

(Model.)

H. M. WEAVER.

BASIN WASTE.

No. 248,076.

Patented Oct. 11, 1881.

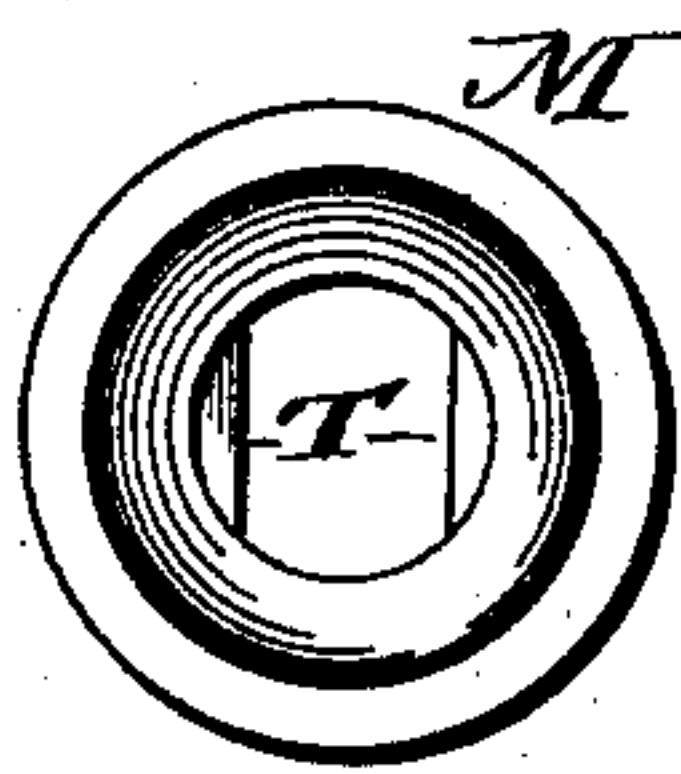
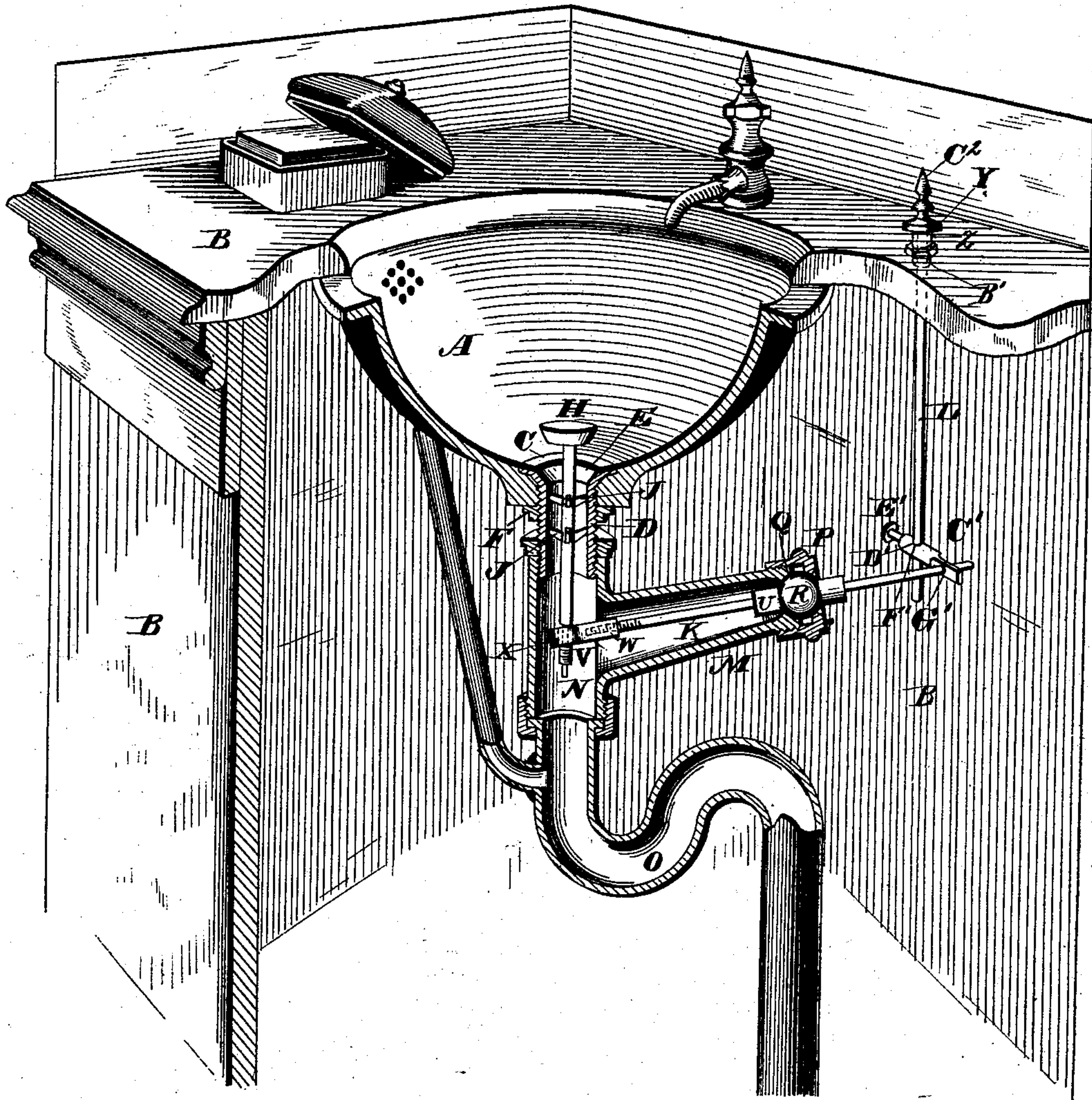
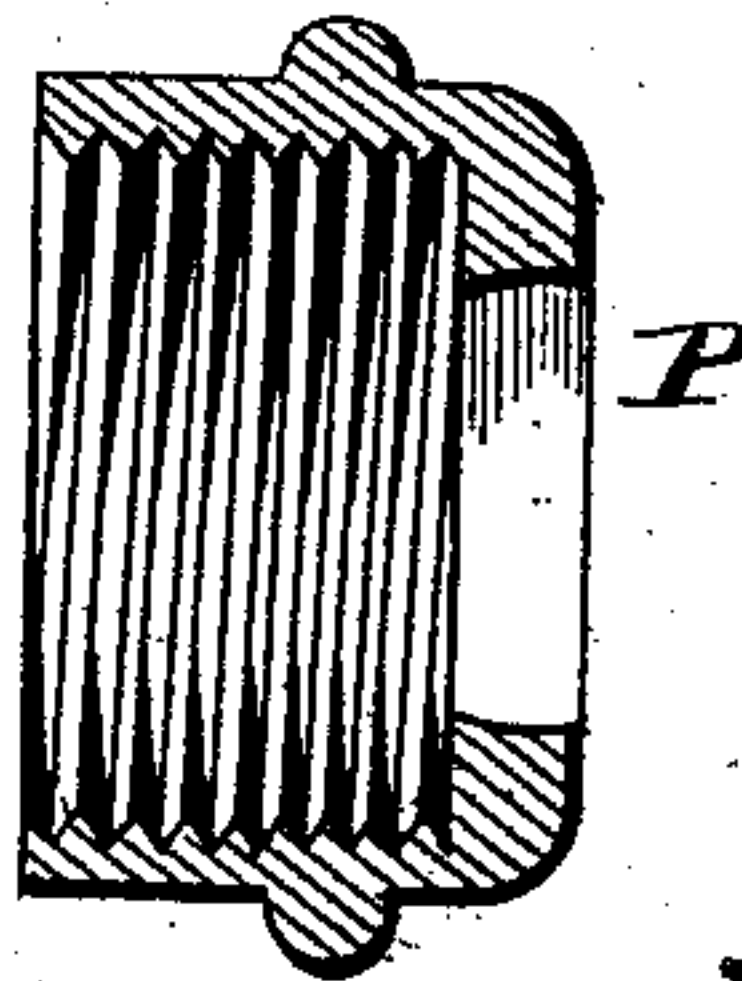


FIG. 2.

FIG. 1.

FIG. 3.



WITNESSES

E. J. Nottingham,
J. W. Seymour.

INVENTOR

Henry M. Weaver,
By J. W. Seymour,
ATTORNEY

UNITED STATES PATENT OFFICE.

HENRY M. WEAVER, OF MANSFIELD, OHIO.

BASIN-WASTE.

SPECIFICATION forming part of Letters Patent No. 248,076, dated October 11, 1881.

Application filed February 24, 1881. (Model.)

To all whom it may concern:

Be it known that I, HENRY M. WEAVER, of Mansfield, in the county of Richland and State of Ohio, have invented certain new and useful
5 Improvements in Basin-Wastes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the
10 accompanying drawings, which form part of this specification.

My invention relates to an improvement in basin-wastes, the object being to provide a device of that character by means of which the
15 chain and stopper contrivances formerly employed are abolished and devices consisting in a system of levers arranged to operate the stopper from beneath the basin are substituted therefor, said devices insuring perfect immu-
20 nity from noxious sewer-gases, adapted to a wide arrangement of adjustment, as circumstances may necessitate, and combining ease of operation and durability in use with simplicity of construction, and hence cheapness of pro-
25 duction.

With these ends in view my invention consists in certain details of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

30 In the accompanying drawings, Figure 1 is a view, partly in section and partly in elevation, of a device constructed in accordance with my invention and applied to a stationary wash-basin. Fig. 2 is an end view of the horizontal
35 arm in which the lever is fulcrumed, and Fig. 3 is a detail view of the cap fitting over the free end of said arm.

A represents a wash basin or bowl, mounted in a wash-stand, B, and provided at its lower
40 central portion with a collar, C, having an exteriorly screw-threaded shank, D, a slightly-beveled valve-seat, E, and a nut, F, which latter is designed to be screwed on the shank D after it has been inserted in the bowl, to im-
45 pinge against the lower face, G, thereof, and hold the collar C tightly therein, and prevent the escape of water around its edge, instead of through the outlet or valve-seat E.

H is a valve, having a sufficiently tapering
50 outer edge, A', to fit within the valve-seat E, and is provided with a stem, I, having strain-

ers J cast integral therewith or attached thereto. The extreme lower end of the valve-stem is screw-threaded, to make connection with a lever, K, which communicates the mo-
55 tion of the operating rod L to the valve H, as hereinafter described.

M is an arm cast integral with or attached to the pipe N, the upper and lower ends of which are respectively secured to the lower
60 end of the shank D of the collar C and the waste-pipe O. The arm M, which opens into pipe N, has a slight downward inclination, to prevent the accumulation therein of any water or any foreign substance which would inter-
65 fere with the free operation of the lever K, which is fulcrumed between the outer end of the arm and a cap, P, fitting thereover. The outer end of the arm M is countersunk at Q to receive the forward portion of a ball, R, lo-
70 cated on the lever K, and which is retained in the countersink by an axially-perforated cap, P, interiorly adapted to fit over the outer portion of the said ball. The arm M and the cap P are respectively screw-threaded on their in-
75 ner and outer faces, whereby the cap is adapted to be screwed over the end of the arm, as before described, and the friction between the countersink Q, the interior walls of cap P, and the ball R may be varied as may be found
80 necessary by the manipulation of the ball.

The forward end of lever K is connected, as will be hereinafter described, with the stem I of the valve H. The rear end thereof is con-
85 nected to the rod C', and is fulcrumed between these two points by a ball-and-socket-joint connection formed by the combination with the inner end of the arm M, the cap P, and the ball R.

Two lugs, T, formed just within the counter-
90 sink Q, together form an elongated aperture adapted to receive a lug or shoulder, U, having vertical sides and located on the lever. The effect of this construction is to modify the motion usually attributed to the ball-and-socket
95 joint, and to limit the ball to simply the motion given it by vertically elevating or depressing either the inner or outer end of the rod.

The inner end of the rod K, which extends to the center of the pipe N, is screw-threaded,
100 and thus adapted to receive a block, V, having its inner end counterbored at W, and hav-

ing its outer end vertically perforated and internally screw-threaded at X, to admit the lower and screw-threaded end of the valve-stem I of the valve H. This connection between the lever K and the valve-stem I, I esteem of great importance, as I am enabled to unscrew the valve-stem and withdraw the valve to be cleaned, and to relieve the strainers of any substances which they may have collected. At the same time the valve-stem is so secured to the lever that any sudden impulse given to it will not displace the valve.

The rod L, by means of which the valve is primarily operated, is situated at any convenient point on the top of the stand B, and is operated through a collar, Y, having a screw-shank, Z, cast integral therewith, and clamped to the stand-top by a nut, B', screwed on the shank Z. The upper end of the said operating-rod L is provided with an ornamental knob, C², which, in the normal and closed position of the valve, is raised a slight distance above the collar Y.

Connection is made between the lower end of the operating-rod L and the lever K by the adjustable arm C', one end of which is counterbored at D' to receive a thumb-screw, E', which may be manipulated to enter and engage with the lower end of the operating-rod, which is received within a vertical perforation, F', in the arm C', and at right angles to the counterbore D'. The end of lever K is received in a perforation, G', which has such location in the arm that when the rod L and lever K are connected in the arm C' they are at right angles to each other.

It will be also observed that the rod and lever can be accommodated to basins of different sizes and at different positions on the wash-stand, as may be necessary or convenient, by changing their adjustment in the connecting-arm C'.

In the foregoing description I have described in detail each of the levers and their respective adjustments and connections, which together constitute my invention; and from the foregoing it will be apparent that a downward pressure on the knob C² (which, as before stated, is raised a slight distance above the collar Y) will depress the inner and raise the outer end of lever K, and raise the valve H and allow the water in the bowl to escape. The weight of these portions of the device, located respectively to the right and left of the fulcrum, is nearly equal, that end of the lever to which the valve is attached being enough heavier to maintain the valve closed as its normal position, while the power required to overcome the extra weight is very slight, and the friction of the ball R in its socket will hold the valve open after it has once been raised through the knob C². The levers being connected, the movement submitted through them is a positive one; and inasmuch as the force of gravity depended on in some devices of this character is a sec-

ondary rather than a primary actuating force, the difficulty of clogging and corroding, which might occur, and which would offer great resistance to and overcome the force of gravity acting alone, is obviated, as the force capable of being transmitted through the knob is quite sufficient to overcome the resistance of the added friction of corrosion and clogging. By means of this positive concerted movement I obtain a certainty of action and a surety of the performance ascribed heretofore unknown to devices of equally simple construction.

I would have it understood that I do not limit myself to the particular form of construction shown and described, but hold myself at liberty to make such changes and alterations as fairly fall within and do not transcend the spirit of my invention.

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

1. In a basin-waste, the combination, with a lever having a ball attached thereto, of a hollow arm in which the forward end of the lever plays and which has its free end socketed, and an axially-perforated cap adapted to fit over the end of the said hollow arm and hold the ball in the socket thereof, substantially as set forth.

2. In a basin-waste, the combination, with a hollow arm in open communication with the waste-pipe and having vertical lugs located within its outer end, of a lever-arm having a squared block secured thereto, or made integral therewith, said block being adapted to be received within the lugs aforesaid and to limit the lever to a vertical movement, substantially as set forth.

3. In a basin-waste, the combination, with a hollow arm in open communication with the waste-pipe and having vertical lugs cast within its outer end, which is socketed, of a lever-arm provided with a squared block and a ball adapted to be received, respectively, within the socket and lugs of the hollow arm, and a device to retain the said ball within the socket of the arm, as aforesaid, substantially as set forth.

4. In a basin-waste, the combination, with a lever adapted to be actuated in vertical reciprocating movement and provided with a screw-threaded perforation at its forward end, of a valve the stem of which is adapted to be received within the lever-perforation, substantially as set forth.

5. In a basin-waste, the combination, with a hollow arm communicating with the waste-pipe, and a lever having its fulcrum in the outer end of said hollow arm, of a valve-stem screw-threaded at its lower end, and a block or connecting device provided with screw-threaded openings for the valve-stem and the lever, substantially as set forth.

6. In a basin-waste, the combination, with a hollow arm communicating with the waste-

pipe, and a lever having its fulcrum in the
outer end of said hollow arm, of an operating-
rod extending through the stand-top, and an
arm adjustably secured to the lower portion of
5 the operating-rod, and having the outer end
of said lever connected therewith, substan-
tially as set forth.

In testimony that I claim the foregoing I
have hereunto set my hand.

HENRY M. WEAVER.

Witnesses:

W. H. PRITCHARD,
NORMAN M. WOLFE.