

Eduard Lamler

Gas Regulator

117305

PATENTED JUL 25 1871

Fig. 1.

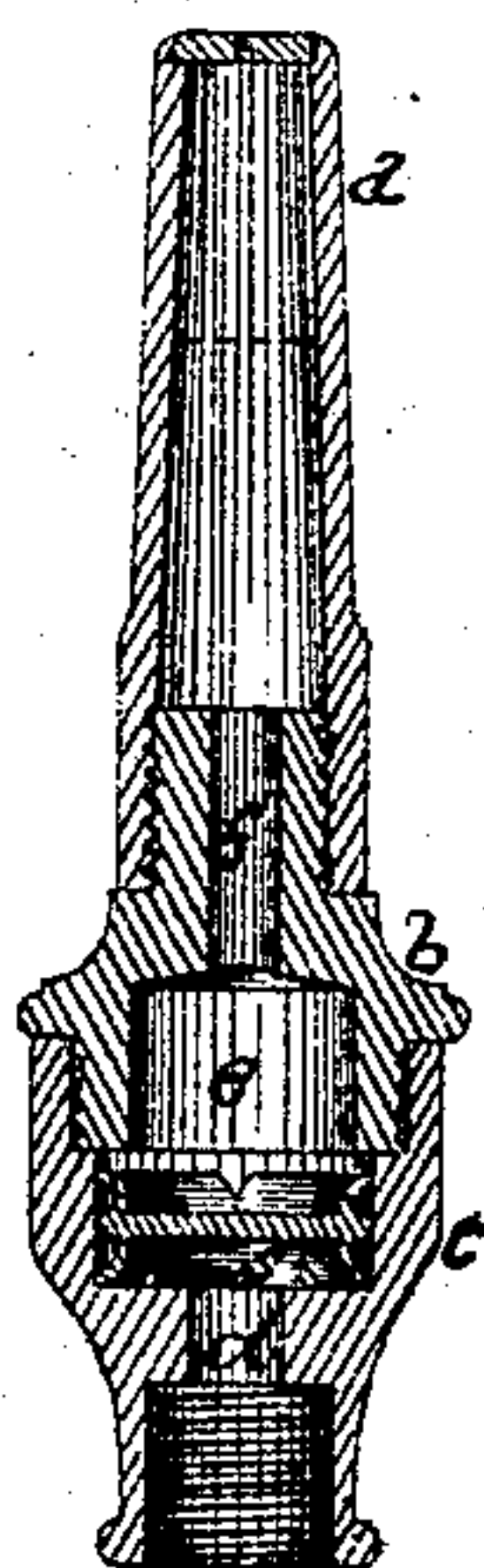


Fig. 2.

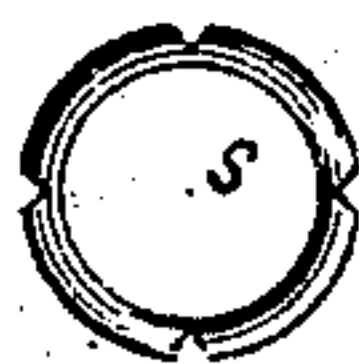


Fig. 3.



Fig. 4.



Witnesses.

George G. Sill

E. Henry. My atty for

Inventor

Eduard Lamler

by W. E. Simonds Atty.

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Conn.

UNITED STATES PATENT OFFICE.

EDWARD LAWLER, OF HARTFORD, CONNECTICUT.

IMPROVEMENT IN REGULATORS FOR GAS-BURNERS.

Specification forming part of Letters Patent No. 117,305, dated July 25, 1871.

To all whom it may concern:

Be it known that I, EDWARD LAWLER, of Hartford, in the county of Hartford and State of Connecticut, have invented an Improved Gas-Regulator, of which the following is a specification:

My invention is an improved device to be applied to pipes used for the conduction of gas for the purpose of regulating the flow. Its most general use will be for attachment at the base of each separate "burner" or "tip" used for firing the common illuminating-gas. The invention consists in the construction, arrangement, and combination of parts, as hereinafter described and claimed.

Figure 1 is a central vertical section of my invention attached at the base of a tip or burner. Fig. 2 is a bottom view of the valve. Fig. 3 is a top view of the valve. Fig. 4 is a side view of the valve.

a indicates the common gas-burner or tip, the base of which is screwed in the top part or cap *b* of my invention; this, in turn, is screwed into the main part or body *c*, and this last piece, in its turn, screws onto the conduction-pipe. The gas flows in from the conduction-pipe through the inlet *d* into the chamber *e*, and through the outlet *f* into the tip. Below the chamber *e*, which is in the cap *b*, is another chamber in the body *c* of somewhat larger diameter than the chamber *e*, and in this lower chamber is the valve *s*, which can rise and fall freely in the lower chamber, but when it rises about the distance allowed it in the drawing, it strikes against the bottom of the cap *b* and would totally shut off the gas were it not for the three small nicks, *i i i*, which allow a diminished quantity of gas to flow through. The bottom of the valve has four or more larger nicks for allowing the inflow of a generous quantity or volume of gas when

the pressure is low, and the valves, in consequence, rest on the bottom of the chamber.

The action of the valve is this: When the pressure is high the valve rises to the top of the chamber in the body and only allows that volume of gas to escape which can go through the small nicks in the top of the valve, and as the size of these nicks is regulated and graduated by the size of the orifices in the end of the tip, the valve always prevents the passage to those orifices of enough gas to cause a waste or make that unpleasant rushing sound so familiar to the ear when a strong pressure of gas is made on the common burner. When the pressure subsides the valve falls back to the bottom of the chamber and the gas enters freely through the nicks in the bottom of the valve, which are large and numerous; it runs freely by the sides of the valve as the diameter of the valve is less than that of the lower part of the chamber. The nicks in the top of the valve must be graduated in number and size by the size of the orifices in the end of the tip, being made so small that under the highest ordinary pressure of the gas there will not be enough allowed to pass to cause that rushing sound hereinbefore spoken of.

I do not claim, broadly, a valve provided with openings, and adapted to rise and fall in a chamber to regulate the supply of gas to the burner, as this is not new; but

I claim as my invention—

The valve *s*, when constructed in the form shown, and nicked, as described, upon its upper and lower edges, in combination with the cap *b* and body *c*, all arranged and operating as and for the purpose described.

EDWARD LAWLER.

Witnesses:

WM. E. SIMONDS,
THEO. H. BABCOCK.