

No. 708,890.

Patented Sept. 9, 1902.

J. M. JUSTEN.
CLOSET FLUSHING DEVICE.

(Application filed Jan. 18, 1901.)

(No Model.)

2 Sheets—Sheet 1.

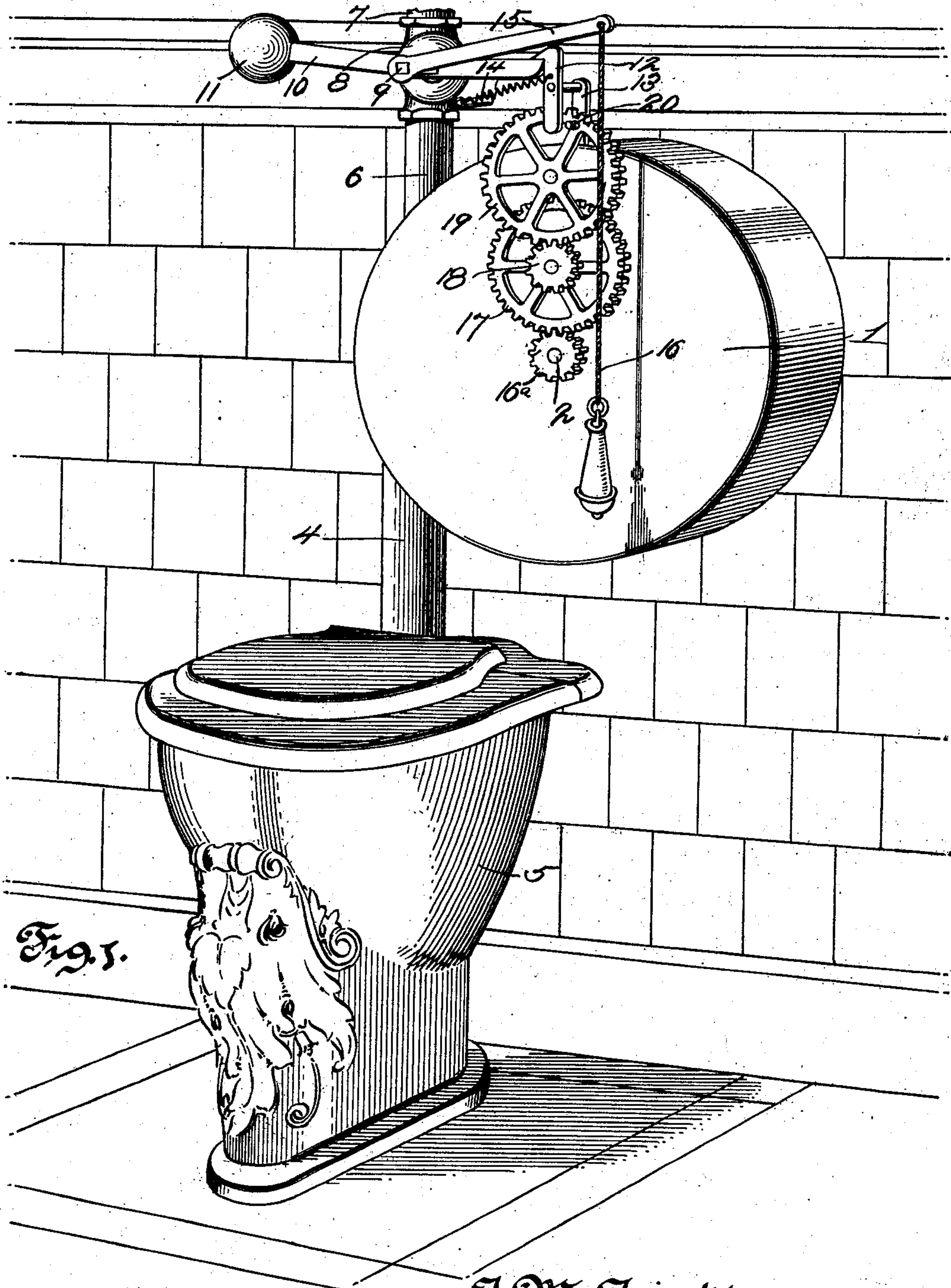


Fig. 1.

Witnesses
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No. 708,890.

Patented Sept. 9, 1902.

J. M. JUSTEN.
CLOSET FLUSHING DEVICE.

(Application filed Jan. 16, 1901.)

(No Model.)

2 Sheets—Sheet 2.

Fig. 2.

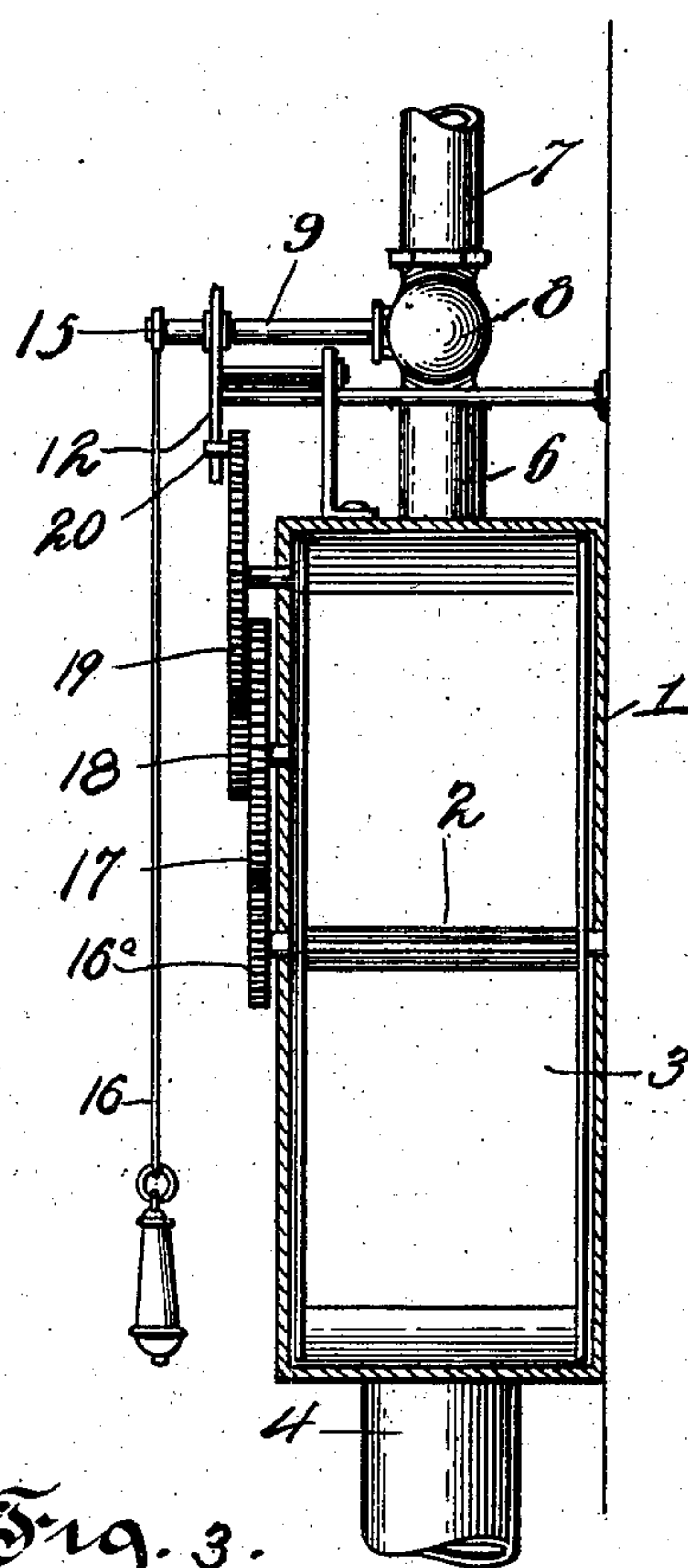
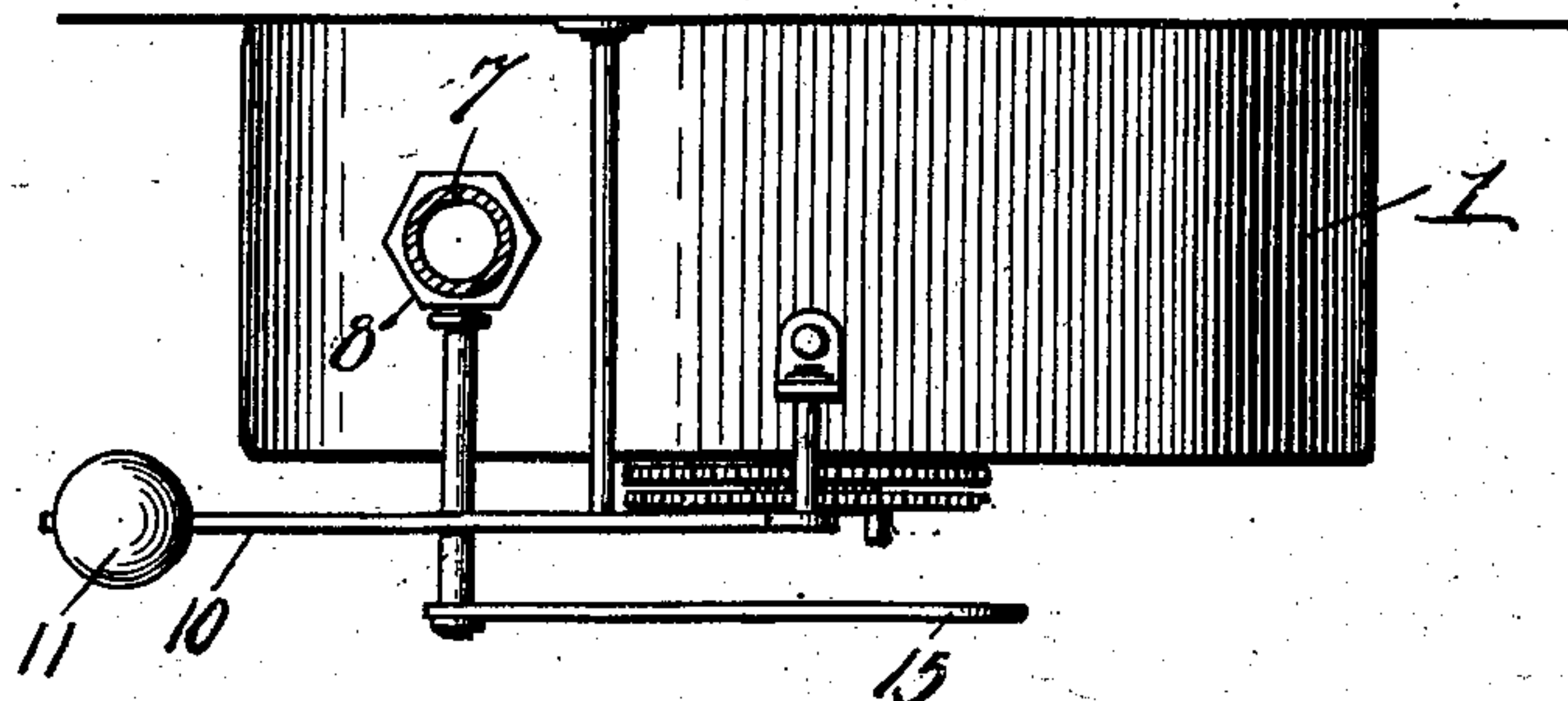


Fig. 3.

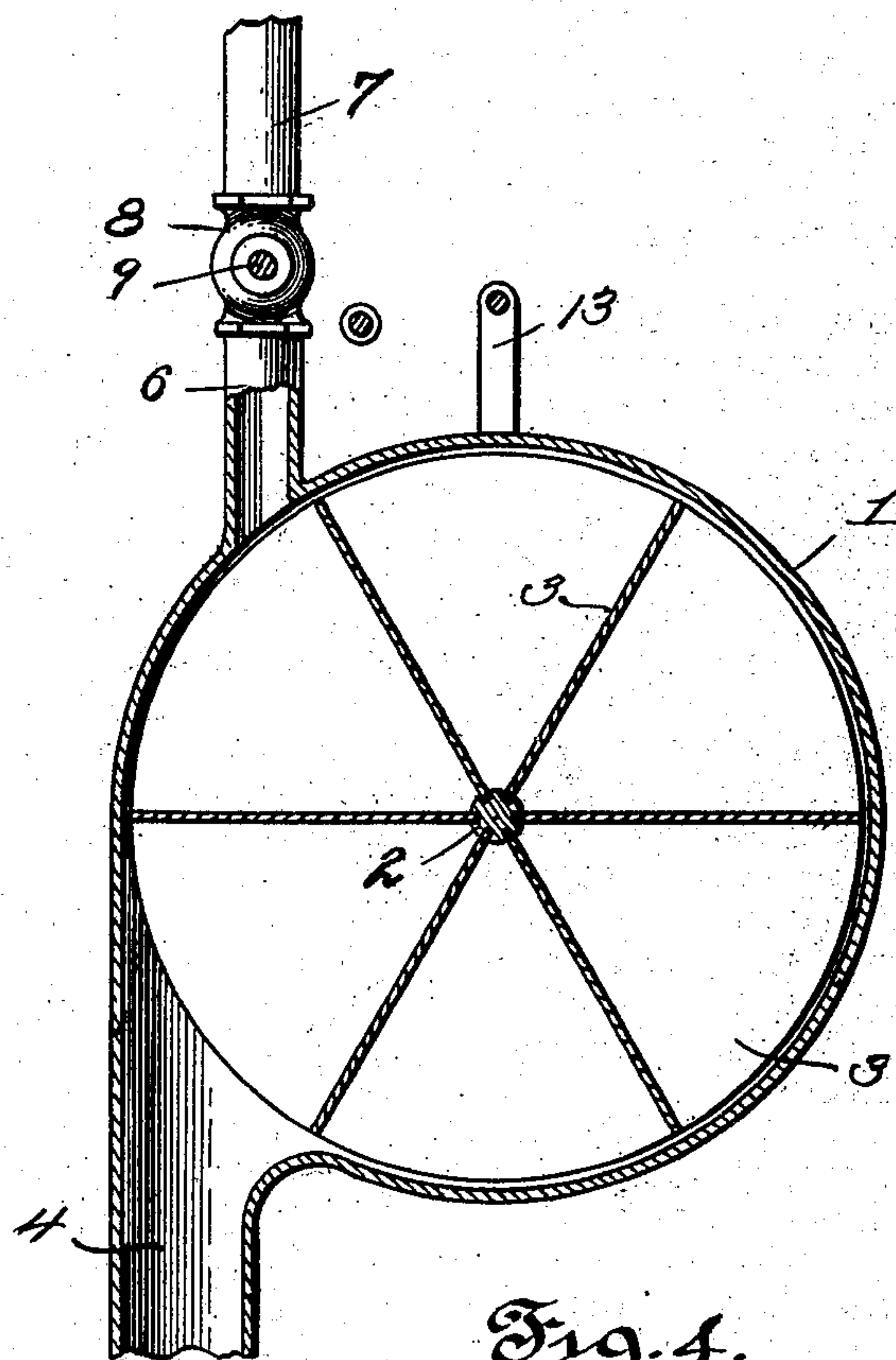


Fig. 4.

Witnesses

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UNITED STATES PATENT OFFICE.

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CLOSET-FLUSHING DEVICE.

SPECIFICATION forming part of Letters Patent No. 708,890, dated September 9, 1902.

Application filed January 16, 1901. Serial No. 43,518. (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
5 invented a new and useful Closet-Flushing Device, of which the following is a specification.

This invention relates to devices for flushing closets.

10 The object of the invention is to provide a simple and efficient construction wherein the usual arrangement of open tank with the lifting-valve will be eliminated and the noise incident to the usual flushing operation and
15 subsequent refilling of the tank will be obviated.

With these and other objects in view, as will appear as the nature of the invention is better understood, the same consists in the
20 novel construction and combination of parts of a closet-flushing device, as will be hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which like
25 numerals of reference indicate corresponding parts, there is illustrated one form of embodiment of the invention capable of carrying the same into practical operation, it being understood that the elements therein exhibited may
30 be varied or changed as to shape, proportion, and exact manner of assemblage without departing from the spirit thereof, and in these drawings—

Figure 1 is a view in perspective, exhibiting
35 the application of the invention to a closet. Fig. 2 is a top plan view of the cylinder and parts carried thereby. Fig. 3 is a section taken axially through the cylinder. Fig. 4 is a section taken at right angles to Fig. 3.

40 Referring to the drawings, 1 designates a cylinder or casing having a shaft 2 mounted axially thereof and projecting at one end therefrom, and on the shaft within the casing is a paddle-wheel 3. Leading from one side
45 of the casing and substantially at a tangent thereto is a flush-pipe 4, which is connected to the bowl of the closet 5, the said pipe being vertical, and disposed in vertical alignment therewith is an inlet-pipe 6, with which
50 is connected a supply-pipe 7, having a rotatable

ble regulating-valve 8, provided with a forwardly-extending spindle 9. Attached to the spindle 9 is a lever 10, which at one end is provided with a counterbalancing-weight 11 and at the other end beyond the spindle is
55 adapted for engagement with a latch 12 to hold the weight raised and the valve open. The latch 12 is pivoted upon a support 13, carried by the casing 1, and has a spring 14 connected therewith which holds it normally
60 and yieldingly in engaging position. The upper end of the latch is beveled, so that when the valve is opened the end of the lever 10 may strike the bevel and push the latch rearwardly to pass into engagement there-
65 with. To effect movement of the lever into engagement with the latch, an arm 15 is provided, which is secured to the spindle of the valve and has a pull-cord 16 attached thereto. To move the latch to release the lever 10 to
70 permit the valve to close, a train of gearing is provided, which includes a pinion 16^a, carried by the protruding end of the shaft 2, with which meshes a gear 17, carrying a pinion 18, that meshes with a second gear 19,
75 and by this arrangement it will be seen that as the paddle-wheel 3 is rotated at a high rate of speed the gear 19 will be rotated at a much lower rate of speed. When the supply-valve is open, the water from the inlet-pipe strikes
80 the wheel and rotates it, and the latter through the intermediate gearing rotates the gear 19. Connected with this gear is a striking-pin 20, in the path of movement of which the lower end of the latch 12 normally lies.
85

Under the arrangement shown it will be seen that if the pin 20 be at the opposite side of the latch from that shown in Fig. 1 and the weight be in lowered position with the valve closed the pull-cord 16 may be oper-
90 ated to open the valve and engage the lever or arm 10 with the latch. The inrunning water then rotates the paddle-wheel, and the water from its blades passes into the flush-pipe and thence to the bowl. As the paddle-
95 wheel continues to rotate the striking-pin is finally moved into engagement with the latch and trips it, thus releasing the lever 10 and permitting the valve automatically to close, the closing being sudden and without noise.
100

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

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination with a closed casing having an inlet and an exhaust in substantially vertical alinement, of a flat-winged wheel disposed in the path of the inlet, a train of gearing arranged externally of and parallel with the casing and actuated from the said wheel, a valve in the inlet-pipe, a lever con-

nected with the valve and having at one end a weight to hold the valve normally closed and at the opposite end a nose, a pivoted spring-drawn latch having a toe arranged in the path of movement of the said nose and operating to hold the valve open, a striker on one of the train of gears and operating to trip the latch, and means for operating the lever to open the valve and bring the lever into engagement with the latch.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOSEPH M. JUSTEN.

Witnesses:

J. W. LYONS,
J. W. LANE.