No. 768,752. PATENTED AUG. 30, 1904.

J. M. JUSTEN.

CLOSET FLUSHING DEVICE.

APPLICATION FILED DEC. 2, 1903.

NO MODEL.

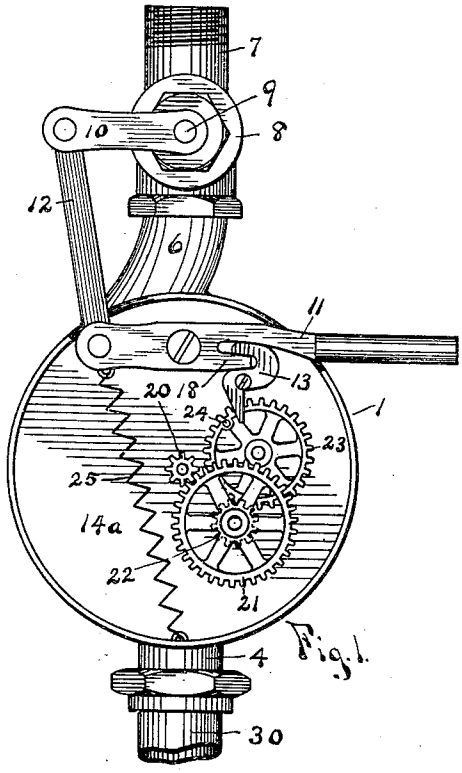

Fig. 1.

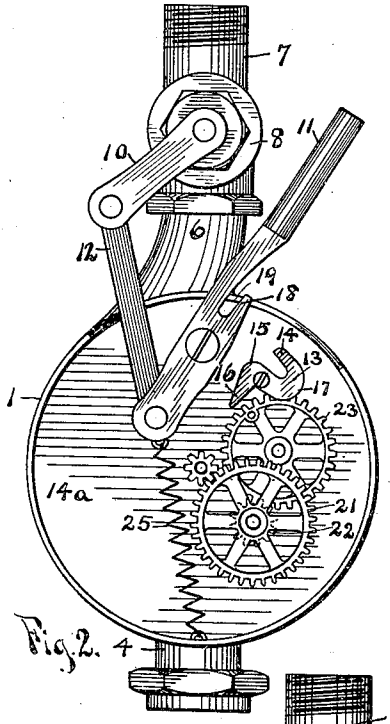

Fig. 2.

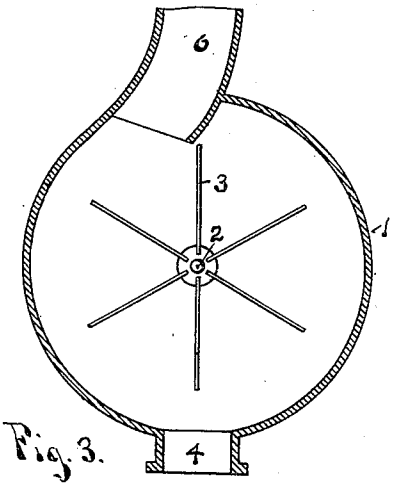

Fig. 3.

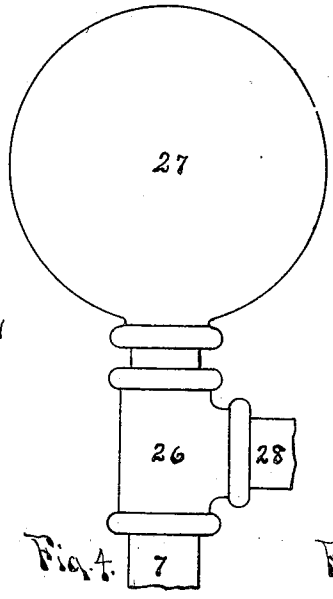

Fig. 4.

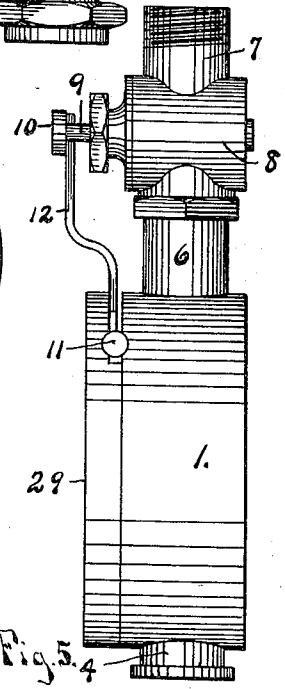

Fig. 5.

Witnesses.

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No. 768,752. Patented August 30, 1904.

UNITED STATES PATENT OFFICE.

JOSEPH M. JUSTEN, OF TOLEDO, OHIO, ASSIGNOR OF TWO-FIFTHS TO JOSEPH MALIKOWSKI, OF TOLEDO, OHIO.

CLOSET FLUSHING DEVICE.

SPECIFICATION forming part of Letters Patent No. 768,752, dated August 30, 1904.

Application filed December 2, 1903. Serial No. 183,474. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH M. JUSTEN, a citizen of the United States, residing at Toledo, in the county of Lucas and State of Ohio, have invented a new and Improved Closet Flushing Device, of which the following is a specification.

My invention relates to closet flushing devices; and the object of my improvement is to provide a simple and efficient construction whereby the usual arrangement of open tank with the lifting-valve will be eliminated and the noise incident to the usual flushing operation and subsequent refilling of the tank will be obviated and to provide a construction whereby the amount of water used at each flushing can be accurately predetermined.

I attain these objects in the construction illustrated in the accompanying drawings, in which—

Figure 1 is a rear view of the closet flushing device when the operating-lever has been pulled down. Fig. 2 is a similar view with the mechanism in inoperative position. Fig. 3 is a cross-section through the case. Fig. 4 is a side view of the air-chamber, and Fig. 5 is a side view of the device.

This mechanism may be attached to the flush-pipe 30 of any water-closet bowl at any desired distance from the bowl. As this connection is well understood, it is not shown.

Referring to the drawings, 1 designates a cylinder or casing having a shaft 2 mounted axially therein and projecting at one end therefrom, and on the shaft within the casing is a paddle-wheel 3. Leading from the casing is a pipe 4, which is connected to the flush-pipe 30 of the closet, the said pipe 4 being vertical. Disposed in somewhat tangential alinement to the cylinder 1 is an inlet-pipe 6, with which is connected a supply-pipe 7, having a rotatable valve 8, provided with an extending spindle 9. Attached to the spindle is an arm 10, and to this is connected a link 12, which connects it to the lever 11. A latch 13 is pivoted to the wall 14^a of the case 1 and is provided with the hook 14, the shoulder 15, the arm 16, and weight 17. When the latch is free, it assumes the position shown in Fig. 2. When the lever 11 is pulled down, the finger 18 of the lever will press down on the shoulder 15 of the latch, turning the same until the hook 14 enters the slot 19 of the lever, holding it in the position shown in Fig. 1. On the outer end of the shaft 2 is secured the pinion 20, which meshes with the gear 21, which, together with the pinion 22, (shown in dotted lines in Figs. 1 and 2,) turns on a pin secured to the face 14^a. The gear 23 meshes with the pinion 22 and has secured to it a pin or striker 24, which travels in the path of the arm 16 of the latch.

When the lever is pulled down to the position shown in Fig. 1, the valve 8 is opened and the water rushes down through the casing, turning the paddle-wheel, and with it the shaft 2, and through the shaft the gears. When the gear 23 has made one revolution, the pin 24 will contact with the arm 16 of the latch and, swinging the same, release the lever 11, which is returned to its original position through the action of the spring 25, the valve 8 being closed by this movement of the lever. This closing is sudden and without noise. The size of the valve-opening and the ratio of the gearing must be determined by the water-pressure. Should it be found necessary on account of water-hammer due to high pressure, the T-fitting 26 may be attached to the pipe 7 and to it attached the air-chamber 27. The pipe 28 will connect to the water system, as usual. The cover 29 will be placed over the lever 11 and the gears to keep out the dust.

It will be understood in practice that the cylinder or casing may be located at any desired distance above the closet-bowl or connected directly thereto and that modifications in the construction of the parts may be resorted to, if found desirable or necessary, without departing from the scope of the invention.

Having now explained my improvement, what I claim as my invention, and desire to secure by Letters Patent, is—

1. In a closet flushing device, the combination with a closed casing having an inlet and an outlet opening, a valve in the inlet-pipe, a lever connected to said valve having a projec-

tion on one side, a pivoted latch having a shoulder arranged in the path of said projection so that said projection may turn said latch to a position to engage said projection to hold the lever and thereby hold the valve open, a train of gears driven by the flushing-water, a striker on the train operating to trip said latch, and means to operate said lever after said latch has been tripped.

2. In a closet flushing device, the combination with a closed casing having an inlet and an outlet opening, a valve in the inlet-pipe, a lever for said valve, a second lever having a projecting finger, a link connecting the levers, a pivoted latch in the path of said second lever having a shoulder to be engaged by said finger to turn said latch and a hook to engage said finger to lock said lever to hold said valve open upon the turning of said latch, a train of gears driven by the flushing-water, a striker on the train operating to trip said latch, and a spring to operate said levers and close said valve after said latch has been tripped.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOSEPH M. JUSTEN.

Witnesses:

B. J. DALKOWSKI,

FRANK L. GASIOROWSKI.