

ABSTRACT OF THE DISCLOSURE

A faucet assembly includes synchronously rotatable first and second spouts for releasing filtered and unfiltered water therefrom.

5 (The most illustrative drawing is Figure 3)

**TITLE: FAUCET ASSEMBLY HAVING OVERLAPPING SPOUTS FOR
RELEASING FILTERED AND UNFILTERED WATER
THEREFROM**

FIELD OF THE INVENTION

5 This invention relates to a faucet assembly, more particularly to a faucet assembly which has two spouts for releasing filtered and unfiltered water therefrom.

BRIEF DESCRIPTION OF THE DRAWINGS

10 In drawings which illustrate embodiments of the present invention,

Figure 1 is a perspective view of a conventional single spout faucet assembly;

Figure 1A is an partly exploded view of a
15 conventional two-spout faucet assembly;

Figure 2 is an exploded view of the preferred embodiment of a faucet assembly of the present invention;

Figure 3 is a sectional view of the preferred
20 embodiment;

Figure 4 is a sectional view of the preferred embodiment taken along lines IV-IV in Figure 3; and

Figure 5 is a perspective view of the preferred embodiment in use.

25 **BACKGROUND OF THE INVENTION**

Referring to Figure 1, a conventional faucet assembly is shown to include a faucet body 1, a tubular

housing 2, a spout 4 and a control knob 3.

As illustrated, the faucet body 1 defines a water passage chamber having a cold water inlet adapted to be connected fluidly with a cold water supply source 111, a hot water inlet adapted to be connected fluidly with a hot water supply source 112, and a water outlet for discharging water therefrom.

The tubular housing 2 is sleeved rotatably around the faucet body 1, and has a peripheral wall with upper and lower ends establishing a water-tight seal in cooperation with the faucet body 1 so as to define an annular chamber between the tubular housing 2 and the faucet body 1, and between the upper and lower ends of the peripheral wall. The annular chamber is in fluid communication with the water passage chamber via the water outlet. The housing 2 further has a spout mounting port which is in fluid communication with the annular chamber and from which the spout 4 extends integrally and outwardly so as to guide the water inside the annular chamber to an exterior of the faucet assembly.

The control knob 3 is mounted on the tubular housing 2 for regulating and stopping flow of the water from the annular chamber to the exterior of the faucet assembly.

Since the aforesaid conventional faucet assembly is provided with only one spout, water discharged

therefrom is generally not filtered and is thus fit only for washing and common use. In order to obtain drinking water, a two-spout faucet assembly 10 (see Figure 1A) is provided with two spouts that are spaced
5 apart from each other. As a result, a relatively large sink is needed to be disposed under two spouts of the assembly 10 (see Figure 1A).

SUMMARY OF THE INVENTION

Therefore, the object of this invention is to
10 provide a faucet assembly with two spouts that are adapted to release filtered and unfiltered water therefrom and that are disposed in an overlapping manner for use with a volume-reduced sink.

Accordingly, the faucet assembly of the present
15 invention includes a faucet body, a tubular housing, a hollow tube, a first spout, a second spout, and first and second control knobs. The faucet body includes an upper faucet portion defining a first water passage chamber having a cold water inlet adapted to be
20 connected fluidly with a cold water supply source, a hot water inlet adapted to be connected fluidly with a hot water supply source, and a first water outlet. The faucet body further includes a lower faucet portion defining a second water passage chamber
25 isolated fluidly from the first water passage chamber. The second water passage chamber has an inlet adapted to be connected fluidly with a filtered water source

so as to receive filtered water therefrom, and a second water outlet adapted for discharging the filtered water therefrom. The housing is sleeved rotatably around the faucet body, and includes an upper housing
5 portion that establishes a first water-tight seal in cooperation with the upper faucet portion so as to define a first annular chamber therebetween in communication with the first water passage chamber via the first water outlet and that is formed with a first
10 spout mounting port, and a lower housing portion that is disposed around the lower faucet portion and that defines an annular tube accommodating space therebetween. The tube has an axial length and a width that are smaller than those of the housing, and is
15 disposed inside the tube accommodating space. The tube has a peripheral wall with two opposite ends connected to the lower faucet portion so as to establish a second water-tight seal and a second annular chamber between the lower faucet portion and
20 the peripheral wall, and between the opposite ends of the peripheral wall of the tube. The second annular chamber is in fluid communication with the second water passage chamber via the second water outlet. The tube has a second spout mounting port formed in
25 the peripheral wall and in fluid communication with the second annular chamber. The first spout extends integrally, radially and outwardly from the upper

housing portion and is in fluid communication with the first spout mounting port for guiding water outwardly from the first annular chamber. The second spout is operably associated with the first spout so as to
5 synchronously rotate therewith relative to the faucet body. The second spout extends generally parallel with the first spout and through the lower housing portion and is connected integrally to the tube. The second spout is in fluid communication with the second
10 spout mounting port so as to be adapted to guide the filtered water outwardly from the second annular chamber. The first control knob is mounted on the tubular housing for selectively closing and opening the cold and hot water inlets and the first outlet upon
15 operation thereof. The second control knob is adapted to regulate and stop flow of the filtered water to the second spout mounting port in the tube.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to Figures 2 and 3, the preferred
20 embodiment of a faucet assembly according to the present invention is shown to include a faucet body 20, a tubular housing 30, a hollow tube 80, a first spout 70, a second spout 82, a first control knob 40 and a second control knob 310 (see Fig. 5).

25 As illustrated, the faucet body 20 includes an upper faucet portion 201 defining a first water passage chamber 201C having a cold water inlet 21

adapted to be connected fluidly with a cold water supply source 100, a hot water inlet 22 adapted to be connected fluidly with a hot water supply source 200, and a first water outlet 23. The faucet body 20 further includes a lower faucet portion 202 defining a second water passage chamber 202C (see Fig. 3) that is isolated fluidly from the first water passage chamber 201C. The second water passage chamber 202C has an inlet (not visible) adapted to be connected fluidly with a filter device 300 (see Figure 5) via a filter pipe 110 so as to receive filtered water therefrom, and a second water outlet 25 adapted for discharging the filtered water therefrom.

The housing 30 is sleeved rotatably around the faucet body 20, and includes an upper housing portion 301 that establishes a first water-tight seal in cooperation with the upper faucet portion 201 so as to define a first annular chamber 31 therebetween in communication with the first water passage chamber 201C via the first water outlet 23, and that is formed with a first spout mounting port 303. The housing 30 further has a lower housing portion 302 disposed around the lower faucet portion 202 and defining an annular tube accommodating space 32 therebetween.

The hollow tube 80 has an axial length and a width that are smaller than those of the tubular housing 30, and is disposed inside the tube accommodating space

32 defined between the lower faucet portion 202 and the lower housing portion 302. The tube 80 has a peripheral wall 81 with two opposite ends connected to the lower faucet portion 202 so as to establish a second water-tight seal and a second annular chamber 34 between the lower faucet portion 202 and the peripheral wall 81, and between the ends of the peripheral wall 81 in the tube 80. The second annular chamber 34 is in fluid communication with the second water passage chamber 202C via the second water outlet 25. The tube 80 further has a second spout mounting port 803 formed in the peripheral wall 81 and in fluid communication with the second annular chamber 34. Preferably, two pairs of rubber rings 24 are employed to form the first and second water-tight seals.

The first spout 70 extends integrally, radially and outwardly from the upper housing portion 301 and is in fluid communication with the first spout mounting port 303 for guiding water outwardly from the first annular chamber 31. Preferably, the first spout 70 has an inner end integrally connected to the periphery defining the first spout mounting port 303.

The second spout 82 is operably associated with the first spout 70 so as to synchronously rotate therewith relative to the faucet body 20. The second spout 82 extends generally parallel with the first spout 70 and through the lower housing portion 302 and connected

integrally to the tube 80. The second spout 82 is in fluid communication with the second spout mounting port 803 so as to be adapted to guide the filtered water outwardly from the second annular chamber 34. Preferably, the second spout 82 has an inner end integrally connected to the periphery defining the second spout mounting port 803 in the tube 80.

The first control knob 40 is mounted on the tubular housing 30 for selectively closing and opening the cold and hot water inlets 21,22 and the first outlet 23 upon operation thereof. Preferably, the first control knob 40 includes a valve confining seat 50 fixed on the top end of the housing 30 so as to define a valve accommodating space 31, a valve unit 400 disposed rotatably within the space 31, and an operating lever 60 disposed over the seat 50 and operably attached to the valve unit 400.

The second control knob 310 can regulate and stop flow of the filtered water to the second spout mounting port 803 in the tube 80. In this embodiment, a rotary valve serves as the second control knob 310. Since the structure of the rotary valve is not pertinent to the present invention, a detailed description of the same is omitted herein for the sake of brevity.

In this embodiment, the first spout 70 includes a spout pipe of an inverted U-shaped cross-section extending from the housing 30 generally in a

horizontal direction, and defines an accommodating slot 71 therein (see Figure 4). The second spout 82 has an intermediate spout body 820 (see Figure 4) of oval-shaped cross section received in the
5 accommodating slot 71 in the first spout 70 so as to be co-rotatable with the first spout 70.

Preferably, the lower housing portion 302 in the housing 30 has a notch 33 formed in a lower end thereof and in communication with the slot 71 in the first
10 spout 70. Under this condition, the second spout 82 extends into the slot 71 in the first spout 70 through the notch 33 in the lower housing portion 302.

A connecting pipe 120 is employed to supply cold water to the filter device 300.

15 Since the first and second spouts 70,82 are disposed in an overlapping manner, a volume-reduced sink is required to be disposed under the faucet assembly of the present invention. The object of the invention is thus met.

I CLAIM:

1. A faucet assembly comprising:

a faucet body including

an upper faucet portion defining a first water
5 passage chamber having a cold water inlet adapted
to be connected fluidly with a cold water supply
source, a hot water inlet adapted to be connected
fluidly with a hot water supply source and a first
water outlet, and

10 a lower faucet portion defining a second water
passage chamber isolated fluidly from the first
water passage chamber, the second water passage
chamber having an inlet adapted to be connected
fluidly with a filtered water source so as to receive
15 filtered water therefrom, and a second water outlet
adapted for discharging the filtered water
therefrom;

a tubular housing sleeved rotatably around the
faucet body, and including an upper housing portion
20 that establishes a first water-tight seal in
cooperation with the upper faucet portion so as to
define a first annular chamber therebetween in
communication with the first water passage chamber
via the first water outlet, and that is formed with
25 a first spout mounting port, and a lower housing
portion disposed around the lower faucet portion
and defining an annular tube accommodating space

therebetween;

5 a hollow tube of an axial length and a width that are smaller than those of the tubular housing, the hollow tube being disposed inside the tube
accommodating space, and having a peripheral wall with two opposite ends connected to the lower faucet
portion so as to establish a second water-tight seal and a second annular chamber between the lower
faucet portion and the peripheral wall and between
10 the ends of the peripheral wall of the tube and in fluid communication with the second water passage chamber via the second water outlet, the tube having a second spout mounting port formed in the peripheral wall and in fluid communication with the
15 second annular chamber;

a first spout extending integrally, radially and outwardly from the upper housing portion and in fluid communication with the first spout mounting port for guiding water outwardly from the
20 first annular chamber;

a second spout operably associated with the first spout so as to synchronously rotate therewith relative to the faucet body, the second spout extending generally parallel with the first spout
25 and through the lower housing portion and being connected integrally to the tube and in fluid communication with the second spout mounting port

so as to be adapted to guide the filtered water outwardly from the second annular chamber;

a first control knob mounted on the tubular housing for selectively closing and opening the cold and hot water inlets and the first outlet upon operation thereof; and

a second control knob adapted to regulate and stop flow of the filtered water to the second spout mounting port in the tube.

2. The faucet assembly as defined in Claim 1, wherein the first spout includes a spout pipe of an inverted U-shaped cross-section extending from the housing generally in a horizontal direction and defining an accommodating slot therein, the second spout including an intermediate spout body received in the accommodating slot in the first spout so as to be co-rotatable with the first spout.

3. The faucet assembly as defined in Claim 2, wherein the lower housing portion has a notch formed in a lower end thereof and in communication with the slot in the first spout, the second spout extending into the slot in the first spout through the notch in the lower housing portion.

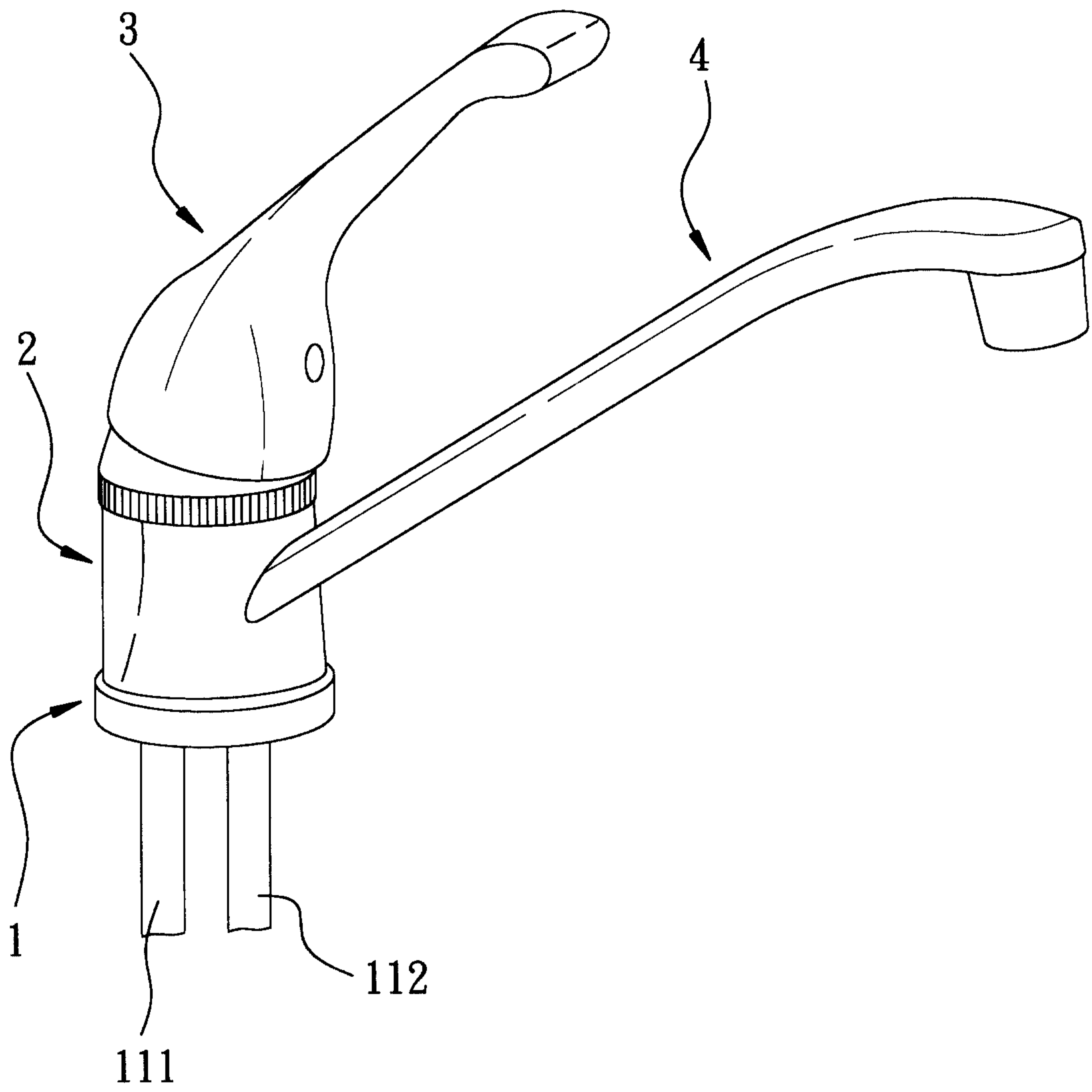


FIG. 1
PRIOR ART

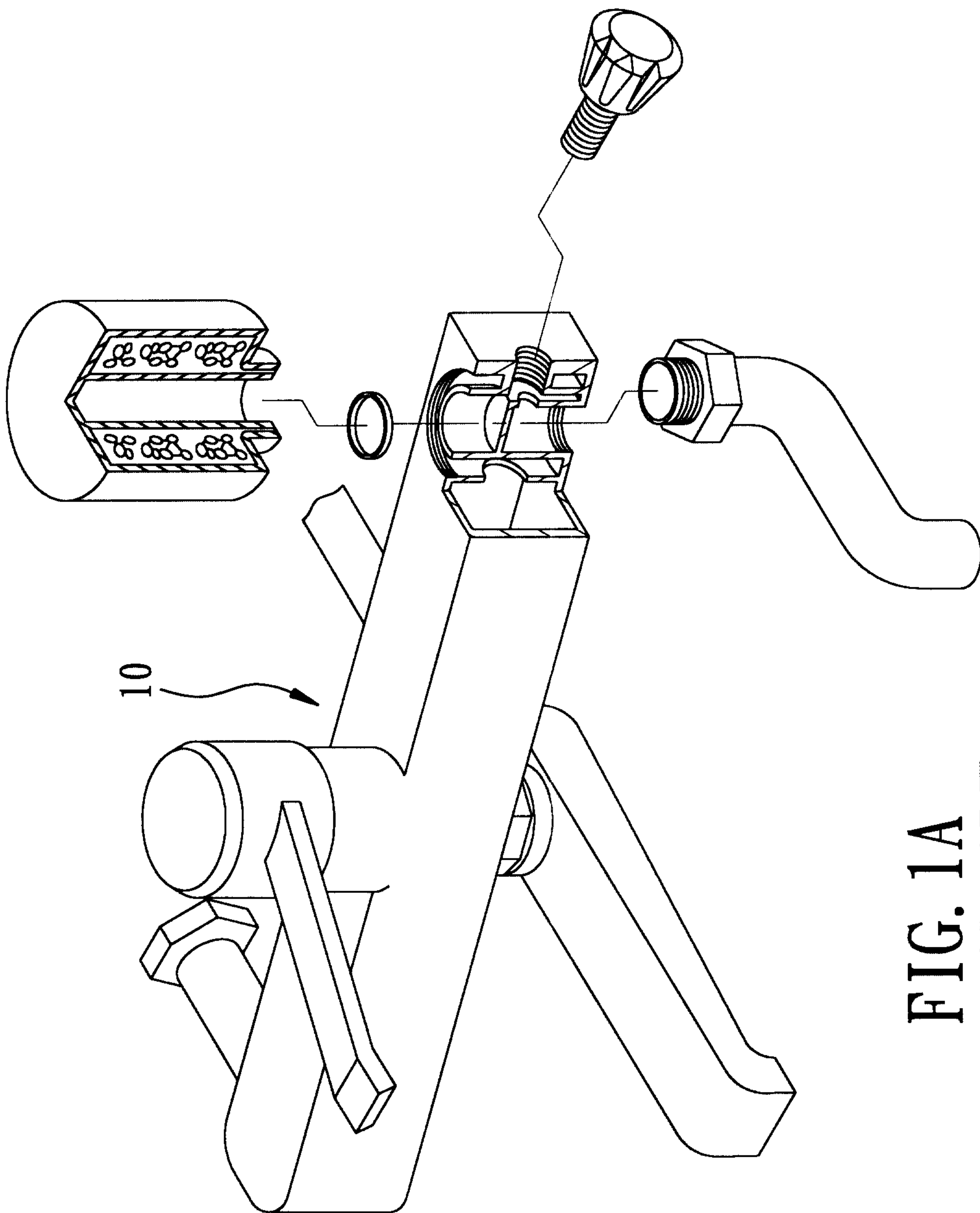


FIG. 1A
PRIOR ART

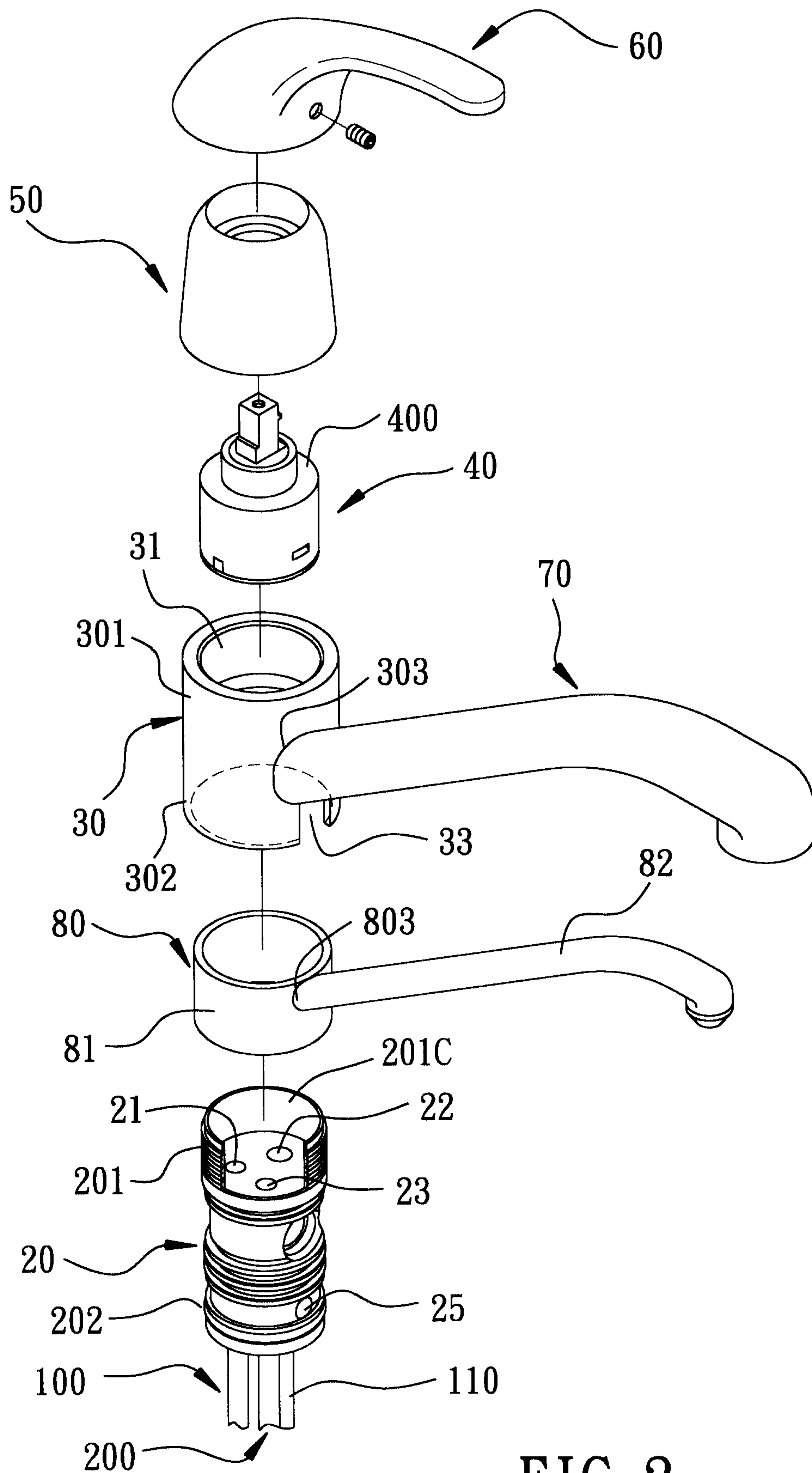
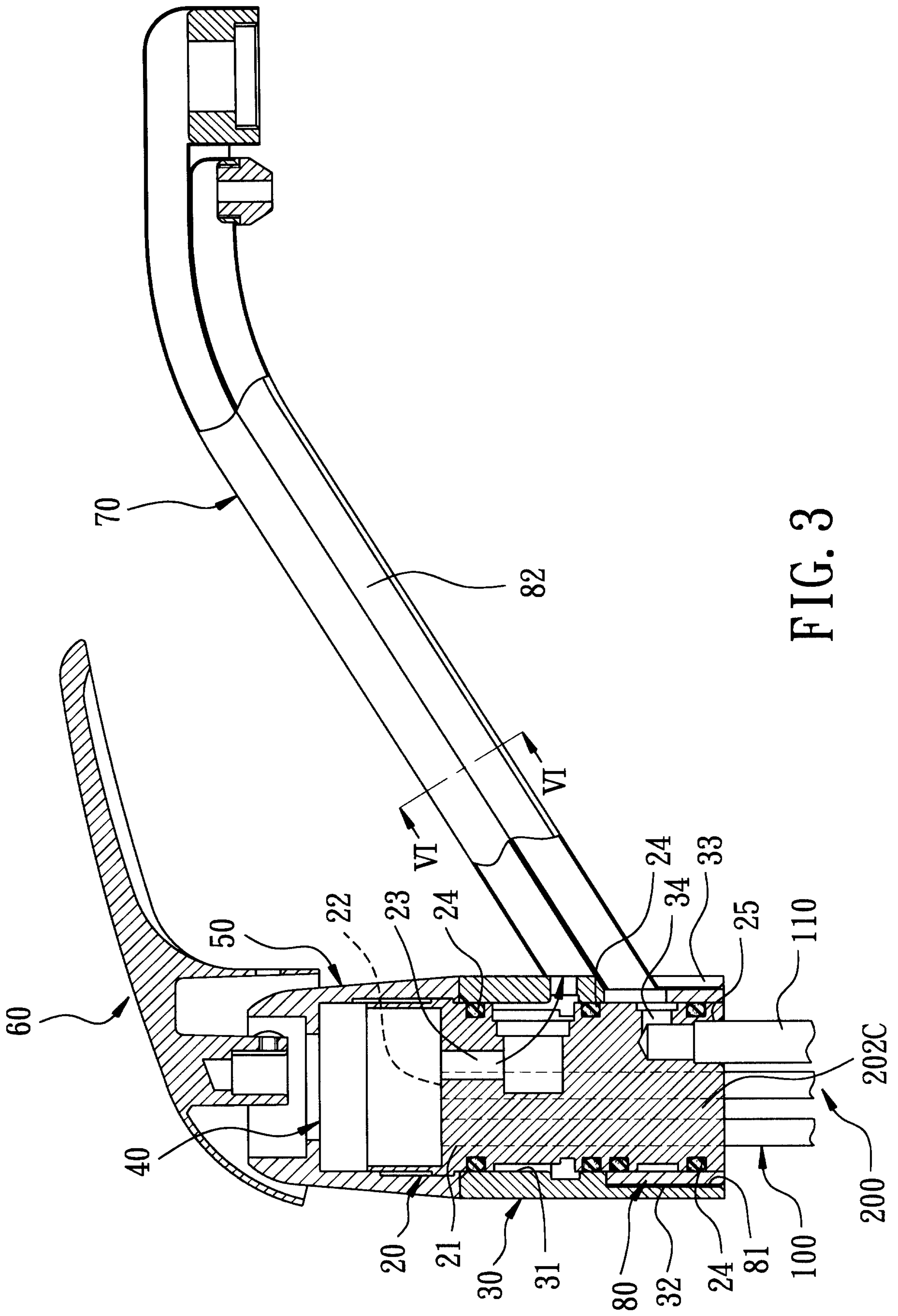


FIG. 2



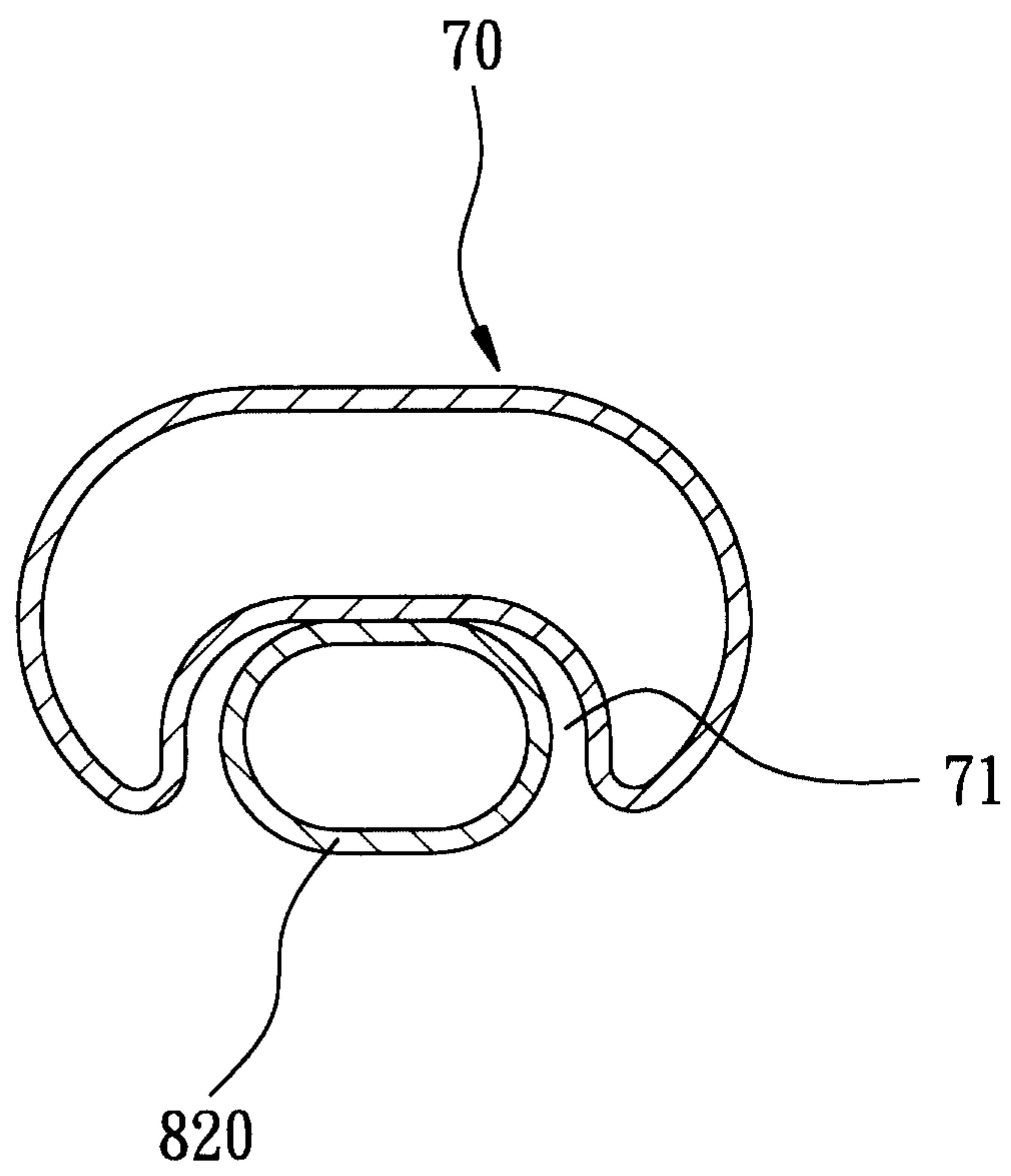


FIG. 4

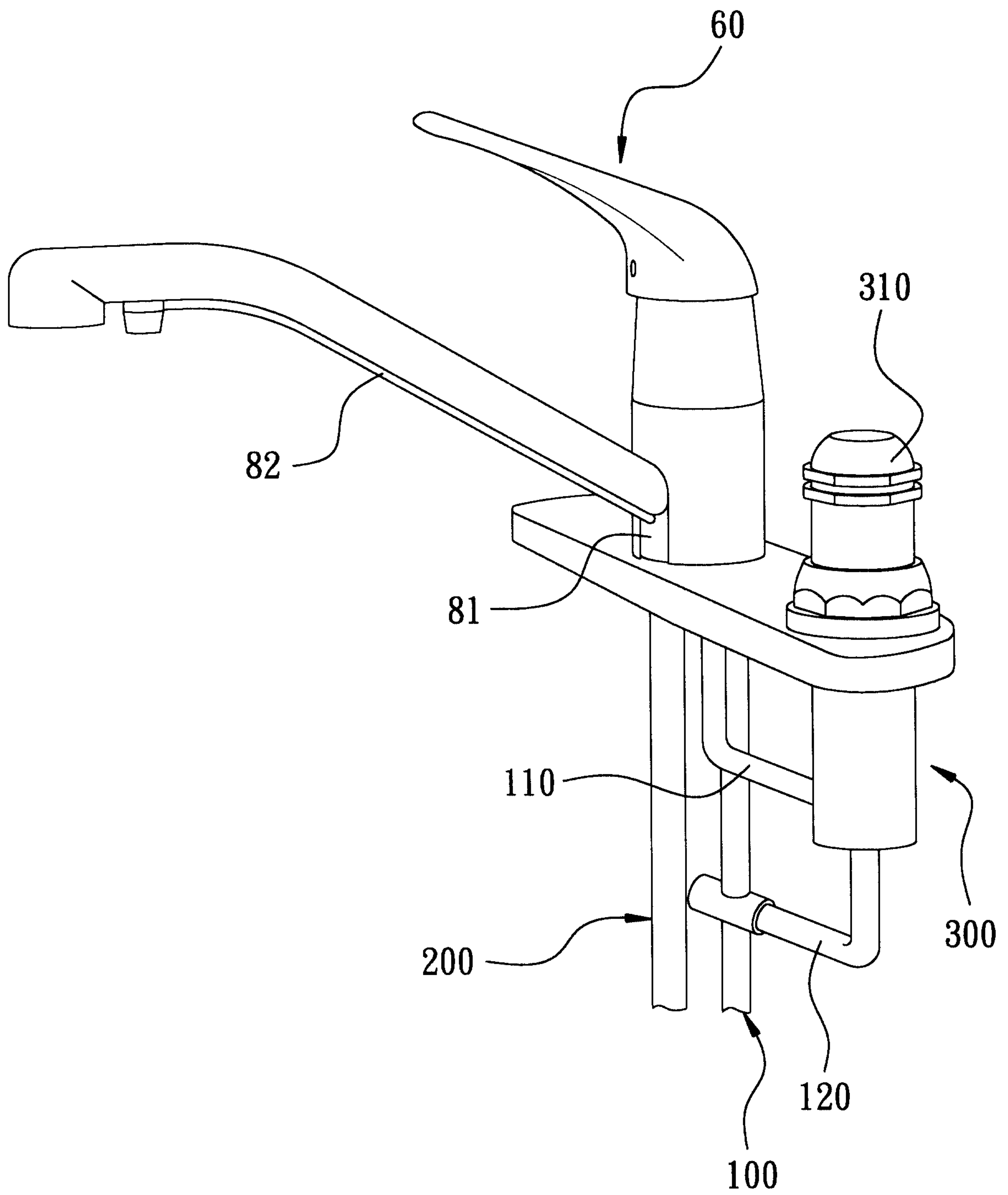


FIG. 5

