

No. 791,260.

PATENTED MAY 30, 1905.

C. T. FULLER.
VALVE REGULATING DEVICE FOR GAS BURNERS.
APPLICATION FILED MAR. 25, 1905.

Fig. 1.

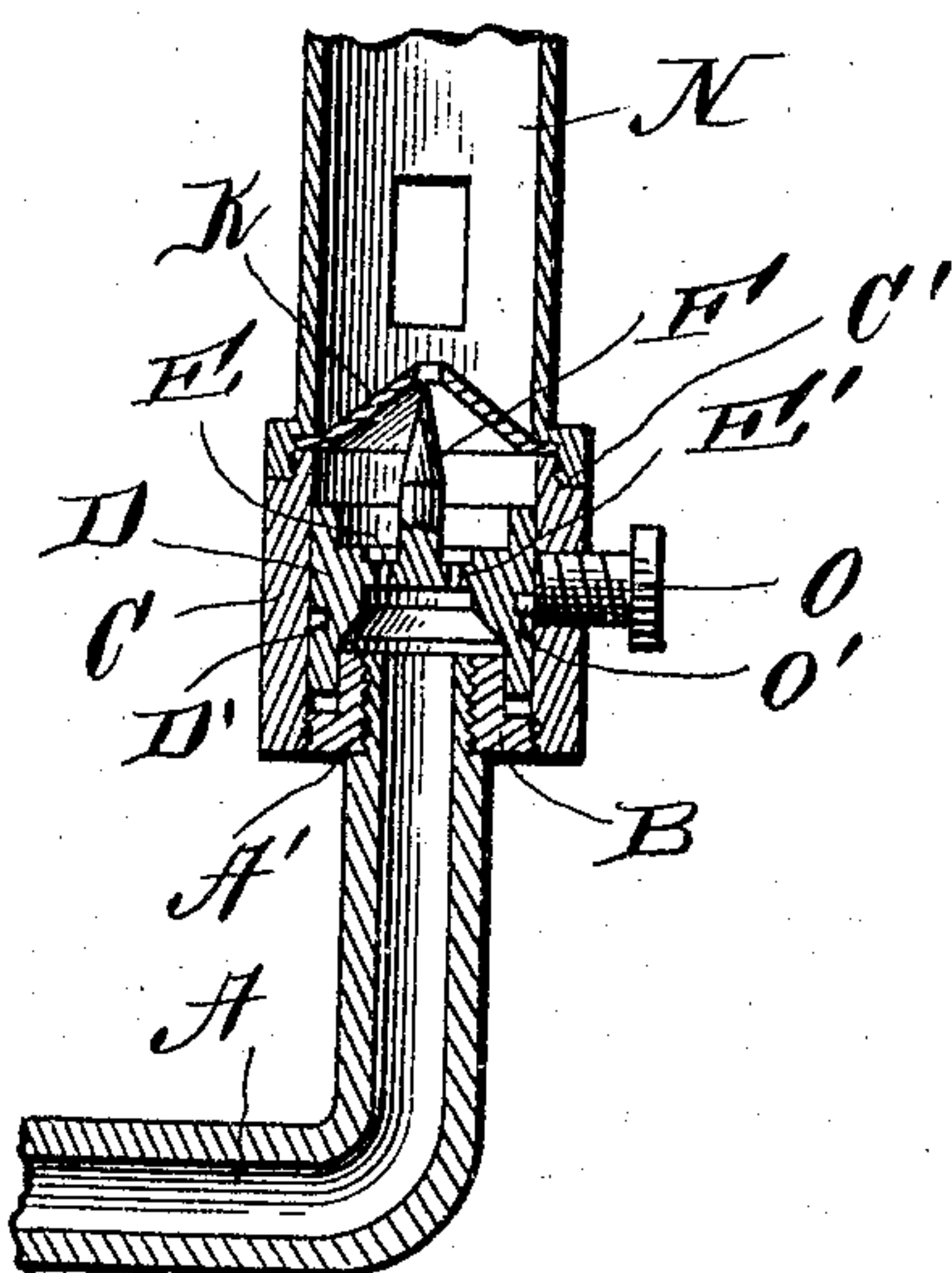


Fig. 2.

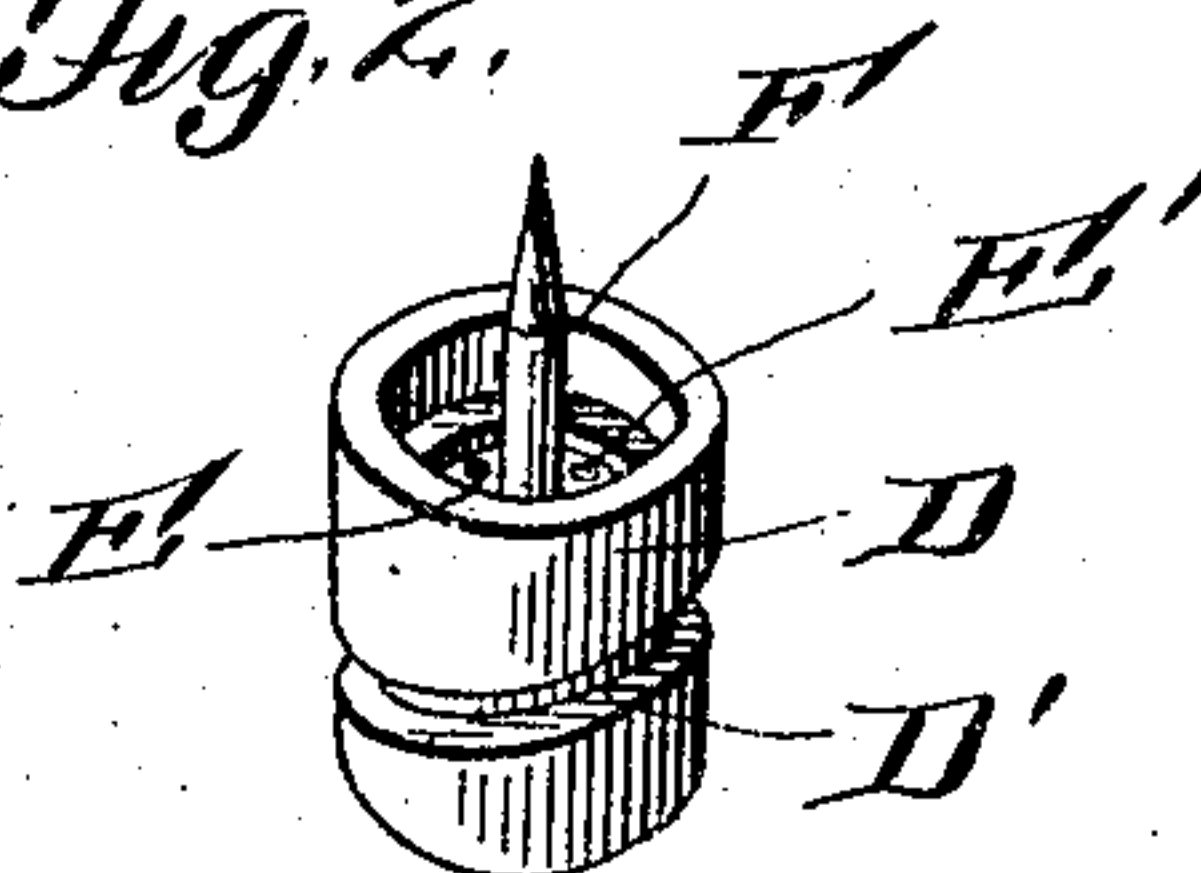
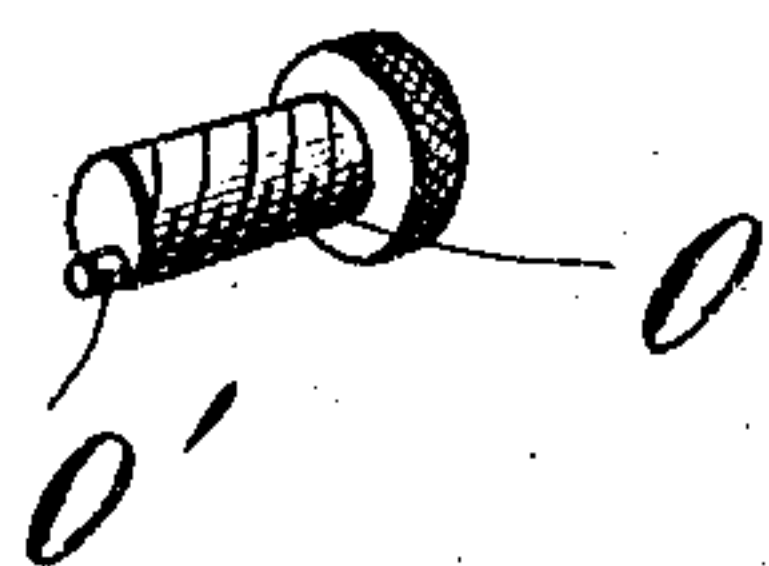


Fig. 3.



Witnesses

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CHARLES T. FULLER, OF OLEAN, NEW YORK.

VALVE-REGULATING DEVICE FOR GAS-BURNERS.

SPECIFICATION forming part of Letters Patent No. 791,260, dated May 30, 1905.

Application filed March 25, 1905. Serial No. 252,035.

To all whom it may concern:

Be it known that I, CHARLES T. FULLER, a citizen of the United States, residing at Olean, in the county of Cattaraugus and State of New York, have invented certain new and useful Improvements in Valve-Regulating Devices for Gas-Burners; 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 of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in valve-regulating devices for gas-burners, and comprises means whereby a hollow drum is provided through which the gas passes to the burner and which will give a direct pressure to the needle-point.

More specifically, the invention comprises a hollow plunger or drum carrying a needle-point and actuated by means of an eccentric-pin mounted upon a screw whereby the adjustment of the needle may be readily made to regulate the quantity of gas desired to be fed to the burner.

The invention consists, further, in various details of construction and arrangements of parts, which will be hereinafter fully described and then specifically defined in the appended claims.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a sectional view through a burner. Fig. 2 is a perspective view of the plunger removed, showing the cam-groove about the circumference thereof; and Fig. 3 is a detail perspective view of the eccentric-pin mounted upon the screw.

Reference now being had to the details of the drawings by letter, A designates a gas-jet having a threaded portion A', upon which a threaded union B is mounted, and C designates the shell of the burner, which is fitted to the flange of the union B. Mounted to have a longitudinal movement within said shell is a plunger D, having a cam-groove D' in its circumference, and E designates a perforated portion of the plunger having aper-

tures E' therein, through which gas is allowed to pass, said portion E supporting a needle-valve F. The top of said shell has a shoulder C', and K designates a cap which is struck up and rests upon the upper end of the shell. N designates a Bunsen tube the lower end of which is shouldered and threaded and adapted to fit over the shoulder upon said shell and hold the cap thereon in the manner shown in Fig. 1 of the drawings. O designates a screw fitted in a threaded aperture in said shell, and O' designates an eccentric-pin mounted upon said screw and positioned in the cam-groove D' of said plunger. The lower portion of said shell, it will be observed, is of such a size as to snugly fit in the space intermediate the inner wall of the shell and the upwardly-projecting part of the thimble B, whereby the shell may be raised and lowered without allowing any gas to escape which might accumulate in the groove of the plunger.

By the provision of an apparatus as shown and described it will be observed that the plunger being hollow will allow the gas to have a direct pressure upon the needle, and means are provided whereby the needle may be easily and accurately adjusted.

While I have shown a particular form of apparatus illustrating my invention, it will be understood that I may vary the details of the same, if desired, without in any way departing from the spirit of the invention.

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

1. A valve-regulating means for burners comprising, in combination with a jet, a union fitted thereto, a shell having threaded connection with said union, a cap and a burner mounted upon said shell, a plunger having a hollow cylindrical portion, the lower end of which is adapted to work snugly in a space intermediate the inner face of said shell and the circumference of a cylindrical portion of said union, a needle-point carried by said plunger, and means for raising and lowering said plunger, as set forth.

2. A valve-regulating means for burners comprising, in combination with a jet, a union fitted thereto, a shell having threaded connec-

tion with said union, a cap and a burner mounted upon said shell, a plunger having a hollow cylindrical portion, the lower end of which is adapted to work snugly in a space intermediate the inner face of said shell and the circumference of a cylindrical portion of said union, a needle-point carried by said plunger, the circumference of said plunger having an inclined circumferential groove, an adjusting-screw mounted in the threaded aperture in the wall of said shell, and an eccentric-pin mounted upon the inner end of said screw and engaging said groove, as set forth.

3. In combination with a jet, a union having threaded connection therewith, a flange, the circumference of which is threaded, a shell fitted to said threaded flange, a cap upon the

shell, a burner-tube having a threaded connection with said shell and provided with a shoulder portion bearing against said cap, a plunger having a hollow cylindrical portion which is adapted to work over said union and jet and snugly fill the space intermediate the union and shell, a perforated partition within said plunger, a needle rising from the partition, and means for raising and lowering the plunger, as set forth.

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

CHARLES T. FULLER.

Witnesses:

J. H. THOMPSON,
W. L. PELTON.