

(No Model.)

R. WALSH.
WATER CLOSET.

No. 283,172.

Patented Aug. 14, 1883.

Fig. 1

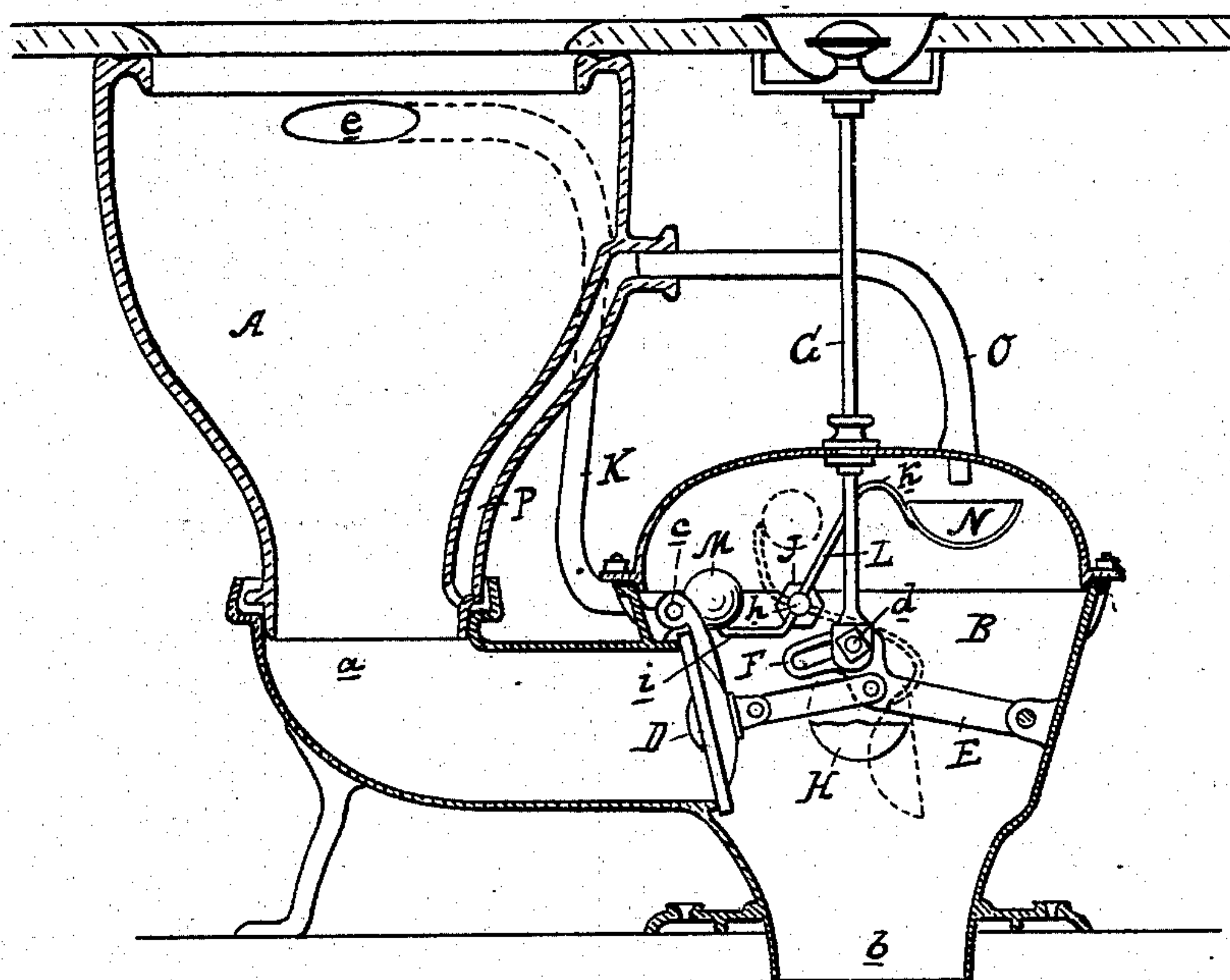
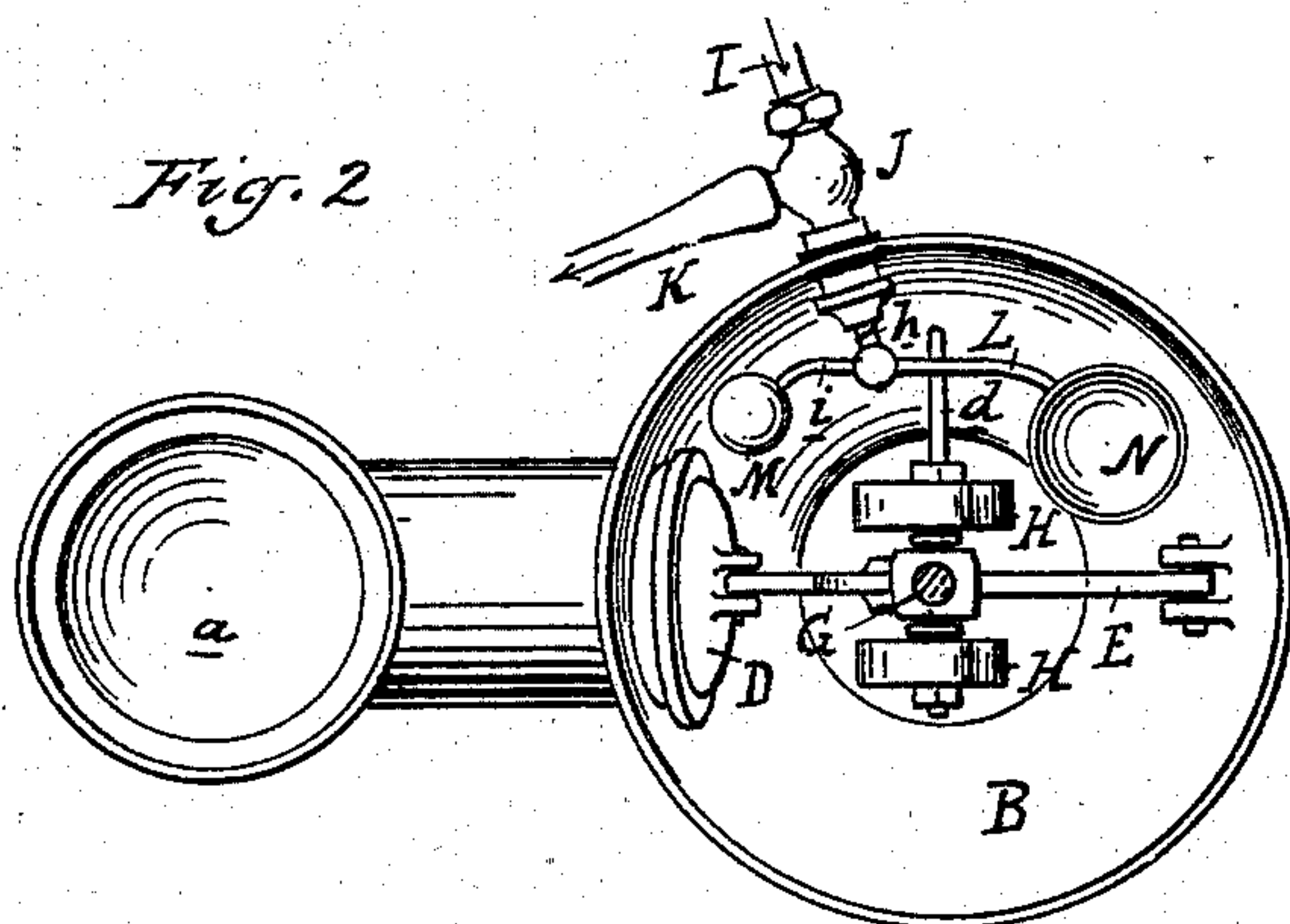


Fig. 2



Attest:

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UNITED STATES PATENT OFFICE.

RICHARD WALSH, OF DETROIT, MICHIGAN.

WATER-CLOSET.

SPECIFICATION forming part of Letters Patent No. 283,172, dated August 14, 1883.

Application filed March 10, 1883. (No model.)

To all whom it may concern:

Be it known that I, RICHARD WALSH, of Detroit, in the county of Wayne and State of Michigan, have invented new and useful Improvements in Water-Closets; and I hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification.

10 This invention relates to certain new and useful improvements in the construction of water-closets.

The invention consists, first, in the peculiar construction and arrangement of mechanical means for automatically shutting off the water-supply by the overflow from the bowl; second, in the peculiar construction and arrangement of means for operating the escape-valve; and, third, in the peculiar construction, arrangement, and combinations of the parts, all as more fully hereinafter set forth.

Figure 1 is a vertical central section through the bowl and trunk. Fig. 2 is a plan of the trunk with top removed.

25 In the accompanying drawings, which form a part of this specification, A represents the bowl, and B the trunk, within which latter the operating parts of the closet are located. This trunk is provided with the inlet *a*, over which the bowl is properly secured, and an outlet, *b*, which is connected with the soil-pipe. (Not shown.)

D represents the valve which closes over the inner end of the inlet, shutting off communication between the bowl and the body of the trunk. This valve is pivotally secured at its upper side to the inner wall of the trunk, as at *c*. A toggle-lever, E, connects this valve with the opposite wall of the trunk, the toggle-lever being provided with a curved slotted arm, F, with which the lower end of the pull-rod G engages, and by means of which the valve D is opened. The lower end of the pull-rod is preferably bifurcated, so as to embrace the slotted arm F, and is secured thereto by means of a rod or shaft, *d*, which passes through the pull-rod and the slot of the arm F. Upon this rod are secured weights H, which compel the valve to remain closed against the pressure of the water in the bowl.

I is the water-supply pipe, which is provided with the valve J and branch pipe K,

which latter conducts the water to the bowl and discharges therein through the opening *e*. The stem *h* of the valve J is carried through the wall of the trunk, and has secured to its end within the trunk the rocker arm or lever L, to one arm, *i*, of which is secured a weight, M, and to the opposite arm, *k*, a cup, N, is secured, the one being about an equal balance for the other.

O is the overflow-pipe, one end being connected with the bowl, while the opposite end discharges through the top wall of the trunk. In the drawings I show an overflow, P, formed as an integral part of the bowl, to which the overflow O is connected; and although I prefer this construction, I do not desire to confine myself thereto, for the reason that it will necessitate the manufacture of a bowl especially for this purpose, while it is evident that the overflow may be attached to the trunk anywhere above the valve D, in which case I could utilize any of the bowls now in common use.

In practice, where it is desired to discharge the contents of the bowl, the rod G is pulled up, which, by the connections herein shown and described, necessarily compels the valve to open, allowing the contents of the bowl to discharge into the body of the trunk and find exit to the soil-pipe through the outlet *b*, while at the same time the shaft *d* comes in contact with the arm *k* of the rocker-arm L, causing the parts to assume the position shown in Fig. 1, thus opening the valve J, and allowing water to flow through the pipe K and flush the bowl. Upon releasing the pull-rod G the weights H expand the toggle-joint and cause the valve D to close tightly against the seat. The water still continues to flow into the bowl until it has reached such a point that it will discharge through the pipe or overflow O into the cup N, thus overbalancing the weight M, causing the parts to assume the position shown in dotted lines, Fig. 1, closing the valve J and shutting off the water.

I attach importance to the arrangement of my toggle-levers and their concomitants. They are operated directly by the pull-rod G, which connects with the pivot *d*, and the pivot *d* carries the weights, having also the additional weight of the pull-rod when the same is at rest. This construction does away with the necessity

of complicated levers and weights, and allows a great economy in space.

What I claim as my invention is—

1. In a water-closet, in combination with the exit-valve thereof, a pair of toggle-levers— one carrying the valve and the other being pivoted to a stationary part of the trunk—the pivot-rod *d* carrying the weights, and having loose connection with the pull-rod, whereby the gravity of the weights and the added gravity of the pull-rod are directly on the pivot of the said toggle-levers, as set forth.

2. In a water-closet, in combination with the exit-valve thereof, a pair of toggle-levers, one of which carries the valve and the other is pivoted to a stationary part of the trunk, the rod *d* connecting such levers and carrying weights and connections with the water-supply, as set forth.

3. In a water-closet, in combination with an overflow-pipe leading from the basin to the

trunk behind the exit-valve, a tilting lever having a weight at one end and a cup at the other, adapted to receive the overflow and be tilted to cut off the water-supply, as set forth.

4. In combination with the water-supply, the overflow, and the toggle-levers for operating the exit-valve, the tilting lever *L* and the rod *d*, whereby the manipulation of the valve will place the lever and cup in position to be operated by the subsequent overflow, as set forth.

5. In combination with the basin having exit-valve *D* and overflow-pipe *O*, the toggle-levers connected by the pivot *d* and operated by the rod *G*, the tilting lever *L*, having cup *N*, and the water-supply valve *J*, all constructed and operated as set forth.

RICHARD WALSH.

Witnesses:

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E. SCULLY.