

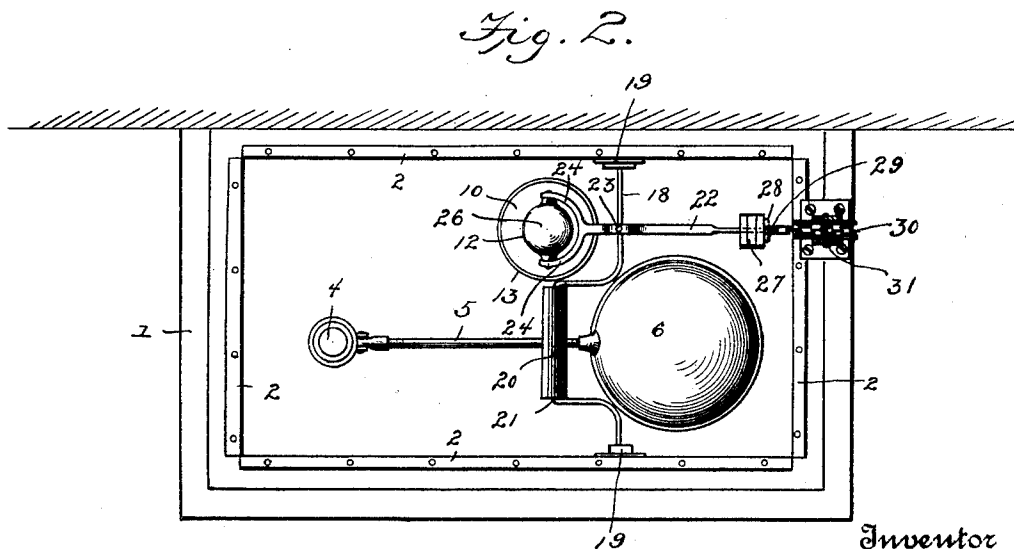
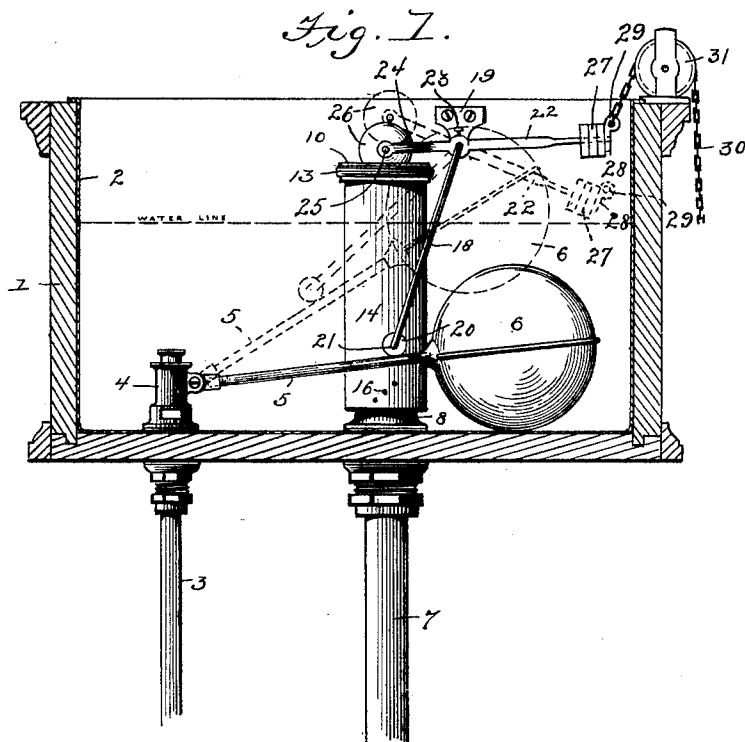
(No Model.)

2 Sheets—Sheet 1.

B. M. CARNEY.
FLUSH TANK FOR WATER CLOSETS.

No. 586,834.

Patented July 20, 1897.



Witnesses
E. A. Monroe
H. J. Lewis

Inventor
Bernard M. Carney
By H. B. Willson.
Attorney

(No Model.)

2 Sheets—Sheet 2.

B. M. CARNEY.
FLUSH TANK FOR WATER CLOSETS.

No. 586,834.

Patented July 20, 1897.

Fig. 4.

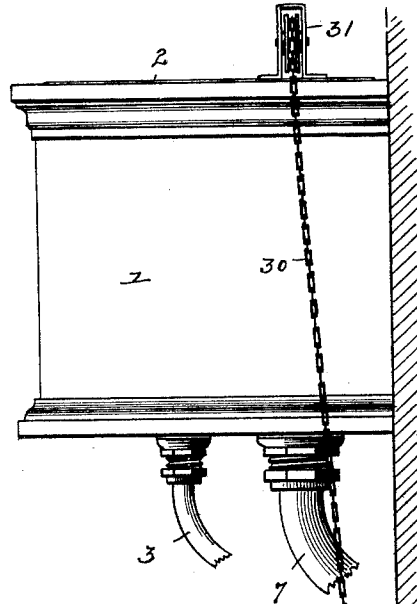
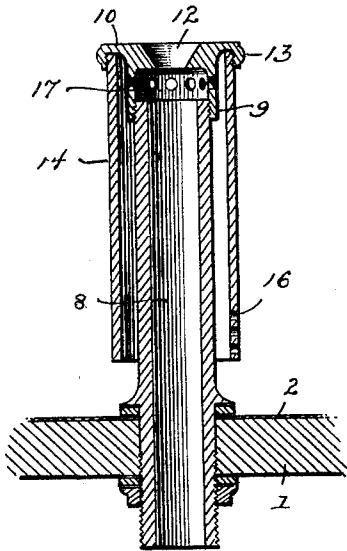
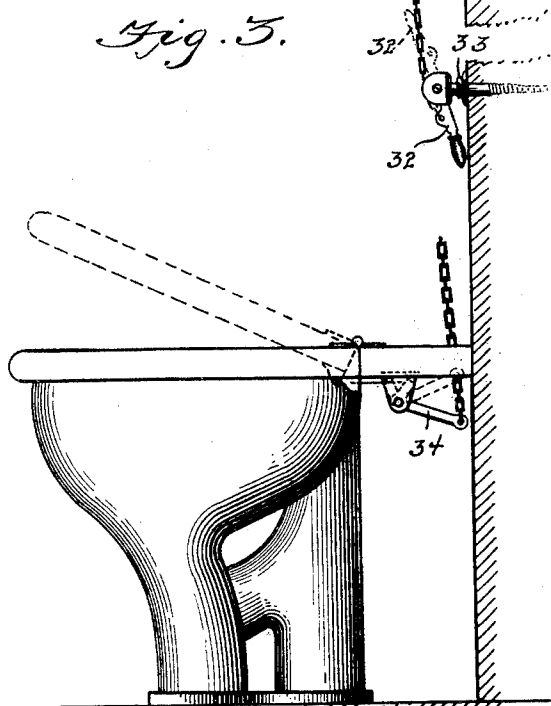
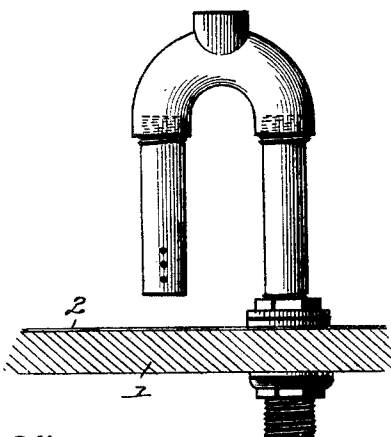


Fig. 5.



Witnesses
E. H. Monroe
H. J. Ennis

Inventor
Bernard M. Carney.
By H. B. Wilson.
Attorney

UNITED STATES PATENT OFFICE.

BERNARD M. CARNEY, OF MCKEESPORT, PENNSYLVANIA.

FLUSH-TANK FOR WATER-CLOSETS.

SPECIFICATION forming part of Letters Patent No. 586,834, dated July 20, 1897.

Application filed November 10, 1896. Serial No. 611,669. (No model.)

To all whom it may concern:

Be it known that I, BERNARD M. CARNEY, a citizen of the United States, residing at McKeesport, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Flush-Tanks for Water-Closets; and I do 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 appertains to make and use the same.

My invention has relation to improvements in siphon flush-tank water-closets; and the object is to provide a simple, durable, and effective device of this class.

To this end the novelty consists in the construction, combination, and arrangement of the same, as will be hereinafter more fully described, and particularly pointed out in the claims.

In the accompanying drawings the same reference-numerals indicate the same parts of the invention.

Figure 1 is a front elevation, partly in section, of a siphon flush-tank embodying my invention. Fig. 2 is a top plan view of the same. Fig. 3 is a side elevation of the tank and closet. Fig. 4 is a vertical section of the siphon, and Fig. 5 is a modification of the form of the siphon.

1 represents the usual wooden casing, and 2 the sheet-metal lining, the whole forming an ordinary tank.

3 represents the water-inlet pipe, the upper end of which terminates in the usual valve 4 within the tank. The valve 4 is provided with the lever-arm 5 and ordinary float 6, which operates the valve in the usual manner.

7 represents the outlet or flushing pipe, which extends upward through the bottom of the tank to form a cylindrical hollow standard 8, the upper end of which is threaded to receive the internally-threaded flange 9 of the cap 10. The upper face of this cap is formed with a conical valve-seat 12 and also an external annular flange 13, which is internally screw-threaded to receive the sleeve 14. The lower end of this sleeve 14 is provided with a series of orifices 16 and the cap

10 is formed with orifices 17, which form a passage between said sleeve and the interior of the hollow standard 8.

18 represents a bent crank-shaft the ends of which are journaled in bearings 19 19, secured on the inside of the tank.

20 represents a roller mounted on the integral arm 21 of the crank-shaft, and it extends across the path of the lever-arm 5 of the valve 4.

22 represents a horizontal lever adjustably secured by a set-screw 23 to the crank-shaft 18, and its inner end is bifurcated to form the horizontal arms 24 24, in which is journaled a shaft 25, carrying a rubber ball-valve 26, adapted to close the valve-seat 12. The opposite end of this lever is cylindrical and screw-threaded to receive the adjustable counterbalance-weights 27, and on the outside of these is secured a jam-nut 28, formed with an eye 29, to which is secured one end of the chain 30, which passes over the grooved pulley 31. The depending end of this chain is secured to a hand-lever 32, fulcrumed in a bracket 33, fixed to the wall.

In some instances I dispense with the lever 32 and attach the lower end of the chain to a bell-crank lever 34, which is operated by the seat, as shown in Fig. 3.

The operation of the device is as follows:

Assuming that the water is at the level shown in Fig. 1, the operative parts are in the position shown in the dotted lines, and if the chain be pulled the lever 22 and float 6 will assume the position shown in the full lines, the ball-valve 26 closing the seat 12, which converts the standard 8 and sleeve 14 into a siphon. At the same time the lever-arm 5 is depressed by the arm 21 of the crank-shaft, which opens the valve 4, which raises the level of the water up to the orifices 17 in the siphon, discharging the water in the tank through the outlet-pipe 7 and flushing the bowl in the usual manner. As soon as the chain is released the ball-valve is raised from its seat 12, which admits air and destroys the siphon action and converts it into an ordinary overflow-pipe. At the same time the water in the tank rises, carrying the float with it, until it attains its proper level, when the float

closes the valve 4, where it remains at rest until the chain is again drawn down.

Although I have specifically described the construction and relative arrangement of the several elements of my invention, I do not desire to be confined to the same, as such changes or modifications may be made as clearly fall within the scope of my invention without departing from the spirit thereof.

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

1. A closet flushing-tank comprising the stationary siphon provided with the valve-seat 12, the crank-shaft 18, the lever 22 mounted on said crank-shaft, the valve 26 mounted on said lever and adapted to travel to and from the valve-seat 12, in combination with an induction-valve, its lever and float, the said lever 22 arranged to operate the

crank-shaft 18, substantially as and for the purpose set forth.

2. A closet flushing-tank comprising the siphon provided with a fixed valve-seat 12, the crank-shaft 18, formed with the arm 21, the roller 20 mounted on said arm, the horizontal lever 22 fixed on said crank-shaft, the valve 26 mounted on one end of said lever vertically above the valve-seat 12, in combination with the induction-valve having a lever and float extending across the path of the arm 21 of the crank-shaft 18, substantially as shown and described.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

BERNARD M. CARNEY.

Witnesses:

FRANK T. CARNEY,
R. B. WIESTER.