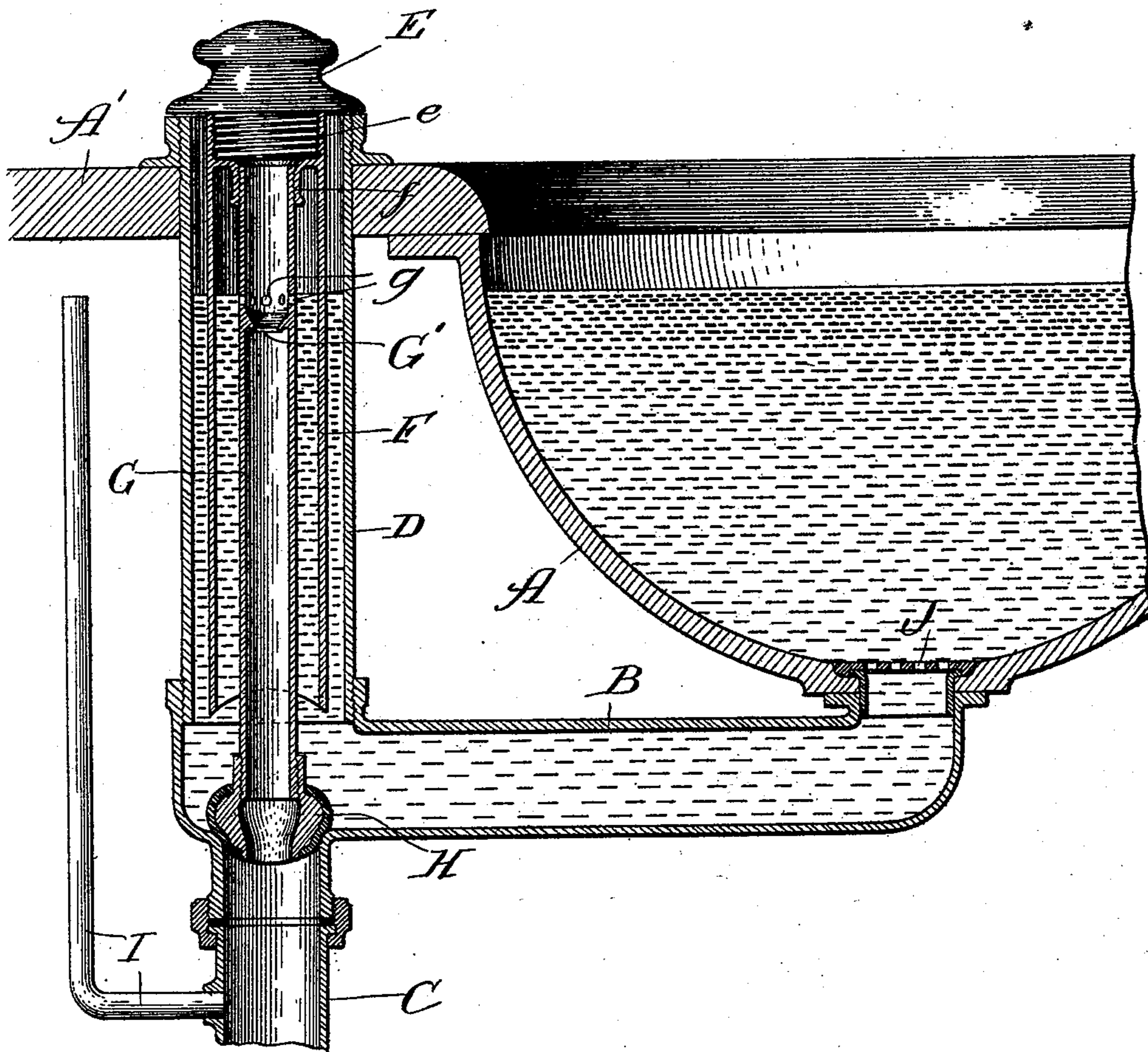


(No Model.)

T. R. TREIBER,
WASTE PIPE.

No. 498,093.

Patented May 23, 1893.



Witnesses:
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UNITED STATES PATENT OFFICE.

THEODORE R. TREIBER, OF CHICAGO, ILLINOIS.

WASTE-PIPE.

SPECIFICATION forming part of Letters Patent No. 498,093, dated May 23, 1893.

Application filed November 7, 1892. Serial No. 451,178. (No model.)

To all whom it may concern:

Be it known that I, THEODORE R. TREIBER, of Chicago, Cook county, Illinois, have invented certain new and useful Improvements in Waste-Pipes, of which the following is a specification.

Waste pipes are frequently expected to perform two offices: (1) to be raised or lowered to permit the water to be discharged from the bowl or other place in which they may be used, or to retain it therein; (2) when closed to afford a safety outlet for the water in the bowl, &c., to prevent overflow and consequent damage. These waste pipes have been made in various forms, as, for example, a simple movable tube adapted to be inserted into the discharge orifice of the bowl; the water, when the bowl is closed, passing over the top of the tube or through perforations near the top thereof, and thence down into the waste pipe. These waste pipes have also been made in many other forms, but none of those with which I am acquainted have operated satisfactorily, for a variety of reasons, which it is unnecessary to consider.

The object of my invention is to provide a waste pipe, adapted for use in connection with bowls, tubs, &c., which operates upon the principle of a siphon, so that when the water has risen to a sufficient height in the bowl, it will commence passing through the waste pipe, and all of the water in the bowl will be discharged by the siphon; and my invention consists in the features, details and combinations hereinafter more specifically pointed out, described and claimed.

The drawing presents a vertical central section of a portion of a wash bowl and waste pipe constructed in accordance with my invention.

The bowl may be made of any material, form and dimensions. It is provided with a substantially horizontal discharge pipe B, connecting with the main waste pipe C. These parts are all well known, and by themselves form no part of my invention, and, consequently, require and will receive no further description.

A stand pipe D, of any suitable dimensions, preferably of metal, passes down through the slab A', surrounding the bowl, by which slab it is supported, and connects in any desired manner with the horizontal waste pipe B.

To an operating plug or handle E are secured a cylinder F, and a tube or pipe G. The cylinder F is of somewhat smaller diameter than the stand pipe D, passes inside of it and extends down, as shown, to a point near the upper side of the horizontal waste pipe B. This cylinder is secured to the plug E in any suitable manner, as by means of screw-threads e, and the pipe G is preferably secured to the cylinder F, and within the same, by means of the screw threaded flanges f. By this means the pipe G may be removed separately, or both the pipe and the cylinder F may be removed together. The pipe G is made of an external diameter somewhat smaller than the internal diameter of the cylinder F, the difference in these diameters being sufficient to enable the water to pass freely up between cylinder and pipe, as hereinafter described. The top of the pipe and of the cylinder F are closed air tight by means of the construction above shown, or any other desired construction that will attain the same result. The pipe G is provided with any desired number of perforations, g, placed at such height in the pipe that they will draw off the water when it has risen to the desired height in the bowl, the water standing at the same height in the bowl and within the cylinder F and pipe D. The pipe G is further provided with an internal, annular, downwardly inclined flange G', the purpose of which is to direct the water passing through the orifices g to the center of the pipe, to prevent its trickling down the side thereof and to insure perfect siphonage. The bottom of this pipe is provided with a bulb or valve H, of rubber or any other suitable material, adapted to fit closely against the upper end of the waste pipe C to close its opening, when it is desired to retain water in the bowl.

The plug E or cylinder F is provided with any suitable means for holding the device in a raised position, and which, forming no part of my invention, I have considered it unnecessary to show. A vent pipe I is connected to the waste pipe C at any desired point to permit the escape of any air that may be in the pipe G or cylinder F. The bowl may be provided with a simple grating J, as shown.

The device operates in the following manner, supposing the parts to be in the position shown in the drawings, and the outlet directly

through the pipes B and C closed. The water will rise in the bowl and also within the cylinder F and pipe D, until it reaches the openings *g*. It will then pass through these openings and, passing down the pipe G and waste pipe C, will act as a siphon to draw all the water from the bowl. It will be impossible for the device to act properly as a siphon, or in fact satisfactorily in any way, without the presence of the cylinder F, since, if this cylinder be omitted, air will inevitably leak in between the stand pipe D and pipe G and break the siphon; but, owing to the air tight joint between the pipe G, cylinder F and plug E, and the water seal between the cylinder F and the pipe D, the siphon will remain unbroken and all of the water be discharged.

Of course it will be understood that by lifting the pipe G by means of the plug, the water may be discharged directly through the pipe B in the ordinary manner. In this way, I provide a simple and efficient device, which will prevent any possible overflowing of water from the bowl, and which, acting as a siphon, will thoroughly discharge the water therefrom; and while I have described it as used in connection with a bowl, it should be understood that I contemplate using it with a tub, or in any other connection for which it is adapted; and furthermore, while I have described more or less precise features and details, I do not intend to limit myself thereto, but contemplate all proper and desirable changes in form and proportion, and the substitution of equivalent members as may be desirable or necessary. For example, the form of the plug or operating handle may be changed indefinitely, and similar changes may be made without departing from the spirit of my invention.

I claim—

1. In a device of the class described, the combination of a horizontal waste pipe, a vertical waste pipe, a stand pipe connecting with

the waste pipes, a cylinder within the stand pipe, a perforated waste pipe within the cylinder there being an air tight connection between such waste pipe and cylinder, and a vent pipe connected with the vertical waste pipe, substantially as described.

2. In a device of the class described, the combination of a horizontal and vertical waste pipe, a stand pipe connected with such waste pipe, a cylinder within the stand pipe, a waste pipe within the cylinder there being an air tight connection between such waste pipe and cylinder, and such waste pipe being provided with perforations, whereby when the water rises to a pre-determined height it will pass through the perforations in the waste pipe and discharge the contents of the vessel by means of siphoning, substantially as described.

3. In a device of the class described, the combination of a bowl or other receptacle, a horizontal waste pipe connected therewith, a vertical waste pipe, a stationary stand pipe connected with such waste pipes, an operating plug at the upper end of such cylinder, a movable cylinder and a waste pipe secured to such plug, the waste pipe being within the cylinder and connected thereto in an air-tight manner and being provided with perforations, an annular internal flange, and means for closing the direct discharge through the horizontal and vertical waste pipe, substantially as described.

4. In a device of the class described, the combination of a stand pipe, a plug movable therein, a movable cylinder and a perforated waste pipe secured to such plug and to the cylinder by means of an air tight joint, thereby forming a siphon for the discharge of water, substantially as described.

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