A. HALL.

ATTACHMENT FOR FAUCETS.

APPLICATION FILED JULY 6, 1915.

1,264,639.

Patented Apr. 30, 1918.

Fig. 1.

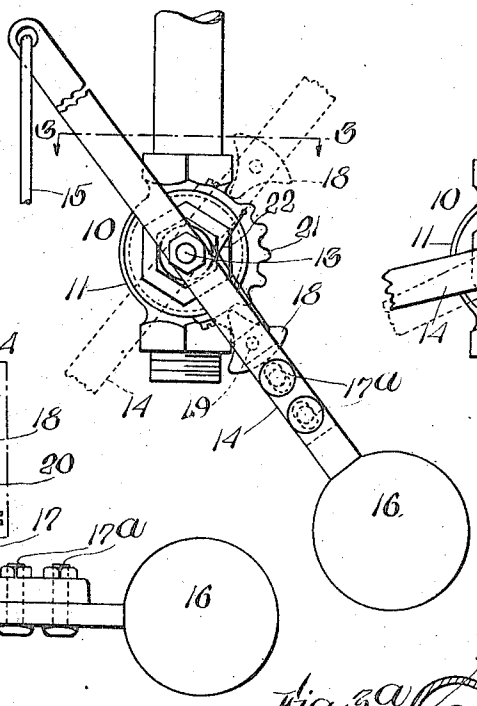


Fig. 2.

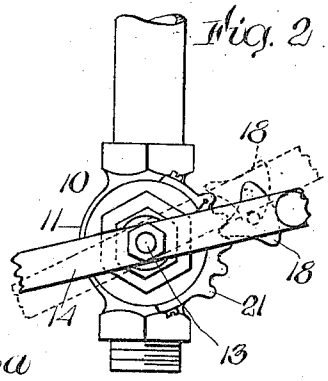


Fig. 3.

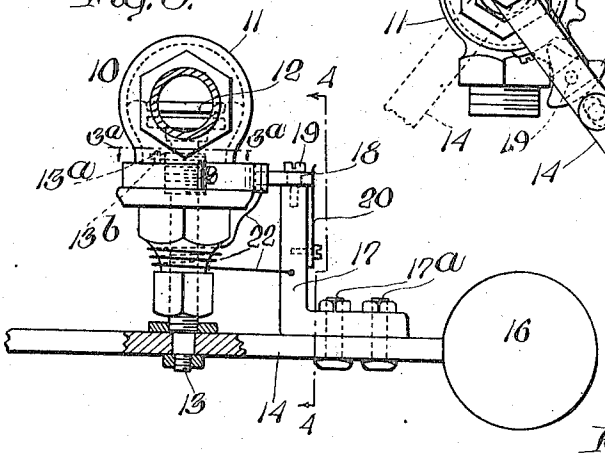


Fig. 4.

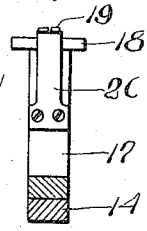


Fig. 3a.

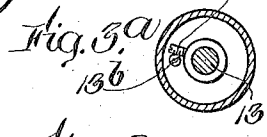


Fig. 5.

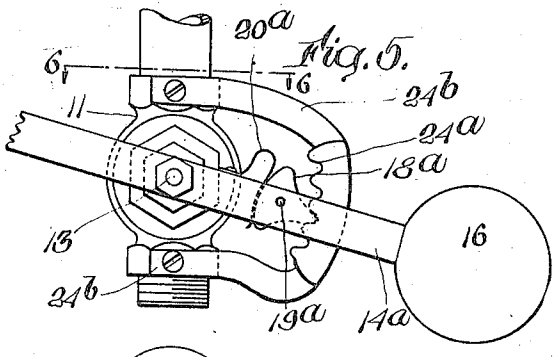


Fig. 7.

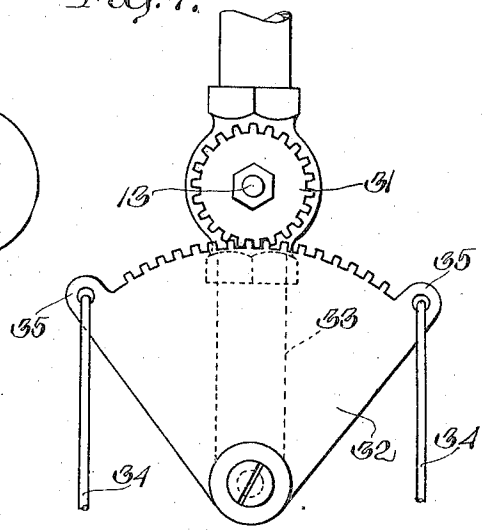
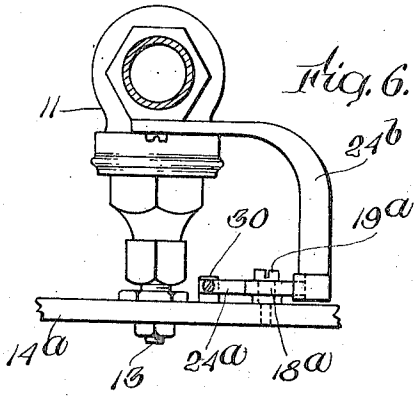


Fig. 6.



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UNITED STATES PATENT OFFICE.

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ATTACHMENT FOR FAUCETS.

1,264,639. Specification of Letters Patent. Patented Apr. 30, 1918.

Application filed July 6, 1915. Serial No. 38,105.

To all whom it may concern:

Be it known that I, ALFRED HALL, of Brookline, in the county of Norfolk and State of Massachusetts, have invented certain new and useful Improvements in Attachments for Faucets, of which the following is a specification.

This invention has reference to improvements in locking attachments particularly for faucets or the like.

A faucet with my attachment applied thereto, as herein described, is particularly adapted for use in garages. In which places it is usually located over-head and opens into the hose suspended therefrom, used in washing the vehicles. As the faucet is some distance above the reach of the operator, it is necessary to operate the same by means of a long cord or chain; one pull on the cord opening the faucet and the next closing it. In faucets heretofore constructed for this purpose and operated in this manner, a pull on their cord will completely close or will completely open them. The amount which these faucets may be opened cannot be varied.

It is the main object of the present invention to provide means for operating a faucet, so that by pulling on a single cord the faucet may be opened varying amounts as desired.

Other objects of the invention will appear from the following description.

The invention consists in a locking means and in such other novel features of construction operation and combination of parts as shall hereinafter be described and pointed out in the claims.

Referring to the drawings:—

Figure 1 represents a front view in elevation of a device embodying my invention applied to a common type of faucet; illustrating, by full lines, the position of operative parts when the faucet is closed, and by dotted lines another position.

Fig. 2 represents a view similar to Fig. 1, but illustrating two other positions of the operative parts.

Fig. 3 represents a sectional plan view taken on the plane 3—3 of Fig. 1.

Fig. 3ª represents a sectional view on the plane 3ª—3ª of Fig. 3.

Fig. 4 represents a sectional view taken on the plane 4—4 of Fig. 3.

Fig. 5 represents a front elevation of a modified form of the device applied to a common type of faucet.

Fig. 6 represents a sectional plan view taken on the plane 6—6 of Fig. 5.

Fig. 7 represents a front elevation of another modified form of the device applied to a common type of faucet.

Like characters of reference designate corresponding parts throughout.

The device may be applied to various forms of faucets, one of which is represented at 10, having the body 11, and valve 12 therein, adapted to be opened or closed by rotating the valve stem 13. The latter is provided with the stop screw 13ª which is adapted to engage the stop screw 13ᵇ on the inside of said body, thereby limiting the distance said valve may be opened.

At the outer end of the stem 13, I secure the lever 14 in place of the usual hand-wheel. To one end thereof is adapted to be attached the cord 15, at the other end the weight 16, and between the latter and the stem 13 is adjustably secured the angle iron bracket 17 by bolts 17ª. (Figs. 1, 2, 3 and 4). At the end of the bracket 17 is pivoted the sector shaped locking pawl 18 on the screw 19. In sliding engagement with the arc of said pawl is the leaf spring 20 secured to said bracket. Said pawl is adapted to engage teeth of a segment 21 secured to the valve body 11.

In Fig. 1 is illustrated, by full lines, the position of the lever 14 when the valve is closed. In this position the pawl has been moved out of engagement with the teeth of the segment 24 and is moved into radial alinement with the stem 13 by its spring 20. To open the valve the stem 13 is rotated by a pull on the cord 15 through the lever 14. As the valve is opening the end of the pawl will be swung downwardly by engaging the first tooth of the segment, allowing the pawl to slide over the teeth of the segment 24 against the action of the spring 20. When the valve is opened the desired distance, the pull on the cord 15 is released, allowing the end of said pawl to adjust itself between two teeth of the segment by the action of the spring 20. (See full line position Fig. 2.) When the pawl thus engages teeth of the segment, it will lock the lever 14 from movement by the weight 16, as the distance between the pivot

point of said pawl and the segment is not sufficient for the end of pawl to be swung by.

To close the valve, it is but necessary to pull on the cord 15 until the pawl passes the teeth of the segment, and when released, the weight 16 will swing the lever 14 to its closed position. During the latter movement, the inclination of the pawl will be reversed, by engagement with the uppermost tooth of the segment, thereby allowing it to slide over the teeth of the segment.

It has been found in practice, when the cord is suddenly released, that the weight has a tendency to cause the lever to vibrate, so that the valve will not be immediately closed. I have entirely overcome this defect by providing the spring 22. The latter is applied by being coiled around the stem casing of the valve and having one end attached to the segment 21 and the other end attached to the bracket 17.

In the modified form shown in Figs. 5 and 6, the segment 24^a is located externally of the pawl 18^a and is supported on the valve body 11 by projecting bracket arms 24^b secured to the latter. A different form of leaf spring 20^a is employed in place of the spring 20. Said leaf spring is secured to a lug 30 projecting from the lever 14^a and its free end engages the back of the pawl 18^a. The latter is pivoted on the screw 19^a projecting from said lever. This modified form of my invention is operated in the same manner as the preferred form.

In Fig. 7 the valve stem 13 is shown as operated by a pinion 31 secured thereto and in mesh with a segment 32 pivoted on a bracket 33, projecting from the valve body 11. The segment is oscillated to open and close the valve, as desired, by a downward pull on one of the cords 34, 34 attached to ears 35, 35 projecting from the top of the segment. Said ears also serve as stops to limit the movement of the segment.

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

1. The combination with a faucet having a body with a valve therein, of automatic means for closing said valve, manually operated means for opening said valve varying amounts, means normally in operative position for automatically locking said valve at the position it may be opened, said locking means adapted to be released by movement of said manually operated means to allow said automatic means to close said valve.

2. The combination with a faucet body having a valve therein and provided with a turnable valve stem, of a lever secured to the outer end of said stem, automatic means for closing said valve, a segment secured to said faucet body, and a locking pawl pivoted on said lever and adapted to engage said segment to lock said lever from being moved by said closing means.

3. In an attachment of the character described, a lever adapted to be fixed on the outer end of the valve stem of a faucet, a pivoted spring actuated pawl carried thereby, a segment provided with teeth adapted to be engaged by said pawl when said lever is swung, manually operated means at one end of said lever for swinging it in one direction only, automatic means for swinging said lever in the opposite direction, said pawl and said segment so constructed that when said pawl is moved into engagement with teeth of said segment said lever will be locked from being swung by said automatic means.

4. In an attachment of the character described, a pivoted lever, a pawl carried thereby, a segment provided with teeth adapted to be successively engaged by said pawl when said lever is swung, manually operated means at one end of said lever for swinging it in one direction only, from its normal position, automatic means for returning said lever to its normal position by swinging it in the opposite direction, said pawl and said segment so constructed that when the former is moved into engagement with teeth of the latter said lever will be thereby locked from being swung by said automatic means and when said pawl is moved past the teeth of said segment said automatic means will return said lever to its normal position.

5. In an attachment of the character described the combination of a pivoted lever, a segment having teeth concentric therewith, a pawl pivoted on said lever and adapted to engage said teeth when said lever is swung, the distance from the pivot of said pawl to the end thereof greater than to the inside circumference of said teeth, with means for swinging said pawl to move the engaging end thereof into a plane passing through the respective pivots of said pawl and said lever when said pawl is out of engagement with the teeth of said segment.

6. The combination with a faucet body having a valve therein and a turnable valve stem, of a lever fixed on the end of said stem, an inwardly projecting bracket secured to one arm of said lever, a pawl pivoted on the end thereof, a segment having teeth concentric with the center line of said stem secured to said faucet body, said pawl and said segment so constructed that when said valve is opened a certain amount said pawl will automatically engage the teeth of said segment to lock said valve from closing.

7. The combination with a faucet body having a valve therein and provided with a turnable valve stem, of a lever secured to the outer end of said stem, a weight on the end of said lever for closing said valve by grav-

ity, means for opening said valve, with a spring having one end secured to said valve body and coiled thereabout and the other end in engagement with said lever and acting on the latter in the same direction as the action of said weight to prevent said lever from vibrating for the purpose described.

8. In an attachment of the character described, a pivoted member, a segment having teeth concentric therewith, a pawl pivoted on said member and provided with an end adapted to engage the teeth of said segment, means for normally sustaining said pawl in radial alinement with the pivot point of said member, the distance from the inside circumference of said teeth to the pivot point of said lever greater than the distance of the latter to the said end of said pawl when the latter is in its normal position.

In testimony whereof I have affixed my signature.

ALFRED HALL.

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