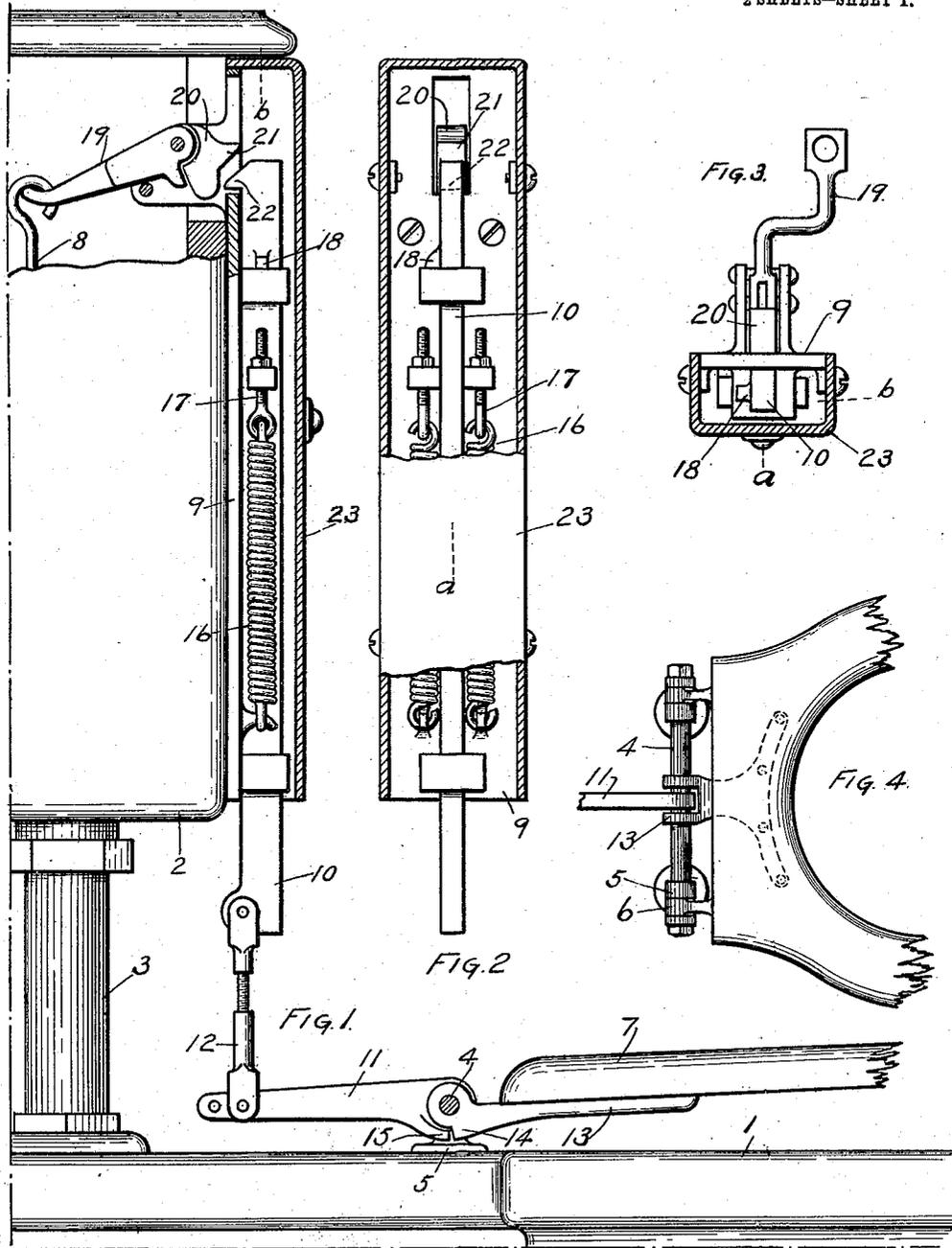


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 APPLICATION FILED JUNE 29, 1908.

920,928.

Patented May 11, 1909.  
 2 SHEETS—SHEET 1.



Witnesses:  
 Elmer R. Shipley.  
 M. S. Belden.

John H. Davis  
 Inventor  
 James W. See  
 Attorney

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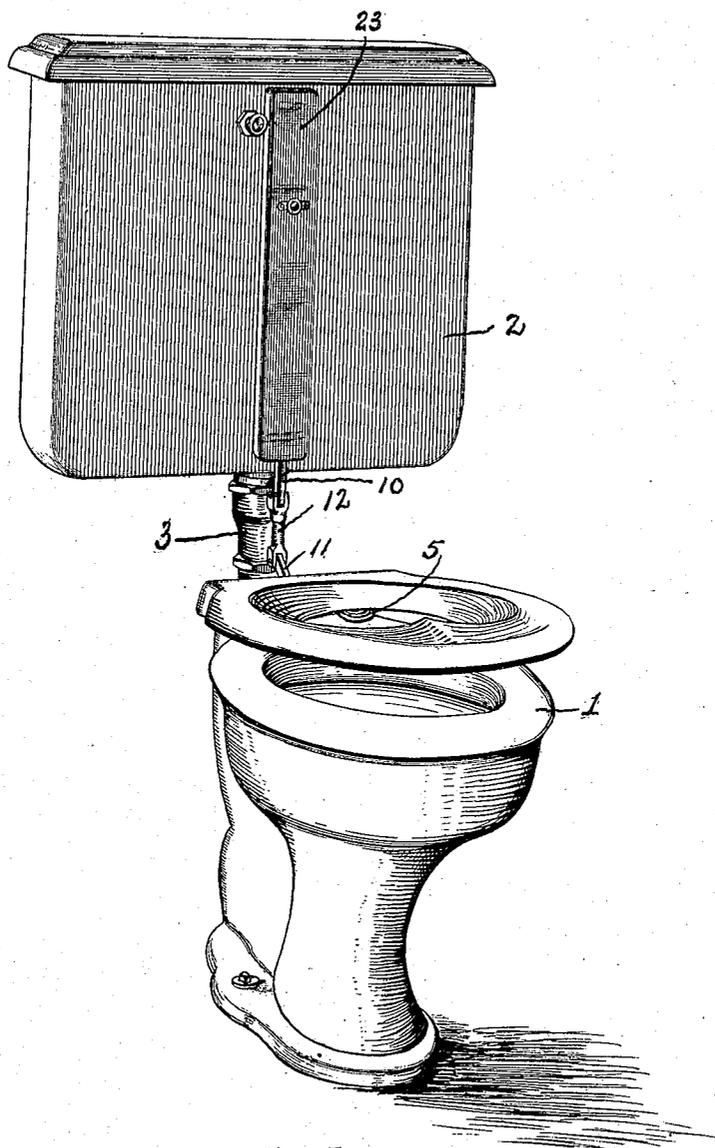


Fig. 5.

Witnesses:  
Elmer R. Shipleigh  
M. S. Belden

John H. Davis

Inventor  
by James W. See  
Attorney

# UNITED STATES PATENT OFFICE.

JOHN H. DAVIS, OF HAMILTON, OHIO.

## FLUSHING MECHANISM.

No. 920,928.

Specification of Letters Patent.

Patented May 11, 1909.

Application filed June 29, 1908. Serial No. 440,867.

To all whom it may concern:

Be it known that I, JOHN H. DAVIS, a citizen of the United States, residing at Hamilton, Butler county, Ohio, have invented certain new and useful Improvements in Flushing Mechanism, of which the following is a specification.

This invention, pertaining to flushing mechanism, relates to an improved organization for bringing about the automatic opening of the flush valve when weight is removed from the closet seat.

The invention will be readily understood from the following description taken in connection with the accompanying drawing in which:—

Figure 1 is a side elevation, part vertical section, of mechanism exemplifying my invention in conjunction with a closet bowl and tank: Fig. 2 a front elevation part vertical section of the spring mechanism: Fig. 3 a plan, part horizontal section, of the spring mechanism: Fig. 4 a plan of the seat hinge; and Fig. 5 a perspective view of a closet with the improved mechanism attached.

In the drawing:—1, indicates the closet bowl: 2, the flush tank: 3, the flush pipe: 4, the seat-hinge pivot: 5, the fixed members of the seat-hinge, secured to the bowl: 6, the movable members of the seat-hinge, secured to the seat: 7, the seat: and 8, a typical connector to move and open the flush valve.

All of the parts thus far described are or may be of usual construction and subject to any usual or appropriate modifications of form.

Proceeding with the drawing:—9, indicates a plate secured to the exterior of the tank: 10, a rod moving vertically in guides on the plate: 11, an arm pivoted loosely on the pivot of the seat-hinge and projecting rearwardly of the seat: 12, a link, preferably adjustable in length, connecting the arm with the rod: 13, an arm mounted loosely on the pivot of the seat-hinge and projecting forwardly under the seat and, preferably, secured to the seat: 14, a lug at the heel of arm 13: 15, a corresponding lug on the heel of arm 11, the two lugs cooperating in such manner that the seat is free at all times to turn upwardly but when depressed beyond a certain degree the two lugs will engage and cause the rear end of arm 11 to rise: 16, helical springs having one end anchored to plate 9 and their opposite ends attached to rod 10 so as to act

tensionally and draw the rod downward: 17, screw devices connecting the springs with the rod and serving in adjusting the tension of the springs: 18, a lug carried by the rod and engaged over one of the rod guides and serving to limit the downward motion of the rod: 19, an arm pivoted to the plate and attached to the connector 8 in such manner that the rising of the arm effects the opening of the flush valve: 20, a secondary arm mounted loosely on the pivot of arm 19 and adapted to make contact with and move arm 19 when arm 20 is depressed from the normal: 21, a tooth projecting from arm 20 toward rod 10: 22, a hook projecting from rod 10 under tooth 21: and 23, a casing secured to the plate and inclosing the spring mechanism.

Normally the flush valve is closed; rod 10 is in extreme downward position as limited by lug 18; lugs 14 and 15 are in contact; the seat is slightly elevated; and the seat is maintained in this position by the tension of the springs.

If the seat be depressed to the level position, against the tension of the springs, rod 10 rises and its hook pushes upwardly on tooth 21 which tooth retreats in swinging upwardly, the hook finally taking position above the tooth the latter having dropped again to normal position. The above described action will have no effect on the flush valve.

When pressure on the seat is removed then the springs draw the rod down and the hook engages the tooth and brings about the lifting of arm 19 and the actuation of the flush valve. As the tooth is swung downwardly by the action of the hook it retreats and escapes from the hook and lever 19 is at liberty to descend to normal position, leaving all parts normal.

Attention should be called to the fact that my improved system of mechanism for a seat-operated closet does not interfere in any degree with the presence or use of the ordinary devices for operating the flush valve by hand. For instance, assume the ordinary connector 8 shown in the illustration to be connected in the usual manner with any of the well known hand-operated devices, such as a pull-chain, push-button, lever, or a pull-knob, such hand-operated device may be used at will, being uninterfered with by the presence of my improved mechanism. It is to be further observed

that the presence of my mechanism does not interfere with the normal motion of the seat in being turned up to vertical position.

I claim:—

5 1. Flushing mechanism comprising, a tank, a vertical plate secured against the exterior of the tank and having at the rear of its upper end a projection extending through the tank wall, upper and lower rod-guides projecting from the front of the plate, 10 a rod fitted to reciprocate in said guides, a lug carried by the rod and adapted to cooperate with one of the guides to limit the downward motion of the rod, helical springs 15 vertically disposed near the face of the plate and on opposite sides of the rod and having their lower ends anchored to the plate, screw devices adjustably connecting the open ends of the springs independently with 20 the rod, connecting devices engaging the lower end of the rod and adapted for cooperation with a closet-seat, an inwardly projecting hook on the upper end of the rod, and tripping mechanism pivoted to the inward 25 projection of said plate and adapted for coöperation with said hook and with a flush-valve connector disposed within the tank, combined substantially as set forth.

30 2. Flushing mechanism comprising, a tank, a vertical plate secured against the exterior of the tank and having at the rear

of its upper end a projection extending through the tank wall, upper and lower rod-guides projecting from the front of the plate, a rod fitted to reciprocate in said guides, a 35 lug carried by the rod and adapted to cooperate with one of the guides to limit the downward motion of the rod, helical springs vertically disposed near the face of the plate and on opposite sides of the rod and having 40 their lower ends anchored to the plate, screw devices adjustably connecting the open ends of the springs independently with the rod, connecting devices engaging the lower end of the rod and adapted for coöperation with 45 a closet-seat, an inwardly projecting hook on the upper end of the rod, an arm pivoted on the inward projection of the plate and adapted for engagement with a flush-valve connector within the tank, an outwardly projecting 50 secondary arm loosely pivoted on the pivot of the first-mentioned arm and adapted to make contact and move the first-mentioned arm when the secondary arm is depressed, and a tooth projecting outwardly 55 from the secondary arm in the vertical path of the hook on said rod, combined substantially as set forth.

JOHN H. DAVIS.

Witnesses:

ROBERT J. SHANK,  
W. W. VINNEDGE.