G. W. TOPPING.

FAUCET.

APPLICATION FILED SEPT. 19, 1914.

1,171,369.

Patented Feb. 8, 1916.

2 SHEETS—SHEET 1.

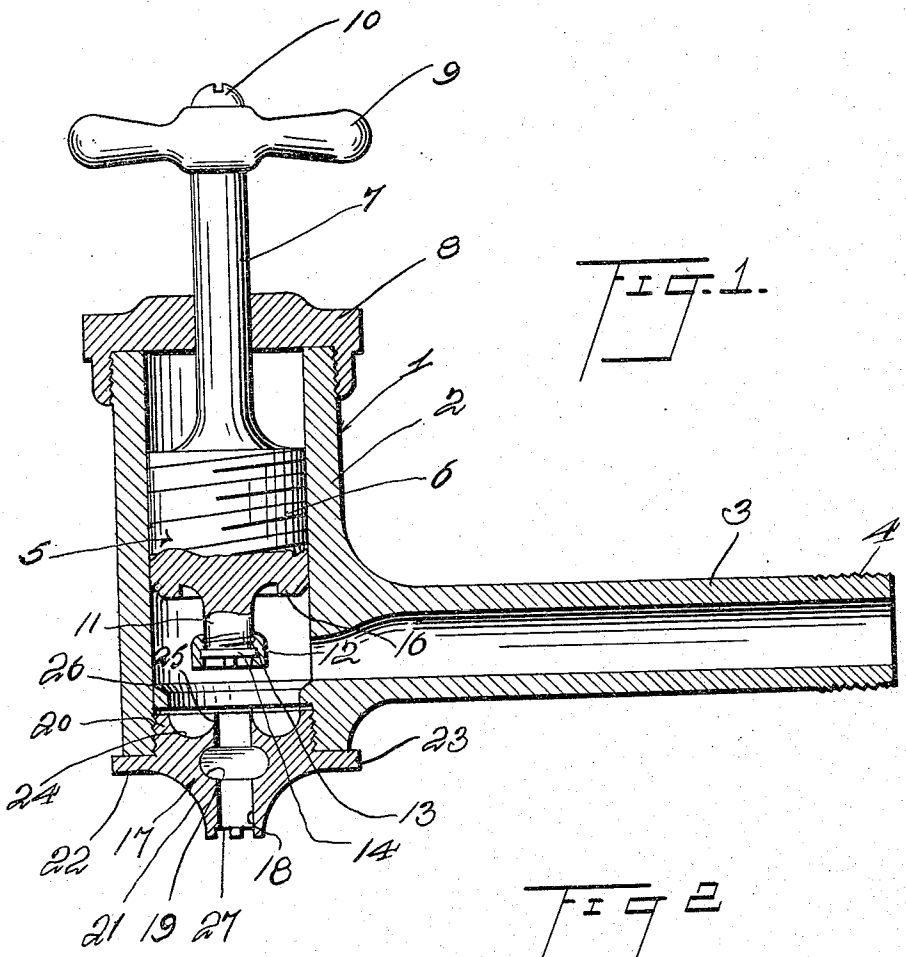
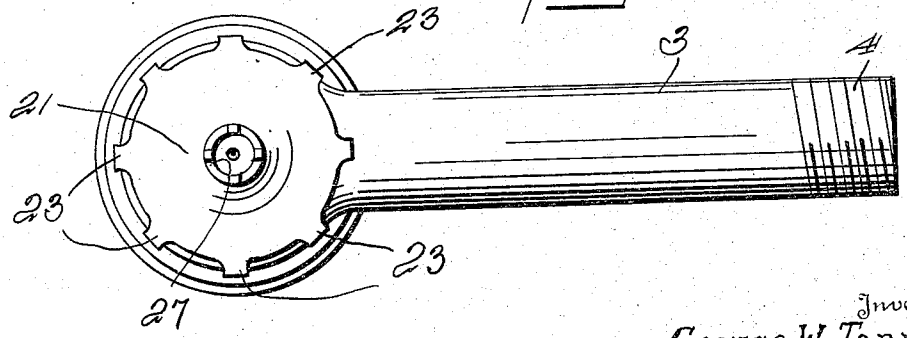


FIG. 1.

FIG 2



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Witnesses

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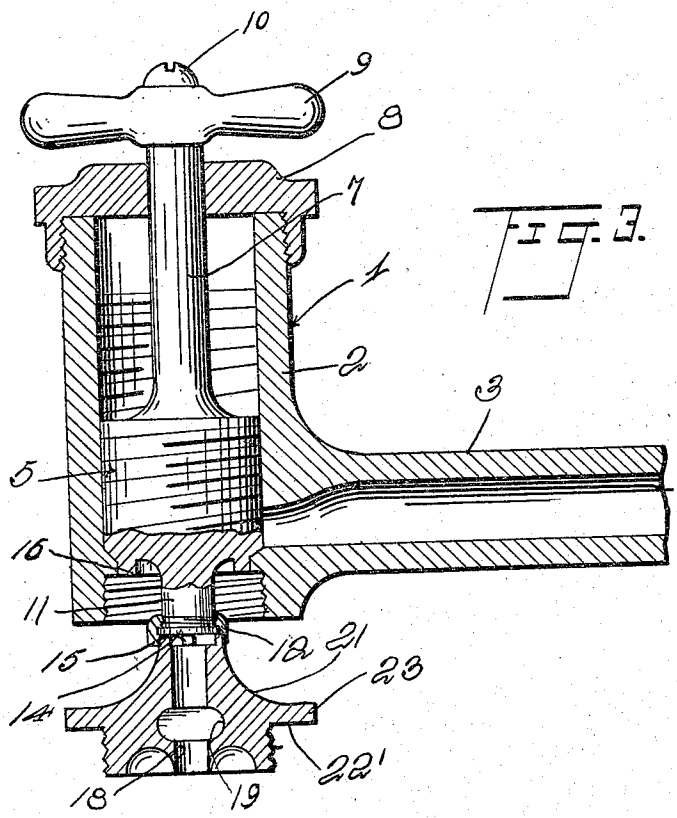


FIG. 3.

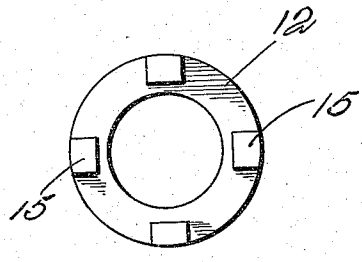


FIG. 4.

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FAUCET.

1,171,369. Specification of Letters Patent. Patented Feb. 8, 1916.

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To all whom it may concern:

Be it known that I, GEORGE W. TOPPING, a citizen of the United States, residing at Point Richmond, in the county of Contra Costa and State of California, have invented certain new and useful Improvements in Faucets; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to new and useful improvements in faucets and has for its primary object to provide such a device which may be readily and easily repaired without requiring the use of special tools or the cutting off of the supply of water.

Another object is to generally improve and simplify the construction and operation of faucets of the character described so as to render them more practical, reliable and efficient in operation and inexpensive to manufacture.

The above and additional objects are accomplished by such means as are illustrated in the accompanying drawings, described in the following specification and then more particularly pointed out in the claims.

With reference to the drawings, wherein I have illustrated the preferred embodiment of my invention as it is reduced to practice, and throughout the several views of which similar reference numerals designate corresponding parts, Figure 1 is a longitudinal sectional view taken through my improved faucet, Fig. 2 is a bottom plan view, Fig. 3 is a fragmentary sectional view showing the nozzle inverted and serving as a tool for removing the washer holder, and Fig. 4 is an enlarged detail bottom plan view of the washer holder.

Referring to the drawings by characters of reference, the numeral 1 designates as an entirety my improved faucet which consists of an upright tubular body portion 2 which has formed integral therewith preferably an inlet pipe 3. The inlet pipe 3 communicates with the body 2 and is externally threaded as at 4 on its outer end to coöperate with a main feed pipe, not shown. A screw valve designated 5 as an entirety is mounted for vertical adjustment within the tubular body 2 and comprises a cylindrical body portion 6 that is externally screw threaded and has a stem 7 formed thereon. A flanged closure cap 8 is turned upon the upper end of the body portion 2 and has a central opening therein to receive the stem 7. A handle 9 is secured upon the upper end of the stem 7 by a screw 10 or other suitable fastening element. Formed on the under face of the body portion 6 of the valve 5 and depending therefrom is a cylindrical projection 11 that is screw threaded on its lower end and designed to receive an internally threaded washer holding ring 12. The ring 12 is provided internally with an annular recess 13 in which is mounted a washer 14 of any suitable type. Depending from the under face of the ring 12 are spaced lugs 15 which are arranged to coöperate with a suitable tool to effect removal of the holding ring 12.

An annular depending projection 16 is formed integral with the body 6 of the valve 5 on the under face thereof and surrounds the projection 11. This annular projection 16 is of less circumference than the diameter of the body and acts as a valve seat as will be later more fully described.

Turned within the lower end of the body portion 2 is a nozzle designated 17 as an entirety. The nozzle 17 is provided with a central bore or opening 18 that is enlarged intermediate its ends as at 19, and communicates with the interior of the body 2. The nozzle 17 consists of a cylindrical body portion 20 which is externally threaded to cooperate with the internally threaded lower end of the body 2. The other part of the nozzle is approximately frusto-conical and is designated 21 as an entirety.

An annular flange 22 is formed integral with and engages upon its upper face the lower face of the body portion 2. Projecting laterally from the flange 22 and formed integral therewith are lugs 23 which extend beyond the outer face of the body portion 2 and are to be engaged when it is desired to remove or position the nozzle 17. In the inner end of the cylindrical body portion 20 is formed an annular groove 24 that is approximately semi-circular in cross section which provides in the center of the body portion an upwardly projecting valve seat 25 through which the bore 18 extends. This seat 25 is designed to coöperate with the washer 14 held by the ring 12 so that the supply of liquid to the nozzle is cut off when the washer rests upon the seat 25.

An annular valve seat 26 having a beveled face is disposed within the body portion 2 adjacent the inner face of the nozzle

17. This seat is preferably formed integral with the body portion and is designed to coöperate with the annular projection 16.

When it is desired to remove the washer 14 or otherwise repair some part of the valve, the nozzle 17 is first unscrewed. By grasping the projecting lugs 23 the nozzle may be easily unscrewed. While the nozzle is being unscrewed the body portion 6 of the valve 5 is screwed downwardly until the portion 16 thereon engages the seat 26. It will be readily seen that if the movements of the body portion 6 are timed with those of the nozzle 17 when the nozzle is being unscrewed that it is unnecessary to cut off the supply to the faucet since the projection 16 engages the valve seat 26 and the supply is prevented access to the body portion 2.

The lower end or discharge end of the nozzle 17 is provided with spaced notches or recesses 27 that are designed to receive the lugs 15 on the ring 12 so that said ring may be unscrewed and the washer 14 withdrawn. The enlarged part 19 of the bore 18 enables full discharge from the nozzle 17 and obviates to some extent splashing.

With reference to the foregoing description and accompanying drawings, it will be observed that I have provided a nozzle which may be easily disassembled for the purpose of renewing a washer without requiring the use of special tools or necessitating cutting off of the supply of liquid thereto as is customarily done.

In practice, I have found that the form of my invention, illustrated in the drawings and referred to in the above description, as the preferred embodiment, is the most efficient and practical; yet realizing that the conditions concurrent with the adoption of my device will necessarily vary, I desire to emphasize the fact that various minor changes in details of construction, proportion and arrangement of parts may be resorted to, when required, without sacrificing any of the advantages of my invention, as set forth.

What is claimed is:—

1. A faucet comprising a cylindrical member externally screw threaded and having a valve face ground on its lower edge, an extended reduced portion, a valve removably secured on said reduced portion and a stem extending from the upper portion of the member, a tubular body having an inlet opening near the lower portion thereof, a valve seat in said tubular body below the inlet opening, a nozzle removably secured to said tubular body, a valve seat in said nozzle, said seat being in a plane below the valve seat in the tubular body, the cylindrical member being fitted in said tubular body, the valve on said extended reduced portion being adapted to engage the valve seat in said nozzle thereby controlling the flow of liquid through said nozzle, the valve face on said cylindrical member being adapted to engage the valve seat in said tubular body when the said nozzle is removed thereby closing the flow of water so that said valve on the reduced portion can be refitted, and a cap fitted to the upper portion of the tubular body.

2. A faucet comprising a cylindrical member externally screw threaded and having a valve face ground on its lower edge, an extended reduced portion, a valve removably secured on said reduced portion and a stem extending from the upper portion of the member, a tubular body having an inlet opening near the lower portion thereof, a valve seat in said tubular body below the inlet opening, a nozzle removably secured to the lower portion of the tubular body, a valve seat in said nozzle, said seat being in a plane below the valve seat in the tubular body, the cylindrical member being fitted in the tubular body, the valve on said extended reduced portion being adapted to engage the valve seat in the nozzle thereby controlling the flow of liquid through said nozzle, the valve face on said cylindrical member being adapted to engage the valve seat in the tubular body when said nozzle has been removed, thereby closing the flow of water and the reduced portion adapted to extend to a point below the tubular body, whereby the valve on said extended portion can be expeditiously refitted.

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

GEORGE W. TOPPING.

Witnesses:

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J. Q. BLACK.

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