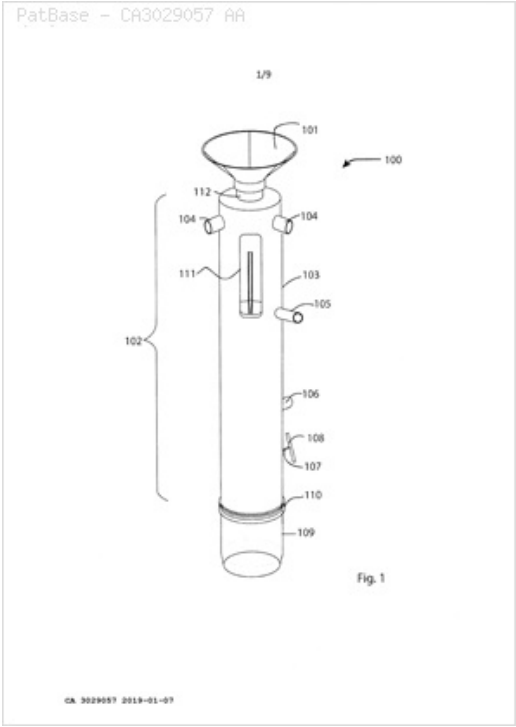
11) Family number: 79965691 (CA3029057 AA)

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Title: HYDRAULIC PARTICLE SEPARATION APPARATUS FOR PLACER MINING

Abstract: An innovative compact high efficiency hydraulic particle separator is disclosed. Featured embodiments of the innovative separator comprise a cylindrical main body having an upper chamber and a lower chamber separated by a partition. A liquid fluid flow upwelling through the partition from the lower chamber is caused to mix with tangential jet of fluid flowing introduced above the partition in the upper chamber produces a spiral flow within the upper chamber and flows upward to the top of the apparatus. Particle mixtures containing low density and high specific gravity particles and other solids are introduced into the upper chamber are immediately contacted by the upward spiral flow, where low-density particles are immediately entrained in the spiral flow and separated from the high-density particles, swept upward and exit the apparatus. High-density particles may be forced outward and collect along the wall of the apparatus, falling through the partition to the lower chamber and settle in a collection vessel.

Classifications:
International (IPC 8-9): B03B5/62 B03B7/00
CPC: B03B5/62 B03B9/00



Family:

Publication number	Publication date	Application number	Application date
CA3029057 AA	20200707	CA20193029057	20190107

Priority:
CA20193029057 20190107

Probable Assignee: GRAY MICHAEL LEE
Assignee(s): (std): GRAY MICHAEL LEE ; RICHMOND JOHN
Inventor(s): (std): GRAY MICHAEL LEE ; RICHMOND JOHN
Agent(s): BORDEN LADNER GERVAIS LLP

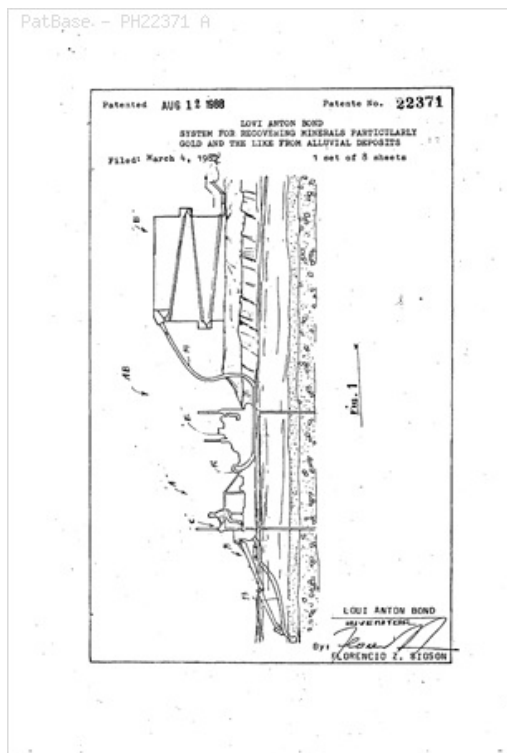
12) Family number: 86379 (PH22371 A)

© PatBase

Title: SYSTEM FOR RECOVERING MINERALS PARTICULARLY GOLD AND THE LIKE FROM ALLUVIAL DEPOSITS

Abstract: A system for recovering minerals, particularly gold and the like from alluvial deposits. The system includes a hopper (101) for receiving material, a conveyor (102) for transporting the material to a separation unit (103). The separation unit includes a rotating drum (104) and a collection vessel (105). The drum is rotated by a motor (106) and is partially submerged in a fluid (107). The fluid is pumped from a source (108) through a pump (109) and a pipe (110) to the drum. The drum is designed to create a spiral flow of material, which causes low-density particles to be entrained in the flow and high-density particles to be swept upward and exit the apparatus. High-density particles may be forced outward and collect along the wall of the apparatus, falling through the partition to the lower chamber and settle in a collection vessel.

Classifications:
International (IPC 8-9): E21C45/00
International (IPC 1-7): E21C45/00

**Family:**

Publication number	Publication date	Application number	Application date
PH22371 A	19880812	PH19870034955	19870304

Priority:

PH19870034955 19870304

Probable Assignee:

BOND LOVI ANTON

Assignee(s): (std):

BOND LOVI ANTON

Inventor(s): (std):

ANTON BOND LOVI

Inventor(s):

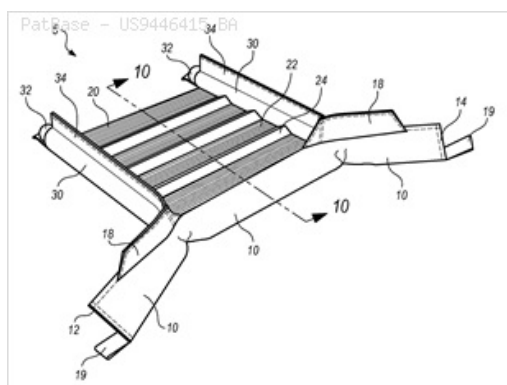
BOND LOVI ANTON

13) Family number: 63567276 (US9446415 BA)

© PatBase

Title: PORTABLE FLEXIBLE SLUICE BOX WITH AIRFOIL-SHAPED FLARE

Abstract: Portable flexible sluice box with airfoil-shaped flare is a flexible sluice box. The entire portable flexible sluice box with airfoil-shaped flare can be rolled up into a compact cylindrical roll. Portable flexible sluice box with airfoil-shaped flare comprises a flexible airfoil-shaped flare attached to a flexible riffle sheet. Flexible airfoil-shaped flare is a tube of flexible material partially filled with particulate matter to yield a flexible tube member with an airfoil-shaped cross section when laid out laid out flat on a horizontal surface. Flexible riffle sheet is a rectangular-shaped flexible sheet of material with a plurality of parallel ridges protruding from its upper surface. Portable flexible sluice box with airfoil-shaped flare may further comprise a set of two wall insert pockets and a set of two rigid inserts. This optional structure essentially adds a wall to the left and right edges of flexible riffle sheet.

Classifications:**International (IPC 8-9):** B03B5/06 B07B1/49**CPC:** B03B5/26**US:** 1/1**Family:**

Publication number	Publication date	Application number	Application date
US9446415 BA	20160920	US20150706261	20150507

Priority:

US20150706261 20150507

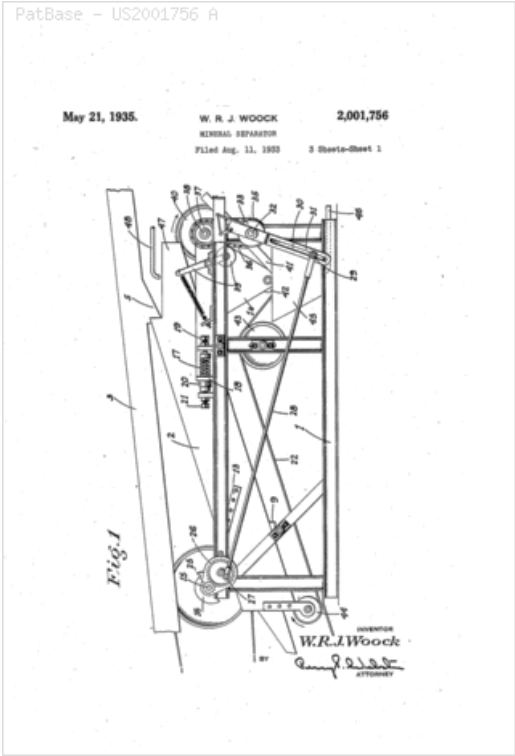
Probable Assignee: ANASTASI RENZONI VALERIE J**Assignee(s):** (std): ANASTASI RENZONI VALERIE J ; RENZONI DOUGLAS R**Inventor(s):** (std): ANASTASI RENZONI VALERIE J ; RENZONI DOUGLAS R

14) Family number: 22381018 (US2001756 A) © PatBase

Title: MINERAL SEPARATOR

Abstract: 1. Having thus described my invention what I claim as new and useful and desire to secure by Letters Patent is: A mineral separator comprising an inclined sluice box, screening elements arranged therein, a rillie belt one run of which is adapted to move through the box under the screening elements, a flushing tank, the other run of the belt being adapted to move through such ilushing tank, means to impart vibration to the box and belt, means to impart motion to the belt in the direction of the high end of the box, a water pan on the box at its high end, the uppermost end of the pan being open at a level just above the belt, and means to maintain Water in the pan to the level of such open end thereby with the vibration of the panwater will be Washed over such end onto the belt.

Classifications:
International (IPC 8-9): B03B5/00 B03B5/72
International (IPC 1-7): B03B5/72
CPC: B03B5/72
US: 209/433 209/44



Family:

Publication number	Publication date	Application number	Application date
US2001756 A	19350521	US19330684685	19330811

Priority:

US19330684685 19330811

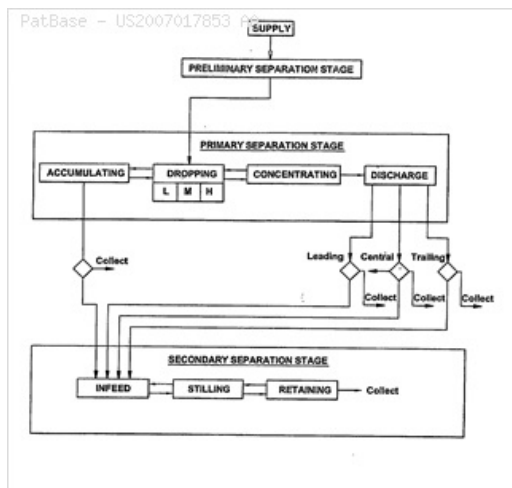
Probable Assignee: WOOCK WALTER R J
Assignee(s): (std): WOOCK WALTER R J
Inventor(s): (std): WOOCK WALTER R J

15) Family number: 31055943 (US2007017853 AA) © PatBase

Title: HEAVY PARTICLE SEPARATION

Abstract: A method of heavy particle separation, including a primary separation stage which includes the steps of dropping, accumulating, concentrating and discharging of heavy particles and/or a secondary separation stage for concentrating heavy particles which includes the steps of infeeding, stilling and retaining such particles.

Classifications:
International (IPC 8-9): B03B B03B5/00 B03B5/08 B03B5/26 B03B5/72 B03B7/00 B03B9/00 B07B1/06
International (IPC 1-7): B03B5/08 B03B5/26 B03B5/72 B03B9/00
CPC: B03B5/08 B03B5/26 B03B5/72 B03B9/00
US: 209/12.1 209/12.100P 209/274



Family:

Publication number	Publication date	Application number	Application date
AP2005003415 A0	20051231	AP20050003415	20040402
AP2059 A	20091022	AP20050003415	20040402
AT459422 E	20100315	AT20040725464T	20040402
AU2004226610 AA	20041014	AU20040226610	20040402
AU2004226610 AB	20041014	AU20040226610	20040402
AU2004226610 BB	20100715	AU20040226610	20040402
AU2010202763 AA	20100805	AU20100202763	20100630
BRPI0409156 A	20060502	BR2004PI09156	20040402
CA2521065 AA	20050930	CA20042521065	20040402
CA2521065 C	20111129	CA20042521065	20040402
CN1791466 A	20060621	CN200480013472	20040402
CN1791466 B	20140917	CN200480013472	20040402
DE602004025797 D1	20100415	DE200460025797T	20040402
EA014586 B1	20101230	EA20060000681	20040402
EA2006000681 A1	20060825	EA20060000681	20040402
EP1608468 A2	20051228	EP20040725464	20040402
EP1608468 B1	20100303	EP20040725464	20040402
ES2342170 T3	20100702	ES20040725464T	20040402
IN04655DN2005 A	20070817	IN2005DN04655	20051013
IN235436 B	20090731	IN2005DN04655	20051013
MXPA05010617 A1	20060309	MX2005PA10617	20040402
OA13114 A	20061110	OA20051000275	20040402
US2007017853 AA	20070125	US20040551890	20040402
US8042691 BB	20111025	US20040551890	20040402
WO04087325 A2	20041014	WO2004IB50386	20040402
WO04087325 A3	20050120	WO2004IB50386	20040402
ZA200507970 A	20070328	ZA20050007970	20051003

Priority:

ZA20030002617 20030403 WO2004IB50386 20040402 AU20040226610 20040402
ZA20050007970 20051003 AU20100202763 20100630

Probable Assignee: IE TEC MARKETING LTD

Assignee(s): (std): BRO SSEUK RAYMOND BRIAN ; IE TEC LICENSING LIMITED ; IE TEC LICENSING LTD ; OPPENHEIMER GREIG

Assignee(s): BRO SSEUK RAYMOND BRIAN IE TEC LICENSING LTD ; IE TEC LICENSING LIMITED ; IE TEC MARKETING LTD

Inventor(s): (std): BRIAN BRO SSEUK RAYMOND ; BRO SSEUK RAYMOND ; BRO SSEUK RAYMOND BRIAN ; GREIG BRO SSEUK RAYMOND BRIAN O ; GREIG OPPENHEIMER ; OPPENHEIMER GREIG

Inventor(s): BRO SSEUK RAYMOND BRIAN OPPENHEIMER GREIG ; OPPENHEIMER GERIG ; RAYMOND BRIAN BRO SSEUK

Agent(s): BATES PHILIP IAN; DAVIES COLLISON CAVE; DAVIES COLLISON CAVE PTY LTD; GOWLING LAFLEUR HENDERSON LLP; GOWLING WLG CANADA LLP; MERCHANT AND GOULD PC

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 KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

16) Family number: 29575093 (GB186016 A)

© PatBase

Title: Improvements in pulp agitators for sluicing boxes and trough washers

Abstract: 186,016. Martyn, T. H. April 28, 1922. Inclined-trough and endless-belt washing apparatus; wet-separating.- Apparatus for separating tin dioxide, or metal values such as gold, from wash dirt or sand by washing in water, or other liquids such as hydrocarbon oils, comprises an inclined sluice-box provided with moving knife-blades or share-bars of rectangular, crescent, elliptical, or other section, to pass horizontally through the mass to split it up and loosen the pulp beneath the surface to facilitate separation. The knife-blades move through the box in the opposite direction to the stream, and are set with their leading edges tilted slightly downwards towards the head of the box, so that they exercise a lifting effect on the strata above them as they slice the deposit. The pulp is uniformly fed with water into the feed-box 12 of the

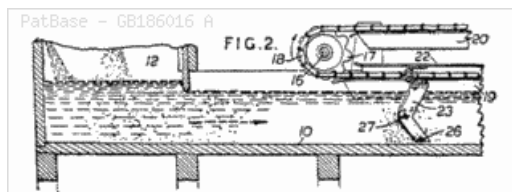
sluicelox 10, which supports the bearings carrying the shafts 16 mounted with sprockets 17 to carry the endless chains 18, which are guided by the rails 19, 20. These chains carry at intervals crossbeams 22 on which are mounted carrier arms 23, to which the knife-blades 26, 27 are attached.

Classifications:

International (IPC 8-9): B03B5/62

International (IPC 1-7): B03B5/62

CPC: B03B5/62



Family:

Publication number	Publication date	Application number	Application date
GB186016 A	19220921	GB19220011963	19220428

Priority:

GB19220011963 19220428

Probable Assignee: THOMAS HAMMOND MARTYN

Assignee(s): (std): THOMAS HAMMOND MARTYN

17) Family number: 11328271 (US5255787 A)

© PatBase

Title: Lead shot reclamation device and method

Abstract: A lead shot recovery device is disclosed for reclaiming lead shot from a slurry of material taken from lake bottoms. In one embodiment, the device includes a sluice box having an open bottom riffle bed through which can pass a net upward liquid flow. The cooperative action of the upflow and the riffles causes lead shot to fall through the riffle bed and into a collection pit from which the lead shot can be continuously removed. A method for recovering lead shot using the recovery device is also disclosed.

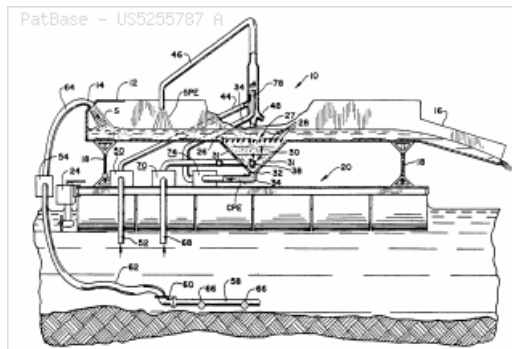
Classifications:

International (IPC 8-9): B03B5/00 B03B5/62 B09C1/00 B09C1/02

International (IPC 1-7): B03B7/00

CPC: B03B5/623 B09C1/02

US: 209/158 209/160 209/17 209/208 209/44 209/506



Family:

Publication number	Publication date	Application number	Application date
US5255787 A	19931026	US19910695150	19910503

Priority:

US19910695150 19910503

Probable Assignee: SIMS JOHN

Assignee(s): (std): SIMS JOHN

Inventor(s): (std): SIMS JOHN

18) Family number: 20947934 (DE564410 A)

© PatBase

Title: METHOD AND APPARATUS FOR TREATMENT OF MINERALS, ESPECIALLY COAL, IN STROMRINNENWAESCHEN (Machine translation)

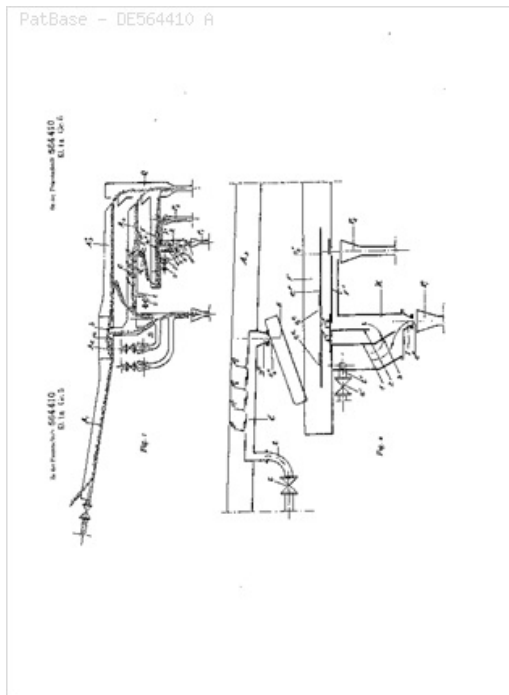
Abstract: Source: DE564410 A **Machine translation:** (Claim 1) 1 PATENTANSPRUE1 CIIE i. procedures for processing of minerals, especially coal, rinnenwaeschen power-in, wherein the material in a groove in a specifically lighter and heavier elements, with subsequent deposition of the hardest parts in the rise of the water flow is separately and the costs thereof Zwischengut with that from the first channel ausgetra own Zwischengut through the bottom of the chutes opening arranged ausgetra gene, is characterized in that the costs thereof remaining intermediate good in a particular channel by round-about take over one only of keitsstroemen in Rin nenstromrichtung running Fluessig carrying, known per se, but with its walls to Dc on the channel floor-length, in be known manner with several inlet opening for the major commodity in its upper bearing box (C) to be especially Fluessigkeitszufluss (t) and special Derem discharge () is freed from the heavier elements, which in turn in a gutter with subsequent supply of those particular rise in the discharge of Fluessigkeitsstrom now the hardest parts of reunification under the remaining components are separated.

Classifications:

International (IPC 8-9): B03B5/00 B03B5/68

International (IPC 1-7): B03B5/68

CPC: B03B5/68

**Family:**

Publication number	Publication date	Application number	Application date
DE564410 A	19321118	DE1927H110160D	19270217

Priority:

DE1927H110160 19270217

Probable Assignee:

LEON HOYOIS

Assignee(s): (std):

LEON HOYOIS

19) Family number: 7547759 (US3777004 A)

© PatBase

Title: PROCESS FOR HEAP LEACHING ORES

Abstract: ABSTRACT OF THE DISCLOSURE A method for recovering metal values from large deposits of low grade ores or from high grade ores existing in small ore bodies in an outdoor operation near the mine which comprises making a pile of the ore and successively leaching selected depths of the ore from the top of the 1 pile down by adding leaching agent and sufficient moisture to leach the metal contained in each selected depth with intermittent stirring of the selected depth of ore until the metal is solubilized followed by removal of the leached section from the pile, separation of the leach solution and solid tailings and recovery of the dissolved metal values from the leach solution.

Classifications:**International (IPC 8-9):** C01G43/00 C01G43/01 C22B3/00**International (IPC 1-7):** B01D11/00 C01G1/00 C01G43/00**CPC:** C01G43/01 C22B3/00 Y02P10/20**US:** 423/2. 423/20 423/27 423/29 423/3 423/31 423/53 423/68**Family:**

Publication number	Publication date	Application number	Application date
US3777004 A	19731204	US19710141960	19710510

Priority:

US19710141960 19710510

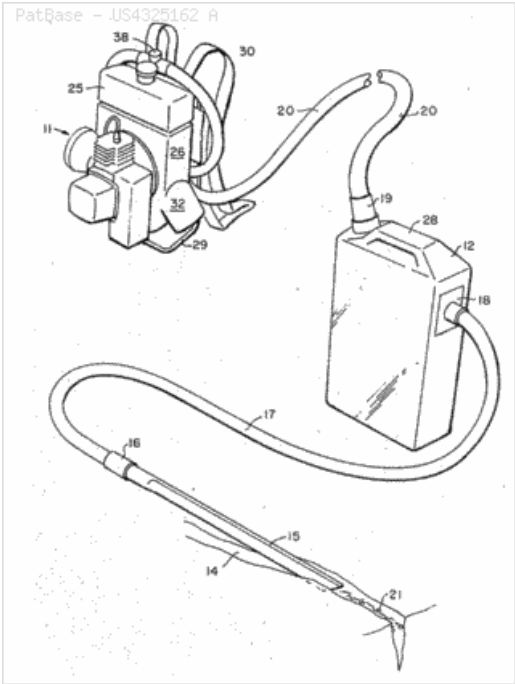
Probable Assignee: KEY WEST HOLDINGS INC**Assignee(s):** (std): HAZEN RESEARCH**Assignee(s):** HAZEN RES INC US ; KEY WEST HOLDINGS INC ; PHOENIX TECHNOLOGIES INC ; PHOENIX TECHNOLOGIES INC A CORP OF DEL ; REVNED INC ; REVNED INC A CORP OF DEL**Inventor(s):** (std): LAKE J ; LANKENAU A**Inventor(s):** LAKE J US ; LANKENAU A US**20) Family number: 8548484** (US4325162 A)

© PatBase

Title: Apparatus for collecting mineral-bearing debris

Abstract: A portable blower device for picking up debris in which minerals such as gold may be deposited in cracks and crevices and the like. A blower assembly is mounted with a harness for carrying on the back of the user to create a vacuum for pulling air through a flexible tube connecting with a container. Leading from the collector container is a second hose connecting with an elongated hollow tubular member which can be inserted into cracks and crevices for drawing out debris and minerals for deposit in the collector. The device is compact and easily portable and, by insertion of the collector into the harness, can be hand-carried as a unit.

Classifications:**International (IPC 8-9):** A47L7/00**International (IPC 1-7):** A47L9/32



Family:

Publication number	Publication date	Application number	Application date
US4325162 A	19820420	US19800154466	19800529

Priority:

US19800154466 19800529

Probable Assignee: CHAMBERS EARL W
Assignee(s): (std): CHAMBERS EARL W ; DOGLIETTO JOHN L
Inventor(s): (std): CHAMBERS EARL W ; DOGLIETTO JOHN L

21) Family number: 1959634 (WO8201052 A1)

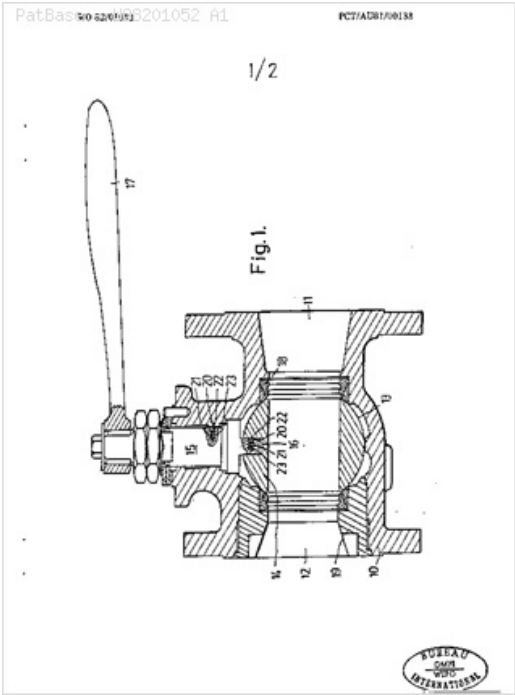
© PatBase

Title: ANTI-STATIC DEVICE FOR BALL VALVES

Abstract: An anti-static device for ball valves or other rotary or "quarter-term" type valves. A hole (24) is bored in the stem (15) and a contact assembly incorporating a pair of spring-steel arms (26) is secured in the hole (24) by a tube (29) which is an interference fit in the hole (24). The tube (29) prevents longitudinal and rotational movement of the spring means (25) in the hole (24). The spring arms (26) engage the floor (31) and/or walls (32) in the socket (16) in the valve ball (14) to maintain an electrical path between the stem (15) and valve ball (14).

Classifications:

International (IPC 8-9): B03B5/00 B03B5/26 E02F3/88 E02F3/90 E02F3/94 F16K5/00 F16K5/06 F16K5/08 F16K51/00 G01N G01V
International (IPC 1-7): B03B5/00 B03B5/26 E02F3/90 E02F3/94 E21C41/14 F16K5/06 F16K5/08 F16K51/00
CPC: E02F3/90 E02F3/94 F16K5/0647 F16K5/08 B03B5/26



Family:

Publication number	Publication date	Application number	Application date
AU198056793 A1	19810219	AU19800056793	19790816
AU198175845 A1	19820414	AU19810075845	19810918

AU543080 B2	19850328	AU19810075845	19810918
BR8005157 A	19810224	BR19800005157	19800815
EP0069737 A1	19830119	EP19810902614	19810918
GB2056528 A1	19810318	GB19800024794	19800729
WO8201052 A1	19820401	WO1981AU00133	19810918
ZA8004578 A	19820331	ZA19800004578	19800729

Priority:

AU1979PE00056 19790816 AU19810075845 19810918 WO1981AU00133 19810918

Probable Assignee: BLAKE H H

Assignee(s): (std): ALLEN I ; ALLEN I W ; ALLEN S ; BLAKE B ; BLAKE H ; BLAKE H H ; DRISCOLL K B ; HOOPER BLAKE H ; PICKER I ; PICKER J ; PICKER J BLAKE H H ALLEN I W DRISCOLL K B ; RICHARDS AND CO B C ; RICHARDS C

Assignee(s): ALLEN IAN WILLIAM ; ALLEN SUZANNE JANETTE ; B C RICHARDS AND CO PTY LTD ; BLAKE BEVERLEY DAIL ; BLAKE HERBERT HOOPER ; PICKER IRENE MARY ; PICKER JAMES ; RICHARDS B C AND CO PTY LTD

Inventor(s): (std): ALLEN I ; ALLEN IAN WILLIAM ; BLAKE H ; HOOPER BLAKE H ; PICKER J ; RICHARDS C ; RICHARDS C G ; RICHARDS CECIL GRAHAM

Inventor(s): C G RICHARDS ; IAN WILLIAM ALLEN

Agent(s): PIZZEYS; PIZZEYS PATENT AND TRADE MARK ATTORNEYS PTY LTD

Designated states: AT AU CH DE FR GB JP LI NL SE US

22) Family number: 2599017 (US4784757 A)

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Title: Solid material separator

Abstract: Apparatus for the separation of solid materials of different specific gravities comprising a vertical separator tube having a material inlet port, a light material discharge port located above the inlet port, and a heavy material discharge port located below the inlet port; a holding tank having a top opening for receiving the solid materials to be separated and a bottom opening connected to the inlet port of the separator tube by a feeder tube; a pressurized water source, as by a pump; and a conduit connecting the water source to the separator tube at or below the heavy material discharge port. The holding tank is located at such a height as to allow water coming into the tank from the separator tube to reach a predetermined static level within the tank. The heavy material discharge port is located substantially below the water static level in the tank and adjacent the pressurized water intake so that heavy material may be rapidly removed by water moving at a high velocity.

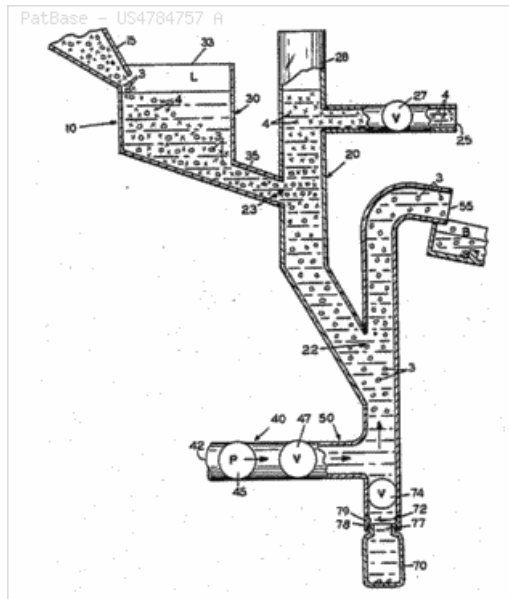
Classifications:

International (IPC 8-9): B03B5/00 B03B5/62

International (IPC 1-7): B03B5/00

CPC: B03B5/623

US: 209/159 209/2



Family:

Publication number	Publication date	Application number	Application date
US4784757 A	19881115	US19870072650	19870713

Priority:

US19870072650 19870713

Probable Assignee: MCCLUNG LONNIE D

Assignee(s): (std): MCCLUNG LONNIE D ; NELSON EDGAR E

Inventor(s): (std): MCCLUNG LONNIE D ; NELSON EDGAR E

23) Family number: 22196019 (US2656924 A)

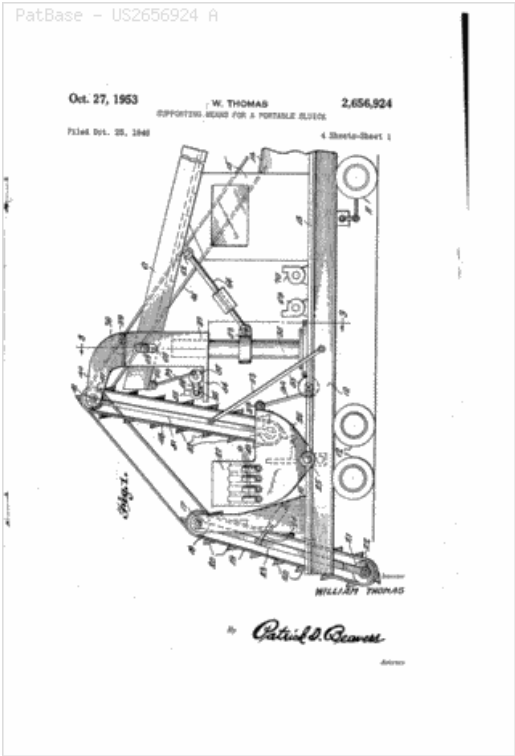
© PatBase

Title: SUPPORTING MEANS FOR A PORTABLE SLUICE

Abstract: (Claim 1) What is claimed is: An apparatus of the character described comprising a platform, a mast centrally mounted upon the platform, a sluice support revolvably mounted upon the upper end of said mast and having a central vertically extending passage therethrough, and having a vertically extending, slot in each side thereof communicating with said passage, an elongated sluice extending through said supporting sluice, a guide pin extending laterally from each side of said sluice adjacent the inner end thereof and each positioned and which extends transversely of the box 26.

Classifications:

International (IPC 8-9): E21C47/00
International (IPC 1-7): B03B5/08
CPC: E21C47/00
US: 193/16 209/437 209/504 209/508 299/7



Family:

Publication number	Publication date	Application number	Application date
US2656924 A	19531027	US19480056303	19481025

Priority:

US19480056303 19481025

Probable Assignee:	WILLIAM THOMAS
Assignee(s): (std):	WILLIAM THOMAS
Inventor(s): (std):	WILLIAM THOMAS
Inventor(s):	THOMAS WILLIAM

24) Family number: 8365838 (US4290527 A) © PatBase

Title: Sluice construction

Abstract: An improved continuous run sluice box having a sonic vibration and ultrasonic vibration means for concentrating gold or other precious metals while eliminating the loss of black sands containing other valuable fines normally accompanying the use of conventional sluices. The sluice includes a novel type riffle construction including a vertical wall and a sloping wall leading to a collecting area having a nylon cloth screen positioned between coarse and fine metallic screens which facilitates both the collection of the fines and the release of the same during flushing operations.

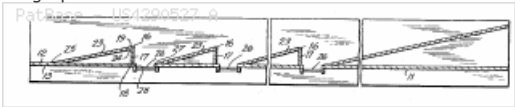
Classifications:

International (IPC 8-9): B03B5/00 B03B5/06 B03B5/10 B03B5/26 B03B7/00

International (IPC 1-7): B03B4/00 B03B5/06

CPC: B03B5/06 B03B5/10 B03B5/26 B03B7/00

US: 209/12 209/12.2 209/437 209/44 209/458 209/471 209/477 209/487 209/506



Family:

Publication number	Publication date	Application number	Application date
US4290527 A	19810922	US19800177796	19800813

Priority:

US19800177796 19800813

Probable Assignee:	WRIGHT WINSTON F
Assignee(s): (std):	WRIGHT WINSTON F
Assignee(s):	M AND W FAMILY PRESERVATIONTRUST
Inventor(s): (std):	WRIGHT WINSTON F

25) Family number: 56340266 (US2014117124 AA) © PatBase

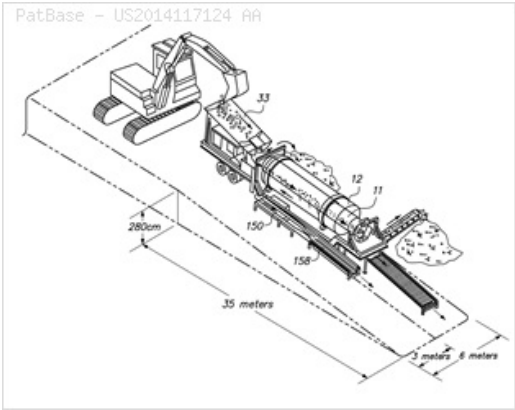
Title: METHOD FOR EXTRACTING HEAVY METALS FROM HARD ROCK AND ALLUVIAL ORE

Abstract: A machine is employed for recovering heavy metals and precious or semi precious minerals, such as gold, copper, lead, diamonds, and garnets from placer, or hard rock ore. The machine employs a cylindrical, annular outer drum mounted for rotation at an inclination to the horizontal and including at least one spiral vane extending the length of its inner surface. A cylindrical, annular inner barrel is mounted within the drum and has an upper fragmentation section, an intermediate screened section, and a lower discharge section. A spray of water is directed into the inner barrel and a water

spray bar is located in the annulus between the inner barrel and the outer drum. A fine sluice box is located to receive under one-quarter material input from a side trommel and a coarse sluice box located to receive discharge from the side trommel and discharge from the fine sluice box. The sluice box includes a plurality of landings, matting and screens upon which heavy materials, such as gold or precious stones, collect.

Classifications:

International (IPC 8-9): B02C13/00 B02C19/00 B02C23/16
B02C23/18 B03B B03B5/00 C22B3/02
CPC: B02C23/16 B02C23/18 B03B5/26 B03B5/56 B03B9/00
US: 241/20 241/200 241/24.13 241/24.25 241/38 241/69 241/74
241/81 241/91



Family:

Publication number	Publication date	Application number	Application date
AU2013334074 AA	20140501	AU20130334074	20131025
AU2013334074 BB	20180201	AU20130334074	20131025
CA2889574 AA	20150424	CA20132889574	20131025
CN104884173 A	20150902	CN201380068370	20131025
CN104884173 B	20180713	CN201380068370	20131025
HK1214559 A1	20160729	HK20160102365	20160301
HK1214559 B	20190614	HK20160102365	20160301
US2014117124 AA	20140501	US20120662383	20121026
US8789780 BB	20140729	US20120662383	20121026
WO14066863 A1	20140501	WO2013US66981	20131025
ZA201502745 A	20161026	ZA20150002745	20150422

Priority:

US20120662383 20121026 WO2013US66981 20131025

Probable Assignee: RAYMOND BROSEUK

Assignee(s): (std): BROSEUK RAYMOND ; RAYMOND BROSEUK

Inventor(s): (std): BROSEUK RAYMOND ; RAYMOND BROSEUK

Agent(s): CISLO AND THOMAS LLP; CISLO DANIEL M; DEACONS; GRIFFITH HACK; RICHES MCKENZIE AND HERBERT LLP; WATERMARK INTELLECTUAL PROPERTY PTY LTD; WATERMARK PATENT AND TRADE MARKS ATTORNEYS

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 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

26) Family number: 22004377 (US2091279 A)

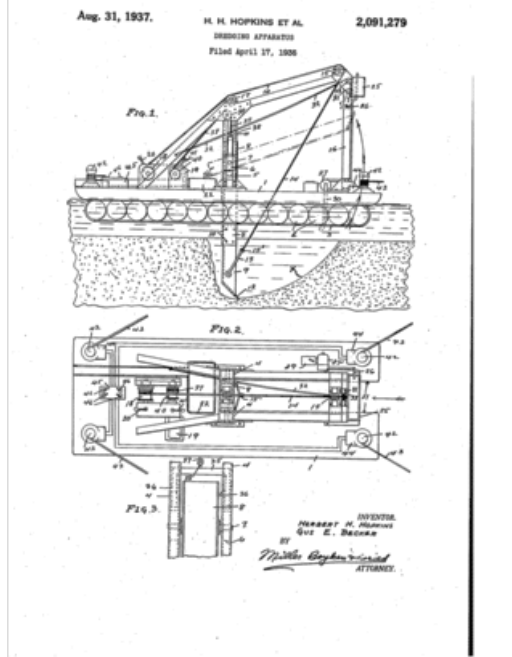
© PatBase

Title: DREDGING APPARATUS

Abstract: 1. Dredging apparatus for dredging the bed of a stream comprising a barge-like float adapted to float on the water of the stream, a generally vertically extending, rigid arm formed with sides and a bottom providing a channel extending the length of the arm, pivot means on the float mounting said arm adjacent its upper inner end for moving the opposite outer end of the arm from below the float to an elevated position above the level of said pivot means, said outer end of the arm having a cutting edge adapted to cut material from the bed of the stream upon moving the outer end to above the level of the pivot means, and said arm being positioned to receive the cut material in the channel of the arm upon so moving the arm whereby said material will slide by gravity toward the pivoted end of the arm when the outer end is elevated above the level of the pivot means, means for elevating the outer end of the arm and means for raising and lowering the arm when the same is in generally vertically extending position, said barge-like float being formed with an opening positioned relative to the arm to permit moving the arm about its pivoted end from its vertically extending position to the position with its outer end elevated above the pivot means and with the inner end directly over said Boat.

Classifications:

International (IPC 8-9): E02F5/00
International (IPC 1-7): E02F3/28
CPC: E02F5/006
US: 299/67 299/9 37/341 37/394 414/689

**Family:**

Publication number	Publication date	Application number	Application date
US2091279 A	19370831	US19360074996	19360417

Priority:

US19360074996 19360417

Probable Assignee:

BECKER GUS E

Assignee(s): (std):

BECKER GUS E ; HOPKINS HERBERT H

Inventor(s): (std):

BECKER GUS E ; HOPKINS HERBERT H

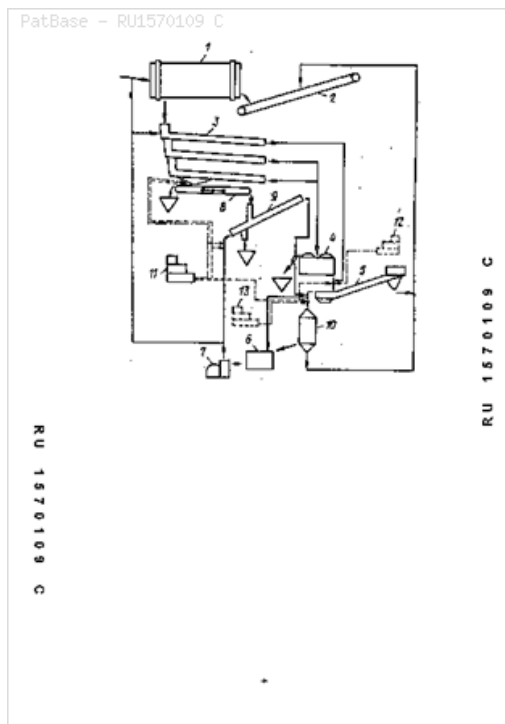
27) Family number: 10919000 (RU1570109 C)

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Title: SEQUENTIAL PRODUCTION LINE TO PROCESS METAL BEARING SANDS**Abstract:**

FIELD: minerals beneficiation. SUBSTANCE: sequential production line has a train of disintegrator and classifier to grade minerals by size, belt spreader, heavy mineral grain catcher, magnetic separator to beneficiate middle size grade, dewatering plant, sump and pump. Moreover, the system is provided with orbital sluice box, a facility for selective flocculating heavy minerals, ultrasonic plant to clarify water, a device for flocculants prepare and dosing. Orbital sluice box and the facility for selective flocculation are installed in series under the device to catch grains of heavy minerals. Arrangement of ultrasonic plant enables tailing from facility for selective flocculation, and a portion of dump from dewatering plant to enter ultrasonic plant. Device to prepare and dosing agents is installed in such a manner to enable agents to enter orbital sluice box, facility for selective flocculation, and dewatering plant. Heavy mineral grain catcher has a system of chutes provided with catching coating, and screens in the head part of the chutes. Dewatering plant is installed to enable magnetic separation tailing to enter it. Moreover, sequential production line may be additionally provided with devices for preparing and dosing flocculants. These devices may be installed upstream from dewatering and ultrasonic plants to clarify water. EFFECT: increased extraction of heavy minerals and comprehensive use of raw materials. 2 cl, 1 dwg

Classifications:**International (IPC 8-9):** B03B9/00**International (IPC 1-7):** B03B9/00



Family:

Publication number	Publication date	Application number	Application date
RU1570109 C	19950120	SU19884608230	19881123
SU1570109 C	19950120	SU19884608230	19881123

Priority:

SU19884608230 19881123

Probable Assignee:

KOVALEV ALEKSANDR ALEKSANDROVI

Assignee(s): (std):

KOVALEV ALEKSANDR ALEKSANDROVI

Assignee(s):

KOVALEV ALEKSANDR ALEKSANDROVICH

Inventor(s): (std):

FESHCHENKO E A ; KOVALEV A A

28) Family number: 10531354 (RU2068300 C1)

© PatBase

Title: SLUICE BOX

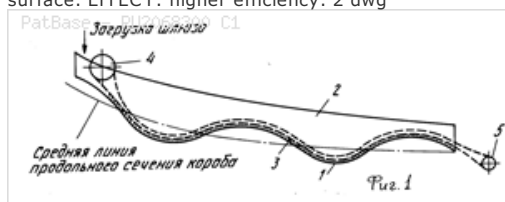
Abstract:

FIELD: mineral concentration; separation by density. SUBSTANCE: sluice box has box with parallel walls and catching surface. Box bottom is made in form of sinusoid. Center line of the box longitudinal section is in form of hyperbola with maximum height in point of sluice box charging. Sluice box is additionally provided with chain conveyer whose lower run is located on the catching surface and upper run is located on the lower surface. EFFECT: higher efficiency. 2 dwg

Classifications:

International (IPC 8-9): B03B5/00 B03B5/70

International (IPC 1-7): B03B5/70



Family:

Publication number	Publication date	Application number	Application date
RU2068300 C1	19961027	RU19940017050	19940506
RU94017050 A1	19960220	RU19940017050	19940506

Priority:

RU19940017050 19940506

Probable Assignee:

KY I TSVETNYKH METALLOV

Assignee(s): (std):

KY I TSVETNYKH METALLOV

Assignee(s):

KRASNOYARSKIY INSTITUT TSVETNYKH METALLOV

Inventor(s): (std):

ILIN YURIJ I ; KISLYAKOV VIKTOR E ; MYAZIN VIKTOR P ; ORLOV ANATOLIY B ; VERKHOTUROV MIKHAIL V

29) Family number: 57539506 (CN203862372 U)

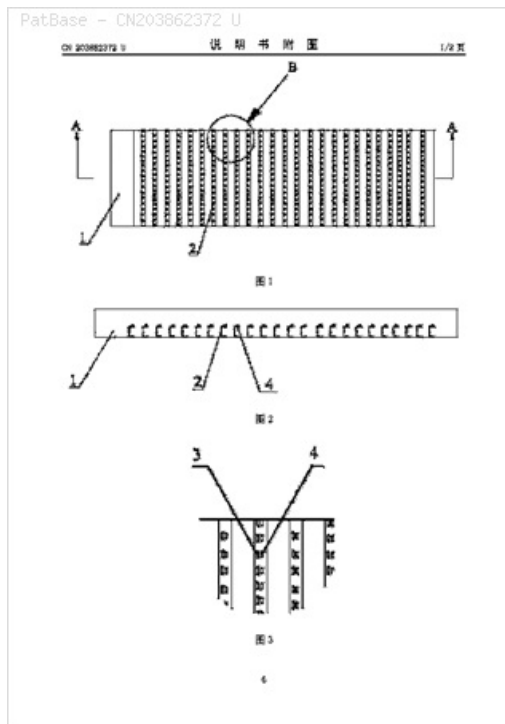
© PatBase

Title: PULSATING SLUICE BOX

Abstract: The utility model provides a pulsating sluice box. The problem that according to an existing pulsating sluice box, the recovery rate is low because the height of a bed is insufficient is solved. According to the technical scheme, the pulsating sluice box comprises a sluice box body, multiple sluice lattices are arranged on the bottom wall of the sluice box body, and the height of the sluice lattices is 5 cm-8 cm. The height of the sluice lattices is obviously increased, so that the height of the bed of the sluice box is increased, under the action of water, sand and gold are separated better through increasing the sinking distance of a placer, the most suitable mineral separation requirement is met, and the recovery rate is increased by 10 percent -20 percent.

Classifications:

International (IPC 8-9): B03B5/62



Family:

Publication number	Publication date	Application number	Application date
CN203862372 U	20141008	CN201420113666U	20140313

Priority:

CN201420113666U 20140313

Probable Assignee: QINGZHOU CITY YONGLI SAND MINING MACHINERY MFG CO LTD

Assignee(s): (std): QINGZHOU CITY YONGLI SAND MINING MACHINERY MFG CO LTD

Assignee(s): QINGZHOU CITY YONGLI SAND MINING MACHINERY MFG CO ; QINGZHOU HUANGLOU YONG LEE SAND MINING MACHINERY MFG CO LTD

Inventor(s): (std): WANG WENYA ; WANG YONGLI

30) Family number: 7559522 (US4173519 A)

© PatBase

Title: METHOD, PROCESS, SYSTEM, AND APPARATUS FOR RECOVERING METAL VALUES FROM ORES

Abstract: A method, process, system, and apparatus for recovering metal values such as gold and silver from ores. The process contemplates the prior separation, through appropriate apparatus, of primary slimes from the coarse fraction of ores and each fraction is processed separately and by particular methods most suitable for maximum economic recovery of metal values from each fraction. The coarse fraction materials are routed to constitute one leg of the method to a series of heap-leach piles that are processed in a totally distinct manner by a very low trickle (0.0002 gal/sq.ft./min) of required strength cyanide solution. Metal values are thereby obtained in solution high enough to pass direct to electro-winning cells by-passing expensive intermediate concentrating steps. The primary slime fraction of the ores is routed to constitute a second leg of the process to soak-leach tanks for extraction of metal values without agitation, or by agitation if required, by the carbon-in-pulp adsorption-desorption process with a low cyanide (1 lb. per ton) concentration. In a preferred form of the invention, as to the pregnant solution derived from the heap-leach process and the carbon desorption solution derived through the soak-leach process involving the primary slimes, both are routed to an electro-winning stage for metal values recovery. A sluice box can also be used within the system to provide for separate recovery of large gold particles.

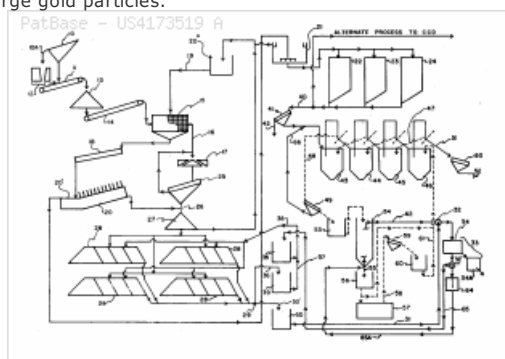
Classifications:

International (IPC 8-9): C22B1/00 C22B11/00 C22B11/08 C22B3/00 C22B3/04

International (IPC 1-7): C25C1/20 C25C7/00

CPC: C22B1/00 C22B11/08 C22B3/04 Y02P10/20

US: 204/110 204/233 205/568 205/569 205/570 423/29



Family:

Publication number	Publication date	Application number	Application date
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US4173519 A	19791106	US19780958539	19781107
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Priority:

US19780958539 19781107

Probable Assignee: COMSTOCK GOLD INC PO BOX 6 BOULDER CITY NEVADA A CORP OF NEVADA

Assignee(s): (std): DAWSON HARMEL A ; PARKER TRENT J

Assignee(s): COMSTOCK GOLD INC ; COMSTOCK GOLD INC PO BOX 6 BOULDER CITY NEVADA A CORP OF NEVADA

Inventor(s): (std): DAWSON HARMEL A ; PARKER TRENT J

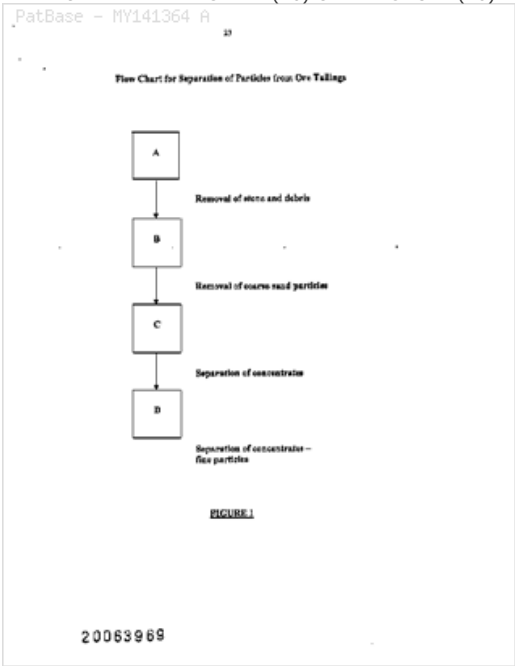
31) Family number: 49299482 (MY141364 A)
PatBase

Title: GRAVITATIONAL FIELD SEPARATION MACHINE

Abstract: THE MACHINE FOR SEPARATING DESIRED MINERAL FROM SLURRY CONTAINING THE DESIRED MINERAL AND OTHER PARTICLES HAVING RELATIVELY LOWER SPECIFIC GRAVITY INCLUDES A CHUTE (10), PLURALITY OF ROTATING MEANS (20), FILTER MEANS (34) AND SPIRAL SEPARATOR (36). THE CHUTE (10) BEING DISPOSED ABOUT A HORIZONTAL AXIS HAS AN OPEN TOP, FEED END (12) AND TAILING END (16) WHEREBY THE SLURRY FLOWS FROM THE FEED END TO THE TAILING END. THE PLURALITY OF ROTATING MEANS (20) IS MOUNTED IN SPACED POSITION ABOVE THE CHUTE IN THE LONGITUDINAL AXIS THEREOF. INDIVIDUAL ROTATING MEANS HAS THE FUNCTION FOR GENERATING MOTION OF PARTICLES WITHIN THE TRAVELING SLURRY SUCH THAT PARTICLES ARE SEPARATED INTO ZONES ALONG THE CHUTE. THE FILTER MEANS (34) ALLOWS FINE PARTICLES BELOW CERTAIN PRE-DETERMINED SIZE TO PASS THROUGH TO CONTINUE THE SEPARATION PROCESS BY THE SPIRAL SEPARATOR (36) LOCATED BELOW THE TAILING END (16) OF THE CHUTE (10).

Classifications:

International (IPC 8-9): B03B5/00



Family:

Publication number	Publication date	Application number	Application date
MY141364 A	20100416	MY20060003969	20060818

Priority:

MY20060003969 20060818

Probable Assignee: YAP CHON TAW TRADING

Assignee(s): (std): YAP CHON TAW TRADING

Inventor(s): (std): TAW YAP CHON

Inventor(s): YAP CHON TAW

32) Family number: 29936421 (US2989184 A)
PatBase

Title: CONCENTRATOR

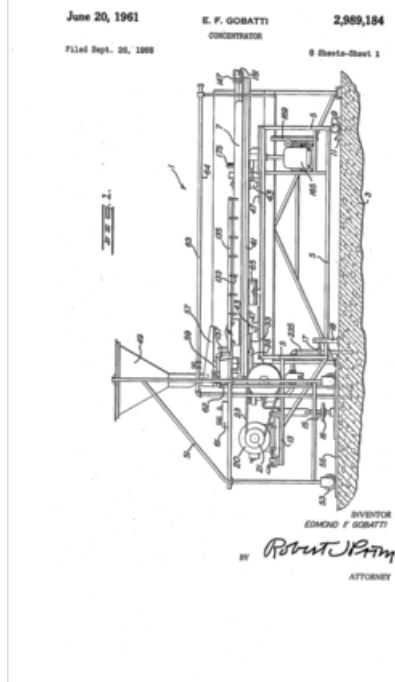
Abstract: (Claim 1) A concentrator comprising a base, an elongated sluice trough having a feed end and a discharge end, means supporting the sluice trough on the base for longitudinal reciprocal movement of the sluice trough relative to the base, means supported on the base defining a guideway, means mounting the last named means on the base for rotation relative to the base about a vertical axis passing through the guideway, means for adjustably rotating the guideway-defining means about said axis, and guide follower means mounted for movement with the sluice trough adjacent the feed end thereof and guidedly disposed in the guideway.

Classifications:

International (IPC 8-9): B03B5/00 B03B5/72 F26B19/00

CPC: B03B5/72 F26B19/00

US: 209/433 209/437 209/485 209/490 209/504 209/507

**Family:**

Publication number	Publication date	Application number	Application date
US2989184 A	19610620	US19580763667	19580926
US3042207 A	19620703	US19600064676	19601006

Priority:

US19580763667 19580926 US19600064676 19601006

Probable Assignee:

GOBATTI EDMOND F

Assignee(s): (std):

GOBATTI EDMOND F

Inventor(s): (std):

GOBATTI EDMOND F

33) Family number: 10256986 (US4760656 A)

© PatBase

Title: Placer mining apparatus with puddling nozzle

Abstract: A placer mining apparatus for intaking a slurry of water and ore bearing soils and directing the slurry to an ore separating mechanism is provided with a suction nozzle for intaking slurry and an integral puddling nozzle for selectively supplying water to produce the slurry in a dry area. A digging structure is provided at the intake end of the suction nozzle for loosening and/or burrowing into the soil.

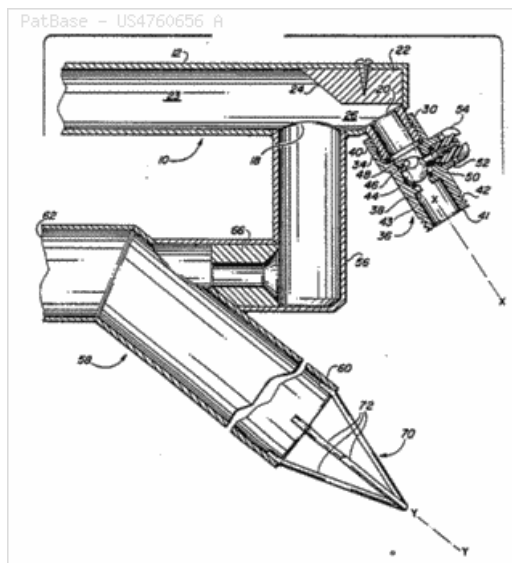
Classifications:

International (IPC 8-9): E02F3/88 E02F3/92 E02F5/28

International (IPC 1-7): E02F3/88

CPC: E02F3/88 E02F3/92 E02F3/9206 E02F3/9243 E02F3/9293 E02F5/287

US: 251/315.14 37/318 37/323

**Family:**

Publication number	Publication date	Application number	Application date
US4760656 A	19880802	US19870084436	19870811

Priority:

US19870084436 19870811

Probable Assignee: EAST VERNOY A
Assignee(s): (std): EAST VERNOY A
Inventor(s): (std): EAST VERNOY A

34) Family number: 15891485 (US6000645 A)

© PatBase

Title: AXIAL FLOW, BI-ROTOR CONCRETE RECLAIMER

Abstract: A concrete reclaimer having a pair of concentric mesh cylinders for separating wet concrete into its original components. The invention includes a hopper and feed screw for feeding wet concrete into the inner cylinder at a constant rate. The concrete is washed by a water spray as it passes through the cylinders. The inner cylinder is made from coarse mesh which allows sand and cement, but not gravel, to pass through. Gravel is deposited from the outlet end of the inner cylinder. The outer cylinder is made from fine mesh, allowing cement, but not sand, to pass through. Sand is deposited into the bottom of at least one dewatering screw, which allows water to drain as it elevates the sand. The dewatering screw is in thermal contact with a heated liquid tank to prevent the water from freezing. The cement is dropped through the outer cylinder into a series of settling ponds, where it is allowed to settle out of the water.

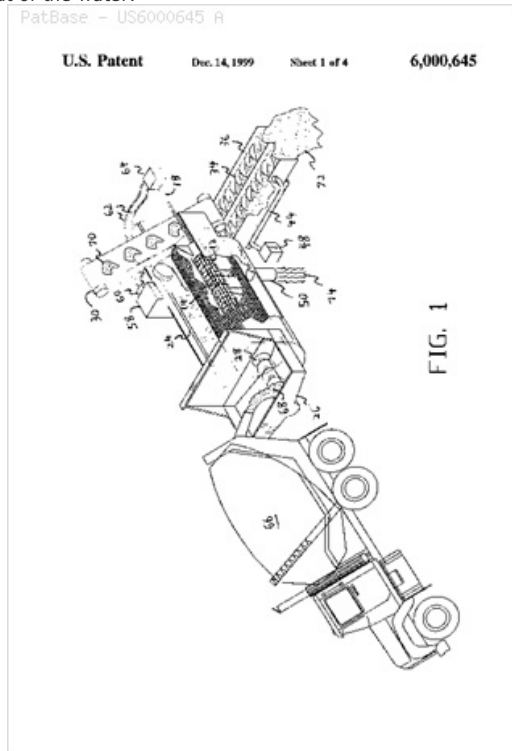
Classifications:

International (IPC 8-9): B03B5/56 B03B9/00 B03B9/06 B07B1/18 B07B1/22

International (IPC 1-7): B02C1/702 B02C17/02 B03B5/56 B41J29/393

CPC: B03B9/063 B07B1/22 Y02W30/52 Y02W30/58

US: 241/299 241/41 241/42 241/65 241/74 241/79.3 241/793 347/19



Family:

Publication number	Publication date	Application number	Application date
CA2284507 AA	20000727	CA19992284507	19991004
CA2284507 C	20010814	CA19992284507	19991004
US6000645 A	19991214	US19990238056	19990127
US6325311 BA	20011204	US19990461207	19991214
US2004223025 AA	20041111	US20040858464	20040601

Priority:

US19990238056 19990127 CA19992284507 19991004 US19990461207 19991214
US20040858464 20040601

Probable Assignee: BFK TECHNOLOGIES INC

Assignee(s): (std): BFK TECHNOLOGIES INC

Assignee(s): BAYRAMOGLU GOKALP ; COMPAQ INFORMATION TECHNOLOGIES GROUP LP ; CRISLER CURTIS L ; D SOUZA HENRY M ; HEWLETT PACKARD DEVELOPMENT CO ; HEWLETT PACKARD DEVELOPMENT CO LP ; PREISSER MARK A

Inventor(s): (std): BAYRAMOGLU GOKALP ; CRISLER CURTIS L ; D SOUZA HENRY M ; PREISSER MARK A

Inventor(s): CURTIS L CRISLER ; GOKALP BAYRAMOGLU ; HENRY M D SOUZA ; MARK A PREISSER

Agent(s): MCFADDEN FINCHAM; OSLER HOSKIN AND HARCOURT LLP; RICHARD C LITMAN

35) Family number: 21098009 (US2183157 A)

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Title: SLUICE BOX RIFFLE

Abstract: 1. A rinie comprising a metal frame member having cross bars of a T form in cross section; and a resilient rubber cap member having a recess of a T form cross sectionally considered engageable with said cross bars. '

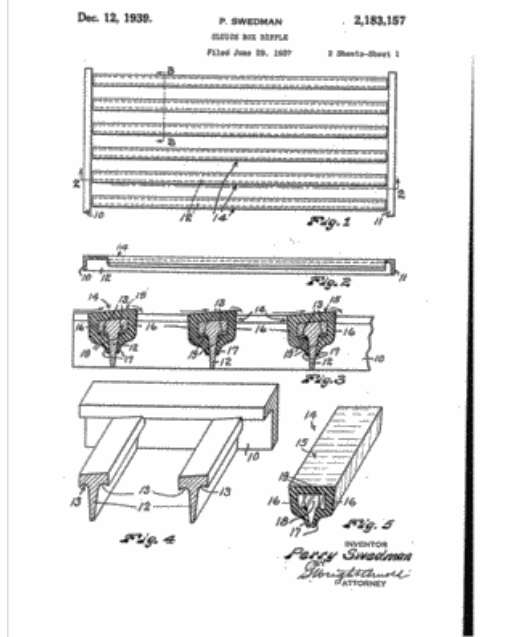
Classifications:

International (IPC 8-9): B03B5/00 B03B5/06 B03B5/26

International (IPC 1-7): B03B5/62

CPC: B03B5/06 B03B5/26 Y10S241/30

US: 209/393 209/506 241/DIG.30 241/DIG.03

**Family:**

Publication number	Publication date	Application number	Application date
US2183157 A	19391212	US19370150972	19370629

Priority:

US19370150972 19370629

Probable Assignee:

PERRY SWEDMAN

Assignee(s): (std):

PERRY SWEDMAN

Inventor(s): (std):

PERRY SWEDMAN

Inventor(s):

SWEDMAN PERRY

36) Family number: 21948683 (US2714962 A)

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Title: ORE SEPARATORS AND CONCENTRATORS

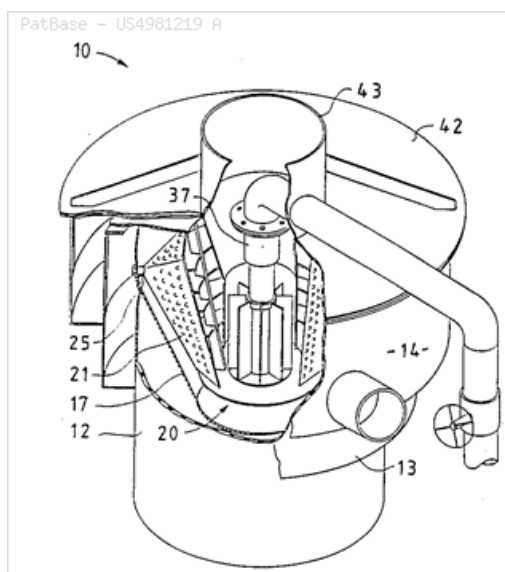
Abstract: (Claim 1) 1. An ore separating device comprising: a supporting frame; a substantially level, elongated box having a feed extremity and an open discharge extremity; a universal joint supported from said frame and being medially secured beneath the discharge extremity of said box whereby the latter may be tilted and swung in all directions; a straight, horizontal track member supported by said frame beneath the feed extremity of said box and extending transversally of the long axis of the latter-, a roller positioned on, and arranged to roll freely along, said track member; a roller shaft in said roller; bracket means mounting the mid-portion of said feed extremity on said roller shaft; and means for tilting said box about the axis of said roller, said roller being free to roll along said track so that the said roller will be caused to roll along said track member in consequence of the impact of the material rushing to the low side of said box when the latter is tilted.

Classifications:**International (IPC 8-9):** B03B5/00 B03B5/08**International (IPC 1-7):** B03B5/08**CPC:** B03B5/08**US:** 209/437 209/504

Publication number	Publication date	Application number	Application date
US2714962 A	19550809	US19520300468	19520723

SIDES RUBY R

US: 209/210 209/211 209/453 239/461 494/27 494/37 494/67



Publication number	Publication date	Application number	Application date
AU198827536 A1	19890629	AU19880027536	19881223
AU605665 B2	19910117	AU19880027536	19881223

CA1323342 A1	19931019	CA19880586840	19881222
NZ227498 A	19910426	NZ19880227498	19881222
US4981219 A	19910101	US19880288482	19881222

Priority:

AU1987PI06046 19871223 CA19880586840 19881222 AU19880027536 19881223

Probable Assignee: BROWN WAYNE JOHN

Assignee(s): (std): BROWN WAYNE J ; BROWN WAYNE JOHN ; BURNELL GARRY J ; BURNELL GARRY JULIAN ; GARRY JULIAN BURNELL

Inventor(s): (std): BROWN WAYNE J ; BROWN WAYNE JOHN ; BURNELL GARRY J ; BURNELL GARRY JULIAN

Inventor(s): GARRY JULIAN BURNELL

Agent(s): MACRAE AND CO; PIZZEYS; PIZZEYS PATENT AND TRADE MARK ATTORNEYS PTY LTD

38) Family number: 9296544 (US4975182 A)

© PatBase

Title: WATERFLOW DIFFERENTIAL ELECTRICAL CHARGING PROCESS FOR ORES

Abstract: The invention consists of forming an aqueous slurry of water and particles of ore carrying both metals and/or minerals which are passed at relatively high speed along an electrically isolated path in contact with electrically insulating materials and in the presence of air. This generates a positive electrostatic charge in the water droplets and enclosed particles and a negative charge in the electrically insulating materials through which they are being driven. The water droplets and hence the particles become differentially charged so that when they pass over an oppositely charged negative field, they are driven into the lower oppositely charged field body by the strong force of electrical attraction and the relatively weaker force of gravity. Should the negative collector contain an amalgamating material such as mercury and the ore, as an example contain gold, electrons are exchanged providing instant amalgamation of the surface of the gold. The electrostatic charge is maintained throughout the process until precipitation of the particles is completed.

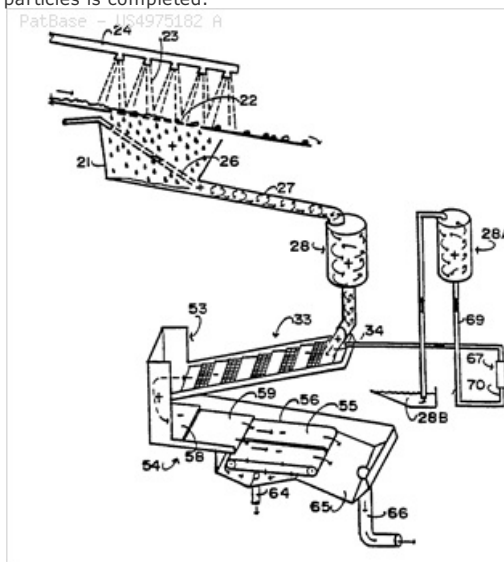
Classifications:

International (IPC 8-9): B01D21/00 B01D33/00 B01D33/04 B01D33/327 B01D35/06 B01D36/00 B01D36/04 B03B7/00 B03B9/00 B03C5/00 B03C7/00 C22B1/00

International (IPC 1-7): B03B7/00 B03C5/00 B03C7/00 B03C7/02 B07B4/02 C22B11/10

CPC: B01D33/04 B01D33/327 B01D33/463 B01D35/06 B01D36/045 B03B9/00 B03C5/00 C22B1/00 B01D21/0009 B03C7/006

US: 209/10 209/127.1 209/131 209/16 209/4 209/46 209/63 209/66 266/169 75/10.67 75/118 75/1R



Family:

Publication number	Publication date	Application number	Application date
AU198945112 A1	19900501	AU19890045112	19891005
AU640905 B2	19930909	AU19890045112	19891005
AU199346067 A1	19931111	AU19930046067	19930901
CA1333700 A1	19941227	CA19890612425	19890921
CA1333701 A2	19941227	CA19890616717	19890921
CA1333701 A1	19941227	CA19930616717	19930913
CN1020550 C	19930512	CN19891007695	19891007
CN1041888 A	19900509	CN19891007695	19891007
GB8823611 A0	19881116	GB19880023611	19881007
IN173538 A	19940528	IN1989MA00723	19890928
US4975182 A	19901204	US19890412520	19890926
WO9003846 A1	19900419	WO1989US04349	19891005
ZA8907333 A	19900627	ZA19890007333	19890927

Priority:

GB19880023611 19881007 CA19890612425 19890921 CA19890616717 19890921
WO1989US04349 19891005 AU19890045112 19891005 CA19930616717 19930913

Probable Assignee: WOOD LINDA ANN

Assignee(s): (std): BAREFOOT R ; DCRS BARBADOS LTD ; DCRS BARDABOS LTD ; DCRS CANADA LTD ; WOOD LINDA ANN

Assignee(s): BAREFOOT ROBERT ROSS ; DCRS (BARBADOS) LTD ; DCRS LTD

Inventor(s): (std): BAREFOOT ROBERT R ; BAREFOOT ROBERT ROSS ; ROBERT ROSS BAREFOOT ; ROSS BAREFOOT ROBERT

Agent(s): ADE AND CO; PATENT ATTORNEY SERVICES

Designated states: AT AU BE BF BJ BR CF CG CH CM DE FR GA GB HU IT JP KP KR LU ML MR NL SE SN SU TD TG

Title: FLAVOR AND TEXTURE IMPROVED CANNED ANIMAL FLESH AND PROCESS

Abstract: The invention relates to a process and composition for enhancing the flavor and improving the texture of animal flesh, such as tuna fish in a can, by adding flour, such as rice flour, which has been hydrolyzed with a proteolytic enzyme, to the animal flesh.

Classifications:

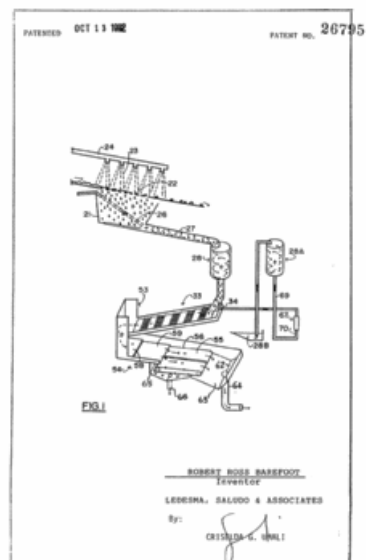
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International (IPC 1-7): A23B4/00 A23B4/14 A23J3/14 A23J3/34 A23L1/105 A23L1/176 A23L1/22 A23L1/305 A23L1/31 A23L1/314 A23L1/315 A23L1/318 A23L1/325 A23L1/33 A23L3/00 A23P1/00 B03B7/00 B65D81/28 C07K7/10

CPC: A23B4/20 A23B4/22 A23L13/72 A23L27/21

US: 426/643 426/652 426/656 426/657

PatBase - PH26795 A



Family:

Publication number	Publication date	Application number	Application date
ES2012684 AF	19900401	ES19890000810	19890307
FR2649590 A1	19910118	FR19890009427	19890712
GB2216386 A1	19891011	GB19890005096	19890306
GB2216386 B2	19920129	GB19890005096	19890306
GB8905096 A0	19890419	GB19890005096	19890306
IT1228558 A	19910621	IT19890019631	19890303
IT8919631 A0	19890303	IT19890019631	19890303
JP3053842 A2	19910307	JP19890182341	19890714
OA10039 A	19961014	OA19890059617	19890720
PH26824 A	19921105	PH19890039763	19891221
PH26795 A	19921013	PH19890039772	19891221
PT89932 A	19891110	PT19890089932	19890307
PT89932 B	19940531	PT19890089932	19890307
US4871575 A	19891003	US19880164611	19880307

Priority:

US19880164611 19880307 JP19890182341 19890714 OA19890059617 19890720
PH19890039763 19891221 PH19890039772 19891221

Probable Assignee: DELTOWN CORP

Assignee(s): (std): DCRS BARBADOS LTD ; DELTON CHEMNURGIC CORP ; DELTOWN CHEMURGIC CORP ; DERUTAUN KEMAJITSUKU CORP

Assignee(s): CHEMICAL BANK A NY BANKING CORP ; DCRS (BARBADOS) LTD ; DCRS LTD ; DELTOWN CORP

Inventor(s): (std): BAREFOOT ROBERT ROSS ; CALLAHAN TIMOTHY ; HERZ JACK ; HERZ JACQUES ; JIYATSUKU HERUTSU ; TEIMOSHII KARAHAN

Inventor(s): JACK HERZ ; JACQUES HERZ ; ROBERT ROSS BAREFOOT ; TIMOTHY CALLAHAN

Title: PROCESS FOR RECOVERING FLOUR GOLD

Abstract: Having thus described the invention, what is claimed and desired secured by Letters Patent 1s:- A process of extracting free gold from sands of varying mesh comprising: feeding all of said sands into an agitating tank with water; agitating said water to place the Zine sands and silmes into suspension; continuously drawing off the solution with its suspended Bnes; discharging the settled sands from said tank: thence simultaneously treating the nnes to a chemical separation while treating the sands to a gravity treatment.

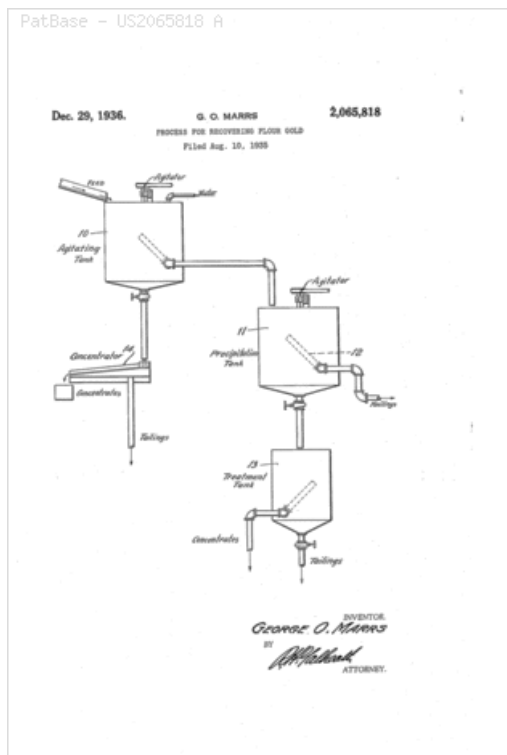
Classifications:

International (IPC 8-9): B03B9/00

International (IPC 1-7): B03B9/00

CPC: C22B11/04

US: 209/18 423/34 75/388

**Family:**

Publication number	Publication date	Application number	Application date
US2065818 A	19361229	US19350035601	19350810

Priority:

US19350035601 19350810

Probable Assignee:

MARRS GEORGE O

Assignee(s): (std):

MARRS GEORGE O

Inventor(s): (std):

MARRS GEORGE O

41) Family number: 53987333 (RU94035317 A)

© PatBase

Title: METHOD OF CONCENTRATION OF FINE GRADES OF MINERAL RAW MATERIALS AND DEVICE FOR ITS ACCOMPLISHMENT

Abstract: FIELD: concentration of mineral resources; can be used in extraction of useful constituents in sluice boxes at exploitation of gravel deposits. SUBSTANCE: passing through the sluice box past the zone of the main turbulent flow, pulp is fed to alternating zones of laminar and turbulent flows, in which separation of extracted particles onto the smooth inclined surface of the plate of the detachable holder is accomplished. Particles roll down on this surface and accumulate. Concentrate is periodically extracted from the holder. EFFECT: facilitated procedure.

Classifications:**International (IPC 8-9):** B03B5/70**Family:**

Publication number	Publication date	Application number	Application date
RU94035317 A	19960727	RU19940035317	19940922

Priority:

RU19940035317 19940922

Probable Assignee:

BRAGIN V I

Assignee(s): (std):

BRAGIN V I ; MIKHAJLOV A G ; VAGNER V A

Inventor(s): (std):

BRAGIN V I ; MIKHAJLOV A G ; VAGNER V A

42) Family number: 21874282 (US3255886 A)

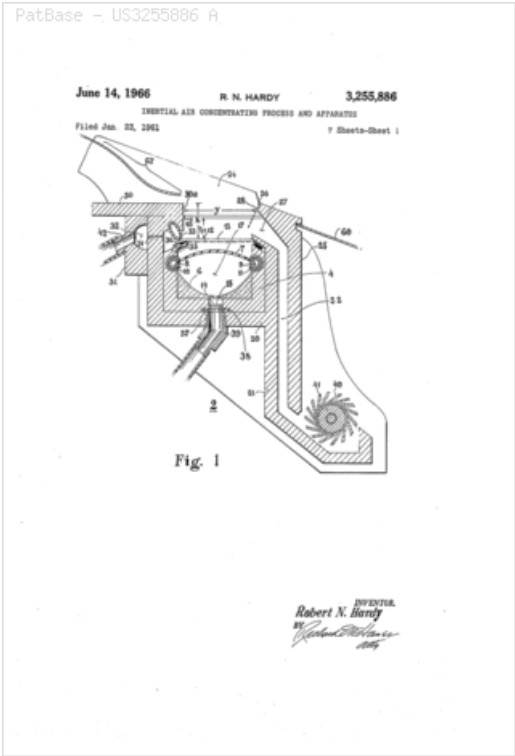
© PatBase

Title: INERTIAL AIR CONCENTRATING PROCESS AND APPARATUS

Abstract: (Claim 1) 1. A dry concentrator for separating particles in a solids bed according to their specific gravity comprising in combination; a fixed substantially level pervious floor member below said solids bed; enclosure means depending from the sides and ends of said floor member to form a plenum; transducer means having an air supply and a movable vane in communication with the said plenum; energy input means coupled to the transducer for actuating the movable vane cyclicly to impact and compress the air into a series of sharp pulses; means interconnecting the transducer and the plenum for directing said pulses into the bottom of the solids bed, whereby the bed is lifted by each of said pulses; wherein said energy input means further includes, timing means to regulate the occurrence of each pulse to be during the free fall descent of the particles of the solids bed from the effect of the preceding pulse; a generally inclined slide of substantially the same width as the floor member and positioned with its lower end above one side margin of the said floor member; and blade means disposed above the opposite side margin of the floor member and parallel therewith, which blade means defines the upper portion of a transverse concentrate withdrawal port.

Classifications:

International (IPC 8-9): B03B4/00
International (IPC 1-7): B03B4/00
CPC: B03B4/005
US: 209/475 209/502



Family:

Publication number	Publication date	Application number	Application date
US3255886 A	19660614	US19610084293	19610123

Priority:

US19610084293 19610123

Probable Assignee: INT CON SEP INC
Assignee(s): (std) INT CON SEP INC ; INTERNAT CON SEP INC
Assignee(s): INTERNATIONAL CON SEP INC
Inventor(s): (std) HARDY ROBERT N

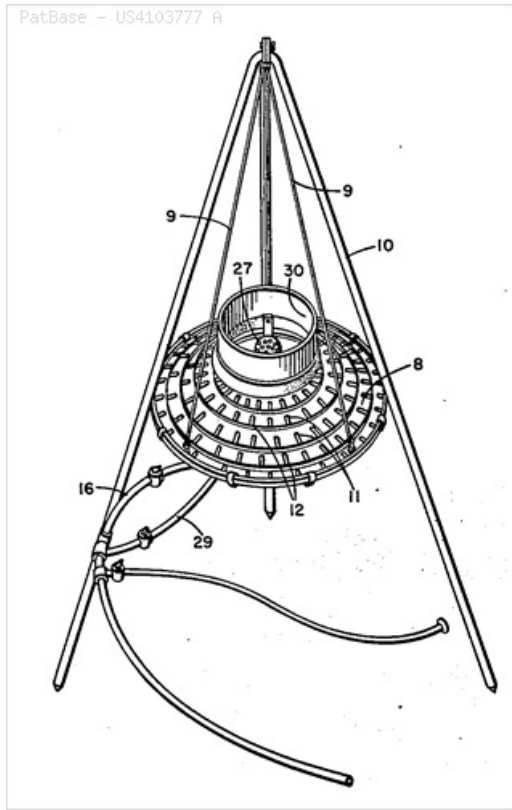
43) Family number: 6837730 (US4103777 A) © PatBase

Title: VIBRATING DISC SEPARATOR

Abstract: A separator for mixed solid particulate materials such as gold or heavy minerals which are dispersed in a host material such as sand. A circular disc has a slanting surface with a plurality of riffles for catching the heavy materials. The riffles are defined by a plurality of annular baffles each having short radial walls projecting toward the center of the disc. A water turbine having off-center weights is used to vibrate the disc.

Classifications:

International (IPC 8-9): B03B5/00 B03B5/04 B03B5/06 B03B7/00
C22B11/00 C22B11/10
International (IPC 1-7): B03B3/12 B03B3/14 B03B5/04 B03B7/00
CPC: B03B5/04 B03B5/06 C22B11/00 C22B11/10
US: 209/43 209/438 209/500 209/504



Family:

Publication number	Publication date	Application number	Application date
AU197474367 A1	19760429	AU19740074367	19731015
AU484146 B2	19760429	AU19740074367	19731015
US4103777 A	19780801	US19750607704	19750825

Priority:

AU19740074367 19731015

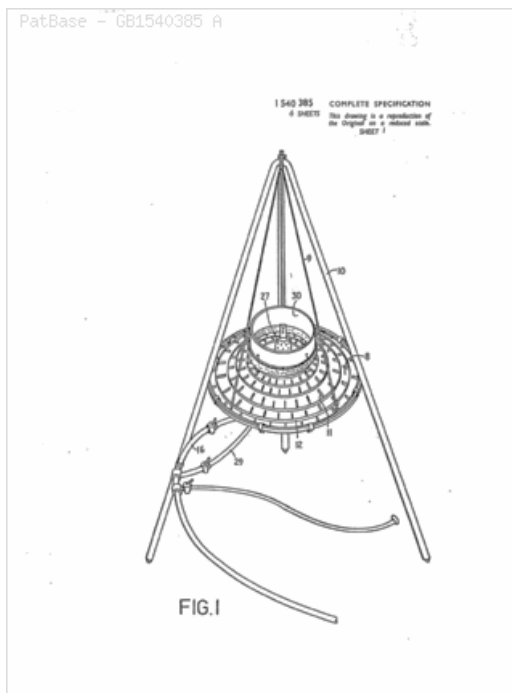
Probable Assignee: GOULTER V H
Assignee(s): (std): GOULTER V H ; GOULTER VICTOR HAROLD
Assignee(s): V H GOULTER
Inventor(s): (std): GOULTER VICTOR HAROLD
Inventor(s): VICTOR HAROLD GOULTER

44) Family number: 4881515 (GB1540385 A)

© PatBase

Title: VIBRATING DISC SEPARATOR

Classifications:
International (IPC 8-9): B03B5/00 B03B5/04
International (IPC 1-7): B03B5/08
CPC: B03B5/04



Family:

Publication number	Publication date	Application number	Application date
GB1540385 A	19790214	GB19750045441	19760131

Priority:

GB19750045441 19760131

Probable Assignee:

GOULTER V

Assignee(s): (std):

GOULTER V

45) Family number: 1114408 (US3761132 A)

© PatBase

Title: APPARATUS AND METHOD FOR REPOSITIONING EARTHEN MATERIAL

Abstract: Subterranean earthen material including intermixed soil and rocks is repositioned by delivering fluid under pressure downwardly to local portions of the material and effecting upward return flow of fluid through overlying material to effect sinking of rocks and upward displacement of soil, and depositing the soil in a surface layer overlying the sunken rocks. Also, precious metal particles may be removed from the upwardly displaced soil, in the manner described.

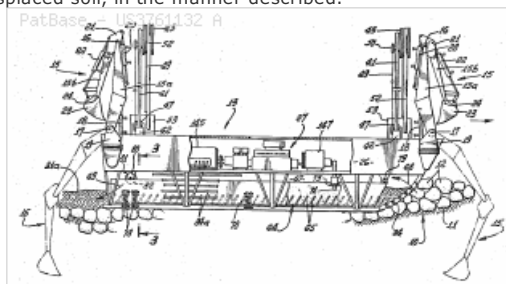
Classifications:

International (IPC 8-9): E02F1/00 E02F3/04 E02F3/96 E02F5/00 E02F5/10 E02F7/00 E02F7/06 E02F9/00 E02F9/06

International (IPC 1-7): B60F3/00 E02B1/00 E02F1/00 E02F5/00 E02F7/06 F16L1/00

CPC: E02F1/00 E02F3/964 E02F5/006 E02F5/10 E02F5/102 E02F7/06 E02F9/06

US: 172/32 180/8.6 209/44 299/17 299/31 299/7 37/105 37/195 37/341 405/159 414/694 299/0.7 61/7.2.1

**Family:**

Publication number	Publication date	Application number	Application date
US3761132 A	19730925	US19730323769	19730115
US3855807 A	19741224	US19730380268	19730718

Priority:

US19730323769 19730115 US19730380268 19730718

Probable Assignee: LANEY B**Assignee(s):** (std): HAEFLIGER W ; LANEY B ; WASTELAND RECLAMATION CORP**Assignee(s):** HAEFLIGER W US ; LANEY B US ; WASTELAND RECLAMATION CORP US**Inventor(s):** (std): GRABLE D**Inventor(s):** GRABLE D US**46) Family number: 10832564** (SU1801579 A1)

© PatBase

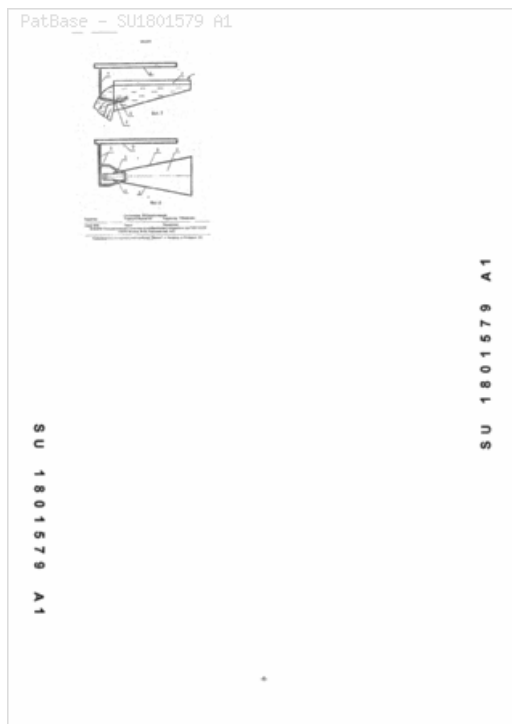
Title: SLUICE BOX

Abstract: Source: SU1801579 A1 **Machine translation:** Use: for the separation of suspensions by density or grain size in mineral processing. Summary of the invention: in the side walls of the trough of the processing gateway provided with openings. The holes are located above the flow divider and communicated with the pressure line. 2-yl,

Classifications:

International (IPC 8-9): B03B5/00 B03B5/70

International (IPC 1-7): B03B5/70



Family:

Publication number	Publication date	Application number	Application date
RU1801579 C	19930315	SU19914946714	19910617
SU1801579 A1	19930315	SU19914946714	19910617

Priority:

SU19914946714 19910617

Probable Assignee: ALBREKHT VLADIMIR G

Assignee(s): (std): ALBREKHT VLADIMIR G ; GRIBOV SERGEJ N ; LEPKOV YURIJ A ; PODRABINEK MIKHAIL R ; SUZDALNITSKIJ MIKHAIL L ; ZOTOV DMITRIJ A

Assignee(s): ALBREKHT VLADIMIR G SU ; GRIBOV SERGEJ N SU ; LEPKOV YURIJ A SU ; PODRABINEK MIKHAIL R SU ; SUZDALNITSKIJ MIKHAIL L SU ; ZOTOV DMITRIJ A SU

Inventor(s): (std): ALBREKHT VLADIMIR G ; GRIBOV SERGEJ N ; LEPKOV YURIJ A ; PODRABINEK MIKHAIL R ; SUZDALNITSKIJ MIKHAIL L ; ZOTOV DMITRIJ A

Inventor(s): ALBREKHT VLADIMIR G SU ; GRIBOV SERGEJ N SU ; LEPKOV YURIJ A SU ; PODRABINEK MIKHAIL R SU ; SUZDALNITSKIJ MIKHAIL L SU ; ZOTOV DMITRIJ A SU

47) Family number: 23200938 (RU2170619 C1)

© PatBase

Title: DEVICE FOR MINERAL CONCENTRATION

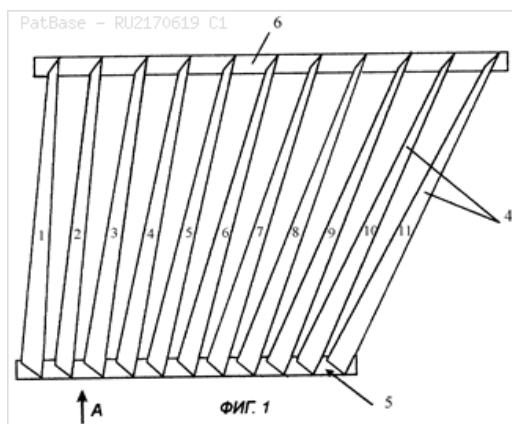
Abstract:

FIELD: gold mining industry, particularly, equipment for mineral concentration by gravity method. SUBSTANCE: device has sluice box with parallel sides and bottom in which sections of riffles inclined relative to bottom are installed in direction of pulp flow. Riffles are located between sides to form fan-shaped zones. Middle zone is made in form of full fan with opening angle of 80-90 deg, and extreme zones are made in form of counter semifans. Riffle ends are secured in sides at different angles of inclination to bottom. Ratio of distances between riffle ends on the side of wide and narrow parts of fan is 1.33-1.62. EFFECT: optimized process of materials separation on sluice boxes. 3 dwg

Classifications:

International (IPC 8-9): B03B5/00 B03B5/70

International (IPC 1-7): B03B5/70



Family:

Publication number	Publication date	Application number	Application date
RU2170619 C1	20010720	RU20000108887	20000410

Priority:

Probable Assignee: SHURYGIN SERGEJ IVANOVICH
Assignee(s): (std): SHURYGIN SERGEJ IVANOVICH
Inventor(s): (std): SHURYGIN S I

48) Family number: 29678569 (US2289678 A)

© PatBase

Title: COMBINATION AMALGAMATOR AND CONCENTRATE DISCHARGE CONTROL FOR HYDRAULIC JIGS

Abstract: 1. In a jig of the character described a hutch having a bottom and a concentrate discharge gutlet communicating therewith, an upwardly extended tube connected with the outlet, said lower part of the hutch and the tube forming a trap containing a body of mercury through which crmcentrates pass to be discharged from the upper end of the tube, means for maintaining a, now of Water through the hutch and a jig bed covering the same, and means for imparting 9, pulsating movement to the water in the hutch and the mercury in the trap.

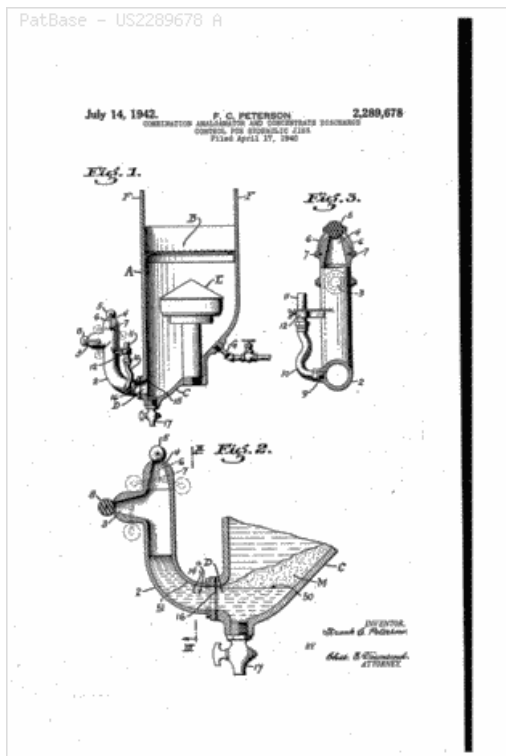
Classifications:

International (IPC 8-9): B03B5/00 B03B5/24

International (IPC 1-7): B03B11/00

CPC: B03B5/24

US: 209/43 209/496

**Family:**

Publication number	Publication date	Application number	Application date
US2289678 A	19420714	US19400330109	19400417

Priority:

US19400330109 19400417

Probable Assignee: PETERSON FRANK C
Assignee(s): (std): PETERSON FRANK C
Inventor(s): (std): PETERSON FRANK C

49) Family number: 52101257 (FR2973412 A1)

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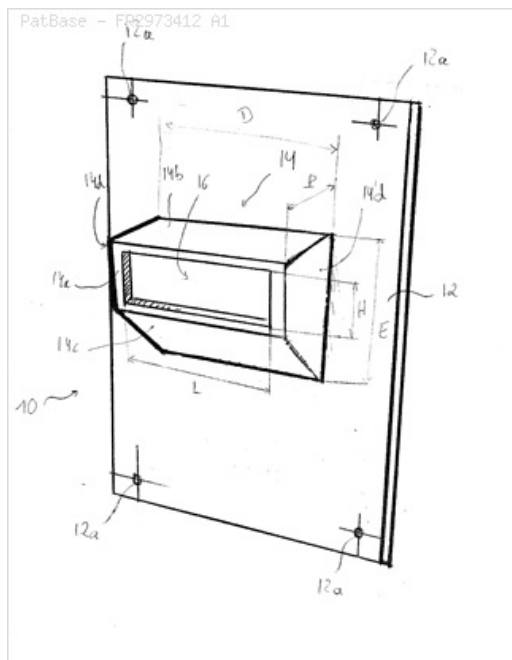
Title: SLUICE FOR REFUSE CHUTE COLUMN IN RECYCLABLE WASTE REMOVAL SYSTEM FOR RESIDENTIAL BUILDING, HAS WASTE SLOT INCLUDING SECTION HAVING SPECIFIC HEIGHT TO LIMIT INTRODUCTION OF NON-RECYCLABLE WASTE, WHERE SLOT IS FORMED ON FRONT FACE OF BOX

Abstract: The sluice (10) has a waste slot (16) including a section having a height (H) less than or equal to 70 mm, to limit introduction of non-recyclable waste, where the waste slot is rectangular in shape and has a width (L) of 220 mm. A box (14) forms a projection from a mounting plate (12), where the box includes a front face (14a) on which the waste slot is formed. The box is attached on the mounting plate, where the section of the waste slot is placed in a vertical plane, and the section of the slot is oriented obliquely with respect to the vertical plane. An independent claim is also included for a recyclable waste removal system.

Classifications:

International (IPC 8-9): E04F17/00 E04F17/12 E04F19/08

CPC: B30B9/323 E04F17/12



Family:

Publication number	Publication date	Application number	Application date
FR2973412 A1	20121005	FR20110052555	20110328
FR2973412 B1	20130510	FR20110052555	20110328

Priority:

FR20110052555 20110328

Probable Assignee: PLASTIC OMNIUM CIE

Assignee(s): (std): PLASTIC OMNIUM CIE

Assignee(s): COMPAGNIE PLASTIC OMNIUM ; PLASTIC OMNIUM COMP

Inventor(s): (std): LETERRIER FRANCK ; POMMIER ARNAUD ; SILVESTRE LINDSAY

Inventor(s): ARNAUD POMMIER ; FRANCK LETERRIER ; LINDSAY SILVESTRE

Agent(s): CABINET LHERMET LA BIGNE AND REMY; LLR

50) Family number: 21733046 (US2424367 A)

© PatBase

Title: RECIPROCATING AND ROTATING DRUM CONCENTRATOR

Abstract: 1. A drum ooncentrator comprising a movable drum having its axis approximately horizontal, means for rotating said drum about its axis. means for introducing unclassified material into one end of said drum, means for advancing said material through said drum and discharging the coarser portions thereof from the other end, spaced. transverse riiiies secured to the inner surface of the drum, longitudinally disposed lifters of less height than said riffls extending between them, a launder Within the drum positioned to receive the iiner portions of said material from said lifters, said launder sloping downwardly toward the intake end of the drum and having a discharge aperture at its lowest point, a discharge pipe extending from said aperture beneath the launder and out through the discharge end of the drum, and means for reciprocating said drum longitudinally to assist the separation of -the fines from the coarser material.

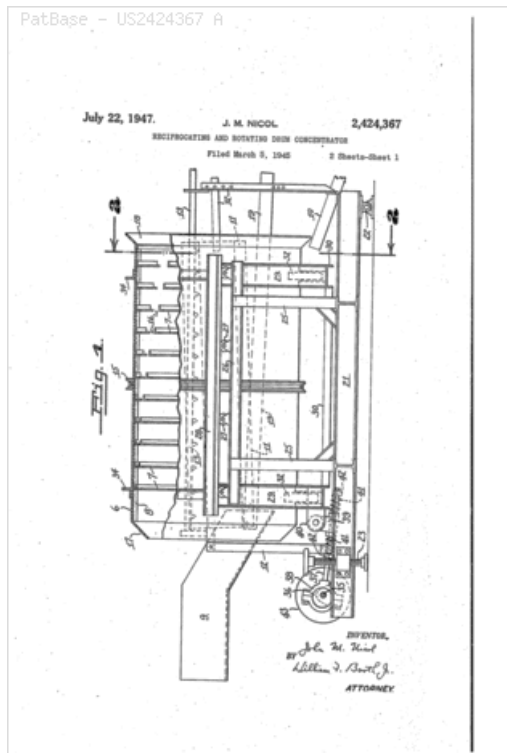
Classifications:

International (IPC 8-9): B03B5/00 B03B5/56

International (IPC 1-7): B03B5/42

CPC: B03B5/56

US: 209/445 209/473

**Family:**

Publication number	Publication date	Application number	Application date
US2424367 A	19470722	US19450581028	19450305

Priority:

US19450581028 19450305

Probable Assignee:

GEO G TITZELL JR

Assignee(s): (std):

GEO G TITZELL JR

Inventor(s): (std):

NICOL JOHN M

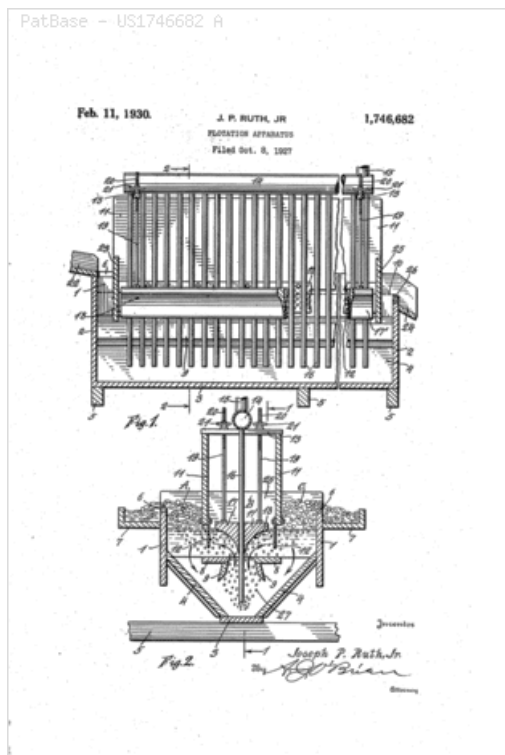
51) Family number: 19501550 (US1746682 A)

© PatBase

Title: FLOTATION APPARATUS

Abstract: 1. In a pneumatic flotation apparatus, a tank, two parallel spaced partition members extending longitudinally of the tank, said members being spaced from the sides and bottom of the tank and located below the normal liquid level, means for introducing compressed air at spaced intervals along the tank at points adjacent the bottom and directly below and between the spaced partitions, spaced parallel vertical walls extending longitudinally of the tank, the lower edges of said walls extending a short distance below the normal liquid level -and provided with perforations, an elongated horizontal wedge-shaped deflector located between said walls, the point of said deflector extending downwardly and means for adjusting the deflector in a vertical direction.

Classifications:**International (IPC 8-9):** B03D1/14 B03D1/26**International (IPC 1-7):** B03D1/24**CPC:** B03D1/1412 B03D1/1493 B03D1/26**US:** 209/170

**Family:**

Publication number	Publication date	Application number	Application date
US1746682 A	19300211	US19270224876	19271008

Priority:

US19270224876 19271008

Probable Assignee:

RUTH JR JOSEPH P

Assignee(s): (std):

RUTH JR JOSEPH P

Inventor(s): (std):

RUTH JR JOSEPH P

Inventor(s):

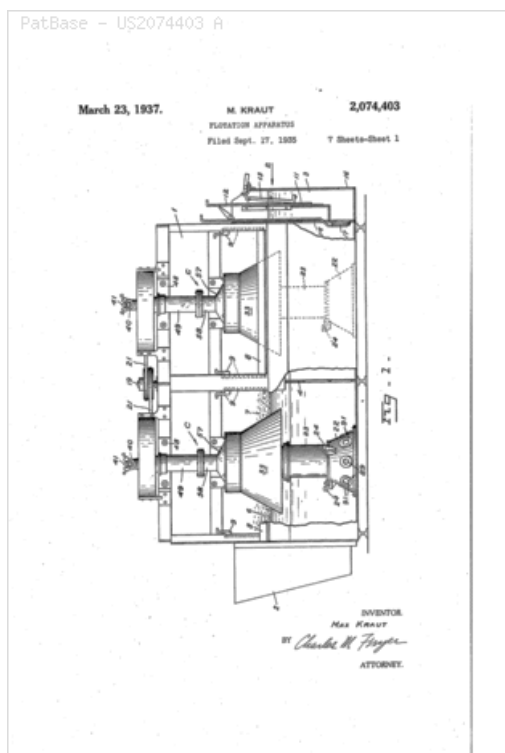
JR JOSEPH P RUTH

52) Family number: 21423297 (US2074403 A)

© PatBase

Title: FLOTATION APPARATUS

Abstract: 1. A flotation apparatus comprising a cylindrical stator, a cylindrically-shaped rotor rotatable within said stator and forming an annular passageway therebetween, said passageway having an inlet and an outlet for the flow of pulp, screw Rights on said rotor of increasing Ditch from adjacent said inlet to adjacent said outlet, a ported shroud adjacent said inlet, and a conicallyshaped dedecker adjacent said outlet.

Classifications:**International (IPC 8-9):** B03D1/14 B03D1/16**International (IPC 1-7):** B03D1/16**CPC:** B03D1/028 B03D1/1406 B03D1/1412 B03D1/16**US:** 209/169 261/93 366/193 366/263 366/266 366/297

Family:

Publication number	Publication date	Application number	Application date
US2074403 A	19370323	US19350040897	19350917

Priority:

US19350040897 19350917

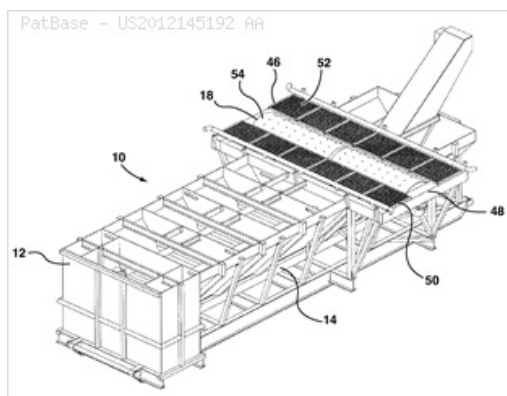
Probable Assignee: PAN AMERICAN ENGINEERING CORP
Assignee(s): (std): PAN AMERICAN ENGINEERING CORP
Assignee(s): PAN AMERICAN ENGINEERING LTD CORP
Inventor(s): (std): MAX KRAUT
Inventor(s): KRAUT MAX

53) Family number: 51282616 (US2012145192 AA)

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Title: PORTABLE OR FIXED VEHICLE WASHING SYSTEM

Abstract: A portable or fixed vehicle wash system that includes a collection tank having a floor and an opening. The wash system further includes a vehicle drive platform positioned above at least a portion of the opening of the collection tank. A water jet delivery system is positioned directly under the drive platform for delivering a cleansing amount of water to the vehicle. A two stage separation system that has a collection surface positioned beneath the drive platform, is in communication with the collection tank for depositing the collected water. The two stage separation system has a first large debris removal system and a second fine debris removal system. The first large debris removal system collects large debris from the collected water for removal from the collection tank, and the second fine debris removal system collects small debris suspended in the collected water after the collected water moves from the first large debris removal system to the second fine debris removal system.

Classifications:**International (IPC 8-9):** B08B3/00 B08B3/02 B08B3/04 B60S3/04**CPC:** B08B3/02 B08B3/14**US:** 134/10 134/10P 134/111 134/111S 134/123**Family:**

Publication number	Publication date	Application number	Application date
CA2729520 AA	20120609	CA20112729520	20110125
CA2729520 C	20150512	CA20112729520	20110125
US2012145192 AA	20120614	US20100964159	20101209
US8701687 BB	20140422	US20100964159	20101209

Priority:

US20100964159 20101209 CA20112729520 20110125

Probable Assignee: BOLD IND INC**Assignee(s):** (std): BOLD IND INC ; MACKINNON DARCY GLEN**Assignee(s):** BOLD IND INC10743 MAPLEGLLEN CRES., S.E.CALGARYA1T2J 1X1CA ; BOLD INDUSTRIES INC ; MACKINNON DARCY GLEN10743 MAPLEGLLEN CRES., S.E.CALGARYA1T2J 1X1CA**Inventor(s):** (std): MACKINNON DARCY GLEN**Inventor(s):** MACKINNON DARCY GLEN10743 MAPLEGLLEN CRES., S.E.CALGARYA1T2J 1X1CA**Agent(s):** GRAHAM LORELEI G; LORELEI G; NORTON ROSE FULBRIGHT CANADA LLP SENCRL SRL**54) Family number: 61122691 (US2015360984 AA)**

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Title: PROCESSING AND APPLICATION OF A PURIFICATION SYSTEM FOR GOLD MINING, EXTRACTION OF MINERALS AND GROWTH OF ALGAE BIOMASS

Abstract: The present disclosure describes a process for using saline water, and saline reject water produced in water purification, to use for gold mining production, and growing and harvesting algae. The disclosure also describes a method for growing and harvesting algae utilizing saline water as growth medium for recycling waste water to extract the remaining metals out of waste water. The harvested algae may be used in various applications including but not limited to water purification for gold mining production and to extract metals out of remaining waste water.

Classifications:**International (IPC 8-9):** C02F1/04 C02F1/44 C02F1/461 C02F1/469 C02F1/66 C02F101/20 C02F101/32 C02F103/10 C02F3/32 C02F9/00 C12N1/12 C12P7/64 C22B3/00 C22B3/02 C22B3/18 C22B3/24**CPC:** C02F1/041 C02F1/441 C02F1/461 C02F1/4693 C02F1/66 C02F2101/20 C02F2101/32 C02F2103/10 C02F3/322 C02F9/00 C12N1/12 C12P7/64 C22B11/04 C22B3/02 C22B3/18 C22B3/24 Y02P10/20 Y02W10/37**US:** 1/1 435/134 435/294.1 75/711

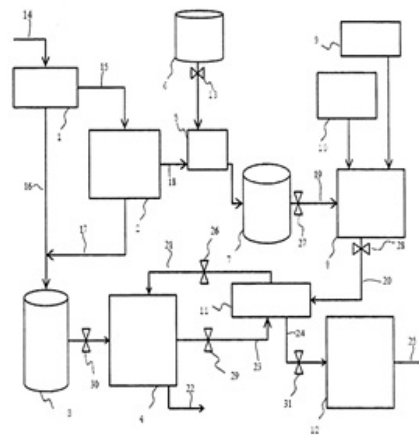


Fig. 1

Family:

Publication number	Publication date	Application number	Application date
US2015360984 AA	20151217	US20140303312	20140612
US9446973 BB	20160920	US20140303312	20140612
US10113213 BB	20181030	US20160264016	20160913
US2016376680 AA	20161229	US20160264016	20160913

Priority:

US20140303312 20140612 US20160264016 20160913

Probable Assignee: OF BISHA UNIV**Assignee(s):** (std): ABUHASEL KHALED A ; PRINCE SATTAM BIN ABDULAZIZ UNIV ; UNIV OF BISHA**Assignee(s):** OF BISHA UNIV**Inventor(s):** (std): ABUHASEL KHALED A ; ALKAHTANI SALEH ALI**Agent(s):** OBLON MCCLELLAND MAIER AND NEUSTADT LLP**55) Family number: 56298931** (AU2013234409 AA)

© PatBase

Title: Apparatus and Method for the Separation of Particulates

Abstract: A separator for the separation of conductive particles within a particulate stream the separator including: at least one magnetic array for the generation of a magnetic field the magnetic array including plurality of magnetic elements arranged in series wherein adjacent elements in the series are of opposite polarities; a material feed for feeding said particulate stream through said magnetic field to alter the trajectory of the conductive particles from the particle stream to a collection point. Ore dust... Permanent magnetic strips Conducting particles Non-conducting particles Figure 1

Classifications:**International (IPC 8-9):** B03C1/23 B03C1/247 B03C1/26

PatBase - AU2013234409 AA

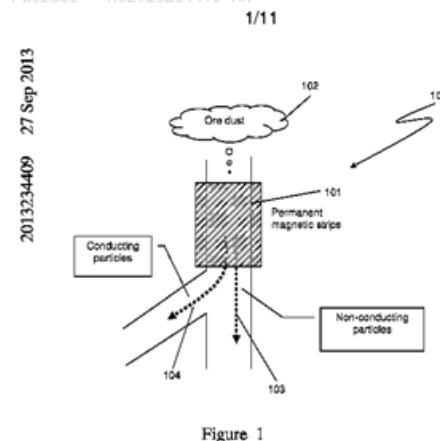


Figure 1

Family:

Publication number	Publication date	Application number	Application date

Priority:

AU20120904359 20121005 AU20130234409 20130927

Probable Assignee: EGRS TECHNOLOGY PTY LTD

Assignee(s): (std): EGRS TECHNOLOGY PTY LTD

Inventor(s): (std): HODGETTS KYLE

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

56) Family number: 5393177 (WO9003494 A1)

© PatBase

Title: METHOD AND INSTALLATION FOR MINING

Abstract: A mining installation and method for recovery of minerals from a below ground deposit in which at least two bore holes (32, 34) which are mutually spaced and extend into the deposit, the bore holes including: a) at least one bore hole (32), referred to as pressurising bore, connectable to a source of pressurising liquid and having an outlet (42) within the deposit, and b) at least one further bore hole (34), referred to as a lift bore, having an inlet (44) thereto within the deposit, the lift bore having means (46) for discharging pressurised gas therein. The arrangement is such that pressurised liquid (A) supplied to the pressurising bore (32) is able to discharge from the outlet (42) to cause material of the deposit to move toward the lift bore (34) under hydraulic action of the liquid, with the discharge of pressurised gas (B) in the lift bore providing an air-lift action on the material moved towards the lift bore (34) such that the material is raised in the lift bore (34).

Classifications:

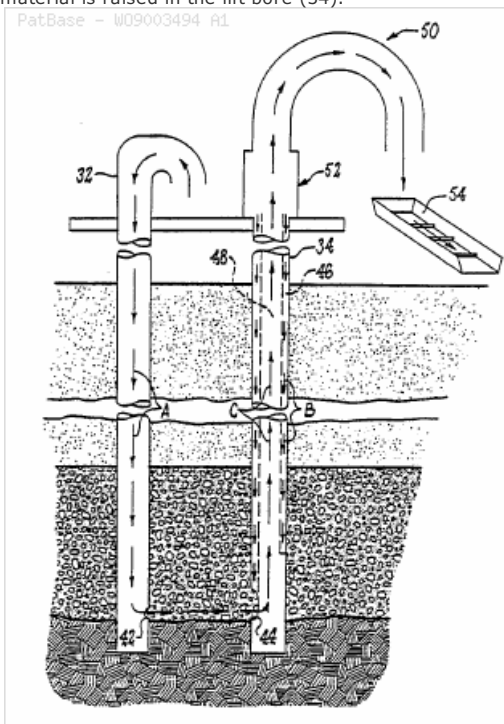
International (IPC 8-9): E21B43/00 E21B43/12 E21B43/16

E21B43/18 E21B43/29

International (IPC 1-7): E21B43/18 E21B43/20 E21C41/00

E21C41/14 E21C45/00

CPC: E21B43/122 E21B43/18 E21B43/29



Family:

Publication number	Publication date	Application number	Application date
WO9003494 A1	19900405	WO1988AU00378	19880928

Priority:

WO1988AU00378 19880928

Probable Assignee: BASTER LAWRENCE REGINALD

Assignee(s): (std): BASTER LAWRENCE REGINALD

Inventor(s): (std): BASTER LAWRENCE REGINALD

Designated states: BJ BR CF CG CM GA GB ML MR SN SU TD TG US

57) Family number: 10797212 (US5544756 A)

© PatBase

Title: DYNAMIC MINING SYSTEM COMPRISING HYDRATED MULTIPLE RECOVERY SITES AND RELATED METHODS

Abstract: A mining system and related methods for recovering gold and/or other heavy metals at multiple sites along a continuously hydrated ore processing route. The gold-bearing ore and primary or carrier water are dynamically and circuitously displaced to segregate the gold, and precipitate the gold particles into predetermined recovery sites along the flow path of the mix. Boil box recovery sites are selectively provided for recovery of nuggets and smaller gold particles. Secondary water churns and disrupts the primary carrier flow of the mix through each boil box. The master stream of gold-sized ore-primary water mix is subdivided into several separate streams or substreams. The sub streams are violent in nature, with one exception, and are typically contained in man-made canal-forming troughs or multiple recovery sites. Recovery sites have one or more drop slots. A downward draw caused by flow of secondary water in a conduit located below each slot enhances recovery.

Classifications:

International (IPC 8-9): B03B5/06 B03B5/26 B03B5/70 B03B7/00

B03B9/00 C22B1/00 C22B11/00 C22B3/02

International (IPC 1-7): B03B5/06 B03B5/24 B03B5/28 B07B1/28

CPC: B03B5/26 B03B9/00 C22B1/00 C22B11/00 C22B11/04

C22B3/02 Y02P10/20

166/336 166/338 166/341 166/341S 166/358 166/358S 166/361 166/361S 166/363 166/363S 166/364 166/376 166/379
 166/379S 166/381 166/381S 166/384 166/385 166/55 166/55.1 166/55.2 166/55.6 166/65.1 166/65.100S 166/66 166/75.11
 166/75.110S 166/77.1 166/77.2 175/107 175/11 175/15 175/15P 175/16 175/162 175/16P 175/16S 175/40 175/424 175/5
 175/57 175/5S 175/6 175/65 175/65S 175/6S 175/92 175/92S 219/121.61 219/121.67 219/121.670S 219/121.7 219/121.72
 219/121.720P 219/121.84 219/60R 219/61 242/159 242/159S 250/215 250/227.11 250/492.1 250/492.100P 254/134.3FT
 254/134.3R 254/134.4 29/428 29/428S 299/14 299/29 359/226.2 362/259 362/317 362/553 362/553S 372/14 372/4 372/9
 385/100 385/102 385/104 385/109 385/109P 385/111 385/12 385/13 385/134 385/26 385/88 385/89 385/92 385/93 385/94

Family:

Publication number	Publication date	Application number	Application date
AU2009340454 AA	20100826	AU20090340454	20090819
AU2012222154 AA	20120830	AU20120222154	20120224
AU2012259435 AA	20130912	AU20120259435	20120224
AU2012259435 BB	20160922	AU20120259435	20120224
AU2012259443 AA	20130912	AU20120259443	20120224
AU2014228980 AA	20151008	AU20140228980	20140314
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