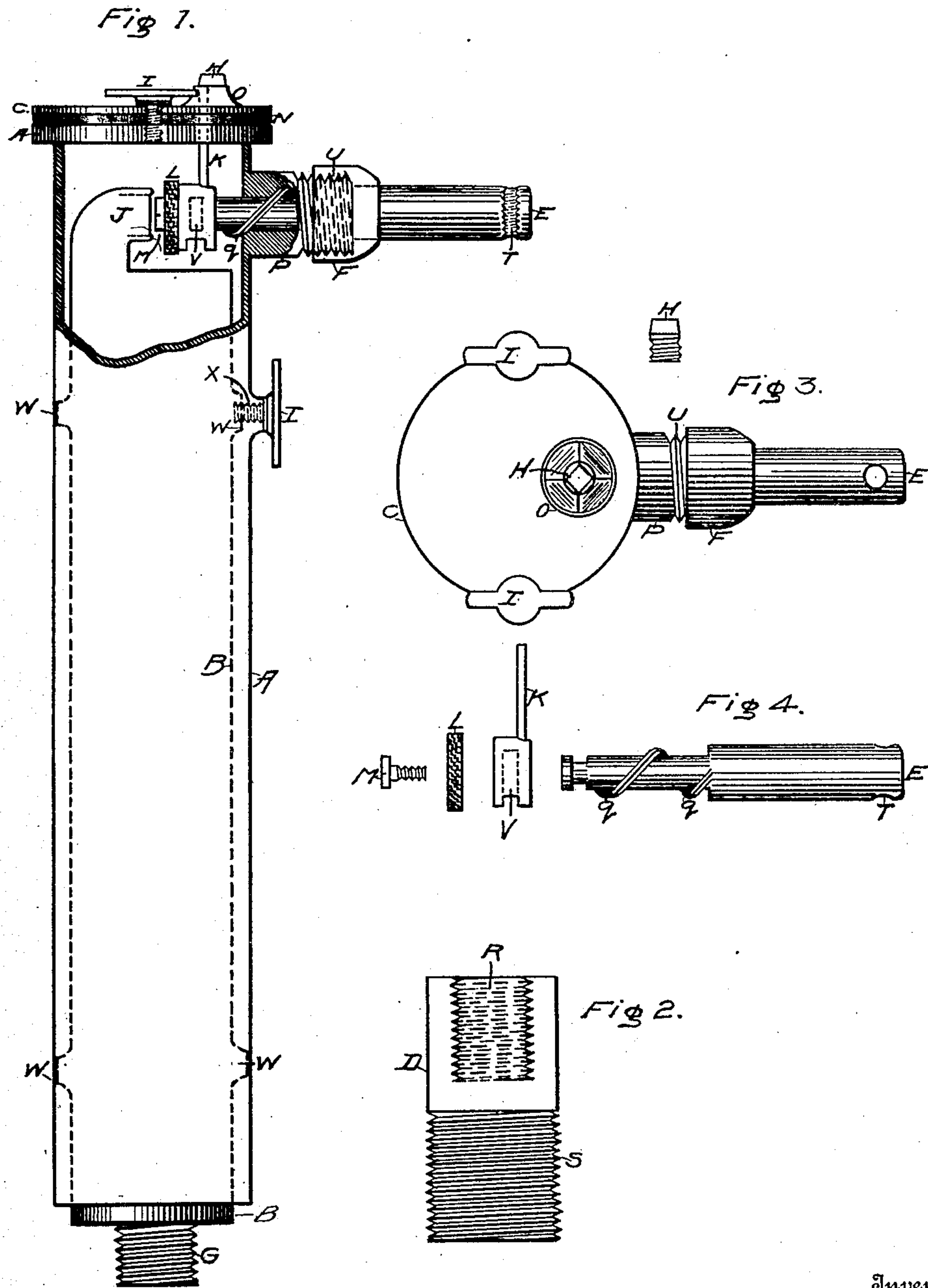


A. C. EINSTEIN.
 SUPPLY VALVE FOR WATER CLOSETS.
 APPLICATION FILED AUG. 31, 1908.

913,479.

Patented Feb. 23, 1909.



Witnesses

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ARTHUR C. EINSTEIN, OF INDEPENDENCE, KANSAS, ASSIGNOR OF ONE-NINTH TO ALBERT R. JONES, ONE-NINTH TO HARRY W. JONES, AND ONE-NINTH TO ROY B. JONES, ALL OF INDEPENDENCE, KANSAS.

SUPPLY-VALVE FOR WATER-CLOSETS.

No. 913,479.

Specification of Letters Patent.

Patented Feb. 23, 1909.

Application filed August 31, 1908. Serial No. 451,077.

To all whom it may concern:

Be it known that I, ARTHUR C. EINSTEIN, of the city of Independence, county of Montgomery, State of Kansas, have invented a new and useful Improvement in Supply-Valves for Water-Closets, of which the following is a specification.

My invention relates to closet supply valves for either high or low tanks, the same valve being for use in either kind of a tank.

The objects of my invention are to provide a closet valve which is automatic, a valve which will be noiseless in its operation, and which will be simple in construction, one which can be repaired without the use of tools.

Figure 1 is a side sectional elevation showing the valve complete, the top cut away showing the working parts of the water chamber with seat and water flow at the top and intake opening at the bottom. Also shows the thumb screws and the washer between the cap and the top of the main casting. Fig. 2 shows in section the spud or extension which screws on Fig. 1 at the bottom so as to penetrate through the bottom of the tank. Fig. 3, shows a top plan view of the valve and plug, showing the thumb screws and the aperture for the after flush connection. Fig. 4, is a side view showing working parts, namely: the set screw, washer, disk, and main stem.

When placed in a high tank closet all working parts of this valve are above water. This valve will never have to be taken out of the tank, or the tank taken down to repair it. The outlet of the valve stands in water at all times, water passes up and down again making water run through, over and in water when the valve is filling the tank. It opens and closes quickly and will not sing when shutting off. The valve is so arranged that the man replacing the valves will not have to carry in stock but one kind of valve, as spuds of different sizes to fit any size make of valve will be made. The working parts are simple, with no lever, screws or pins. To use in low tank closet place same as any valve then take out the plug H in the top of the cap and insert the ordinary after flush pipe.

A is the outer casting of valve showing top with thread cut in to it so as to take thumb screws I which hold cap C to main valve A.

B is the inner casting with the outlet J at the top and the thread G at the bottom.

The cap C covers the outer casting A and all the inner parts. The washer N fits between the cap C and the outer casting A.

The spud D is designed to screw on to G at the bottom of the inner casting B and has a thread on the inside for that purpose and a thread on the outside to hold the valve in place by the use of a lock nut which will be used on old valves, and can be used where this valve replaces an old valve, which will save the expense of making lock nuts for all different size valves as the spud D can be made in different sizes to fit all makes of valves.

The main stem E has a sweeping thread which works in the projection P near the top of the outer casting A. The packing nut F is placed on the main section E and secured by the threads U; it is intended for the purpose of packing when the stem gets worn. A new valve does not need this packing nut.

The thread G on the bottom of the inner casting B screws on to the spud D in the threads R. This leaves thread S projecting through the tank. The opening in this spud is larger than the outlet J and smaller than the inner casting B which thus makes an air chamber between the outlet J and the intake at G. The small plug H is square at the top for a wrench hold and has a threaded lower portion designed to screw into the cap C at O thus closing the after flush connection when used in a high tank closet.

The thumb screws I hold the cap C to the outer casting A and also hold the outer casting in relation with the inner casting B as at X in connection with the small lugs W. The outlet J is part of the inner casting B. The water pours out of this outlet and passes downward between the inner casting B and the outer casting A. The casting B is held away from the sides of A by small lugs W. The outlet J is opened and closed by less than a one quarter turn of the stem E, and when closed it forces the washer L tight against the surface of the outlet J. The washer L is secured by a set screw M to the disk V and the lift pin K is a part of the disk V designed to come up into the opening O.

There is a washer N which lies between the outer casting A and the cap C, which keeps the water from running out when the valve

is in operation. The opening O is threaded for holding the after flush pipe which will be used in a low tank, the plug H being removed. The opening O also forms a guide
5 for the purpose of keeping the lift pin K in an upright position. The part of the outer casting at P contains grooves in which the sweeping thread *q* rotates, the form of this thread causes a high holding pressure behind the
10 disk V thus holding in the water. The aperture T in the main stem E is for the purpose of attaching the stem of an ordinary float ball.

What I claim as my invention and desire
15 to secure by Letters Patent, is:—

1. In a water closet supply valve, an inner casting having small lugs, an intake at the bottom thereof, a smaller outlet at the top thereof, in connection with an outer casting
20 a cap, a removable plug in said cap, thumb screws which hold the outer casting in relation with the inner casting, and which secure the cap to the outer casting, a main stem with an aperture at one end thereof and a

sweeping thread at the other end thereof 25 having a notch at this end to retain a disk valve, a grooved disk having a lifting pin in the top, a washer in conjunction with said disk designed to open or close the outlet at the top of the inner casting, and a spud de- 30 signed to be secured to the lower portion of the inner casting, as shown and described.

2. In a water closet supply valve, an inner member, an outer member, spaced round said inner member, said inner member hav- 35 ing a supply port at one end and a discharge port at the other end, said outer member having an open end adjacent said supply port, a valve structure mounted in the outer member and regulating the said discharge 40 port, the outer member being adapted to receive fluid from the discharge port and conduct it to a point below the level of the fluid in the receptacle to be supplied by the valve.

ARTHUR C. EINSTEIN.

Witnesses:

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