

D. SLOAN.
Gas-Regulator.

No. 162,703.

Patented April 27, 1875.

Fig: 1.

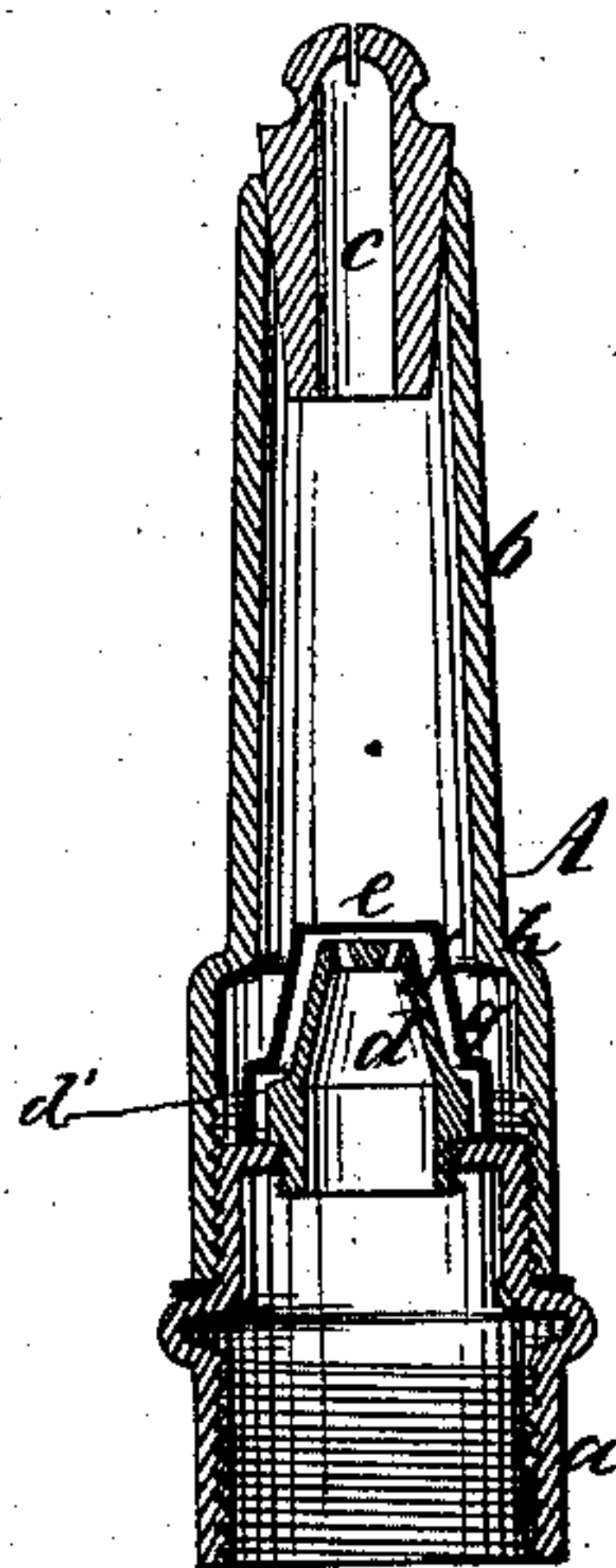
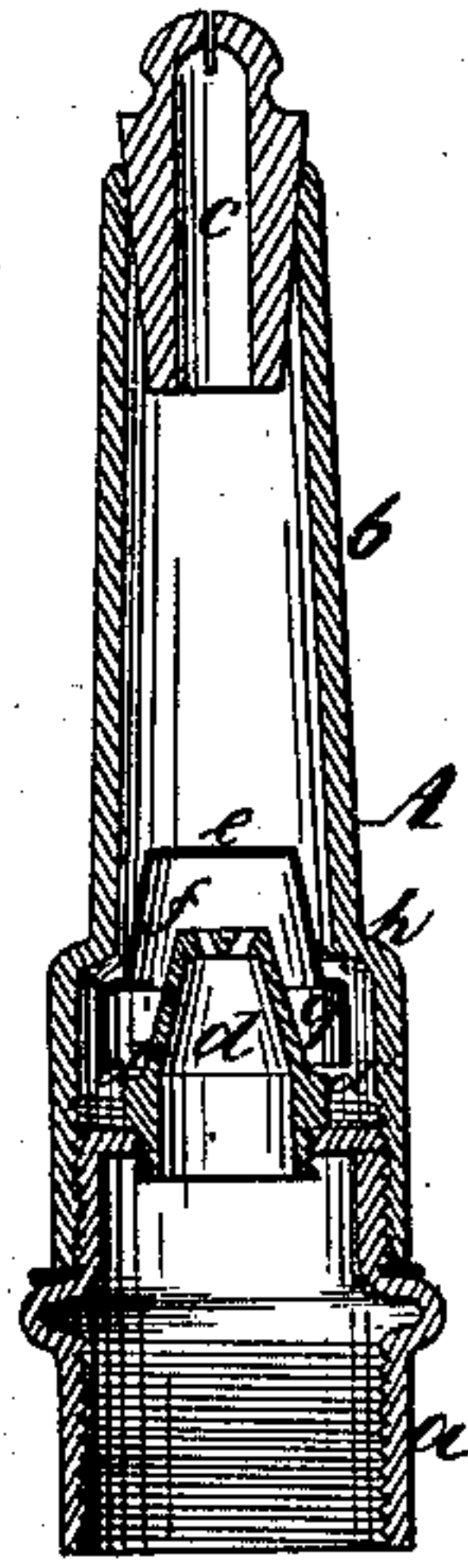


Fig: 2.



Witnesses:
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per
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UNITED STATES PATENT OFFICE.

DANIEL SLOAN, OF NEW YORK, N. Y.

IMPROVEMENT IN GAS-REGULATORS.

Specification forming part of Letters Patent No. **162,703**, dated April 27, 1875; application filed March 13, 1875.

To all whom it may concern:

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

This invention is illustrated in the accompanying drawing, in which Figure 1 represents a vertical central section when the gas-valve is closed. Fig. 2 is a similar section when the valve is partly raised.

Similar letters indicate corresponding parts.

This invention relates to an improvement in gas-burners of that class which contain a gas-check, between which and the tip of the burner is formed a chamber for the purpose of producing a uniform flow of gas to the flame.

My improvement consists in combining, with the tapering nipple of the gas-check, a conical cap or valve, which fits loosely over the nipple, and which is provided with a shoulder, in such a manner that between the nipple and the gas-valve a chamber is formed, which assists in regulating the flow of the gas to the flame, and that when the gas-valve is raised its shoulder prevents it from becoming wedged in the tubular body of the burner.

In the drawing, the letter A designates a gas-burner, which consists of the lower part or socket-piece *a*, the tubular body *b*, and the tip *c*. In the socket-piece *a* is secured a gas-check, which is composed of a conical nipple, *d*, open at the bottom, and provided at its base with a shoulder, *d'*, and at its top with one or more perforations large enough to let out a sufficient quantity of gas for the tip, which may be secured in the burner, the tip being selected to burn one, two, three, or more feet of gas per hour, as the case may be. Over the nipple *d* is placed a cap or valve, *e*,

which is also conical, and which fits the nipple loosely, so that between it and said nipple a chamber is formed, which must be filled with gas before any of the gas escapes through the gas-chamber *f* to the tip *c*.

When the pressure of the gas beneath the valve *e* rises beyond a certain degree, or if by the action of the flame the pressure in the gas-chamber *f* above said valve is reduced, the valve is lifted up, and thus the flow of gas to the flame is regulated.

On the body of the valve *e* is formed a shoulder, *g*, which, when said valve is lifted up suddenly, strikes against the shoulder *h* of the body *b*, and thereby the valve is prevented from being wedged in the tubular body.

The burner-tip is, by preference, made of lava or soap-stone, and it is inserted loosely into the tubular body *b*, so that a tip of larger or smaller size can be substituted for it, if desirable.

The object of the shoulder *d'* on the nipple is to prevent the cap or valve from rattling or ticking during the operation of opening and closing.

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

In a gas-burner, the combination of the valve *e*, provided with a shoulder, *g*, the conical check or nipple *d*, the tubular body *b*, and the burner-tip *c*, all constructed and operating substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 9th day of March, 1875.

DANIEL SLOAN. [L. S.]

Witnesses:

W. HAUFF,

E. F. KASTENHUBER.