

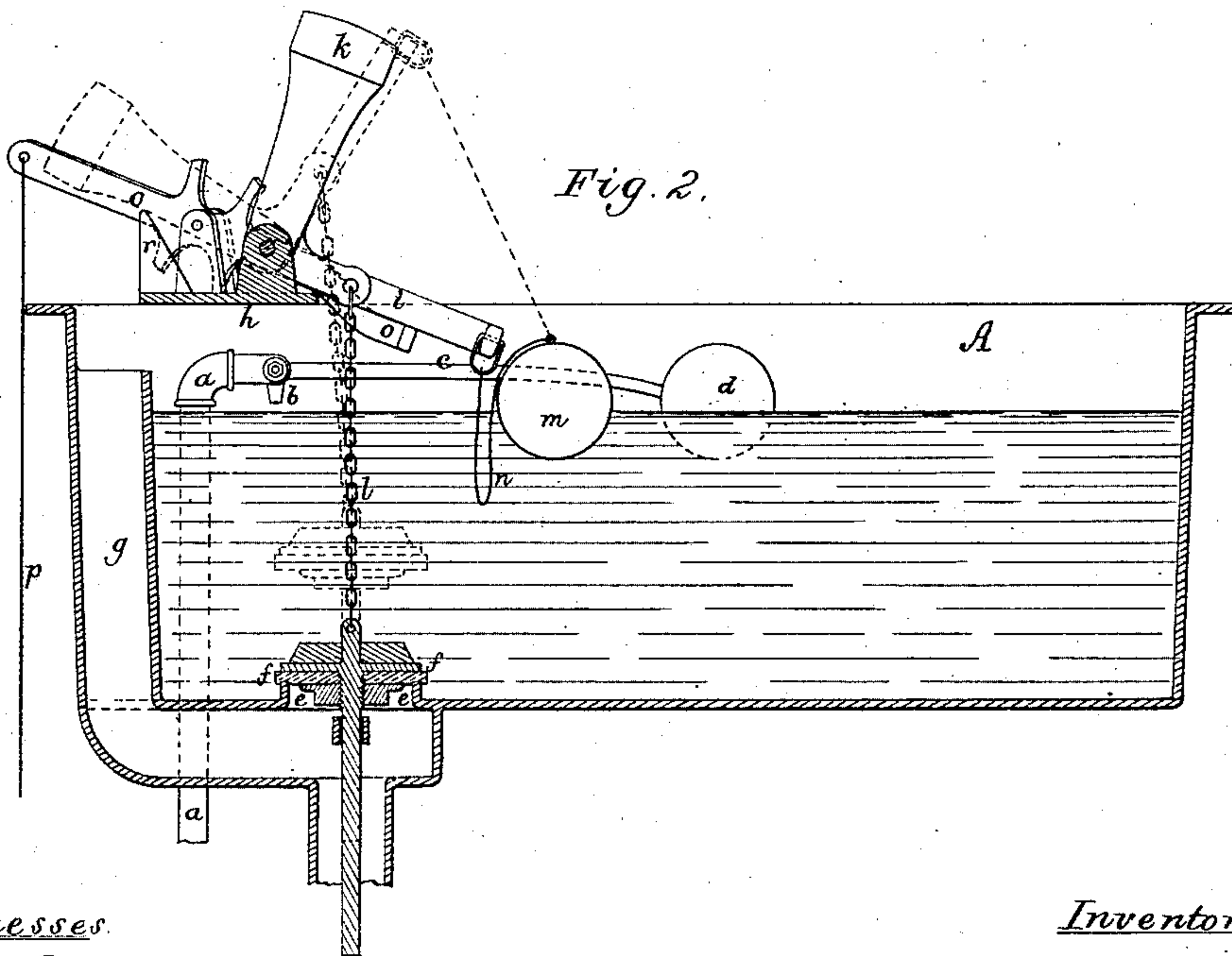
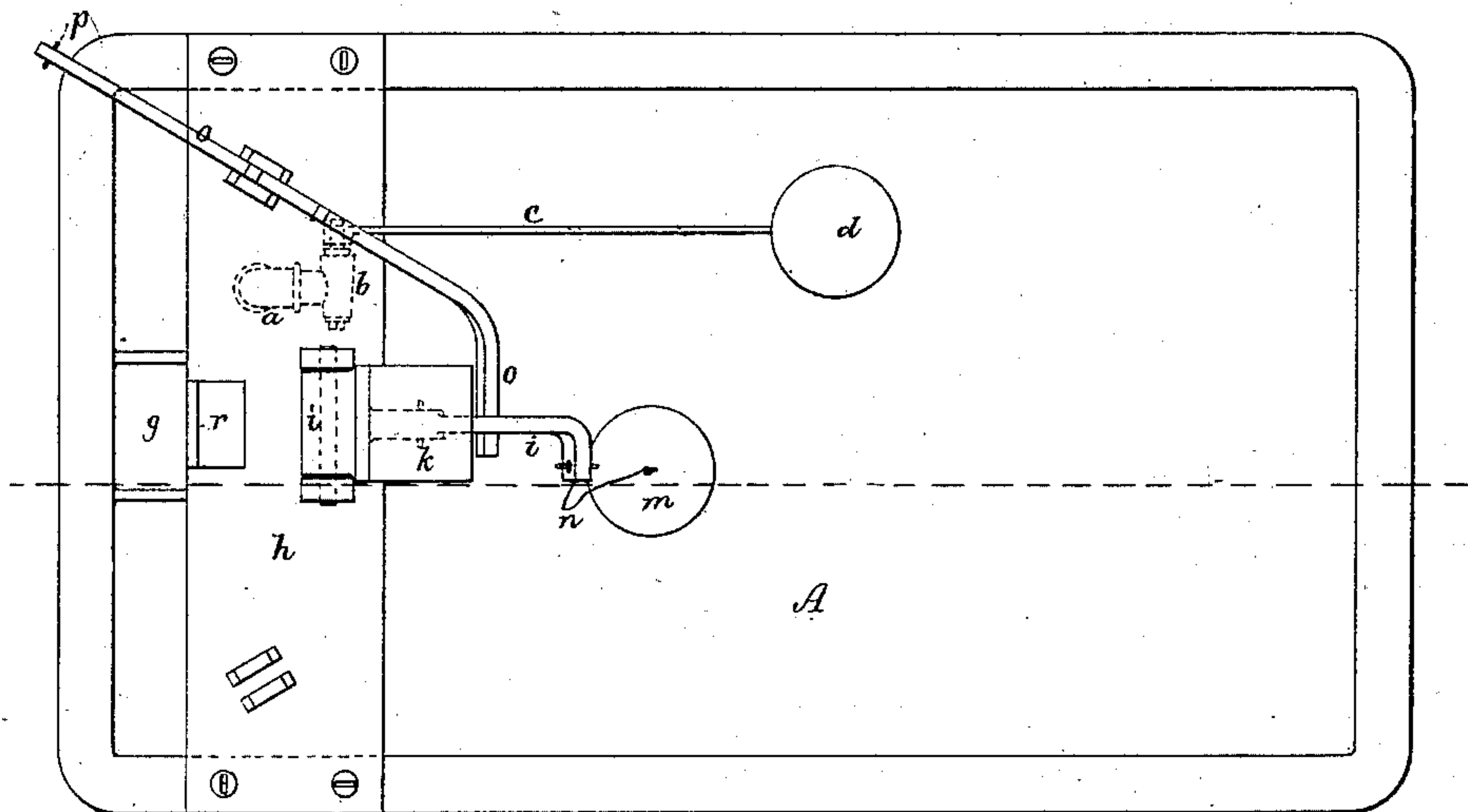
(No Model.)

G. C. PHILLIPS.
MECHANISM FOR FLUSHING TANKS.

No. 315,063.

Patented Apr. 7, 1885.

Fig. 1.



Witnesses.
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UNITED STATES PATENT OFFICE.

GEORGE CHILSON PHILLIPS, OF PROVIDENCE, RHODE ISLAND.

MECHANISM FOR FLUSHING TANKS.

SPECIFICATION forming part of Letters Patent No. 315,063, dated April 7, 1885.

Application filed January 8, 1885. (No model.)

To all whom it may concern:

Be it known that I, GEORGE CHILSON PHILLIPS, of the city and county of Providence, of the State of Rhode Island, have invented a new and useful Improvement in Mechanism for Flushing Tanks; and I do hereby declare the same to be described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a top view, and Fig. 2 a vertical and longitudinal section, of a water-closet tank provided with my invention, the nature of which is defined in the claim hereinafter presented.

In such drawings, A denotes a tank, having an induction-pipe, *a*, provided at its upper part with a cock, *b*, from the stem of whose plug there is extended an arm, *c*, to a hollow sphere or float, *d*, such pipe, cock, arm, and float being common to tanks. In the lower part of the tank is an educt, *e*, provided with a valve, *f*, and there opens out of the upper part of the tank and extends down below the educt an overflow-conduit, *g*.

To a shelf, *h*, extending across the tank at its top, there is fulcrumed a right-angular lever, *i*, having a weight, *k*, fixed to the upper part of its upper arm. The lower arm of such lever is connected to the valve *f* by a chain, rope, or wire, *l*, and to a ball-float, *m*, by a chain or cord, *n*, hanging loosely, all being as represented. Furthermore, a lever, *o*, fulcrumed to the shelf, has its inner arm projected directly underneath and against the lower arm of the bent lever, a rope, chain, or wire, *p*, being suspended from the arm of such lever, as shown. On pulling downward the said rope, chain, or wire *p* the lever *o* will be tilted, so as to move the lever *i* in a manner to cause the valve to be lifted off its seat, in which case the weight of the upper arm of the lever *i* will be forced backward beyond a vertical line passing through the fulcrum of the lever, the upper arm of the lever being carried by the weight against a stop, *r*, in which case the valve will be held off its seat while the lever is thus tipped. On the water descending in the tank sufficiently the ball-float by its weight will draw the lever back to its normal position, and allow the valve to close on its seat, and thereby stop the outflow of water from the tank. One position of the lever is shown in full lines and its other po-

sition or that in which it bears against the stop in dotted lines.

While the water is falling in the tank the ball-float, buoyed by the water, will descend with it until the chain *n*, connecting the said float with the lever *i*, becomes drawn into a vertical position, which having taken place, as the water may continue to descend, it will fall away from the ball-float, and thereby cause the weight of the latter to drag upon the lever until such weight may be sufficient to tilt the lever into a position for its weight *k* to fall and carry such lever back to its normal position for the valve to close on its seat.

I do not herein claim for use with a tank and its eduction-valve the combination of a bowl, an open weighted lever, a ball, and an open lever having abutments and a projection, as represented in the United States Patent No. 300,540.

In my flushing apparatus I have no open lever or any ball to roll in one of them, and I have no bowl fixed to the valve-stem and to be raised with the valve. I employ a ball-float attached to the tripping-lever by a chain that hangs loosely and does not interfere with the backward movement of the bent lever, and therefore such movement of the bent lever does not require the simultaneous raising of the ball-float with the valve.

In my flushing apparatus the force required to raise the valve off its seat has not in so doing to raise the weight employed to depress the valve, and therefore the valve can be easier elevated than would be the case were it weighted by a bowl fixed upon it or its stem. When the bent lever is on its forward position, its lower arm rests on the front arm of the tripping-lever, which also rests on the shelf.

I claim—

The combination of the angular lever *i*, provided with the tripping devices—viz., the weight *k*, the lever *o*, and line *p*—with the stop *r*, to arrest the said angular lever in its rearmost position, and with the valve and the ball-float *m*, connected to the angular lever by chains *l* and *n*, all being applied to a tank and the valve-seat of its educt, and arranged to operate substantially as set forth.

GEORGE CHILSON PHILLIPS.

Witnesses:

GEO. E. LEONARD,
EDWIN T. HERRICK.