

(No Model.)

W. G. PUGH.
GAS BURNER CHECK.

No. 279,595.

Patented June 19, 1883.

Fig. 1.

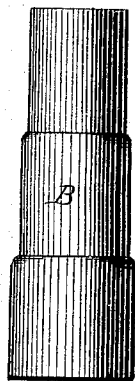


Fig. 3.

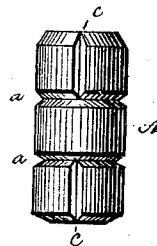
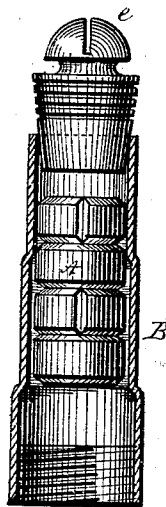


Fig. 2.



Fig. 4.



Witnesses:

Phil. L. Dietrich

S. C. Crane

Inventor:

Wm. George Pugh
by W. Morris Smith
Atty

UNITED STATES PATENT OFFICE.

WILLIAM G. PUGH, OF BALTIMORE, MARYLAND, ASSIGNOR OF ONE-HALF
TO LUTHER R. SMOOT, OF SAME PLACE.

GAS-BURNER CHECK.

SPECIFICATION forming part of Letters Patent No. 279,595, dated June 19, 1883.

Application filed May 2, 1883. (No model.)

To all whom it may concern:

Be it known that I, WM. GEORGE PUGH, a citizen of the United States, residing at Baltimore, in the county of Baltimore and State of Maryland, have invented certain new and useful Improvements in Gas-Burner Checks; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

There has long been need of a more effective check in gas-burners, for the purpose of preventing the gas from passing too rapidly through them under the pressure to which they are subjected. Particularly is this the case in increasing the size of a burner-tip from four feet and upward, and which can only be done in the check-burners now in use by enlarging the apertures in the check, which enlargement causes the gas to flow so freely through the burner as to cause almost as great waste as in burners without checks.

In cities of rolling surface, pressure varies greatly and increases rapidly as it reaches the higher levels, for the reason that gas is lighter than air; hence the necessity of the consumer protecting himself by a proper burner. The construction of such a burner-check is the object of this invention, which consists of a plug of novel formation on its periphery, and either solid or hollow, to be inserted in the pillar of an ordinary burner and easily changeable, to suit the various pressures.

Referring to the accompanying drawings, Figure 1 represents the pillar of a burner; Fig. 2, the tip; Fig. 3, the check-plug to be inserted in the pillar, leaving a space between it and the tip; Fig. 4, the pillar in section, with the tip and check-plug in place in elevation.

The same letters occurring on the several figures indicate like parts.

This check-plug A, I propose to construct of lava or any other suitable material; and it consists of a nearly cylindrical piece, with one or more annular grooves, *a*, around it, and these grooves are connected with each other and with the supply-pipe and tip *e* by longitudinal grooves *c*, extending from one groove to another, but no farther, so that the gas from the pipe will pass up one or more of these grooves *c* to the first annular groove *a*, thence partially around the plug, until it reaches another vertical groove *c*, through which it will ascend to the next annular groove *a*, and so on until it reaches the tip *e*, for consumption. By this zigzag course friction is created, the pressure is checked, and the consumption of gas is lessened in proportion to the number of grooves around the plug or check, those having the greatest number being adapted to high levels, those with fewer to medium levels, while the ordinary burner may be used without any check on low levels.

I am aware that burners have been provided with perforated disks and with woven-wire checks; also with a continuous spiral channel, for expanding the gas in its passage through the heated burner. These, therefore, I do not claim; but

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

The check-plug A, constructed to fit the interior of the pillar B, and provided with one or more annular grooves, *a*, connected at irregular spaces with each other and with the supply-pipe and burner-tip *e* by vertical or longitudinal grooves *c*, as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

WM. GEORGE PUGH.

Witnesses:

BENSON M. GREENE,
JOHN WILLIAMS.