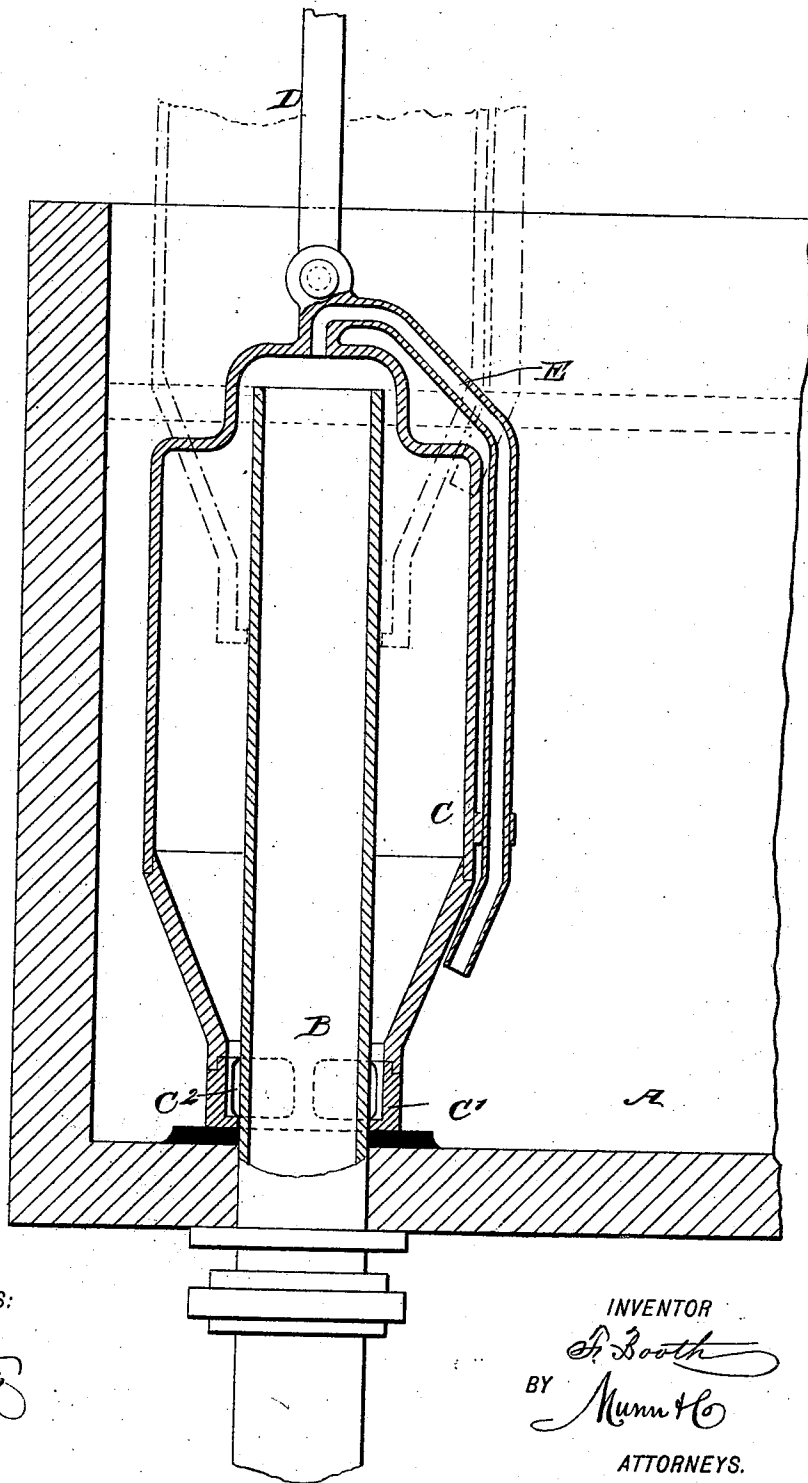


(No Model.)

F. BOOTH.
SIPHON VALVE.

No. 529,584.

Patented Nov. 20, 1894.



WITNESSES:

H. Walker
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UNITED STATES PATENT OFFICE.

FREDERICK BOOTH, OF CONCORD, NEW HAMPSHIRE.

SIPHON-VALVE.

SPECIFICATION forming part of Letters Patent No. 529,584, dated November 20, 1894.

Application filed February 13, 1894. Serial No. 500,024. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK BOOTH, of Concord, in the county of Merrimac and State of New Hampshire, have invented a new and Improved Siphon-Valve, of which the following is a full, clear, and exact description.

The invention relates to water tanks for flushing water closets, urinals, &c., and its object is to provide a new and improved siphon valve, which is simple and durable in construction, very effective and noiseless in operation, and arranged to automatically drain the tank whenever the valve is pulled, at the same time using the discharge pipe for an overflow pipe.

The invention consists principally of a valve body fitted to slide on the fixed outlet pipe, and formed at its lower end with inlet openings for the water and at its upper end with a vent extending downward outside of the valve body to within a short distance of the bottom of the tank.

The invention also consists of certain parts and details, and combinations of the same, as will be hereinafter described and then pointed out in the claim.

Reference is to be had to the accompanying drawing, forming a part of this specification, in which the figure is a sectional side elevation of the improvement.

The tank A on which the siphon valve is employed is provided with an outlet pipe B, extending at its upper end to within a short distance of the top of the tank, as plainly shown in the drawing. The lower end of the pipe B passes through the bottom of the tank and connects in the usual manner with the device to be flushed.

On the pipe B within the tank A is fitted to slide the lower end C' of a valve body C made hollow, as plainly shown in the drawing, the upper end of the said valve being connected with the usual lever mechanism D, or other device for raising and lowering the valve whenever it is desired to flush the device on which the improvement is applied. From the upper end of the valve body C leads a vent pipe E extending downward on the outside of the said body to within a suitable distance of the lower end thereof, as indicated in the drawing. In the lower end of the valve body C are arranged inlet openings C², through

which the water can pass from the tank A to fill the interior of the valve body C. Now, it will be seen that when the water in the tank rises in the valve body C above the upper end of the pipe B, then the surplus water can pass into the said pipe B and down into the bowl or other device to be flushed, the said pipe B then serving as an overflow pipe. Normally, however, the level of the water in the tank A is below the upper end of the pipe B on the water line indicated in the drawing. Now, when the valve body C is drawn upward by the manipulating device D, then the water contained in the valve body C is caused to flow into the upper end of the pipe B, so as to form a siphon, the water being thus drawn from the tank into the pipe B to flush the bowl or other device with which the said pipe is connected. The valve body C is drawn usually, into the position shown in dotted lines in the drawing, for the purpose of siphoning the contents of the tank, as above described. Now, when the water has fallen in the tank until the lower end of the pipe E is uncovered, then the siphon action is broken, as air can now pass through the said pipe E into the upper end of the valve body C. The flow of the water from the tank A into the pipe B then ceases.

It will be seen that by the construction described, the valve is rendered comparatively noiseless, is very simple and durable in construction, and can be readily applied on all kinds of water tanks for flushing or other purposes.

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

The combination with the outlet pipe, of the hollow valve body closed at its upper end and having a downwardly tapering lower end fitting the said pipe as shown at C' and there provided with lateral inlet openings C², and the pipe E leading from the top of the said valve body down along the outer side thereof and terminating a suitable distance above the openings C², substantially as described.

FREDERICK BOOTH.

Witnesses:

HENRY W. STEVENS,
L. ALFRED PEARL.