R. B. SCOTT.

FAUCET.

APPLICATION FILED FEB. 27, 1917.

1,284,154. Patented Nov. 5, 1918.

Fig. 1.

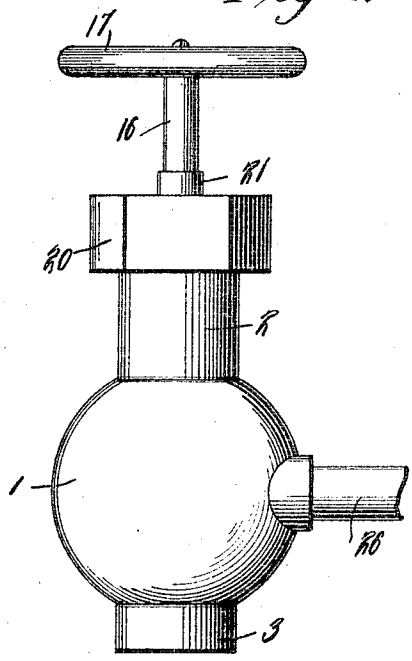


Fig. 2.

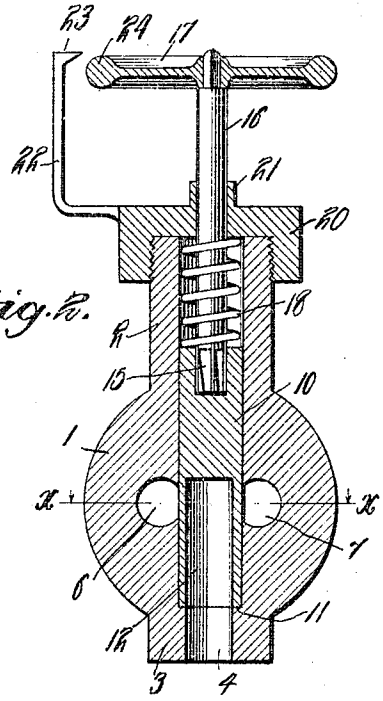


Fig. 3.

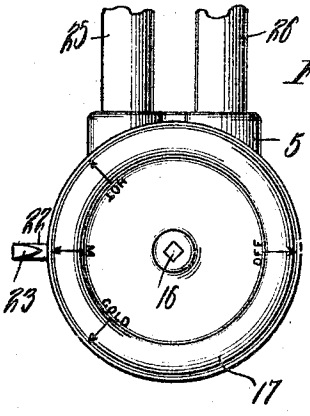
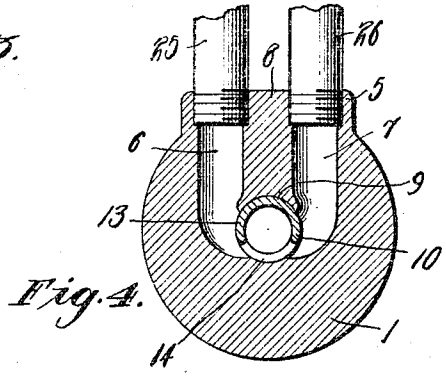


Fig. 4.



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FAUCET.

1,284,154. Specification of Letters Patent. Patented Nov. 5, 1918.

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To all whom it may concern:

Be it known that I, RAY B. SCOTT, a citizen of the United States, residing at Waterbury, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Faucets, of which the following is a specification.

This invention relates to faucets and has for one of its principal objects the provision of a device of this character wherein novel valve means are employed for jointly admitting and discharging streams of various temperature.

A further object is to provide a faucet of this character with means for enabling the operator to determine the extent to which the valve must be rotated in order to secure the desired effect.

A still further object is to provide improved faucet means, including but few though simple and efficient parts and which can readily replace the old type of faucet without requiring any extensive alterations or additional parts.

With the above and other objects in view, my invention resides in the novel formation, arrangement and combination of parts as will be hereinafter more fully referred and described in the following specification, pointed out in the claim and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a faucet constructed in accordance with my invention,

Fig. 2 is a vertical sectional view of the same,

Fig. 3 is a top plan view of the faucet valve handle, illustrating the indicating arrow and stop point, and

Fig. 4 is a transverse sectional view taken on the line *x*—*x* of Fig. 2.

In the drawings, the faucet is represented as having a globular valve casing 1 provided with upper and lower cylindrical extensions 2 and 3 respectively. A longitudinal bore 4 extends centrally through the globular portion 1 and each of the extensions 2 and 3 as shown, the lower extension 3 constituting the nozzle or discharge end of the bore, a shoulder extension 5 extends transversely of the rear end of the globular casing 1 and has provided therein, spaced apart openings which are extended inwardly to form inlet passages 6 and 7 respectively. Each of these inlet passages extend transversely of the casing and are spaced apart by means of the dividing wall or partition 8. The inner end 9 of this partition terminates adjacent the bore 4 of the casing and has its inner face concaved and constituing a wall of the bore. The passages 6 and 7 are extended beyond the concaved end 9 of the partition wall and have their ends curved to open into the bore.

A cylindrical member 10 is mounted in the bore of the casing 1 and is adapted to be seated upon an annular shoulder 11 formed in the bore adjacent the nozzle end 3. The lower end of the member 10 is recessed to provide a longitudinally extending opening 12, the terminal of which is positioned opposite the inlet passages 6 and 7 of the casing. An elongated portion of the wall 13 surrounding the opening 12 is cut away to provide a port opening 14 which is adapted to register at times with each or both of the passages 6 and 7 as will be hereinafter explained. The upper end of this member 10 is also recessed to receive the end 15 of a shaft 16 to which is secured the valve handle 17. In the present instance the shaft 16 is shown as provided with the fluted end 15 so as to firmly grip the member 10, but it is evident that any suitable connecting means may be employed for this purpose, the object of the connection being merely to permit the operation of the member 10 by movement of the shaft 16.

To prevent any undue vertical movements of the valve 10 in the bore 4, a spring 18 is provided about the shaft 16 with one terminal resting upon the top end of the valve 10 while the other terminal abuts against the locking nut 20 which is screwed on to the threaded end of the extension 2 and which retains the several valve parts in their respective operative positions. The nut 20 which may be of any suitable formation acts as a bearing for the shaft 16 and is provided with a collar 21 through which the shaft extends. The upper end of the shaft is provided with a reduced portion to receive the hub of the handle 17, the latter being securely fastened thereto in the ordinary manner. The nut 20 carries adjacent one of its side faces an indicating finger 22 provided with a pointed end 23 which is positioned to lie in proximity to the rim 24 of the handle means 17. This indicating finger will enable the operator to determine the extent to which the handle 17 should be rotated in order to bring the valve 10 into proper relation with the inlet passages 6 and 7 of the

valve casing. It will be noted that upon the rim of the handle 17, there are provided a plurality of spaced arrows each indicating a flow of water of a certain temperature. Whenever it is desired to secure a flow of water of a particular temperature, it is but necessary to turn the handle 17 until the point of the arrow, indicating that temperature, is brought into alinement with the point 23, as illustrated to advantage in Fig. 3 of the drawings, in which position a flow of medium temperature is obtained.

In the operation of this invention, the feed water pipes 25 and 26 will be connected to the shoulder 5 so that the water will be directed into the passages 6 and 7 of the globular casing 1. In this instance, we will assume that 25 is the cold water supply pipe and 26 the pipe supplying the hot water. It will be seen that each flow of water is directed through the passages 6 and 7 respectively, but can only be discharged through the end 3 when the valve 10 is so turned as to bring its port 14 into alinement with the passages. The valve member 10 is of course operated by the handle 17 in a rotary direction within the bore 4 and consequently when it is desired to admit only hot water, the handle 17 will be turned until the arrow marked "Hot" is brought into alinement with the finger 23, in which position the valve 10 will be so rotated as to bring its opening 14 into alinement with the inlet passage 7 so that the hot water from pipe 26 can readily flow into bore 4 and out of the nozzle 3. To secure the flow of cold water, it is but necessary to merely reverse the direction of the handle until the arrow indicating "Cold" has been likewise brought into alinement with the point 23 upon which only cold water will be permitted to flow through the faucet. In these operations, however, only a single flow is permitted, and therefore, in order to admit both cold and hot water at the same time, the valve 10 must be turned so that the opening 14 communicates with both of the passages 6 and 7 at the same time. This is easily accomplished by turning the valve member 10 to the position as shown in Fig. 4 of the drawings and indicated on the handle by the letter M as illustrated in Fig. 3. To completely shut off the flow altogether, the handle is rotated until the opening 14 of the member 10 is brought adjacent the concaved face of the partition wall 8, in which case the wall 13 of the opening 12 will effectually close the passages 6 and 7, thereby preventing any flow of water into the opening 12 of the valve or the bore 4 of the valve casing.

From this it will be seen that I have provided an improved faucet which will admit a joint flow of various streams differing in temperature, and that the flow of each may be readily regulated and controlled by the operator. It is also evident that various changes may be resorted to in the construction and arrangement of certain of the parts, tending to reduce the cost of manufacture, but without in any way sacrificing the advantages of the invention or departing from the principle thereof.

Having described my invention what I claim as new and desire to secure by Letters Patent is:—

In a faucet the combination with a globular valve casing having a longitudinal bore and inlet passages of a cylindrical member seated in said bore having a longitudinal recess in its lower end to provide a passage substantially the same diameter as the bore, an elongated portion of the wall surrounding said passage being cut away to permit access to said passage from a lateral direction, a valve handle supported by said casing having a rim provided with a plurality of spaced arrows, said handle having its shaft detachably secured to said cylindrical member, and a nut secured to the upper end of said casing having an indicating finger rigidly joined thereto, positioned to lie in proximity to the rim to enable the operator to determine to what extent he should rotate the handle in order to bring the said cylindrical member in proper relation to the inlet passages.

In testimony whereof I affix my signature in presence of two witnesses.

RAY B. SCOTT.

Witnesses:
JOHN P. LINDEN,
H. L. LATHRAY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."