(No Model.)

I. GLOO.

GAS BURNER TIP.

No. 576,668. Patented Feb. 9, 1897.

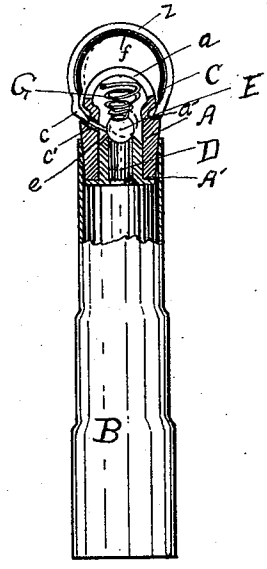

Fig. 1.

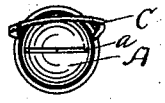

Fig. 2.

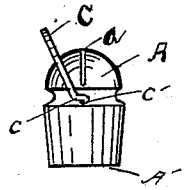

Fig. 3.

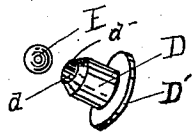

Fig. 4.

Witnesses:
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UNITED STATES PATENT OFFICE.

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GAS-BURNER TIP.

SPECIFICATION forming part of Letters Patent No. 576,668, dated February 9, 1897.

Application filed June 19, 1896. Serial No. 596,104. (No model.)

To all whom it may concern:

Be it known that I, ISIDOR GLOO, a citizen of the United States, residing at Plymouth, in the county of Luzerne and State of Pennsylvania, have invented certain new and useful Improvements in Gas-Burner Tips; 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.

My invention relates to that class of tips for gas-burners in which a thermostat is used for the purpose of automatically cutting off the flow of gas when the flame is accidentally or otherwise extinguished. In the tips of that kind at present in use, when from any cause the thermostat gets out of order or fails to work, the gas is not shut off, but fills the rooms where used just the same as if no device were used.

It is the object of my present invention to provide a tip of neat appearance with an automatic cut-off in which the valve controlling the flow of gas will remain perfectly closed in the event of the thermostat becoming defective.

To these ends my device consists of the construction and arrangement of parts as herein set forth, and illustrated in the accompanying drawings, in which—

Figure 1 is an enlarged view, partly in cross-section, of one of my tips in use with a common jet-tube. Fig. 2 is an enlarged top view of the tip. Fig. 3 is an enlarged side elevation of the tip, taken at right angles to the view in Fig. 1. Fig. 4 is an enlarged view in perspective of details of the device.

Referring to the drawings, A designates a common metallic tip as is in general use, which in my invention is fitted with a plug D, constructed with a flange D′, the bore *d*, and the sharp edge or rim *d′*, which, together with the sphere of hard metal E, forms the valve controlling the flow of gas.

E is fitted to the rim or orifice *d′* by driving it downward gently with a small hammer. The lower edge A′ of the tip is ground off, so as to fit snugly to the flange D′ of the plug D.

C designates the thermostat, composed of an outside strip of brass Z and an inner strip *f* of iron or steel. The two strips are securely sweated together and bent into a U or horseshoe shape. One end is then securely soldered to the tip at the point designated *a′*. The other end is drawn into a crooked shank *c*, a part of which extends through the small hole *c′* in the side of the tip. The main portion of the thermostat is brought into a plane converging from the foot of the one side of the orifice *a* of the tip, as shown in Figs. 2 and 3. The valve is held in the closed position by means of the coiled spring G, disposed within the tip in such position that it continually exerts a pressure on the top of the ball E.

The operation of the device is as follows: The thermostat C is adjusted by bending, when cold, to such position that the point of the shank *c* just touches the ball E at the point *e* when the ball is in the position indicated by the full lines and the vent of the valve fully closed. The tip is then set into the top of a jet-tube B, as shown in Fig. 1, and it is ready for use. The turn-cock may now be turned to allow the gas to fill the tube B. A lighted match or taper is applied, so as to heat the thermostat, which when heated curves inwardly to the position shown by the dotted line and causes the point to press against the ball E at *e* and press the ball to the position shown by the dotted circumference, thus opening the valve and holding it open so long as C is kept heated. The flame of the jet of course keeps the valve open in this manner so long as it is burning, but the moment it is extinguished C begins to cool and return to its normal position, relieving the pressure at *e*, while G presses the valve shut and prevents the escape of gas. A small crook in the shank *c* serves as a stop to prevent the same from being thrust inward too far by external force.

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

1. A gas-burner tip comprising the hollow nipple A, having an apertured plug seated in

the lower end thereof, a spring-actuated valve seated over the upper end of the apertured plug, and a thermostat designed to raise the said valve, substantially as shown and described.

2. A tip, for a gas-burner, having in combination, with the hollow tip, an apertured plug seated in the bottom of said tip, a ball E, seated in the upper end of said apertured plug, a coiled spring interposed between the ball and the inner upper end of the tip, and a thermostat, curved over the top of the tip, and having one end designed to rest against and raise the said ball, substantially as shown and described.

3. As an improved article of manufacture, a gas-tip regulator having in combination with the hollow tip an apertured plug and spring-actuated ball E, as described, a thermostat C, having one end secured in a groove about the tip, thence curved over and through an aperture in the tip in contact with the said ball, substantially as described.

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

ISIDOR GLOO.

Witnesses:
JAMES H. CUNNINGHAM,
SAMUEL POWELL.