

(No Model.)

C. MEDBURY.

AUTOMATIC VALVE FOR WATER SERVICE PIPES.

No. 386,752.

Patented July 24, 1888.

FIG. 1.

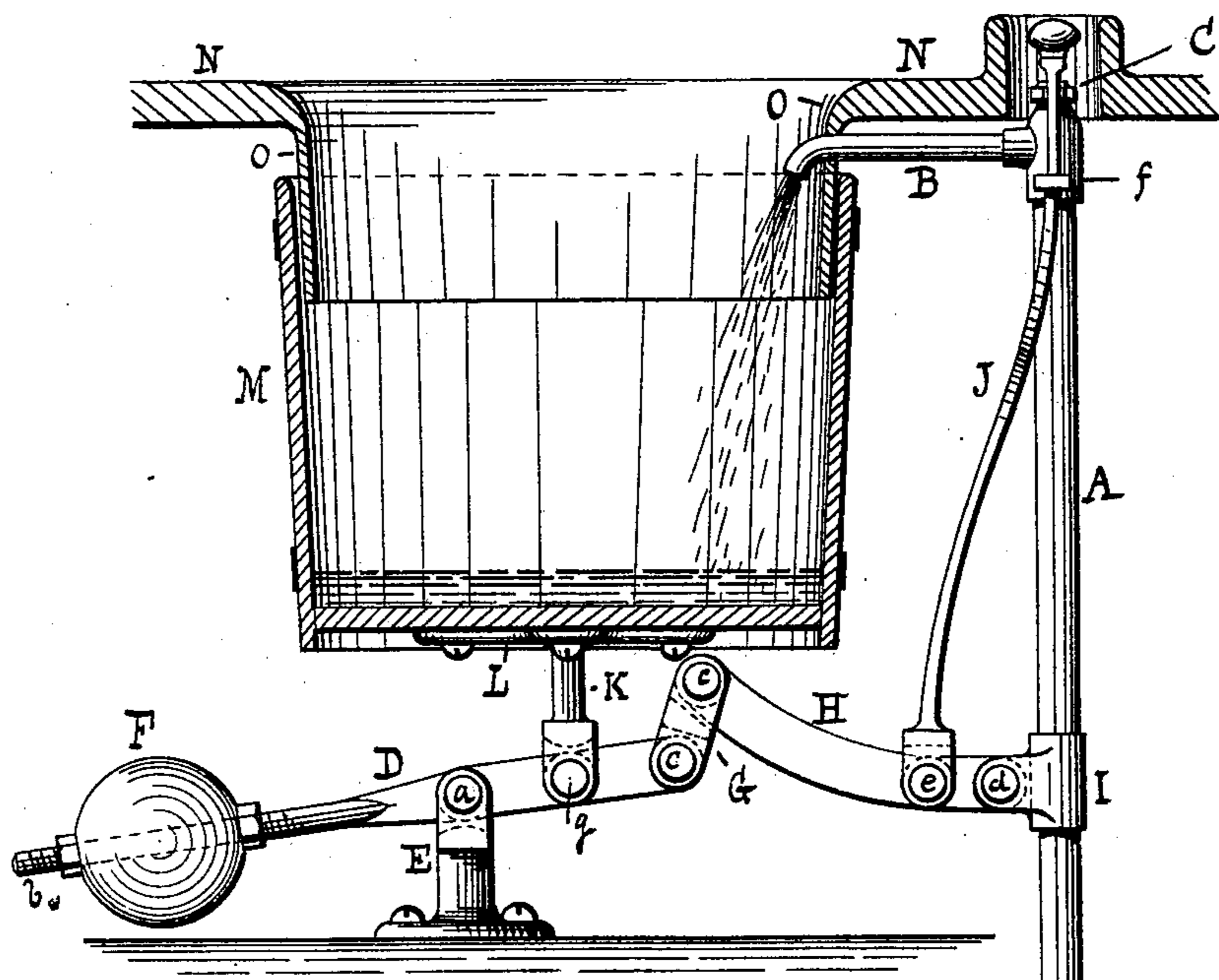
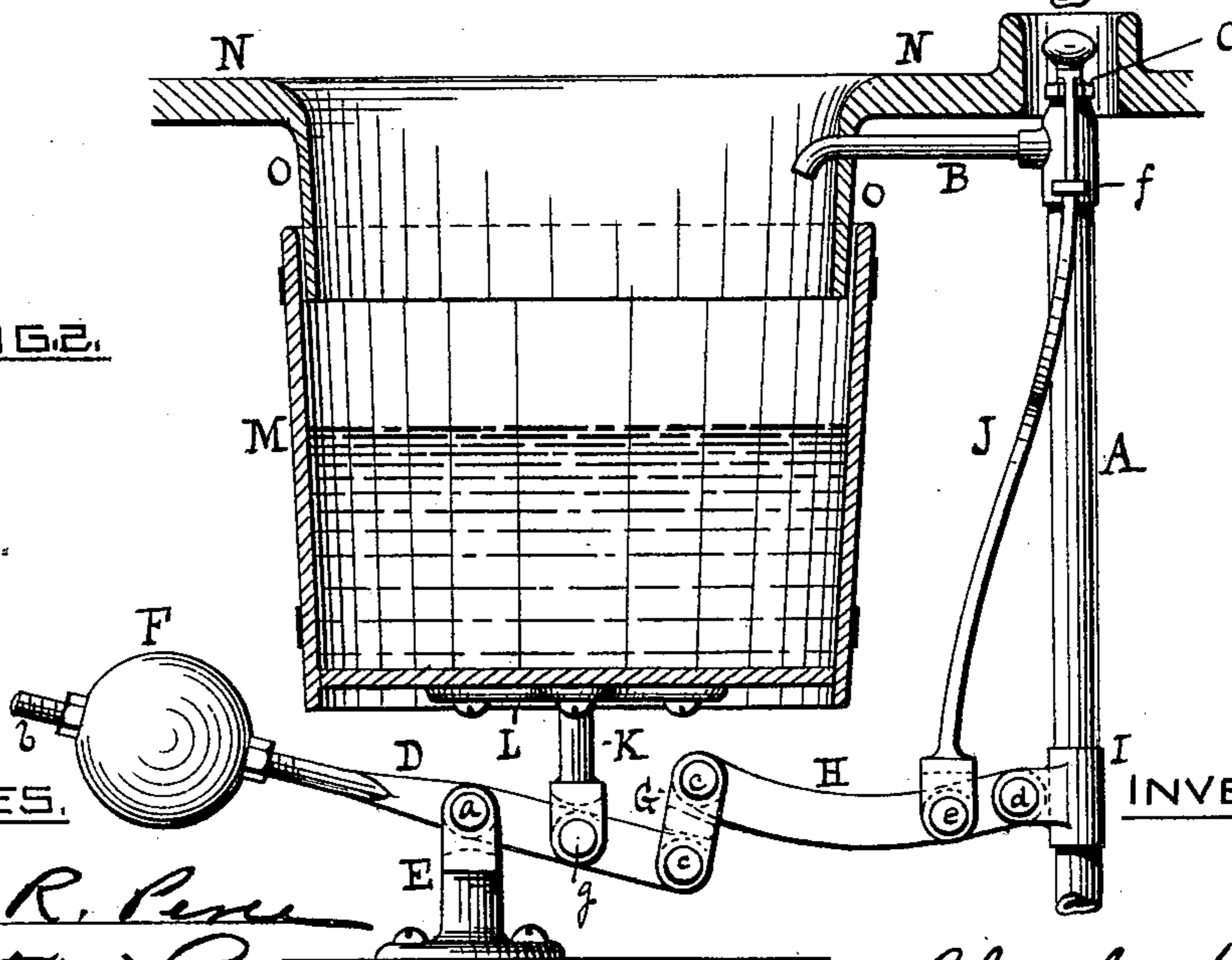


FIG. 2.



WITNESSES.

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AUTOMATIC VALVE FOR WATER-SERVICE PIPES.

SPECIFICATION forming part of Letters Patent No. 386,752, dated July 24, 1888.

Application filed November 23, 1887. Serial No. 256,029. (No model.)

To all whom it may concern:

Be it known that I, CHARLES MEDBURY, of the city and county of Providence, in the State of Rhode Island, have invented a certain new and useful Improvement in Automatic Valves for Water-Service Pipes; and I declare the following to be a specification thereof, reference being had to the accompanying drawings.

Figure 1 shows, partly in elevation and partly in vertical section, my invention with the valve open. Fig. 2 is the same with the valve closed.

Like letters indicate like parts.

My invention is intended, principally, for tenement-houses in cities and towns which have a water-supply, and especially in places where there is no sewer system, but where cesspools are required to receive waste water.

Where water is supplied to a tenement through a meter and is paid for by the landlord, according to the quantity used, it is desirable to limit, so far as possible, any unnecessary flow of water in order to reduce the cost of the tenant's water-supply, and in suburban and outlying districts, and where street-sewers have not been constructed, it is also desirable to limit, as much as possible, the amount of waste water flowing into the cesspools, because the contents of such receptacles must be frequently taken and removed at great expense and with much inconvenience. Landlords experience great loss in these particulars from tenants who are careless or willful in the use or disposal of water.

My invention is designed to automatically limit the flow of water through the service-pipe and to shut off the supply temporarily when a certain quantity has passed from the faucet.

It consists of a compound lever connected together by a link and properly mounted, one lever carrying at its longer end an adjustable weight or counterpoise and on its opposite arm a basin or tank resting thereon by an intermediate support, and the other lever operating vertically a rod to seat or unseat a valve in the water-pipe automatically, according to the weight of the water contained in the basin or tank, as hereinafter particularly specified.

In the drawings, A represents the water-service pipe, which is connected with the street-main and has a discharge-pipe, B. A plug-

valve, C, or other suitable valve, having a direct vertical movement, controls the flow of the water in the pipes in the usual manner. A lever, D, having its fulcrum upon the pivot *a*, is mounted upon said pivot within the standard E. On its longer arm the lever D has the weight or counterpoise F, which is adjustable upon said arm longitudinally by means of a screw-thread, *b*, or otherwise. At its opposite end the lever D is connected by a link, G, to the lever H by means of the pivots *c c*. The lever H has its fulcrum on the pivot *d* on the bracket I. A rod, J, pivoted to the lever H at *e* and guided through the eye or staple *f*, connects rigidly with the stem of the valve C. A supporting-post, K, having a seat, L, is mounted upon the pivot *g* of the lever D on the arm of it opposite to that which carries the counterpoise F. A basin or tank, M, is secured to the seat L, as shown. A shelf or platform, N, has a funnel, O, of a diameter sufficient to easily enter the top of the basin M, which funnel serves as a side support for the basin.

The operation of the mechanism is as follows: As shown in Fig. 1, the valve C is up and open, and, operating thus in the usual manner, allows the water to flow freely from the pipe A through the discharge-pipe B, from which the water falls into the basin M. During this flow all the parts of the device are in the position illustrated in Fig. 1. The weight of the counterpoise F is sufficient to keep elevated the basin M, and by the link-connection G holds up the lever H, and by the rod J causes the valve C to remain unseated and open; but when the basin has received a quantity of water sufficient in weight to overbalance the counterpoise F the tank descends, carries downward the shorter arm of the lever D, and by the link-connection G brings down the lever H, which pulls down the rod J, and thus seats the valve C and shuts off the flow of water. The water can now be taken from the tank by a dipper, and as soon as the quantity of water is reduced to a weight less than that of the counterpoise F said counterpoise descends, raising the tank to its former position, and, by the intermediate levers, link, and rod, again opens the valve C automatically, allowing the water to flow through the pipe B. In this manner the tenant uses no more water than is

needed, because the quantity in the tank is always limited and because all the water required must be laboriously dipped up from the tank; and as the tenant uses under these circumstances no more water than is absolutely necessary the quantity of dirty water which afterward goes to the cesspool is lessened, while the immense quantities which are often allowed by careless tenants to run to waste where the common freely-flowing faucets are used are saved, because the current is automatically controlled, as above described. In this way the landlord is saved the expense both of the water supplied to the tenement through the meter and of the water which runs into the drainage.

The adjustability of the counterpoise F al-

lows any desired variation of the accumulation of water in the tank before the current is checked by the valve.

I claim as a novel and useful invention and desire to secure by Letters Patent—

The combination of the standard E, the lever D, having the screw-thread *b*, the counterpoise F, adjustable upon said screw-threaded lever D, the post K, the seat L, the basin M, the link G, the lever H, the rod J, the valve C, the pipes A B, the shelf N, the funnel O, the pivots *a c d e g*, and the bracket I, substantially as specified.

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Witnesses:

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