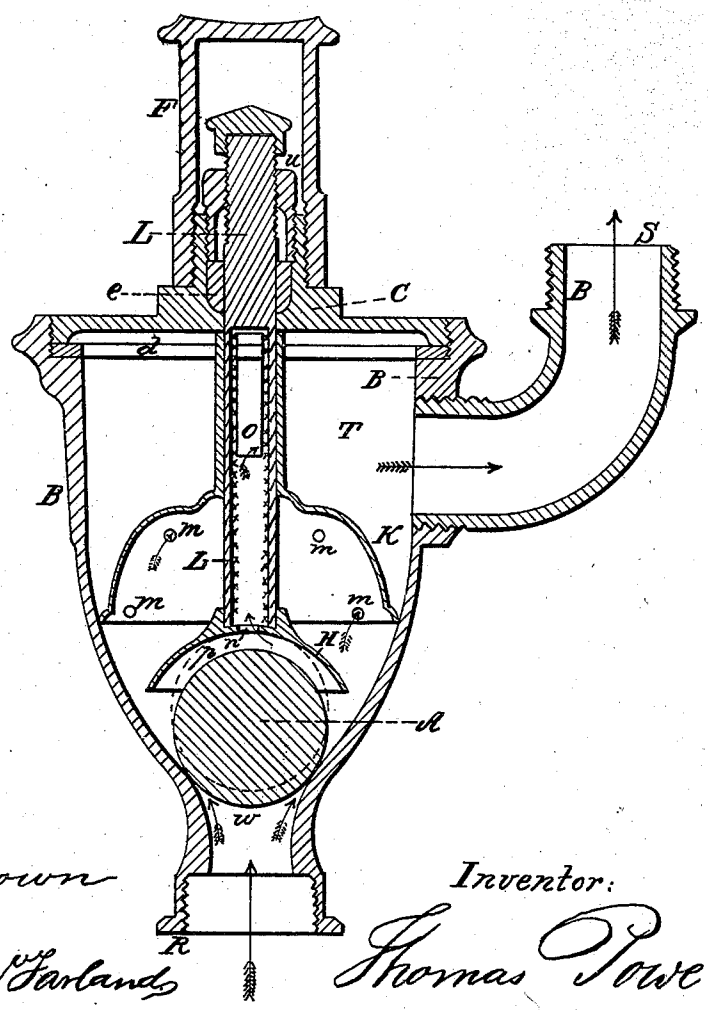
T. POWERS.

Gas Regulator.

No. 32,312. Patented May 14, 1861.

Fig: 1.



Witnesses:

Edward Brown

Park H. McFarland

Inventor:

Thomas Powers

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

THOMAS POWERS, OF PHILADELPHIA, PENNSYLVANIA.

GAS-REGULATOR.

Specification of Letters Patent No. 32,312, dated May 14, 1861.

To all whom it may concern:

Be it known that I, THOMAS POWERS, of Philadelphia, in the county of Philadelphia, in the State of Pennsylvania, have invented a new and useful Apparatus Termed a Gas-Regulator to Regulate the Flow of Gas Through the Burner; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon.

My invention consists in a new apparatus usually known as a gas regulator which is to be placed in the pipe between the meter and gas burner, its object being to cause the flow of gas through the burners to be more regular, whatever may be the number of lights that are turned on at the same time.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

The figure is a transverse section through the regulator.

B is the outside case,—C the lid which screws on, and is made air tight by the leather washer *d*.

The gas enters the regulator at the joint R and leaves it at S the motion and direction of the gas being indicated by the small arrows.

A is a round wooden ball covering the inlet and acting as a valve. I do not specify any particular material of which the said ball shall be made, as I have found gum or indiarubber to answer, but I prefer to make it of wood.

H is a circular disk attached to the hollow sliding spindle L and serves as a guide to the ball A.

K is a perforated hemispherical shaped disk, resting on the side of the casing B and preventing any communication of the gas with the upper chamber T except through the holes *m m* and *o*.

e is a packing box to prevent the escape of gas into the atmosphere.

F is a cap screwed upon the lid to prevent the regulating spindle L from being turned by incompetent hands.

The pressure of the gas upon the under side of the ball A raises it and the gas escapes on each side—it then passes through the perforated disk K through the holes *m* as shown by the arrows—it also passes through the opening *n* up the hollow spindle L and out of the opening *o* into the chamber T and from thence passes through the exit pipe to the burners.

When a great number of burners are turned on, the pressure above the ball is reduced, and it is raised considerably allowing a great quantity of gas to pass under it. Should however only one burner be turned on the ball will fall so as nearly to close the opening and allow but little gas to pass. If again the pressure in the main should be increased, the ball will be forced up against the opening *n* as shown by red lines *p*, thus allowing the gas to escape only by the openings *m*.

I make the instrument larger or smaller according to the quantity of lights to be supplied. It is also capable of adjustment by means of the hollow spindle L. This spindle has a screw cut on it at *u* and by turning the said spindle the opening *n* is brought closer to the ball A or farther from it as desired, thus regulating the distance through which the ball can rise and fall.

What I claim as my invention and desire to secure by Letters Patent, is—

The combination and arrangement of the double acting ball valve A. with the hollow sliding tube L. and the perforated hemispherical disk K. operating substantially as set forth.

THOMAS POWERS.

Witnesses:
EDWARD BROWN,
PARK H. MCFARLAND.