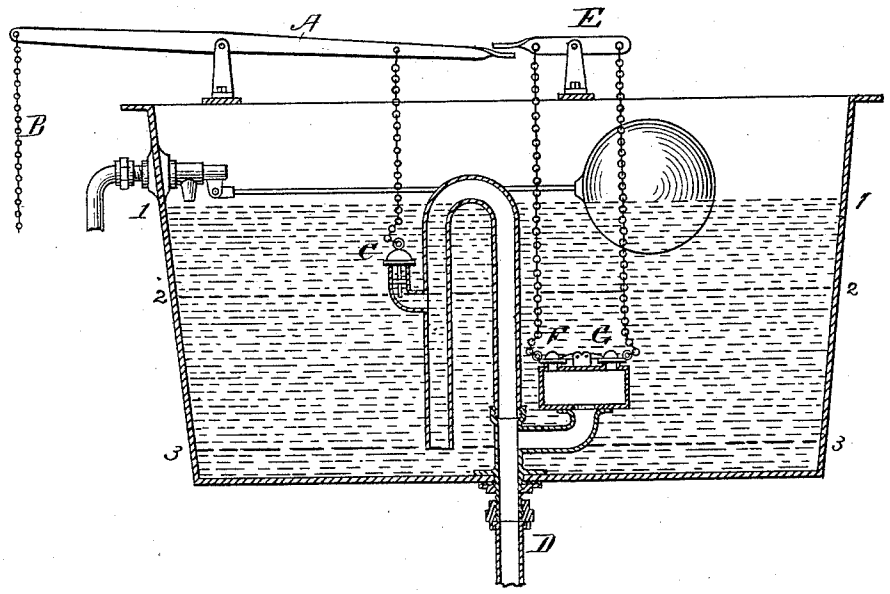
(No Model.)

H. C. WEEDEN.

AUTOMATIC FORE AND AFTER FLUSHING TANK DEVICE.

No. 416,132. Patented Nov. 26, 1889.



WITNESSES.

John H. Taylor.
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UNITED STATES PATENT OFFICE.

HENRY C. WEEDEN, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO THE WEEDEN SANITARY MANUFACTURING COMPANY, OF RHODE ISLAND.

AUTOMATIC FORE-AND-AFTER FLUSHING-TANK DEVICE.

SPECIFICATION forming part of Letters Patent No. 416,132, dated November 26, 1889.

Application filed February 21, 1889. Serial No. 300,721. (No model.)

To all whom it may concern:

Be it known that I, HENRY C. WEEDEN, of Boston, in the county of Suffolk and State of Massachusetts, a citizen of the United States, have invented certain new and useful Improvements in Automatic Fore-and-After Flushing-Tank Devices, of which the following is a specification.

My present improvement relates to that class of flushing devices intended for use in connection with some automatically-operated device—as, for example, the seat of a water-closet—whereby, when the latter is occupied, a fore-flush and an after-flush may be obtained when the closet is first occupied and is quitted, respectively.

The object of my invention is to improve the construction of these devices with a view to obtaining greater simplicity of parts and certainty of action than have heretofore been obtained.

In the accompanying drawing I have represented in vertical section a flushing-tank of ordinary construction, in connection with which my present improvement is represented in the form now best known to me.

In the drawing, A represents the operating-lever, the operating wire or chain B of which is to be carried down to and operated by the seat attachment (not shown) in the ordinary and well-known manner. The operating-lever A, by means of a suitable wire or chain, works a valve C, which permits the entrance of air under certain conditions into the short leg of the flushing-siphon D. The function of this valve is not to start the siphon, but, as will be hereinafter explained, to stop it at the end of the fore-flush. The lever A is also so arranged in a well-known manner, as shown, to pass in contact with and operate a balanced tilting lever E, attached to which are two connections extending to and operating two valves F G, each of which when opened permits the passage of water into the long leg of the siphon to start it.

In the drawing the parts are shown at rest and in their normal condition, with the flushing-water at its normal level in the tank. The operation of them is as follows: Assuming the closet to be occupied, this, as before explained, pulls down the outer end and elevates the inner end of the operating-lever A. This lever, as it passes upward, lifts the valve C from its seat, and also tilts upwardly that portion of the lever E to which the valve F is attached, thereby opening this valve, which then admits water to the long leg of the siphon and starts it for the fore-flush. The siphon continues to discharge water from the tank until its action is broken by the water-level being lowered so as to admit air to the short leg of the siphon past the open valve C, thus stopping the flow of the siphon. Of course this reduction of the level will open the ball-cock and allow water to flow into the tank until the normal level is restored. When the closet is quitted, the inner end of the lever A, which is overweighted for the purpose, returns to its normal downward position, as shown, reseating the valve C upon its seat. At the same time, in passing downward, the inner end of the lever A again tilts the lever E, this time raising that portion of the lever to which the valve G is connected. This operation opens the valve G and again admits water to the long leg of the siphon, which, being thus started, continues to flow and furnish the after-flush until the water is reduced to the level numbered 3 and the lower extremity of its short leg is uncovered, thereby stopping the flow. The normal level of water in the tank is indicated by the line 1 1, the level at which the fore-flush terminates by the line 2 2, and the level at which the after-flush terminates by the line 3 3.

It is obvious that by varying the relative distance from the bend of the siphon to the point at which air is permitted to enter it when the valve C is open, and also the distance to the lower extremity of the short leg of the siphon, the relative duration and amount of the fore-flush and after-flush can be regulated at pleasure.

I claim—

The combination, with a flushing-tank provided with a siphon flushing-pipe, of a pivoted operating-lever, a valve C, attached to and operated by said operating-lever and regulating the passage of air into the short leg of the siphon of the flushing-pipe at a point above its lower extremity to stop the flushing operation of the siphon, a balanced tilt-

ing lever extending within the path of the operating lever and adapted to be operated thereby, and valves F G, each connected to the said tilting lever and when opened permitting the admission of water into the long leg of the flushing-siphon to start its flushing action, all substantially as set forth.

In testimony whereof I have hereunto subscribed my name this 12th day of February, A. D. 1889.

HENRY C. WEEDEN.

Witnesses:
JOHN H. TAYLOR,
WILLIAM B. ROE.