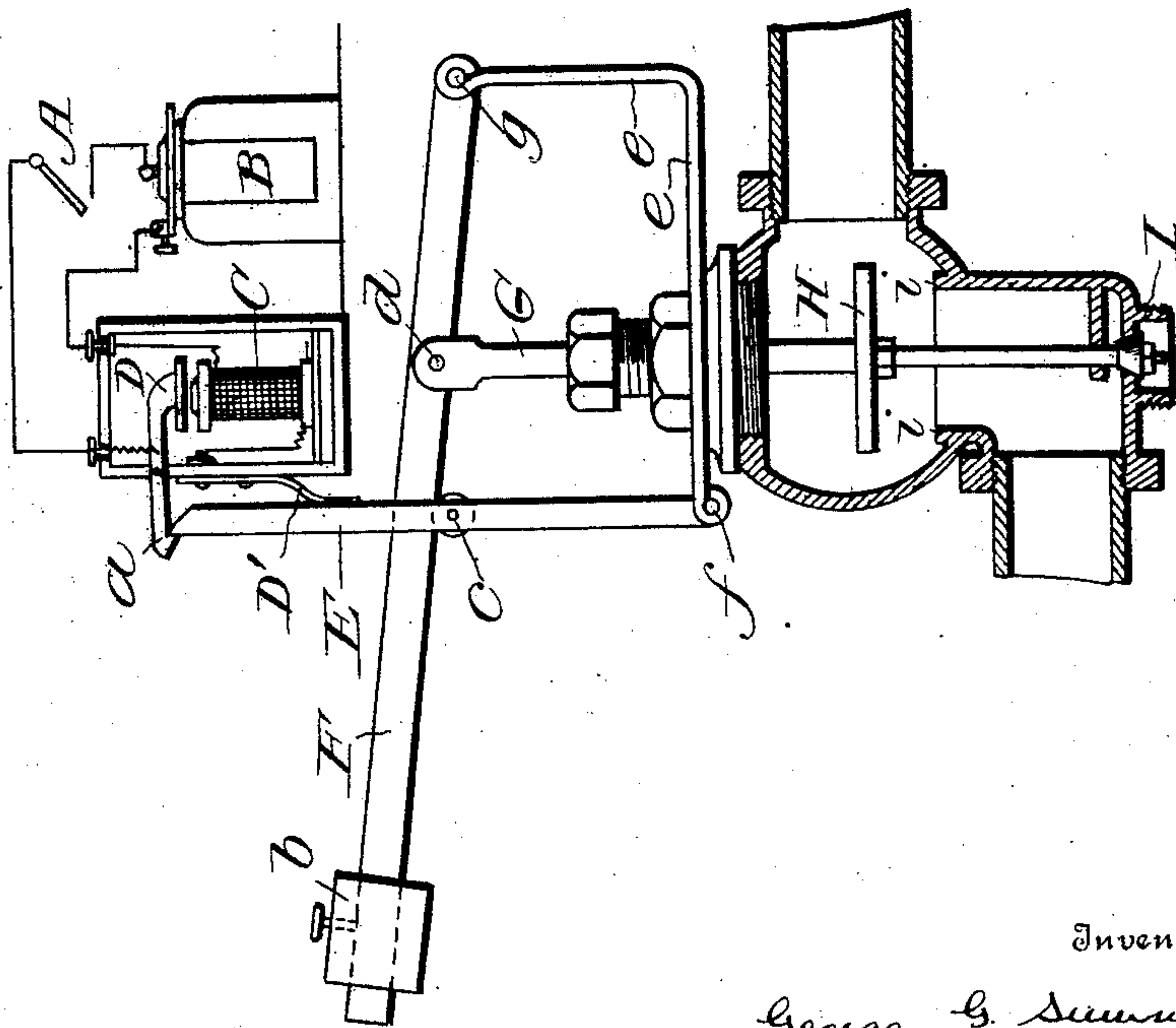
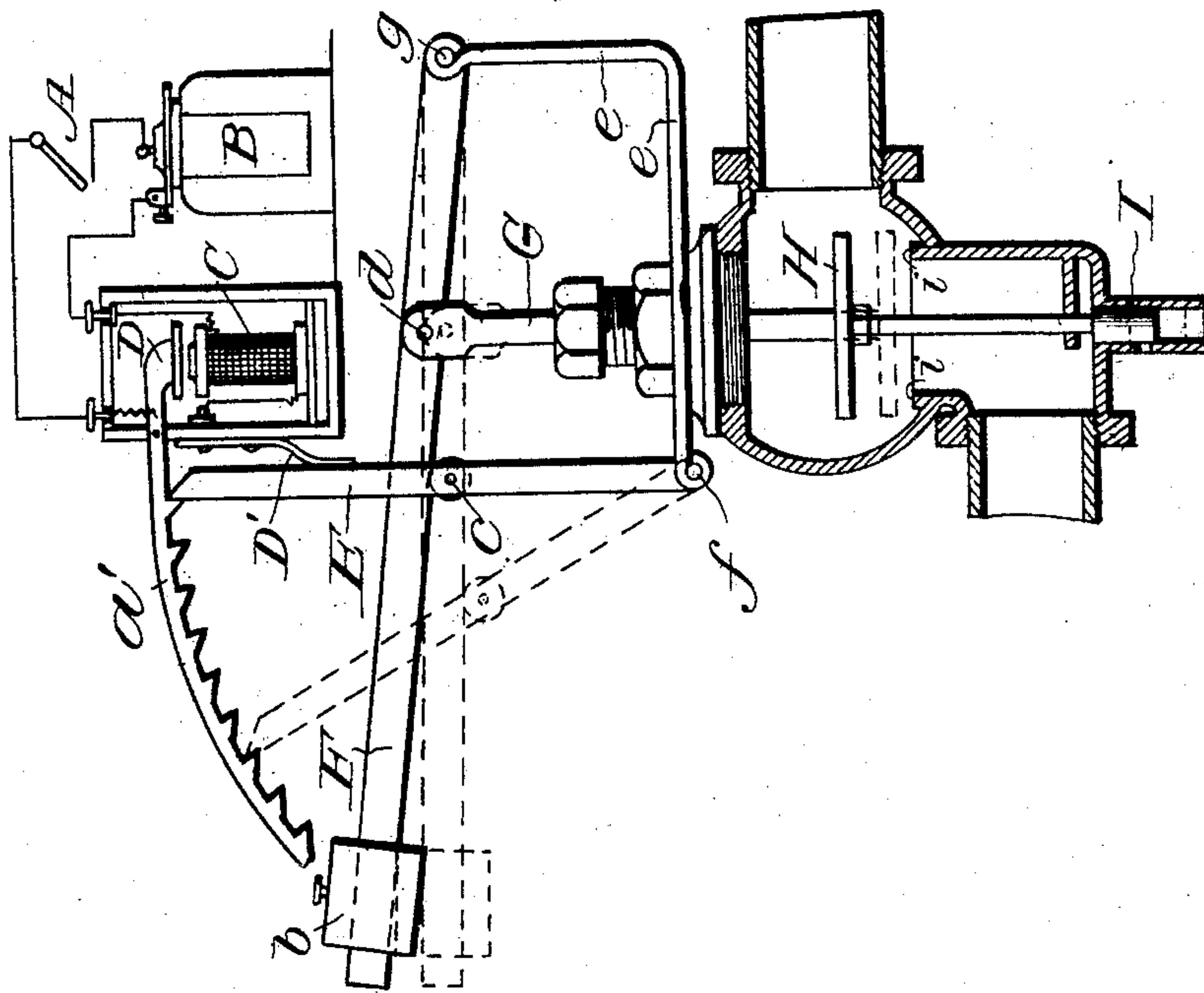


No. 866,825.

PATENTED SEPT. 24, 1907.

G. G. SUMMERS & G. P. BURKE.
VALVE AND OPERATING MECHANISM THEREFOR.
APPLICATION FILED JAN. 8, 1907.



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GEORGE G. SUMMERS AND GEORGE P. BURKE, OF LOUISVILLE, KENTUCKY.

VALVE AND OPERATING MECHANISM THEREFOR.

No. 866,825.

Specification of Letters Patent.

Patented Sept. 24, 1907.

Application filed January 8, 1907. Serial No. 351,357.

To all whom it may concern:

Be it known that GEORGE G. SUMMERS and GEORGE P. BURKE, citizens of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Valves and Operating Mechanism Therefor, of which the following is a specification.

Our invention relates to improvements in valves and operating mechanism therefor; and the object of our invention is to hold a valve open or partly open and to quickly, automatically and tightly close the valve and thus shut off water, gas, steam or other fluid or vapor from entering a building or any receptacle, and also to allow waste to escape through an auxiliary valve when the main valve is closed. We attain this object by the mechanism shown in the accompanying drawings, in which:

Figure 1 shows an embodiment of the preferred form of our invention. Fig. 2 shows a modification of the same.

A represents any device by which the circuit of the battery B is closed to magnetize the coil C which attracts one end of the arm D, pivotally mounted on the frame. This releases the catch *a* at the opposite end of the arm D from the rod E and the spring D¹ suitably attached to the frame kicks said rod E outwardly, when in position shown in Fig. 1, thus releasing the arm F, carrying the sliding weight *b*, from its support *c* on the rod E where said arm F rests when the valve is open, and shifts the weight to the joint *d* on the valve stem G carrying the valve H and thus closes the said valve. The rod E, upon which is fixed the support *c* is pivotally connected at one end to the piece *e—e* at *f* and the arm F is pivotally connected at one end to the piece *e—e* at *g*. The valve stem G which carries the main valve H adapted to rest upon the valve seat *i—i* when closed, also carries the auxiliary valve I which allows any waste to escape when the main valve H is closed.

In the modification shown in Fig. 2 the catches *a'* hold the rod E in various set positions and thus regulate the space between the main valve H and its seat. The auxiliary valve remains closed until the main valve is closed and then opens to allow any waste to escape.

Having thus described our invention what we claim as new and desire to obtain by Letters Patent of the United States is:

1. In a valve and operating mechanism therefor, the combination of a valve seat with a valve stem carrying a

valve adapted to rest tightly upon said seat, a rod carrying a support, a weighted arm connected to said valve stem and adapted to rest upon said support when the valve is open, means for releasing said weighted arm from said support and means for throwing outwardly said rod carrying the support, thereby closing the valve, substantially as described.

2. In a valve and operating mechanism therefor, the combination of a valve seat with a valve stem carrying a main valve adapted to rest tightly upon said seat, an auxiliary valve normally closed, a rod carrying a support, a weighted arm connected to said valve stem and adapted to rest upon said support when the main valve is open and means for releasing said weighted arm from said support and means for throwing outwardly said rod carrying a support, thereby closing the main valve and opening the auxiliary valve, substantially as described.

3. In a valve and operating mechanism therefor, the combination of a valve seat with a valve stem carrying a valve adapted to rest tightly upon said seat, a weighted arm joined at one point to the valve stem, a rod carrying a support adapted to engage with said weighted arm when said valve is open, an angular piece to one end of which an extremity of said weighted arm is pivoted and to the other end of which is pivoted an extremity of said rod carrying a support, means for releasing said rod and means for throwing said rod outwardly and liberating the weighted arm from said support whereby the valve is closed, substantially as described.

4. In a valve and operating mechanism therefor, the combination of a valve seat with a valve stem carrying a valve adapted to rest tightly upon said seat, a weighted arm joined at one point to said valve stem, a rod carrying a support adapted to engage with said weighted arm when said valve is open, an angular piece to one end of which an extremity of said weighted arm is pivoted and to the other end of which is pivoted an extremity of said rod carrying a support, an arm having a catch at one end and adapted to engage said rod, means for releasing said rod from said catch and a spring for throwing said rod outwardly and thereby knocking the support away from the weighted arm, whereby the valve is closed, substantially as described.

5. In a valve and operating mechanism therefor, the combination of a valve seat with a valve stem carrying a main valve and an auxiliary valve, a weighted arm connected to said valve stem, a rod carrying a support adapted to engage said weighted arm, an arm provided with a series of notches with any one of which one end of said rod carrying a support may engage and means for releasing said rod carrying a support from contact with said notched arm, substantially as described.

In testimony whereof they have signed their names to this specification in the presence of two subscribing witnesses.

GEORGE G. SUMMERS.
GEORGE P. BURKE.

Witnesses:

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