(No Model.)

2 Sheets—Sheet 1.

# M. MORELL.

## WATER CLOSET.

No. 575,930.

Patented Jan. 26, 1897.

Fig. 2,

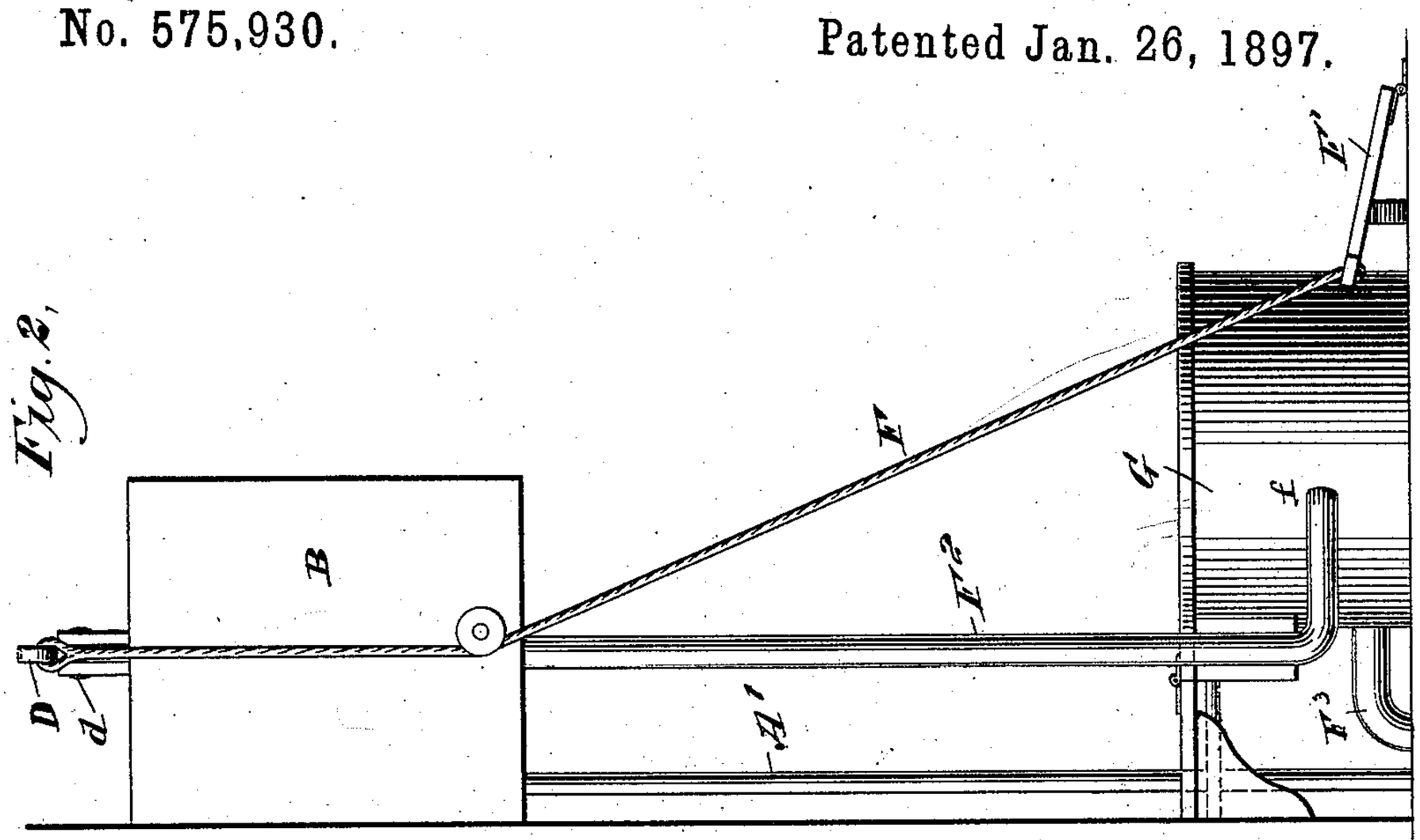
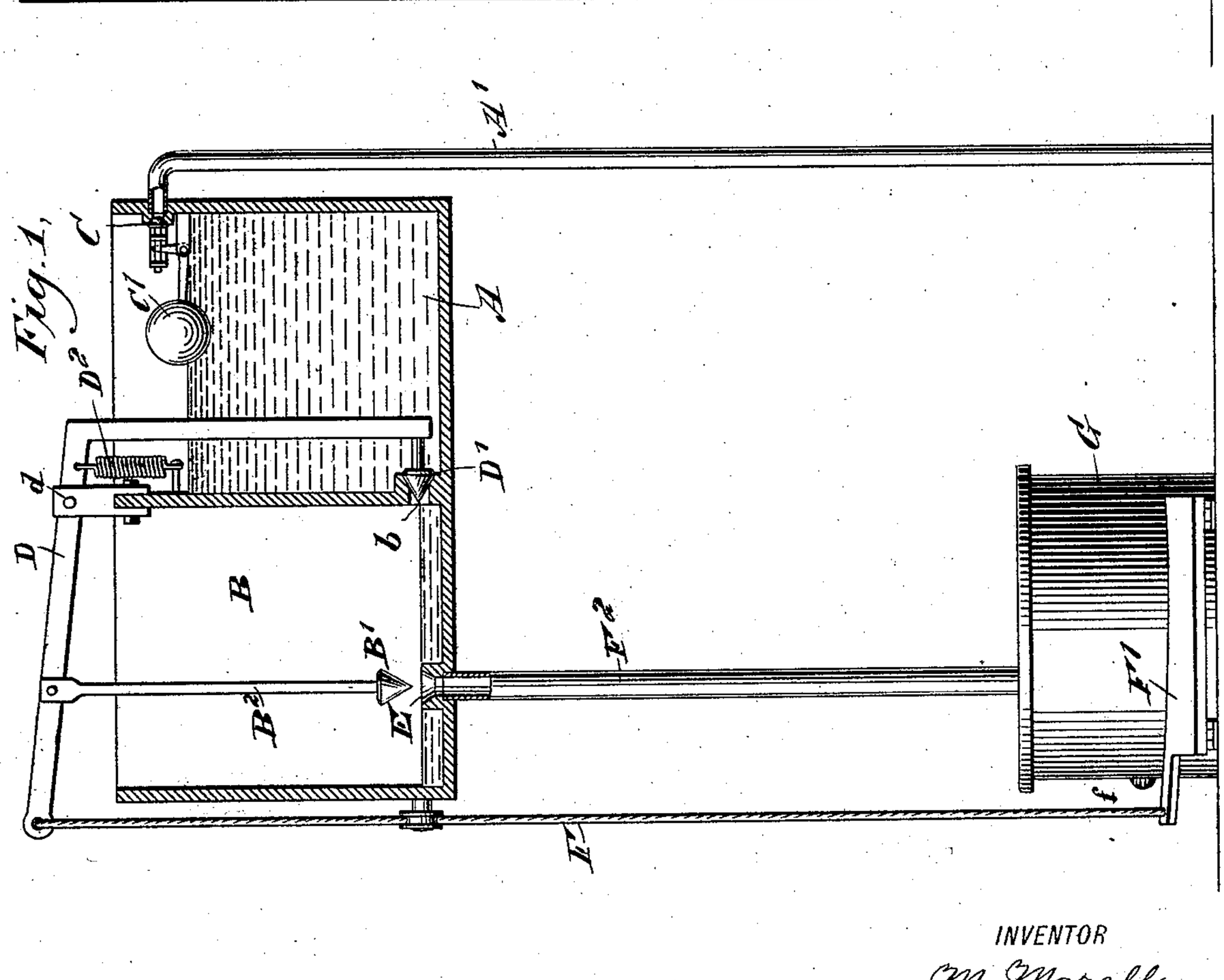



Fig. 1,

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BY

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ATTORNEYS.

WITNESSES:

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H. L. Reynolds.

(No Model.) 2 Sheets—Sheet 2.

# M. MORELL.

## WATER CLOSET.

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Fig. 5.

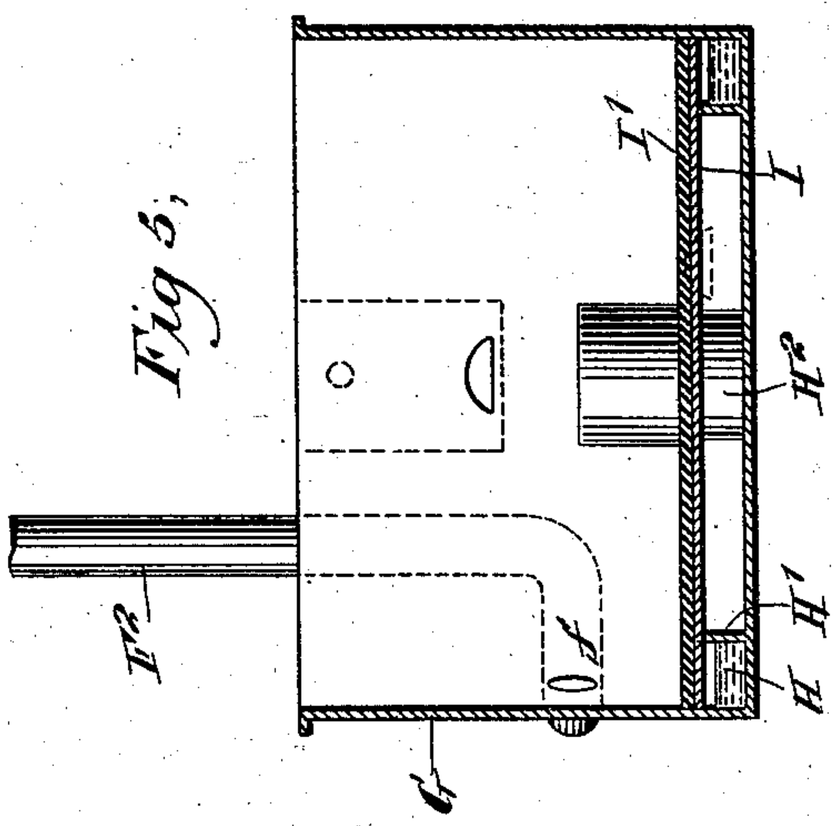



Fig. 6.

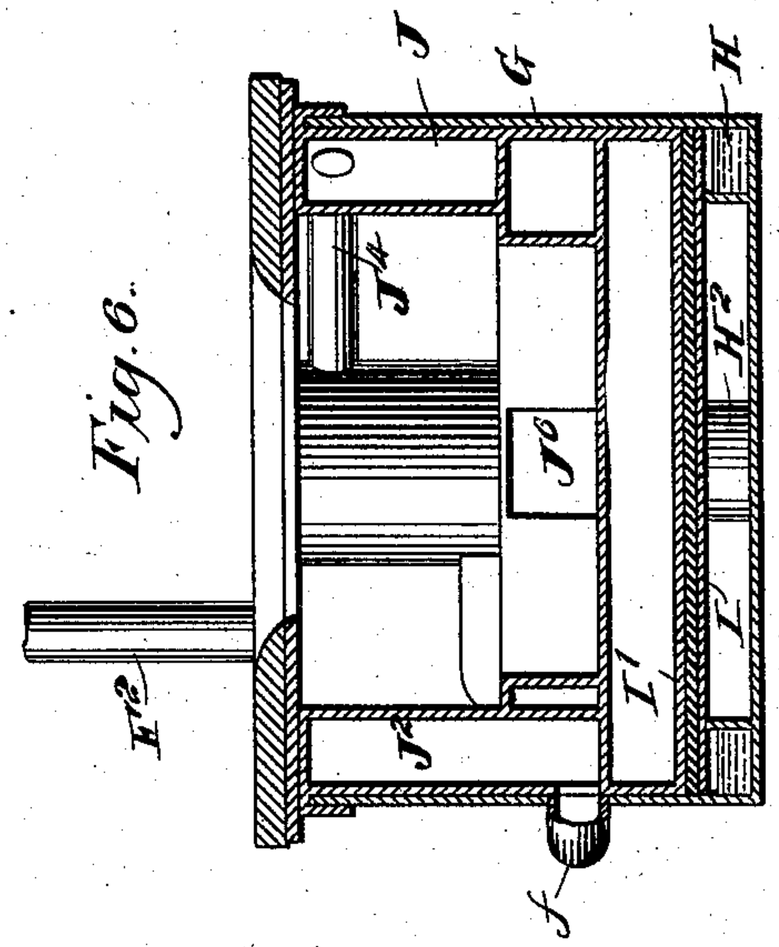



Fig. 3.

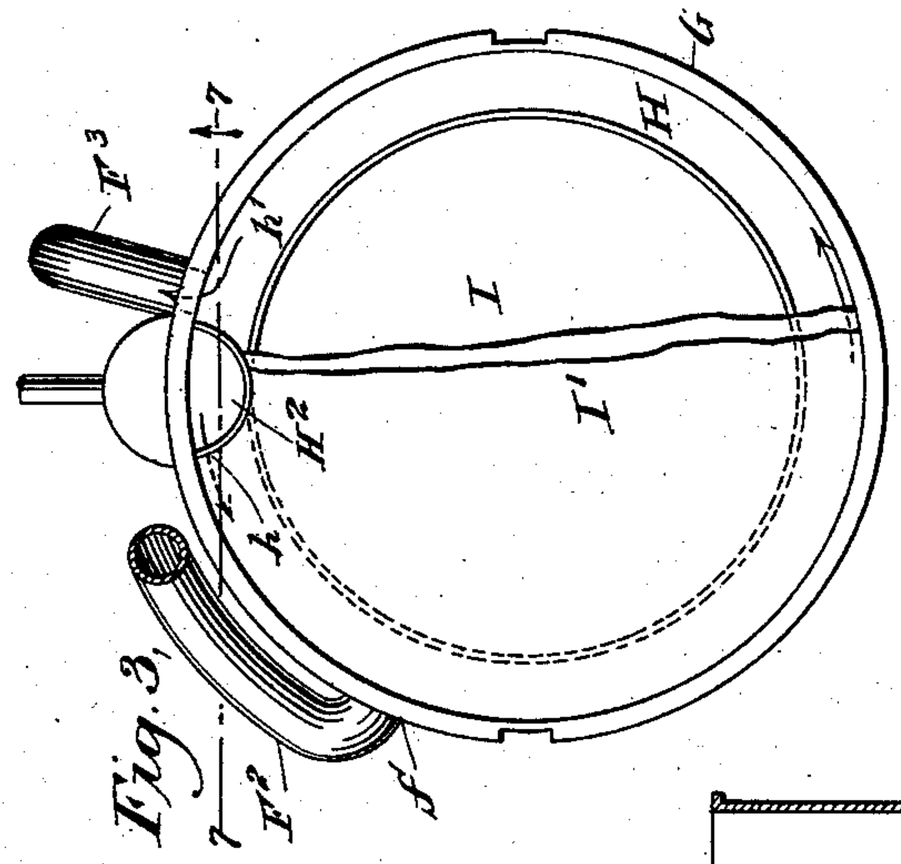



Fig. 4.

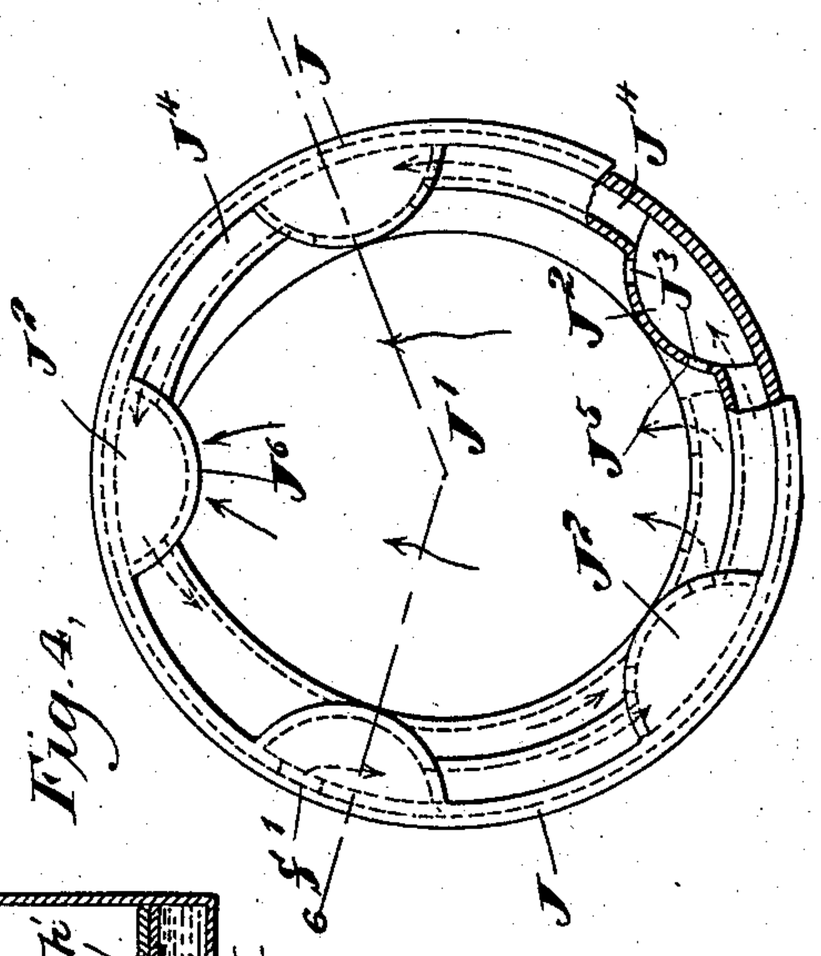
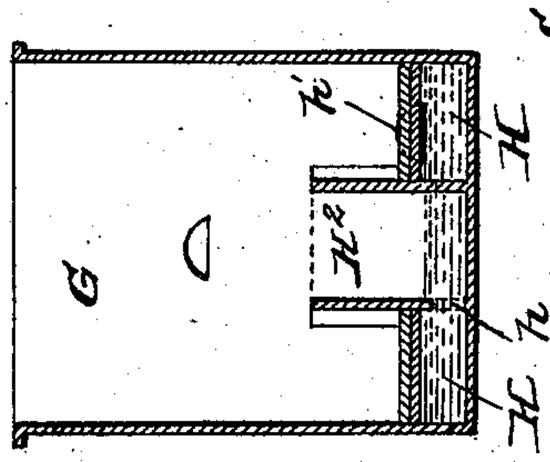



Fig. 7.




WITNESSES:

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H. L. Reynolds

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M. Morell
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Munn & Co
ATTORNEYS.

# UNITED STATES PATENT OFFICE.

MIGUEL MORELL, OF SANTA BARBARA, CALIFORNIA.

## WATER-CLOSET.

SPECIFICATION forming part of Letters Patent No. 575,930, dated January 26, 1897.

Application filed September 17, 1896. Serial No. 606,084. (No model.)

*To all whom it may concern:*

Be it known that I, MIGUEL MORELL, of Santa Barbara, in the county of Santa Barbara and State of California, have invented a new and Improved Water-Closet, of which the following is a full, clear, and exact description.

My invention relates to an improvement in water-closets of that type which are operated automatically.

It consists in certain details of construction, which will be more fully pointed out in the following specification.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a front elevation with the flushing-tanks in section. Fig. 2 is a side elevation. Fig. 3 is a top plan view of the outer casing with packing-sheets broken away. Fig. 4 is a top plan view of the inner casing, a portion at one side being broken away to more clearly show the inner water-passage. Fig. 5 is a vertical section through the outer casing, and Fig. 6 is a vertical section through both the outer and the inner casing on the line 6 6 of Fig. 4. Fig. 7 is a section taken on line 7 7 of Fig. 3.

The object of my invention is to furnish a closet which may be automatic in its action and with the parts so constructed that they may be readily taken out for examination and cleaning, if necessary. With this object in view I have made the seat portion with an outer and an inner casing, the inner portion being removable from the outer. When the same is removed, the discharge-passages are open, so that they may be easily accessible.

In Figs. 1 and 2 the flushing device is shown. I use two tanks A and B, placed side by side and elevated above the closet. The tank A is connected to the water-supply pipe A′, and at the point where it is connected to the same an automatic water-supply valve C is attached. This is operated by a float C′, which will close the valve when the water has reached a certain level and open the same when it has fallen below this level. The construction of this valve is that of any valve commonly used for this purpose, and as its particular construction forms no part of my invention I have not herein shown or described it in detail. Any of the valves used for such purpose and operated by a float may be used.

The secondary tank B is connected to the first tank A by a passage *b* at the bottom thereof. This is normally closed by a valve D′, which is fixed upon one end of a bell-crank lever D. This lever D is pivoted upon the upper edge of the tank at *d*, and it has a spring $D^2$ connected thereto and holding the lever in position to keep the valve D′ closed. Upon the opposite side of the pivot *d* is connected the valve B′ by a stem $B^2$. This valve is arranged over the discharge-opening E in the bottom of the secondary tank B, and so that when the lever D is moved to open the valve D′ it at the same time closes the valve-opening E by forcing the valve B′ upon the same. The outer end of the lever D is connected by a cord or chain F with an arm upon the pivoted plate F′, which is placed just in front of the closet-seat and adapted to be trod upon by the occupant and thereby depressed. When the lever D is thrown up by the action of the spring $D^2$ upon the release of the pressure upon the plate F′, the discharge-valve E is opened and the inlet-valve D′, connecting the two tanks, is closed. This will discharge the contents of the tank B through the flush-pipe $F^2$. The automatic valve C will refill the tank A and the contents thereof will be prevented from running into the tank B by the closing of the valve D′. The tank A is thus kept constantly filled with water and the tank B normally empty. The water used for flushing purposes each time is the water which has flowed into the tank B while the closet is occupied.

The closet itself consists of two casings, the outer one G being made in the shape of a cylinder closed at the lower end. The flush-pipe $F^2$ is connected to one side of this, as shown at *f;* but said pipe does not extend within the outer casing of the cylinder G. Around the bottom of this casing G extends a circular channel H, formed by the upwardly-projecting ring H′, and on one side of the casing this ring is interrupted by the well $H^2$, which is semicircular in shape and open at the top. It is connected at the bottom by a

passage or opening at *h* with the circular passage H, and the other end of the passage H is connected to the discharge-pipe, as shown at *h'*. The arrows at these points *h h'* indicate the direction of the flow. The discharge-pipe $F^3$ is conveyed away in any usual manner; but the connection of the same to the passage H should be slightly above the bottom thereof, so that the passage H may be kept partially full of water at all times to act as a seal. For the same reason the connection *h* between the well $H^2$ and the circular passage should be at the bottom of the said passage and well. This is clearly shown in Fig. 7. The water in the circular passage H should at all times be sufficient to cover the opening *h* between the passage and the well.

Immediately over the passage H is placed a sheet of zinc I. This is shown partially broken away in Fig. 3 and in section in Figs. 5 and 6. This serves as a cover to the passage H. Immediately over this plate I and in contact therewith is placed a sheet I' of rubber or other suitable packing material. These sheets should be made a close and tight fit, so that there will be no leakage of either water or gases by them. Placed within the casing G is the inner casing, which contains the water-passages and flushing devices. This consists of a circular-shaped basin or pan J, which fits closely within the outer casing and in its center has a receiving-pan J'. This is surrounded by a series of inclosed chambers $J^2$, which are provided with jet-orifices $J^3$. These chambers are connected by a passage $J^4$, which passes entirely around the basin, and this passage is connected at the point *f'* to the flushing-pipe $F^2$, the connection being made by simply placing the opening to which the flushing-pipe $F^2$ is connected and the opening *f'* in the inner casing opposite each other. The inner casing J is made a close fit inside the outer casing, so that there will be no perceptible leakage by the same when the two openings are placed so as to register with each other.

The passage $J^4$, after passing entirely about the basin, extends a little farther toward the front edge thereof and has openings $J^5$ leading into the bottom of the basin J'. The discharge-opening is from the bottom of the basin at the rear, as indicated by $J^6$, the arrows indicating the direction of the discharge. The discharge-opening in the inner casing J is placed directly over the well $H^2$ in the outer casing, and the discharge is directly into the same. It will thus be seen that the construction of my closet is such that the inner casing or pan J may be readily removed and thus leave the discharge-passages so that they may be easily reached for cleansing, if necessary. These basins may be made of metal, porcelain, or any suitable material.

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

1. In a water-closet, the combination of a casing having the flush and discharge pipes connected thereto, with an interior case or pan fitting closely therein but removable therefrom, said interior case or pan containing a central receiving-basin, a discharge-opening and flushing passages and openings, substantially as described.

2. In a water-closet, the combination of a casing having the flush and discharge pipes connected thereto, with an interior casing or pan fitting closely therein but removable therefrom, said interior casing or pan having a central receiving-basin, and a discharge-opening registering with the discharge-opening of the outer case, and having also water-passages within the body of the same surrounding the basin, and an inlet for said water-passages registering with the flush-pipe connection of the outer case, substantially as described.

3. In a water-closet, the combination of a casing having the flush-pipe and discharge-pipe connected thereto, an open-top passage around the bottom thereof connected at one end to the discharge-pipe, an open-topped well within the casing, connected to the other end of this passage by an opening which is at the bottom thereof, with an interior casing or pan fitting closely in the exterior casing but removable therefrom, said pan containing a central receiving-basin, a discharge-opening registering with the well in the outer casing, water-passages surrounding the basin and connected thereto by jet-openings and to the flush-pipe by an opening registering therewith, substantially as described.

4. In a water-closet, the combination of a casing having the flush-pipe and discharge-pipe connected thereto, an open-top circular passage around the bottom thereof connected at one end to the discharge-pipe, an open-topped well within the casing, connected to the other end of this circular passage by an opening which is at the bottom thereof, with an interior casing or pan fitting closely in the exterior casing but removable therefrom, said pan containing a central receiving-basin, a discharge-opening registering with the well in the outer casing, water-passages surrounding the basin and connected thereto by jet-openings and to the flush-pipe by an opening registering therewith, and a sheet of compressible material placed between the bottom of the inner case and over the top of the circular passage in the outer case, substantially as described.

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Witnesses:
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HARRISON W. BIDDLE.