G. R. LONG.

PUSH FAUCET.

APPLICATION FILED JULY 22, 1909.

953,342. Patented Mar. 29, 1910.

Fig. 1.

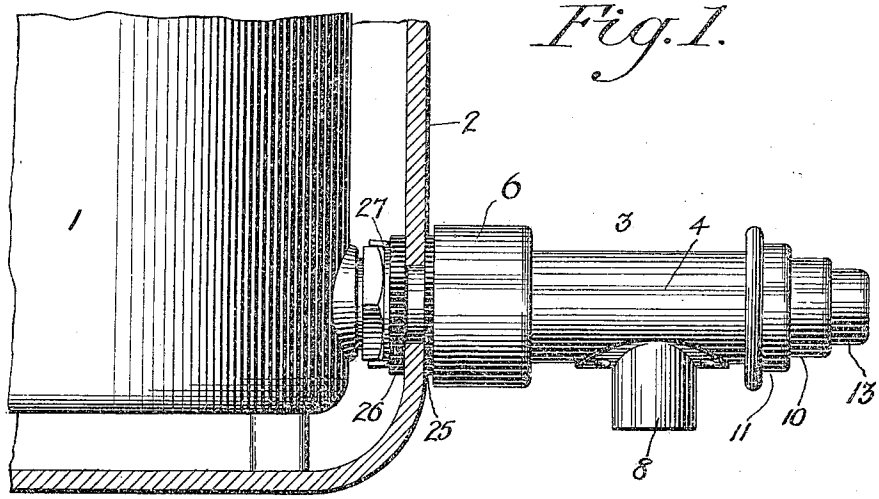


Fig. 2.

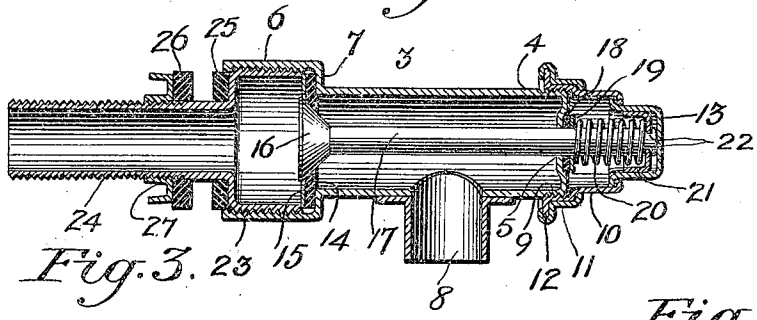


Fig. 3.

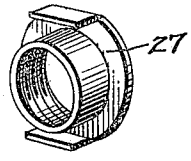
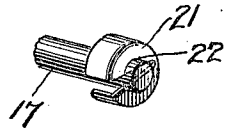


Fig. 4.



Witnesses.
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Atty

UNITED STATES PATENT OFFICE.

GEORGE R. LONG, OF WATERBURY, CONNECTICUT, ASSIGNOR TO SCOVILL MANUFACTURING COMPANY, OF WATERBURY, CONNECTICUT, A CORPORATION OF CONNECTICUT.

PUSH-FAUCET.

953,342. Specification of Letters Patent. **Patented Mar. 29, 1910.**

Application filed July 22, 1909. Serial No. 509,058.

To all whom it may concern:

Be it known that I, GEORGE R. LONG, a citizen of the United States, residing at Waterbury, in the county of New Haven and State of Connecticut, have invented a certain new and useful Improvement in Push-Faucets, of which the following is a full, clear, and exact description.

This invention relates to that class of fluid-drawing devices familiarly known as "push-faucets," because the valvular device is unseated by pushing or pressing upon a button connected with it, the reverse movement being effected by a spring.

The invention is designed for use especially on that class of water-coolers in which the water is contained in a receptacle surrounded by an outer ice-containing vessel, the faucet passing through both vessels and communicating as an outlet with the inner or water receptacle only. But, of course, the invention is not limited in use or adaptation to this one article.

The invention consists of a push-faucet, having a body or shell in which are arranged the valve and its seat, a spring push-button for seating and unseating the valve, a clip for holding the spring to the valve-stem, and a coupling member which subserves the double purpose of attaching the faucet to the cooler and holding the valve-seat in place, all and singular as I will proceed to particularly describe and finally claim.

In the accompanying drawings, illustrating the invention, in the several figures of which like parts are similarly designated, Figure 1 is a side elevation and partial section showing the faucet applied to a cooler of the class mentioned. Fig. 2 is a longitudinal section of the faucet detached. Fig. 3 is a perspective view of a locking washer. Fig. 4 is a perspective view of the outer end of the valve stem showing the spring clip in position.

In Fig. 1, the water receptacle shown in part and in elevation, is designated 1, and the surrounding ice-containing vessel shown in part and in section, is designated 2, and the faucet is passed through the latter into the former in any suitable water-tight manner and by any approved means.

The body or shell 3 of the faucet has its outer end 4 closed save for the opening 5 for the valve-stem or push-rod hereinafter described. The other end 6 of the shell is of larger diameter than the main portion and is open, and a shoulder 7 is formed by and between these two portions which forms a support for the valve-seat and limits the inward movement of the coupling. A discharge nozzle 8 opens from one side of the main portion of the body or shell. The closed end of the body or shell is externally screw-threaded at 9 to receive a screw-cap 10, having a collar 11, closed down over its flange 12, and in the open end of this cap is the shell-like push-button 13.

The valve-seat may comprise a yielding member 14, such as a rubber ring, and a non-yielding, preferably metal, face-ring 15, both resting against the shoulder 7.

The valve 16 has a stem or push-rod 17 extending through the hole 5 in the closed end of the body or shell and surrounded by rings 18 and 19 of soft and hard material respectively, to pack the opening water-tight and to afford a wear-plate for the coiled spring 20 which surrounds the valve-stem between said end and the push-button. The spring is held in tension on the rod by a clip 21, which is of annular shell form, slit diametrically to engage opposite nicks, or, a groove 22, in the rod near its outer end, in such way as to be easily removed when desired. The edges of the slit enter the nicks and the rim of the clip fits inside the push-button sufficiently snugly to insure the maintenance of such engagement. The spring normally seats and closes the valve.

The coupling has an externally screw-threaded portion 23 adapted to engage an interior screwthread in the larger end of the body or shell, to secure the valve-seat in place, and to connect the faucet to the article upon which it is to be used, and it has a smaller portion 24 externally screwthreaded or otherwise prepared to engage such article. As shown, packing-rings 25 and 26 may be used on opposite sides of the wall of the article to afford a fluid-tight union. A washer 27, having a screwthreaded hub, is mounted upon the externally screwthreaded portion 24, between the inner and outer receptacles and the coupling's connections therewith, and it is useful in tightening up the connections.

Obviously the valve is opened by pressing or pushing on the button 13 in the direction of the length of the valve-stem or rod.

By the construction described, a very sim-

ple and efficient push-faucet is provided, which may be easily applied and removed, and whose parts are readily accessible for repairs and renewals.

The shell-like clip might be replaced by other means for connecting the spring and stem, and other variations in structure are within the principle of the invention.

What I claim is:—

1. A push-faucet, comprising essentially a body or shell closed at one end save for an opening for the passage of the valve-stem, and open and internally screw-threaded at the other end, a valve-seat arranged within said open end, a coupling member screwed into said open end and supporting the valve-seat, a valve-stem extending lengthwise of the body or shell and having a valve co-operating with said valve-seat, a push-button connected movably to said body or shell and also movable with the valve-stem, and a spring interposed between the body or shell and the push-button and connected with the valve-stem to normally seat and close the valve.

2. A push-faucet, comprising essentially a body or shell closed at one end save for an opening for the passage of the valve-stem, and open at the other end to receive the attaching medium, a valve-seat arranged within said open end, a valve-stem extending lengthwise of the body or shell, a screw-cap applied to the closed end of the body or shell, a push-button arranged in said screw-cap and connected movably and detachably therewith and also movable with the valve-stem, a spring interposed between the closed end of the body or shell and the push-button, and means separate from the push-button for connecting the spring with the valve-stem to normally seat and close the valve and project the push-button.

3. A push-faucet, comprising essentially a body or shell closed at one end, and said end perforated for the passage of the valve-stem, and open at the other end to receive the attaching medium, a valve-seat in said open end, a valve-stem extending lengthwise of the body or shell, a push-button connected movably to said body or shell, a spring-clip on the outer end of the valve-stem within the push-button, and a spring interposed between said clip and the closed end of the body or shell.

4. A push-faucet, comprising essentially a body or shell closed at one end, and said end perforated for the passage of the valve-stem, and open at the other end to receive the attaching medium, a valve-seat in said open end, a valve-stem extending lengthwise of the body or shell, a push-button connected movably to said body or shell and also movable with the valve-stem, and a spring interposed between the body or shell and the push-button to normally seat and close the valve, combined with a coupling screwed into the open end of the body or shell to hold the valve-seat in place.

5. In a push-faucet, a body or shell, a reciprocating valve therein, an operating stem for said valve, a detachable clip on the outer end of said stem, a spring encircling said stem adjacent to its outer end and in contact with its clip and adapted to maintain said valve normally closed, and a shell-like push-button inclosing the outer end of the stem and the clip and movably connected to the body or shell.

6. In a push-faucet, a body or shell, a reciprocating valve therein, a valve-seat, a stem for operating the valve, said stem provided with opposite nicks adjacent to its outer end, a detachable clip slit transversely and engaging the nicks in said stem, a spring encircling said end and engaging said clip and adapted to normally close the valve, and a shell-like push-button upon the outer end of the body or shell inclosing said clip and maintaining its engagement with the stem and spring.

In testimony whereof I have hereunto set my hand this 21st day of July, A. D. 1909.

GEORGE R. LONG.

Witnesses:

HENRY FEHL,

G. F. HODGES.