(No Model.)

A. RIEGLER.

TANK VALVE.

No. 563,311. Patented July 7, 1896.

Fig. 1.

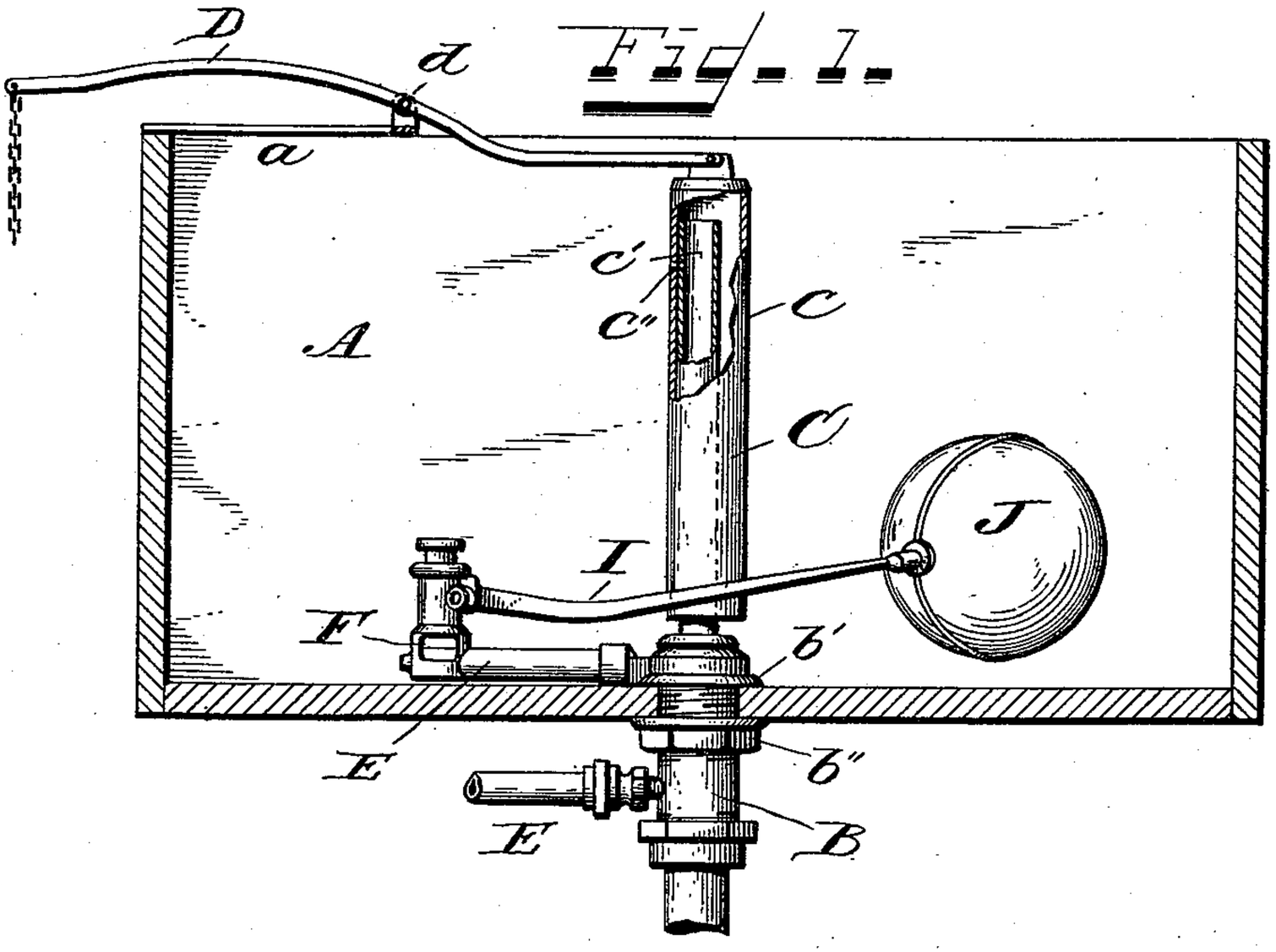


Fig. 2.

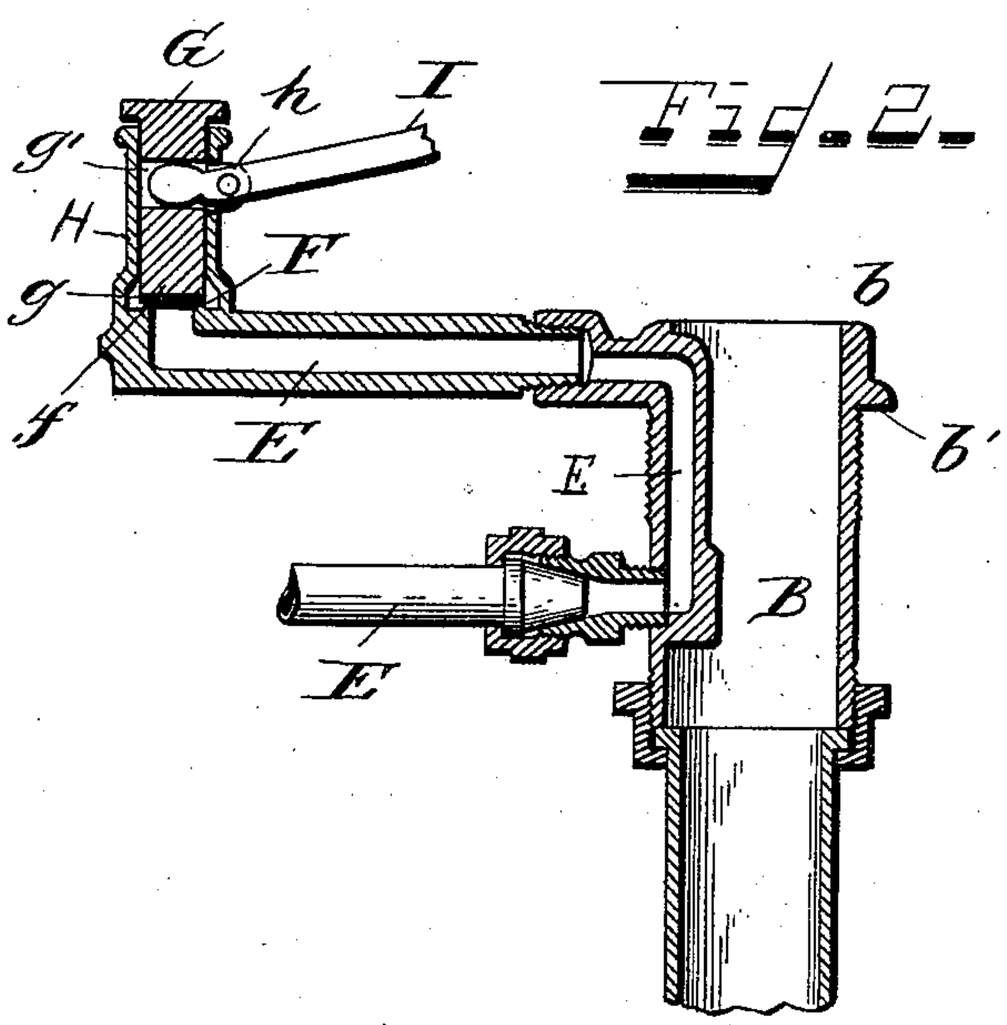
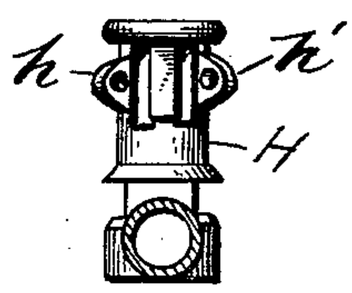


Fig. 3.



WITNESSES:

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ALEXANDER RIEGLER, OF CINCINNATI, OHIO.

TANK-VALVE.

SPECIFICATION forming part of Letters Patent No. 563,311, dated July 7, 1896.

Application filed August 27, 1894. Serial No. 521,425. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER RIEGLER, a citizen of the United States, residing in the city of Cincinnati, in the county of Hamilton, in the State of Ohio, have invented a new and useful Improvement in Tank-Valves, of which the following is a specification.

My invention relates especially to that class of valves used in water-tanks and adapted to flush closets.

Heretofore the inlet and outlet apparatus of flushing devices have been independent both in operation and the method of securing them in position in the tank. It has been necessary to make two holes in the tank, one through which the inlet-pipe passes for the purpose of conducting the water into the tank, and another hole through which the outlet or flushing pipe passes. This old arrangement is very inconvenient to put in position, owing to the different arrangement of pipes in different houses.

The object of my invention is to provide a simply and economically constructed valve requiring but one hole near the center of the bottom of the tank, through which both the inlet and the flushing pipes pass, thereby doing away with the more expensive and cumbersome double arrangement.

My invention consists in the several parts and the combination of parts hereinafter described and claimed.

Referring to the drawings, Figure 1 is a vertical section through a tank, showing my flushing device in position, having a part of the siphon-pipes broken away to show the interior construction. Fig. 2 is a section through the inlet and flushing pipes. Fig. 3 is a detail of the socket.

A is a tank for water, of any suitable size and shape.

B is a flushing-pipe connecting the tank with the closet-bowl. Resting upon the seat *b* is a siphon C, consisting of a large pipe *c*, having a small pipe *c'* within, secured to one side thereof by suitable means, as rivets *c''*, and guides attached to the siphon C extend into the flushing-pipe B for the purpose of guiding the pipe *c'* over the seat *b*. The siphon C is raised by means of the lever D, pivoted at *d* to a bar *a*, secured to the top of the tank. The inlet-pipe E delivers into the tank through valve F. A portion of the pipe E is formed within the flushing-pipe B, as shown in Fig. 2, preferably in one piece, passing through that part of B which takes through the bottom of the tank. The flushing device or valve is secured in position in the bottom of the tank by means of the shoulder *b'* and the set-nut *b''*.

A pin G, adapted to slide in a socket H, opens the valve F by being raised and closes the valve by being lowered, so that the elastic cushion *g* on the pin presses against the valve-seat *f*. The valve-pin is raised and lowered by means of the lever-arm I, pivoted to the socket at *h*, and extending into a recess or tenon *g'* within the pin. Upon the end of the lever-arm I is a hollow globe J, adapted to rise and fall with the water in the tank. When the ball rises, it tends to lower the pin in the socket, thereby closing the valve, and when the ball lowers it tends to raise the pin to admit water to the tank. It is sometimes necessary, owing to the arrangement of pipes, to admit the pipe E upon the left, as shown in Fig. 1, and sometimes from the opposite side, thereby reversing the position of the ball and the inlet-valve within the tank. To permit of this, I have a left fulcrum or ear *h* and a right fulcrum or ear *h'* on the socket for the purpose of adjusting the lever-arm I within the tank, the other parts remaining relatively the same in either the right or left position.

In operation, when the position of the ball is that shown in Fig. 1, the valve F is open for the admission of water to the tank. The ball rises with the water until at such height to close the valve. When it is desired to flush the closet, lift the siphon C by means of the lever D a short time and distance. The water will flow from the bottom of the tank over valve-seat *b* into the flushing-pipe B, and when pipe *c'* returns to its position on seat *b* the suction of the water which has entered B will draw the water up through pipe *c* into *c'*, and these pipes will act as a siphon to empty the tank.

The advantage of having pipe *c'* at one side of *c* is that the passage of water through *c* is

less obstructed and the water is delivered with less noise into c' at its top end than if it were allowed to pour in from all sides equally.

I claim—

The combination in a tank-valve of a siphon, an outlet or flushing pipe connected therewith, an inlet-pipe taking within the flushing-pipe, a valve, a valve-pin, an arm actuating the valve-pin pivoted to a socket, and a socket provided with a right and left fulcrum, substantially as and for the purpose described.

ALEXANDER RIEGLER.

Witnesses:

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