

(No Model.)

L. DARU.
GAS BURNER.

No. 496,298.

Patented Apr. 25, 1893.

Fig. 1.

Fig. 2.

Fig. 3.

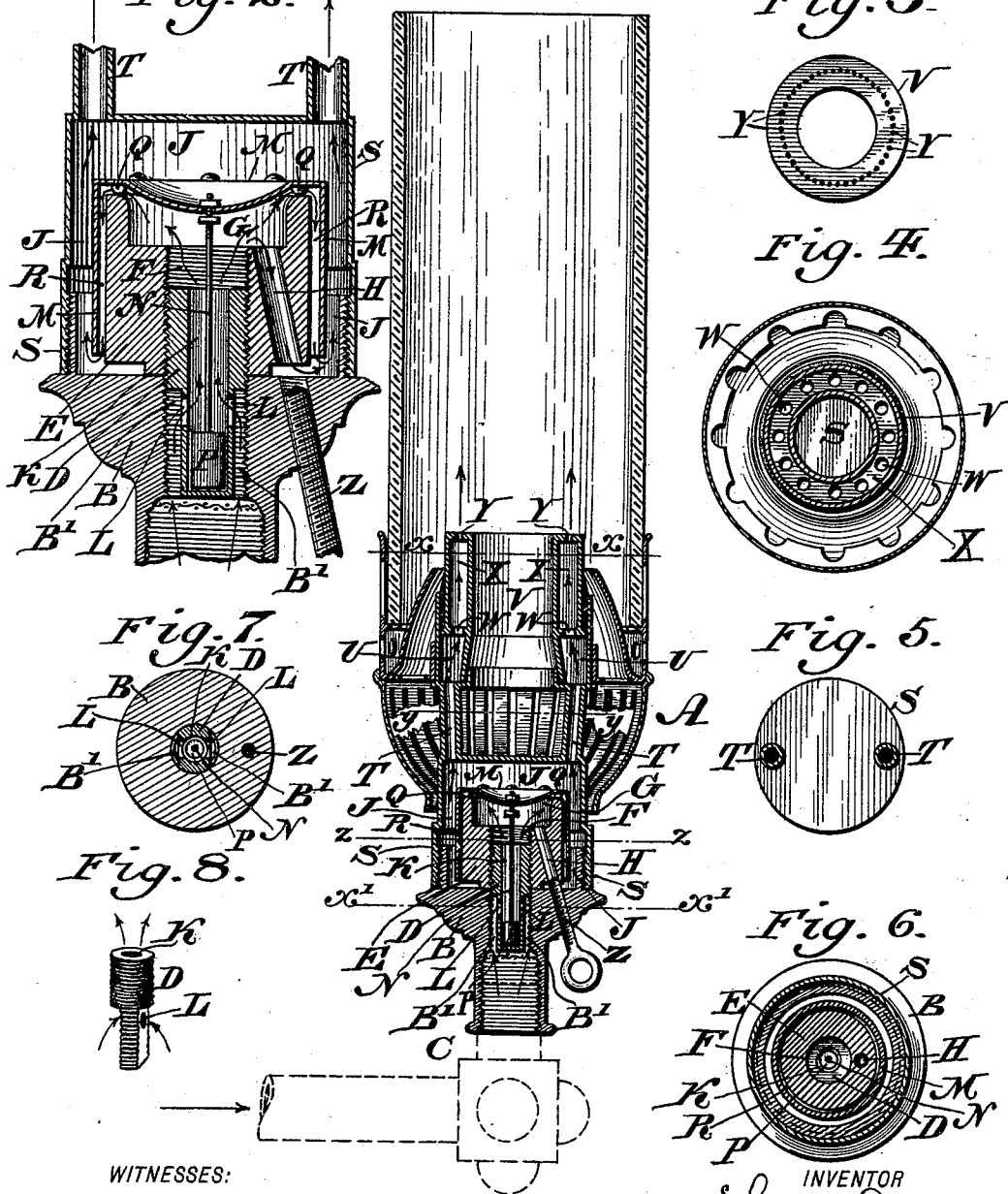
Fig. 4.

Fig. 5.

Fig. 6.

Fig. 7.

Fig. 8.



WITNESSES:

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GAS-BURNER.

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Application filed October 31, 1892. Serial No. 450,581. (No model.)

To all whom it may concern:

Be it known that I, LEON DARU, a citizen of France, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Gas-Burners, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consist of an improvement in gas burners, whereby the flow of the gas is regulated, and a steady flame thereby produced, the construction of the same being hereinafter fully set forth.

It also consists of the parts as hereinafter described.

Figure 1 represents a vertical section of a gas burner embodying my invention. Fig. 2 represents a section on an enlarged scale of a part of a burner embodying my invention. Fig. 3 represents a plan view of the top of the burner. Fig. 4 represents a section on line *x, x*. Fig. 5 represents a section on line *y, y*. Fig. 6 represents a section on line *z, z*. Fig. 7 represents a section on line *x', x'*. Fig. 8 represents a perspective view of a plug, as will be hereinafter described.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings:—A designates a gas burner having a base B, which is adapted to be fastened to a gas pipe C. Secured to the base B, by a plug D, is a block E, the latter having a bore F and a chamber G above the same. A duct H leads from the chamber G to a chamber J, to be hereinafter referred to. The plug D is provided with a central chamber K, whose lower end is closed, and sides provided with openings L communicating with the passage B' in the base B. A cap M, which acts as a deflector covers the block E, and has a rod N secured thereto, said rod having a valve P, which latter, together with the rod N, works in the chamber K of the plug D, as will be hereinafter more fully described. Feet Q, are situated on the inner side of the cap M, and bear upon the block E, so as to elevate the cap therefrom. Between the depending side of the cap M, and the block E is a passage R, which connects with the chambers G and J. Secured to the base B is a cylinder S, which forms said chamber J, the latter being around the side and top of the

cap M, and has outlet pipes T, which lead into a chamber U of the burner V. Openings W lead from the chamber U into a gas chamber X, which is provided with openings Y at the top where the gas is burned. A screw Z passes through the base B into the passage H, for adjusting the flow of gas.

The operation of the device is as follows:— The gas enters the passage B' and the chamber K, through the openings L, and thence to the chamber G, from whence some of it reaches the passage R and duct H, and enters the chamber J, after which it passes through the pipes T into the chambers W and X, and escapes at the openings Y, where it is consumed. As the cap M is regulated for a certain flow of gas, the increase in the pressure thereof raises the said cap, whereby the valve is elevated and partly closes the openings L, thus decreasing the volume of gas admitted to the burner. When the pressure decreases, the cap falls, and the openings L are uncovered, whereby more gas is admitted to the burner, it being readily seen that by these means, the flow of gas may be nicely regulated. When it is desired to turn down the light, without extinguishing the same, the screw Z is operated until the same enters the duct H, whereby the latter is closed, and only a limited quantity of gas enters the passage R through the space between the cap M and block E, formed by the feet Q.

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

1. A gas burner having a base, a block connected with said base by a plug, a casing surrounding said block, a rising and falling cap on said block, a valve controlling an inlet opening in said plug, and a rod connecting said cap and valve, said parts being combined substantially as described.

2. A gas burner having a base, a casing connected therewith, a block within said casing connected by a hollow plug to said base, a rising and falling cap having feet seated on said block, a valve controlling an inlet opening in said plug, and a rod connecting said cap and valve, said parts being combined substantially as described.

3. A gas burner having a base, a block with connecting plug, a cap on said block having

connected therewith a valve controlling an inlet opening in said plug, and a cylinder on said base forming a chamber surrounding said cap, said block having a duct leading
5 from a chamber within the same to said surrounding chamber, said parts being combined substantially as described.

4. A gas burner having a base, a block connected therewith by a plug having an inlet
10 opening therein, a cap resting on said block and having its side surrounding the block forming a passage between them, a valve connected to said cap and controlling the inlet
15 opening in said plug, and a cylinder on said base forming a chamber in communication by said surrounding passage with a chamber in
said block, said parts being combined substantially as described.

5. A gas burner consisting of the base B,
20 the block E having the chamber G and duct H therein, connecting plug D with the opening L therein, the cap M with depending side forming the passage R, the cylinder S secured to the base B forming the chamber J, the out-
25 let pipes T, the chamber U with outlets, and

the chamber X with the openings Y, said parts being combined substantially as described.

6. In a gas burner, a base, a block with connecting plug having a closed lower end, and an inlet opening in its side communicating
30 with a passage surrounding said closed lower end, a cap with feet resting on said block and having a depending side forming a passage between it and the block, and a valve connected to said cap and controlling said inlet
35 opening, said parts being combined substantially as described.

7. In a gas burner, a base, a block with the duct H therein, a plug connecting said base and block, and having an inlet opening there-
40 in, a cap with feet resting on said block, a valve connected to said cap and controlling said inlet opening, and a screw for closing said duct, said parts being combined substantially as described.

LEON DARU.

Witnesses:

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