(No Model.)

J. COOPER.

SUPPLY TANK FOR WATER CLOSETS.

No. 266,434. Patented Oct. 24, 1882.

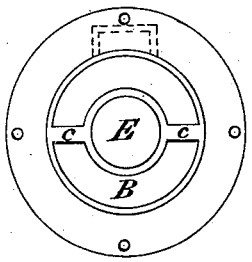

Fig. 3.

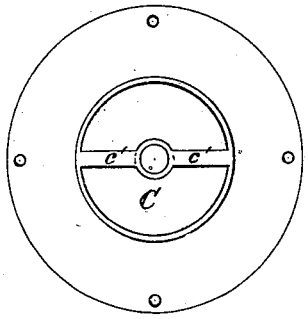

Fig. 2

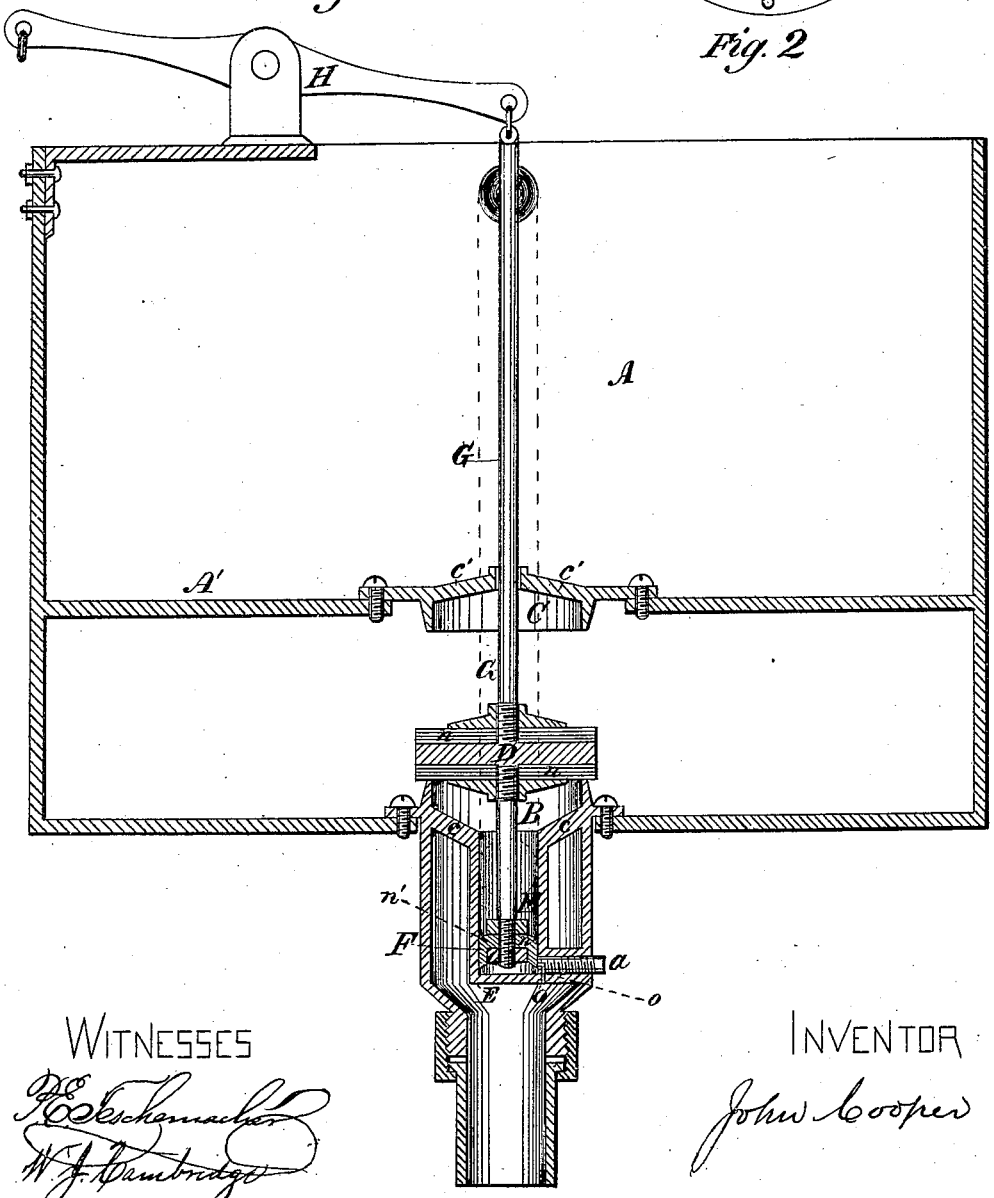

Fig. 1.

WITNESSES

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SUPPLY-TANK FOR WATER-CLOSETS.

SPECIFICATION forming part of Letters Patent No. 266,434, dated October 24, 1882.

Application filed December 24, 1881. (No model.)

To all whom it may concern:

Be it known that I, JOHN COOPER, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Valves for Flush-Tanks for Washing Water-Closets and other Sanitary Apparatus, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a vertical section through a flush-tank having my improved valve applied thereto. Fig. 2 is a plan of the under side of the upper valve-seat. Fig. 3 is a plan of the lower valve-seat with the valve removed.

My invention relates to a valve for flush-tanks for washing water-closets and other sanitary apparatus before and after using said apparatus.

It consists of a double-faced valve having two seats, the upper seat inverted and placed above the said valve and intended to hold the water contained in the upper portion of the tank after the water that was under the horizontal partition has been let out to give the preliminary wash to the apparatus below. Under the lower valve-seat there are a cylinder, plunger, check-screw, and air-port, arranged to delay the fall of the valve from the upper inverted valve-seat to the lower valve-seat, and thereby allow a sufficient quantity of water to flow from the upper portion of the tank through both valve-seats into the apparatus below to give an after-wash.

In the said drawings, A is the flush-tank, with horizontal partition A′ near the bottom of the tank.

B is the lower valve-seat, which is fixed to the bottom of the tank.

C is the upper valve-seat, which is fixed to the horizontal partition A′ of the tank.

D is the double-faced valve, having leather or other suitable packing, *n*, on both sides thereof.

E is the air-cylinder.

F is the plunger, which is provided with a packing, *n′*, of leather or other suitable material, and is fixed to the lower end of the valve-rod G.

H is a lever fixed at the top of the flush-tank and connected to the valve-rod G.

a is the check-screw.

c c′ are stays to cylinder and valve-rod guide.

o is the air-port, made in the inner end of the check-screw *a*, and passing at a right angle through the bottom of the cylinder E to form an outlet through which the air contained in said cylinder under the plunger F may escape.

The coupling and nut at the end of the valve-casing show the usual method of connecting said valve to a pipe below said valve.

The dotted lines on each side of the valve-rod shown in Fig. 1 indicate the air-passage leading to the under side of the valve D, this passage being intended to let the water out of the pipe below the valve when the valve is in its normal position.

It will be seen that when the outer end of the lever H is depressed by being connected by chain or wire to the seat or movable portion of the floor of a water-closet or other sanitary apparatus the valve D will be lifted against the inverted valve-seat C, and the water contained in that portion of the tank which is beneath the horizontal partition A′ will be allowed to flow into the apparatus below to give said apparatus a preliminary wash, and by a reverse action, when the lever on the seat or movable portion of the floor of a water-closet is released and the valve D is about to take its normal position, the fall of said valve is retarded by the check-screw *a* being turned to partially close the air-port *o* and check the outflow of air from the cylinder E under the plunger F, and thereby give time for water to flow from the upper portion of the tank into the apparatus below. This screw *a* can be so adjusted that a small or large quantity of water can be let out to give the final after-wash to the apparatus below.

What I claim, and desire to secure by Letters Patent, is—

A double-faced valve having two seats, one of the seats inverted and placed above the valve, in combination with a cylinder, plunger, check-screw, and air-port, substantially as and for the purposes set forth.

JOHN COOPER.

Witnesses:
C. H. GAY,
J. A. PEASE.