

UNITED STATES PATENT OFFICE.

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FAUCET FOR WASH-BOWLS.

SPECIFICATION forming part of Letters Patent No. 323,563, dated August 4, 1885.

Application filed May 22, 1885. (No model.)

To all whom it may concern:

Be it known that I, THOMAS C. CLARK, of Cohoes, county of Albany, and State of New York, have invented a new and useful Improvement in Faucets for Wash-Bowls, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification.

My invention consists of a valve-case with means, substantially as hereinafter described, for attaching the same to the wash-bowl, having openings in the neck admitting the overflow-water from the chamber below the bowl to the interior of the valve-case, a suitable passage or passages for conducting the overflow-water into the discharge-passage, an upper conical valve-seat, a lower conical valve-seat, an opening or passage for conducting the water from the interior of the plug or valve into the discharge-passage, a discharge-opening and suitable inlet-openings for admitting water to the valve, in combination with a plug or valve having an upper and a lower conical part or working-face of suitable taper, and corresponding to the valve-seats in which they move, a longitudinal axial chamber for the admission of water to and its discharge from the interior of the wash-bowl, and a suitable opening for the passage of water through the face of the lower valve.

My invention further consists of certain details of construction hereinafter described.

In the accompanying drawings, Figure 1 is a plan view of parts of a wash-stand with wash-bowl and three-way faucet having my improvements. Fig. 2 is a vertical section of Fig. 1 on line *a b*, showing the faucet in elevation. Fig. 3 is a vertical section of the faucet and lower part of the bowl on the same line *a b*. Fig. 4 is a plan view of the cross-bar. Fig. 5 is a horizontal section of the faucet on the line *c d*. Fig. 6 is a vertical section showing the water-jet device, and Fig. 7 is a plan view of the flange *g* of Fig. 6.

A is a part of the table or wash-stand top, usually a slab of marble.

B is a part of the usual vertical slab or board at the back of the wash-stand.

C is the wash-bowl, of a form in general use, the rim being a little larger in diameter than the circular opening in the wash-stand top,

and having a projecting flange, D, secured by suitable means to the under side of the stand-top.

E is the overflow-channel, receiving the surplus water through openings F, and conducting it down outside of the bowl or basin to the chamber G, surrounding the opening in which the faucet is inserted. The manner of attaching the faucet to the wash-bowl is clearly shown in the drawings. The opening through the flat part of the bottom of the bowl is circular in form, with a suitable recess, H, at the top.

I is the cock or faucet. To attach the faucet to the bowl a ring, K, of leather or other suitable material for making a tight joint, is passed over the cylindrical neck L, and the neck is passed upward through the opening of the basin to receive the packing-ring M and the circular nut or metallic disk N, which latter, screwing onto the end of neck L, forms a suitable flange, and, with flange O, compresses the packing-rings K and M, forming water-tight joints.

W is the plug or valve having two conical faces, both faces having the same taper, and being connected with each other by the cylindrical hollow stem *f*.

T and U are the upper and lower valve-seats, which receive the conical faces of the valve or plug W. The top of the plug-valve faces may project above the seats to allow for wear.

The plug W may be provided at its upper extremity with any suitable means for revolving it on its axis, to admit water to or discharge the contents of the bowl. It may project very slightly or not at all above the top of the valve-case P; but I prefer to provide a projecting flange, *g*, the upper surface of which may, if the recess is deep enough, be flush with the upper surface of the bottom of the bowl, and it may be of nearly the same diameter as the recess. A small screen or sieve may be inserted in the top of the axial chamber Z of the plug; but I prefer the construction shown in the drawings, in which a larger convex sieve or screen, *h*, equal in diameter to the flange *g*, is secured by screws *i* to the flange *g*.

To operate the valve, I project from one edge of the sieve, preferably from the point over the opening *e*, a bent lever, *j*, which, bend-

ing along the inner face of the bowl, passes up to the inner edge of the opening in the top A, and is provided with a suitable knob or handle, *k*, by which it may be moved to let on or off the water. By this arrangement of levers and screen a neat appearance is presented to the eye of the person using the wash-bowl, and the bowl is easily kept clean.

The water is admitted to or discharged from the bowl through the axial chamber or passage Z, and through the opening *e* of the lower valve-face of the plug. V is the discharge-opening through the valve-seat U. The water escapes from the bowl through chamber Z and opening *e* when the opening *e* coincides with opening V. From the latter opening it goes through the passage S and out at the discharge X, where the discharge-pipe is attached in the usual manner.

My invention may be used with any required number of inlet-openings Y, which may be at any convenient distance apart, the form of the ports, passages, or openings corresponding to the number and size of inlets; but as hot and cold water and discharge are the three openings generally required I arrange these three openings, as clearly shown in Fig. 5, about one hundred and twenty degrees apart—one for hot water, one for cold water, and the third and larger one for the discharge.

The handle or knob *k*, being above the overflow-openings F, can be used without wetting the fingers. On the position shown in the drawings the discharge is open and the inlets closed. The words "Outlet," "Hot," "Cold," or other easily-understood symbols may be inserted in the top, as indicated in Fig. 1, to show the position of the openings. The knob *k* being moved to either of the points indicated will cause the water to enter the bowl or be discharged accordingly. At any intermediate position of the lever the passage *e* would be closed with the corresponding result. Water from the overflow-openings F passes down through the channel E to the chamber G, through openings Q into the passage R, through the passages R and S to the discharge-opening X. Whenever the plug is turned so that the passage *e* covers an inlet-opening, Y, the outlet V will be closed, and the water will flow up through the chamber Z and screen *h*, and fill the bowl, any excess passing out through the overflow-passages F.

The valve should be accurately fitted and ground in its seats. To prevent sticking and secure its easy working I provide an adjusting-screw, *m*, on the spring *n*. The screw *m* passes through the bottom of the plug W. It has a leather or rubber washer under the head to prevent leakage, and passes down and screws into a suitable cross-bar, *o*. The cross-bar *o* (shown in the drawings) is placed across the discharge-opening, its extremities fitting into suitable notches cut into the rim of the discharge-opening; but the cross-bar may consist of any projection from the case P, which can be tapped to receive and hold the screw in the

proper position. The spring *n*, being compressed between the bottom of the plug and the cross-bar, tends to force the plug upward or to loosen it, while the head of the screw *m* prevents the plug from going up too far. It is evident that when the screen *h* is removed the screw *m* may be so moved with a screw-driver that the exact tightness or looseness of the plug may be maintained.

To obtain a jet of water for other purposes than washing I apply the modification shown in Figs. 6 and 7. Additional thickness is given to the metal of the plug W, to provide for the water-passage *p* and groove *q*, and the passages are made by turning and drilling. A projection, *r*, is also added to the case P, to provide for drilling the passages *s* for cold or hot water to flow from the cold or hot water inlet Y' to the groove *q*. A notch, *v*, is made in flange *g* to receive the jet-pipe *t*, which is secured into the metal or plug W just below the upper surface of the flange *g*. The jet-pipe *t* passes up the under side of lever *j*, and through an opening in the end of that lever, and terminates in a cock, *u*, or other suitable device for opening or closing the discharge. The cock *u* may serve as a substitute for the knob *k*. When the cock *u* is opened, a jet of water is discharged. The water entering through the inlet Y passes up and through the passages *s* to the groove *q*, which groove, completely encircling the plug, is always supplied with water for delivering through the passage *p* and jet-pipe *t* when the cock *u* is opened.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The faucet I, consisting, essentially, of a valve-case, P, with means for attaching the same to the wash-bowl C, having openings Q in the neck L, admitting the overflow-water from the chamber G to the interior of the valve-case, a suitable passage or passages, R, for conducting the overflow-water into the discharge-passage S, an upper conical valve-seat, T, a lower conical valve-seat, U, an opening or passage, V, for conducting the water from the interior of the plug or valve W into the discharge-passage, S, a discharge-opening, X, and suitable inlet-openings, Y, for admitting water to the valve, in combination with the plug or valve W, having an upper and a lower conical part or working-face of suitable taper, and corresponding to the valve-seats T and U, in which they move, a longitudinal axial chamber, Z, for the admission of water to and the discharge of water from the interior of the wash-bowl, and a suitable opening, *e*, for the passage of water through the face of the lower valve.

2. The faucet I, provided with the hollow plug or key W, having the axial chamber Z, in combination with the screw *m*, cross-bar *o*, and spring *n*, for adjusting the plug W and holding it to its seat, substantially as described.

3. The faucet I, provided with the conical

seats T and U, in combination with the hollow plug or key W, provided with the conical faces fitting the seats T and U, the axial chamber Z, extending entirely through the same and the projecting flange *g*, and held to its seat by a coiled-wire spring attached to the lower end thereof, and operating in the manner and for the purpose substantially as described.

4. The faucet I, provided with the outlet-passages, and having the conical seats T and U, in combination with the hollow conical plug or key W, provided with the combined sieve and handle or lever for operating the same, substantially as specified.

5. The faucet I, provided with the conical seats T and U, in combination with the plug or key W, provided with the flange *g*, the conical faces and the continuous axial chamber Z, and the curved lever *j*, attached to said plug by means of the sieve *h*, to which it is rigidly secured, substantially as described.

6. The faucet I, provided with the conical

seat having several openings for the admission and escape of water, in combination with the adjustable and hollow conical plug or key provided with an opening for the admission of water to or the escape of water from the axial chamber of said plug, the flange *g* on the plug or key, the sieve secured thereto, as described, and the curved lever for operating or turning said plug or key in its seat, for the purpose and substantially as set forth.

7. The faucet I, provided with a jet-pipe, *j*, and means for opening and closing the same, and with suitable passages, *s* and *p*, and groove *q*, for conducting water from the inlet-pipe to and into the jet-pipe.

In testimony whereof I have hereunto set my hand this 18th day of May, A. D. 1885.

THOMAS C. CLARK.

Witnesses:

EDWARD McCREARY,
DAVID R. SMITH.