

J. ANDERSON.
Gas-Valves.

No. 156,116.

Patented Oct. 20, 1874.

Fig. 1.

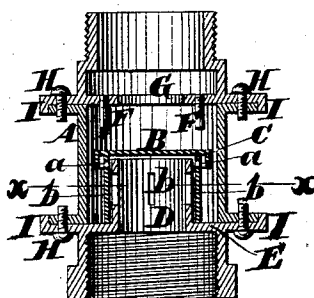
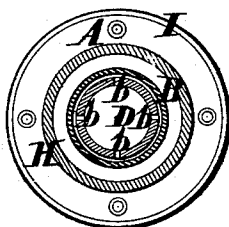


Fig. 3.



Fig. 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

JOHN ANDERSON, OF NEW YORK, N. Y.

IMPROVEMENT IN GAS-VALVES.

Specification forming part of Letters Patent No. **156,116**, dated October 20, 1874; application filed September 29, 1874.

To all whom it may concern:

Be it known that I, JOHN ANDERSON, of the city, county, and State of New York, have invented a certain new and useful Improvement in Gas-Valves, of which the following is a specification:

This invention relates to a valve for regulating the flow of gas from the supply source to the burner or burners to insure a steady flame.

My invention consists in a valve made in the form of a cap, which is provided with discharge-holes admitting of a certain and regular flow of gas, and with a flange overhanging the discharge-holes in such a manner as to increase the circuit and prevent any irregularity in the flow of the gas.

The valve is fitted loosely on a nipple or seat provided with longitudinal incisions whereby, as the pressure of the gas increases sufficient to raise the valve, the greater pressure is let off until the gas resumes its normal one. The extent of motion of the valve is regulated by means of adjustable stops, which are screwed into a plate or partition extending across the valve-chamber. The parts of the valve-shell are connected with each other by means of flanges, one of which is made with an overlapping rim whereby the parts are more easily fitted together, and I obtain an exceedingly tight joint.

The invention is illustrated in the accompanying drawing, in which—

Figure 1 is a vertical central section. Fig. 2 is a transverse section in the plane *x x*, Fig. 1. Fig. 3 is a sectional view of the valve detached.

Similar letters indicate corresponding parts.

The letter A designates the shell of my valve, the lower part of which is provided with an internal thread, and the upper part with an external one, whereby the shell is screwed to a supply and discharge pipe running from a gas-meter to the burner or burners. B designates the valve, which is cylindrical, being made in the form of a cap or thimble, and *a* are its discharge-holes or perforations, which are near the top or closed end of the valve. The top plate of the valve extends beyond its side, and is turned down in such a manner as to form a flange, C, parallel with, and a short distance from, the side of the valve. The flange extends downward beyond the discharge-holes *a*, so that the gas, issuing from the holes, is compelled to flow

down around the flange, in order to reach the discharge-pipe, and by this circuitous route any irregularity in the flow of the gas is broken, and the same issues steadily and uniformly to the burner. The valve is fitted on a seat, D, made in the form of a nipple, which projects from the inner edge of a plate, E, extending across the valve-shell. In the body of the nipple or valve seat D are a series of longitudinal incisions or holes, *b*.

The discharge-holes *a* admit only of a certain and uniform flow of gas, which, under ordinary pressure, is maintained at all times, and results in an economy of gas, but when the flow or pressure of the gas becomes greater than can issue from the discharge-holes *a*, it lifts the valve, so as to expose the incisions *b*, from which the gas then issues until the pressure again becomes normal when the valve resumes its former position, which is that shown in the drawing.

F are stops, by means of which I regulate the extent of motion of the valve B, the stops being secured in a plate, G, by means of a screw-thread, so that they are adjustable.

The valve-shell A is made in parts or sections which can be taken apart so as to obtain access to the valve-chamber. The said parts or sections are connected with each other by means of flanges H, on one of which is cast or otherwise formed a rim, I, of such a diameter as to fit nicely around the other or fellow flange, the rim being made to embrace or overlap the said fellow-flange when the parts are put together.

By this arrangement the workman has no trouble in getting the flanges to coincide, and at the same time the overlapping rim serves to break joints so that no gas is allowed to escape.

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

The valve B, having discharge-holes *a* and an overhanging flange, C, in combination with the valve-seat D having longitudinal holes or incisions, and, with the stops F, adapted to operate substantially as herein described.

In testimony that I claim the foregoing I have hereunto set my hand this 23d day of September, 1874.

JOHN ANDERSON.

Witnesses:

E. F. KASTENHUBER,
CHAS. WAHLERS.