J. H. GALLAGHER.

WATER CLOSET.

APPLICATION FILED JULY 24, 1916.

1,224,734.

Patented May 1, 1917.

2 SHEETS—SHEET 1.

Fig. 1.

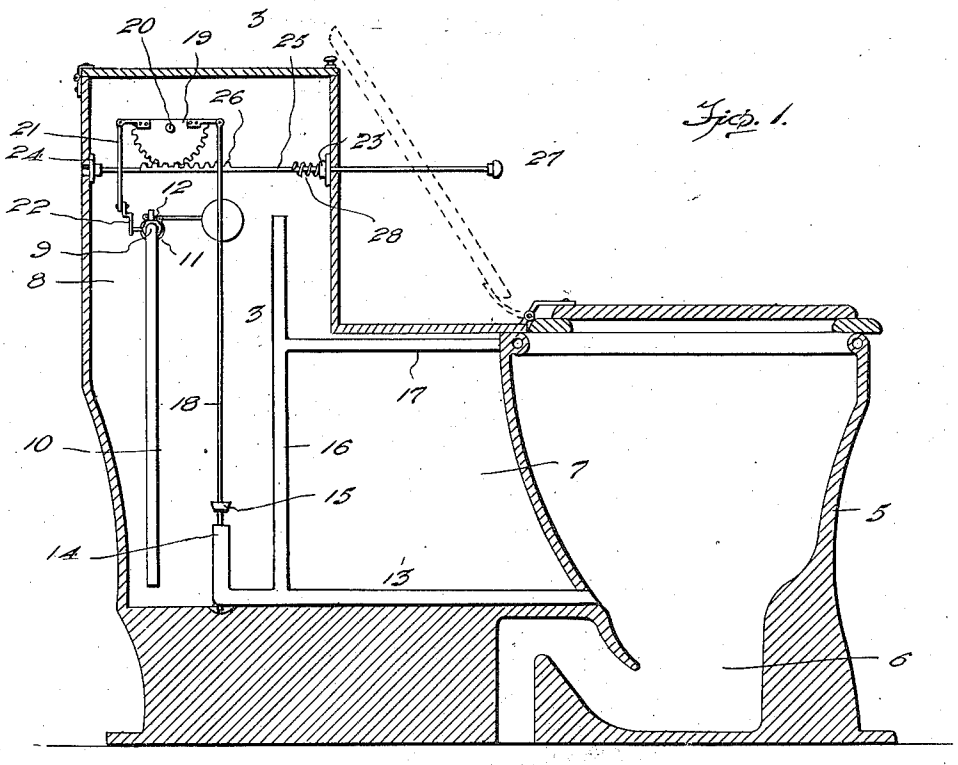
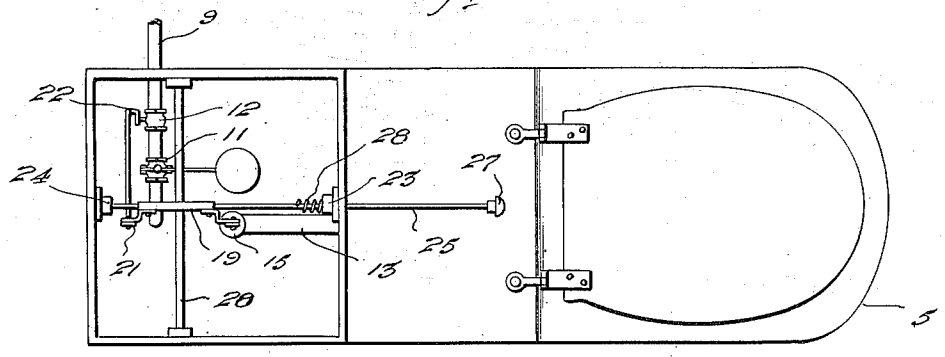


Fig. 2



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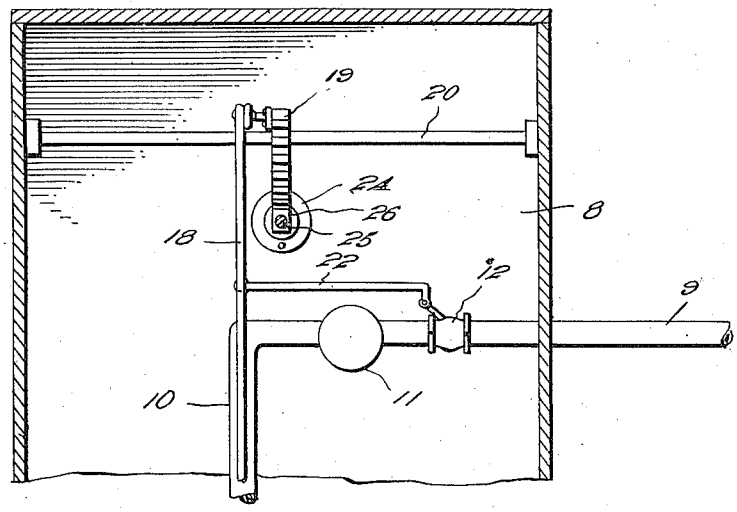
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Fig. 3.



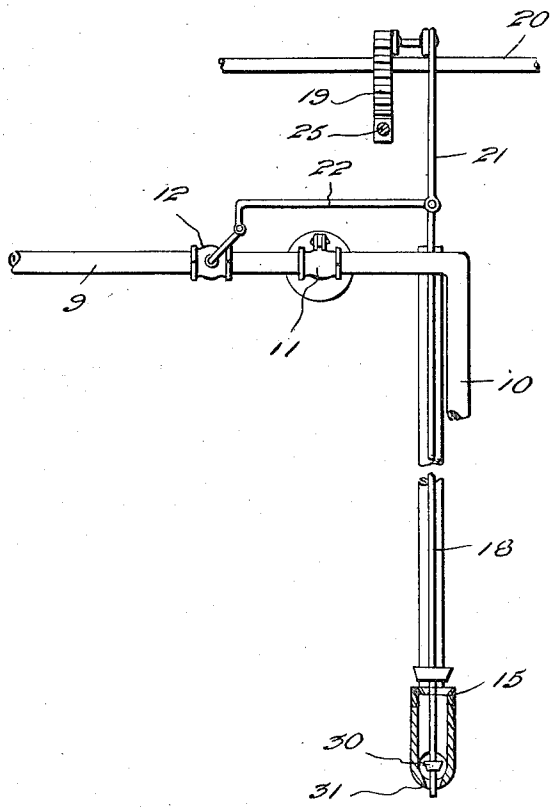


Fig. 4.

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UNITED STATES PATENT OFFICE.

JOHN H. GALLAGHER, OF MACOMB, ILLINOIS.

WATER-CLOSET.

1,224,734. Specification of Letters Patent. Patented May 1, 1917.

Application filed July 24, 1916. Serial No. 111,041.

To all whom it may concern:

Be it known that I, JOHN H. GALLAGHER, a citizen of the United States, residing at Macomb, in the county of McDonough and State of Illinois, have invented certain useful Improvements in Water-Closets, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to improvements in water closets, one object of the invention being the provision of a type of closet in which the flush tank is formed integral with the bowl, and by means of which the valve controlled mechanism is controlled by the lid so that when the lid is opened the outlet valve is closed with the supply valve open, and when the lid is closed, the reverse action takes place.

A further object of this invention is the provision of a device of this character in which the lower portion and the rim of the bowl are simultaneously flushed, thus producing a sanitary, noiseless outfit.

In the accompanying drawings:—

Figure 1 is a vertical sectional view through the complete device.

Fig. 2 is a top plan view thereof, the top of the flush tank being opened to show the relation of the interior mechanism thereof.

Fig. 3 is a cross section taken on line 3—3 of Fig. 1.

Fig. 4 is a detail view showing the supply valve and the outlet valve and the controlling mechanism thereof.

Referring to the drawings, the numeral 5 designates the bowl which is provided with the siphon chamber 6 and has formed integral therewith the lower water compartment 7 and the upper compartment 8 which are in communication and form the flush tank.

A supply pipe 9 is led in from the sides of the member 8 and extends downwardly, as shown at 10, adjacent the bottom of the tank 7, there being mounted in the pipe 10 the float controlled valve 11 which regulates the water level.

Also mounted in the pipe 10 is a valve 12 which cuts off the supply of water beyond the float valve 11.

Mounted within both tanks is the main outlet pipe 13 for supplying the water below the rim of the bowl, the same being provided with the valve seat 14 controlled by the main flush valve 15.

Upstanding from the pipe 13 is the pipe 16, whose upper open end is adjacent the water level and acts as an overflow, while in communication with the pipe 16 intermediate of its ends is the rim flush pipe 17. It is of course understood that when the water rises above the upper open end of the pipe 16, which has communicating therewith the pipe 17, the water will flow from the tank through the pipe 17 into the bowl at the top thereof.

Connected to the valve 15 is an operating rod 18, whose upper end is connected to the segmental gear 19 journaled in the upper portion of the tank 8 below the top thereof upon the rod 20.

The rod 21 also connects said segmental gear 19 to the crank 22 of the valve 12. It will thus be seen that the oscillation of the gear 19 to open the valve 15 will close the valve 12, and vice versa.

Mounted in the boxes 23 and 24 is a reciprocatory rod 25 having rack teeth 26 in engagement with the segmental gear 19, the lid engaging end 27 being normally held outward by means of the spring 28, so that when the lid is closed the valve 15 is opened and the valve 12 closed, the opening of the lid and the consequent depression of the rod 25 causing a reverse action of the valves.

The rod 18 also carries a small valve 30 to control the port 31, which acts as a refill opening after the flushing of the bowl.

What I claim as new is;—

A device of this class, including an integral bowl and flush tank, the flush tank having an outlet adjacent the rim of the bowl and also intermediate of the ends of the bowl at the rear thereof, a supply pipe entering said flush tank terminating at a point adjacent the bottom thereof, a float

valve in said pipe, a supply valve also in said pipe, a dispensing pipe in communication with the lower outlet and having a valve at the inner end thereof, a second pipe in communication with said pipe and the rim flush of the bowl, an oscillatory member mounted in the upper portion of the tank and operably connected to the supply valve and the dispensing valve, one of said valves being closed when the other is opened, said oscillatory member being provided with a plurality of teeth, and a spring projected lid actuated rod mounted in the tank and operably connected to said gear.

In testimony whereof I affix my signature.

JOHN H. GALLAGHER.