



(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
31.03.2021 Bulletin 2021/13

(51) Int Cl.:
E03C 1/04 (2006.01)

(21) Application number: **20198322.8**

(22) Date of filing: **25.09.2020**

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
Designated Extension States:
BA ME
Designated Validation States:
KH MA MD TN

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(30) Priority: **25.09.2019 CN 201910910900**

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(54) **FAUCET WITH LUMINOUS HANDLE**

(57) A faucet with a luminous handle (42) comprises a faucet body (1), a water inlet pipe (21), a water outlet passage (3), and a handle portion (4). The faucet body (1) is disposed with a control valve (7) connected to the water inlet pipe (21) and the water outlet passage (3). The handle portion (4) is operatively connected to the control valve (7). The faucet with the luminous handle (42) further comprises a luminous assembly (5). The handle portion (4) comprises a connection seat (41) and a handle (42), wherein the connection seat (41) is operatively connected to the control valve (7). The handle (42) has a light transmitting performance and is configured to fixedly surround an outer side of the connection seat (41). The luminous assembly (5) is disposed on the connection seat (41). The handle (42) transmits light emitted by the luminous assembly (5) to shine outward. The faucet with the luminous handle has following advantages. The handle (42) has the handle performance to drive the connection seat (41) to move. The connection seat (41) controls the control valve (7) to achieve waterway control. Moreover, the handle (42) can emit light as a whole to create a comfortable luminous effect, the appearance is beautiful, and user experience is improved.

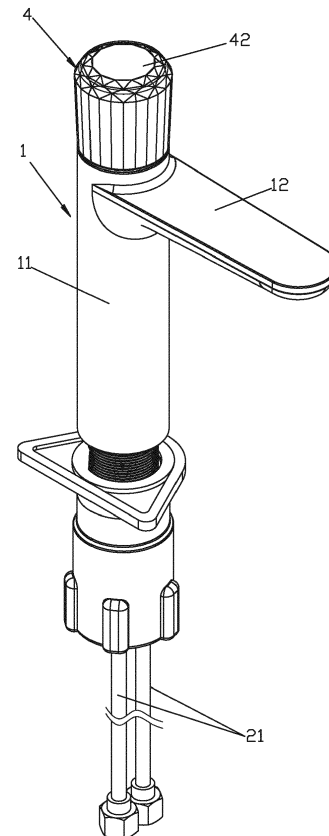


FIG. 1

Description

FIELD OF THE DISCLOSURE

[0001] The present disclosure relates to a faucet, and in particular relates to a faucet with a luminous handle.

BACKGROUND OF THE DISCLOSURE

[0002] A faucet comprises a faucet body, a water inlet pipe, a water outlet and a handle. The faucet body is provided with a control valve connecting the water inlet pipe and the water outlet. The control valve comprises a valve seat and a valve core that is moveable relative to the valve seat. The handle portion is operatively connected to the valve core to drive the valve core to control the water outflow and/or the water flow rate or the water temperature. The Chinese patent CN101576174B discloses a luminous faucet comprising a faucet body, a valve core, a power generation valve body, a temperature-sensing probe, and a luminous assembly; the luminous assembly is disposed in front of the faucet body, and the temperature-sensitive probe is disposed in a water outlet pipe of the faucet body; the valve core is fixed in the faucet body, the upper part of which is controlled by a control handle on the faucet body, and the lower part is connected to a water inlet pipe. The outlet of the valve core is connected to the power generation valve body, and the power generation valve body is connected to the water outlet pipe of the faucet body. The power generation valve body is fixed in the faucet body through a water dividing block. The water dividing block is sealed and fixed in the faucet body and is located below the valve core. The upper part is connected to the valve outlet and the lower side wall is provided with an inlet and an outlet; the power generation valve body is provided with an impeller, a permanent magnet, a coil, a coil sleeve and a circuit board. The impeller is pivotally connected to the power generation valve body, and the permanent magnet is fixed in the impeller, and the coil is fixed by the coil cover in the generator valve body and the coil is set in the position of the permanent magnet of the impeller, the circuit board is also fixed in the generator valve body. The coil is connected to the coil, the temperature-sensing probe and the luminous assembly to realize an electrical circuit. The faucet body has an inlet body provided with two water inlet passages in connection with the two inlet of the valve body. The inlet body seals and fixes the power generation valve body in the faucet body. The luminous assembly is arranged in front of the faucet body. There is a demand for further improvement in aesthetics and convenience.

BRIEF SUMMARY OF THE DISCLOSURE

[0003] The present disclosure provides a faucet with a luminous handle to overcome the deficiencies of the luminous faucet in the existing techniques.

[0004] In order to solve the technical problems, a technical solution of the present disclosure is as follows.

[0005] A faucet with a luminous handle comprises a faucet body, a water inlet pipe, a water outlet passage, and a handle portion. The faucet body is disposed with a control valve connected to the water inlet pipe and the water outlet passage. The handle portion is operatively connected to the control valve. The faucet with the luminous handle further comprises a luminous assembly. The handle portion comprises a connection seat and a handle, wherein the connection seat is operatively connected to the control valve. The handle has a light transmitting performance and is configured to fixedly surround an outer side of the connection seat. The luminous assembly is disposed on the connection seat. The handle transmits light emitted by the luminous assembly to shine outward.

[0006] In a preferred embodiment, the handle has a cover shaped structure and comprises an inner cover layer and an outer cover layer which are fixedly connected each other. The inner cover layer is made of a material configured to transmit light and uniformly disperse light. The outer cover layer is made of a material configured to transmit light.

[0007] In a preferred embodiment, the connection seat is fixedly connected to a surrounding opening of the handle.

[0008] In a preferred embodiment, the faucet with the luminous handle further comprises a hydroelectric mechanism disposed in the faucet body. The hydroelectric mechanism cooperates with the water outlet passage to use water flowing through the water outlet passage to achieve power generation. The hydroelectric mechanism is electrically connected to the luminous assembly.

[0009] In a preferred embodiment, the control valve comprises a valve seat and a valve core configured to be rotatably connected to the valve seat. The connection seat comprises a connection portion, and the connection portion cooperates with the valve core to enable the connection portion and the valve core to rotate synchronously. A tail end surface of the connection seat extends inward to define a mounting groove. The luminous assembly comprises a circuit board, the circuit board is disposed with a luminous body, and the circuit board is disposed in the mounting groove. A bottom of the mounting groove is disposed with a wire hole penetrating a head end surface of the connection seat, and a wire passes through the wire hole and is electrically connected to the hydroelectric mechanism and the circuit board.

[0010] In a preferred embodiment, a water inlet base is fixedly disposed in the faucet body, and the water inlet base is disposed below the valve seat. The hydroelectric mechanism is connected between the valve seat and the water inlet base. The water inlet base comprises two first lower through holes and a second lower through hole. Two water passing pipes and a wire passing pipe are fixedly disposed between the valve seat and the water inlet base. The two water passing pipes are respectively in communication with two first upper through holes of

the valve seat and the two first lower through holes. The wire passing pipe is in communication with a second upper through hole of the valve seat and the second lower through hole. Hot-cold water inlet pipes are respectively in communication with the two first lower through holes. The wire passes through the second lower through hole, the wire passing pipe, and the second upper through hole in an upward direction.

[0011] In a preferred embodiment, the faucet body comprises a mounting pipe and a protruding pipe fixedly connected to the mounting pipe and in communication with the mounting pipe, and the mounting pipe and the protruding pipe intersect. The mounting pipe comprises a connection opening in communication with the protruding pipe. The control valve and the water inlet base are both disposed in the mounting pipe. The handle portion is connected to a top portion of the mounting pipe. An upper seal portion disposed above the connection opening is disposed between the valve seat and the mounting pipe, and a lower seal portion disposed below the connection opening is disposed between the water inlet base and the mounting pipe.

[0012] In a preferred embodiment, a buckle cover disposed below the water inlet base is disposed in the mounting pipe, and the hot-cold water inlet pipes pass through the buckle cover in the upward direction. A buckle is disposed in the buckle cover, and the buckle is clamped to the hot-cold water inlet pipes. The buckle cover and the water inlet base are fastened together.

[0013] In a preferred embodiment, the faucet body comprises a mounting pipe and a protruding pipe fixedly connected to the mounting pipe and in communication with the mounting pipe, and the mounting pipe and the protruding pipe intersect. The mounting pipe comprises a connection opening in communication with the protruding pipe. The protruding pipe is disposed with a water outlet. The hydroelectric mechanism is disposed in the protruding pipe.

[0014] In a preferred embodiment, the control valve comprises a valve seat and a valve core configured to be rotatably connected to the valve seat, and the connection seat and the valve core are connected together and are configured to rotate synchronously. The faucet body comprises a main pipe and a protruding pipe fixedly connected to the main pipe and in communication with the main pipe, and the main pipe and the protruding pipe intersect. The control valve is disposed on the faucet body. The valve core is at least partially disposed in the protruding pipe. The handle portion is connected to a tail end of the protruding pipe. The hydroelectric mechanism is installed in the main pipe.

[0015] Compared with the existing techniques, the technical solution has the following advantages.

[0016] The handle has the handle performance to drive the connection seat to move. The connection seat controls the control valve to achieve waterway control. Moreover, the handle can emit light as a whole to create a comfortable luminous effect, the appearance is beautiful,

and user experience is improved.

[0017] The connecting seat and the valve core are connected together and can rotate synchronously, so that the connecting seat drives the valve core to rotate relative to the valve seat. The structure is compact, and the operation is convenient.

[0018] The connection base is fixedly connected to the surrounding opening of the handle to prevent unnecessary features or obstacles from blocking the light and creating a shadow surface.

[0019] The faucet body is disposed with a hydroelectric mechanism. The hydroelectric mechanism cooperates with the water outlet passage to use the water flowing through the water outlet passage to achieve power generation. The hydroelectric mechanism is electrically connected to the luminous assembly without external power supply, which is convenient for sealing performance design and appearance design, and the power is saved.

[0020] A mounting groove extends inward from a tail surface of the connection seat, and the circuit board of the luminous assembly is disposed in the mounting groove. A wire passes through the wire hole and is electrically connected to the hydroelectric mechanism and the circuit board. The layout is reasonable and the structure is compact.

[0021] The control valve comprises a valve seat and a valve core configured to be rotatably connected to the valve seat. The hydroelectric mechanism is disposed below the valve seat, the connection seat is disposed above the valve core, and the valve seat comprises four upper through holes, the cold-hot water inlet pipes are respectively connected to two first upper through holes, and the water outlet passage comprises a third upper through hole. A wire passes through the second upper through hole and is electrically connected to the hydroelectric mechanism and the luminous assembly. The layout is reasonable and the structure is compact.

[0022] A water inlet base is fixed in the faucet body, the water inlet base is disposed under the valve seat, and the hydroelectric mechanism is disposed between the valve seat and the water inlet base. The wire passing pipe is connected to the second upper through hole and the second lower through hole. The hot-cold water inlet pipes are respectively connected to the two first lower through holes. The wire passes through the second lower through holes, the wire passing pipe, and the second upper through holes in an upward direction. The layout is reasonable, the structure is compact, the sealing performance is good to prevent the wire from electronic shock due to water.

BRIEF DESCRIPTION OF THE DRAWINGS

[0023] The present disclosure will be further described below in combination with the accompanying drawings and embodiments.

FIG. 1 is a perspective view of a faucet of Embodi-

ment 1.

FIG. 2 is an exploded perspective view of main components of the faucet of Embodiment 1.

FIG. 3 is a partially cross-sectional perspective view of the faucet of Embodiment 1, and a water flow direction is indicated by an arrow in the Fig. 3.

FIG. 4 is a cross-sectional view of the faucet of Embodiment 1, and a water flow direction is indicated by an arrow in the Fig. 4.

FIG. 5 is a partially enlarged view of FIG. 4, and a water flow direction is indicated by an arrow in the Fig. 5.

FIG. 6 is a perspective view of a faucet of Embodiment 2.

FIG. 7 is a cross-sectional view of the faucet of Embodiment 2.

Fig. 8 is a partially cross-sectional view of a faucet of Embodiment 3.

DETAILED DESCRIPTION OF THE EMBODIMENTS

Embodiment 1

[0024] Referring to FIGS. 1-5. A faucet with a luminous handle comprises a faucet body 1, one or more water inlet pipes 21, a water outlet passage 3, a handle portion 4, a luminous assembly 5, and a hydroelectric mechanism 6. The one or more water inlet pipes 21 comprises cold-hot water inlet pipes 21. An inner side of the faucet body 1 is disposed with a control valve 7 connected to the cold-hot water inlet pipes 21 and the water outlet passage 3. The control valve 7 comprises a valve seat 71 and a valve core 72, and the valve core 72 is configured to be rotatably connected to the valve seat 71. The valve core 72 rotates relative to the valve seat 71 to control waterway, and the waterway control comprises switching control, water temperature adjustment, and flow rate adjustment.

[0025] The faucet body 1 comprises a mounting pipe 11 and a protruding pipe 12 fixedly connected to the mounting pipe 11 and in communication with the mounting pipe 11. The mounting pipe 11 and the protruding pipe 12 intersect to define a 7-shaped structure. The mounting pipe 11 comprises a connection opening in communication with the protruding pipe 12, and a tail end of the protruding pipe 12 is disposed with a water outlet 13.

[0026] The valve seat 71 is disposed in the mounting pipe 11. The valve seat 71 comprises a base 711 and a valve seat peripheral wall 712 extending upward from an outer periphery of the base 711. A transmission portion 721 protrudes from a top end of the valve core 72. The valve core 72 is configured to be rotatably disposed in the valve seat peripheral wall 712, and a bottom surface of the valve core 72 cooperates with an end surface of the base 711 to achieve the waterway control. The base 711 comprises two first upper through holes 713, a second upper through hole, and a third upper through hole

714 extending in an upper and lower direction (in a vertical direction). The bottom surface of the valve core 72 comprises a groove, and the groove cooperates with two first upper through holes 713 and the third upper through hole 714. Cold water and hot water respectively flows into the two first upper through holes 713, and mixed water flows out of the third upper through hole 714. The waterway control can be achieved due to rotating the valve core 72.

[0027] A water inlet base 8 is fixedly disposed in the mounting pipe 11, and the water inlet base 8 is disposed below the valve seat 71. The water inlet base 8 comprises two first lower through holes 81 and a second lower through hole. Two water passing pipes 22 and a wire passing pipe 51 are further fixedly disposed between the valve seat 71 and the water inlet base 8. The two water passing pipes 22 are respectively in communication with two first upper through holes 713 and two first lower through holes 81. The wire passing pipe 51 is in communication with the second upper through hole and the second lower through hole. The hydroelectric mechanism 6 is disposed between the valve seat 71 and the water inlet base 8, and the hydroelectric mechanism is disposed below the third upper through hole 714. An upper seal portion disposed above the connection opening is disposed between the valve seat peripheral wall 712 of the valve seat 71 and the mounting pipe 11, and a lower seal portion disposed below the connection opening is disposed between the water supply base 8 and the mounting pipe 11 to prevent the mixed water from flowing into an upper side of the upper seal portion or a lower side of the lower seal portion.

[0028] The cold-hot water inlet pipes 21 are respectively in communication with two first lower through holes 81 to provide hot-cold water for the control valve 7. The hot-cold water of the cold-hot water inlet pipes 21 respectively flows through the two first lower through holes 81 and the two water passing pipes 22, and flows into the two first upper through holes 713. The valve core 72 rotates relatively to control an intersection between the groove of the valve core 72, the two first upper through holes 713, and the third upper through hole 714, so that the hot-cold water flows into the third upper through hole 714 through the groove. Therefore, an area of the intersection is configured to control water switching, flow rate, and water temperature.

[0029] A water outlet cavity 31 is defined between the valve seat 71 and the water inlet base 8 in the mounting pipe 11. A gap exists between the mounting pipe 11 and the valve seat 71. The water outlet passage 3 comprises the third upper through hole 714, the hydroelectric mechanism 6, the water outlet cavity 31, the gap, the connection opening, and the protruding pipe 12, so that the mixed water flows out of the water outlet 13.

[0030] A buckle cover 82 disposed below the water inlet base 8 is further disposed in the mounting pipe 11, the buckle cover 82 is fastened to the water inlet base 8. The hot-cold water inlet pipes 21 pass through the buckle

cover 82 in an upward direction. A buckle is disposed in the buckle cover 82, and the buckle is fastened to the hot-cold water inlet pipes 21 to enable the hot-cold water inlet pipes 21 to be fixedly disposed.

[0031] In this embodiment, the mounting pipe 11 comprises a stepped surface facing upward, and the buckle cover 82 abuts the stepped surface. That is, the buckle cover 82 and the water inlet base 8 abut the stepped surface as a whole. The hydroelectric mechanism 6 is connected between the water inlet base 8 and the valve seat 71. The valve core 72 is disposed above the valve seat 71. The faucet with the luminous handle further comprises a rigid plate 14 and a gland nut 15, and the rigid plate 14 is, in an example, a stainless steel plate. The rigid plate 14 abuts an upper side of the valve core 72. The gland nut 15 is screwed to an upper port of the mounting pipe 11 and abuts an upper side of the rigid plate 14. The buckle cover 82, the water inlet base 8, the hydroelectric mechanism 6, the valve seat 71, and the valve core 72 are fixedly clamped due to the stepped surface and the gland nut 15. The transmission portion 721 of the valve core 72 passes through the rigid plate 14 in an upward direction. In this embodiment, the rigid plate 14 is configured to not only tightly abut the valve core, but also prevent wires from getting tangled when the wires pass through the gland nut 15.

[0032] In this embodiment, the hydroelectric mechanism 6 comprises a fixed seat 61, a rotor, and a stator. The fixed seat 61 comprises a closed cavity and a coupling groove, the closed cavity is hermetically isolated from the mating groove. The stator is fixedly disposed in the closed cavity, the rotor is configured to be rotatably disposed in the closed cavity. The rotor is fixedly disposed with a rotating shaft configured to rotate and hermetically extend out of the closed cavity to be disposed in the coupling groove, and the rotating shaft is fixedly disposed with an impeller 62 disposed in the coupling groove. A groove opening of the coupling groove is disposed with a water passing body 63, and the fixed seat 61 is disposed with a water drainage hole passing through the coupling groove. The water passing body 63 is disposed with an inclined water hole, and the inclined water hole is in communication with a lower port of the third upper through hole 714. When water from the inclined water hole flows into the coupling groove to impact the impeller 62 to rotate, the impeller 62 rotates to drive the rotor to rotate, and the rotor rotates relative to the stator to achieve power generation. The water in the coupling groove flows into the water outlet cavity 31 through the drainage hole.

[0033] The handle portion 4 is connected to a top portion of the mounting pipe 11. The handle portion 4 comprises a connection seat 41 and a handle 42, and the connection seat 41 operatively connected to the valve core 72 of the control valve 7. The handle 42 has a light-transmitting property and a cover-shaped structure. The handle 42 is configured to fixedly surround an outer side of the connection seat 41. In an example, the connection

seat 41 is fixedly connected to a surrounding opening of the handle 42. In some embodiments, the outer wall of the connection seat 41 protrudes to define a protrusion rib, and an inner wall of the handle 42 comprises a groove configured to cooperate with the protrusion rib, and the protrusion rib cooperates with and is connected to the groove. The faucet with the luminous handle further comprises a screw configured to be connected between the handle 42 and the connection seat 41, so that the handle 42 and the connection seat 41 are fixedly connected together. Therefore, the handle 42 rotates to drive the connection seat 41 to rotate.

[0034] A middle portion of the connecting seat 41 extends inward to define a connecting portion 411, and the transmission portion 721 of the valve core 72 cooperates with and is disposed in the connecting portion 411. Therefore, the connecting seat 41 rotates to drive the valve core 72 rotate relative to the valve seat 71 to achieve the waterway control.

[0035] The luminous assembly 5 comprises a circuit board, and the circuit board is disposed with a luminous body. A top surface (i.e., a tail end surface) of the connection base 4 extends inward to define a mounting groove 43, and the circuit board is fixedly disposed in the mounting groove 43. A bottom of the mounting groove 43 comprises a wire hole penetrating a head end surface of the connection seat 41 (penetrating in the upper and lower direction). The faucet with the luminous handle further comprises a wire 52, and one end of the wire 52 is connected to a bottom end of the hydroelectric mechanism 6. The bottom end of the hydropower generating mechanism 6 is disposed on the water inlet base 8 to be hermetically isolated from the water outlet cavity 31. The wire 52 passes through the water inlet base 8 in a downward direction, and then passes through the second lower through hole, the wire passing pipe 51, the second upper through hole, a gap between the valve seat peripheral wall 712 and the valve core 72 (a sealing ring is configured to be disposed between the valve core 72 and the base 711 of the valve seat 71, and upper ports of the two first upper through holes 713 and the third upper through hole 714 are disposed in the sealing ring), and the wire hole in the upward direction, and is electrically connected to the circuit board. A light emitted from the luminous body of the luminous assembly 5 shines outward through the handle 42.

[0036] The handle 42 comprises an inner cover layer 422 and an outer cover layer 421 fixedly connected each other, and the fixed connection is, in an example, integral molding, bonded connection, welded connection, or interlayer connection. The inner cover layer 422 is made of a material configured to transmit light and uniformly disperse light, such as PE, and the outer cover layer 421 is made of a material configured to transmit light, such as PMMA or PC.

[0037] A tail end of the outer cover layer 421 is disposed with a transparent crystal structure 4211 configured to achieve multiple surface refraction. An outer wall

of the outer cover layer 421 comprises a first peripheral wall 4212 and a first tail wall 4213. The first peripheral wall 4212 comprises a circular trapezoidal wall having a small head and a large tail, the first tail wall 4213 is a flat plane, and the transparent crystal structure 4211 is disposed between the first circular trapezoidal wall 4212 and the first tail wall 4213. An outer diameter of the first tail wall 4213 is smaller than an outer diameter of a tail end of the first circular trapezoidal wall 4212. An outer wall of the transparent crystal structure 4211 has a steep-to-flat structure in a direction from the first circular trapezoidal wall 4212 to the first tail wall 4213. A thickness of the outer cover layer 421 is gradually increased from the head end to the tail end.

[0038] The inner cover layer 422 comprises a second peripheral wall and a second tail wall, the second peripheral wall is a cylindrical wall, and the second tail wall is a flat plane.

[0039] In this embodiment, the faucet with the luminous handle further comprises a temperature sensor disposed in the water outlet passage 3, and the temperature sensor is signally connected to the circuit board to enable a light color of the luminous body to change according to water temperature.

[0040] In this embodiment, the inner cover layer 422 is configured to transmit light and uniformly disperse light. When light shines on the inner cover layer 422, the inner cover layer 422 absorbs light and uniformly disperses the light on an outer wall surface of the inner cover layer 422. The outer cover layer 421 comprises a transparent crystal structure 4211 having a multiple surface refractive appearance, in an example, a diamond surface design, which can well refract the light evenly emitted by the inner cover layer 422 to create a colorful and dazzling appearance. The transparent crystal structure 4211 has a steep-to-flat design. The circular trapezoidal wall has the small head and the large tail. The first tail wall 4213 is the flat plane. The outer diameter of the first tail wall 4213 is smaller than the outer diameter of the tail end of the first circular trapezoidal wall 4212. The thickness of the outer cover 421 is gradually increased from the head end to the tail end. Therefore, a top end of the handle presents a moderate-sized light and shadow circle to well project outer scenes into the circle. In this embodiment, the handle 42 has a handle performance to drive the connecting seat 41 to rotate, and the connecting seat 41 drive the valve core 72 to rotate achieve the waterway control. Moreover, the handle can emit light as a whole to create a comfortable lighting effect, and an appearance is beautiful.

Embodiment 2

[0041] Referring to FIGS. 6 and 7, this embodiment differs from Embodiment 1 in that the faucet with the luminous handle is a kitchen faucet, and the faucet body 1 comprises a main pipe 16 and a protruding pipe 17 fixedly connected to the main pipe 16 and in communi-

cation with the main pipe 16. The main pipe 16 and the protruding pipe 17 intersect. The control valve 7 is disposed in the faucet body 1, and at least the valve core 72 is disposed in the protruding pipe 17. The handle portion 4 is connected to a tail end of the protruding pipe 17, and the hydroelectric mechanism 6 is disposed in the main pipe 16. As needed, the one or more water inlet pipes 21 can only comprises a water passing pipe, and the waterway control of the control valve 7 comprises switching control and flow rate adjustment.

Embodiment 3

[0042] Referring to FIG. 8, this embodiment differs from Embodiment 1 in that the hydroelectric mechanism 6 is disposed in the protruding pipe 12.

[0043] The aforementioned embodiments are merely some embodiments of the present disclosure, and the scope of the disclosure of is not limited thereto. Thus, it is intended that the present disclosure cover any modifications and variations of the presently presented embodiments provided they are made without departing from the appended claims and the specification of the present disclosure.

Claims

1. A faucet with a luminous handle, comprising

a faucet body (1),
a water inlet pipe (21),
a water outlet passage (3), and
a handle portion (4),
the faucet body (1) is disposed with a control valve (7) connected to the water inlet pipe (21) and the water outlet passage (3),
the handle portion (4) is operatively connected to the control valve (7), **characterized in that**

the faucet with the luminous handle further comprises a luminous assembly (5),
the handle portion (4) comprises a connection seat (41) and a handle (42), wherein the connection seat (42) is operatively connected to the control valve (7),
the handle (42) has a light transmitting performance and is configured to fixedly surround an outer side of the connection seat (41),
the luminous assembly (5) is disposed on the connection seat (41), and
the handle (42) transmits light emitted by the luminous assembly (5) to shine outward.

2. The faucet with the luminous handle according to claim 1, **characterized in that**

- the handle (5) has a cover shaped structure and comprises an inner cover layer (422) and an outer cover layer (421) which are fixedly connected each other,
 the inner cover layer (422) is made of a material configured to transmit light and uniformly disperse light, and
 the outer cover layer (421) is made of a material configured to transmit light.
3. The faucet with the luminous handle according to claim 1, **characterized in that** the connection seat (41) is fixedly connected to a surrounding opening of the handle (42).
4. The faucet with the luminous handle according to claim 1, **characterized in that**
- the faucet with the luminous handle further comprises a hydroelectric mechanism (6) disposed in the faucet body (1),
 the hydroelectric mechanism (6) cooperates with the water outlet passage (3) to use water flowing through the water outlet passage (3) to achieve power generation, and
 the hydroelectric mechanism (6) is electrically connected to the luminous assembly (5).
5. The faucet with the luminous handle according to claim 4, **characterized in that**
- the control valve (7) comprises a valve seat (71) and a valve core (72) configured to be rotatably connected to the valve seat (71),
 the connection seat (41) comprises a connection portion (411),
 the connection portion (411) cooperates with the valve core (72) to enable the connection portion (411) and the valve core (72) to rotate synchronously,
 a tail end surface of the connection seat (41) extends inward to define a mounting groove (43),
 the luminous assembly (5) comprises a circuit board,
 the circuit board is disposed with a luminous body,
 the circuit board is disposed in the mounting groove (43),
 a bottom of the mounting groove (43) is disposed with a wire hole penetrating a head end surface of the connection seat (41), and
 a wire (52) passes through the wire hole and is electrically connected to the hydroelectric mechanism (6) and the circuit board.
6. The faucet with the luminous handle according to claim 4, **characterized in that**
- a water inlet base (8) is fixedly disposed in the faucet body (1),
 the water inlet base (8) is disposed below the valve seat (71),
 the hydroelectric mechanism (6) is connected between the valve seat (71) and the water inlet base (8),
 the water inlet base (8) comprises two first lower through holes (81) and a second lower through hole,
 two water passing pipes (22) and a wire passing pipe (51) are fixedly disposed between the valve seat (71) and the water inlet base (8),
 the two water passing pipes (22) are respectively in communication with two first upper through holes (713) of the valve seat (71) and the two first lower through holes (81),
 the wire passing pipe (51) is in communication with a second upper through hole of the valve seat (71) and the second lower through hole,
 hot-cold water inlet pipes (21) are respectively in communication with the two first lower through holes (81),
 the wire (52) passes through the second lower through hole, the wire passing pipe (51), and the second upper through hole in an upward direction.
7. The faucet with the luminous handle according to claim 6, **characterized in that**
- the faucet body (1) comprises a mounting pipe (11) and a protruding pipe (12) fixedly connected to the mounting pipe (11) and in communication with the mounting pipe (11),
 the mounting pipe (11) and the protruding pipe (12) intersect,
 the mounting pipe (11) comprises a connection opening in communication with the protruding pipe (12),
 the control valve (7) and the water inlet base (8) are both disposed in the mounting pipe (11),
 the handle portion (4) is connected to a top portion of the mounting pipe (11),
 an upper seal portion disposed above the connection opening is disposed between the valve seat (71) and the mounting pipe (11), and
 a lower seal portion disposed below the connection opening is disposed between the water inlet base (8) and the mounting pipe (11).
8. The faucet with the luminous handle according to claim 6, **characterized in that**
- a buckle cover (82) disposed below the water inlet base (8) is disposed in the mounting pipe (11),
 the hot-cold water inlet pipes (21) pass through

the buckle cover (82) in the upward direction,
 a buckle is disposed in the buckle cover (82),
 the buckle is clamped to the hot-cold water inlet
 pipes (21), and
 the buckle cover (82) and the water inlet base (8) are fastened together. 5

9. The faucet with the luminous handle according to claim 4, **characterized in that**

10
 the faucet body (1) comprises a mounting pipe (11) and a protruding pipe (12) fixedly connected to the mounting pipe (11) and in communication with the mounting pipe (12),
 the mounting pipe (11) and the protruding pipe (12) intersect, 15
 the mounting pipe (11) comprises a connection opening in communication with the protruding pipe (12),
 the protruding pipe (12) is disposed with a water outlet (13), and 20
 the hydroelectric mechanism (6) is disposed in the protruding pipe (12).

10. The faucet with the luminous handle according to claim 4, **characterized in that** 25

the control valve (7) comprises a valve seat (71) and a valve core (72) configured to be rotatably connected to the valve seat (71), 30
 the connection seat (41) and the valve core (72) are connected together and are configured to rotate synchronously,
 the faucet body (1) comprises a main pipe (16) and a protruding pipe (17) fixedly connected to the main pipe (16) and in communication with the main pipe (16), 35
 the main pipe (16) and the protruding pipe (17) intersect,
 the control valve (7) is disposed on the faucet body (1), 40
 the valve core (72) is at least partially disposed in the protruding pipe (17),
 the handle portion (4) is connected to a tail end of the protruding pipe (17), and 45
 the hydroelectric mechanism (6) is installed in the main pipe (16).

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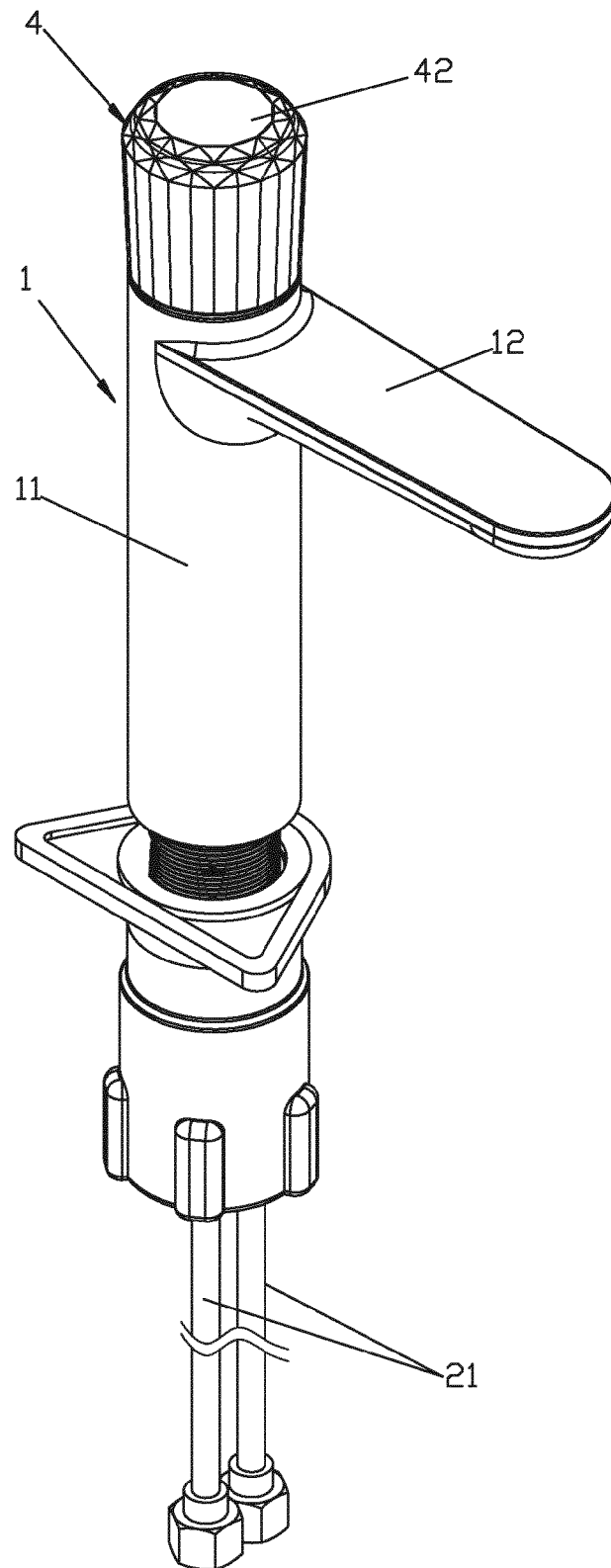


FIG. 1

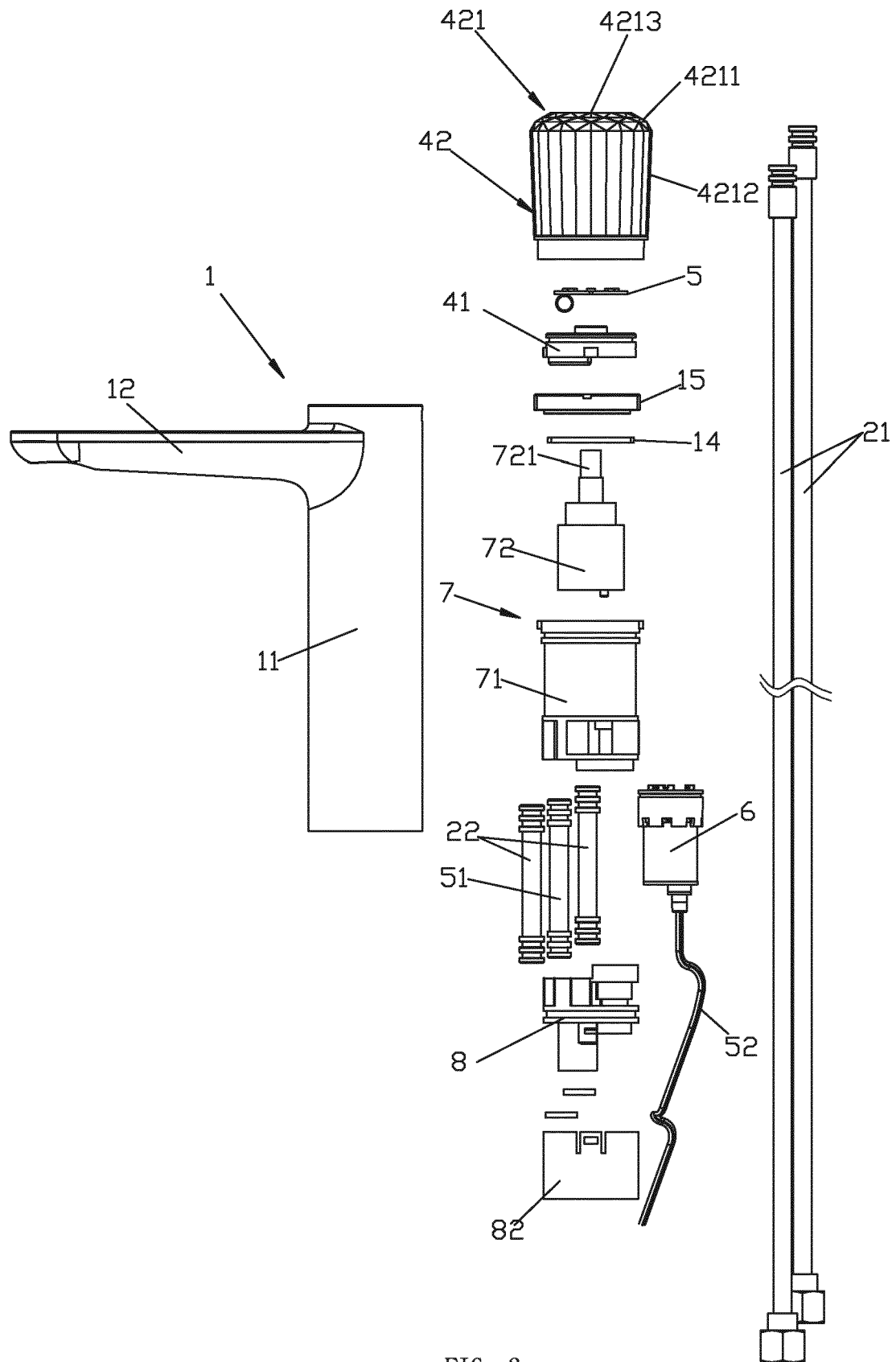


FIG. 2

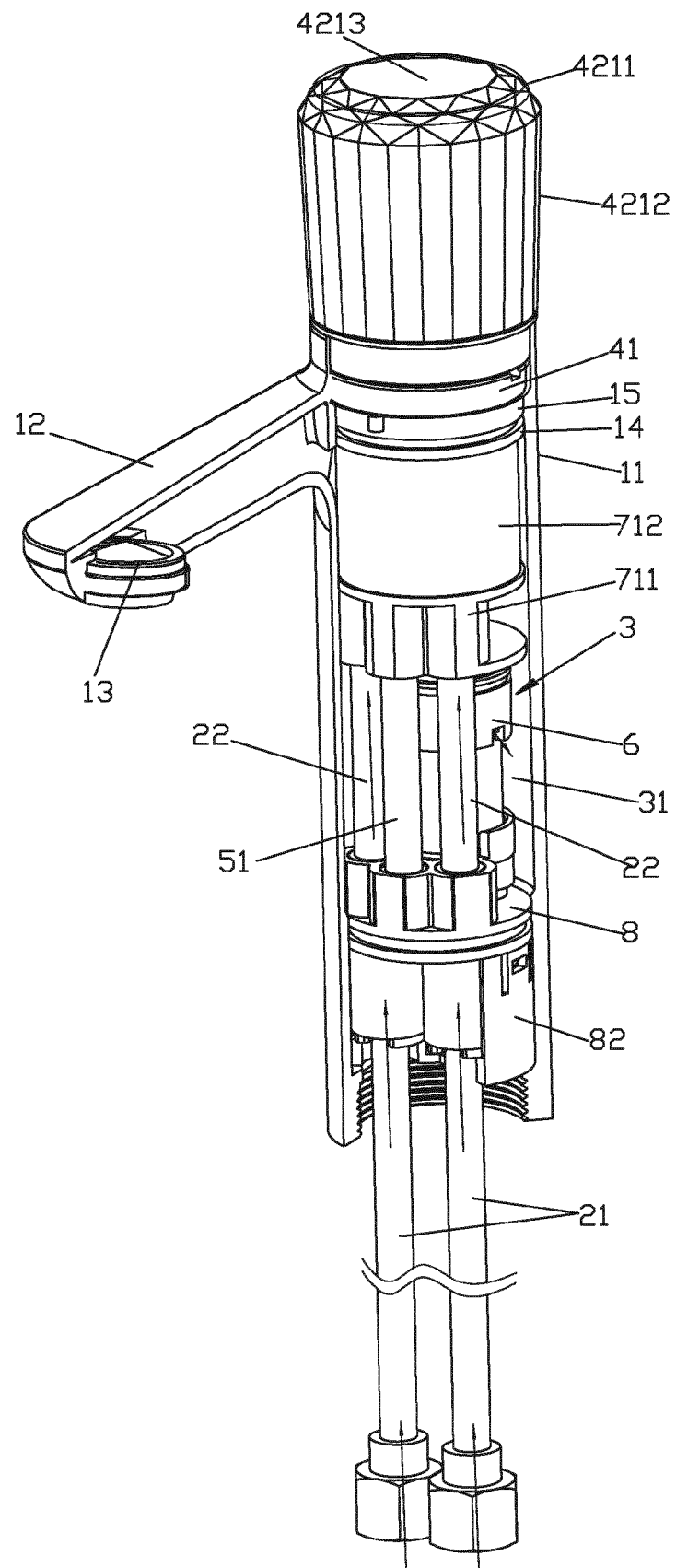


FIG. 3

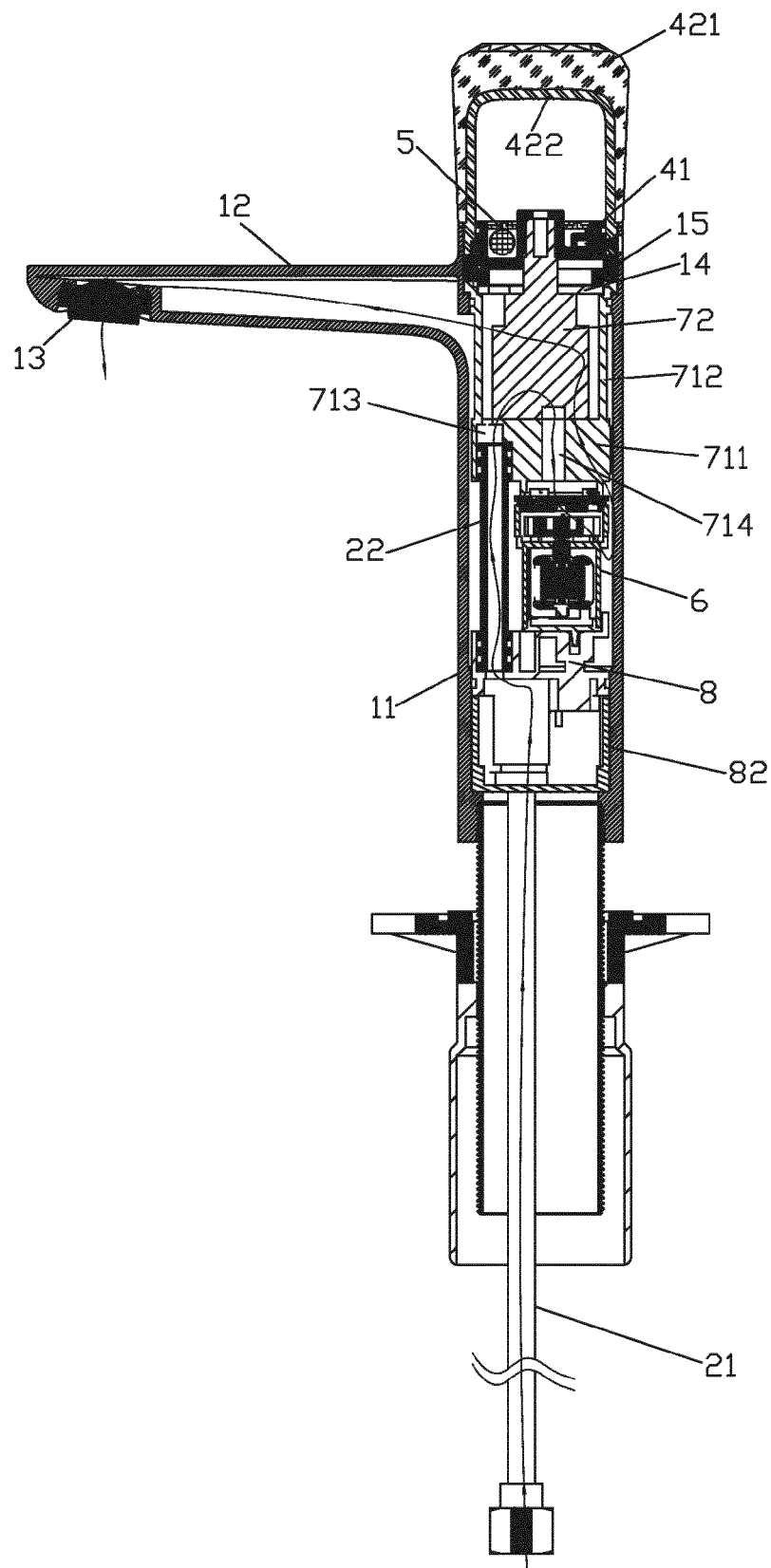


FIG. 4

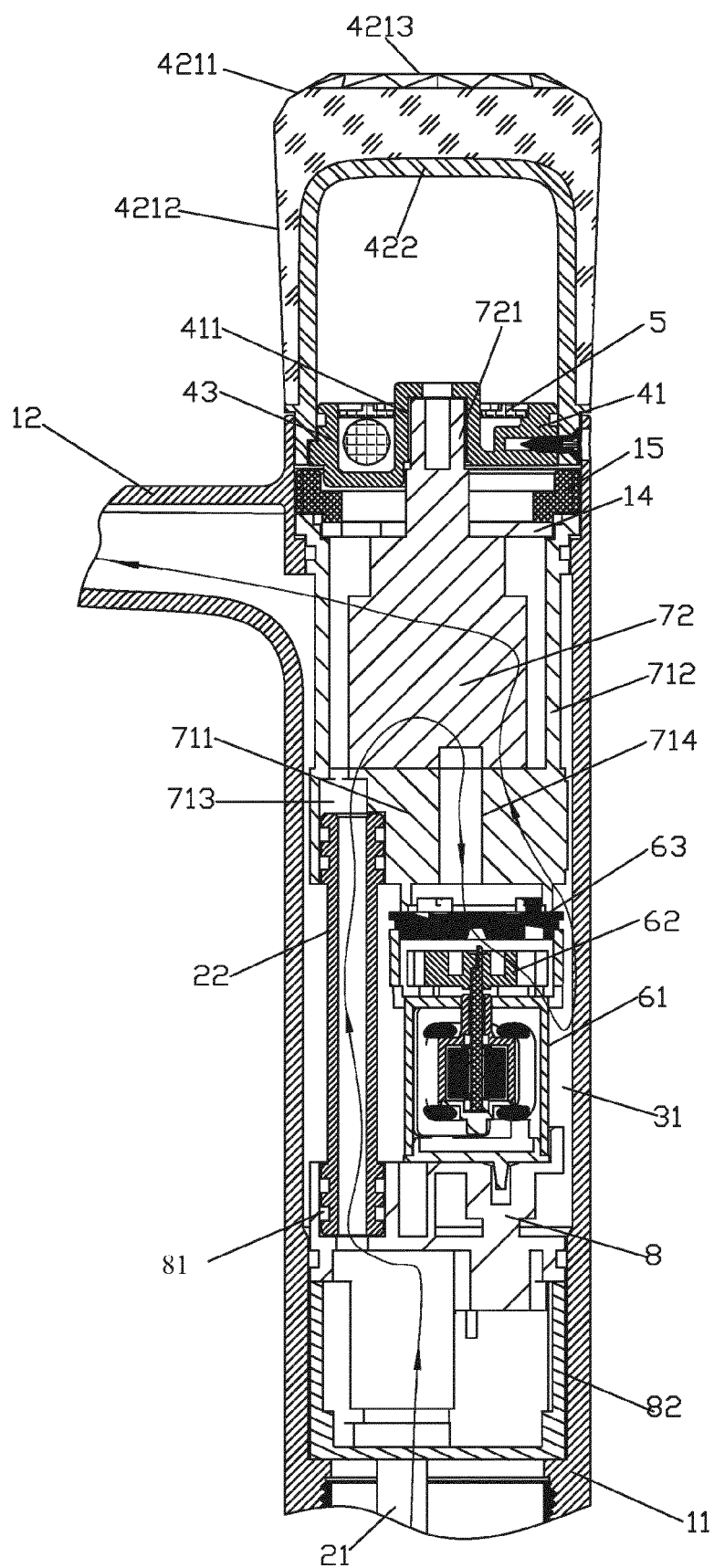


FIG. 5

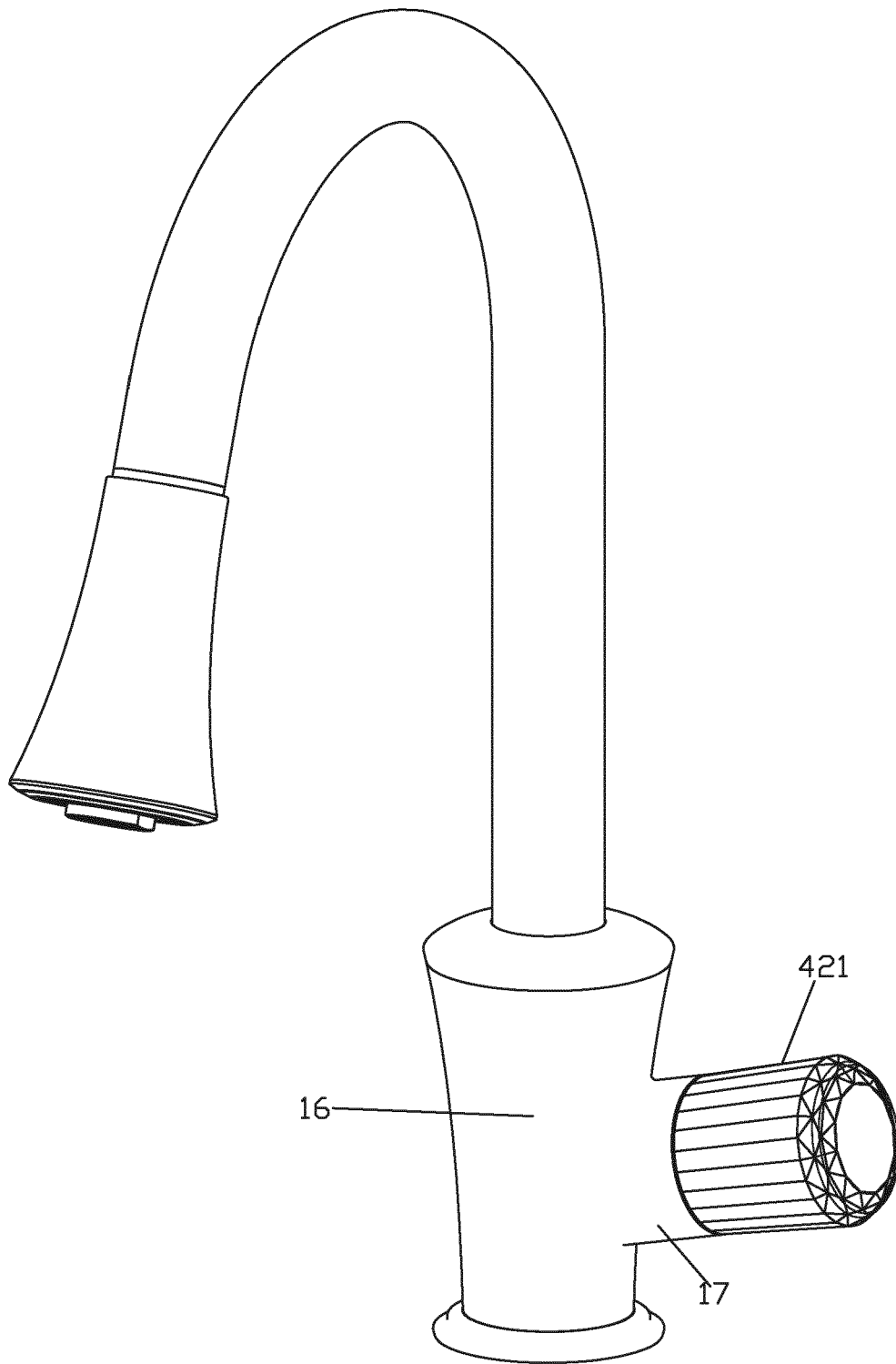


FIG. 6

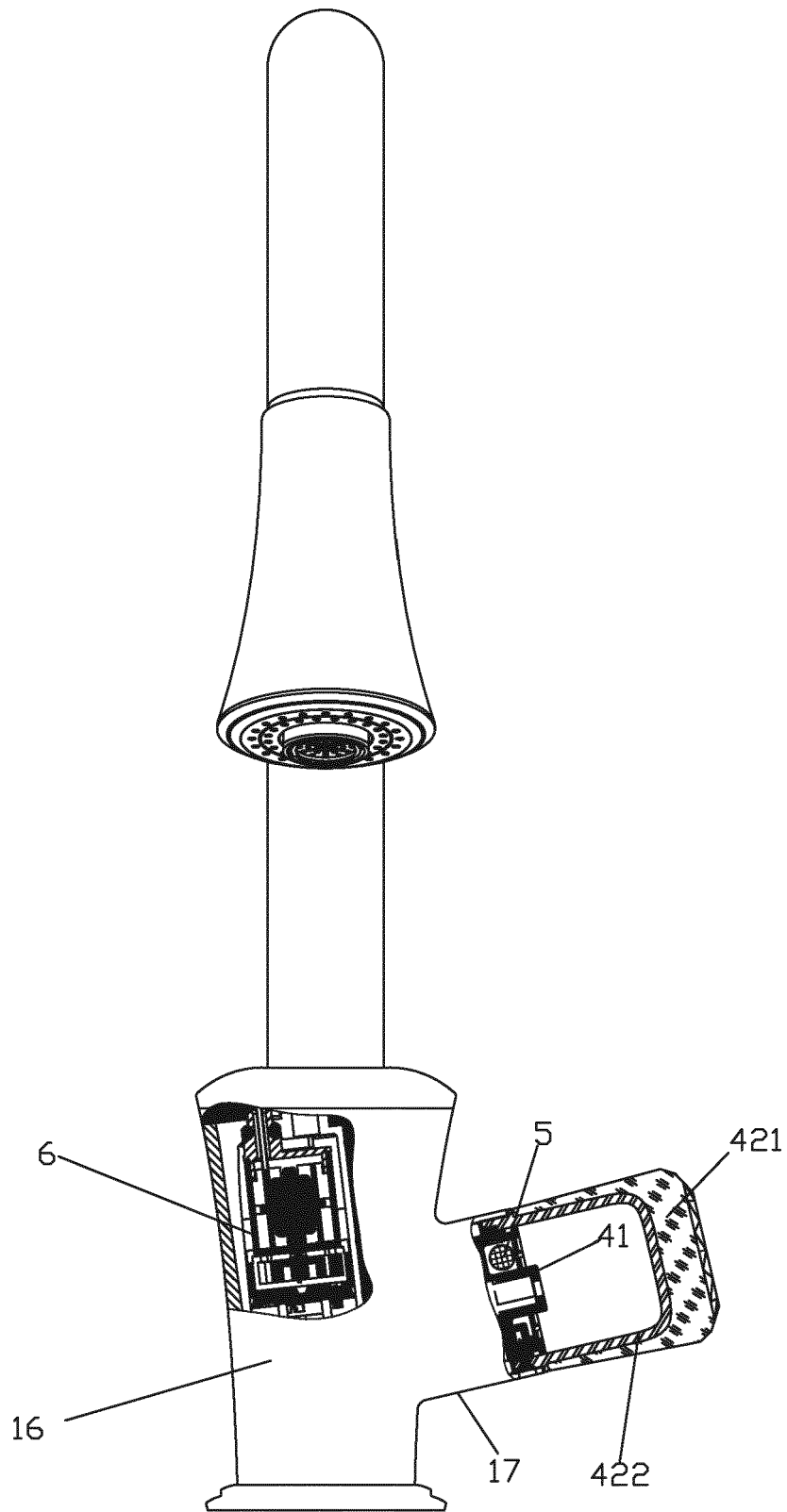


FIG. 7

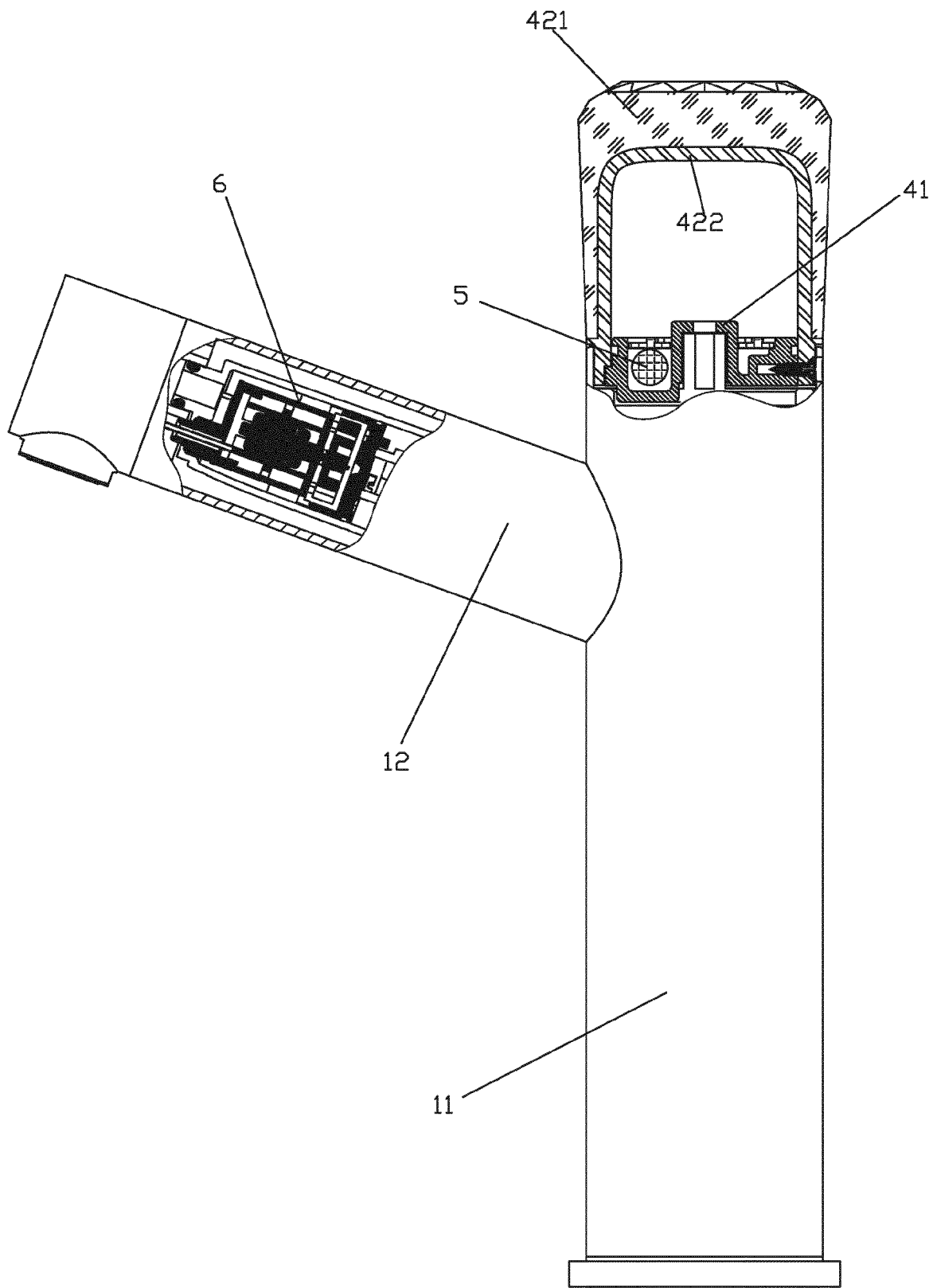


FIG. 8



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