

(No Model.)

H. J. HYAMS.  
GAS REGULATOR.

No. 371,324.

Patented Oct. 11, 1887.

Fig. 1.

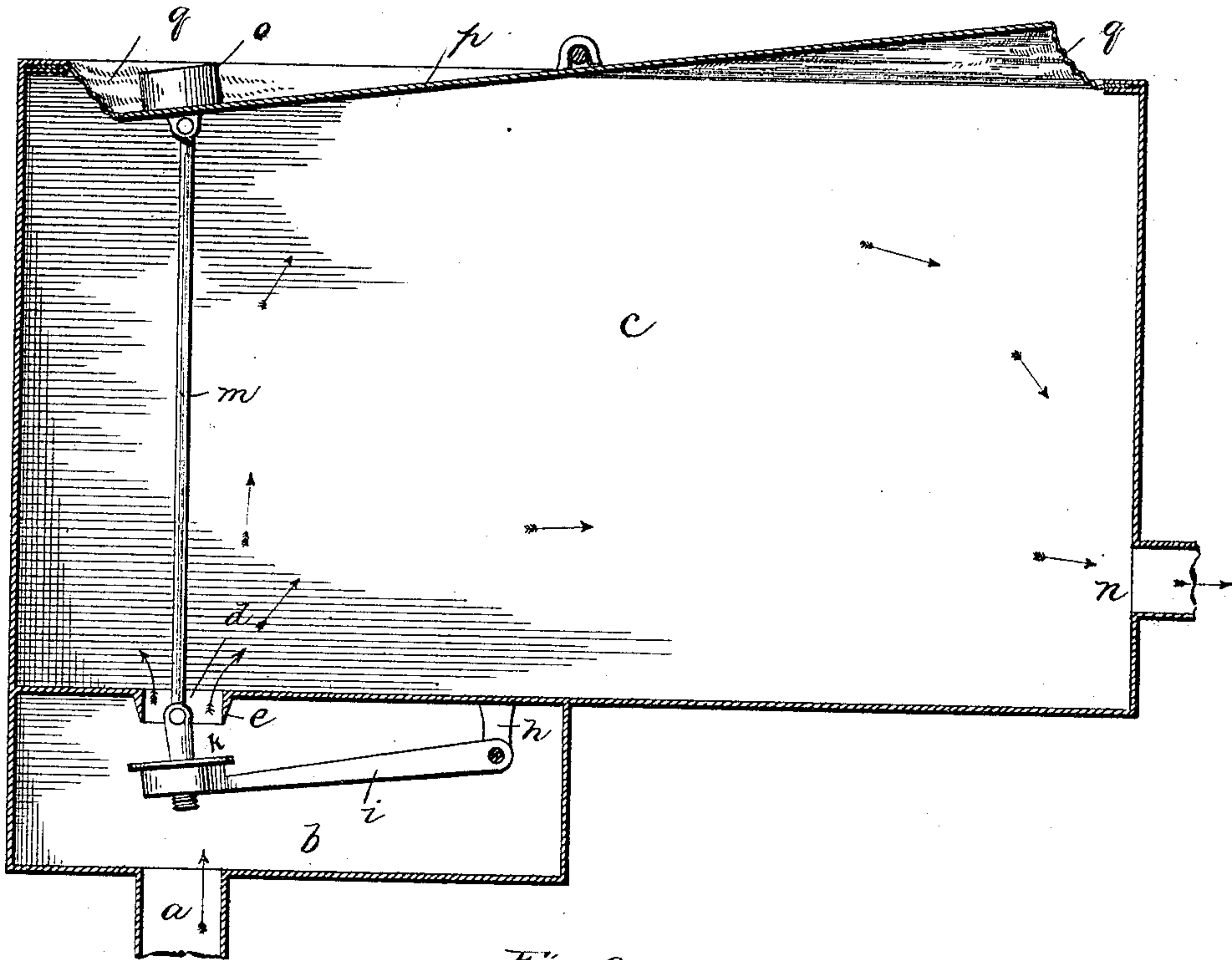


Fig. 2.

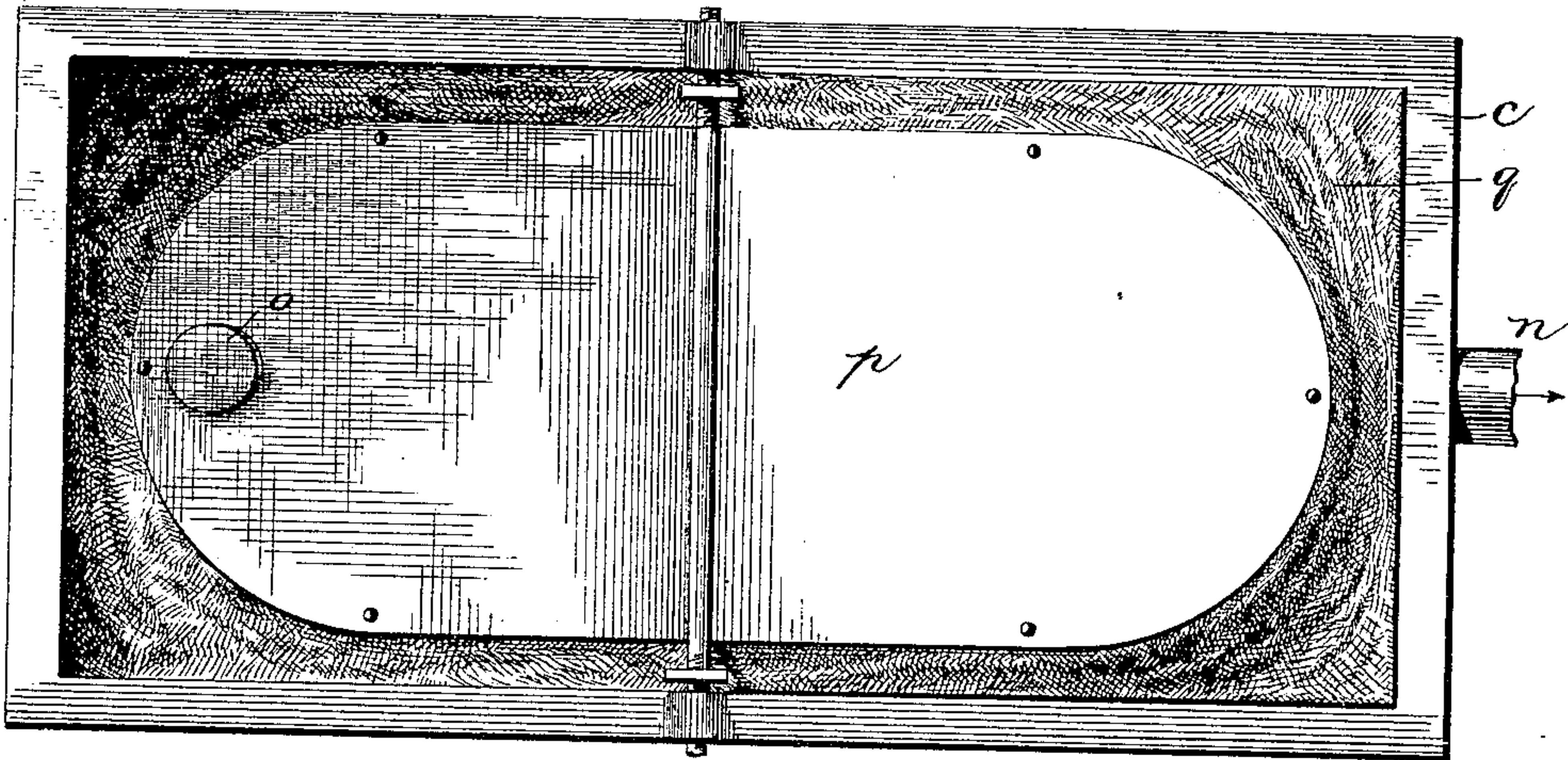
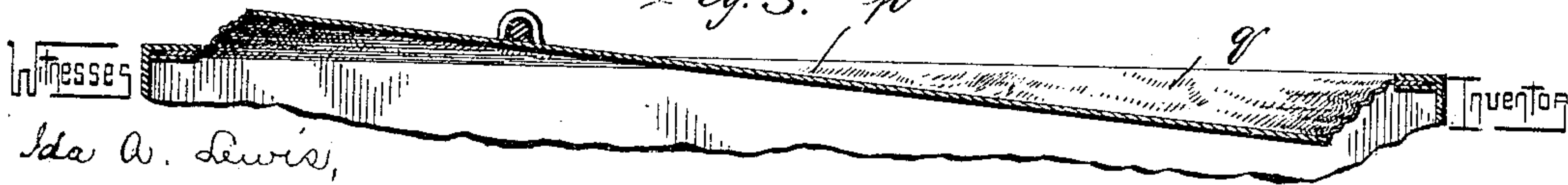


Fig. 3.



Witnesses  
Ida A. Lewis,  
James K. Bakewell

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# UNITED STATES PATENT OFFICE.

HYAM J. HYAMS, OF PITTSBURG, PENNSYLVANIA.

## GAS-REGULATOR.

SPECIFICATION forming part of Letters Patent No. 371,324, dated October 11, 1887.

Application filed October 1, 1886. Serial No. 215,078. (No model.)

*To all whom it may concern:*

Be it known that I, HYAM J. HYAMS, of the city of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Gas-Regulators; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a vertical sectional view. Fig. 2 is a plan view of the same. Fig. 3 is a sectional view, partly broken away, of a modification.

Like letters of reference indicate like parts wherever they occur.

In the drawings, *a* represents the gas-supply pipe, which leads from the source of supply and opens into the valve-chamber *b*, which valve-chamber communicates with the gas-chamber *c* by the opening *d*, around which opening is the valve-seat *e*, which may be an annular ring tapered so as to form a sharp edge, against which the valve may be firmly seated. Situate in the valve-chamber *b* is a bracket, *h*, to which the valve-lever arm *i* is pivoted, at the free end of which arm is the valve *k*, having a flat face arranged so as to seat upwardly against the valve-seat *e*. Pivoted to the upper side of the valve *k* is a rod, *m*, the other end of which is pivoted to the cover *p* of the gas-chamber *c*. This cover is formed of a plate which is pivoted or hinged to the chamber *c* at the top thereof, and is connected at its edges with the sides of the chamber by a loose leather or other flexible border, *q*, so as to permit the plate to be tilted or counterbalanced by a weight, *o*, as shown in Figs. 1 and 2, or by pivoting the plate near one end, as is shown in Fig. 3.

The operation is as follows: The gas under pressure, passing from the inlet *a* through the chamber *b*, enters the chamber *c* and creates a certain pressure within the chamber; but as one end of the cover *p* is depressed and the space at that end of the chamber is less than the space at the other end, when the pressure within the chamber exceeds the pressure exerted by the weighted end of the cover or plate, this pressure at *x x* raises that end of the plate until the valve *k* is brought against the valve-seat *e*, and thereby closes the gas-inlet to the chamber *c*. As the gas passes out of the outlet *m* and the pressure in the chamber *c* becomes less than the pressure exerted by the weights, the cover or plate *p* drops again and opens the valve.

By changing the weight *o* for a lighter or heavier weight the pressure maintained in the chamber *c* may be lessened or increased.

I am aware that gas-regulators consisting of a tiltable tank or cover pivoted over a tank containing mercury are not new, and I do not desire to claim, broadly, a gas-regulator having a pivoted tiltable cover; but

What I claim is—

In a gas-regulator, the combination of a gas-chamber, *c*, having inlet and outlet ports, a counterbalanced pivoted plate, *p*, a flexible border, *q*, a valve, *k*, and a rod, *m*, pivoted to the valve *k* and to the plate *p*, substantially as and for the purposes specified.

In testimony whereof I have hereunto set my hand this 3d day of August, A. D. 1886.

HYAM J. HYAMS.

Witnesses:

JAMES K. BAKEWELL,  
J. LINCOLN RALPH.