

(No Model.)

G. F. BROWN.
SIPHON WATER CLOSET.

No. 479,182.

Patented July 19, 1892.

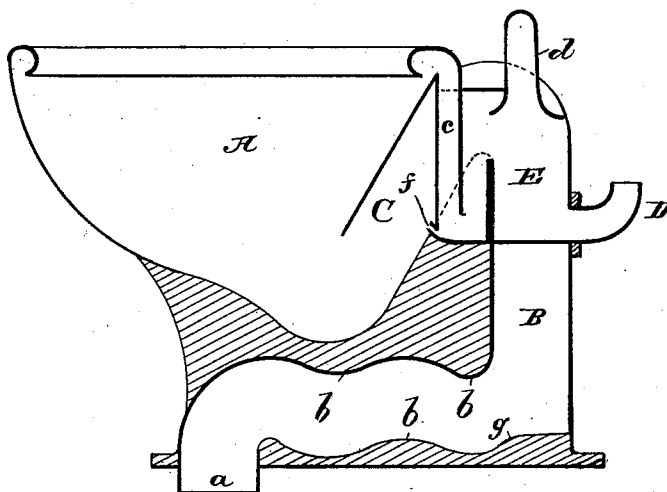


Fig. 1.

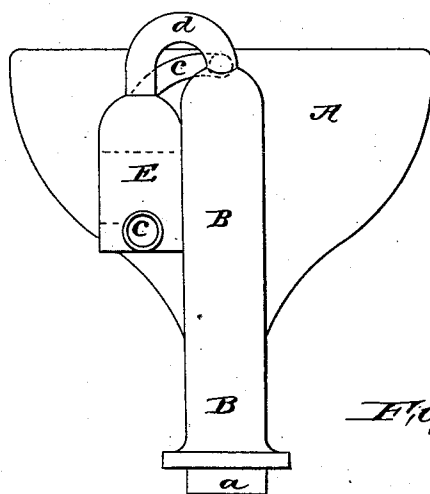


Fig. 2.

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SIPHON WATER-CLOSET.

SPECIFICATION forming part of Letters Patent No. 479,182, dated July 19, 1892.

Application filed March 2, 1892. Serial No. 423,445. (No model.)

To all whom it may concern:

Be it known that I, GEORGE F. BROWN, a citizen of the United States, and a resident of the city of Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented certain new and useful Improvements in Siphon Water-Closets, of which the following is a specification.

My invention relates to that class of siphon-closets in which the water descending through the supply-pipe from the tank is utilized both in flushing the closet and for quickening or insuring the action of the siphon.

My invention consists both in a modified structure of the siphon and the means for supplying the bowl and siphon with water from the flushing-tank. The siphon is modified both as to its internal structure and as to its connections with the flushing-pipe, and an auxiliary chamber or distributing-box is provided and connected both with the flushing-rim of the bowl and with the siphon.

One form of my invention is shown in the accompanying drawings, in which—

Figure 1 is a vertical section. Fig. 2 is a rear elevation.

The same letters indicate similar parts in the different drawings.

A is the bowl, which is preferably made of earthenware and made, if desired, in one solid piece with the siphon B C, the shorter leg of which C enters the bowl at the bottom, and the longer leg of which B, after falling to a point below the bottom of the bowl, is brought horizontally in under the same and empties into the discharge-pipe at *a*. The horizontal portion of this longer leg, after running a short distance as a horizontal spattering-table *g*, is provided at intervals with swelled surfaces or obstructions *b b*, which cause the descending water to take a kind of vibratory or wavy motion, which tends to bank up the water sufficiently to force all the air which may be in the siphon ahead of it, and thus make the priming of the siphon effectual. Water is received from the flushing-tank through an ordinary flushing-pipe connected with the coupling-pipe D, which enters a receiving and distributing chamber E, preferably cast integral with the rest of the closet, which chamber is of peculiar construction, in that it is provided with outlets, one *c* leading

to the flushing-rim, and another *d* leading to the long leg of the siphon. These outlets are so situated with regard to each other that the water of the receiving and distributing chamber E naturally seeks the flushing-rim through the outlet *c* before it seeks the longer leg of the siphon through the outlet *d*, whereas the air contained in the chamber E and flushing-pipe is forced into the longer leg of the siphon instead of being forced into the flushing-rim, and hence into the bowl. This tends to do away to a very large extent with the hissing sound usually caused by the air being forced through the perforations of the flushing-rim ahead of the flushing-water. The essential feature of the receiving and distributing chamber E to bring about this effect is that the outlet *d* is better adapted to receive the air entering by the flushing-pipe, and to this end proceeds from a substantially higher point of the interior of the chamber E than the outlet *c*, or from a point substantially nearer the entrance of the flushing-pipe. As shown in the drawings, the outlet *c* is substantially at the bottom of the chamber E and the outlet *d* substantially at the top; but this exact relation is not essential, all that is needed being that there should be sufficient difference of position to make the air more naturally seek the outlet *d* than the outlet *c*. An opening *f* is provided connecting the distributing-chamber E with the shorter leg of the siphon to insure the proper sealing of the trap by the afterflow after the bowl has been siphoned out, and also, if desired, in the nature of a jet to aid the upward flow in the shorter leg of the siphon. The point at which the outlet *d* enters the longer leg of the siphon is immaterial, provided it is so situated with regard to the outlet *c* that the desired effect above described is produced. The operation of my improved closet is, I think, sufficiently obvious without further description. It is obvious that the entrance to the outlet leading to the flushing-rim is sealed by the water of the afterflow, whether entering by the outlet *f* or from the flushing-pipe, and that this seal is effective in causing the air of the flushing-pipe to seek exit by the longer leg of the siphon, the outlet to which is not provided with a seal.

I claim—

1. An improved siphon water-closet in

which the longer leg of the siphon is provided in its horizontal portion with a number of projecting surfaces which tend to bank up the water descending through said siphon and render the priming thereof more effect-
5 ual, substantially as shown and described.

2. A siphon water-closet provided with a receiving and distributing chamber connected with the flushing-tank by a suitable pipe and
10 provided with an outlet to the flushing-rim that is normally sealed and with an unsealed outlet to the longer leg of the siphon, substantially as shown, and for the purposes specified.

3. A siphon water-closet provided with a
15 receiving and distributing chamber connected with the flushing-tank by a suitable pipe and provided with an outlet to the flushing-rim that is normally sealed and with outlets into

both legs of the siphon, that into the longer leg being unsealed, substantially as shown, 20 and for the purposes specified.

4. A siphon water-closet provided with a receiving and distributing chamber connected with the flushing-tank by a suitable pipe and provided with outlets to the flushing-rim and
25 into both legs of the siphon, the opening into the outlet leading to the longer leg of the siphon being somewhat higher in the chamber than the opening into the outlet leading to the flushing-rim, substantially as described, 30 and for the purposes specified.

GEO. F. BROWN.

Witnesses:

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