No. 780,929. PATENTED JAN. 24, 1905.

W. ANGEHR.

SELF CLOSING FAUCET.

APPLICATION FILED MAR. 18, 1904.

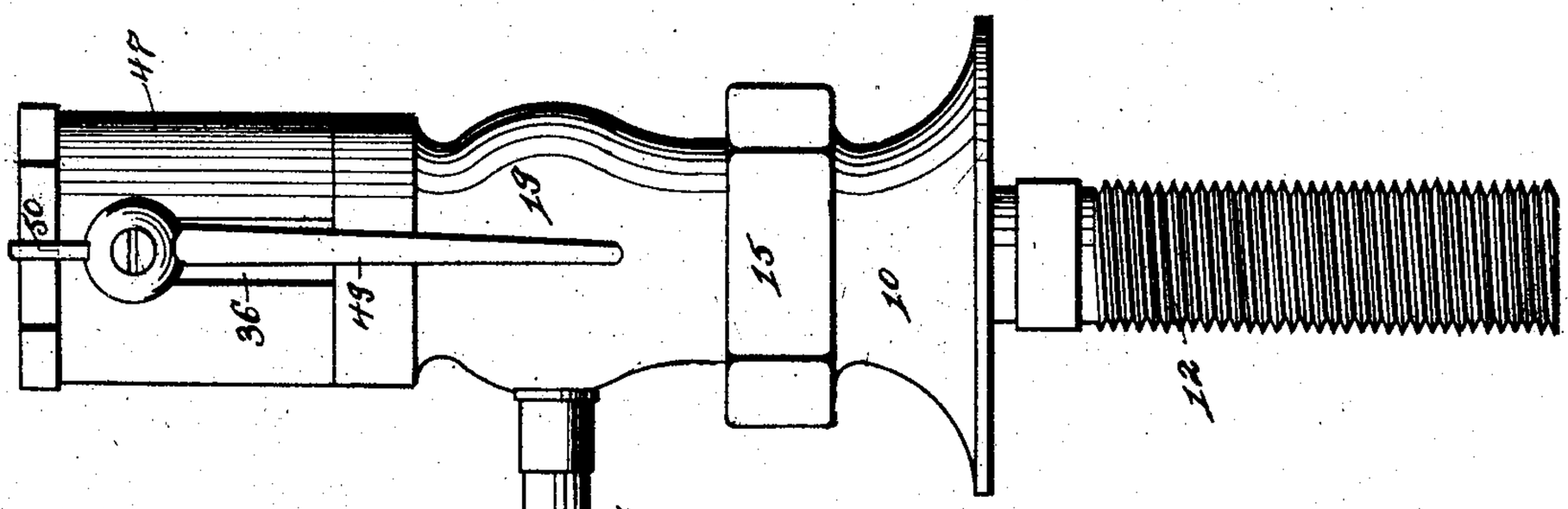
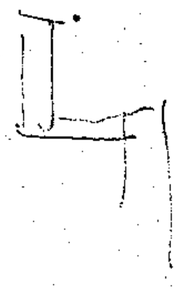


Fig. 2.



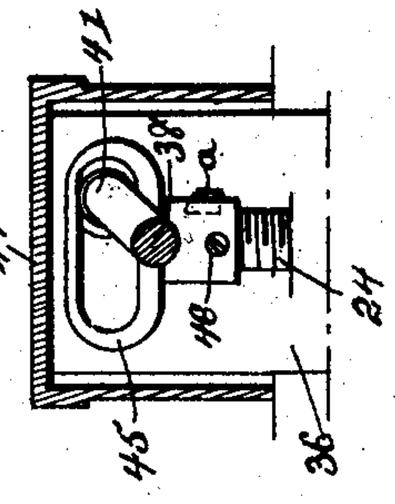


Fig. 3.

Fig. 1.

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UNITED STATES PATENT OFFICE.

WILLIAM ANGEHR, OF DES MOINES, IOWA.

SELF-CLOSING FAUCET.

SPECIFICATION forming part of Letters Patent No. 780,929, dated January 24, 1905.

Application filed March 18, 1904. Serial No. 198,842.

To all whom it may concern:

Be it known that I, WILLIAM ANGEHR, a citizen of the United States, residing at Des Moines, in the county of Polk and State of Iowa, have invented a new and useful Self-Closing Faucet, of which the following is a specification.

My object is to prevent the annoyances, damages due to overflow of water, and waste of water incident to faucets being inadvertently left open by persons who open them to draw water or other fluids from a vessel, reservoir, or other source of supply.

My invention consists in the self-closing faucet hereinafter set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a longitudinal central sectional view and shows the positions of the different parts relative to each other and the manner of connecting them. Fig. 2 is a side view that shows the faucet complete as required for commercial and practical use. Fig. 3 is a central sectional view of the top of the faucet and shows, partly in perspective, a crank extended through a bridle at the top of the valve-stem for opening the valve by pressing downward against the upward pressure of liquid as required to draw water from the faucet by manual operation of the valve.

The numeral 10 designates the base of the structure and has a screw-threaded tubular extension 12 at its bottom adapted to be connected with a service-pipe. A valve-seat 13 is fitted in the top of the base 10 and has a screw-threaded extension 14 at its top. A ring 15, having an internal screw 16 at its lower end and an internal flange 17 at its top, is fitted to an external screw 18, integral with the base 10, as required to fix the valve-seat 13 to the base 10. A body-piece 19 has an internal screw 20 at its bottom that engages the screw 14. It is provided with integral internal valve-stem bearers 21 and 22 and has an internal screw 23 at its top.

A valve-stem 24 has a shoulder 25 and a screw $26\frac{1}{2}$ at its lower end, and a rubber valve 26 is placed on said screw and fastened thereon by a nut 27, that has a pointed extension 28 and part of said extension made angular and adapted for applying a wrench to force the nut up tight against the bottom of the rubber valve.

It is obvious that the valve-stem 24 must be passed upward through the valve-seat 13 before the valve-seat is fixed to the base 10. A rubber packing-ring 29 is placed on the top of the valve-stem bearer 21, fiber material 30 on top of said rubber ring, a brass ring 31, that has a conical cavity on its under side, on top of the fiber, and a rubber ring 32 on top of the brass ring, as required to produce an air-tight connection.

A coil-spring 33 is placed on the top end portion of the valve-stem and a screw-threaded collar 34 on top of the spring and lock-nut 35 on top of said collar in such a manner that the spring will normally aid in retaining the valve closed. An open-ended extension 36 has a screw 37 at its lower end fitted into the internal screw 23 in the top of the body-piece 19 and has a crank-shaft 38 mounted therein.

A bushing 39 is fitted in an aperture in the extension 38 to serve as a bearing for the shaft, and an elbow-shaped shaft extension 40 is fixed to the end of the crank 41 by means of a screw 42 and journaled in an aperture in the extension 36 and secured thereto by means of a washer 43 and a screw 44.

A stop *a* in the extension 36 restricts the motion of the crank as required to open the valve.

A bridle 45 is fixed to the top of the valve-stem 24 by a set-screw 46, as shown in Fig. 3.

It is obvious the crank-shaft is necessarily made in two parts and that the crank 41 must be passed through the bridle 45 before the elbow-shaped part 40 is fixed to the crank 41.

A cap 47, provided with parallel slots to adapt it to stride the shaft, is fitted on the extension 36 to close and conceal it and to produce a neat finish.

A discharge-spout 48 is connected with the body-piece 19, as shown in Fig. 2.

A handle 49 is fixed on the end of the shaft 38 and provided with an extension 50, adapted to aid in getting a handhold and grasp as required in turning and holding the shaft to depress the valve and retain it open as long as the water is to flow through the faucet.

Relaxing the hand-pressure the power stored in the spring 33 by opening the valve will, aided by the upward pressure of water, lift the valve, and thus automatically close the valve and retain it closed. The pointed nut creates a large surface against which the water presses upward to aid in retaining the valve closed.

Having thus set forth the purpose of my invention and the construction, function, and arrangement and combination of all the parts, the practical operation and utility thereof will be obvious to persons familiar with the art to which it pertains, and

What I claim as new, and desire to secure by Letters Patent, is—

1. In a faucet, a base having a tubular extension at its bottom, a valve-seat fitted in its top, a chambered body-piece fixed to the valve-seat, a flanged ring fitted and fixed to the valve-seat and the base, a valve-stem and a valve fixed to the lower end of the stem, a nut having a pointed extension on the valve-stem below the valve, a tubular body-piece fixed to the top of the valve-seat and provided with bearings for the valve-stem, packing in the top part of the body-piece and means for normally retaining the valve-stem elevated and the valve closed, arranged and combined as shown and described for the purposes stated.

2. In a faucet, a base having a tubular extension at its bottom, a valve-seat fitted in its top and a flanged ring fitted and fixed to the valve-seat and the base, a valve-stem and a valve fixed to the lower end of the stem, a nut having a pointed extension on the valve-stem below the valve, a tubular body-piece connected with the valve-seat, bearings for the valve-stem in said body-piece, packing above the upper bearing, a coil-spring on the top end portion of the valve-stem and a nut and washer on the stem and on top of said spring, and means for actuating the valve-stem and valve, arranged and combined as shown and described for the purposes stated.

3. In a faucet, a base having a tubular extension at its bottom, a valve-seat fitted in its top and a flanged ring fitted and fixed to the valve-seat and the base, a valve-stem and a valve fixed to the lower end of the stem, a nut having a pointed extension on the valve-stem below the valve, a tubular body-piece connected with the valve-seat, bearings for the valve-stem in said body-piece, packing above the upper bearing, a coil in said body-piece, packing above the upper bearing, a coil-spring on the top end portion of the valve-stem and a nut and washer on the stem and on top of said spring, a tubular extension on top of the body-piece, a crank-shaft mounted in said extension and bridle on the crank of the shaft and fixed to the top of the valve-stem, arranged and combined as shown and described for the purposes stated.

4. In a faucet, a base having a tubular extension at its bottom, a valve-seat fitted in its top and a flanged ring fitted and fixed to the valve-seat and the base, a valve-stem and a valve fixed to the lower end of the stem, a nut having a pointed extension on the valve-stem below the valve, a tubular body-piece connected with the valve-seat, bearings for the valve-stem in said body-piece, packing above the upper bearing, a coil in said body-piece, packing above the upper bearing, a coil-spring on the top end portion of the valve-stem and a nut and washer on the stem and on top of said spring, a tubular extension on top of the body-piece, a crank-shaft mounted in said extension and a bridle on the crank of the shaft and fixed to the top of the valve-stem, a handle on the end of the shaft and a cap fitted over the top and the crank-shaft, arranged and combined as shown and described for the purposes stated.

5. A self-closing faucet comprising a tubular extension at its bottom, a valve-seat fitted in its top and a flanged ring fitted and fixed to the valve-seat and the base, a valve-stem and a valve fixed to the lower end of the stem, a nut having a pointed extension on the valve-stem below the valve, a tubular body-piece connected with the valve-seat, bearings for the valve-stem in said body-piece, packing above the upper bearing, a coil-spring on the top end portion of the valve-stem and a nut and washer on the stem and on top of said spring, a tubular extension on top of the body-piece, a crank-shaft mounted in said extension and a bridle on the crank of the shaft and fixed to the top of the valve-stem, a handle on the end of the shaft and a cap fitted over the top and the crank-shaft and means for restricting the downward motion of the crank of the shaft, arranged and combined as shown and described for the purposes stated.

WILLIAM ANGEHR.

Witnesses:
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