

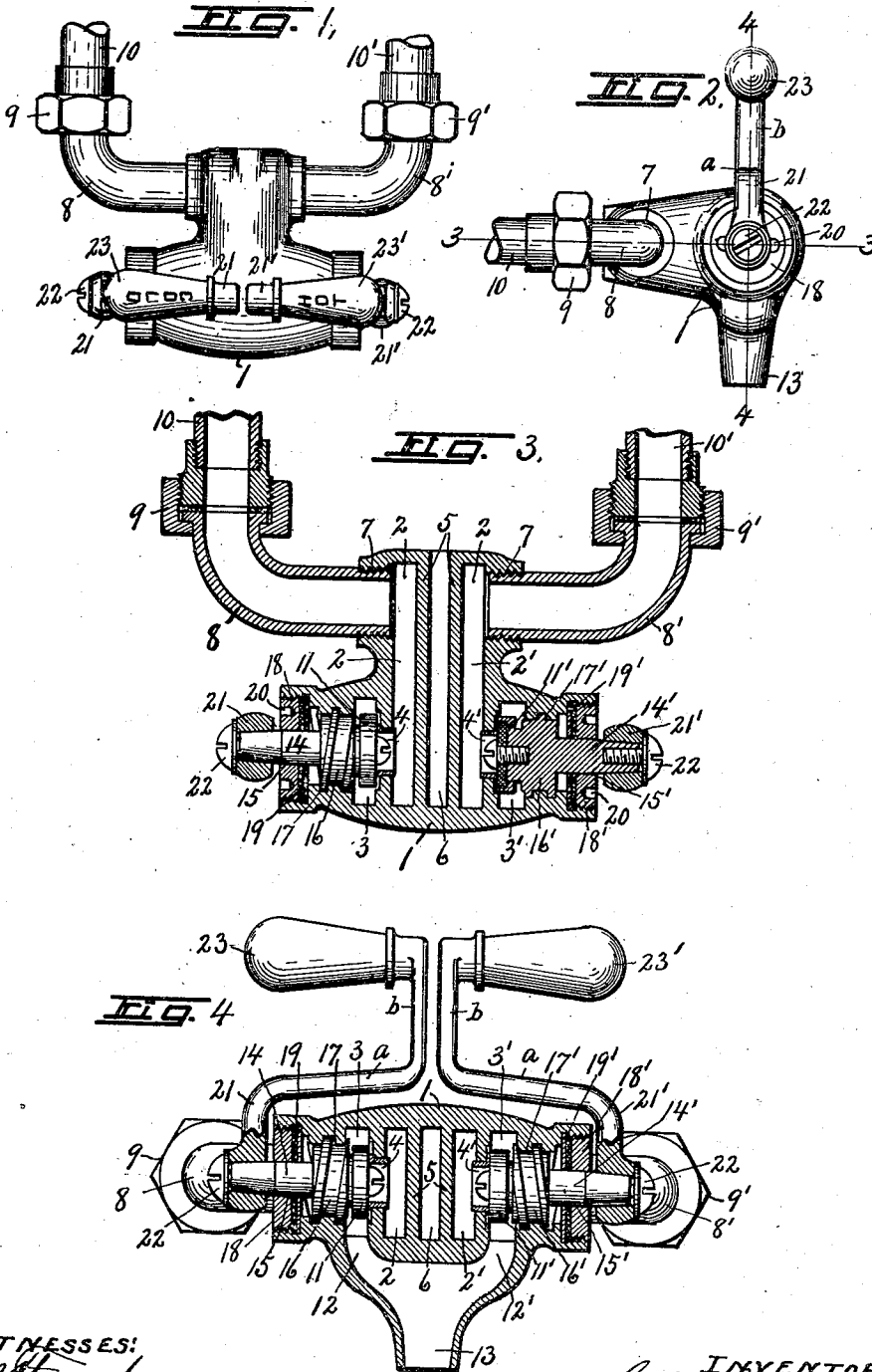
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FAUCET.

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1,258,262.

Patented Mar. 5, 1918.



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

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## FAUCET.

1,258,262.

Specification of Letters Patent.

Patented Mar. 5, 1918.

Application filed May 1, 1916. Serial No. 94,671.

*To all whom it may concern:*

Be it known that I, CHARLES EDWARD SHAPLEY, a citizen of the United States, and resident of Auburn, in the county of Cayuga, in the State of New York, have invented new and useful Improvements in Faucets, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to certain improvements in faucets, adapted to be used more particularly in connection with bathtubs, hand basins, kitchen sinks, and the like, for supplying hot or cold water, or both, through a single outlet nozzle.

I am aware that various forms of devices have been proposed for carrying out this broad object, but in the majority of devices now in common use the valve operating handles are necessarily placed some distance apart or in such position that it is practically impossible to operate both valves simultaneously by the same hand in position for engaging either of the operating handles therefor, while on the other hand other devices which employ means for operating both valves simultaneously by the hand in the same position contemplate means whereby it is impossible to operate one of the valves without operating the other.

The main object, therefore, of my present invention is to construct and arrange the operating levers for both valves in such manner that both may be operated simultaneously or either independently of the other, from any position of adjustment with the hand in one position. In other words, I have sought to bring the free ends of the levers into close juxtaposition at the outside of the valve case but with sufficient clearance between them to allow either to be moved to and from any position of adjustment without in any way interfering with the other lever, and at the same time to permit both levers to be operated simultaneously by the same hand if desired.

Another object is to mount the levers so as to move about a common axis and to arrange the handles substantially parallel with said axis and coaxial with each other when in their normal positions, with their bases adjacent and their outer ends free for engagement by either hand.

Another object is to provide separate coaxial valves with right and left hand screws respectively engaging corresponding threads

in the valve case and arranged so that the inner ends of the handles will draw slightly apart when opening both valves simultaneously.

Another object is to provide the valve case with spaced partitions between the separate inlets for the purpose of forming an intervening air chamber and thereby reducing to a minimum the heating or cooling influence of the fluid in one passage upon that in the other passage.

Other objects and uses relating to specific parts of the devices will be brought out in the following description.

In the drawings—

Figures 1 and 2 are, respectively, a top plan and a side elevation of a faucet embodying the various features of my invention.

Figs. 3 and 4 are, respectively, a horizontal sectional view and a vertical sectional view, taken on lines 3—3 and 4—4, Fig. 2, except that the major portions of the hand levers in Fig. 4 are shown in elevation.

As illustrated, the faucet comprises a substantially T-shaped valve case—1—having separate inlet passages or valves—2— and —2'—communicating respectively with opposite coaxial valve chambers—3— and —3'—through suitable ports—4— and —4'—when the valves are opened, the chambers—2— and —2'—being separated by spaced partitions—5—forming an intervening air chamber—6—for the purpose of reducing to a minimum the heating or chilling influence of the fluid in either chamber upon that in the other chamber.

These chambers—2—, —2'— and —6— extend from a point at or near the outer end of the stem of the valve case to points in proximity to the opposite side of the head thereof or beyond the ports—4— and —4'—, the chambers—2— and —2'— being provided with lateral threaded openings—7—for the reception of the adjacent ends of correspondingly threaded elbows—8—which in turn may be connected by unions—9—to separate supply pipes—10— and —10'—for the cold and hot water respectively.

Suitable valves—11— and —11'— are mounted in their respective chambers—3— and —3'— and cooperate with the corresponding ports—4— and —4'— to control the passage of the fluids from the chambers—2— and —2'— to the valve chambers

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—3— and —3'—, which in turn are connected by branches —12— and —12'— to a single delivery nozzle or outlet —13— as shown more clearly in Fig. 4. The valves  
 5 —11— and —11'— are secured to the inner ends of separate coaxial valve stems —14— and —14'— which are journaled in and extend to the outside of suitable glands —15— and —15'— in the opposite ends of the  
 10 main body of the valve case, said valve stems being provided with enlarged externally threaded portions —16— and —16'— of opposite inclination, engaging in corresponding threaded openings —17— and —17'— in opposite ends of the head of  
 15 the valve case just outside of the corresponding chambers —11— and —11'— for opening and closing the adjacent valves as the valve stems are rotated in a manner presently described.

The glands —15— and —15'— are formed in threaded bushings —18— and —18'— and coaxial metal packing washers —19— and —19'—, the bushings —18— and —18'—  
 25 being screwed in threaded sockets in the adjacent ends of the valve case so that their outer ends are substantially flush with the corresponding ends of said case and are provided in their outer end faces with suitable  
 30 depressions —20— for receiving a spanner wrench, not shown but by which they may be screwed in place or removed at will.

The metal washers —19— and —19'— are held in place against annular shoulders at the inner ends of the threaded sockets by the  
 35 adjacent bushings —18— and —18'— and serve not only to prevent leakage of any water which may pass the screw portions of the valve stems, but also afford rigid and  
 40 durable stops for limiting the opening movement of said valves.

The outer ends of the valve stems —14— are tapered and upon them are mounted separate valve operating levers —21— and  
 45 —21'— having correspondingly tapered apertures for frictional locking engagement therewith, the levers being tightened and held on their respective valve stems by cap screws —22—. This manner of fastening  
 50 the levers to the valve stems permits them to be adjusted rotarily to any desired position, preferably for holding their outer ends in exact alinement when in their normal positions for closing the valves.

The levers —21— and —21'— are, therefore, movable about a common axis coincident with that of the valves, and, as shown more clearly in Fig. 4, extend radially at  
 60 longitudinally toward each other along the outside thereof in proximity thereto, and then radially, preferably in parallelism, and in close juxtaposition, leaving just sufficient clearance between their free ends to permit  
 65 either to be moved independently of the

other to and from any position of adjustment.

The levers —21— and —21'— are of substantially the same form and size but arranged in reverse order, as right and left,  
 70 and are provided at their outer ends with handles —23— and —23'— extending away from each other in the direction of length of the axis of the valves, so that when the levers are in their normal positions for closing  
 75 the valves the handles will preferably be coaxial.

It is evident from the foregoing description that each valve operating lever, including its handle, is substantially U-shaped and  
 80 comprises in addition to the short radial portion which is attached to the valve stem, a substantially horizontal portion —a— and the outer radial portion —b—, the horizontal portions —a— being located between their  
 85 corresponding handles —23— and —23'— and the valve case with sufficient clearance between them to receive the fingers of the operator.

The horizontal portions —a— are nearly  
 90 equal to half the length of the valve case so as to bring the radial handle supporting portions —b— into relatively close relation near the transverse center of said case, thereby causing the handles to project away from  
 95 each other from their respective bases or points of attachment to their respective levers, thus leaving the outer ends of the handles free for engagement by the operator without interference one with the other.

The adjacent outer ends or faces of the levers are free from obstructions one with the other and are spaced a sufficient distance apart to allow either to be moved to any position of adjustment about its axis without  
 105 affecting the operation of the other lever, while at the same time both handles are in sufficiently close relation to permit both to be operated by the same hand at the same time. The right and left hand threads on  
 110 the valve stems are so arranged as to cause the levers to move gradually outwardly as the valves are opened, thus preventing any possibility of the two levers coming into contact with each other in any position of ad-  
 115 justment.

What I claim is:—

1. In a faucet of the character described, the combination with a valve case and separate coaxial valves therein, separate levers  
 120 secured to the outer ends of the valve stems for operating the valves and having their intermediate portions extending toward each other along the outside of the valve case and their outer ends extending substantially radially in close but slightly spaced  
 125 relation and provided with separate handles.

2. In a faucet of the character described, a valve case having separate inlet passages and spaced partitions separating said pas-  
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sages to form an intervening air space between the partitions, said case having separate valve chambers and ports connecting them with their respective inlet passages, the valve chambers being provided with separate branch outlets merging into a single outlet, separate valves controlling said ports, and separate operating levers for each independently of the other, said levers extending toward each other along the outside of the case and having radially extending portions provided with laterally projecting handles parallel with the axis of movement of the levers.

3. In a faucet of the character described, a valve case having separate inlets, separate valve chambers, connecting ports between the inlets and their respective valve chambers, and a single outlet having branch passages leading from the valve chambers, coaxial valves in said chambers having valve stems extending through opposite ends of the valve case, separate levers secured at one end to the outer ends of the valve stems and having their intermediate portions extended toward each other along the outside of the case and their outer ends radially disposed in close but spaced relation near the transverse center of the case and all portions thereof movable in different paths independ-

ently of each other, and handles secured to said radial ends.

4. A faucet of the character described comprising a valve case having separate inlet passages and an air chamber between said passages for insulating each passage from the other, said case having separate valve chambers connected by separate ports to their respective inlet passages and communicating with one and the same outlet, coaxial valves controlling said ports and having stems extending through opposite ends of the case, and separate levers having corresponding ends secured to their respective valve stems and their opposite ends disposed radially at opposite sides of, but in close proximity to, the transverse center of the case and provided with handles projecting from each other parallel with the axis of the valves, the intermediate portions of said levers extending from the ends of the case toward each other between their respective handles and case and in spaced relation to the handles.

In witness whereof I have hereunto set my hand April, 1916.

CHARLES EDWARD SHAPLEY.

Witnesses:

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