



[rexresearch.com](http://rexresearch.com)

## Activated Water Patents

### *Applications of Magnetism, Electricity, Vortexes, Sound, Zeta Potential, &c to produce "Energized", "Activated"" Water*

[ Note : Water retains a magnetic "memory" for only a few femto-moments -- There is no such thing as "Magnetized Water". Rather, the magnetic field restructures the water clusters ( with varying stability ), but the water is not itself magnetic. If you want the water to be "magnetic" when you drink it, attach magnets to the glass and drink from that. ]

<http://www.espacenet.com>

CN204111427

CN104163511

Strong magnetic vortex type super-micro bubble generation cavity and aeration device thereof

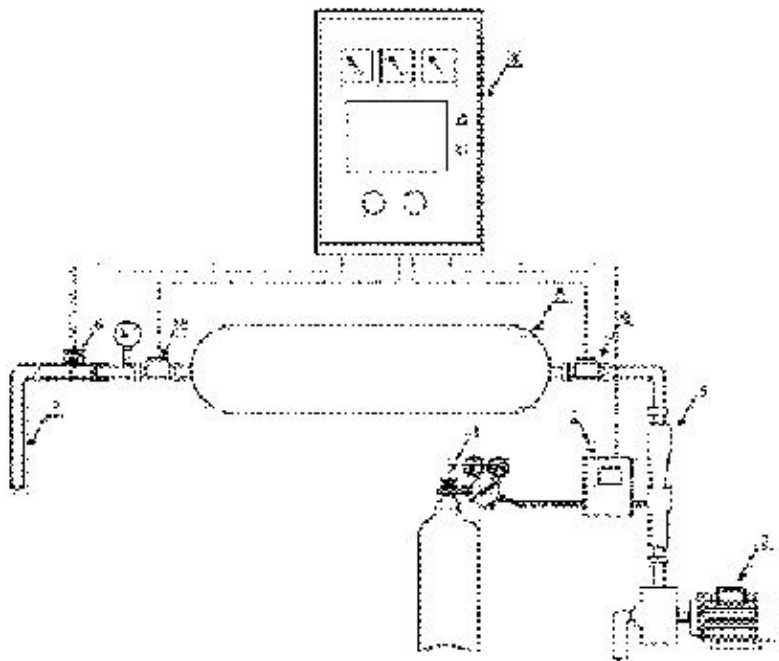


图1

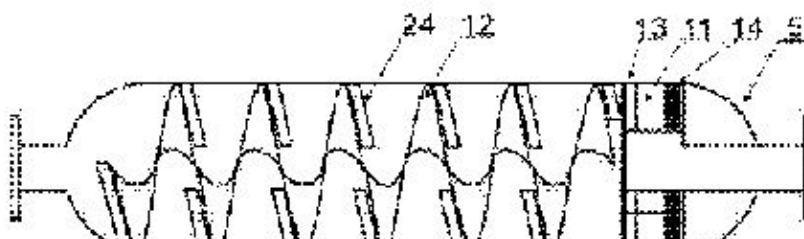
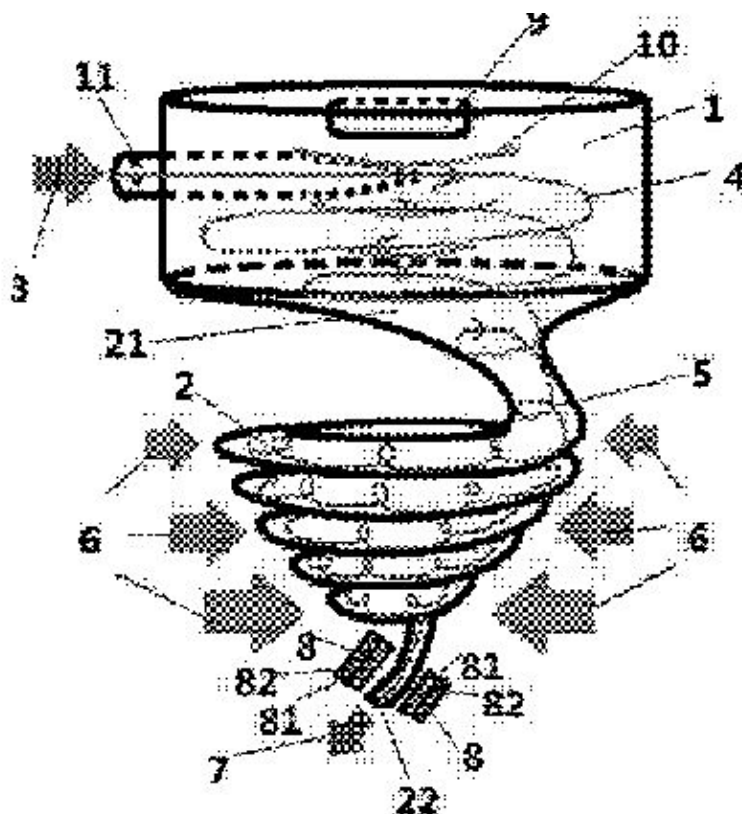


图2

The utility model discloses a strong magnetic vortex type super-micro bubble generation cavity and an aeration device thereof. The strong magnetic vortex type super-micro bubble generation cavity comprises a strong magnetic vortex type super-micro bubble generation cavity body, a Venturi tube, a controller, an oxygen gas source with a flow adjusting valve and a self-priming water pump; the oxygen gas source and the self-priming water pump are respectively and electrically connected with the strong magnetic vortex type super-micro bubble generation cavity body, the Venturi tube and the controller; the input end of the Venturi tube is respectively connected with the oxygen gas source and the self-priming water pump; the output end of the Venturi tube is connected with a water inlet of the strong magnetic vortex type super-micro bubble generation cavity body. The aeration device has the characteristics of compact structure, small occupied area, low energy consumption, high oxygen utilization rate, low cavitation, no blockage and the like; an N5 neodymium iron boron strong magnetic material with magnetic intensity of over 14,500 GS and the volume of outputted bubbles is below 10  $\mu\text{m}$  can be generated. The aeration device is suitable for the field of oxygenation in water, can replace a traditional dissolved air tank and is suitable for sewage treatment, aquaculture and other water body oxygenic aeration technologies or an air-flotation separating method and other water treatment technologies.

# Water activating method and device by combination of electromagnetic field/magnetic field and double-vortex-body vortex CN103539312



The invention relates to a water activating method and device by combination of an electromagnetic field/magnetic field and double-vortex-body vortex. Water or water with one or more beneficial substances flows through a double-vortex-body device and an electromagnetic field and magnetic field, makes a double-vortex-body centripetal vortex motion and is discharged from the lower end, thereby forming microcluster activated water. The double-vortex-body device is formed by connecting a main body container and a spiral double-vortex-body vortex tube, wherein more than one feed port distributed around the circumference in the same tangential direction is arranged around the circumference of the main body container; the bottom end of the double-vortex-body vortex tube is a small-diameter end used





图 1

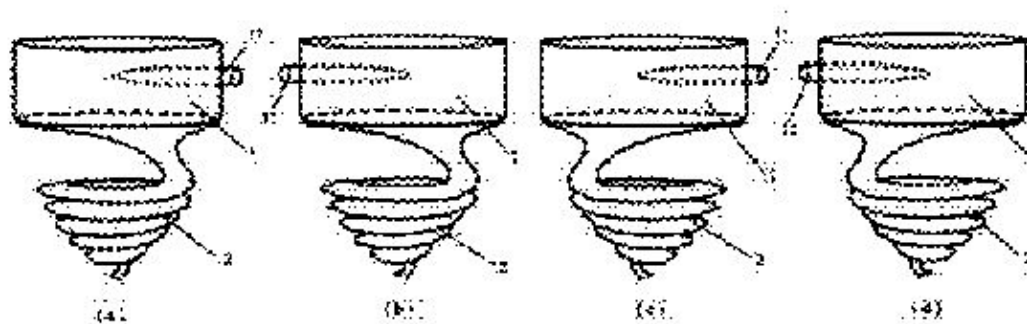


图 2

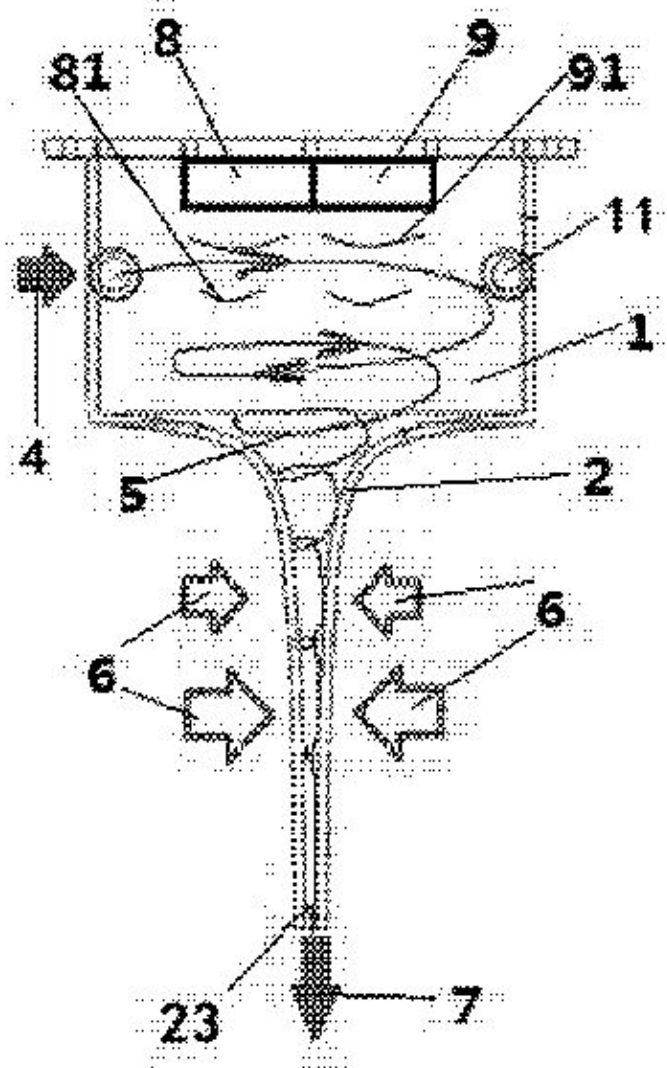
The invention relates to a water activating method and device by combination of an acoustic field/magnetic field and double-vortex-body vortex. Water or water with one or more beneficial substances flows through a double-vortex-body device and an acoustic field and magnetic field, makes a double-vortex-body centripetal vortex motion and is discharged from the lower end, thereby forming microcluster activated water. The double-vortex-body device is formed by connecting a main body container and a spiral double-vortex-body vortex tube, wherein more than one feed port distributed around the circumference in the same tangential direction is arranged around the circumference of the main body container; the bottom end of the double-vortex-body vortex tube is a small-diameter end used as a discharge port; the main body container is provided with an acoustic field generator; and a magnetic field generator is arranged around the double-vortex-body device. The fluid water forms a double-vortex-body centripetal vortex motion in the double-vortex-body vortex tube and is coherent with vacuum zero point energy to form a double-vortex-body centripetal vortex internal pressure field, and the field acts on the fluid flowing through the double-vortex-body vortex tube to form better activated water. The acoustic field and magnetic field further enhance the activation efficiency and stability.

# Method and apparatus for activating water by combining magnetic field with vortex CN103539307

The invention discloses a method and apparatus for activating water by combining a magnetic field with vortex. Water or water and one or more beneficial substances flow through a vortex generating device and a magnetic field and then are discharged after making a centripetal vortex movement to form activated water with small water molecular groups. The vortex generating device comprises a main body container and a vortex pipe, wherein the cross section of the main body container is circular, a tangent feeding hole is formed in the circumference of the main body container; the vortex pipe is large in top and small in bottom, and the cross section of the vortex pipe is circular; the diameter of an upper port of the vortex pipe is equal to the diameter of the bottom end of the main body container, the upper port of the vortex pipe is connected with the bottom end of the main body container, a discharging hole is formed in the bottom end of the vortex pipe, the vortex pipe and the main body container forms a funnel-shaped structure; a magnetic field generator is arranged around the vortex generating device. Water makes a special centripetal vortex flow in the vortex pipe, and is capable of interfering with a vacuum zero point to generate a centripetal vortex internal pressure energy field, the centripetal vortex internal pressure energy field acts on water for opening original large water macromolecules in the water, and new stable micromolecular group water is re-generated. The activating efficiency and the stability are further improved due to the action of the magnetic field.

---

**Water activating method and device by combination of acoustic field/electromagnetic field and vortex**  
**CN103539306**



The invention relates to a water activating method and device by combination of an acoustic field/electromagnetic field and vortex. Water or water with one or more beneficial substances flows through a vortex generator and an acoustic field and electromagnetic field, makes a centripetal vortex motion and is discharged, thereby forming microcluster activated water. The vortex generator is a funnel-shaped structure formed by connecting a main body container and a vortex tube, wherein the cross section of the main body container is circular, and the circumference is provided with a tangential side feed port; the vortex tube has a bigger upper end and a smaller lower end, and the cross section is circular; the bottom end of the vortex tube is a discharge port; an acoustic field generator and an electromagnetic field generator are arranged in the main body container; and a magnetic field generator is arranged around the vortex tube or main body container. Water makes a centripetal vortex flow in the vortex tube and is coherent with vacuum zero point energy to generate a centripetal vortex internal pressure energy filed, and the field acts on the water to open the original water macrocluster in the water and regenerate new stable microcluster water; and the combined action of the acoustic field and the electromagnetic field enhances the activation efficiency and stability.

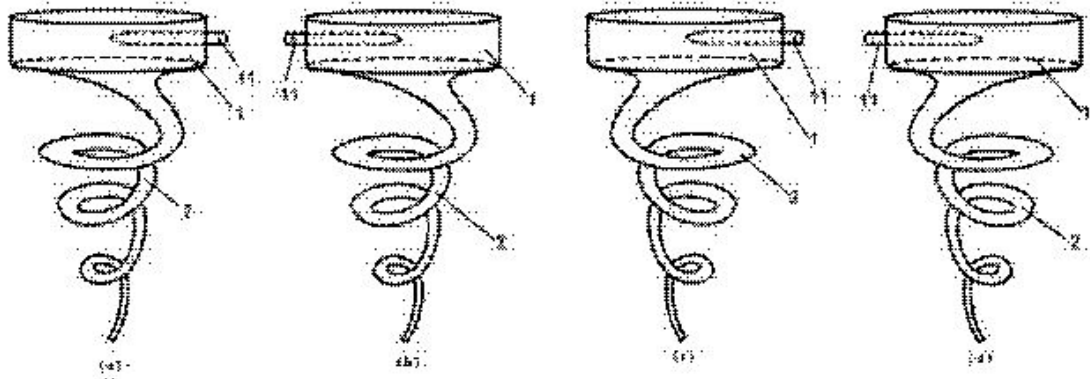


图 3

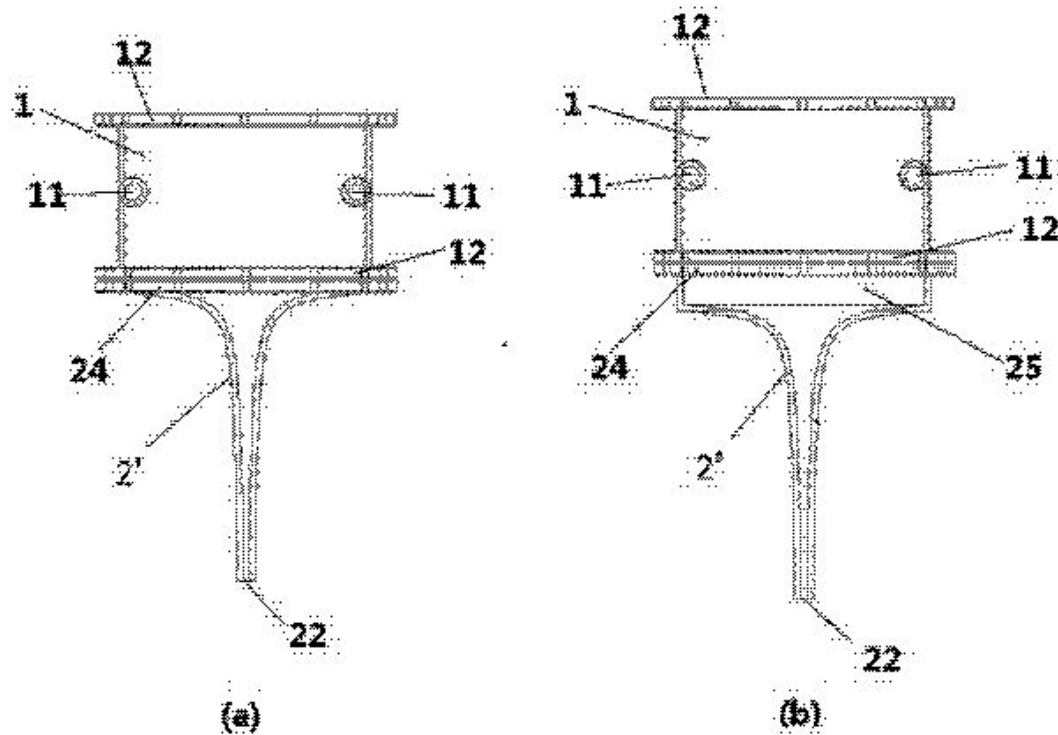


图 4

The invention relates to a water activating method and device by combination of an acoustic field/electromagnetic field/magnetic field and vortex. Water or water with one or more beneficial substances flows through a vortex generator and an acoustic field, electromagnetic field and magnetic field, makes a centripetal vortex motion and is discharged, thereby forming microcluster activated water. The vortex generator is a funnel-shaped structure formed by connecting a main body container and a vortex tube, wherein the cross section of the main body container is circular, and the circumference is provided with a tangential side feed port; the vortex tube has a bigger upper end and a smaller lower end, and the cross section is circular; the bottom end of the vortex tube is a discharge port; an acoustic field generator and an electromagnetic field generator are in the main body container; and a magnetic field generator is arranged around the vortex tube or main body container. Water makes a centripetal vortex flow in the vortex tube and is coherent with vacuum zero point energy to generate a centripetal vortex internal pressure energy field, and the field acts on the water to open the original water macrocluster in the water and regenerate new stable microcluster water; and the combined action of the acoustic field, electromagnetic field and magnetic field enhances the activation efficiency and stability.

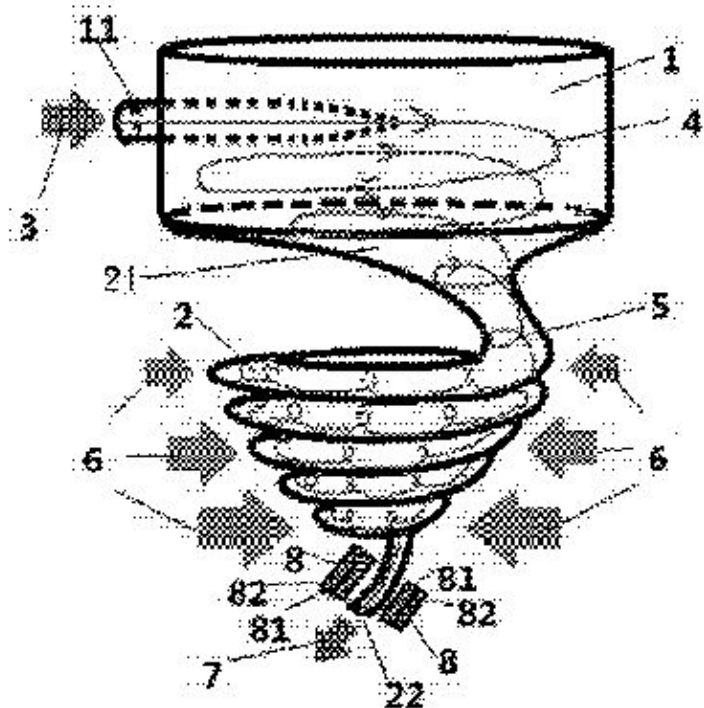
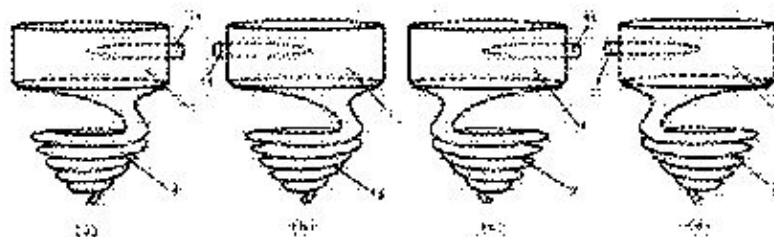


图 1



The invention relates to a water activating method and device by combination of an acoustic field/electromagnetic field/magnetic field and vortex. Water or water with one or more beneficial substances flows through a vortex generator and an acoustic field, electromagnetic field and magnetic field, makes a centripetal vortex motion and is discharged, thereby forming microcluster activated water. The vortex generator is a funnel-shaped structure formed by connecting a main body container and a vortex tube, wherein the cross section of the main body container is circular, and the circumference is provided with a tangential side feed port; the vortex tube has a bigger upper end and a smaller lower end, and the cross section is circular; the bottom end of the vortex tube is a discharge port; an acoustic field generator and an electromagnetic field generator are arranged in the main body container; and a magnetic field generator is arranged around the vortex tube or main body container. Water makes a centripetal vortex flow in the vortex tube and is coherent with vacuum zero point energy to generate a centripetal vortex internal pressure energy filed, and the field acts on the water to open the original water macrocluster in the water and regenerate new stable microcluster water; and the combined action of the acoustic field, electromagnetic field and magnetic field enhances the activation efficiency and stability.

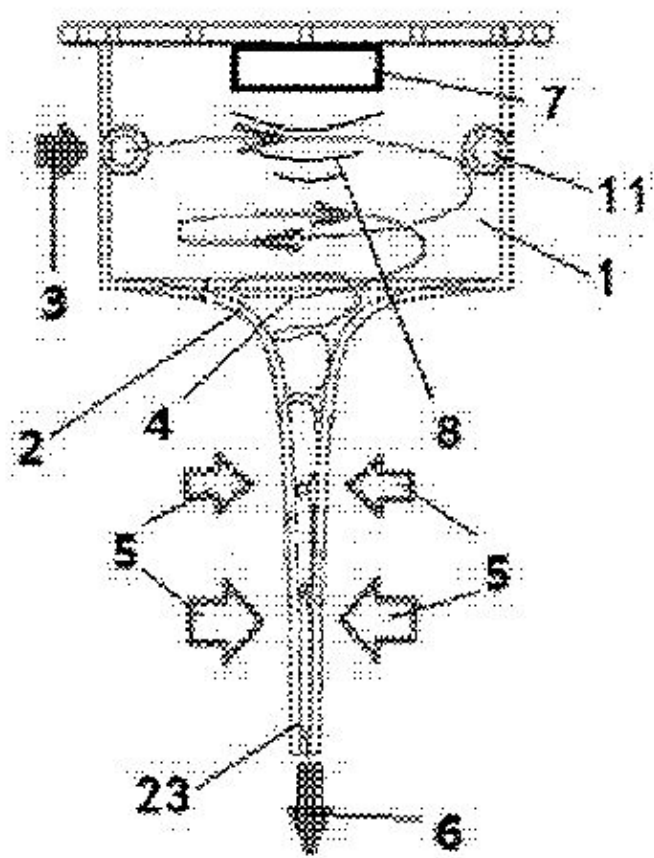


图 1

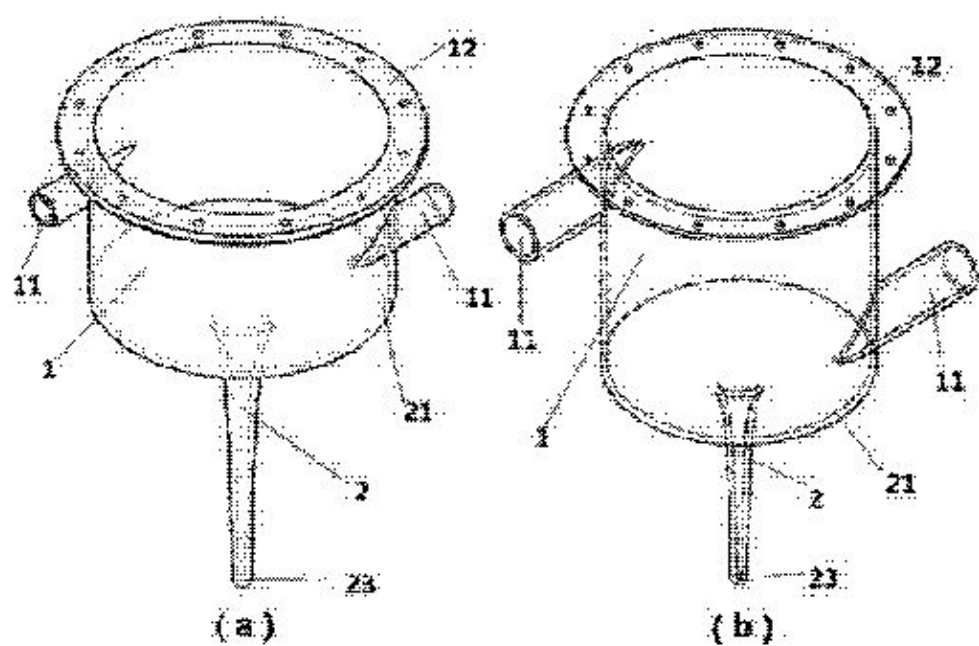


图 2





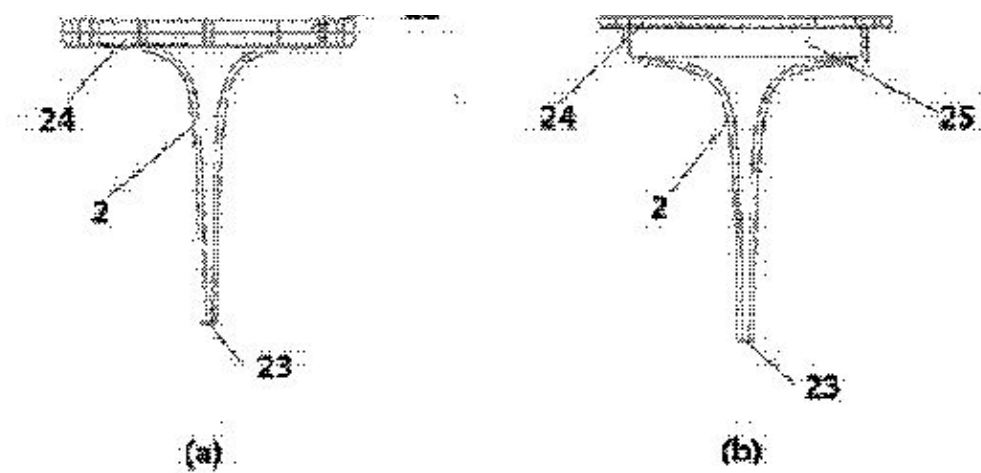


图3

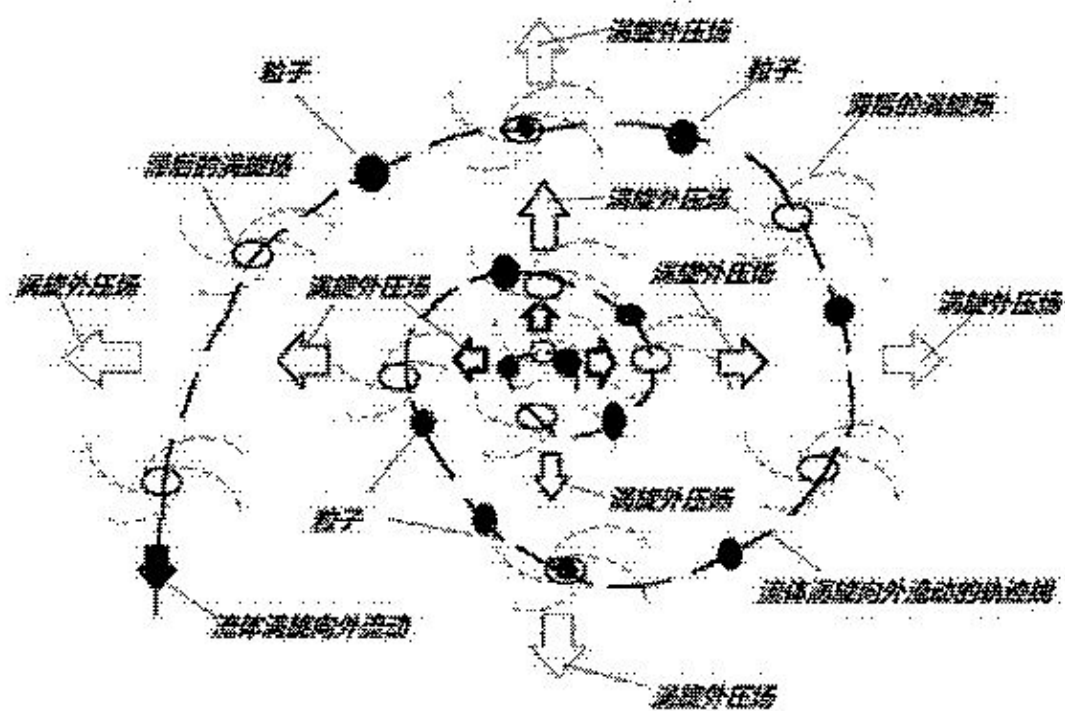


图12

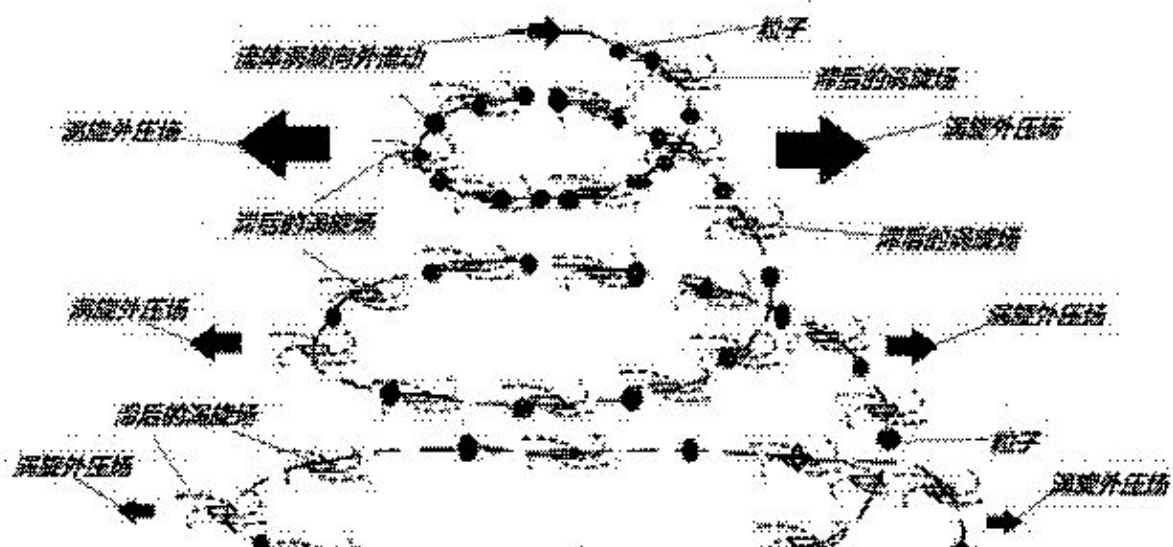




图 10

The invention discloses a method and apparatus for activating water by combining an electromagnetic field with vortex. Water or water and one or more beneficial substances flow through a vortex generating device and a magnetic field and then are discharged after making a centripetal vortex movement to form activated water with small water molecular groups. The vortex generating device comprises a main body container and a vortex pipe which are connected, wherein the cross section of the main body container is circular, a tangent feeding hole is formed in the circumference of the main body container; the vortex pipe is large in top and small in bottom, the cross section of the vortex pipe is circular; a discharging hole is formed in the bottom end of the vortex pipe, and the vortex pipe and the main body container form a funnel-shaped structure; an electromagnetic field generator is arranged in the main body container. In the main body container, due to the action of the electromagnetic field, macromolecular groups in water are opened in advance before flowing in the vortex pipe in a vortex manner to form a primary activated state; then primarily activated water makes a special centripetal vortex flow in the vortex pipe, and is capable of interfering with a vacuum zero point to generate a centripetal vortex internal pressure energy field, and the centripetal vortex internal pressure energy field enables water to generate new stable micromolecular group activated water.

#### Water activating method and device by combination of acoustic field/magnetic field and vortex CN103539218

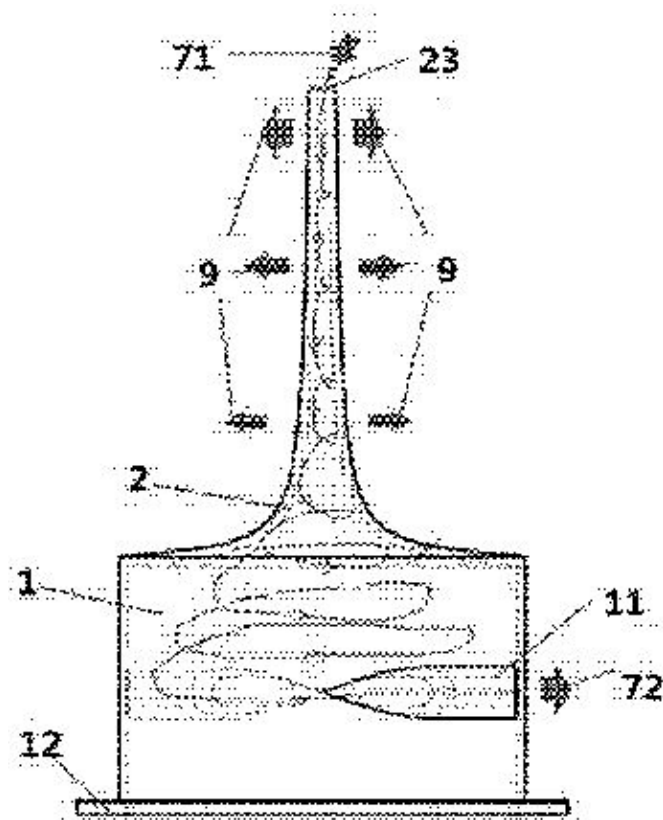


图 11





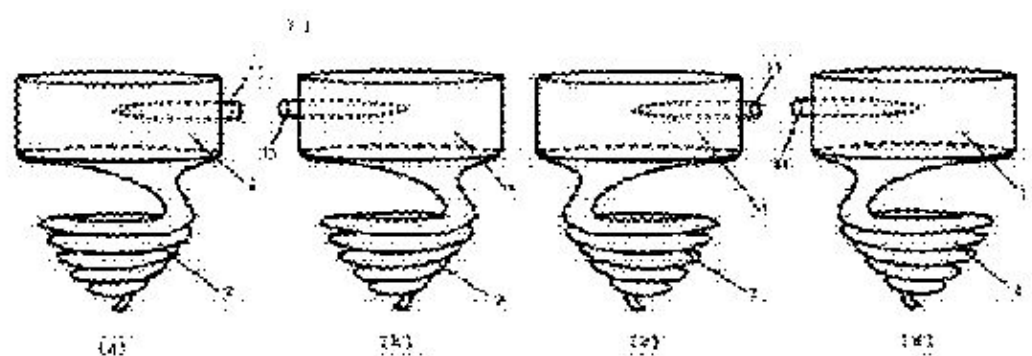
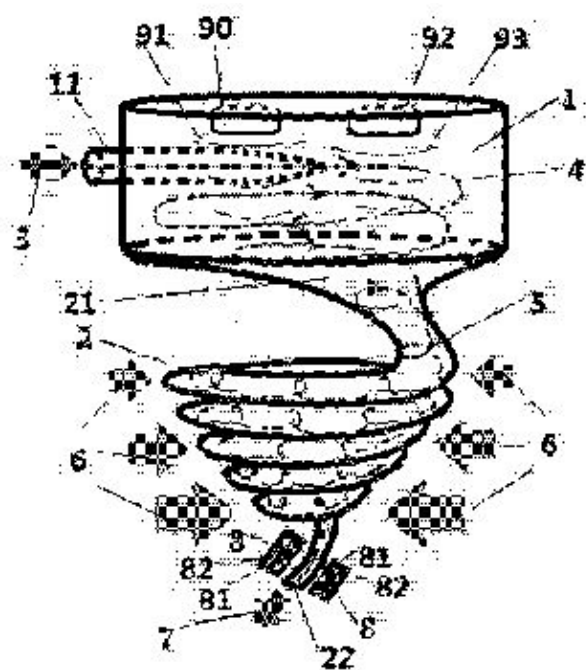


图 2

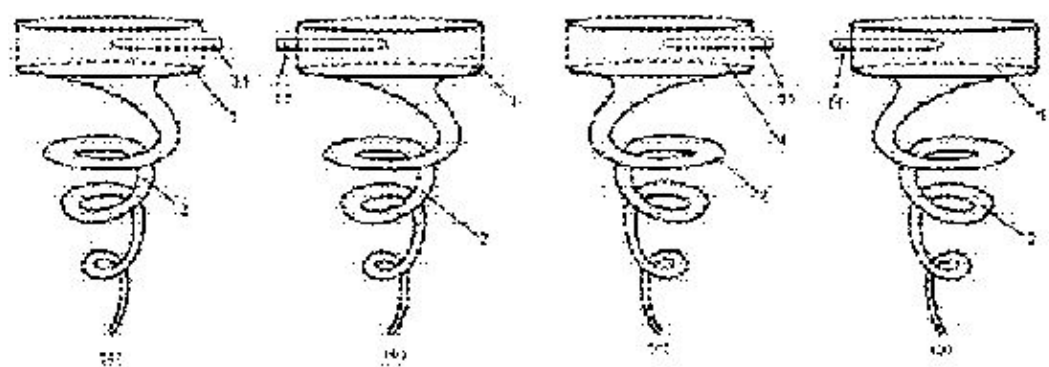
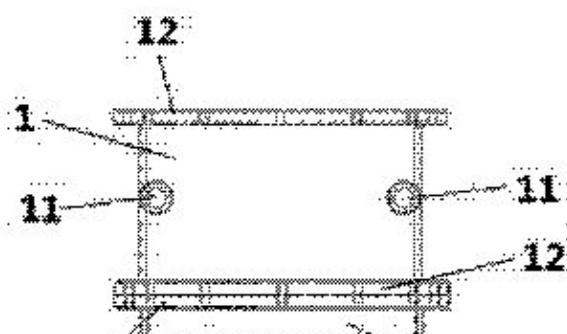
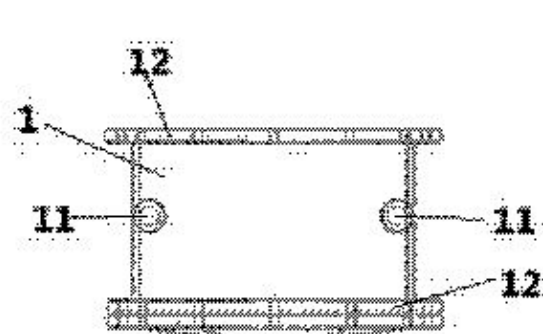


图 3



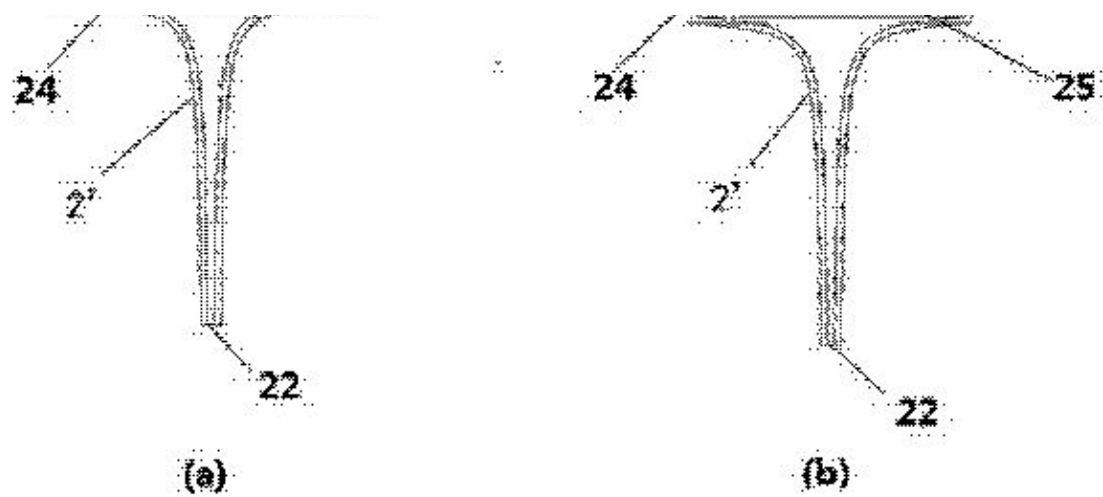


图 4

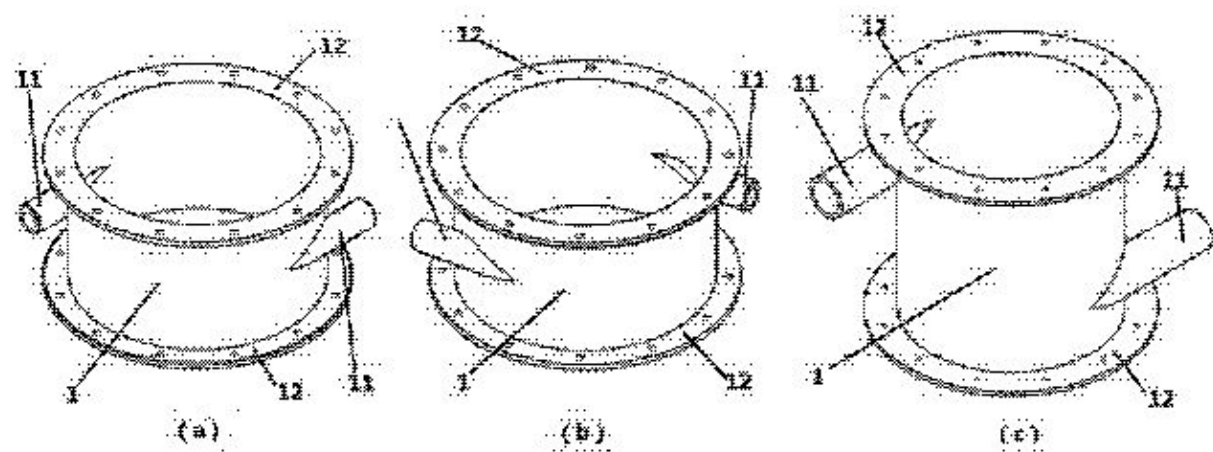


图 5

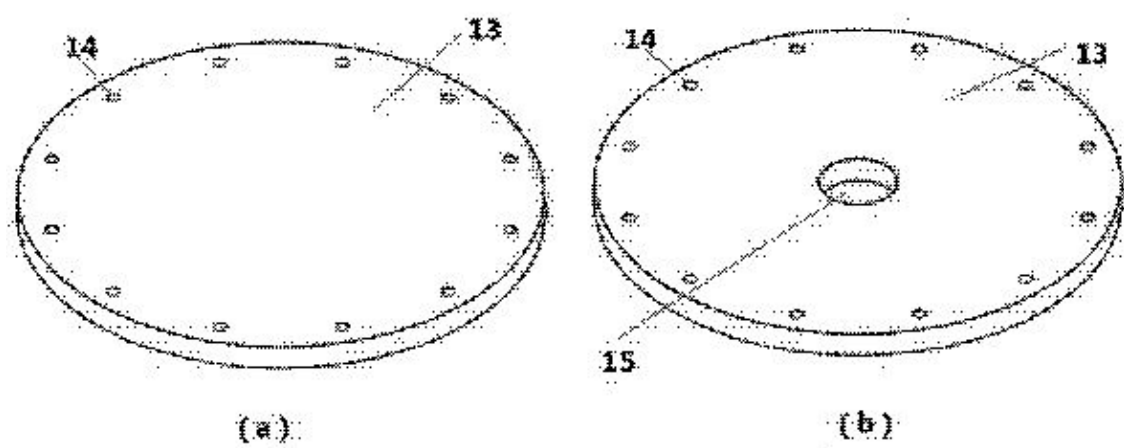


图 6



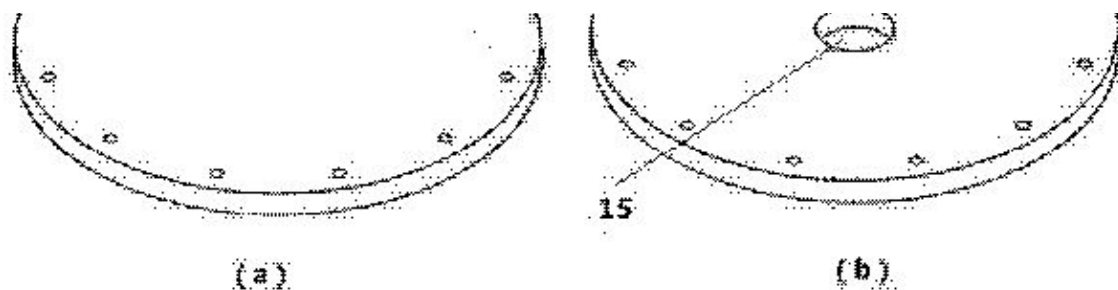


图 7

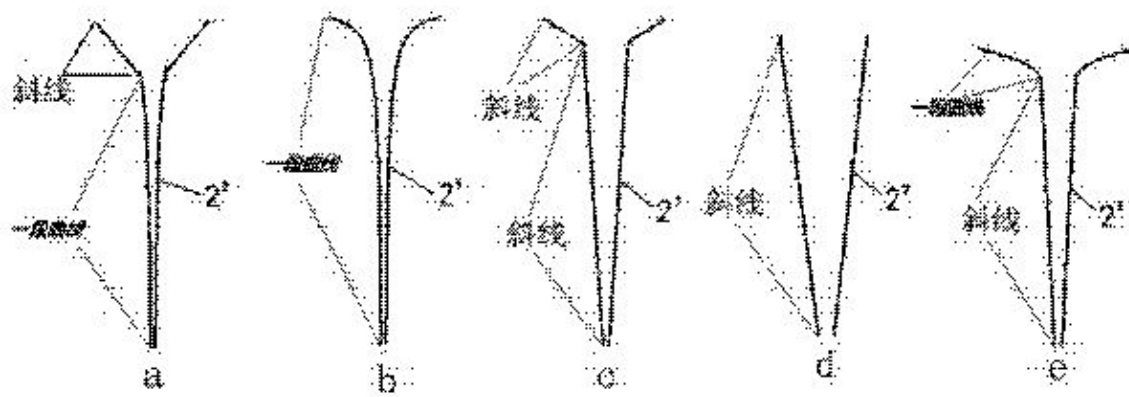
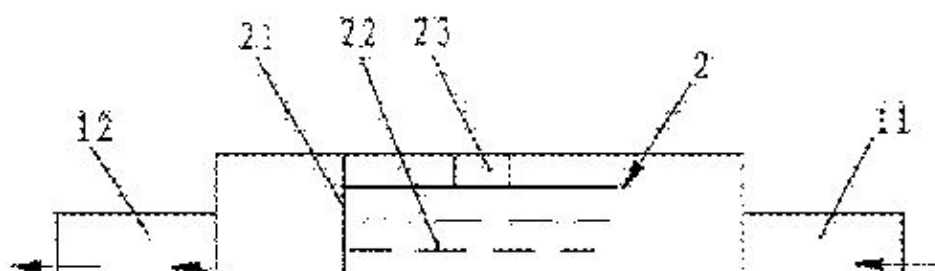


图 8

The invention relates to a water activating method and device by combination of an acoustic field/electromagnetic field/magnetic field and double-vortex-body vortex. Water or water with one or more beneficial substances flows through a double-vortex-body device and an acoustic field, electromagnetic field and magnetic field, makes a double-vortex-body centripetal vortex motion and is discharged from the lower end, thereby forming microcluster activated water. The double-vortex-body is formed by connecting a main body container and a spiral double-vortex-body vortex tube, wherein an acoustic field generator and an electromagnetic field generator are arranged in the main body container, and a magnetic field generator is arranged around a double-vortex-body vortex generator. The fluid water forms a double-vortex-body centripetal vortex motion in the double-vortex-body vortex tube and is coherent with vacuum zero point energy to form a double-vortex-body centripetal vortex internal pressure field, and the field acts on the fluid flowing through the double-vortex-body vortex tube to form better activated water. The acoustic field, electromagnetic field and magnetic field further enhance the activation efficiency and stability.

### Spiral vortex type magnetized water quality processor CN203373188



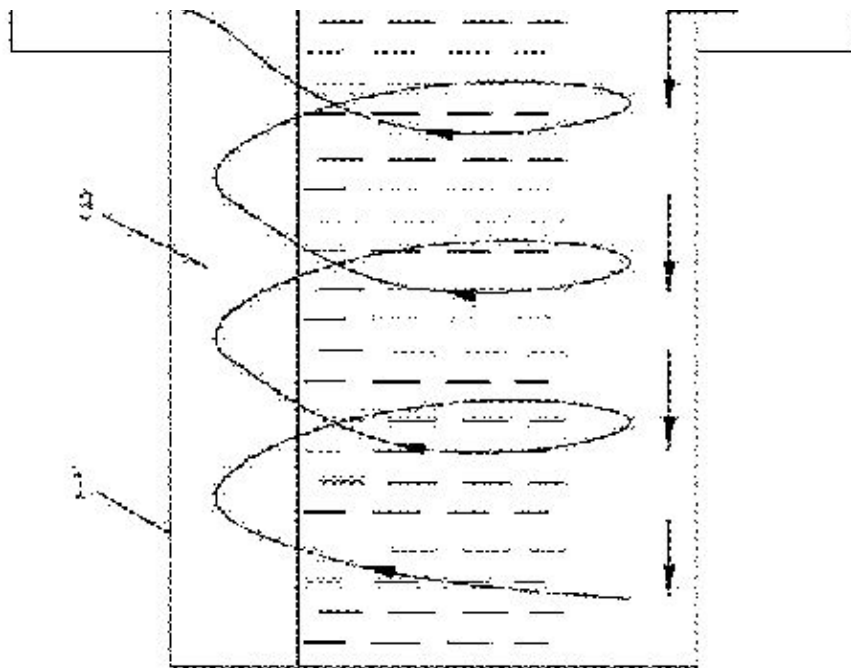
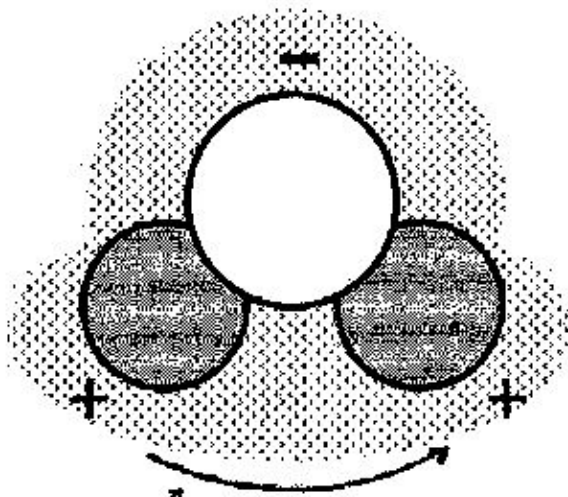


图 1

The utility model relates to the technical field of water quality processors, in particular to a spiral vortex type magnetized water quality processor. The spiral vortex type magnetized water quality processor comprises a shell, wherein a water inlet and a water outlet are formed in the shell, the shell is of a hollow cylindrical structure, a cylindrical magnetic energy generating device is arranged in the shell, a gap is arranged between the inner surface of the shell and the outer surface of the magnetic energy generating device to form an annular water tank; due to the action of water pressure, water can generate spiral vortex along the outer surface of the magnetic energy generating device when flowing by the annular water tank and then the water flows out from the water outlet; the magnetic energy generating device can generate a magnetic field, the water generates the spiral vortex along a magnetic line of force under the action of water pressure, the magnetization path of the water in the magnetic field of the magnetic energy generating device is expanded, so that water molecules can absorb lots of magnetic energy so as to improve the properties and structures of the water molecules, the magnetizing effect is good; and compared with a traditional water quality processor which can work for magnetizing water only after being electrified, the helical vortex type magnetized water quality processor provided by the utility model needs no external power supply and belongs to natural magnetic field, thereby being environmental-friendly and energy-saving.

## WATER STRUCTURING DEVICE WO2014053865



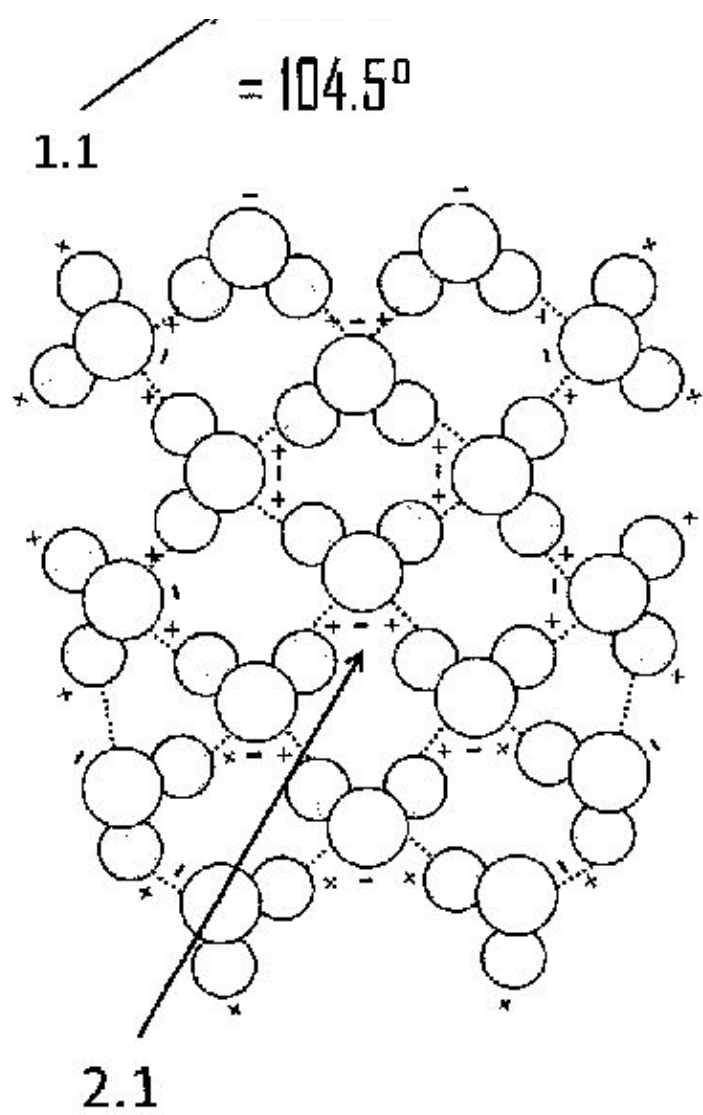
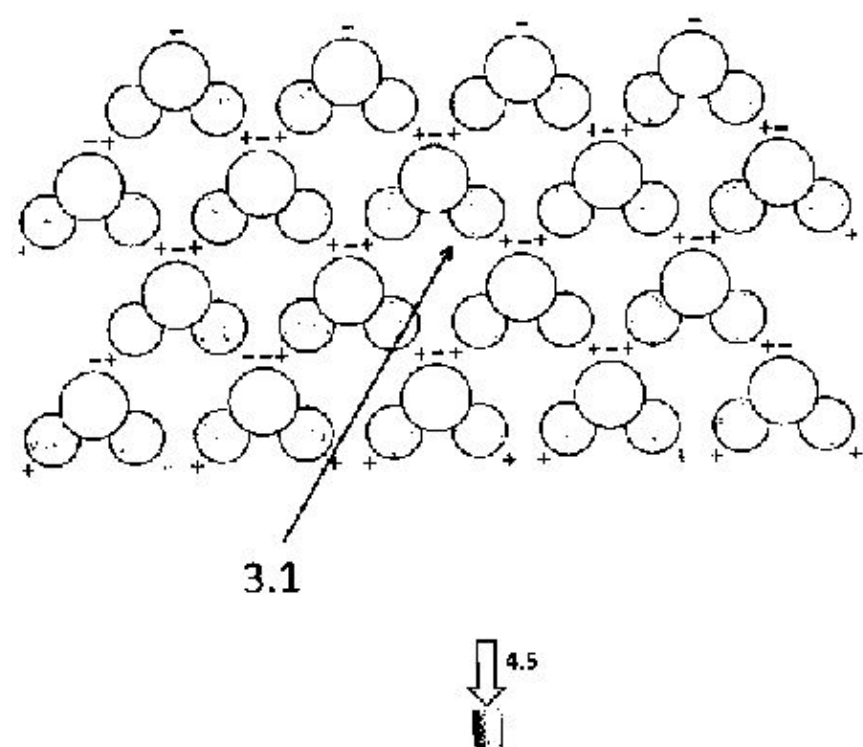
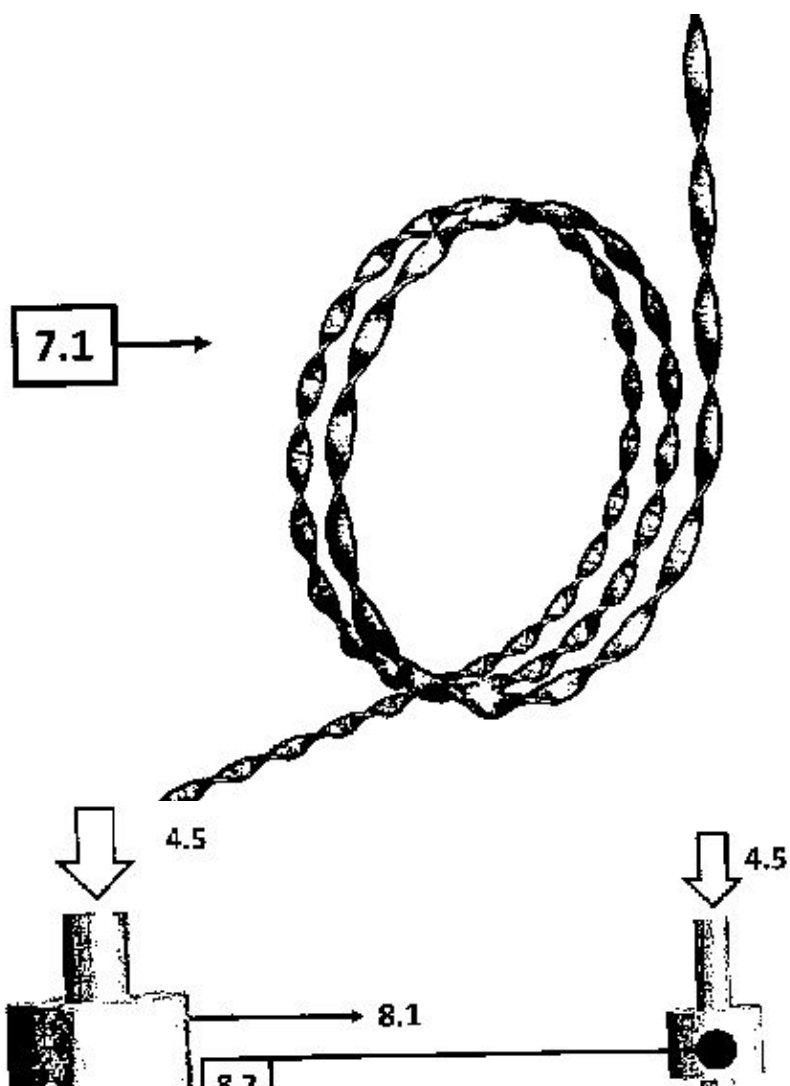
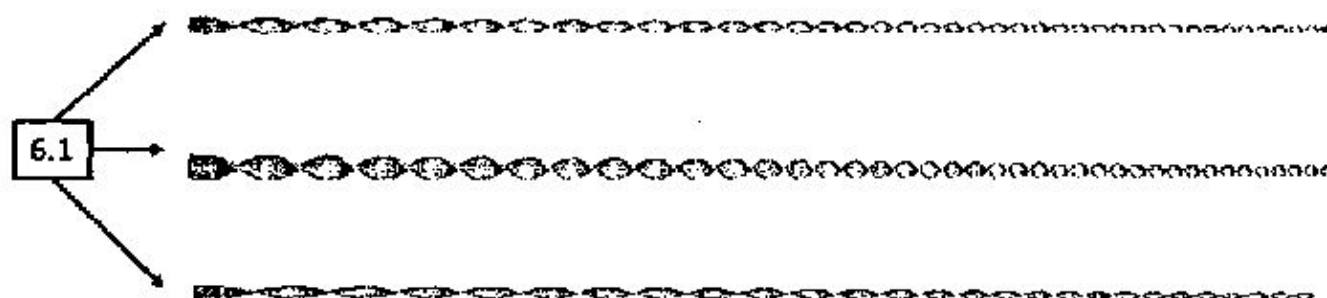
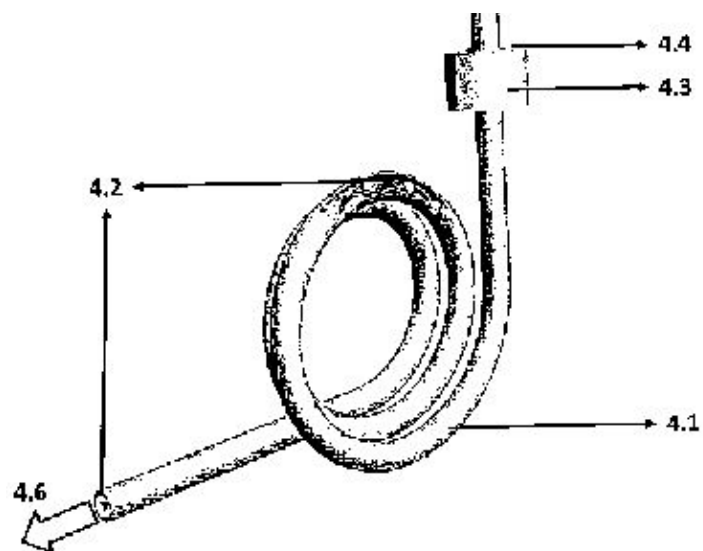
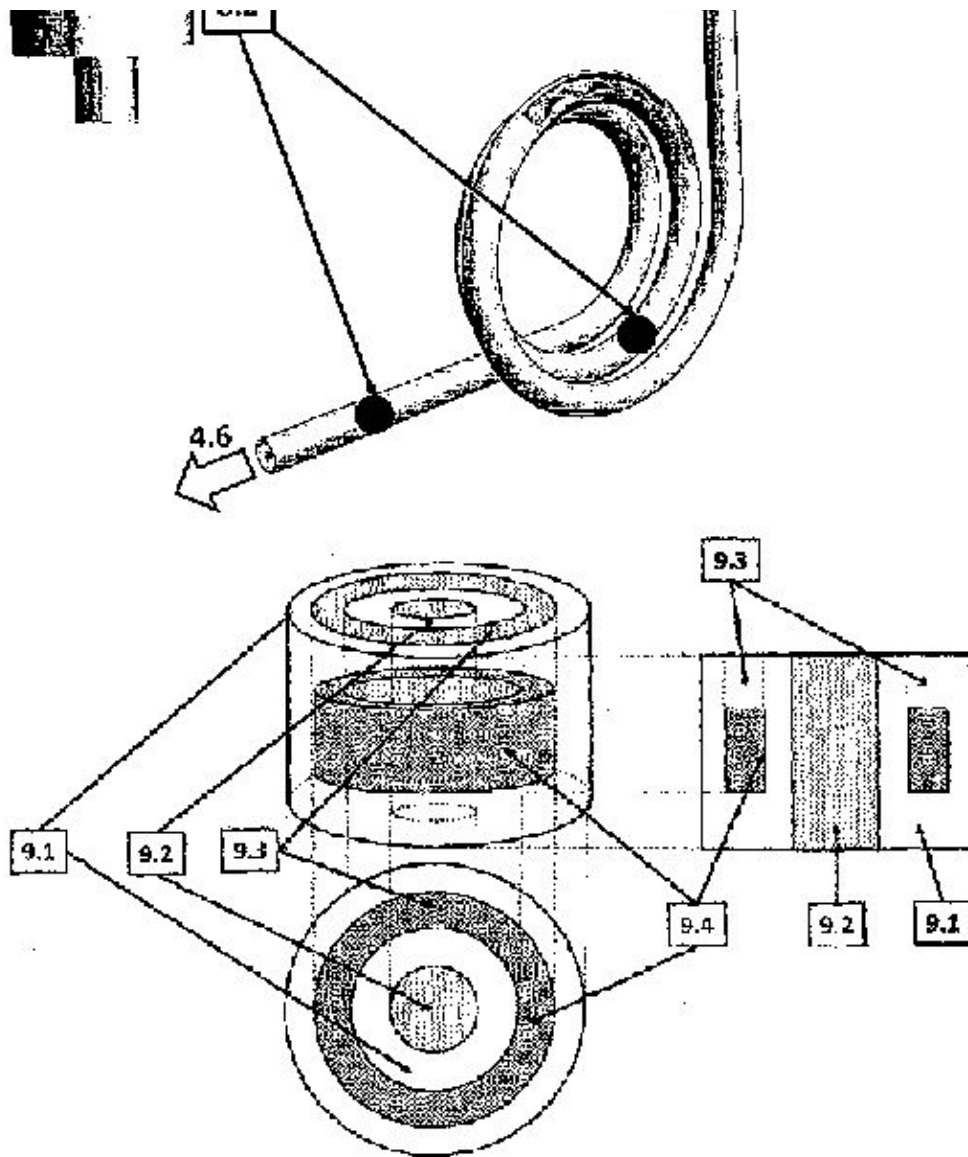


Fig.2







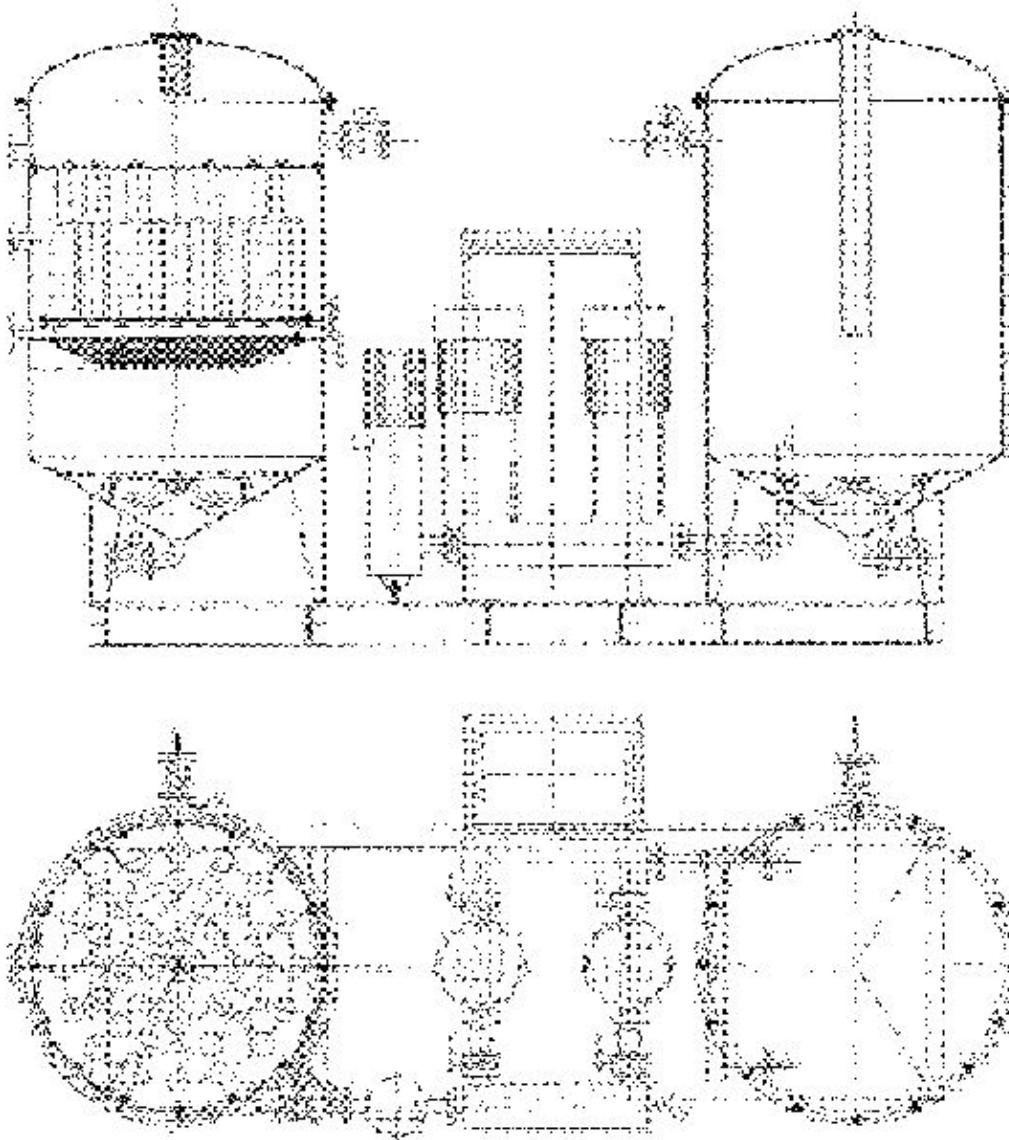


The water structuring device is composed of a spirally bent tube (4.1), the inner spiral lamella (4.2) and the magnets (4.4) of appropriate shapes and characteristics, fitted into the magnet holders (4.3) located at any position on the spiral tube (8.2), wherein the spiral lamella (6.1) is inserted in the tube prior to its bending and the resulting tube-inner lamella assembly is bent into a desired shape of the spirally bent tube (4.1), in which the inner spiral lamella (4.2) is inserted. The spirally bent tube (4.1), subject to the given parameters of the device, may have either shape (5.1) or (5.2) of a three-dimensional spiral, varying in respect to x, y and z axes, wherein the length and the diameter of the spirally bent tube (4.1) as well as the number and shape of its curves may vary, and the curves of the spirally bent tube (4.1) may have equal or different diameters. Component parts of the water structuring device are also the magnet holders, composed of the magnet holder body (9.1) or (10.1), opening (9.2) or (10.2) through which the spirally bent tube (4.1) passes, the groove (9.3) or (10.3) in which ring magnets (9.4), or cylindrical magnets (10.4) are fitted, wherein the number, size, polarity, strength and type of the magnets (4.4) as well as their positioning inside the holders (4.3) depend on the given parameters of the device. The application of the unstructured water structuring device is based on the principle that the unstructured water, after entering the device through the inlet (4.5) at a pressure of not less than 0.5 bar, flows through the spirally bent tube (4.1) whereby the water is exposed to the kinetic energy deriving from double, rotational flow through the spirally bent tube (4.1) and spiral flow along the spirally bent lamella (7.1) which is inserted in its entire length into the lumen of the spirally bent tube (4.1), in fact to the double vortex, vortex and helix, centrifugal force, thus achieving the double water whirling combined with simultaneous multiple increase of the path travelled by water molecules within a given period of time. In addition to the kinetic energy, such water is also exposed to the influence of the magnetic field of a certain strength, achieved by means of the permanent magnets (4.4) of any discretionally chosen number and size, fitted into the holders (4.3) of adequate shapes (8.1), located at

any number of positions (8.2) on the spiral tube (5.1) or (5.2), whereby further whirling is achieved as well as crushing of the dipole water molecule clusters.

---

**Device for producing healthy water**  
**CN102757150**



A device for producing healthy water is water-treating equipment, which combines procedures such as high magnetic water treatment, vortex coagulation, low pulsation precipitation, suspension discharge, filtration and the like in an organic and concentrated manner. The device has a unique internal structure and concentrated procedures; a device group achieves compact inside and outside structures, and occupies small area; in addition, the one-time investment is low, and the water producing quality is good. The device can be widely applied to advanced treatment of water.

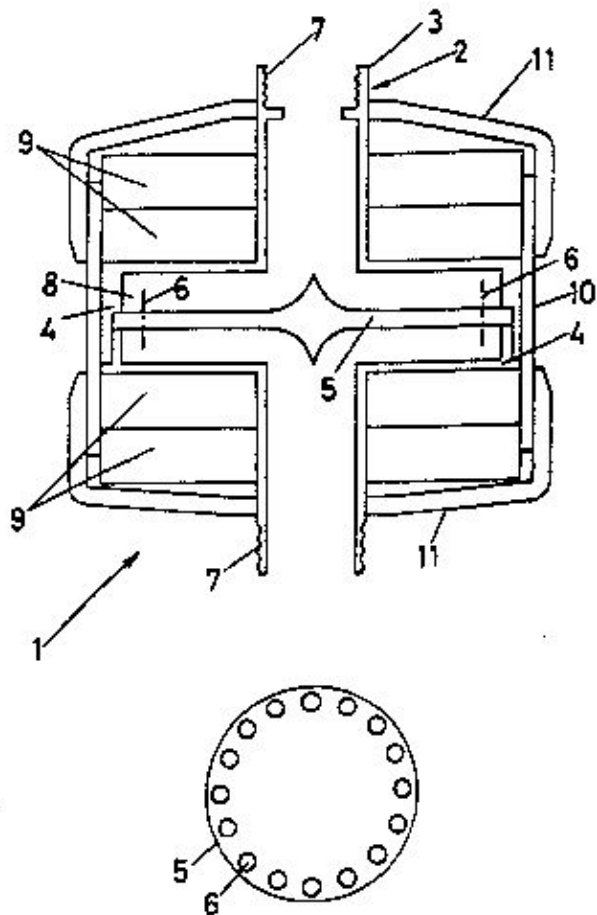
---

**KR101142121**  
**Hexagon water manufacture apparatus**

**PURPOSE:** A magnetized hexagonal water apparatus is provided to accelerate the growth of animals and plants by converting water into hexagonal water based on magnetic field entirely generating N-pole

magnetism. CONSTITUTION: The upper side of a main body(10) is opened, and the main body includes a pipe connecting part, a ring combining part(13), and a clamp fixing part. A cover(20) forms a pipe connecting part and a clamp fixing part. Magnetic bodies(30, 30') are arranged at the main bodies. A vibration spring(40) induces the vibration of the magnetic bodies based on water introduced into the main bodies. A clamp(50) fixes the clamp fixing parts of the main bodies and the cover. A magnetic body includes a vortex spring(30-1), a pair of permanent magnets of S-poles, a gap maintaining member generating N-pole magnetism, a supporting shaft, and a fixing cap.

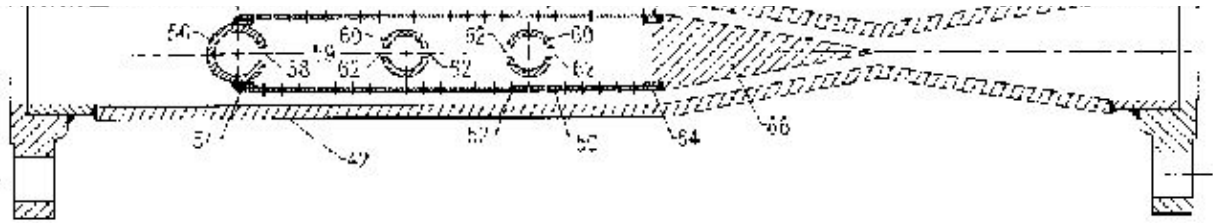
#### Magnetic inductor to revitalize water US5288401



A magnetic inductor for revitalizing water including a housing which contains two sets of magnets. A chamber between the two sets of magnets contains a central baffle with holes. Water or other fluid enters the chamber through the center of one set of magnets. The flow is slowed inside the chamber by the baffle between the sets of magnets so that the fluid is exposed to the magnetic field in the chamber. The fluid then flows out of the chamber through the center of the second set of magnets. Vortex-shaped protrusions on the baffle assist in directing the fluid flow throughout the chamber. The magnets are protected from the fluid by the housing.

#### US6076811 US5925292 Water charging machine



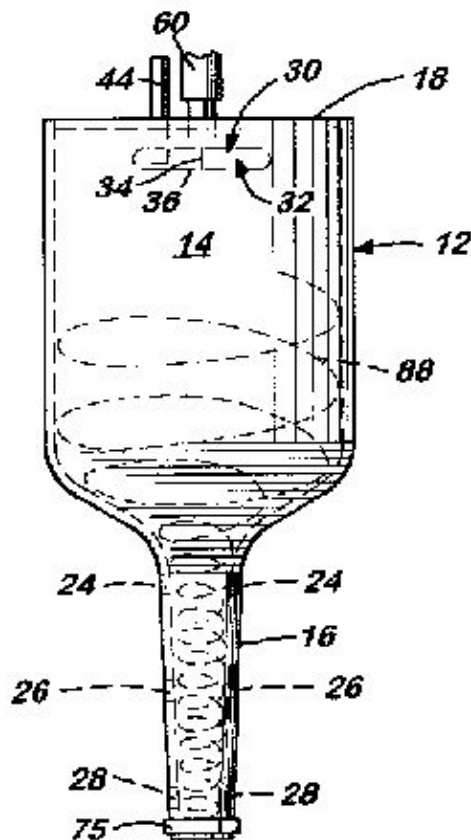


[ ZIESENIS RANDY ]

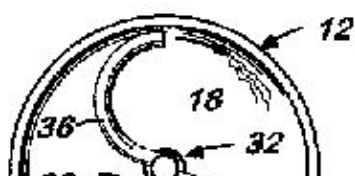
A water charging machine wherein the water being treated is moved downwardly through a vertically extending outer vortex and then moved in an upwardly extending inner vortex within the outer vortex. Oxygen may be introduced into the stream of water either upstream of the outer vortex or at the point of reversal of the water between the outer vortex and the inner vortex, or both, to provide a long shelf life incorporation of the gaseous oxygen in the water. The water and oxygen may also be exposed to a negative or positive magnetic field and a piezoelectric field to provide a substantial Zeta potential.

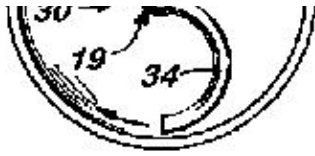
US6164332

In-line magnetic water manufacturing apparatus



**FIG. 2**



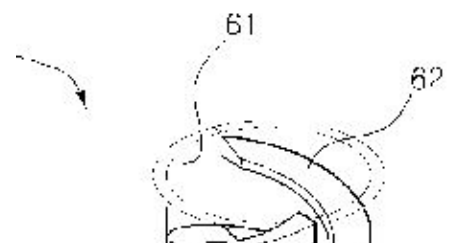
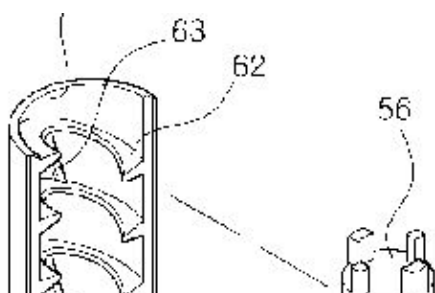
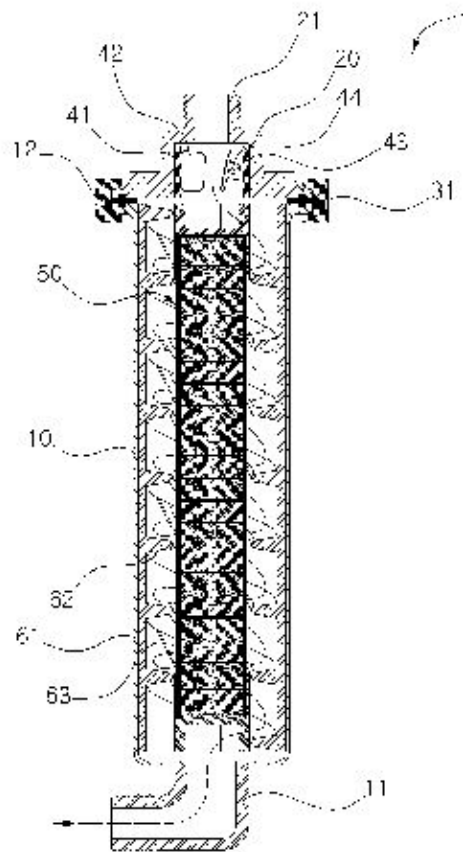


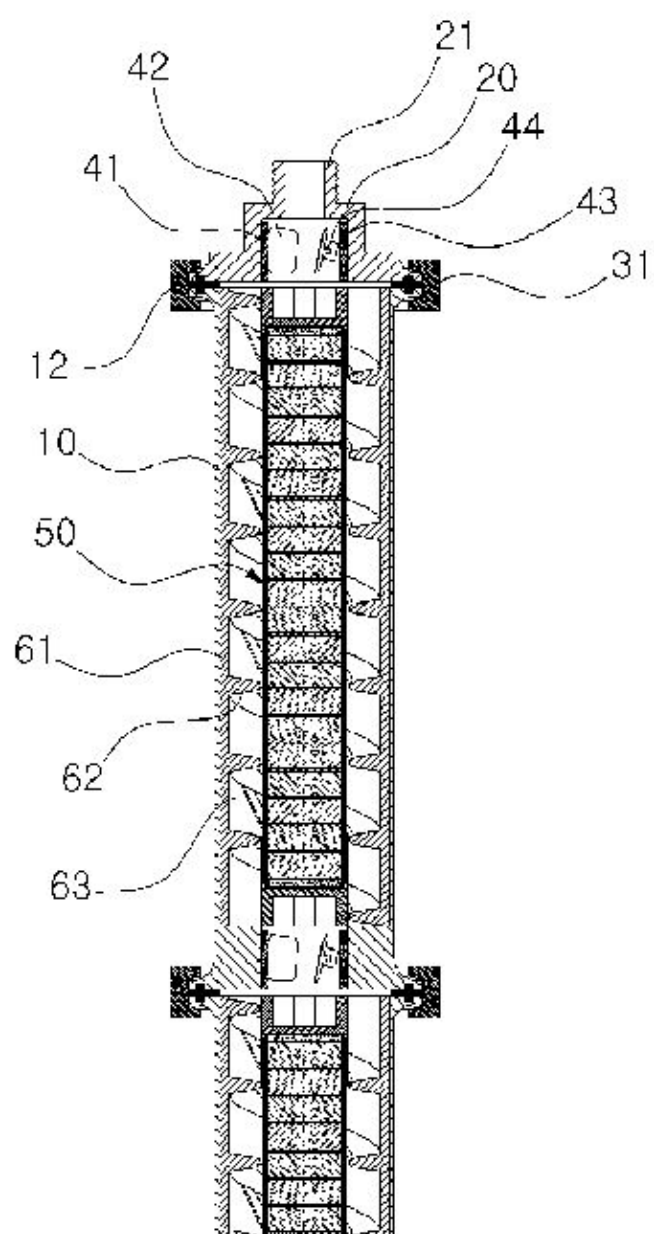
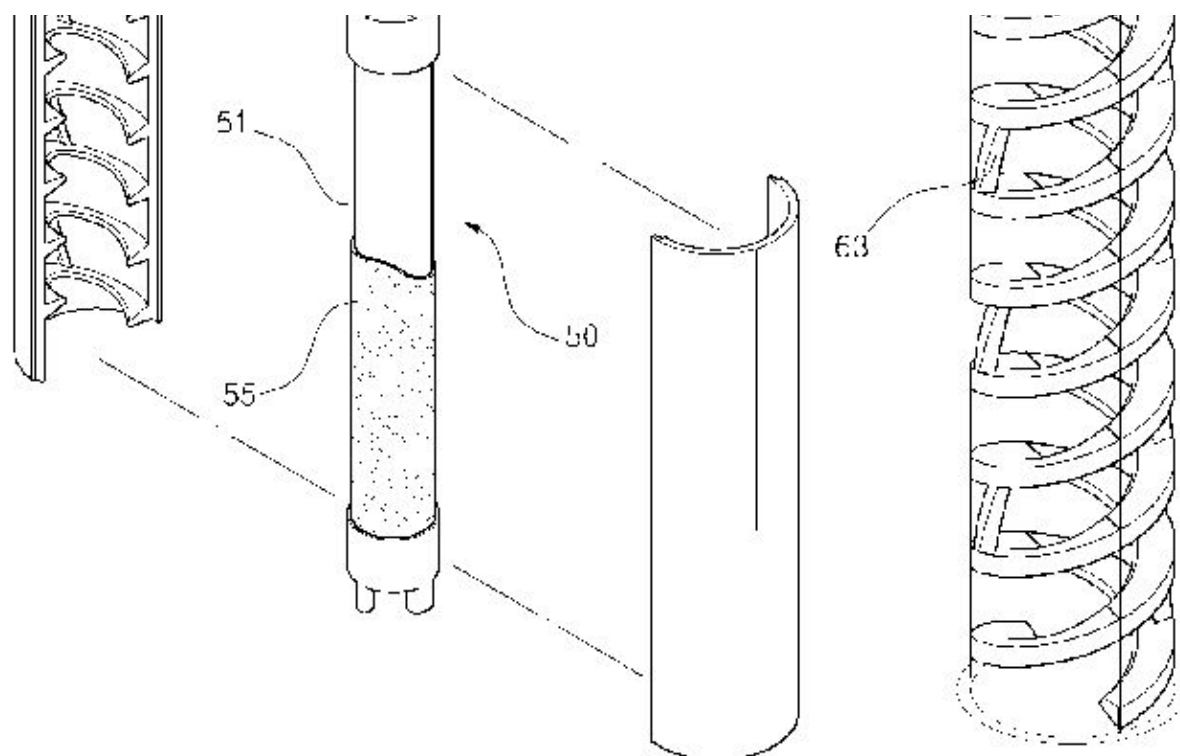
***FIG. 3***

[ Randy Hatton ]

An apparatus designed to manufacture a relatively large quantity of living water for a home or business. The apparatus includes a plurality of ampuls longitudinally aligned and connected together to enable the water delivered to the upper ampul to flow in a vortex pattern from the upper ampul to the lower ampul. Each ampul has a water dispensing unit which facilitates the flow of the water in a vortex pattern therein. Each ampul includes a longitudinally aligned neck with several pairs of magnets longitudinally aligned on the neck that create magnetic fields around the water as it flows in a vortex pattern through the neck. The apparatus is designed to be connected to a household water supply system and includes an optional holding tank and control valve.

# **APPARATUS FOR MAGNETIZING WATER** **KR100820944**

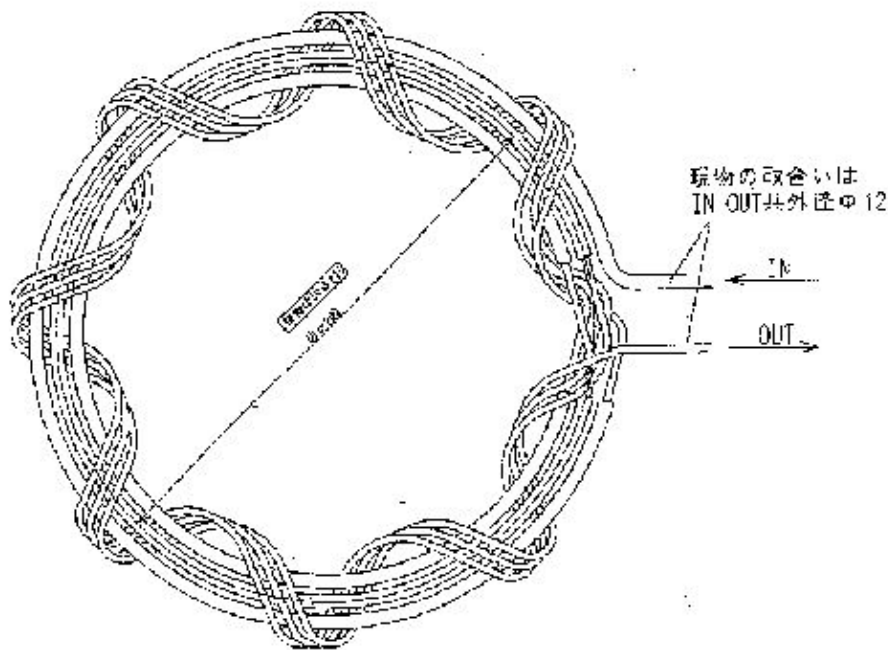








【図3】



**PROBLEM TO BE SOLVED:** To change physical properties of water by effectively activating water so as to use the same in an industrial product or medical treatment to promote one's health by allowing liquids to be treated to collide with each other at a high speed while revolving them to divide both liquids into fine particles and passing the liquids to be treated through a magnetic field of a fractal coil.

**SOLUTION:** Water sent from a pump or a tank under pressure is allowed to flow in from an inflow port 1 to be charged into a first storage chamber 3 and introduced into the straight pipe 5 and spiral pipe 7 extending along the center of the storage chamber 3. At this time, the flow rates of water flowing through the straight pipe 5 and the spiral pipe 7 are adjusted so as to become almost same.; By allowing the water passed through the straight pipe 5 and the water passed through the spiral pipe 7 to join with each other in a second storage chamber 3, both waters are mutually resonated by respective water molecules to generate predetermined vibration and passed through a magnetic field of a fractal coil. By repeating this treatment a plurality of times, a special magnetic field is generated by revolving streams or vortex streams generated by the spiral number of times to obtain activated water high in vibration energy.

---