

No. 734,811.

PATENTED JULY 28, 1903.

B. A. BUGE.  
NON-FREEZING WATER CLOSET.

APPLICATION FILED JAN. 2, 1903.

NO MODEL.

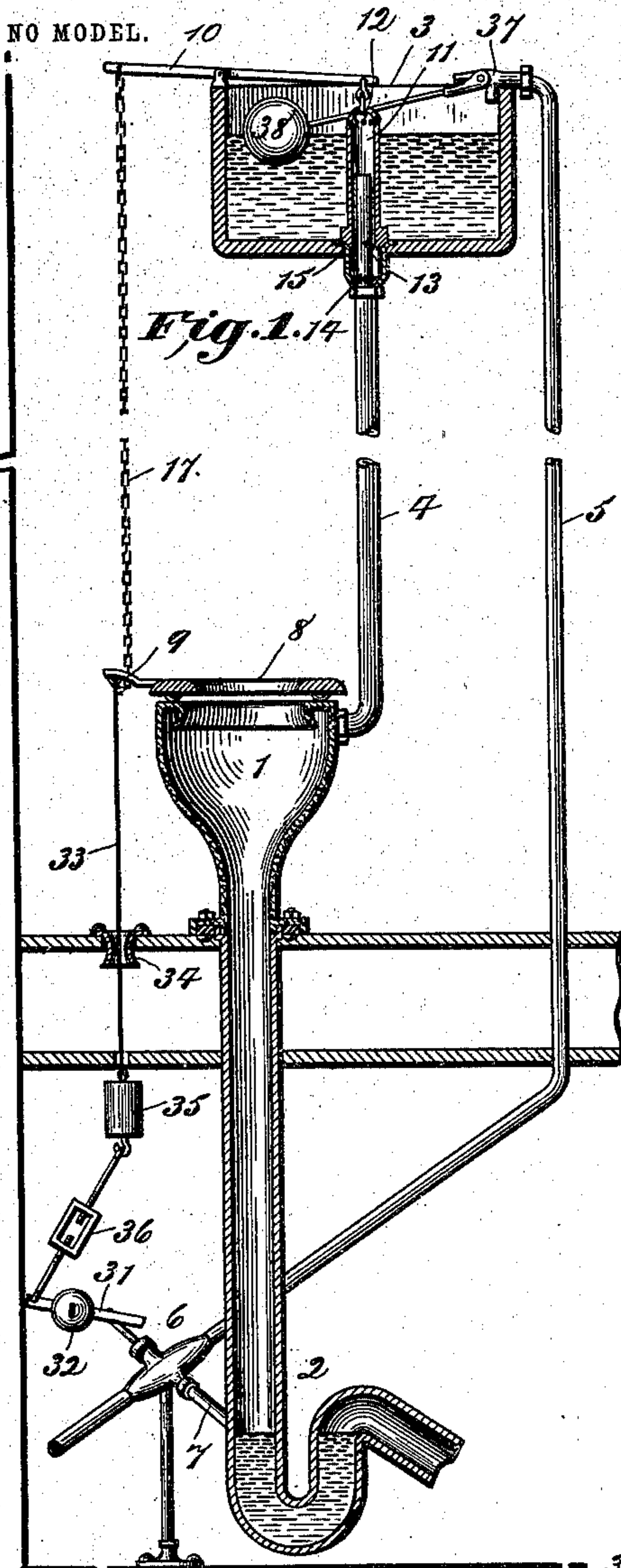


Fig. 1.

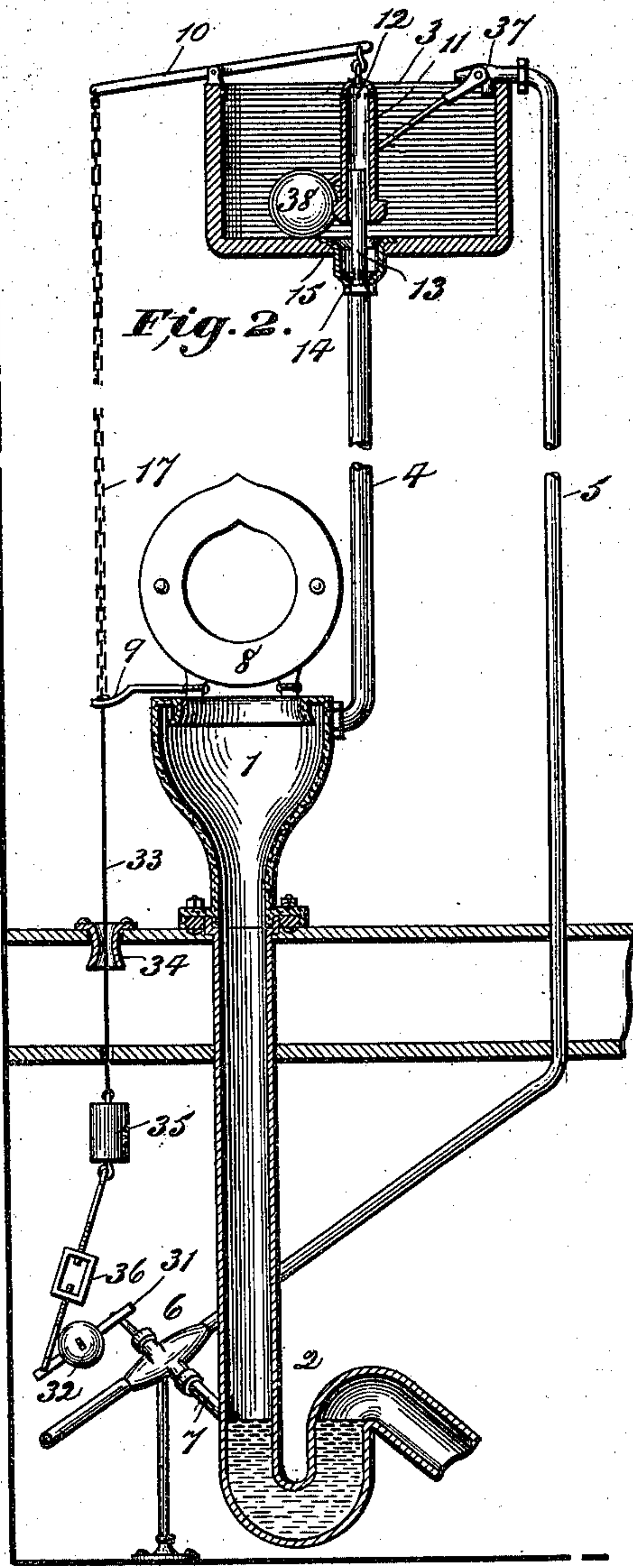


Fig. 2.

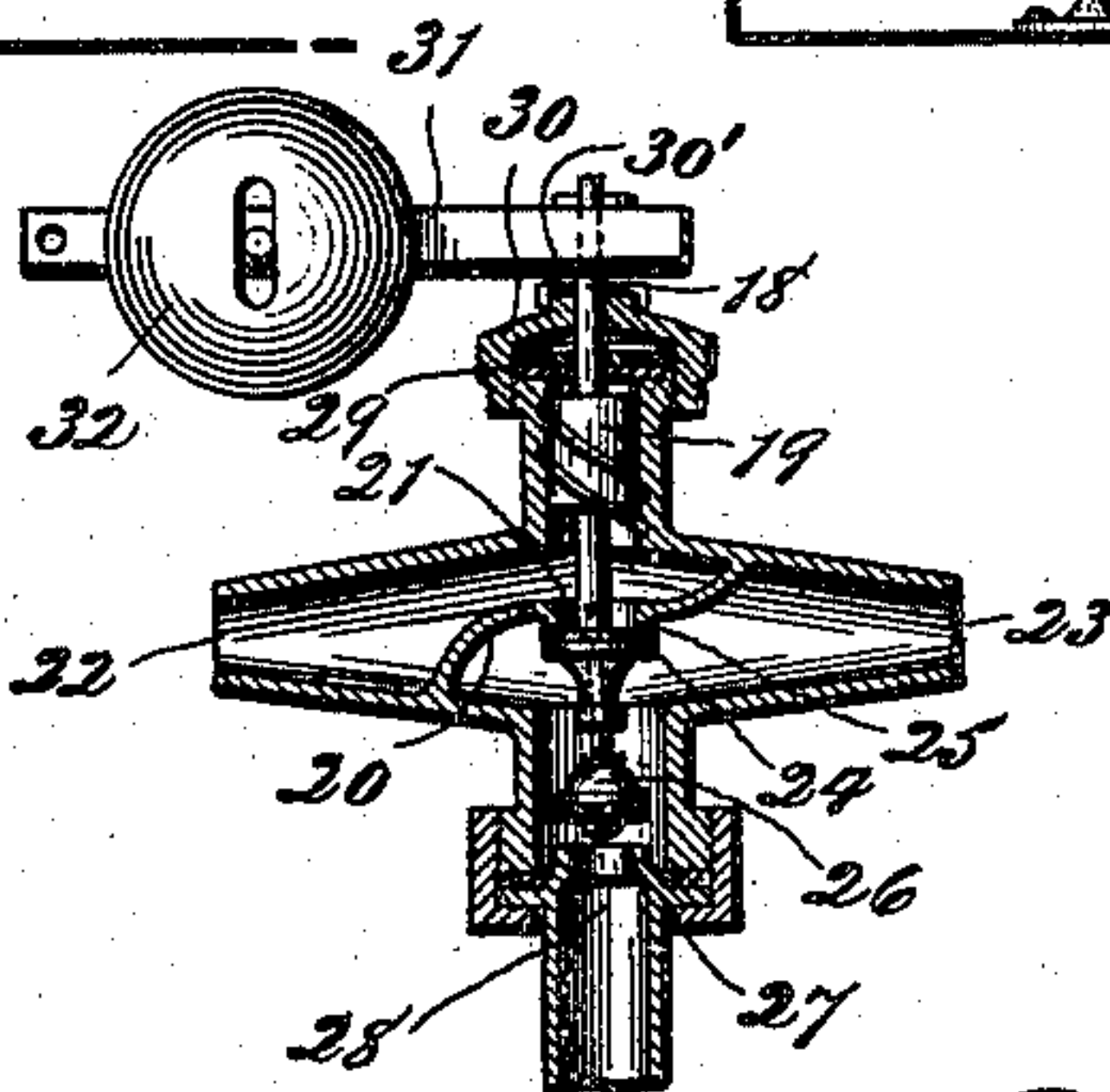


Fig. 3.

Witnesses

Oliver Seavey  
C. E. Duff & Son

Inventor  
Bernhard A. Buge,

C. E. Duff & Son  
Attorneys



# UNITED STATES PATENT OFFICE.

BERNHARD A. BUGE, OF NEW YORK, N. Y.

## NON-FREEZING WATER-CLOSET.

SPECIFICATION forming part of Letters Patent No. 734,811, dated July 28, 1903.

Application filed January 2, 1903. Serial No. 137,396. (No model.)

*To all whom it may concern:*

Be it known that I, BERNHARD A. BUGE, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Non-Freezing Water-Closets; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to baths, basins, and closets, but more particularly to non-freezing closets, and has for its object to provide a device of this class which is particularly simple in construction and easy of operation.

My invention consists in the improved construction of my combined flush and supply valve and in the several connections.

My invention consists in certain other novel features and in combination of parts which will be now described, and pointed out in the claims.

Referring to the accompanying drawings, Figure 1 is a view, partly in section, of my invention in position when in use. Fig. 2 is a like view of the same when not in use. Fig. 3 is a detail sectional view of valve.

In the drawings, 1 is the bowl, provided with a trap 2.

3 is the water-tank, and 4 is the flush-pipe.

5 indicates a supply-pipe leading from valve 6.

7 is a pipe leading from valve 6 to trap 2.

8 indicates the seat, which is provided with the arm 9.

10 indicates a lever fulcrumed to the top of the water-tank, which carries the valve 11. Said valve is cylindrical in form and hollow in its interior, having an open top.

13 indicates a guide for said valve, which is secured to the flush-pipe or may be a part thereof and is provided with a series of slots or openings 14.

15 indicates the valve-seat in the bottom of the water-tank, and 17 is the chain which connects the outer end of the lever 10 to the arm 9 of the seat.

18 indicates the valve-stem in the valve 6,

said stem being provided with an enlarged threaded portion 19.

It will be noticed from Fig. 3 that a partition 20 is placed diagonally across the interior of the valve-casing, the opening 21, however, therein being parallel with the central line drawn through the inlet and outlet ports 22 and 23. Said valve-stem passes through the opening 21 in the partition 20, and a valve 24 is adjustably secured to said stem by means of a threaded stem. A seat 25 for said valve is formed around said opening 21, and a valve 26 is adjustably secured to said valve-stem on the threaded stem, passing into the valve 24, which is adapted to be seated upon the seat 27 at the waste-port 28. Suitable packing means 29 and a cap 30 and a small packing-box 30' are secured to the valve-casing, through which the valve-stem passes. A lever or crank 31 is secured to the outer end of said valve-stem, and a weight 32 is suitably secured thereto.

33 indicates a connecting-rod or other means which passes from the arm on the closet-seat through a thimble 34, secured in the floor, said connecting means carrying a weight 35 at the end thereof, and a turnbuckle 36 connects said weight to the end of the crank or lever on the valve-stem.

On the upper end of the supply-pipe and over the water-tank is a valve 37 and a ball 38, adapted to open and close the same.

This invention is particularly designed to prevent freezing in the water tank and pipes above the floor, and I have attained this object by the aforescribed construction, which operates as follows: When the seat is raised as shown in Fig. 2 and the closet is not in use, the arm on the seat is in such a position that the crank or lever secured to the valve-stem is in the lowest position, the weight carried thereon normally holding the same in this position and causing the valves in the interior of the valve-casing to be in the position shown in Fig. 3. Thus all supply to the water-tank is cut off, the weight 35 holding the said closet-seat in a raised position. When the seat is depressed and the seat is in use, as shown in Fig. 1, the arm on said seat is raised, which seats the valve 11 in the water-tank and raises the crank or lever on the valve-stem 18. This causes the said stem to



pass into the casing and seats the valve 26, unseating the valve 24, thereby allowing water to pass to the supply-pipe and into the water-tank, which rapidly fills and raises the ball-float 38 until the same closes the valve or cock 37 and shutting off further supply. As soon as the seat again rises the arm thereon draws down the chain 17, opening the flush-valve 11, and causes the water in the tank to flush into the bowl. At the same time said arm raises the crank on the valve-stem 18 and throws the valve into position shown in Fig. 3, which shuts off the water to the supply-pipe and opens the valve to the waste-port, thereby allowing the water in the supply-pipe to empty into the soil-pipe through the waste-pipe 7. Thus it will be seen that normally there is no water above the floor to freeze, while the entire arrangement and mechanism is automatic.

Having thus described my invention, I do not wish to be understood as limiting myself to the exact construction herein set forth, as various slight changes may be made therein which would fall within the limit and scope of my invention, and I consider myself clearly entitled to all such changes and modifications.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a non-freezing water-closet, the combination with the bowl, seat, trap and water-supply pipe, of a valve in said supply-pipe, a pipe leading from said valve to said trap, a partition in said valve, a seat in said parti-

tion, a seat at the outer end of the pipe leading to said trap, a revolving valve-stem, a threaded stem carrying a valve, said threaded stem being adapted to be threaded into said valve-stem so as to adjust said valve to the said seat in said partition, a threaded stem carrying a valve, said threaded stem being adapted to be threaded into the first-mentioned valve in order to adjust said latter valve to the said seat at the outer end of the said pipe leading to the said trap, the said valves being so arranged that the two valves may be adjusted simultaneously by revolving the former valve, or the latter valve may be adjusted independently by revolving the latter valve.

2. The combination of a valve-casing, of a partition therein, a seat in said partition, a pipe leading into said valve-casing, and a seat at the opening for said pipe, a revolving stem carrying a valve adjustable thereon to said seat in said partition, a valve carried on said first-mentioned valve, and adjustable thereon to said seat in said opening for said pipe, said valves being so arranged that they may be adjusted simultaneously by revolving the first-mentioned valve or independently by revolving the latter valve.

In testimony whereof I affix my signature in presence of two witnesses.

BERNHARD A. BUGÉ.

Witnesses:

MARTIN PETRY,  
GEORGE A. WOOD.