

Search history

Search PA=(ALSTOM RENEWABLE TECHNOLOGIES) (Results 290)

1:

Search PA=(ALSTOM RENEWABLE TECHNOLOGIES) and INV=(JEAN-FRANCOIS BERTEA) (Results 0)

2:

Search PA=(ALSTOM RENEWABLE TECHNOLOGIES) and INV=(SERGE TROILO) (Results 1)

3:

Search fn=(58732134) (Results 1)

4:

Search [SP]: claims 1. - hydraulic injector (2) of a pelton turbine (t), comprising: - a nozzle (4), centered on a central injection axis (y2), - a sleeve (8), which is arranged coaxially in the interior of the nozzle (4), and - a needle (10), which is movably mounted in relation to the sleeve (8) along the central injection axis (y2), characterized in that the needle (10) is pivotable in relation to the sleeve (8) about the central axis (y2) between a first position, in which it is axially secured to the sleeve (8), and a second position, in which it may be disengaged axially from the sleeve (8). 2. - injector according to claim 1, characterized in that the needle (10) carries, on its internal surface (106), at least one rib (16) which protrudes radially towards the central axis (y2) and which extends in a direction that is circumferential to the central axis, and in that a groove (18) extends axially at the extremity of the sleeve (8) and discharges onto a circumferential housing (23), the groove and the circumferential housing being adapted to guide the rib of the needle during a relative pivoting movement between the needle (10) and the sleeve (8). 3. - injector according to claim 2, characterized in that the rib (16) extends on an angular sector, centered on the central axis (y2), of which the vertex angle (a16) is substantially equal to or smaller than the angular aperture (a18), taken according to a direction that is circumferential to the central axis of the groove (18). 4. - injector according to claim 3, characterized in that the rib (16) has a thickness (e16), measured parallel to the central axis, which is substantially equal to the width (e23), measured parallel to the central axis of the circumferential housing (23). 5. - injector according to one of the preceding claims, characterized in that it comprises means (m1 ??) for locking the needle (10) in its first position, said means securing the needle and the sleeve (8) in a rotationally fixed manner about the central axis (y2). 6. - injector according to the preceding claim, characterized in that the locking means (m1) comprises a key (24), which is adapted to be inserted radially through the needle (10) into a housing (84) provided in the sleeve (8) when the needle is in its first position. 7. - injector according to claim 5, characterized in that the locking means (??) comprises at least one ball (26) and a spring (28), which are installed axially between a rib (16) of the needle (10) and the sleeve (8), the spring exerting an axial elastic load force (f2) on the ball in order to maintain the ball in a housing of the rib. 8. - pelton turbine (t), comprising a wheel (r) provided with a plurality of troughs (1) and hydraulic injectors (2), the troughs driving the wheel about an axis of rotation (x-x) under the action of jets of water (j) emitted by the injectors in the direction of the troughs, characterized in that the injectors are in conformity with one of claims 1 to 7. 9. - method for the partial disassembly of an injector according to one of claims 1 to 7, characterized in that it comprises steps involving: a) causing the needle (10) to pivot about the central injection axis (y2) from its first position to its second position, and b) disengaging the needle axially from the sleeve (8) of the injector. 10. - method according to claim 9, characterized in that the injector (2) is in conformity with one of claims 5 to 7 and in that it comprises a previous stage to the stage a) involving the deactivation of the locking means (m1 ??) in order to allow the needle (10) to pivot between its first position and its second position. (Results 7)

Search [SP]: hydraulic injector of a pelton turbine and method for the partial disassembly of such an injector the present invention relates to a hydraulic injector of a pelton turbine as well as a method for the partial disassembly of such an injector. an injector of a pelton turbine comprises in a manner known per se a nozzle which is centered on a central injection axis, a sleeve which is arranged coaxially in the interior of the nozzle, and a needle which is secured at one extremity of the sleeve along the central axis. the water is injected between the needle and the nozzle and forms, as it exits from the injector, a jet which is directed along the central injection axis and which strikes the troughs of the turbine wheel. a plurality of injectors distributed around the wheel thus permit the wheel to be caused to rotate by transformation of the hydraulic energy into mechanical energy. if necessary, this mechanical energy is converted into electrical energy by means of an alternator. currently, the needle is secured to the sleeve of the injector by bolting. this permits the needle to be prevented from becoming disengaged from the sleeve under the hydraulic pressure. the needle of an injector wears rapidly in contact with water, however, since the flow passing through the turbine often carries with it sand or some other abrasive product with the potential to cause damage to the needle. it is accordingly necessary to clean, repair or replace the needle of an injector on a regular basis. in order to do this, the needle must be disassembled from the sleeve. although the envisaged solution of the needle on the sleeve gives satisfaction in terms of mechanical strength, this solution is not practical for disassembling the needle, however. in fact, the bolts are not readily accessible to an operator, and the time required for disassembly of the needle is long. the turbine does not function and the generation of electricity ceases during disassembly of the needle. the aim of the invention is to remedy these disadvantages in particular by proposing an injector of a pelton turbine, in which the disassembly of the needle in relation to the sleeve is facilitated and is more rapid. for this purpose, the invention relates to a hydraulic injector of a pelton turbine comprising a nozzle centered on a central injection axis, a sleeve which is arranged coaxially in the interior of the nozzle, and a needle which is movably mounted in relation to the sleeve along the central injection axis. according to the invention, the needle is pivotable in relation to the sleeve about the central axis between a first position, in which it is axially secured to the sleeve, and a second position, in which it may be disengaged axially from the sleeve. thanks to the invention, the needle of the injector is disassembled simply by causing it to rotate about the central axis from its first position towards its second position. in this second position, it may be removed from the sleeve by an axial translation movement. according to advantageous but non-compulsory aspects of the invention, an injector of a pelton turbine may include one or a plurality of the following characteristics, in any technically acceptable combination: - the needle covers the sleeve and its pivoting takes place around the sleeve.- the needle carries, on its internal surface, at least one rib which protrudes radially towards the central axis and which extends in a direction that is circumferential to the central axis, whereas a groove extends axially at the extremity of the sleeve and discharges onto a circumferential housing, the groove and the circumferential housing being adapted to guide the rib of the needle during a relative pivoting movement between the needle and the sleeve. - the rib extends on an angular sector, centered on the central axis, of which the vertex angle is substantially equal to or smaller than the angular aperture, taken according to a direction that is circumferential to the central axis of the groove. the rib has a thickness, measured parallel to the central axis, which is substantially equal to the width, measured parallel to the central axis of the circumferential housing. the injector comprises means for locking the needle in its first position, said means securing the needle and the sleeve in a rotationally fixed manner about the central axis. - the locking means comprises a key, which is adapted to be inserted radially through the needle into a housing provided in the sleeve when the needle is in its first position. the locking means comprises at least one ball and a spring, which are installed axially between a rib of the needle and the sleeve, the spring exerting an axial elastic load force on the ball in order to maintain the ball in a housing of the rib. the invention likewise relates to a pelton turbine comprising a wheel provided with a plurality of troughs and hydraulic injectors, the troughs driving the wheel about an axis of rotation under the action of jets of water emitted by the injectors in the direction of the troughs, the injectors being as described above. the invention relates, finally, to a method for the partial disassembly of an injector comprising steps involving: a) causing the needle to pivot about the central injection axis from its first position to its second position, and b) disengaging the needle axially from the sleeve of the injector. according to an advantageous, but non-compulsory, aspect of this method, it comprises a previous stage to the stage a) involving the deactivation of the locking means in order to allow the needle to pivot between its first position and its second position. the invention and other advantages thereof will emerge more clearly in the light of the following description of two embodiments of an injector of a pelton turbine in conformity with its principle, provided uniquely by way of example and made with reference to the accompanying drawings, in which: - figure 1 is a section depicting the principle of a pelton turbine comprising injectors according to the invention, - figure 2 is a detailed view of the inset box ii in figure 1, - figure 3 is a view on a larger scale of the inset box iii in figure 2, - figure 4 is a perspective view in an exploded configuration of a sleeve and of a needle, both belonging to the injector in figure 2, - figure 5 is a view in an assembled configuration and with a partial cut-away of the sleeve and of the needle in figure 3, - figure 6 is a section along the line vi-vi in figure 2, in which only the sleeve and the needle are depicted, - figure 7 is a section similar to that depicted in figure 6, in which the needle has been tilted with a view to being disassembled from the sleeve, - figure 8 is a section similar to that depicted in figure 2 for an injector in conformity with a second embodiment of the invention, and - figure 9 is a view on a larger scale of the inset box ix in figure 7. depicted in figure 1 is a pelton turbine t. this pelton turbine t comprises a wheel r provided with a plurality of troughs 1 regularly distributed over the entire periphery of the wheel r. the wheel r is secured in a rotationally fixed manner to a shaft 3, which is arranged at the center of the wheel r and which is centered on an axis of rotation x-x. four injectors 2 are distributed around the wheel r and are designed to produce a jet of water j capable of striking the base of the troughs 1 of the wheel r. in this manner, the hydraulic energy provided by the impact of the jets j on the troughs 1 causes the wheel r to rotate about the axis x-x. the shaft 3 is connected, if necessary, to an alternator in such a way as to convert the hydraulic energy into electrical energy. as a variant, the number of injectors 2 may be other than four. all the injectors are identical. only one of these is described below. in this document, the front of an injector denotes the upstream direction and the rear denotes the downstream direction. an injector 2 is depicted in detail in figure 2. this injector 2 comprises a nozzle, 4 which is centered on a central injection axis y2 which

defines the direction of the jet j. a sleeve 8 is arranged coaxially in the interior of the nozzle 4, and a needle 10 is movably mounted at one extremity of the sleeve 8. the sleeve 8 generally has a cylindrical geometry of circular cross section, centered on the axis y2, whereas the needle 10 has a conical and hollow geometry. take note also of 102, the conical external surface of the needle 10 and 106, the conical internal surface of the needle 10. the sleeve 8 is likewise hollow and contains a spindle 12, which is secured to the sleeve 8 by means of a bolt 14. the displacement of the spindle 12 along the axis y2 thus likewise causes the displacement of the sleeve 8. the fact of displacing the combination formed by the sleeve 8 and the needle 10 permits the modification of the flow of water as it exits from the injector 2. in practice, this flow of water is adjusted in order to maintain the wheel r in rotation at a constant speed. a flow of water e passing through the turbine t originates, for example, from a reservoir of water upstream and is discharged into the injectors 2 between the sleeve 2 and the nozzle 4. the flow e is depicted in figure 2 for illustrative purposes only since, in the configuration depicted in figure 2, there is no flow of water because the injector 2 is not operating. an end piece 6 is arranged between the nozzle 4 and the needle 10. take note also of 62, the generally truncated internal surface of the end piece 6. in the configuration depicted in figure 2, the injector 2 does not function because the external surface 1 (Results 7)

Search fn=(60659429 or 26420515 or 50128879 or 16630896 or 3248285 or 19971299) (Results 6)
7:

Search fn=(63676341:60 or 62474868:60 or 61840323:60 or 60166296:60 or 59881817:60 or 58732134:60 or 57062652:60 or 53416026:60 or
8: 53414891:60 or 52073719:60 or 51790046:60 or 50128879:60 or 49067924:60 or 48440117:60 or 47719668:60 or 46980560:60 or
45885022:60 or 45439371:60 or 43837932:60 or 43232155:60 or 42897879:60 or 38866245:60 or 38520520:60 or 36059909:60 or
33665307:60 or 32285798:60 or 30862086:60 or 30856697:60 or 30518592:60 or 30169297:60 or 30133596:60 or 29347405:60 or
28472228:60 or 26420651:60 or 26420649:60 or 26420517:60 or 26420515:60 or 26420514:60 or 26420513:60 or 26420511:60 or
26420510:60 or 26420509:60 or 26420504:60 or 26417836:60 or 26416291:60 or 26413899:60 or 26413734:60 or 23608635:60 or
23052780:60 or 22606934:60 or 22599936:60 or 22513393:60 or 22494777:60 or 22456096:60 or 22444042:60 or 22363339:60 or
22060471:60 or 22038455:60 or 21783050:60 or 21593994:60 or 21397526:60 or 21326903:60 or 21148451:60 or 21115460:60 or
20970612:60 or 20942036:60 or 20849187:60 or 20834119:60 or 20820898:60 or 20562598:60 or 20507547:60 or 20475541:60 or
20446067:60 or 20073445:60 or 20008320:60 or 19978528:60 or 19971299:60 or 19902033:60 or 19850570:60 or 19733426:60 or
19690866:60 or 19540839:60 or 19326950:60 or 18856466:60 or 18834227:60 or 18554443:60 or 18526858:60 or 18441272:60 or
18390022:60 or 18298004:60 or 15742668:60 or 13288268:60 or 11647638:60 or 9603476:60 or 8968855:60 or 8644221:60 or
8638996:60 or 8423673:60 or 8378805:60 or 8132278:60) (Results 100)

Search pn=(US1849350 OR CH333655 OR SU1116206 OR US2013101407 OR DE101767 OR US1476368 OR US1539256 OR US1690685 OR
9: US2289432 OR FR1044467 OR CH303773 OR FR1190684 OR DE1080939 OR FR2846056) (Results 14)

Search PA=(ALSTOM RENEWABLE TECHNOLOGIES) and INV=(SERGE TROILO) and CPC=(F03B1/04) (Results 1)
10:

Search CPC=(F03B1/04) (Results 421)
11:

Search 11 AND 8 (Results 100)
12:

Search Pelton and hydraulic and turbine and nozzle and drive (Results 45)
13:

Search 11 and 13 (Results 1)
14:

Search Hydraulic and needle and nozzle and turbine (Results 112)
15:

Search 11 and 15 (Results 8)
16:

Search PN=(US1837570) (Results 1)
17:

Search ((HYDRAULIC AND INJECTOR AND NEEDLE) AND (PELTON AND TURBINE)) (Results 5)
18:

Search ((GUIDE AND LOCK) AND (NEEDLE AND INJECTOR) AND (TURBINE)) (Results 3)
19:

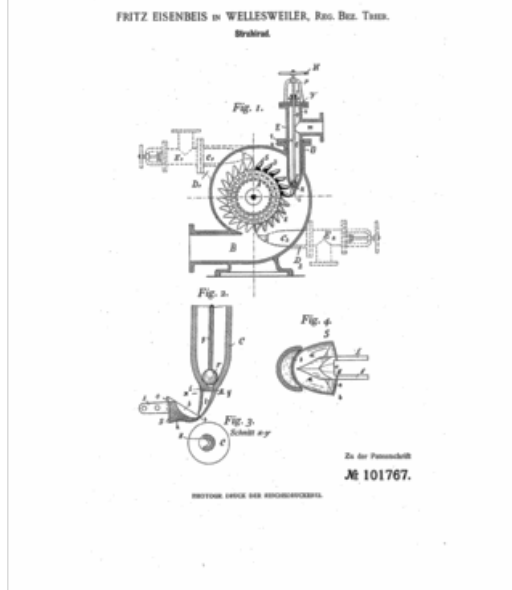
Search ((GUIDE AND LOCK AND NEEDLE AND INJECTOR) AND (TURBINE)) (Results 3)
20:

Search GUIDE AND LOCK AND NEEDLE AND INJECTOR AND TURBINE (Results 3)
21:

Search 9 OR 17 (Results 15)
22:

Classifications:**International (IPC 8-9):** F03B1/04 (Advanced/Invention);
F03B1/00 (Core/Invention)**International (IPC 1-7):** F03B1/02**CPC:** F03B1/04 Y02E10/223**European:** F03B1/04 Y02E10/22B

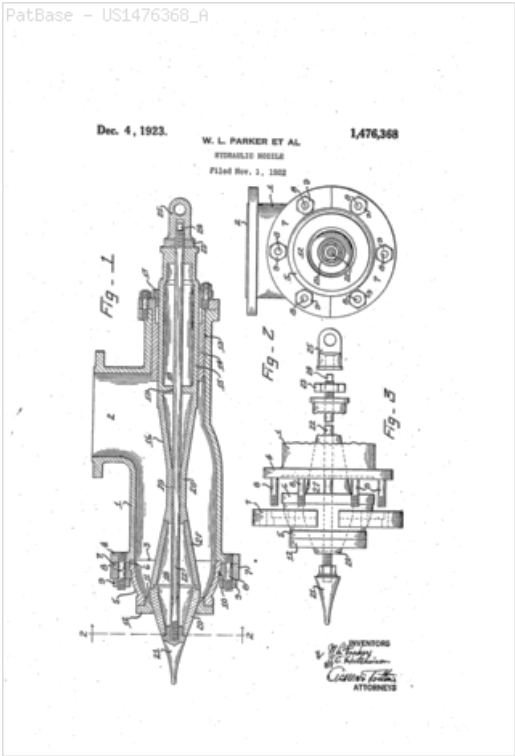
PatBase - DE101767_A

**Family:**

Publication number	Publication date	Application number	Application date
DE101767 A	00000000		00000000

Title: HYDRAULIC NOZZLE

Classifications:
International (IPC 8-9): F03B1/04 (Advanced/Invention);
F03B1/00 (Core/Invention)
International (IPC 1-7): B05B1/00
CPC: F03B1/04 Y02E10/223
European: F03B1/04 Y02E10/22B
US: 239/583 239/600



Family:

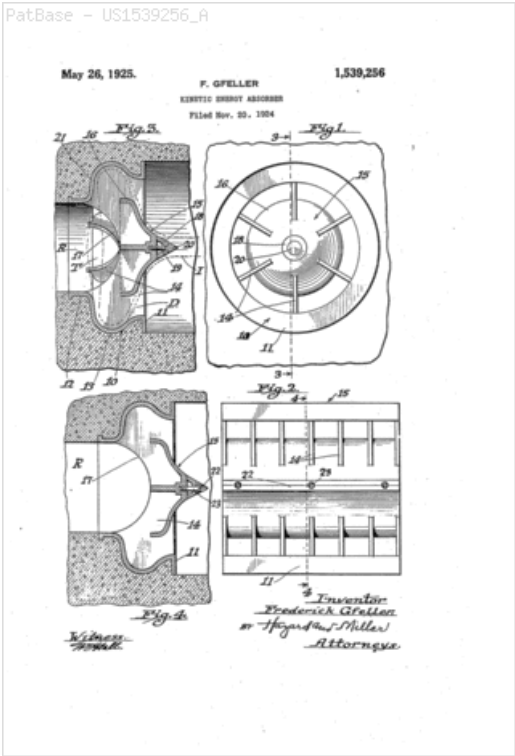
Publication number	Publication date	Application number	Application date
US1476368 A	19231204	US19220598310	19221101

Priority:
US19220598310 19221101

Probable Assignee: PELTON WATER WHEEL CO
Assignee(s): (std): PELTON WATER WHEEL CO
Inventor(s): (std): HUTCHINSON ELY C ; PARKER WILLIAM L

Title: KINETIC-ENERGY ABSORBER

Classifications:
International (IPC 8-9): F03B1/04 (Advanced/Invention);
F03B1/00 (Core/Invention)
International (IPC 1-7): F03B15/14
CPC: F03B1/04 Y02E10/223
European: F03B1/04 Y02E10/22B
US: 138/40



Family:

Publication number	Publication date	Application number	Application date
US1539256 A	19250526	US19240751133	19241120

Priority:

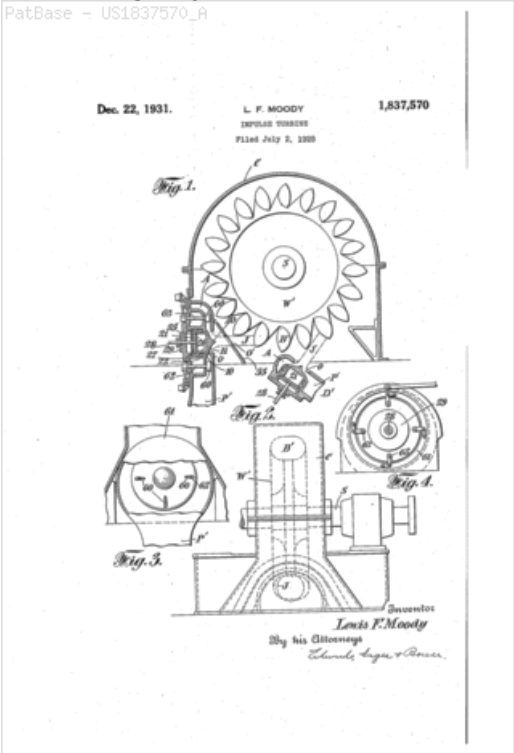
US19240751133 19241120

Probable Assignee: PELTON WATER WHEEL CO
Assignee(s): (std) PELTON WATER WHEEL CO
Assignee(s): THE PELTON WATER WHEEL CO
Inventor(s): (std) FREDERICK GFELLER
Inventor(s): GFELLER FREDERICK

Title: IMPULSE TURBINE

Abstract: Source: US1837570A I claim: ' 1. In a turbine' control system the combination with an impulse turbine having a plurality of jets, ot means for regulating thc speed, ot said turbine comprising(jet control means operating' relatively quickly on only souie of said jets and operating relatively slowly on the remaining jets. 2. in a turbine control system the combination with an impulse turbine having a plurality of jets, relatively slow moving control means for at least sonic of said jets, and 1'nlati\cly quick acting; detlecting means acting on some of said jets and not on the remaining jets. In a turbine control system the combination with a horizontal shaft impulse turbine having a plurality of needle controlled nozzles directing jets against the turbine buckets, of jet detlecting means acting on some of said `cts and not on others. 4. In a tnrlti_gt;inc control system the combination with an impulse turbine having a plurality of nozzles directing jets against turbine buckets, of relatively slow moving control means for said jets, and relatively quick acting deliecting means acting upon some of said jets and not on others. 5. In a turbine control system the combination with a horizontal shaft impulse turbine having a plurality of nozzles directing jets against the turbine buckets, of relatively slow moving control means for said jets and relatively quick acting detlecting means acting upon some of said jets and not on others. G, In a turbine control system the combination with an impulse turbine having a plurality of jets, of means for varying the sizes of said jets while preserving their cylindrical form, and means for regulating the speed of said turbine comprising jet control means operatingcn only some of said .jets and not on the remaining jets. , ~ .7. In a turbine control system the combination with an impulse turbine having a plurality of nozzles directingjets against the turbine fbuckets, of jet detlecting means acting on some of saicljets and not on others, said buckets discharging on one side of the turbine wheel. 8. In a turbine control system the combination with an inipulse turbine having a plurality of nozzles directing je-ts against turbine buckets, of relatively slow moving control nieans for said jets and relatively quick acting deflecting means acting upon someof said jets and not on others, said buckets discharging on one side of the turbine wheel. 9. In a turbine control system for an impulse turbine having a plnra,lity~ of jets, means for relatively quickly controlling certain of said jets, and means for relatively slowly controlling other of said jets. 10. In a turbine control system for an impulse turbing having a plurality, of jets, means for relatively quickly controlling certain of said jets, means for relatively slowly controlling other of said jets, and means for also relatively slowly controlling said quick acting jets. » ~ A ` 11. In a turbine control system for an impulse turbine having :L\_ plurality of jets, means for relatively quickly controlling certain of said jets, and means for relatively slowly controlling other of said jets; said quick acting jets having associated therewith jet deflecting means. V ` 12. In a turbine control system for an impulse turbine having a plurality- of jets, means for relatively quickly controlling certain of said jets, and means for relatively slowly controlling other of said jets, said quick acting means including a pivoted vane. 13. In a turbine control system for an impulse turbine having a plurality of jets,.means for relatively quickly controlling certain of said jets, and means for relatively slowly controlling other of said jets, said quick acting means including a pivoted vane and deflectiug mechanism associatedtherewitli. 14. An impulse turbine jet controlmechanism comprising means for forming a solid jet, and means for whirling said jet including a pivoted guide vane movable on an axis substantially parallel to the axis ofthe jet. 15. A jet controlling mechanism for hydraulic impulse turbines comprising a casing having a passage arrangement wherein fluid flows from dilferent radial directions toward the axis of the jet, and an orifice for forming the jet, said casing being of materially greater extent radially of said jet than axially thereof, and ii. dciiector plate having a substantially cylindrical opening through which the jet passes before impinging upon the turbine buckets. ,loo 110 IO ,S LO io M '16. A jet controlling mechanism for hydraulic impulse turbines comprising a nozzle, a plunger adapted to .cooperate with said nozzle, and pivot gates for controlling fluid flowing to said nozzle the pivotal axis of said gates extending in the same general direction as the movement of said plunger. 17. A jet controlling mechanism for hydraulic impulse turbines comprising means, forming, a jet, nonoverlapping pivot gates for controlling the fluid flowing to said nozzle, and a rotatabeshifting ring for operating said gates. » i IS. An impulse turbine jet control mechnism comprising means for forming a solid jet, means whereby fluid flows substantially toward the axis of said jet anclin substantially sylrrnrnetrical relation at-right angles thereto, and means disposed Within said symmetrical How to impart whirl thereto and accordingly to said jet. ' 19. An impulse turbine jet-control'1neeha.- anisrn comprising means for forming il solid jet, guide vanes pivoted on axes substantially parallel to the axis ofsaid jet for whirling the same, and a deHe_Lt;ct.or having an opening through which the whirling jet passes. ' ' 20. An impulse turbine jet control mechanism eornprisin,_lt;\$ a casing having a passage and an orifice for forming 'a solid jet, and means over which fluid flows in a radial direction toward the axis of the jet for whirling said jet, said easing being relatively narrow in a direction axially or the jet as compared with the radial dimension of said casing. . ' ' 21, A11 impulse turbine jet control mechanism comprising a. easing having 11. passage and an orifice for forming a solid jet, said easing being relatively narrow in a direction axially of the jet as einpared With the radial dimension of said casing, said passage including _a radially extending inlet; contained substantially Within the relatively narrow axial liinits ef said easing, and means disposed in said radial, inlet for whirling said jet.

Classifications:
International (IPC 8-9): F03B1/04 (Advanced/Invention); F03B1/00 (Core/Invention)
International (IPC 1-7): F03B15/20
CPC: F03B1/04 Y02E10/223
European: F03B1/04 Y02E10/22B
US: 415/155 415/202 415/35



Family:

Publication number	Publication date	Application number	Application date
US1837570 A	19311222	US19250041103	19250702

Priority:

US19250041103 19250702

Probable Assignee:

Assignee(s): (std):

Inventor(s): (std):

Inventor(s):

FERRY MOODY LEWIS

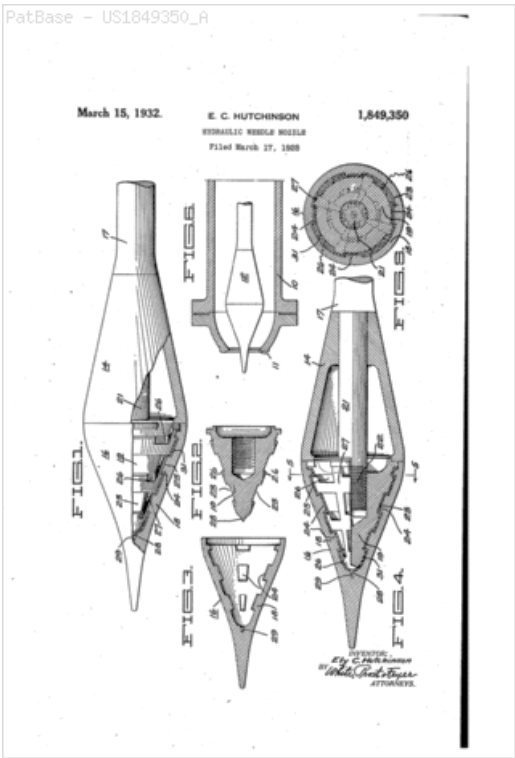
FERRY MOODY LEWIS

FERRY MOODY LEWIS

MOODY LEWIS FERRY

Title: HYDRAULIC NEEDLE NOZZLE

Classifications:
International (IPC 8-9): F03B1/04 (Advanced/Invention);
F03B1/00 (Core/Invention)
International (IPC 1-7): F03B15/20
CPC: F03B1/04 Y02E10/223
European: F03B1/04 Y02E10/22B
US: 239/583 239/591



Family:

Publication number	Publication date	Application number	Application date
US1849350 A	19320315	US19280262491	19280317

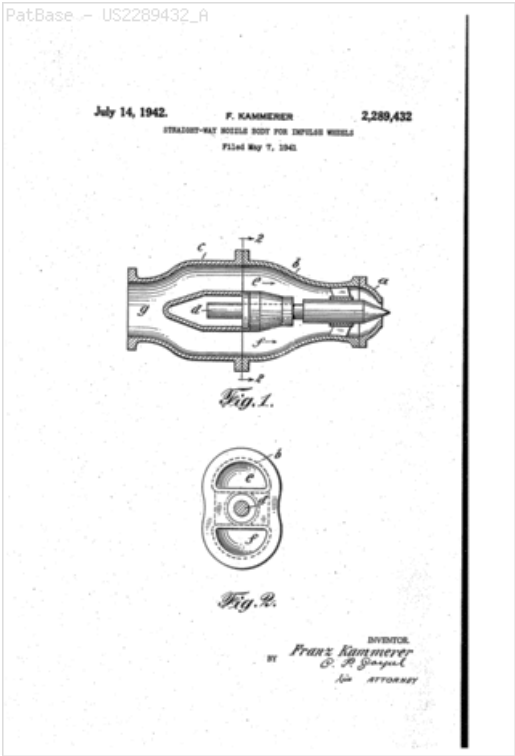
Priority:

US19280262491 19280317

Probable Assignee: PELTON WATER WHEEL CO
Assignee(s): (std): PELTON WATER WHEEL CO
Assignee(s): THE PELTON WATER WHEEL COMPANY
Inventor(s): (std): HUTCHINSON ELY C

Title: STRAIGHT-WAY NOZZLE BODY FOR IMPULSE WHEELS

Classifications:
International (IPC 8-9): F03B1/04 (Advanced/Invention);
F03B1/00 (Core/Invention)
International (IPC 1-7): F03B15/20
CPC: F03B1/04 Y02E10/223
European: F03B1/04 Y02E10/22B
US: 239/583 239/590



Family:

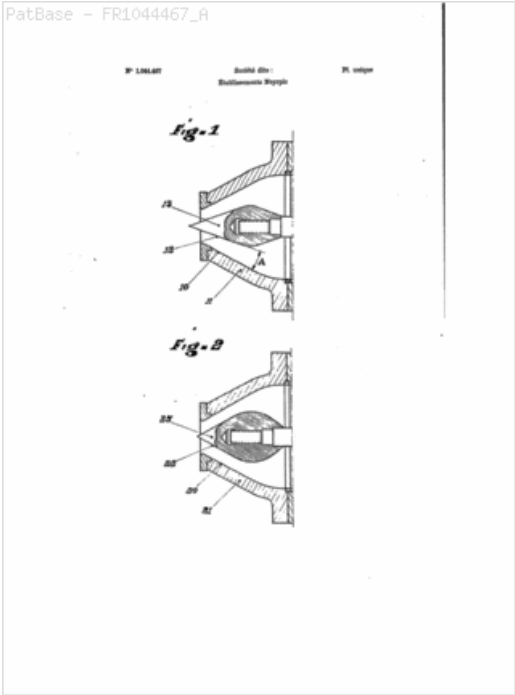
Publication number	Publication date	Application number	Application date
US2289432 A	19420714	US19410392226	19410507

Priority:
US19410392226 19410507

Probable Assignee: AMERICAN VOITH CONTACT CO INC
Assignee(s): (std): AMERICAN VOITH CONTACT CO INC
Inventor(s): (std): FRANZ KAMMERER
Inventor(s): KAMMERER FRANZ

Title: Perfectionnements aux injecteurs de turbines pelton Improvements with the injectors of Pelton turbines (Machine translation)

Classifications:
International (IPC 8-9): F03B1/04 (Advanced/Invention); F03B1/00 (Core/Invention)
International (IPC 1-7): F03B15/20
CPC: F03B1/04 Y02E10/223
European: F03B1/04 Y02E10/22B



Family:

Publication number	Publication date	Application number	Application date
FR1044467 A	19531117		19511106

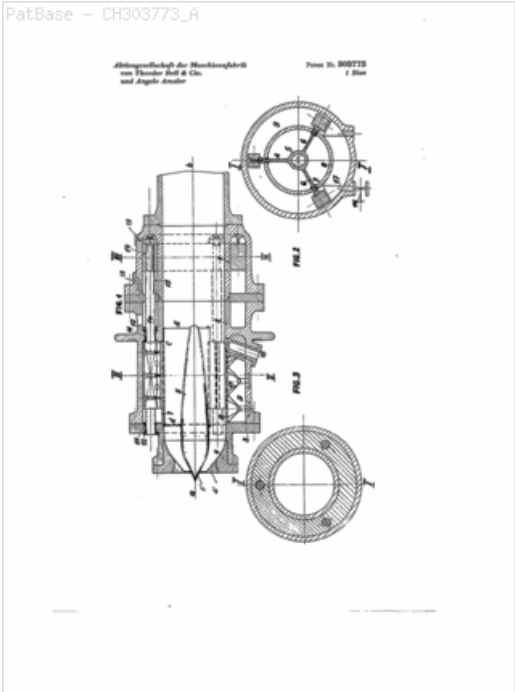
Probable Assignee: NEYRPIC ETS
Assignee(s): (std): NEYRPIC ETS
Assignee(s): ETABLISSEMENTS NEYRPIC

Title: EINLAUFDUESE FUER EINE PELTONTURBINE MIT EINER IN EINEM GERADEN EINLAUFROHR LAENGSVERSCHIEBBAREN REGULIERNADEL. FOR A inlet nozzle Pelton WITH IN A STRAIGHT INLET PIPE LAENGSVERSCHIEBBAREN control needle.
(Machine translation)

Abstract: Source: CH303773A (Claim 1) 1. Einlaufduese nach Patentanspruch, da durch gekennzeichnet, dass die Einzelfuehrun- gen mit Dichtungen ausgeruestete Buechsen aufweisen.

Machine translation: (claim 1) 1 Inlet nozzle according to claim, since in that the Einzelfuehrun gene have accessorized with seals cans.

Classifications:
International (IPC 8-9): F03B1/04 (Advanced/Invention); F03B1/00 (Core/Invention)
International (IPC 1-7): F03B15/20
CPC: F03B1/04 Y02E10/223
European: F03B1/04 Y02E10/22B



Family:

Publication number	Publication date	Application number	Application date
CH303773 A	19541215		19520301

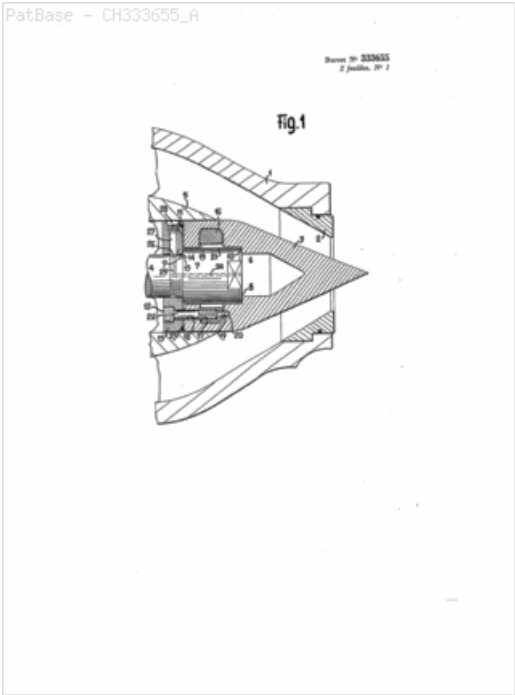
Probable Assignee: THEODOR BELL AND CIE AG
Assignee(s): (std): AMSLER ANGELO ; DER MASCHINENFABRIK VON THEODO ; THEODOR BELL AND CIE AG
Assignee(s): DER MASCHF VON THEODOR BELL AND CIE AG ; DER MASCHF VON THEODO ; AKTIENGESELLSCHAFT DER MASCHINENFABRIK VON THEODOR ; AKTIENGESELLSCHAFT DER MASCHINENFABRIK VON THEODOR BELL AND CIE
Inventor(s): (std): ANGELO AMSLER ; CIE AKTIENGESELLSCHAFT DER MAS ; CIE DER MAS AG
Inventor(s): DER MASCHF VON THEODOR BELL AND CIE AG ; DER MASCHF VON AG ; AKTIENGESELLSCHAFT DER MASCHINENFABRIK VON THEODOR ; AKTIENGESELLSCHAFT DER MASCHINENFABRIK VON THEODOR BELL AND CIE ; AMSLER ANGELO

Title: DISPOSITIF DE FIXATION D'UN POINTEAU D'INJECTEUR D'UNE TURBINE HYDRAULIQUE SUR SA TIGE DE COMMANDE
FIXING DEVICE FOR A NEEDLE INJECTOR TURBINE HYDRAULIC CONTROL ROD SA (Machine translation)

Abstract: Source: CH333655A (Claim 1) 1. Dispositif de fixation selon la revendication, caracterise en ce que les vis (12) de serrage du pointeau (3) contre l'anneau (13) se vissent dans des blocs de serrage (16) engages prealablement dans une rainure interne (15) que presente le pointeau (3).

Machine translation: (Claim 1) 1. Fastening device according to the claim cation, characterized in that the screw (12) for clamping the needle (3) against the ring (13) are screwed into clamping blocks (16) com management beforehand in an internal groove (15) that presents the needle (3).

Classifications:
International (IPC 8-9): F03B1/04 (Advanced/Invention);
F03B1/00 (Core/Invention)
International (IPC 1-7): F03B15/20
CPC: F03B1/04 Y02E10/223
European: F03B1/04 Y02E10/22B



Family:

Publication number	Publication date	Application number	Application date
CH333655 A	19581031		19561213

Probable Assignee: VEVEY ATEL CONST MEC
Assignee(s): (std): VEVEY ATEL CONST MEC
Assignee(s): ATELIERS DE CONSTRUCTIONS MECANIKUES DE VEVEY S A
Inventor(s): (std): VICTOR RAEBER
Inventor(s): RAEBER VICTOR

Title: Dispositif de fixation d'un pointeau d'injecteur sur sa tige de commande Fastening of a punch of injector on its stem of order (Machine translation)

Classifications:

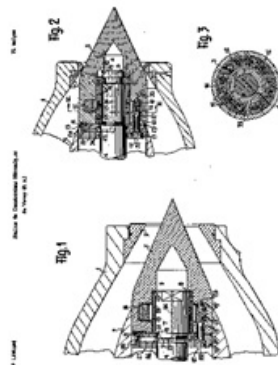
International (IPC 8-9): F03B1/04 (Advanced/Invention);
F03B1/00 (Core/Invention)

International (IPC 1-7): F16K37/00 F16K7/06

CPC: F03B1/04 Y02E10/223

European: F03B1/04 Y02E10/22B

PatBase - FR1190684_A

**Family:**

Publication number	Publication date	Application number	Application date
FR1190684 A	19591014		19571204

Probable Assignee: VEVEY ATEL CONST MEC

Assignee(s): (std): VEVEY ATEL CONST MEC

Assignee(s): ATELIERS DE CONSTRUCTIONS MECANIKES DE VEVEY

Title: REGELDUESE FUER FREISTRAHLWASSERTURBINEN, NADELVENTILE OD. DGL. Control nozzle FOR FREE JET WATER TURBINES, VALVES NEEDLE OD. DGL. (Machine translation)

Abstract: Source: DE1080939B (Claim1) Regelduese fuer Freistrahlwasserturbinen, Nadelventile od dgl mit einer koaxial im Duesen gehaeuse befestigten Fuehrungshuelse, in der eine hohle Regulier- bzw Abschlussnadel axial ver schiebbar gelagert ist, der wiederum ein hydrau lischer Regelservomotor zum Verstellen der Duesennadel sowie eine hydraulische und eine mechanische Einrichtung zum Ausgleich der vom Wasserdruck her im Schliesssinn auf die Nadel wirkenden Kraefte eingebaut sind, nach Patent 1066 508, dadurch gekennzeichnet, dass der Regel servomotor (B) durch den, in Stroemungsrichtung gesehen, vorderen Teil und der Ausgleichsservo- rnotor (A) durch den hinteren Teil der Regelduese gebildet wird.

Machine translation: (Claim1) It fastened rule nozzle for open jet water turbines, needle valves od dgl with one coaxially in nozzles the housing guide sleeve in which a hollow is sliding stored adjustment and/or conclusion needle axially, again hydrau a lischer rule servo actuator for adjusting the nozzle needle as well as a hydraulic and a mechanical mechanism for the reconciliation of the forces affecting from the water pressure in the sense of closing the needle are inserted to which, after patent 1066 508, by the fact characterized that servo actuator (B) is seen to the rule by that, in direction of flow, formed front part and the balance servo rnotor (A) by the rear part of the rule nozzle.

Classifications:

International (IPC 8-9): F03B1/04 F03B15/20

F16K1/12 (Advanced/Invention);

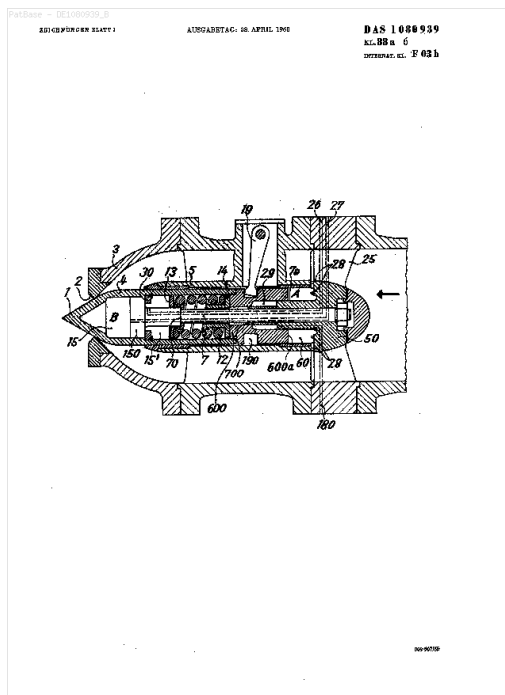
F03B1/00 F03B15/00 F16K1/00 (Core/Invention)

International (IPC 1-7): F03B15/20

CPC: F03B1/04 F16K1/126 Y02E10/223 F03B15/20 Y02E10/226

European: F03B1/04 F03B15/20 F16K1/12P Y02E10/22B

Y02E10/22D



Family:

Publication number	Publication date	Application number	Application date
CH365040 A	19621015	CH19570051172	19571002
DE1080939 B	19600428	DE1957V012124	19570312

Priority:

DE1956V011354 19561010

DE1957V012124 19570312

Probable Assignee:

VOITH GMBH J M

Assignee(s): (std):

VOITH GMBH ; VOITH GMBH J M

Assignee(s):

J M VOITH G M B H ; J M VOITH GMBH

Inventor(s): (std):

GABRIEL KARL ; KARL GABRIEL

Title: PELTON HYDRAULIC TURBINE NOZZLE DRIVE

Abstract: Source: SU1116206A 1. HYDRO POWER NOZZLE ladle containing the stem with a needle attached to it and the servo piston having a cavity opening and closing, each of which communicates with the feed channel and the drain of the control environment of tlichayuschiys that in order to increase the reliability of the nozzle stem is provided with a longitudinal groove having a variable depth uvelichivayuschuyus direction from the piston to the needle and associated with a channel for supplying and discharging controlled to Tsey medium communicating with the cavity opening.

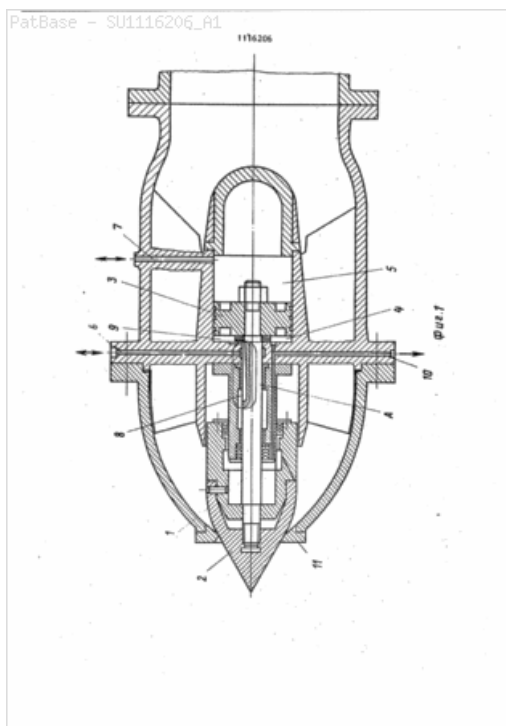
Classifications:

International (IPC 8-9): F03B1/04 (Advanced/Invention);
F03B1/00 (Core/Invention)

International (IPC 1-7): F03B1/04

CPC: Y02E10/223

European: Y02E10/22B



Family:

Publication number	Publication date	Application number	Application date
SU1116206 A1	19840930	SU19823429007	19820422

Priority:

SU19823429007 19820422

Probable Assignee: PROIZV OB TURBOSTROENIYA LE ME

Assignee(s): (std): PROIZV OB TURBOSTROENIYA LE ME ; TURBINE PLANT PRODUCTION ASSOCIATION LENINGRAD METAL WORKS

Assignee(s): PROIZV OB TURBOSTROENIYA LENINGRADSKIY METALLICHESKIY ZAVOD

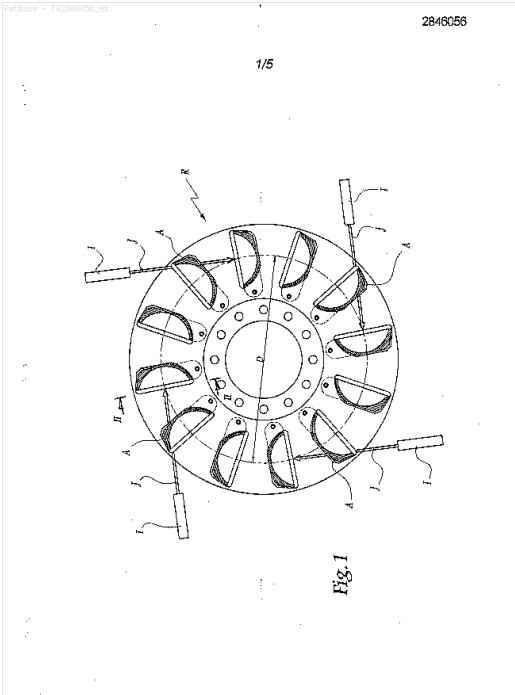
Inventor(s): (std): ASTAFEV ANATOLIY V ; BUGRINA NATALYA S ; RAUD MARIYA A

Inventor(s): RAUD MARIYA A SU ; BUGRINA NATALYA S SU ; ASTAFEV ANATOLIY V SU

Title: PELTON TURBINE PRESSURISED WATER INJECTOR HAS APERTURE WITH UPSTREAM SIDE AND NEEDLE IN FLATTENED SHAPE TO PRODUCE FLAT WATER JET

Abstract: The injector, comprising a needle (12) that moves relative to a aperture (16) in a body (11) to produce a water jet (19), has the upstream side (16a) of the aperture, projected onto the axis (B-B') of the needle's movement, made in a flattened shape to produce a flattened water jet with an elliptical cross-section and having its gtreatest dimension parallel to the turbine's axis of rotation. The aperture can be elliptical in shape with a cylindrical base and a straight generating surface parallel to the axis of the needle's movement.

Classifications:
International (ipc 8-9): F03B1/04 (Advanced/Invention);
F03B1/00 (Core/Invention)
International (ipc 1-7): F03B1/04
CPC: F03B1/04 F05B2250/14 F05B2250/24 Y02E10/223
European: F03B1/04 R05B250/14 R05B250/24 Y02E10/22B



Family:

Publication number	Publication date	Application number	Application date
FR2846056 A1	20040423	FR20020012934	20021017
FR2846056 B1	20050114	FR20020012934	20021017

Priority:

FR20020012934 20021017

Probable Assignee: ALSTOM SWITZERLAND LTD
Assignee(s): (std): ALSTOM SWITZERLAND LTD
Assignee(s): ALSTOM LTD
Inventor(s): (std): LAVIGNE SYLVAIN DANIEL ; LEROY PIERRE ANDRE RAYMOND
Inventor(s): PIERRE ANDRE RAYMOND LEROY ; SYLVAIN DANIEL LAVIGNE
Agent(s): CABINET LAVOIX LYON

Title: PELTON TURBINE HAVING A WATER DRAIN SYSTEM

Abstract: Source: US2013101407A The invention relates to a Pelton turbine comprising a blade wheel which carries a number of Pelton buckets on its circumference; comprising two or more nozzle bodies for applying a water jet to the Pelton buckets; a guide wall which is annular in relation to the rotational axis and is provided for discharging spray water is disposed on each side of the blade wheel and radially outside of the Pelton buckets; the guide wall comprises openings for accommodating one respective nozzle body; each nozzle body extends with its orifice at least up to the inner radius of the guide wall.

Classifications:

International (IPC 8-9): F03B1/00 F03B1/02 F03B1/04 F03B11/02 F03B3/18 F03B7/00 (Advanced/Invention)

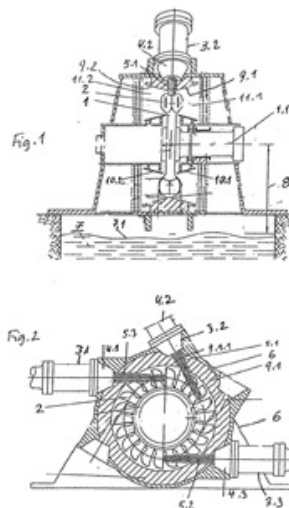
CPC: F03B7/00 F03B1/04 F03B3/186 Y02E10/223

European: F03B1/04 F03B3/18D Y02E10/22B Y02E10/22D

US: 415/202

PatBase - US2013101407_AA

Patent Application Publication Apr. 25, 2013 Sheet 1 of 2 US 2013/0101407 A1

**Family:**

Publication number	Publication date	Application number	Application date
BR112012029668 A2	20160802	BR20121129668	20110421
CA2800265 AA	20121122	CA20112800265	20110421
CL2012003230 A1	20130517	CL20120003230	20121120
CL53191 B	20161012	CL20120003230	20121120
CN102947581 A	20130227	CN201180024956	20110421
CN102947581 B	20150805	CN201180024956	20110421
CO6650347 A2	20130415	CO20120226712	20121214
DE102010024475 A1	20111222	DE201010024475	20100621
DE502011007145 D1	20150806	DE201150007145T	20110421
EP2582963 A2	20130424	EP20110717499	20110421
EP2582963 B1	20150624	EP20110717499	20110421
IN10378DN2012 A	20140905	IN2012DN10378	20121129
JP2013529743 T2	20130722	JP20130515741T	20110421
PE10032013 A1	20130925	PE20120002194	20110421
US2013101407 AA	20130425	US20110261533	20110421
WO11160742 A2	20111229	WO2011EP02067	20110421
WO11160742 A3	20120412	WO2011EP02067	20110421

Priority:

DE201010024475 20100621 EP20110717499 20110421 WO2011EP02067 20110421

Probable Assignee: VOITH PATENT GMBH

Assignee(s): (std): MACK REINER ; ROHNE WOLFGANG ; VOITH PATENT GMBH

Inventor(s): (std): MACK REINER ; ROHNE WOLFGANG ; ROHNE WOLFGANG DR

Inventor(s): WOLFGANG ROHNE ; REINER MACK

Agent(s): BERESKIN AND PARR LLP SENCRL SRL; PORZIO RIOS AND ASOCIADOS; DR WEITZEL AND PARTNER

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