

UNITED STATES PATENT OFFICE.

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WASH BOWL AND STAND.

SPECIFICATION forming part of Letters Patent No. 259,074, dated June 6, 1882.

Application filed March 1, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN B. ATWATER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Wash Bowls and Stands Connected to Pipes Leading into Sewers, of which the following is a specification.

The nature of my invention consists in a wash-bowl provided with the usual discharge-passage leading into a sewer, but made without an overflow passage and pipe, and with a valve-chamber and spring-valve having a lever appliance for operating it, said valve and chamber being between the bowl proper and the pipe connected with the sewer. In this combination the valve proper is of conical form on its upper side and concave on its under side, and its spring is arranged on a stem which is beneath and central of the valve proper, so as to be shielded from contact with dirty water, trash, and other things which would impair its action or soon destroy it if allowed to come directly in contact with it; and the valve is also provided with an upper forked stem and a hand-lever, by which it is operated, said lever being pivoted and arranged inside the basin, on one side thereof, and acting to open the valve by a downward pressure, while the spring acts to close it by an upward pressure, which upward pressure will be assisted by the pressure of noxious gases from the sewer.

The object of my invention is to provide wash-basins with an automatic-closing valve, whereby sewer-gas shall be excluded from apartments of dwellings by having the upward pressure of the gas act in connection with the spring and render the valve very effective for automatically closing the water-discharge passage of the basin, while the liability of the spring of the valve to become clogged or destroyed is avoided.

In the accompanying drawings, Figure 1 is a plan view of a basin with my improvement applied to it, the perforated trap-plate being partly broken away in order to show parts below it. Fig. 2 is a vertical central section of the basin and my improvement applied to it. Fig. 3 is a broken horizontal section of the valve-chamber below the valve proper, in the

line *xx* of Fig. 2; and Fig. 4 is a section in line *yy* of same figure.

Similar letters of reference in the different figures indicate like parts.

In the accompanying drawings, A represents a basin which is intended specially to be applied to a wash-stand provided with an automatic-closing water-supply cock, for which I have applied for a separate patent; and hence it can safely be constructed without an overflow passage and pipe, and with only the usual central discharge-passage, *a*. This basin has a hollow conical valve-chamber, B, fastened to its under side by means of a screw-coupling, *b*, which is provided with a central valve-stem guide, *c*, formed in a narrow cross-bar, *d*, as shown. The valve-chamber is provided with a central valve stem guide, *e*, formed in a narrow cross-bar, *d'*, of the valve-chamber, as shown, and it is connected by a screw-threaded collar of its removable screw-threaded bottom plate, *f*, to the screw-threaded end of the pipe D, leading into the sewer. Within the valve-chamber a conical valve proper, C, is applied, so that its upper conical face fits gas-tight, either by being ground true or by having its surface packed to fit the inner conical surface of the valve-chamber, as illustrated in the drawings. This valve is flat on its top and concave on its bottom side, and from its top a stem, *g*, extends and passes through the guide *e*, while from its bottom another similar stem, *g'*, extends and passes through the guide *e*. Around the lower stem a spiral spring, *h*, is applied, and has its bearing against the valve proper and the guide-bar *d'*, as shown. The upper end of the stem *g* is slotted or forked, and into this forked end the short curved or eccentric arm of a lever, E, fits. The lever E is pivoted to lugs *m* of the coupling *b*, and its upper or long arm is curved to conform to the inside curvature of the basin, and it extends up above the basin, occupying a place close against said curved surface of the same, as shown. On the back of this arm of the lever an india-rubber cushion, *n*, is provided, so that sound from jar or concussion between the lever and bowl shall be deadened. The trap-plate F is slotted at *p* to permit free movement of the lever up and down.

From the description it will be evident that by raising the lever E its short arm or eccentric end will force down the valve-stems *g g'* and valve proper, C, and open the passage-way around the valve proper for the free discharge of the water into the sewer-pipe; that when the valve is thus opened the dirty water and trash will pass obliquely outward and downward along the surface of the valve-chamber B and entirely out of range of the lower valve-stem, *g'*, and spiral spring *h*, thus saving the spring from being injured or clogged; further, that the act of opening the valve will compress the spring *h*, and thus place it in a condition for automatically and firmly closing the valve C when the hand is withdrawn from the lever E; and, further, when heavy pressure of gas from the sewer occurs this gas-pressure will act, in conjunction with the spring *h*, in making the valve C fit gas-tight against the conical inside surface of the valve-chamber B, and thus diseases from entrance of bad gases into buildings will be prevented.

With the construction described and shown access to the valve proper, and also to the spring, for purposes of repair, can be conveniently had, it being only necessary to unscrew and remove the bottom plate of the valve-chamber, disconnect the cross-bar, and with-

draw the valve proper and its spring from the valve-chamber.

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

1. A wash-basin which is provided with the ordinary discharge-passage leading to the sewer, and with conical valve-chamber B, conical valve C, provided with upper and lower stems, *g g'*, spring *h*, arranged centrally beneath the valve, and lever E, arranged inside the basin, and acting by its short arm down upon the upper stem of the valve, substantially as and for the purpose described.

2. The combination of conical valve-chamber B, attached to the under side of the basin and connected with the sewer-pipe, a conical valve, C, and a spiral spring, *h*, placed beneath the valve and shielded from trash and dirty water by the valve, this combination being such that the water and trash are directed by the valve in an oblique outward and downward direction toward the walls of the valve-chamber and discharged into the sewer-pipe without coming in direct contact with the spring, substantially as and for the purpose described.

JOHN B. ATWATER.

Witnesses:

CHAS. S. READ,

E. C. WARE.