

(No Model.)

A. M. HUGHES & H. C. SMITH.
GAS REGULATOR.

No. 536,953.

Patented Apr. 2, 1895.

Fig. 1.

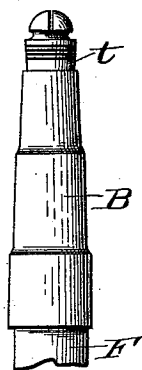


Fig. 2.

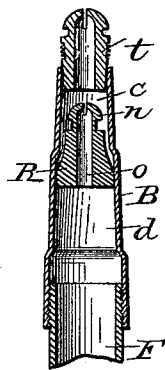


Fig. 3.

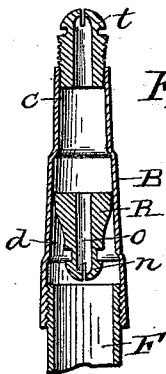
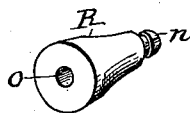


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

ARCHELAUS M. HUGHES, OF COLUMBIA, TENNESSEE, AND HARRY CLAY SMITH, OF WASHINGTON, DISTRICT OF COLUMBIA.

GAS-REGULATOR.

SPECIFICATION forming part of Letters Patent No. 536,953, dated April 2, 1895.

Application filed May 8, 1894. Serial No. 510,445. (No model.)

To all whom it may concern:

Be it known that we, ARCHELAUS M. HUGHES, residing at Columbia, in the county of Maury and State of Tennessee, and HARRY CLAY SMITH, residing at Washington, in the District of Columbia, citizens of the United States, have invented certain new and useful Improvements in Gas-Regulators, of which the following is a specification, reference being had therein to the accompanying drawings.

Our invention relates to an improved gas-pressure regulator; and it has for its object the production within the burner-tube of a plurality of expansion chambers, whereby the flow of gas to the point of combustion is controlled irrespective of the pressure exerted in the pipe.

The invention consists of certain details of construction and combination of parts, which will first be described in connection with the accompanying drawings, and then pointed out in the claim.

In the drawings, Figure 1 is an elevation of the gas-burner and a portion of the gas-fixture. Fig. 2 is a vertical central section of the same, showing our check in place within the burner-tube in one position. Fig. 3 is a similar view, showing the check reversed. Fig. 4 is a perspective view of the check detached.

Referring to the drawings, F represents a portion of a gas-fixture, on which is screwed an ordinary conoidal burner-tube B, provided with the usual lava tip t.

R represents the check, which is made of any suitable material, but preferably of metal. It is conoidal in form, having a nib n, which is slitted, as shown, the conical portion of the check having an axial opening o, in direct communication at its upper end with the slitted nib. The base of the check is of a size and shape to snugly fit within the burner-tube some distance above the junction of the latter with the gas-fixture, when the nib will be a

short distance beneath the lava tip. It will thus be seen that two expansion chambers c d are formed within the burner-tube.

If desired, the position of the check within the burner-tube may be reversed, as seen in Fig. 3, with practically the same result, except that the flow of gas will be still more retarded than when the check is in the other position.

This invention is to be clearly distinguished from gas-regulators of that class in which there is a burner-tube provided with a tip and a cap carrying another tip fitted over the upper portion of the burner, resting against a shoulder on the same, as by our construction we employ the burner-tube alone, and in this place both the check and the usual tip, thereby dispensing with the extra cap. This is essential not only as to the difference in cost of construction, but also from the fact that there is likely to be a leakage of gas at the junction of the cap and burner-tube.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

An ordinary burner-tube provided with the usual lava tip and a reversible conoidal check having a slitted nib and an axial opening communicating therewith, said check being shaped and adapted to snugly fit the interior of the burner-tube intermediate between the lava tip and the point of attachment of the tube to the gas-fixture in such manner as to leave one expansion-chamber between said point of attachment and the check and another between the check and the lava tip, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

ARCHELAUS M. HUGHES.
HARRY CLAY SMITH.

Witnesses:

V. E. SCHWAB,
JAMES JEFFREYS.