

J. C. SARSFIELD.

Valves for Gas-Regulators.

No. 136,007.

Patented Feb. 18, 1873.

Fig. 1

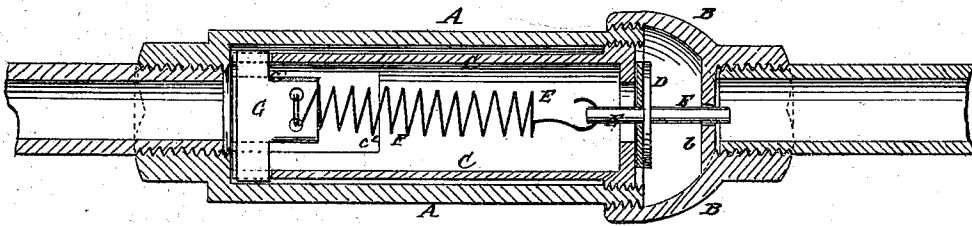
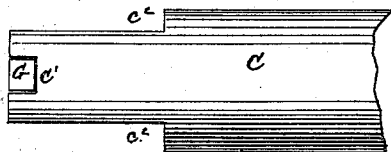


Fig. 2



Witnesses:

A. W. M. M. M.
C. Sedgwick

Inventor:

J. C. Sarsfield

PER

M. M. M.
Attorneys

UNITED STATES PATENT OFFICE.

JOHN C. SARSFIELD, OF NEW YORK, N. Y.

IMPROVEMENT IN VALVES FOR GAS-REGULATORS.

Specification forming part of Letters Patent No. 136,007, dated February 18, 1873.

To all whom it may concern:

Be it known that I, JOHN C. SARSFIELD, of the city, county, and State of New York, have invented a new and useful Improvement in Self-Acting Valve, of which the following is a specification:

Figure 1 is a detail longitudinal section of my improved self-acting valve. Fig. 2 is a detail side view of a part of the same.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved self-acting valve for regulating the pressure and flow of gas as it passes from the meter to the burners, to cause each burner to give the proper amount of light, however many or few burners may be burning, and which shall be simple in construction, conveniently applied, and effective in operation; and it consists in the combination of the tube, flanged at one end and having two sets of notches of unequal depth formed in its other end, the valve, the spring, and the cross-bar, with each other and with the tubular chamber, to adapt the device to be attached to a gas-pipe, between the meter and burners, as hereinafter more fully described.

A B is a tubular chamber, designed to be connected with the gas-pipe leading from the meter to the burners. The tubular chamber A consists of two parts, the body or main part A and the cap B, which parts are screwed together, as shown in Fig. 1. C is a tube, open at one end, having an inwardly-projecting flange formed around its other end, leaving a hole through its center for the passage of the gas. The flanged end of the tube C has a screw-thread cut upon its outer surface to screw into a screw-thread cut in the inner surface of the mouth of the part A of the tubular chamber A B. The hole through the flanged end of the tube C is closed with a valve, D, which rests upon the outer or for-

ward side of the said flange, and the forward end of its stem E passes through a guide-hole in an arm, *b'*, formed in the cap part B of the tubular chamber A B. The other end of the valve-stem E passes into the tube C, and has one end of a coiled wire-spring, F, attached to it. The other end of the spring F is attached to a cross-bar, G, which rests in notches *c'* formed in the edge of the open end of the tube C. In the edge of the open end of the tube C, midway between the notches *c'*, are formed two other notches, *c''*, which are made deeper and wider than the notches *c'*, so that, by raising the cross-bar G out of the notches *c'*, turning it one-quarter around and dropping it into the notches *c''*, the spring F will be slackened, so that it may be adjusted to regulate its tension as may be required. By this construction, as one or more burners are lighted, the tendency is to form a vacuum in front of the valve D, which allows the pressure of the gas to raise the valve D less or more, according to the number of burners lighted, so as to furnish exactly the amount of gas required for said burners, so that there will always be a uniform pressure of gas upon the burners, however many or few may be lighted.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The tube C, notched at *c'* *c''*, and the cross-bar G combined with the spring of valve-stem E and valve D, as described, so that the cross-bar may be changed in its position and thus change the tension of spring.

2. The tube C, provided with a valve held to the cross-bar by a spring combined with the parts A B, constructed and applied thereto as and for the purpose set forth.

JOHN C. SARSFIELD.

Witnesses:

JAMES T. GRAHAM,
T. B. MOSHER.