

No. 819,493.

PATENTED MAY 1, 1906.

T. B. WYLIE.

GAS LAMP.

APPLICATION FILED MAY 23, 1905.

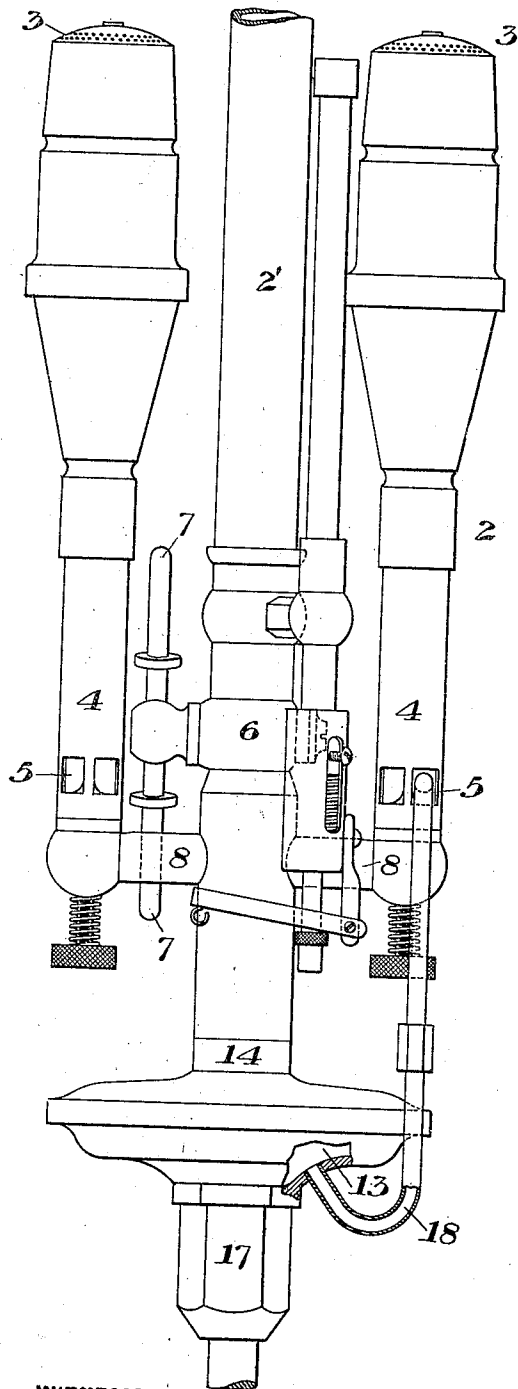


Fig. 1.

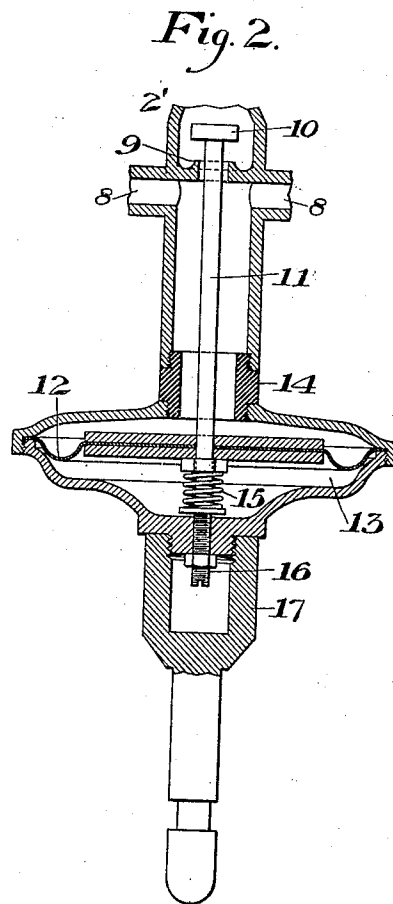


Fig. 2.

WITNESSES

Warren W. Swartz
R. A. Balderson.

INVENTOR

Thomas B. Wylie
by Balderson & Swartz
his attys

UNITED STATES PATENT OFFICE.

THOMAS B. WYLIE, OF PITTSBURG, PENNSYLVANIA.

GAS-LAMP.

No. 819,493.

Specification of Letters Patent.

Patented May 1, 1906.

Application filed May 23, 1905. Serial No. 261,906.

To all whom it may concern:

Be it known that I, THOMAS B. WYLIE, of Pittsburgh, Allegheny county, Pennsylvania, have invented a new and useful Gas-Lamp, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevation of my improved lamp, partly broken away; and Fig. 2 is a central vertical section of the regulating device.

My invention relates to the class of gas-lamps, particularly regenerative gas-lamps, where the gas-supply passes through a tube between the burners and is heated by the burner-flames.

The object of the invention is to provide a simple and efficient means for regulating the pressure of the gas passing to the burners by means of an attachment to the lamp proper. It is further designed to provide for adjusting or setting the pressure and to prevent leakage of gas into the room.

In the drawings, 2 represents a regenerative lamp having a central gas-supply tube 2' and surrounding burners 3 3, mounted on the mixers 4, having air-inlets 5.

6 represents the ordinary hand-controlled cock in the supply-pipe, which is shown as provided with oppositely-extending lever-arms 7, having a chain attachment by which the gas is turned on or off. Below this supply-cock and between it and the branch pipes 8, leading to the burners, I provide a valve-seat 9, formed by an inwardly-projecting ring portion or collar within the supply-tube. Above this seat is the valve 10, having a stem 11 extending down through the hole in the seat and secured to flexible diaphragm 12, whose edges are secured in the diaphragm-chamber 13. Between the lower end of the supply-tube and the diaphragm-chamber I preferably interpose a washer or separator 14 of non-heat-conducting material, such as fiber. This thimble separates the supply-tube from the diaphragm-chamber and prevents the supply-tube from conducting heat to the diaphragm-chamber which would injure the flexible diaphragm. A spring 15 bears upon a nut or collar on the rod 11 below the diaphragm and gives an upward pressure thereon. The tension of this spring may be regulated by a screw and nut 16, which are preferably covered by a cap 17.

In order to prevent any gas which leaks through or around the diaphragm from passing out into the room, I provide the leakage-tube 18, which leads from the diaphragm-chamber below the diaphragm up and into the mixer of one of the burners.

In the operation of the device the gas flowing downwardly through the supply-tube exerts a downward pressure on the valve 10 and the diaphragm, which is resisted by the spring under the diaphragm. If the pressure rises, the valve will be moved toward a closed position, and the pressure will thus be held substantially the same at the burners under varying pressures in the supply-tube. The heat of the supply-tube will not be conducted to the diaphragm-chamber, and any leakage through the diaphragm will pass direct to the burners.

The advantages of my invention will be apparent to those skilled in the art. The construction is simple and easily applied to gas-lamps and insures a steady light and economy in use.

My device may be used on many types of gas-lamps, and many variations may be made in the form and arrangement of the parts without departing from my invention.

I claim—

1. A gas-lamp having a hand-controlled cock in its supply-pipe, a valve in the supply-pipe between the said cock and the burners, a diaphragm-chamber below the said valve, a diaphragm therein, a rod connecting the diaphragm with the intermediate valve, a spring arranged to act upon the valve in opposition to the gas-pressure, and means for preventing the conduction of heat to the diaphragm-chamber; substantially as described.

2. A gas-lamp having a regulating-valve in its supply-pipe, a diaphragm-chamber and diaphragm therein, a connection between the said valve and the diaphragm, and a leakage-pipe extending from the diaphragm-chamber to one of the lamp-burner connections, whereby any gas leaking by the diaphragm is delivered to the lamp-burner; substantially as described.

3. A gas-lamp having a diaphragm-chamber connected to a controlled valve, and a leakage-pipe extending from said diaphragm-chamber to one of the mixers; substantially as described.

4. A gas-lamp having a hand-controlled cock, burners surrounding the supply-pipe, a

valve in the supply-pipe below the hand-cock
and between it and the branch pipes, a dia-
phragm-chamber secured to the lower end of
the supply-pipe, a rod connecting the dia-
5 phragm to the intermediate valve, and a
spring connected with the diaphragm; sub-
stantially as described.

In testimony whereof I have hereunto set
my hand.

THOMAS B. WYLIE.

Witnesses:

JOHN MILLER,
H. M. CORWIN.