

(No Model.)

M. F. ELLIOTT.

REGULATING VALVE FOR GAS BURNERS.

No. 348,897.

Patented Sept. 7, 1886.

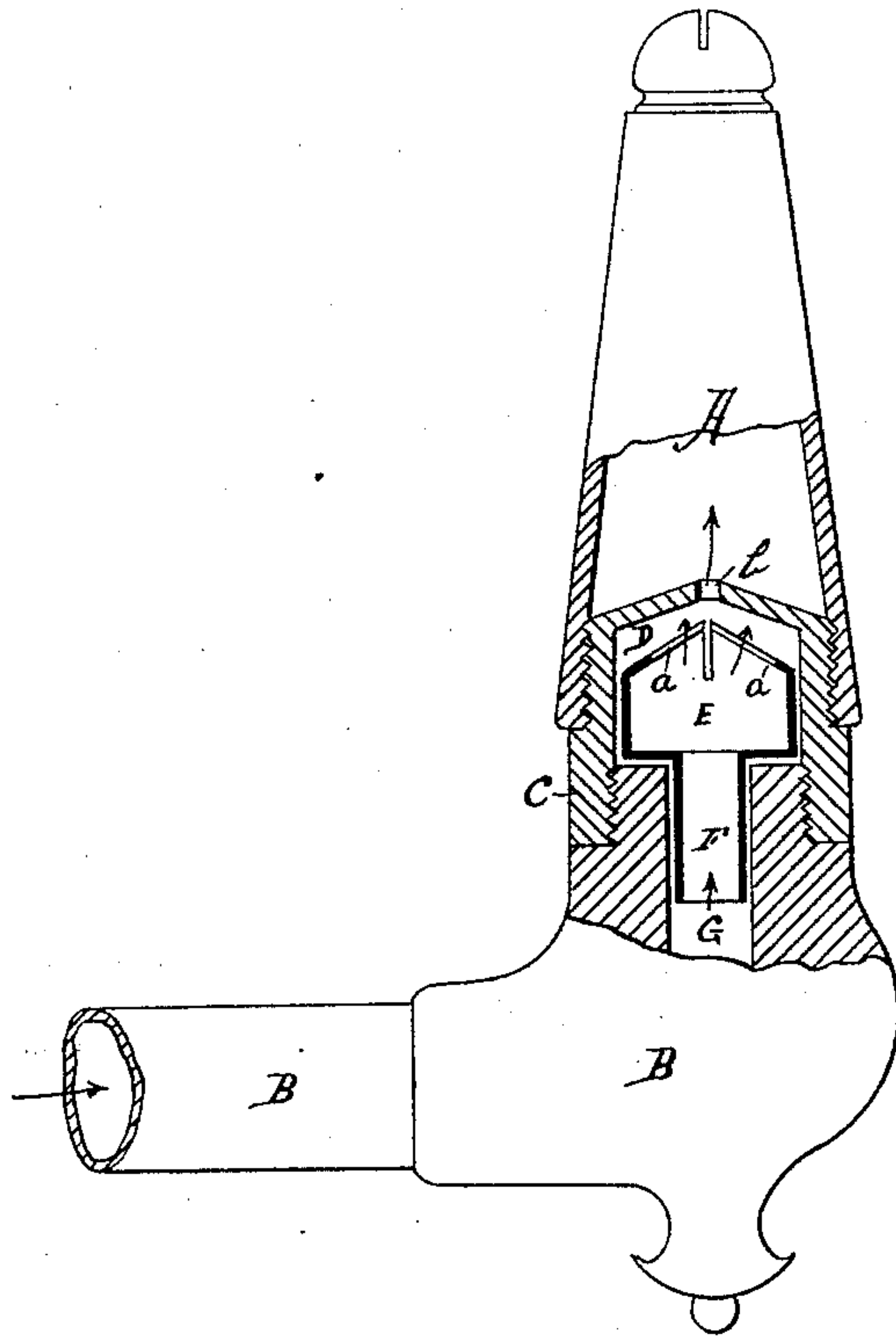


Fig. 1.

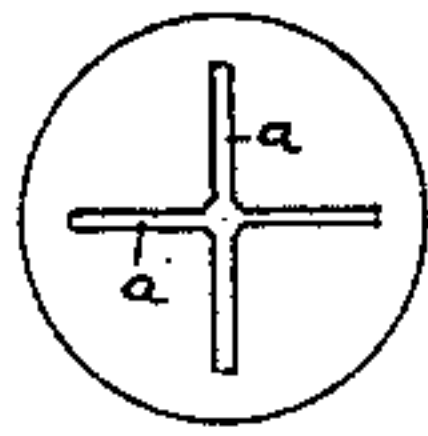


Fig. 2.

WITNESSES:

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REGULATING-VALVE FOR GAS-BURNERS.

SPECIFICATION forming part of Letters Patent No. 348,897, dated September 7, 1886.

Application filed June 12, 1886. Serial No. 205,271. (No model.)

To all whom it may concern:

Be it known that I, MILLARD F. ELLIOTT, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Check or Regulating Valves for Gas-Burners, of which the following is a specification, reference being had therein to the accompanying
10 drawings.

The object of my invention is to provide an efficient and inexpensive device for regulating and controlling the flow of gas to a gas-burner; and my invention consists of the parts
15 and combination of parts hereinafter described.

In the drawings, Figure 1 is an elevation, partly in section, of a gas-burner and part of bracket embodying my invention; and Fig. 2
20 is a plan of the valve.

A is the gas-burner, which may be of any of the well-known forms; B, bracket; C, a thimble provided with threads by means of which it may be screwed onto the bracket B and
25 burner A.

D is a chamber within thimble C; E, a valve within chamber D; F, a stem extending downward from valve E; G, a gas-passage in bracket B, in which stem F works.

30 The direction of the gas is shown by the arrows. It passes up the vertical passage G and enters hollow valve-stem F, enters valve E, escapes from this valve through slots *a*, enters chamber D in thimble C, and passes
35 through an opening, *b*, in the top of thimble C, and passes from thence to the burner. The

valve E has a seat against the top of bracket B, and this valve is made of very thin material. The valve E during its movements is kept in a vertical position by the valve-stem F'.
40 Should the pressure of gas become too great, the valve E is lifted, and is forced against the top of the chamber D. The top of the valve E is conical, and the apex of this cone enters the hole *b*, and any further increase of pressure
45 forces valve E tighter against the top of chamber D, and as the valve E has very thin sides and top the slots *a* will be pinched together or closed to an extent corresponding to the pressure, and the flow of gas through hole *b*
50 will be practically the same at all pressures. At very low pressures the valve E falls, and then the gas escapes through all the slots *a* and passes through hole *b* to the burner.

Instead of the valve-stem F being a hollow
55 rod, it may be a solid post of less diameter than the vertical passage G, and the bottom of valve E in this case would be perforated, in order to allow the gas to enter it.

Having thus described my invention, I
60 claim—

The combination, in a device for controlling the flow of gas to a burner, of the bracket B, with vertical gas-passage G, thimble C, with opening *b*, valve E, with conical top and slots
65 *a*, valve-stem F, thimble C, with chamber D and opening *b*, and burner A, all substantially as set forth.

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Witnesses:

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