

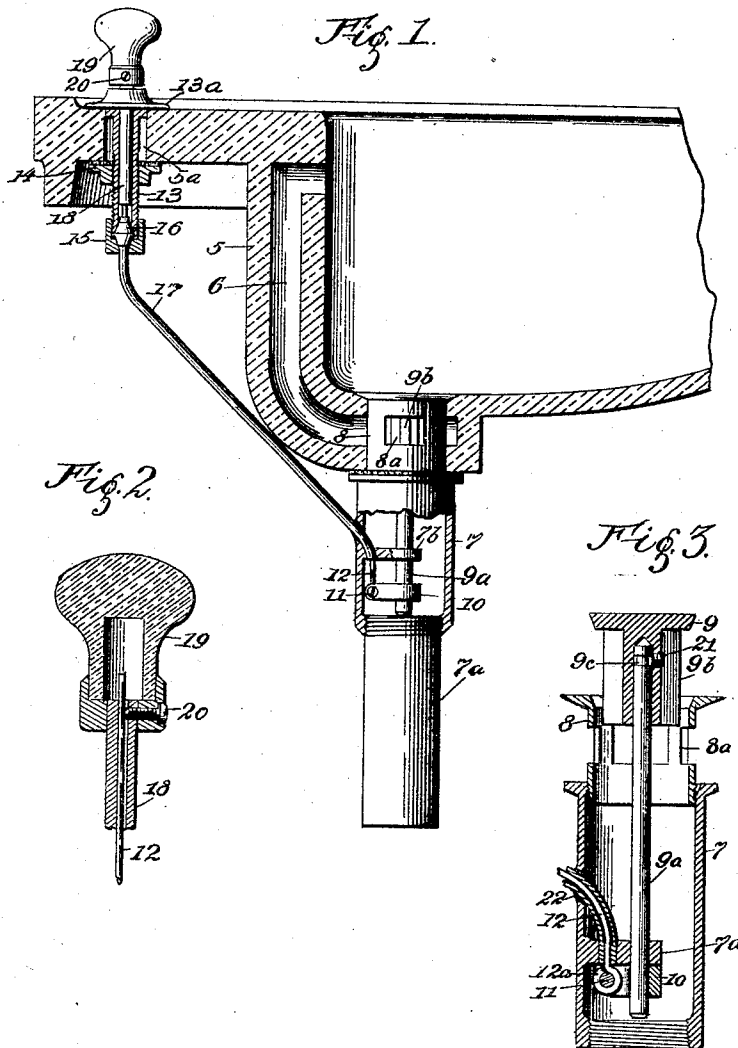
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WASTE VALVE CONTROLLING DEVICE

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WASTE-VALVE-CONTROLLING DEVICE.

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To all whom it may concern:

Be it known that I, CARL E. DUREY, a citizen of the United States, residing at Cedar Rapids, in the county of Linn and State of Iowa, have invented certain new and useful Improvements in Waste-Valve-Controlling Devices, of which the following is a specification.

This invention relates to wash-basins for running water, in which provision is made for an automatic overflow in case of a flow or leak through the bibb, with the waste-plug closed, and the object of the invention is to provide a simple and efficient device for opening and closing said waste-plug or valve.

The invention is fully disclosed in the description and claims following, reference being had to the accompanying drawings, in which:

Fig. 1 is a side elevation of a device embodying the invention, the parts contiguous thereto being shown mainly in section. Fig. 2 is a vertical section of the operating knob and its connections. Fig. 3 is a similar section, showing the waste-valve and the parts of the controlling device connecting therewith.

In the drawing, the numeral 5 denotes a wash-basin of a familiar type, provided with an overflow channel 6 in communication with the waste-pipe 7 and 7^a through openings 8^a in the valve-seat 8 attached to the lowest portion of the basin. This seat is provided with a plug valve 9, all of the foregoing being of familiar construction. This invention, as above indicated, has especial reference to means for opening and closing the waste-valve.

The valve 9 is provided with a depending stem 9^a mounted slidably in a guide-bearing 7^a forming a part of the valve-seat assembly. This, with the lateral wings 9^b serve to guide the valve in a true movement up and down. To the stem below the lower guide is attached a slotted collar 10, clamping the stem by means of a screw 11. The screw also serves as a pivot for the eye 12^a of a flexible pushing and pulling member 12, which may be, as herein shown, a simple wire of spring brass, or other metal or material not subject to rust.

On the rear apron of the basin is mounted the device for operating this pull-and-thrust

member. In the hole 5^a, usually formed in the basin is mounted a tubular guide 13, flanged at 13^a, and provided with a suitable fastening nut 14. The threaded guide or shank extends below the nut, so as to take the nut 15 of a special tube-fastening union 16, in a familiar way. In this union, and with its lower end projecting through the wall of the valve-seat 9, is a tube 17 serving as a guide for the operating flexible member. The upper end of said flexible member extends up through the tubular shank 18, of the operating knob 19, and is secured in proper position by a set-screw 20. In practice it is set to leave a little gap between the base of the knob and the guide-flange, so that a downward pressure on the knob will insure the closing of the waste-valve. Lifting the knob of course lifts the valve straight up, and this lift is limited by the guide-bearing 7^a, which serves as a stop for the clamp-collar, as will be apparent by reference to Fig. 3.

For convenience in assembling the device the waste-valve and its stem are preferably made separable, a simple and satisfactory connection of the parts being the stem with a groove at 9^c and a set screw 21 in the hub of the valve.

In practice the guide-tube 17 is permanently attached to the valve-seat member, as by soldering at 22. The fixture as a whole is easily and quickly assembled and mounted by first attaching the valve-seat and knob-guide to the basin then running the thrust-wire through its guide from below, and finally connecting the wire and clamp-collar to the valve-stem, and the upper end of the wire to the knob.

The device is attachable to any lavatory having a waste and overflow of the type herein designated. Among its advantages may be mentioned:

Simplicity, there being no levers, rods, pivots, etc., to loosen and get out of adjustment. Positive action in both opening and closing. A positive holding of the valve partially open, for continuous drainage, as in washing out the basin, the friction of the serpentine thrust-member holding the parts at any desired position. The device is also "fool-proof," since nothing can be done with it by the operator except to lift and depress a knob. A test of its durability shows

the equivalent of twenty years actual service. Its construction is such as to render it leak-proof, with no nuts to loosen or packings to depreciate. Its simplicity of course tends toward economy in manufacture, as well as efficiency in service.

Having thus described my invention, I claim:

1. Combined with a lavatory waste-valve having a depending stem, a seat therefor provided with a guide for said stem, a flexible pull-and-thrust member attached to the stem below said guide, a tubular guide for said member, and means attached to the free end of said member for operating the same to open and close the valve, the valve-stem guide forming a stop to limit the lift of the valve.

2. A waste-valve controlling device, comprising a valve having a depending, detachable stem, a guide therefor inside the valve-seat member, a clamp-collar below said guide, a flexible thrust-and-pull wire attached to said collar, an inclined and curved guide-tube for said wire entering at one end through the side wall of the valve-seat, a tubular support for the upper end of said tube, an operating knob with a stem slidable in said tubular support, and means for

connecting the upper end of said wire adjustably with said knob.

3. In a device of the character described, the combination of a pipe section adapted to be connected to the lavatory outlet, a stem mounted for movement axially of the pipe section and having a plug co-operating with the upper end of said section to open or close the same, a comparatively small tube extending through the side of the pipe section at an oblique angle thereto, a sleeve adapted to be secured through the rim of the lavatory, a coupling for securing the lower end of said sleeve to the outer end of the tube, a knob having a downwardly projecting hollow rod reciprocable in said sleeve, a flexible wire extending through the tube and attached at its inner end to said stem, and means for adjustably securing the outer end of the wire within said hollow rod, whereby the reciprocation of the latter will open and close the plug.

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

CARL E. DUREY.

Witnesses:

F. W. ARMSTRONG,
MARTHA A. HEALD.