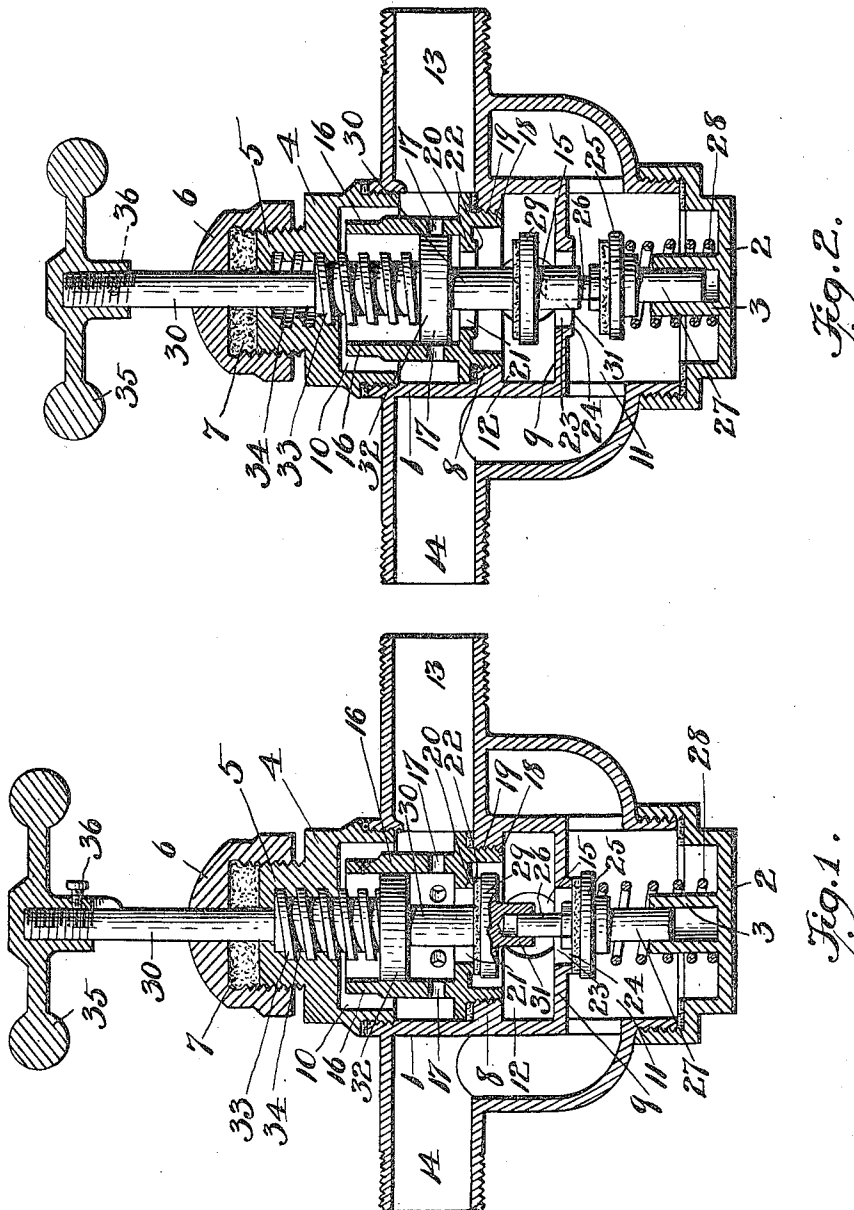


C. H. MOORE, DEC'D.
 O. L. MOORE, ADMINISTRATRIX.
 ANTISCALDING BATH SHOWER VALVE.
 APPLICATION FILED DEC. 12, 1912.

1,066,213.

Patented July 1, 1913.

2 SHEETS—SHEET 1.



WITNESSES
C. H. Walker
J. T. Walker

INVENTOR
Carrie L. Moore
executrix of Charles H. Moore, deceased,
by Blackwood & Co., Attorneys.

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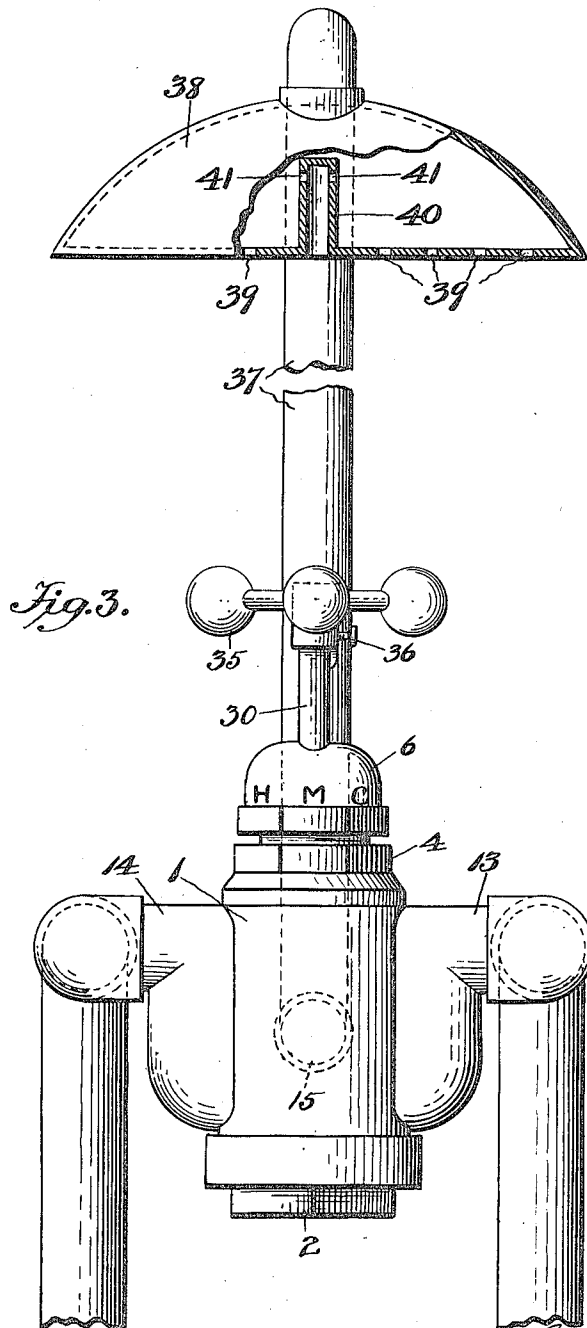


Fig. 3.

WITNESSES

J. T. Walker.
J. T. Walker.

INVENTOR

Carrie L. Moore
executrix of Charles H. Moore, deceased.
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 Attorneys.

UNITED STATES PATENT OFFICE.

CHARLES H. MOORE, DECEASED, BY CARRIE L. MOORE, ADMINISTRATRIX, OF NEW YORK, N. Y.

ANTISCALDING-BATH SHOWER-VALVE.

1,066,213.

Specification of Letters Patent.

Patented July 1, 1913.

Application filed December 12, 1912. Serial No. 736,273.

To all whom it may concern:

Be it known that I, CARRIE L. MOORE, a resident of New York city and State of New York, administratrix of the last will and testament of CHARLES H. MOORE, deceased, late a citizen of the United States, believe that he did invent certain new and useful Improvements in Antiscalding-Bath Shower-Valves, of which the following is a specification.

This invention relates to improvements in valves, particularly to improvements in antiscalding bath shower valves.

It has for its object to provide a bath shower valve by which cold water and hot water can be supplied separately, a mixture of hot and cold water supplied and by which it will be necessary, before the hot water can be supplied separately, that cold water be supplied separately and thereafter a mixture of hot and cold water, thus preventing hot water from being immediately supplied, upon the handle of the valve being turned, and also serving to give warning to thoughtless bathers and prevent their being scalded.

In the drawings: Figure 1 is a vertical sectional view of the valve showing the hot and cold water valves shut and the piston valve in a position to leave the cold water inlet ports open. Fig. 2, a vertical sectional view of the valve showing the hot and cold water valves open and the piston valve in a position to cover the cold water inlet ports. Fig. 3, a side view of the valve connected to a shower head, the shower head being shown partly in section to clearly show its interior.

Referring to the drawings illustrating this invention, in which like reference characters designate corresponding parts, 1 designates the body of the valve which is cylindrical. The lower end of the body is closed by a cap nut 2 screwed thereon and provided, on its interior, with a socket lug 3 and the upper end of the body is closed by a cap nut 4 screwed thereon and having a neck 5 on which a nut 6 is screwed and confines packing 7 between it and the end of the neck 5. The body of the valve is divided interiorly by walls 8 and 9 into a cold water chamber 10 at the top, hot water chamber 11 at the bottom and a mixing chamber 12 intermediate the hot and cold water chambers. A passage 13 leads into the cold water chamber 10 and a passage 14 leads into the hot water chamber 11, thus providing a means

for supplying cold and hot water to the valve and a passage 15 leads from the mixing chamber 12, thus providing means for the passage of cold water, hot water and a mixture of hot and cold water from the valve. A piston cylinder 16 is located in the cold water chamber 10 and is provided at its lower end with inlet ports 17, a neck 18 which is screwed into an opening 19 in the wall 8 of the valve body and a wall 20 having an opening 21 surrounded by a flange forming a valve seat 22. The wall 9 of the valve body is provided with an opening 23 surrounded by a flange forming a valve seat 24. A hot water valve 25 is located in the hot water chamber 11 and controls the passage of hot water from the hot water chamber through the opening 23 into the mixing chamber 12. The hot water valve 25 is provided with an upwardly extending solid lug 26 and a downwardly extending solid lug 27, the lug 27 extending, part the way, into the socket lug 3 of the cap 2 and guiding the valve from below and a spiral spring 28 surrounds the lug 3 and bears against the under surface of the valve and tends to normally hold it shut or on its seat 24.

A cold water valve 29 is located in the mixing chamber 12 upon a stem 30 and controls the passage of cold water from the piston cylinder 16 into the mixing chamber 12. The cold water valve is provided with a socket lug 31 into which the solid lug 26 of the hot water valve extends, part the way, and guides said valves from below. The stem 30 of the cold water valve is provided within the cylinder 16 with a piston 32 controlling the passage of cold water into said cylinder through the ports 17 and said stem is also provided with a square thread 33 engaging a threaded socket 34 in the cap 4, whereby when said stem is turned it is moved up or down, according to the direction in which it is turned, and the piston 32 is moved in a corresponding direction within the cylinder 16. A handle 35 is screwed onto the upper end of the stem 30, affording means for turning it, and is secured on said stem by a set screw 36. A pipe 37 is connected with and extends from the outlet passage 15 of the valve and has a shower head 38 on its upper end provided with openings 39 for spraying water therefrom and a stand pipe 40 having air inlet holes 41.

To operate the valve to supply cold water

alone, it being assumed that the parts are in the position shown in Fig. 1, the handle 35 is turned to the left when, by reason of the thread 33 on the stem 30 engaging the threaded socket 34 in the cap 4, the stem 30 and the piston 32 and cold water valve 29 thereon will be moved down with the result that cold water will be admitted to the valve through the passage 13 and pass through the inlet ports 17 and the opening 21 into the mixing chamber 12 and exhaust from the valve through the passage 15. To now get a mixture of hot and cold water the downward movement of the stem is continued when, by reason of the lug 26, in the operation previously described having come into contact with the end of the socket in the lug 31, the hot water valve 25 and the cold water valve 29 and piston 32 on the stem, will be moved down with the result that cold water will continue to pass into the mixing chamber and at the same time hot water will be admitted to the valve through the opening 23 into the mixing chamber and the mixture of hot and cold water will exhaust from the valve through the passage 15. The mixture of hot and cold water will continue to be obtained until the piston 32 has closed the inlet ports 17 and thereafter as long as the piston continues to cover said ports only hot water will pass into the mixing chamber 12 and exhaust therefrom.

The invention is not limited to the details of construction and arrangement as herein described and illustrated, as it is manifest that variations and modifications may be made in the features of construction and arrangement in the adaptation of the device to various conditions of use without departing from the spirit and scope of the invention and improvements, the right is therefore reserved to all such variations and modifications as properly fall within the scope of my invention and the terms of the following claims.

What is claimed:

1. In a mixing valve, a body having an inlet passage for cold water, a chamber for the cold water, an inlet passage for hot water, a mixing chamber, an outlet passage from the mixing chamber, means controlling the admission of cold water to the cold water chamber, means controlling the passage of cold water from the cold water chamber to the mixing chamber, the last named means being adapted to be opened in advance of the closing of the means controlling the admission of cold water to the cold water chamber, and means controlling the admission of hot water to the mixing chamber, substantially as described.

2. In a mixing valve, a body having an inlet passage for cold water, an inlet passage for hot water, a mixing chamber, an outlet passage from the mixing chamber, a cold water chamber provided with inlet ports, a piston controlling said ports, a valve controlling the passage of the cold water from the cold water chamber to the mixing chamber adapted to be opened in advance of the closing of the piston ports and a valve controlling the admission of hot water to the mixing chamber, substantially as described.

3. In a mixing valve, a body having an inlet passage for cold water, an inlet passage for hot water, a mixing chamber, an outlet passage from the mixing chamber, a piston cylinder between said cold water passage and the mixing chamber and provided with inlet ports, a piston controlling said ports, a cold water valve connected to and operatable with the piston and controlling the admission of cold water to the mixing chamber, the cold water valve being adapted to be opened in advance of the closing of the ports of the piston cylinder, a hot water valve controlling the admission of hot water to the mixing chamber, means adapted to resiliently hold the hot water valve closed and means adapting one of said valves to be opened in advance of the other, substantially as described.

4. In a mixing valve, a body having an inlet passage for cold water, an inlet passage for hot water, a mixing chamber, an outlet passage from the mixing chamber, a piston cylinder between said cold water passage and the mixing chamber and provided with inlet ports, a piston controlling said ports, a cold water valve connected to and operatable with the piston and controlling the admission of cold water to the mixing chamber and provided with a lug, the cold water valve being adapted to be opened in advance of the closing of the ports of the piston cylinder, a hot water valve controlling the admission of hot water to the mixing chamber and provided with a lug extending normally partly into the socket of the lug on the cold water valve and means adapted to resiliently hold the hot water valve closed, substantially as described.

In testimony whereof I, CARRIE L. MOORE, administratrix of the last will and testament of CHARLES H. MOORE, deceased, have signed my name in the presence of two subscribing witnesses.

CARRIE L. MOORE,
Administratrix, etc.

Witnesses:

JOSEPH H. WITHEREL,
HERBERT ROGERS.