

Search history

Search 1: SFT=(syringe and filter) (Results 67690)
Search 2: SFT=(syringe and filter and safety and tip) (Results 5126)
Search 3: SFT=(syringe and filter and safety and tip) and IC=(a61m) (Results 1213)

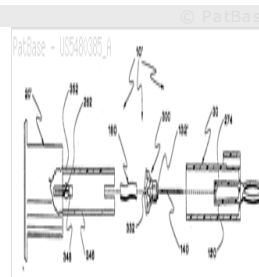
1) Family number: 20682204 (US5480385A)

SELF RETRACTING MEDICAL NEEDLE APPARATUS AND METHODS

Abstract: Source: US5480385A Method and apparatus associated with safe retraction of medical needles after use. Embodiments are disclosed for self-retracting needle systems for both blood withdrawal and catheter insertion systems. Two blood withdrawal embodiments are disclosed. Invention manufacture requires only a minimal number and complexity of parts such that a projected manufacturing cost is potentially low enough to permit the apparatus to be cost competitive with contemporary non-self retracting needle systems. Methods for making and assembling each of the disclosed the embodiments is also disclosed. One of the blood withdrawal embodiments can be made with as few as three molded parts. Energy storing retracting mechanisms comprise elastic tubing and vacuum generating piston parts. Triggerable release mechanisms generally comprise two parts or two segments of one part molded about a medical needle. Each release mechanism involves one part or segment which is securely affixed to the needle and one part or segment which is free to slide and rotate about the needle. The blood withdrawal embodiment effectively inhibits regurgitant flow from the needle. The catheter insertion embodiment captures blood effluent from the catheter upon retraction of the needle. In all embodiments, needle retraction is a single handed operation permitting a technicians other hand to be used in wound care. Use of frangible parts permits the apparatus housing to be hermetically sealed and used as a transport container to further reduce apparatus costs.

Probable Assignee: COVIDIEN LP

Earliest Publication Date: 19960102



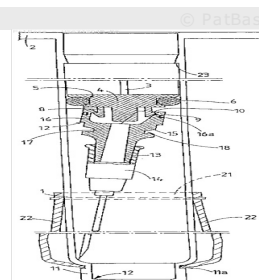
2) Family number: 20876791 (US6342045B)

SAFETY SYRINGE

Abstract: Source: US6342045B A safety syringe includes a barrel, a needle-carrier and a plunger. The plunger and the needle-carrier each have a coupling system which connects them by a simple axial push of the plunger. The distal part of the barrel has an internal annular stop. The central part of the needle-carrier has an external diameter corresponding to the internal diameter of the annular stop while the proximal extremity of this part of the needle-carrier has a diameter corresponding to the internal diameter of the distal part of the barrel. Elements are provided to prevent temporarily the needle-carrier from being pushed inside the barrel through axial pressure against the distal tip of the needle-carrier.

Probable Assignee: SOMERS BRICE

Earliest Publication Date: 19981126



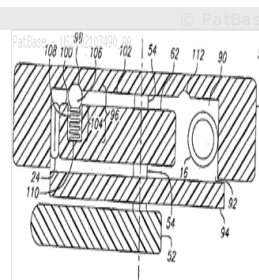
3) Family number: 28241852 (US2002107490A)

BURETTE SAFETY VALVE

Abstract: Source: US2002107490A A system for controlling fluid flow through multiple conduits for use in a fluid administration device. The system includes a housing, a cam, and a control element used to move the cam to selectively occlude the conduits. When used with a medical burette, the cam is located between the vent and supply conduits and rotates to alternately occlude one or the other conduits or to leave both conduits patent. A cam lobe occludes the conduits by pressing the conduit against a pressure surface until occlusion is obtained. Depending on the rotational position of the cam, the continuous flow mode, the intermittent flow mode, and the priming mode are all obtained with a single control lever. The housing secures the conduits in predetermined, fixed positions both above and below the contact location of the cam to the conduit. A positive locking device is included to assist in locating the cam in the desired position. A tactile sensation is also provided to the operator by the locking device to indicate that the cam has been placed in the desired location. Clear visual indicators are included on the housing so that the flow mode in which the burette is presently operating can be seen from a distance.

Probable Assignee: CAREFUSION 303 INC

Earliest Publication Date: 20020808



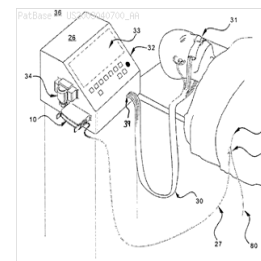
4) Family number: 30062063 (US2003040700A)

APPARATUSES AND METHODS FOR PROVIDING IV INFUSION ADMINISTRATION

Abstract: Source: US2003040700A An infusate cassette is described for use with an IV infusion system which controls the process of administering a drug to a patient. The cassette and other aspects of the infusion system may include disposable components, external redundant volume tracking, air removal and automated purge and prime capabilities, component removal lockout mechanisms, and/or redundant automated anti-free flow devices. An IV manifold comprising an imbedded high cracking pressure anti-free flow valve is also described for use with the infusion system. The cassette, IV manifold, and other aspects of the infusion system may be provided with quality assurance mechanisms for use with integrated IV infusion.

Probable Assignee: SCOTT LABORATORIES INC

Earliest Publication Date: 20030213



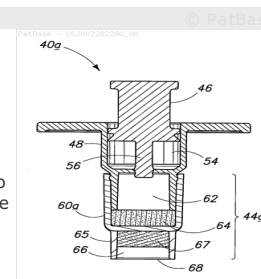
5) Family number: 40845337 (US2007282280A)

INTRAVASCULAR LINE AND PORT CLEANING METHODS, METHODS OF ADMINISTERING AN AGENT INTRAVASCULARLY, METHODS OF OBTAINING/TESTING BLOOD, AND DEVICES FOR PERFORMING SUCH METHODS

Abstract: Source: US2007282280A An intravascular port access device includes a first component having a chamber configured to attach reversibly to an intravenous line port. A second component reversibly attaches to the first component and contains a disinfecting agent and an applicator material. The second component is configured to be reversibly received over external surfaces of the intravenous line port. A method of cleansing an intravenous line port includes providing a port cleaning device having a first component with a chamber containing a first cleaning agent. A second component includes a second cleaning agent. A third component has a microbiocidal agent and is reversibly attached to the first component. The second component is removed from the device, the external surfaces of the port are contacted with the second cleaning agent, the first cleaning agent is ejected from the chamber into the port, and the third component is used to cap the port.

Probable Assignee: HYPROTEK INC

Earliest Publication Date: 20071129



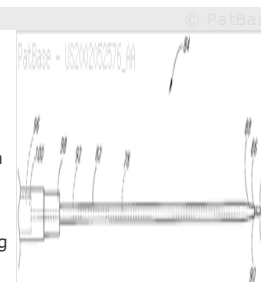
6) Family number: 29087279 (US2002052576A)

METHOD OF FLUID DELIVERY AND CATHETERS FOR USE WITH SAME

Abstract: Source: US2002052576A A pain management system for the infusion of drug to a wound site includes a pump connected to medical tubing which is connected to an improved infusion catheter for providing uniform delivery of fluid throughout an anatomical region. The infusion catheter is inserted into the body of a patient at a pierce site, spaced from an incision site, and extended to the wound site. The pump causes the drug to flow through the medical tubing, through the infusion catheter and to the wound site. One method by which the infusion catheter is advanced to the wound site includes a guide needle that is placed within an introducer tubing. The needle is pierced through the patient's skin, after which the guide needle is withdrawn and discarded, leaving the introducer tubing in place partially under the patient's skin. The infusion catheter is then threaded through the introducer tubing and advanced to the wound site. The introducer tubing is then withdrawn and the infusion catheter remains in place to provide drug to the wound site. The introducer tubing is preferably peeled off of the infusion catheter and discarded. In accordance with one embodiment of the catheter, the catheter comprises an elongated tube with a plurality of exit holes along an infusion section of the catheter, and an elongated flexible porous member residing within the tube and forming an annular space between the tube and the member. In accordance with other embodiments, the catheter includes a tube having a plurality of exit holes in a side wall of the tube. The exit holes may combine to form a flow-restricting orifice of the catheter. Advantageously, fluid within the catheter flows through all of the exit holes, resulting in uniform distribution of fluid within an anatomical region.

Probable Assignee: AVENT INC

Earliest Publication Date: 20010125



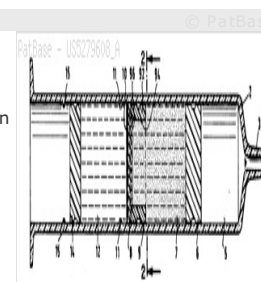
7) Family number: 29120419 (US5279608A)

OSMOTIC PUMPS

Abstract: Source: US5279608A An osmotic pump comprises a housing (2) within which is a delivery chamber (5) separated from an osmotic salt chamber (7) by impermeable moveable pressure responsive means such as a piston (6) or a flexible membrane. The osmotic salt chamber (7) is separated from a source of osmotic fluid, e.g. an osmotic fluid chamber (12), by a semipermeable membrane (96,36), optionally mounted in a piston (9,23). A fluid barrier isolates the osmotic salt chamber (7) from the source of osmotic fluid for storage of the pump, and may be inactivated when the pump is to be used. The fluid barrier may be a foil sheet (10), inactivatable by rupture, or a piston and a fluid bypass arrangement (21,23). Activation of the osmotic pump may be effected in some embodiments by loading the discharge chamber (5) with the agent to be delivered and in other embodiments by movement of a plunger (16), under manual control or, if the plunger is pre-biased, by release of a locking means (18) which holds it in position.

Probable Assignee: SCRAS

Earliest Publication Date: 19920619



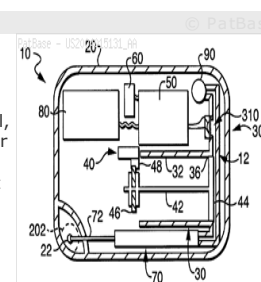
8) Family number: 30187808 (US2004015131A)

FLOW RESTRICTION SYSTEM AND METHOD FOR PATIENT INFUSION DEVICE

Abstract: Source: US2004015131A A device for delivering fluid, such as insulin for example, to a patient. The device includes a flow path having an exit port assembly adapted to connect to a transcutaneous patient access tool, and a reservoir connected to the exit port assembly. The device also includes a flow restriction system having an air removal filter communicating with the flow path and allowing air to exit the flow path and preventing fluid from exiting the flow path, and a flow restrictor positioned within the flow path between the air removal filter and the exit port assembly. Among other features and advantages, the flow restriction system of the present invention allows the flow path of the fluid delivery device to be purged of air, or "primed" prior to operation, such that desired volumes of fluid can be accurately delivered by the device.

Probable Assignee: INSULET CORP

Earliest Publication Date: 20040122



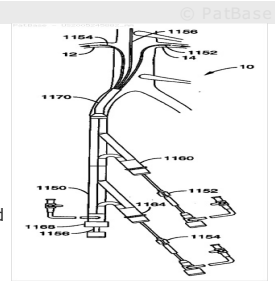
9) Family number: 30423069 (US2005245882A)

METHOD AND APPARATUS FOR INTRA-AORTIC SUBSTANCE DELIVERY TO A BRANCH VESSEL

Abstract: Source: US2005245882A A renal flow system injects a volume of fluid agent into a location within an abdominal aorta in a manner that flows bi-laterally into each of two renal arteries via their respectively spaced ostia along the abdominal aorta wall. A local injection assembly includes two injection members, each having an injection port that couples to a source of fluid agent externally of the patient. The injection ports may be positioned with an outer region of blood flow along the abdominal aorta wall perfusing the two renal arteries. A flow isolation assembly may isolate flow of the injected agent within the outer region and into the renals. The injection members are delivered to the location in a first radially collapsed condition, and bifurcate across the aorta to inject into the spaced renal ostia. A delivery catheter for upstream interventions is used as a chassis to deliver a bilateral local renal injection assembly to the location within the abdominal aorta.

Probable Assignee: ANGIODYNAMICS INC

Earliest Publication Date: 20040401



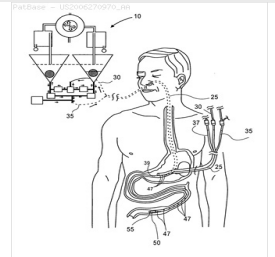
10) Family number: 32270798 (US2006270970A)

METHOD AND APPARATUS FOR SUCTIONING AND REFEEDING GASTRIC JUICES

Abstract: Source: US2006270970A A decompressing and feeding method and system for safely feeding in the gastrointestinal tract of a recovering patient may continuously aspirate from the stomach and/or other portions of the digestive tract and feed at a rate commensurate with the ability of the intestines to absorb fluids including nutrient. Air is also aspirated in the process so that neither air nor excess fluids cause distension in the gastrointestinal tract. An aspirate including digestive juices and nutrients from the stomach may be filtered and continuously refeed together with unused feeding material into the gastrointestinal tract at a location that more efficiently moves and digests the food.

Probable Assignee: BOS GMBH AND CO KG

Earliest Publication Date: 20050927



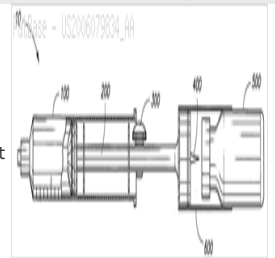
11) Family number: 32818600 (US2006079834A)

SYRINGE DEVICES AND METHODS FOR MIXING AND ADMINISTERING MEDICATION

Abstract: Source: US2006079834A The invention includes a device having a chamber within a syringe. A fluid passageway extends through a syringe piston. A valve is associated with the passageway controlling fluid passage through the piston. The invention includes a piercing structure having a head segment and a body portion, with a channel through the body portion and through at least one surface of the head without passing through the tip. In another aspect the invention encompasses a method of preparing an agent for administration to an individual. A first component is provided within a syringe and a second component is provided within a vial. A closed valve is associated with a fluid passageway between the vial and the syringe barrel through a piston. Valve repositioning allows fluid passage and sliding of the piston joins the first and second components. Repeated sliding of the piston mixes the components to produce the medication agent.

Probable Assignee: HYPROTEK INC

Earliest Publication Date: 20060413



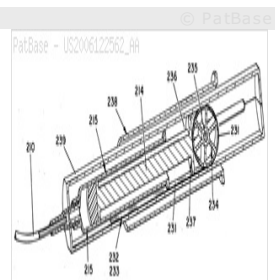
12) Family number: 33028499 (US2006122562A)

CONTROLLED-VOLUME INFUSION DEVICE

Abstract: Source: US2006122562A An infusion device capable of administering liquid medication at a continuous flow rate, and upon user demand delivers a controlled volume dosage of liquid medication at a higher dosage flow rate. The dosage reservoir remains empty until the user actuates it by selectively and temporarily removing the pressure source, such as a spring. During actuation, fluid rapidly flows from the medication reservoir to fill the dosage reservoir. After actuation, the pressure source exerts a higher pressure on the dosage reservoir than the medication reservoir pressure, which results in a temporary higher bolus flow rate. Thus, two distinct flow rates are achieved with one flow restrictor element.

Probable Assignee: CURLIN MEDICAL INC

Earliest Publication Date: 20060526



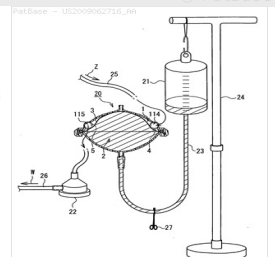
13) Family number: 34383656 (US2009062716A)

CLOSED-TYPE BLOOD RESERVOIR AND EXTRACORPOREAL BLOOD CIRCULATION APPARATUS USING THE SAME

Abstract: Source: US2009062716A An example of the closed-type blood reservoir of the invention is furnished with an outer shell in which a space is formed within its interior, a flexible septum that is interposed between a blood storage chamber shell and a volume adjustment chamber shell and that divides the space into a blood storage chamber for storing blood and a volume adjustment chamber for storing volume adjustment liquid, a blood inlet port, a blood outlet port, and a blood storage chamber air discharge port that are provided in the blood storage chamber shell such that they are in communication with the blood storage chamber, and a volume adjustment liquid port that is provided in the volume adjustment chamber shell such that it is in communication with the volume adjustment chamber, for injecting and ejecting the volume adjustment liquid into and away from the volume adjustment chamber, wherein the blood inlet port and the blood outlet port each are provided tangentially to the inner surface of the blood storage chamber shell such that blood that flows into the blood storage chamber from the blood inlet port can swirl along the inner surface of the blood storage chamber shell, and wherein the closed-type blood reservoir has a first blood flow route, provided in the blood storage chamber, that is formed by an outward concavity of the inner surface of the blood storage chamber shell, and that is in communication with the blood outlet port and at least part of which is formed in the direction of extension of the blood outlet port.

Probable Assignee: JMS CO LTD

Earliest Publication Date: 20070412

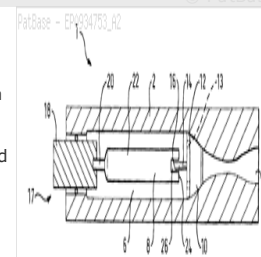


NEEDLELESS MEDICAL DEVICE FOR DELIVERING OF TERAPEUTIC AGENT

Abstract: Source: EP0934753A2 A needleless syringe 1 comprises a hollow casing 2 having an outlet 4 and containing a first compartment 6 in which is located a fluid eg. helium capsule 8 and a second compartment 10 for a therapeutic agent. The compartments 6, 10 are separated by a partition 12 on which is mounted a needle 14 with a sharpened tip 16 which sits in a cavity 26 formed in the base 24 of the capsule 8. Activation of a fluid release mechanism 17 causes the capsule 8 to move towards the needle 14 which pierces the base 24 and releases the fluid from the capsule 8.

Probable Assignee: POWDERJECT RESEARCH LTD

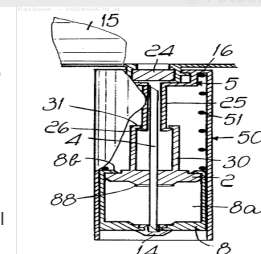
Earliest Publication Date: 19990805

**SAFETY DEVICE FOR TAKING SAMPLES AND PERFORMING INFUSIONS**

Abstract: Source: US5456678A Safety device for taking samples and performing infusions which comprises: a grip end provided with a coupling for connection to a fluid supply duct; a delivery end for a container for collecting fluid; a double-tip needle in which the tip proximal with respect to the supply duct is directed toward the grip end and the distal end is directed toward the delivery end; a needle support engaging an intermediate portion of the needle and movable from an inactive position to an active position toward the grip end in order to cause the proximal tip of the needle to penetrate the supply duct; elastic return means for said support; and an element for abutment at the delivery end for acting as a locator for a collection container, which moves with respect to the needle between a retracted needle protection position and a protruding position for insertion on the needle in order to expose its distal tip and simultaneously insert it in the collection container.

Probable Assignee: NICOLETTI PIO

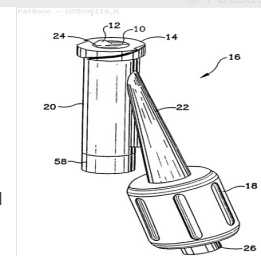
Earliest Publication Date: 19940930

**MEDICAL VALVE ASSEMBLY**

Abstract: Source: US5006114A A medical valve assembly is described in which the valve assembly has a female luer lock portion on an inlet end of the device and a male luer lock portion on the outlet portion of the valve. A movable piston seals the inlet portion of the valve from the outlet portion when the piston is in the closed position. When a syringe is attached to the inlet portion of the valve assembly, the piston is displaced in a manner that unseals a fluid channel inlet. This connects the end of the syringe to the fluid channel which is connected, at its outlet end, to a catheter or other device, connected to a patient. Thus, medication can be introduced to, or fluids aspirated from, a patient's bloodstream, without the use of a syringe having a needle. When the syringe is removed from the inlet to the valve assembly, the piston is urged by a biasing means into its original closed position creating a seal between the inlet portion of the valve and the outlet portion of the valve. This feature maintains catheter patency. The top surface of the piston along with the area of the female luer lock connector does not have any fluid reservoir and can be easily cleaned to prevent the possibility of bacterial infection as a result of repeated uses of the valve assembly.

Probable Assignee: ZIMMER ROBERT L DEL MAR CALIF US

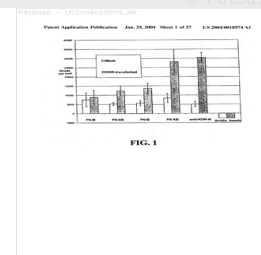
Earliest Publication Date: 19910409

**MULTIVALENT CONSTRUCTS FOR THERAPEUTIC AND DIAGNOSTIC APPLICATIONS**

Abstract: Source: US2004018974A The invention provides compositions and methods for therapeutic and diagnostic applications.

Probable Assignee: BRACCO SUISSE SA

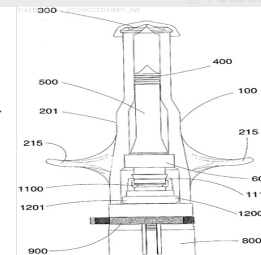
Earliest Publication Date: 20031016

**MODULAR GAS-PRESSURED NEEDLE-LESS INJECTOR**

Abstract: Source: US2002151840A A needle-less injector suitable for injecting fluid through a surface includes a housing, a driver, an engine and a trigger. The housing contains a fluid and the engine contains a compressed gas. Upon application of sufficient force to the trigger, the compressed gas is released from the engine forcing the driver through the interior of the housing, expelling the liquid from the housing at a speed sufficient to pierce an injection surface. In one embodiment, the needle-less injector includes a mechanism for mitigating the kickback associated with releasing compressed gas from the engine. In another embodiment, the housing includes finger rests that provide stability and resistance to activate the device. In another embodiment, the engine is fitted with a reusable valve. In another embodiment, a safety clamp is included on the housing, preventing accidental activation of the device.

Probable Assignee: PEN JET CORP

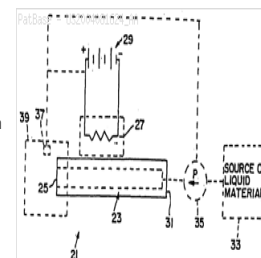
Earliest Publication Date: 20021017

**LIQUID AEROSOL FORMULATIONS AND AEROSOL GENERATING DEVICES AND METHODS FOR GENERATING AEROSOLS**

Abstract: Source: US2004081624A Liquid aerosol formulations for generating aerosols include at least one high volatility carrier and a second component. In some embodiments, the liquid aerosol formulation is propellant free. An aerosol generating device generates an aerosol by passing liquid aerosol formulation through a flow passage heated to convert the liquid into a vapor, which is mixed with air to form an aerosol. In some embodiments, particles of the aerosol consist essentially of the second component. The aerosol generator can be incorporated in a hand held inhaler. The aerosol can be delivered to a targeted portion of the lung using the inhaler.

Probable Assignee: CHRYSALIS TECHNOLOGIES INC

Earliest Publication Date: 20040318



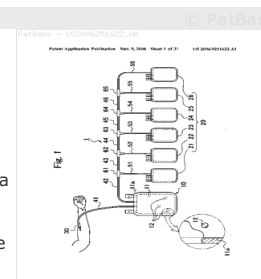
20) Family number: 31380801 (US2006251622A)

CONTAINER FOR SERUM PRODUCTION AND METHOD OF REGENERATIVE MEDICINE USING THE SAME

Abstract: Source: US2006251622A A blood storage container suitable for quick and efficient production of a large amount of serum while ensuring high safety, and a method of separating blood and a regenerative medical process using the same are provided. In a blood component separator 1 for separating collected blood into a plurality of blood components and preserving them, the separator 1 including a blood reservoir 10 for reserving the blood and a component storage part 20 aseptically connected in an air-tight manner to this blood reservoir 10, to the aforementioned blood reservoir 10 being imparted a serum producing function to remove coagulation factors from the blood to an extent enabling use in practical applications as a serum, and the aforementioned component storage part 20 storing each blood component generated by separation of the blood in the blood reservoir 10.

Probable Assignee: JMS CO LTD

Earliest Publication Date: 20041202



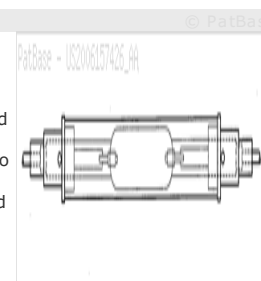
21) Family number: 33048112 (US2006157426A)

BLOOD IRRADIATION SYSTEM, ASSOCIATED DEVICES AND METHODS FOR IRRADIATING BLOOD

Abstract: Source: US2006157426A Embodiments of the present application are directed to devices, systems and methods for irradiating fluids (e.g., blood) with ultraviolet light, and corresponding related components, systems and methods. In some embodiments of the invention, an ultraviolet blood irradiation (UBI) system is provided and may include an ultraviolet UV source providing a predetermined wavelength of radiation to provide a detrimental effect to virus and/or bacteria, an exposure chamber for exposing a predetermined volume of blood to radiation, a conduit between the UV source and the exposure chamber, a pump for pumping blood between a first location and a second location and a shutter assembly provided between the UV source and the exposure chamber providing time-metered irradiation of the blood in the chamber.

Probable Assignee: ENERGEX SYSTEMS INC

Earliest Publication Date: 20060601



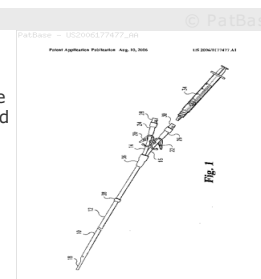
22) Family number: 33187818 (US2006177477A)

CATHETER LOCK SOLUTION COMPRISING CITRATE AND A PARABEN

Abstract: Source: US2006177477A This invention relates to compositions, methods, devices and kits relating to the infusion of a catheter lock solution into an indwelling catheter. Inventive compositions, methods, devices and kits aid in diminishing the effects of microbial infection in catheters and occlusion of the catheters. A lock solution provided by the invention includes citrate and a paraben. The solution preferably has a density suitable for retention of the solution in a catheter during the lock period. Another lock solution provided by the invention includes citrate, a paraben and a photo-oxidant, such as, for example, methylene blue.

Probable Assignee: ASH ACCESS TECHNOLOGY INC

Earliest Publication Date: 20060809



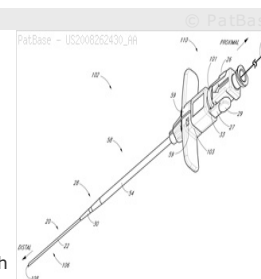
23) Family number: 42413579 (US2008262430A)

ACCESS DEVICE

Abstract: Source: US2008262430A An access device places a medical article within a body space of a patient. The device has a needle that includes a needle body and hub. The device further includes a dilator coaxially disposed and slideable over the needle body and a medical article. A viewing space is disposed between the dilator and the medical article with at least one passageway or conduit connecting the viewing space with the interior bore of the needle body. The passageway is defined at least in part by openings through the sides of the needle and dilator. At least a portion of the conduit or passageway can be defined by one or more grooves between the needle and dilator. The device can further include a guidewire and an interlock between the guidewire and the needle and/or dilator to limit the extent to which the guidewire can be moved (e.g., advanced) relative to the needle or inhibit such relative movement (e.g., backwards movement).

Probable Assignee: ACCESS SCIENTIFIC LLC

Earliest Publication Date: 20081023

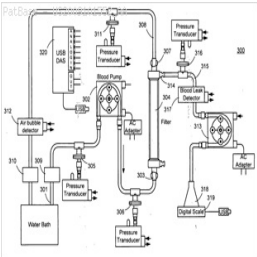


24) Family number: 43176711 (US2009101552A)

MANIFOLDS FOR USE IN CONDUCTING DIALYSIS

Abstract: Source: US2009101552A The present invention is directed to novel systems for conducting the filtration of blood using manifolds. The manifolds integrate various sensors and have fluid pathways formed therein to direct fluids from various sources through the requisite blood filtration or ultrafiltration system steps.

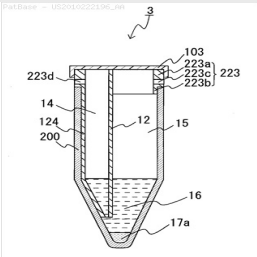
Probable Assignee: FRESENIUS SE AND CO KGAA
Earliest Publication Date: 20090423



25) Family number: 43203628 (US2010222196A)

SEPARATION CONTAINER, ATTACHMENT AND SEPARATION METHOD

Abstract: Source: US2010222196A A separation container that can prevent the contamination with unnecessary components is provided. A separation container 1 for separating a separation subject from a sample by causing the separation subject to gather on the bottom thereof by centrifugation includes a container main body 11 and a dividing portion. The container main body 11 is a tubular container elongated in the axial direction with an upper end thereof being open and a lower end thereof being the bottom. The dividing portion has a partition 12 formed along the axial direction of the container main body, and an inner space of the container main body 11 is divided into a sample supply chamber 14 and a separation subject discharge chamber 15 by the partition 12. The sample supply chamber 14 and the separation subject discharge chamber 15 communicate with each other via a through hole 13 formed in a lower portion of the partition 12. A collection tube can be inserted into a lower portion of the separation subject discharge chamber 15 from the opening, and the separation subject located in the lower portion of the separation subject discharge chamber 15 can be collected with the collection tube and recovered to the outside of the container main body 11.

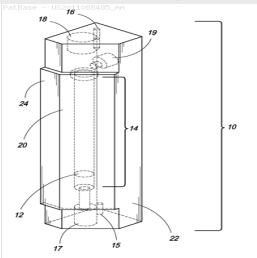


Probable Assignee: JMS CO LTD
Earliest Publication Date: 20090430

26) Family number: 48763767 (US2011088485A)

LIGHT ENHANCED FLOW TUBE

Abstract: Source: US2011088485A An improved fluid flow gauging device includes a light enhanced acrylic block flow tube to optimize visualization of pressure readings. An LED or other light source is fitted to the top of the flow tube and illuminates a float or bobbin from above to provide more accurate readings, especially in low light conditions such as modern operating rooms. In addition, the light enhanced flow tube provides a mechanical backup in the case of failure of newer electronic systems and visually matches the graphical flow display, simultaneously providing a double-check of the electronic system.

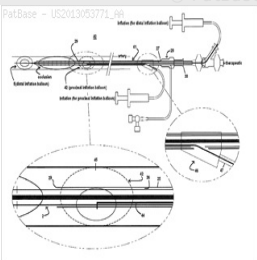


Probable Assignee: SPACELABS HEALTHCARE LLC
Earliest Publication Date: 20110421

27) Family number: 49556828 (US2013053771A)

THERAPEUTIC DELIVERY DEVICES, SYSTEMS, AND METHODS

Abstract: Source: US2013053771A Devices, systems, and methods for delivery of therapeutics, in particular thrombolytic agents, in particular plasmin, are provided. The devices, systems, and methods also provide for occlusion of a vessel or graft distal and/or proximal to a treatment zone. Also provided are devices, systems, and methods that trap emboli.

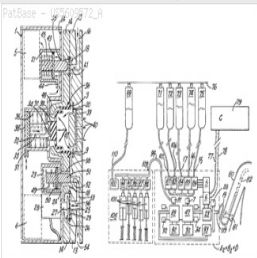


Probable Assignee: GRIFOLS SA
Earliest Publication Date: 20110909

28) Family number: 10056475 (US5609572A)

CASSETTE INFUSION SYSTEM

Abstract: Source: US5609572A PCT No. PCT/EP93/03286 Sec. 371 Date Jul. 8, 1994 Sec. 102(e) Date Jul. 8, 1994 PCT Filed Nov. 23, 1993 PCT Pub. No. WO94/12225 PCT Pub. Date Jun. 9, 1994A modular cassette infusion system for multiple infusions and the automatic administration of medicament. Sterile disposable cassettes are employed, which possess integral connections for the infusion lines, inlet valves, liquid distribution ducts, pump chambers, outlet valves, venting filters and chambers for the measurement of the infusion pressure. The system renders possible the infusion of 3, 6 or more different infusion solutions and medicaments held in disposable syringes via one or more small-volume pump chambers with outlet valve separately via a plurality thereof in parallel via only one vascular access point to the patient with the correct volume in a pulsating manner or in very small individual quantities substantially continuously in a quick succession one after the other without incompatible medicaments being mixed. After insertion in an universal, electromechanical and pneumatic or only electromechanical or furthermore electrohydraulic valve pump syringe actuating device the cassettes are operated with the aid of pressure surges. Since for control an electronic microprocessor control device is utilized, which can furthermore produce a printed record of an infusion and since a compatibility with other infusion equipment, as for example injection pumps is provided for, fixed programs and manual programming steps may solve the most types of infusion problem and provide for a substantial reduction in the work to be performed by nursing staff with an accompanying substantial reduction in costs. Additionally substantially enhanced improved patient safety is ensured.



Probable Assignee: LANG VOLKER
Earliest Publication Date: 19940526

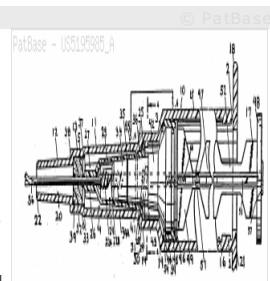
29) Family number: 11097031 (US5195985A)

SYRINGE HAVING A RETRACTABLE NEEDLE

Abstract: Source: US5195985A This invention is directed to improved syringes and protected needle accessories for use in injecting or withdrawing fluids as well as catheter placement use. Needles are encapsulated for proper disposal after use is complete. Accessories include syringes, catheters, filters, guide wires, dental cartridge-needle combinations and medication-laden syringes, blood drawing needles, holders and biopsy needles. Devices help combat drug abuse and disease transmission by safely isolating the needle point. Containment shells, caps, case accessories, and self-annulling plugs are provided to protect the user and innocent bystander from needle and contaminating fluids. Superior sealing means are disclosed and a tactile securing means to fasten a needle or cap to a threaded hub or collar. Standard parts are used where possible. Self-aspirating capability is provided in some cases. In some medication-laden syringe containment systems, a coaxial cap-needle is first segregated from and later fastened to the eye opening of the eye cap cover of the containment means. A cap-handle device may be used to safely racap an exposed and unprotected needle.

Probable Assignee: HALL JOHN E

Earliest Publication Date: 19930323



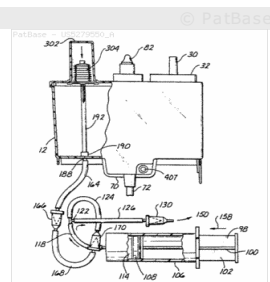
30) Family number: 11426207 (US5279550A)

ORTHOPEDIC AUTOTRANSFUSION SYSTEM

Abstract: Source: US5279550A The following disclosure comprises a medical autotransfusion and blood drainage reservoir for withdrawing blood from the site of an operation under vacuum. A walled reservoir is connected to the operation site and a vacuum is drawn therein to draw fluids from the operation site. Vacuum is provided by a piston pump connected to check valves. The check valves allow for movement of the piston pump in one direction to discharge air therefrom, and in the other direction to withdraw air from the reservoir. Alternatively a spring driven bellows can be used to draw a vacuum with attendant check valves. The inlet of blood flow is through a filter. Blood is then capable of flowing outwardly to be reinfused by autotransfusion or reinfusion at a later time. Vacuum indication means and bleed off valves are included for maintenance of a proper vacuum.

Probable Assignee: GISH BIOMEDICAL INC

Earliest Publication Date: 19940118



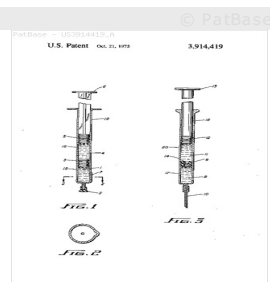
31) Family number: 1163470 (US3914419A)

TWO COMPARTMENT ONE UNIT CONSECUTIVELY INJECTABLE LIQUID VITAMIN PACKAGE

Abstract: Source: US3914419A A stable liquid multivitamin preparation in injectable form contains thiamine (B1), riboflavin (B2), niacinamide, pyridoxine (B6), B12 (cyanocobalamin), and optionally biotin and dexpantenol in one phase at pH 4.5 to 5.5; and in a second phase, at pH 6.8 to 7.6, sodium ascorbate (C), folic acid, and niacinamide, and optionally Vitamins A, D2 and E so that storage incompatible vitamin components are held in separate compartments of a syringe, in separate phases, for consecutive administration from a two compartment syringe; thereby minimizing loss of potency on storage.

Probable Assignee: AMERICAN CYANAMID CO

Earliest Publication Date: 19750203



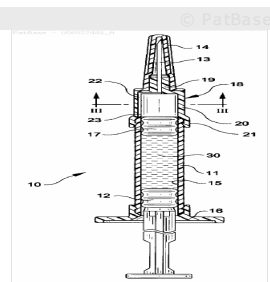
32) Family number: 12072992 (US6027481A)

PREFILLABLE SYRINGE

Abstract: Source: US6027481A A prefillable syringe includes an elongate barrel having an open distal end and a proximal end with at least one chamber formed therebetween for receiving a substance sensitive to pH shift, such as water for injection. The barrel is made of a low extractable ion glass preferably having a low concentration of sodium of less than 8 percent and preferably around 4 percent or less.

Probable Assignee: BECTON DICKINSON CO

Earliest Publication Date: 20000222



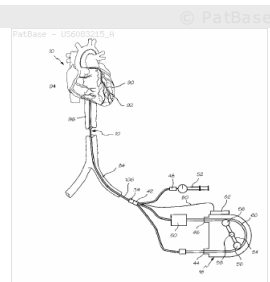
33) Family number: 12351088 (US6083215A)

METHOD AND APPARATUS FOR ANTEGRADE CORONARY PERFUSION

Abstract: Source: US6083215A A multi-lumen catheter and method for providing antegrade perfusion to an ischemic region of the myocardium of a patient induced by a coronary or vascular deficiency, including a restriction or obstruction in the vessel such as an atherosclerotic lesion or stenosis, embolism, thrombosis, vessel spasm, aneurysm, or the like. The distal tip of the catheter is introduced by a conventional percutaneous transluminal procedure via the femoral or brachial artery and advanced through the vascular system to a position closely proximate to the ischemic region. A volume of oxygenated blood is withdrawn into a lumen of the catheter from a position remote to the deficiency, circulated through a pump assembly and filter, and expelled from the distal tip of the catheter to increase the supply of oxygenated blood reaching the ischemic region. The catheter may be advanced directly to or past the deficiency within the same arterial vessel, or the volume of oxygenated blood may be supplied to the ischemic region via a collateral arterial pathway. An inflatable balloon may be used to anchor the distal tip of the catheter in a selected position and to block retrograde perfusion, and a pressure transducer may monitor pressure levels within the vessel and be used to responsively control the pressure at which the oxygenated blood is expelled.

Probable Assignee: MILAVETZ JAMES J

Earliest Publication Date: 20000704



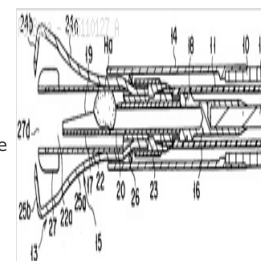
34) Family number: 12488331 (US6110127A)

MEDICAL INSTRUMENT FOR USE IN COMBINATION WITH AN ENDOSCOPE

Abstract: Source: US6110127A A medical instrument comprising an insertion section, an operation section connected to a proximal end of the insertion section, and sampling means. The insertion section has a sheath comprising an inner tube and an outer tube capable of moving back and forth in an axial direction with respect to the inner tube. The operation section is connected to a proximal end of the inner tube and has suction means for generating a suction force. The sampling means comprises a distal unit provided on a distal portion of the inner tube and having an opening through which a living tissue is to be drawn by the suction force applied from the inner tube, and cutting means for cutting a part of the living tissue drawn into the distal unit as the inner tube and the outer tube are moved relative to each other in an axial direction.

Probable Assignee: OLYMPUS OPTICAL CO LTD

Earliest Publication Date: 19990824



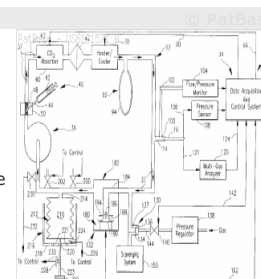
35) Family number: 12601288 (US6131571A)

VENTILATION APPARATUS AND ANESTHESIA DELIVERY SYSTEM

Abstract: Source: US6131571A A combination ventilation apparatus and anesthesia delivery system comprises a circulation loop within which oxygen and air or other clinical gas, or a mixture of air, oxygen, nitrous oxide or other clinical gas and anesthetics, are circulated by a variable speed centrifugal blower to a Y-piece which connects the circulation loop to an endotracheal tube or other airway device communicating with a patient. A proportional flow control valve is operative to actively control the pressure or flow at the Y-piece in response to signals from pressure or flow sensors which are positioned to provide measurements representative of the actual pressure and flow conditions within the patient's lungs. Constant circuit volume is maintained by computer control of gas make-up valves in response to the movement of a weighted bellows located between the proportional flow control valve and centrifugal blower.

Probable Assignee: FLORIDA UNIV OF

Earliest Publication Date: 20001017



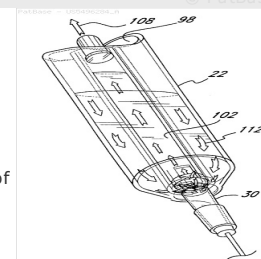
36) Family number: 12605912 (US5496284A)

DUAL-CHAMBER SYRINGE AND METHOD

Abstract: Source: US5496284A A dual-chamber syringe has a plunger within an inner delivery chamber in fluid communication with an ejection port. The deliver chamber is formed within a tubular element axially slidable within a tubular guide. The tubular guide and the syringe outer barrel form an outer reservoir chamber. The outer reservoir chamber is sealed from the delivery chamber while the tubular element is in a first position within the guide. Upon withdrawal of the plunger, frictional contact imparted by the plunger seal causes the tubular element to slide away from sealing engagement with the barrel into a second position within the guide. In the second position of the tubular element, a fluid passageway is opened from the reservoir to the delivery chamber allowing fluid to be drawn into the delivery chamber. A porous seal between the plunger rod and barrel allows air into the reservoir during transfer of fluid to the delivery chamber. Pressing the plunger inward first moves the tubular element from the second position back to the first position to close the fluid passageway and then expels fluid from the delivery chamber through the ejection port.

Probable Assignee: WALDENBURG OTTFRIED

Earliest Publication Date: 19960305



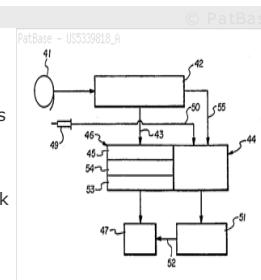
37) Family number: 12868858 (US5339818A)

METHOD FOR DETERMINING BLOOD PRESSURE UTILIZING A NEURAL NETWORK

Abstract: Source: US5339818A A method and device for indirect, quantitative estimation of blood pressure attributes and similar variable physiological parameters utilizing indirect techniques. The method of practice includes (i) generating a sequence of signals which are quantitative dependent upon the variable parameter, (ii) transmitting and processing the signals within a computer system and associated neural network capable of generating a single output signal for the combined input signals, (iii) directly determining an actual value for the parameter concurrent with the indirect generation of signals of the previous steps, (iv) applying weighting factors within the neural network at interconnecting nodes to force the output signal of the neural network to match the true value of the parameter as determined invasively, (v) recording the input signals, weighting factors and true value as training data within memory of the computer, and (vi) repeating the previous steps to develop sufficient training data to enable the neural network to accurately estimate parameter value upon future receipt of on-line input signals. Procedures are also described for preclassification of signals and artifact rejection. Following training of the neural network, further direct measurement is unnecessary and the system is ready for diagnostic application and noninvasive estimation of parameter values.

Probable Assignee: UTAH RESEARCH FOUNDATION UNIV OF

Earliest Publication Date: 19910404



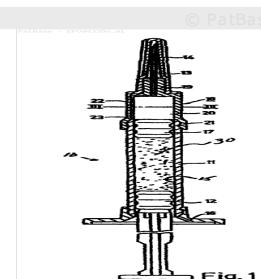
38) Family number: 12905344 (EP0943350A1)

PREFILLABLE SYRINGE

Abstract: Source: EP0943350A1 A prefillable syringe (10) includes an elongate barrel (11) having a distal end (14) and a proximal end with at least one chamber (15) formed therebetween for receiving a substance sensitive to pH shift, such as water for injection. The barrel (11) is made of a low extractable ion glass preferably having a low concentration of sodium of less than 8 percent and preferably around 4 percent or less.

Probable Assignee: BECTON DICKINSON FRANCE

Earliest Publication Date: 19990922



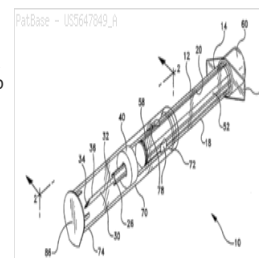
39) Family number: 13145095 (US5647849A)

SELF-CONTAINED SAFETY SYRINGE

Abstract: Source: US5647849A A self-contained syringe includes a syringe barrel with a fluid receiving chamber. A plunger is slidably disposed in the chamber. A needle cannula is affixed to the distal end of the syringe barrel. A cap is releasably secured over proximal portions of both the plunger and the syringe barrel. A tubular shield is releasably engaged in an intermediate position on the syringe barrel such that distal portions of the shield surround the needle cannula. A removable or frangible sterile seal is secured over the extreme distal end of the shield. The cap and the seal may be removed immediately prior to use. The shield may then be moved proximally into a proximal position which exposes the needle cannula for use. The shield may then be moved distally and locked into distal position where the needle cannula is protectively surrounded.

Probable Assignee: BECTON DICKINSON CO

Earliest Publication Date: 19970715



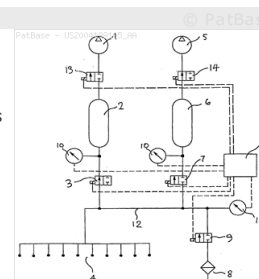
40) Family number: 13548991 (US2004199105A)

METHOD AND APPARATUS FOR FILLING NEEDLELESS INJECTOR CAPSULES

Abstract: Source: US2004199105A A method is provided for filling needleless injector capsules with liquid drug, which eliminates or reduces trapped air bubbles in the drug. A two-stage vacuum method is disclosed which enables the capsule to be evacuated rapidly to very low pressure prior to filling. The method is also suitable for filling other small containers with liquids.

Probable Assignee: ZOGENIX INC

Earliest Publication Date: 20020808



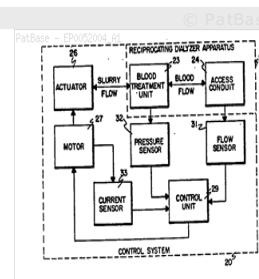
41) Family number: 1434626 (EP0052004A1)

SYSTEM AND METHOD FOR CONTROLLING AND MONITORING BLOOD OR BIOLOGIC FLUID FLOW.

Abstract: Source: EP0052004A1 A system and method are disclosed for controlling blood flow or flow of biologic fluid in an artificial organ or extracorporeal blood circuit. Selected parameters relating to blood flow are sensed and used to automatically optimize blood flow while assuring proper and safe operation. Utilized in conjunction with a reciprocating dialyzer apparatus (21), the system controls blood flow into and out of the dialyzer apparatus by controlling pressure on a slurry around the dialyzer membrane package. Slurry pressure is controlled by an actuator (16), such as a bellows pump, the pumping action of which is controlled by an electric motor (21), which motor, in turn, is electrically controlled by a control unit (29) which receives sensed indicators of blood flow, pressure and/or motor current. Blood contamination is also monitored for assuring safe operation of the dialyzer apparatus.

Probable Assignee: PURDUE RESEARCH FOUNDATION

Earliest Publication Date: 19820519



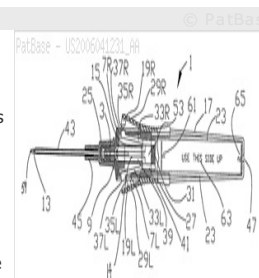
42) Family number: 14827953 (US2006041231A)

RETRACTABLE I-V CATHETER PLACEMENT DEVICE

Abstract: Source: US2006041231A An intravenous catheter placement device having a hollow body and a nose on one end of the hollow body. A needle hub fits within the nose and contains a needle embedded therein. A catheter is free to slide along the needle and substantially covers the shaft of the needle. Winged beams on the needle hub include catches and release tabs that cooperate with slots in the nose to retain the needle hub in the nose. A magnified transparent verification cavity in the needle hub provides for viewing blood flash in the cavity to verify that the intravenous catheter is inserted into the correct location. An energy storage device in contact with the needle hub releasably retains the needle hub to prevent premature projection of the needle hub into the hollow body. Upon insertion of the intravenous catheter and introducer needle into a patient, depressing the release tabs triggers the needle hub and blunts the needle within the catheter and projects the needle hub and embedded needle into the hollow body.

Probable Assignee: RETRACTABLE TECHNOLOGIES INC

Earliest Publication Date: 20000817



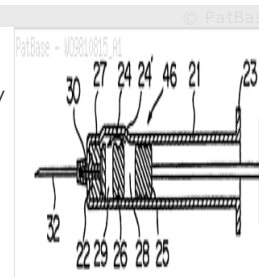
43) Family number: 15151088 (WO9810815A1)

SLIDE VALVE FOR SYRINGES, SYRINGE, AND KIT PREPARATIONS

Abstract: A slide valve for syringes, which is formed from a rubber with a lubricating component thereof chemically bonded, is used to eliminate a combined use of silicone coating treatment and offers a good operability.

Probable Assignee: HIGUSHIKAWA TETSURO

Earliest Publication Date: 19980319



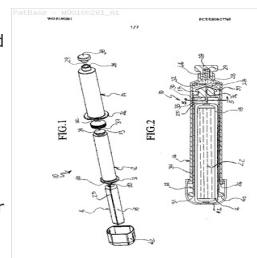
44) Family number: 15261314 (WO0100261A1)

SYRINGE FOR TRANSFER OF MEDICATION FROM A PREFILLED MEDICATION CONTAINER

Abstract: A liquid transfer device (10) for use with a medication container (16) is used in the delivery of medication. It includes a plunger (12) having a discharge end (13), a loading end (26), and interior space configured for receiving the medication container, and a through connector (30) for engaging an engaging end (20) of the medication container (16). The through connector (30) has an opening (36) defining a medication flow path from the container to the discharge end. A check valve (32) prevents medication backflow. A barrel (14) defines a bore (34) and has a discharge end (28), a loading end (26), and is dimensioned for slidably accommodating the plunger (12) such that the plunger is movable between a depressed and a retracted position. A piston (37) is on the plunger (12) to slidably and sealingly engage the barrel. A tip protector (38) is disposed at the barrel discharge end (28) to create a vacuum in the barrel when the plunger is retracted. Upon the engagement of the medication container (16) by the through connector (30), and the plunger (12) being moved toward the retracted position with the tip protector (38) in place, the medication is withdrawn into the barrel. When the tip protector (38) is removed and the plunger (12) depressed, the medication is propelled from the barrel (14).

Probable Assignee: BAXTER INT

Earliest Publication Date: 20010104



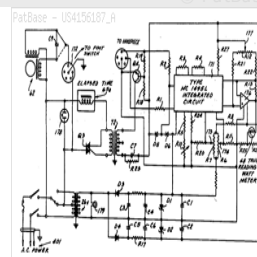
45) Family number: 1535191 (US4156187A)

DEVICE AND METHOD FOR MEASURING AND INDICATING THE TRUE POWER SUPPLIED TO AN ULTRASONIC HANDPIECE AND FOR RECORDING THE ACCUMULATIVE POWER APPLIED TO THE HANDPIECE

Abstract: Source: US4156187A Apparatus and method for measuring and indicating the true power in watts supplied to an ultrasonic handpiece and also to indicate the accumulative power applied to the handpiece.

Probable Assignee: FIBRA SONICS

Earliest Publication Date: 19780921



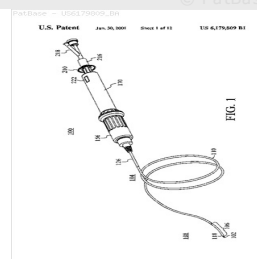
46) Family number: 15743323 (US6179809B)

DRUG DELIVERY CATHETER WITH TIP ALIGNMENT

Abstract: Source: US6179809B A steerable drug delivery catheter and method of use, particularly adapted for percutaneous use. The distal end of the drug delivery catheter is deflectable. The catheter has a relative movement compensation mechanism for maintaining positioning between the distal end of the drug delivery catheter and the distal end of the drug delivery device therein.

Probable Assignee: CRYOLIFE INC

Earliest Publication Date: 19990324



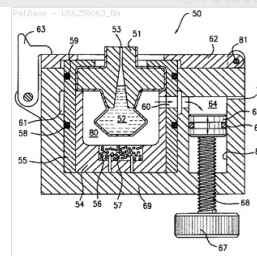
47) Family number: 15954020 (US6258063B)

HYPODERMIC INJECTION SYSTEM

Abstract: Source: US6258063B A hypodermic injection system allows for the generation of a high pressure liquid jet capable of passing through the skin. The system uses two regions, the first region being flexible or squeezable and the second region having at least one exiting orifice through which the liquid jet can be expelled. The flexible region can be deformed by a pressure change in the surrounding container generated by an activatable gas generator that generates pressure within the first region that causes the liquid to be expelled.

Probable Assignee: ROCHE DIAGNOSTICS GMBH A GERMAN COMPANY

Earliest Publication Date: 19980722



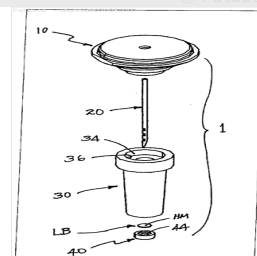
48) Family number: 15957565 (US2003097098A)

NEEDLE ASSEMBLY AND SHEATH AND METHOD OF FILLING A DRUG DELIVERY DEVICE

Abstract: Source: US2003097098A A needle assembly has a needle holder that holds a needle and a sheath. The sheath has a needle compartment that accommodates the needle and any spilled drug flowing from the needle. The sheath and the needle holders are detachable. The sheath has an opening communicating with the needle compartment. A liquid barrier, which can comprise a hydrophobic membrane, is positioned in the first opening, blocking the first opening. The liquid barrier allows gas to escape through the first opening but prevent liquid from leaking through the first opening during drug filling stage. In use, the sheath is positioned over the needle of a drug delivery device. The drug delivery device is filled through a separate port until its drug reservoir is completely filled, which is accomplished by filling until the drug spills out through the needle. The sheath maintains the spilled drug within the needle compartment, while air bubbles escape through the liquid barrier.

Probable Assignee: ELAN PHARMA INT LTD

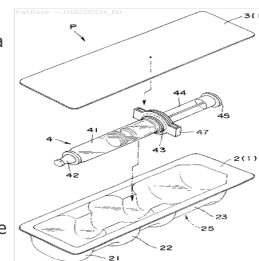
Earliest Publication Date: 20011004



49) Family number: 20667664 (US6228324B)

STERILIZING METHOD FOR MEDICAL STERILIZATION PACKAGING AND INJECTION PACK

Abstract: Source: US6228324B The sterilizing method according to the present invention is a method of sterilizing a medical product by a hydrogen peroxide gas while keeping the packaged condition. In such a sterilizing method, a packaging container (1) capable of allowing the hydrogen peroxide gas to penetrate therethrough is used, and after completion of the sterilizing treatment, the packaging container (1) is subjected to degassing treatment while heating, thereby removing the hydrogen peroxide gas from the inside thereof. As a result, it is possible to conduct the treatment efficiently and surely prevent the hydrogen peroxide gas from remaining in the packaging container. In addition, the injection packs (P) according to the present invention comprises the packaging container (1) and a medicine-filled injector (4) enclosed in the packaging container. In the injection packs (P), a container body (2) has such a specific shape which can ensure a sufficient gas-penetrating area of a sterile paper by which the container body is sealed, when the injection pack are stacked up in multiple stages. Accordingly, upon the treatment, it becomes possible to penetrate the hydrogen peroxide gas into the packaging container (1) for a short period of time and degas the packaging container (1) for removing the hydrogen peroxide gas from the inside thereof.



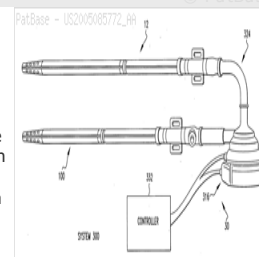
Probable Assignee: SEIKAGAKU CORP

Earliest Publication Date: 19990610

50) Family number: 20792106 (US2005085772A)

METHOD AND SYSTEM FOR CLOSED CHEST BLOOD FLOW SUPPORT

Abstract: Source: US2005085772A A system for assisting flow of blood by a patient's heart. The system includes a transseptal cannula adapted to be inserted percutaneously in the jugular vein and extend through the atrial septum from the right atrium to the left atrium. The system includes a blood pump mechanism having a blood pump for pumping blood received from the transseptal cannula that has been oxygenated at specified flow rates over a range of physiological pressures. The blood pump is connected to the transseptal cannula. The system includes a perfusion cannula adapted to be inserted percutaneously in the axillary artery for returning oxygenated blood to the atrial system of the patient. The perfusion cannula is connected to the blood pump. A method for assisting blood flow by a patient's heart. The method includes the steps of inserting percutaneously in the jugular vein of the patient and extending through the atrial septum from the right atrium to the left atrium a transseptal cannula. Next there is the step of inserting percutaneously in the axillary artery a perfusion cannula for returning oxygenated blood to the arterial system of the patient. Then there is the step of pumping blood with a blood pump connected to the transseptal cannula and the perfusion cannula at specified flow rates over a range of physiological pressures.



Probable Assignee: CARDIAC ASSIST TECHNOLOGIES INC

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