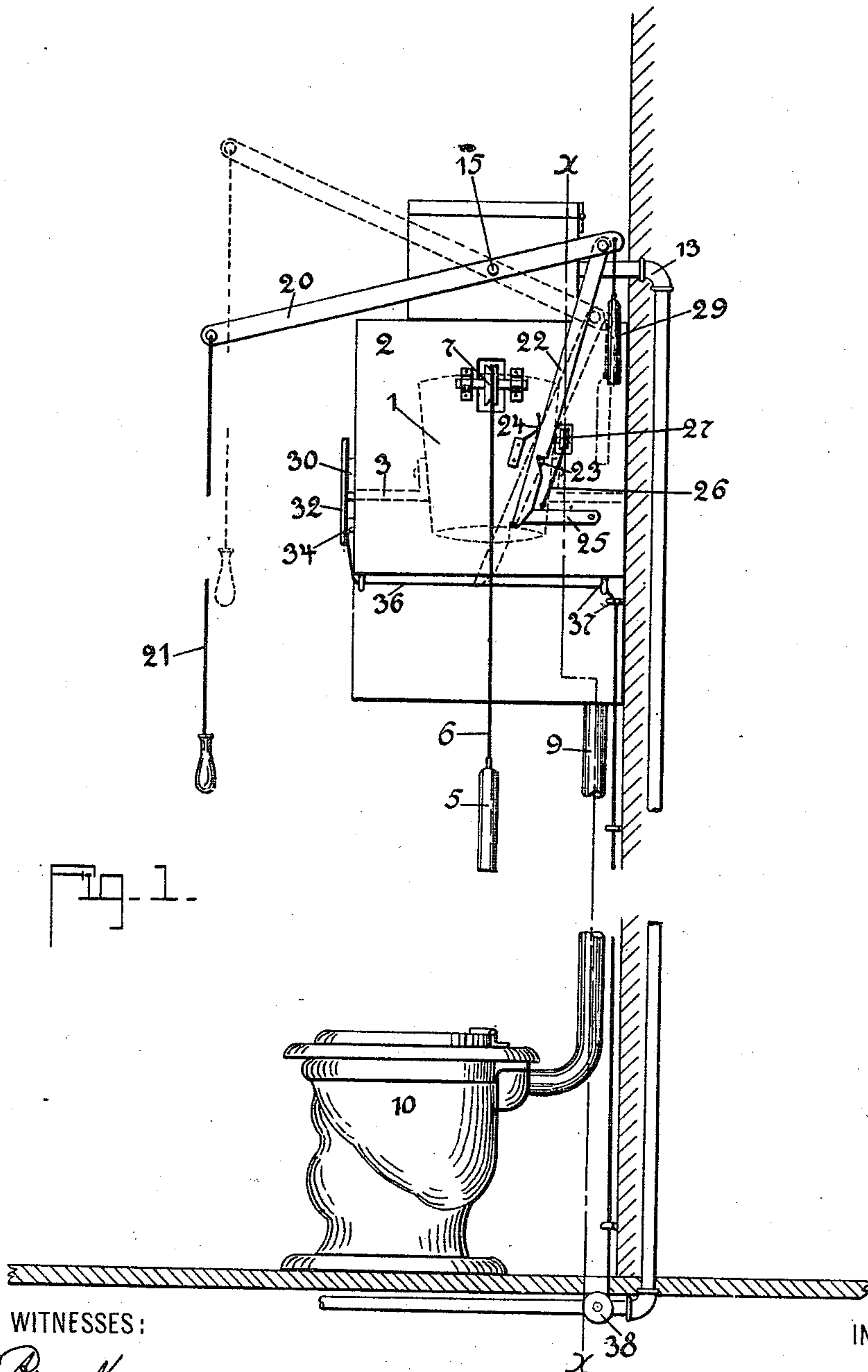


T. H. PARKER.
CLOSET FLUSHING MECHANISM.
APPLICATION FILED SEPT. 21, 1910.

995,555.

Patented June 20, 1911.

2 SHEETS—SHEET 1.



WITNESSES:

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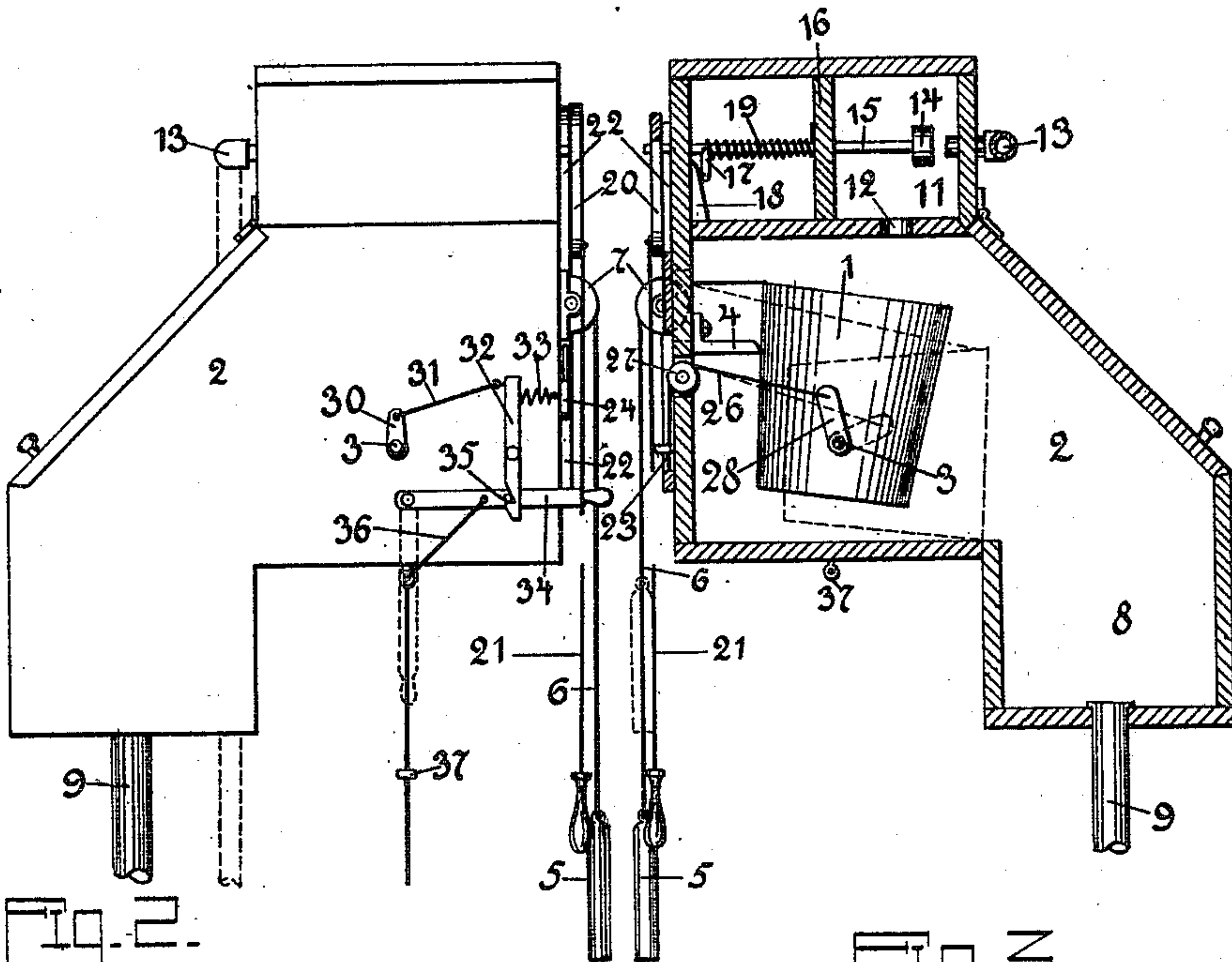
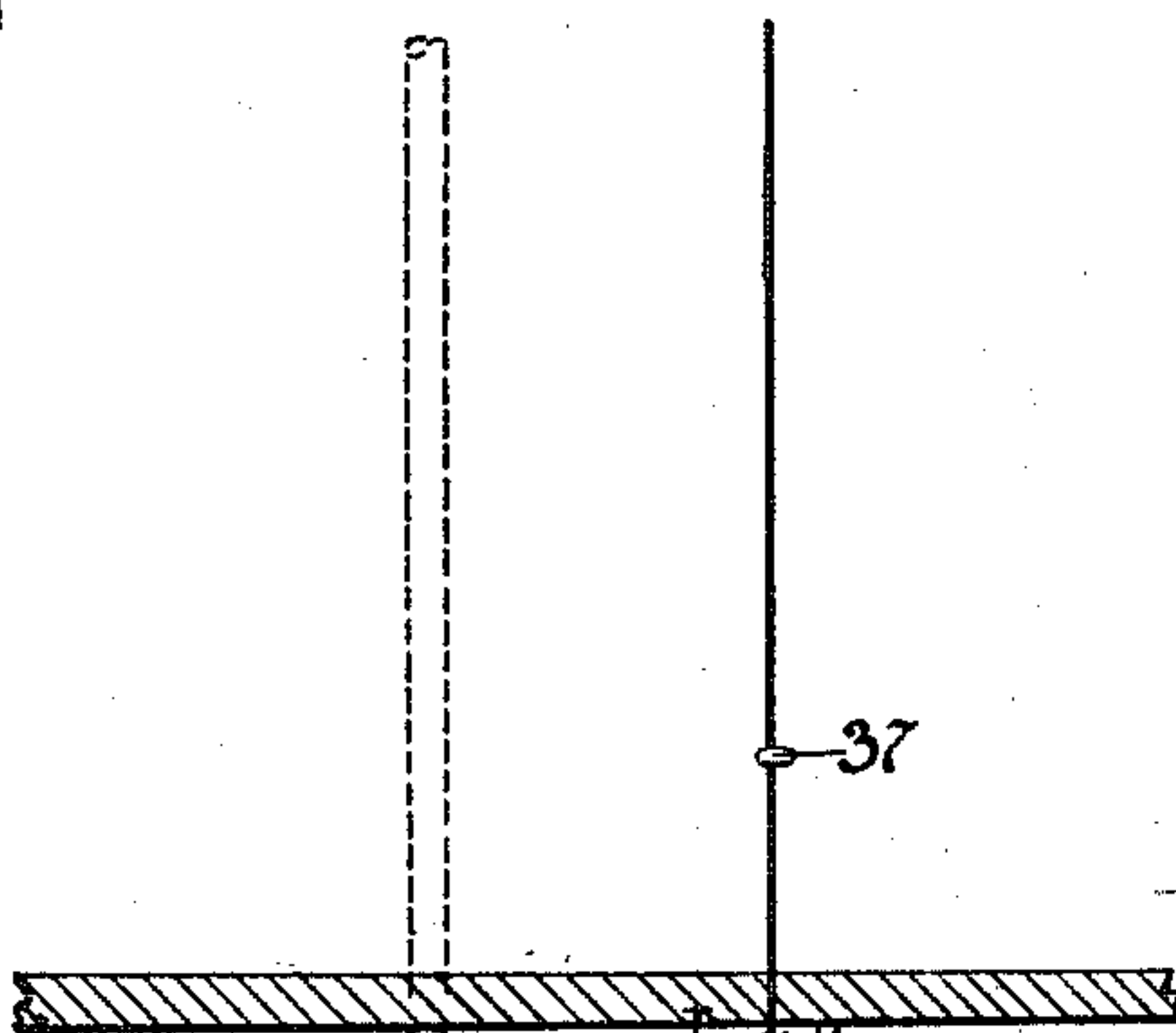


Fig. 2.

Fig. 3.

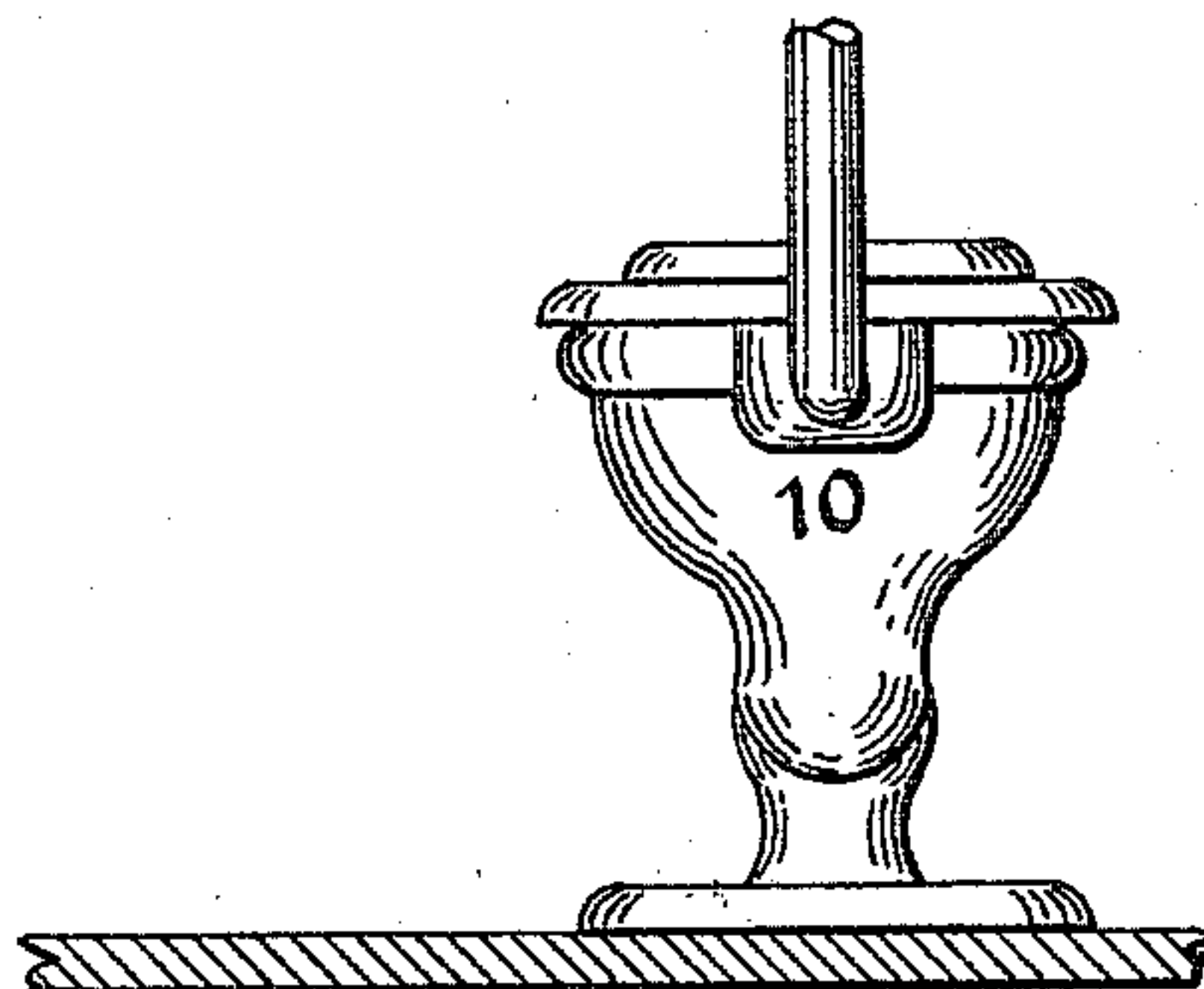


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UNITED STATES PATENT OFFICE.

THOMAS H. PARKER, OF DALLAS, TEXAS.

CLOSET-FLUSHING MECHANISM.

995,555.

Specification of Letters Patent. Patented June 20, 1911.

Application filed September 21, 1910. Serial No. 583,004.

To all whom it may concern:

Be it known that I, THOMAS H. PARKER, a citizen of the United States, residing at Dallas, in the county of Dallas and State of Texas, have invented certain new and useful Improvements in Closet-Flushing Mechanisms, of which the following is a specification.

My invention relates to new and useful improvements in closet flushing mechanisms.

In devices of this character now in use the water reservoir employed is constantly full except immediately after the closet has been flushed. This is objectionable in cold weather, since the water thus allowed to stand is apt to freeze, causing the reservoir to burst.

It is therefore the object of the present invention to provide a closet flushing mechanism in which the reservoir will not remain constantly full of water, it being filled immediately before the closet is flushed, and the water inlet being closed automatically during the flushing.

A further object of the invention is to provide a device of the character described that will be strong, durable, simple and efficient, and comparatively easy to construct, and also one the various parts of which will not be likely to get out of working order.

With these and various other objects in view, my invention has relation to certain novel features of construction and operation, an example of which is described in the following specification and illustrated in the accompanying drawings, wherein:

Figure 1 is a side elevation of the herein described invention mounted upon a wall and showing the connections from the water reservoir to a closet. In this view the full lines indicate the parts of the mechanism in the positions which they will occupy when the water inlet valve is open, and the same parts are indicated in dotted lines in the positions which they will occupy when said valve is closed. Fig. 2 is a front view of the same, the connections to the closet being omitted. Fig. 3 is a vertical sectional view taken on the line $x-x$ of Fig. 1, full lines being employed to indicate parts of the

mechanism in their normal position, and the same parts being indicated in dotted lines in the positions which they occupy when the closet is being flushed.

Referring now more particularly to the drawings wherein like numerals of reference designate similar parts in all the figures, the numeral 1 denotes a vessel pivotally mounted within a casing 2 upon rocker arms 3 extending laterally from each side of the vessel, and journaled in the sides of the casing 2.

In its normal position the vessel 1 is slightly inclined from the vertical, a bracket 4 being mounted upon the casing to hold the vessel at the desired inclination. A further means is provided to maintain the vessel at this inclination consisting of a weight 5 suspended from a cord 6 exterior to the casing, said cord passing over a sheave 7 through the wall of the casing and attaching to the rim of the vessel 1 above the bracket 4. The weight 5 is sufficient to hold the vessel 1 in its normal position until said vessel is almost full of water. The weight of the water will then cause the vessel to turn over upon its pivotal supports occupying the position illustrated by the dotted lines, and discharging its contents into a reservoir 8. From this reservoir the water will escape through a pipe 9 to the closet 10.

A water inlet chamber 11 is provided in the upper portion of the casing 2, said chamber being provided with a discharge outlet 12 directly above the vessel 1. A water pipe 13 discharges into the chamber 11, said pipe having connection with the city mains. The outlet of this pipe is normally closed by a valve 14 carried upon one extremity of a rod 15. The other extremity of said rod is mounted in one of the casing walls, and the partition 16 furnishes a further support for said rod. The rod is provided with a projecting pin 17, the extremity of which contacts with a vertically inclined surface 18. A spring 19 coiled upon the rod 15 serves to hold the pin 17 in constant contact with the surface 18. When the valve 14 is open, as shown in Fig. 3, the pin 17 will bear against the upper portion of the surface 18, but

when the rod 15 is rotated through a sufficient angle to move the extremity of the pin 17 to the lower portion of the surface 18, it is obvious that said rod will be displaced forwardly, bringing the valve 14 into contact with the discharge outlet and closing the latter.

Upon the exterior of the casing a lever 20 is mounted fast upon the extremity of the rod 15. When this lever is in the position indicated by the dotted lines in Fig. 1, the pin 17 carried by the rod 15 will be deflected downwardly contacting with the lower portion of the inclined surface 18, and holding the valve 14 closed. When it is desired to flush the closet, the lever 20 will be made to assume the position shown in the full lines in Fig. 1, a cord 21 being attached to one extremity of said lever in order that the lever may be readily manipulated. When the long arm of the lever 20 is drawn down, causing the valve 14 to open, the lever is temporarily held in this position by a latch arm 22 pivoted upon the extremity of the shorter lever arm and adapted to catch upon a pin 23, when the shorter lever arm is elevated. A spring 24 acts upon the latch member 22 in order to insure the entrance of the pin 23 into the latch aperture of the arm 22. The lower extremity of the latch arm 22 is beveled and when said arm is in its raised position, this extremity contacts with the beveled extremity of a pivoted arm 25. This arm occupies a horizontal position when the arm 22 is raised and the valve 14 is open. A cord 26, secured to the extremity of the arm 25, passes over a small pulley 27 mounted in the wall of the casing, and has its other extremity attached to an arm 28 rigid upon one of the rocker arms 3. A weight 29 is suspended from the extremity of the short arm of the lever 20. This weight causes the lever 20 to return to its position indicated in dotted lines, when the latch arm 22 is released from the pin 23. The manner of releasing this latch arm will be specifically described hereinafter. Upon the other rocker arm 3 there is rigidly mounted a small arm 30 on the exterior of the casing and normally occupying a vertical position. The extremity of this latter arm is connected by a cord 31 with the upper extremity of a centrally pivoted latch arm 32, which also normally occupies a vertical position. A coiled spring 33 tends to hold the latch arm 32 upright. A lever 34 is mounted adjacent to the latch arm 32 and is provided with a projecting pin 35, which is adapted to engage in the latch aperture of said arm 32 when in its normal horizontal position. A cord 36 is secured to the lever 34 adjacent to the pin 35 said cord passing through eye screws 37 under the casing 2 and down the wall upon which the casing is mounted. The cord 36 finally has

its extremity attached to the rim of a small sheave 38 rigidly mounted upon a valve rod 39. The rod 39 operates a valve 40 and a spring 41 coiled upon said rod tends to normally hold the same closed.

In the operation of the invention when it is desired to flush the closet 10 the lever arms 20 and 34 are both manually changed from the positions shown in the dotted lines in Figs. 1 and 2 to the positions shown in the full lines. This causes both the valves 14 and 40 to be opened, and permits water to be discharged into the inlet chamber 11. From this chamber the water will flow out through the aperture 12 into the vessel 1. When the vessel 1 is full, the weight of the water will cause it to turn over discharging into the reservoir 8 after which the weight 5 will cause it to return to its normal position. When the vessel 1 turns over, the arm 28 and the cord 36 will act together to swing the arm 25 upon its pivotal support. This motion of the arm 25 will force the latch arm 22 outwardly causing the pin 23 to be released from the latch aperture and permitting the lever 20 to undergo an angular deflection due to the weight 29, the arm 22 being simultaneously lowered and the valve 14 being closed. As the vessel 1 turns over, the arm 30 is deflected similarly to the arm 28. This causes the latch lever 32 to swing about its support and release the pivoted lever 35. This lever then resumes a vertical position as indicated by dotted line in Fig. 2, and the valve 40 is instantly closed, due to the action of the spring 41 upon the valve rod 39. When the vessel 1 returns to its normal upright position, the coiled spring 33 will cause the latch lever 32 to again become vertical. It is thus apparent that the pipe 13 is normally closed at two separate points completely preventing the escape of any water from said pipe. The advantage of this is that in case the water in the pipe 13 should freeze, causing said pipe to burst at any point above the floor, the amount of water escaping from said pipe would not be greater than that contained therein above the floor, since the closed valve 40 would prevent further flow. If desired, however, the valve 40 might be disconnected and its accompanying mechanism might be dispensed with using only the valve 14 with its mechanism, or vice versa. These two arrangements for closing the pipe 13 may be considered as modifications of the same invention.

What I claim is:

In a device of the character described, the combination with a pivotally mounted vessel, of a casing within which the same is mounted, having a reservoir in its lower portion provided with a discharge outlet, means by which the vessel is deflected slightly from the vertical in its normal position

tion, means adapted to counterbalance the weight of the vessel and its contents until the vessel is almost full, a pipe adapted to discharge into said vessel, a valve adapted
5 to close the outlet of said pipe, means by which said valve is caused to open or close when rotated through a certain angle, a latch tending to hold said lever fixed when the valve is open, means by which said latch
10 is released when the vessel discharges, and

means acting upon the lever causing it to close the valve when the latch is released.

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

THOMAS H. PARKER.

Witnesses:

J. S. MURRAY,
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
