

S. B. H. Vance.

Cock for Gas-Burners.

N^o 76277

Patented Mar. 31, 1868.

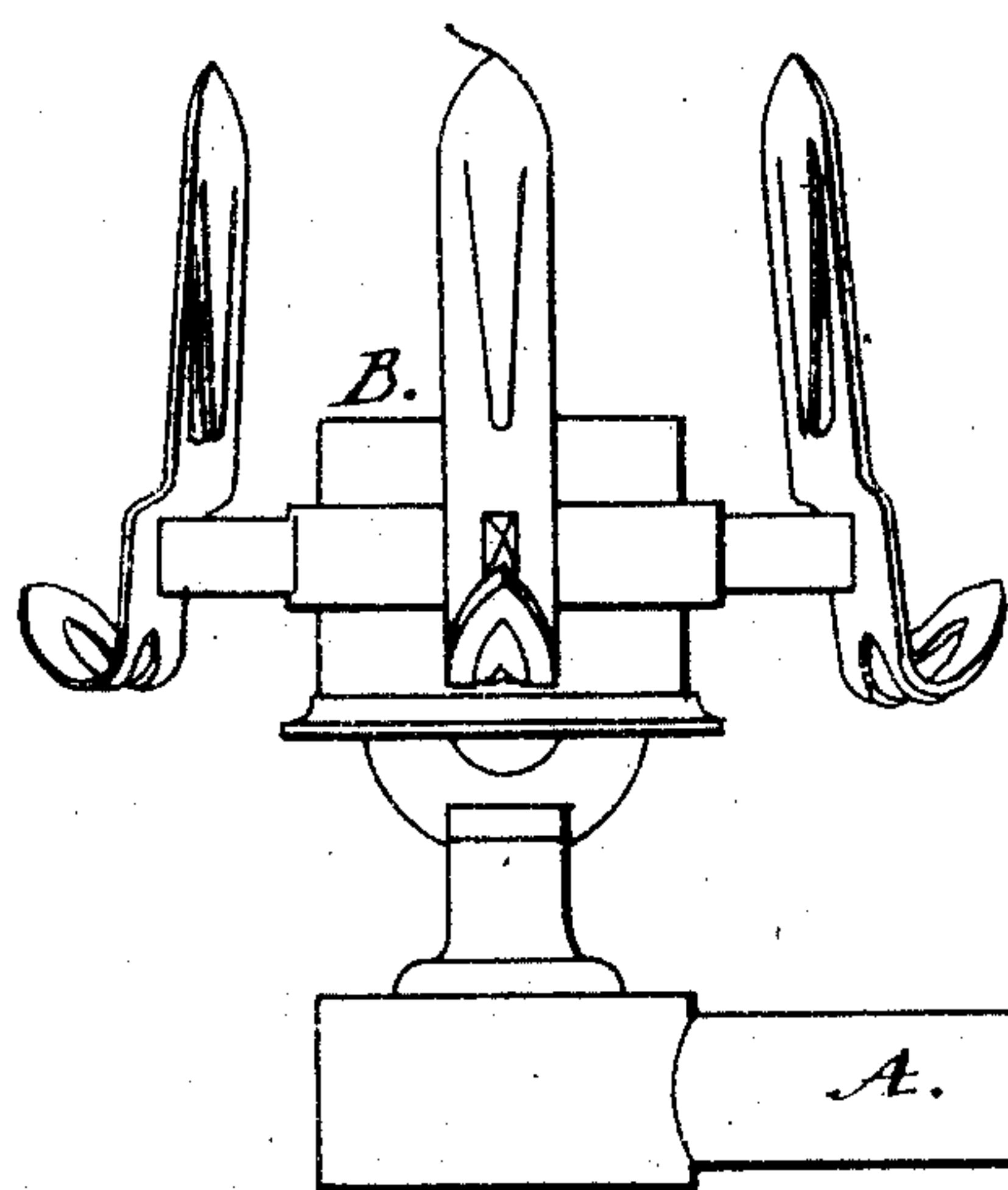


Fig. 1.

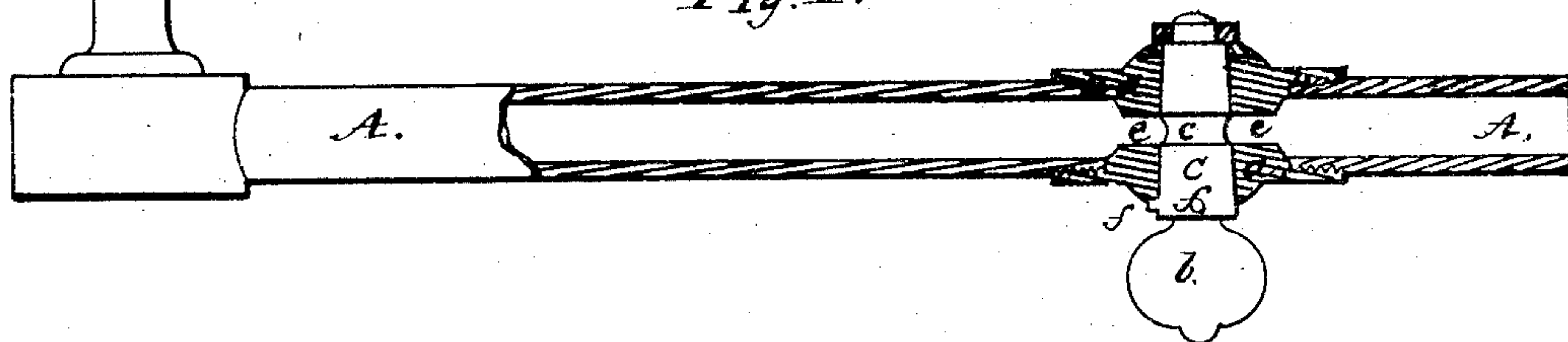


Fig. 2

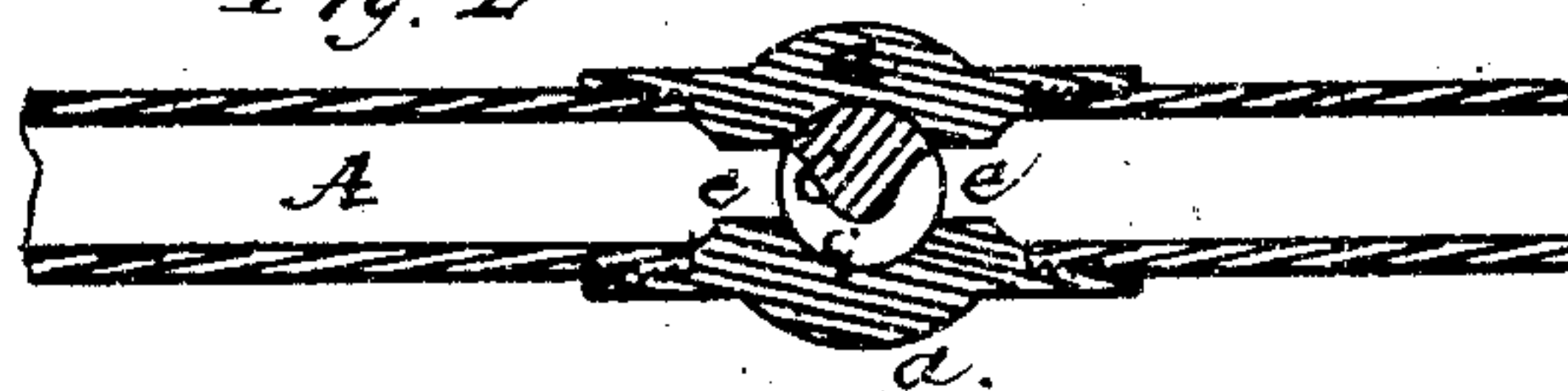
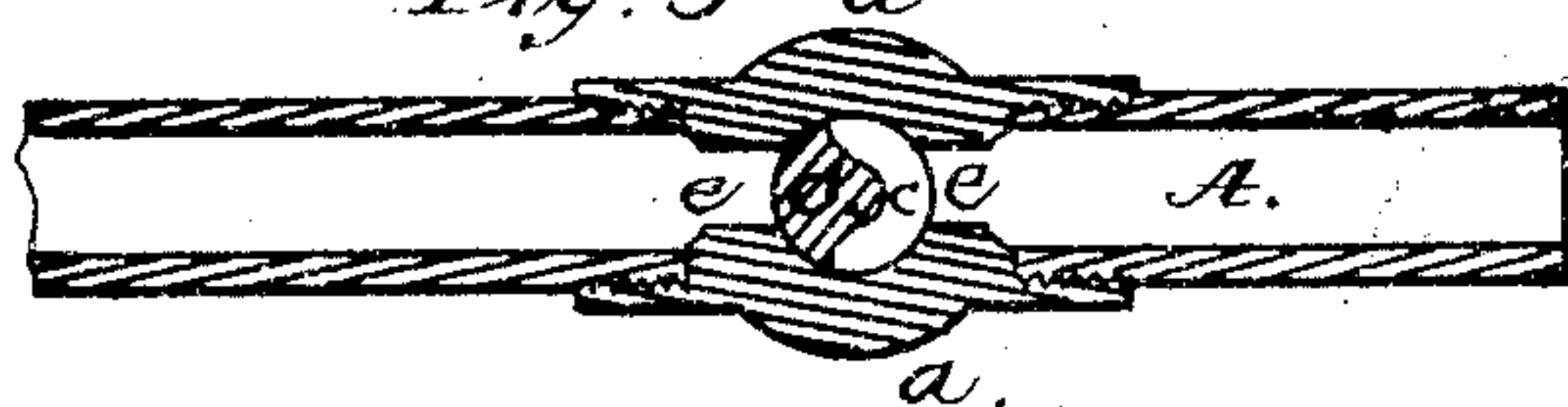


Fig. 3



Attest,

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United States Patent Office.

SAMUEL B. H. VANCE, OF NEW YORK, N. Y., ASSIGNOR TO MITCHELL, VANCE, AND COMPANY, OF THE SAME PLACE.

Letters Patent No. 76,277, dated March 31, 1868.

IMPROVEMENT IN COCKS FOR GAS-BURNERS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, SAMUEL B. H. VANCE, of the city, county, and State of New York, have invented a new and useful Improvement in Cocks for Gas-Burners; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a portion of this specification, in which—

Figure 1 is a longitudinal section of the pipe of a gas-burner, fitted with a cock constructed according to my invention.

Figure 2 is a longitudinal section of the same, taken at right angles to fig. 1, showing the valve-plug in position to open the passage through the pipe.

Figure 3 is a similar longitudinal section of the same, but showing the valve-plug in position to close the aforesaid passage.

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

This invention is more particularly designed for use with the argand gas-burner, and its object is to provide against the whistling noise ordinarily attendant upon the employment thereof, and which has hitherto been supposed to be produced within the burner itself, and to result from some peculiarity in the operation of the same, but which, it has been ascertained, is caused by the impinging of the current of gas against the sharp edges of the port or passage of the cock-plug, in passing to the burner, and is only more perceptible in that kind of burner, owing to the sonorous character thereof.

The invention consists in constructing the cock-plug in the pipe connected with the burner, with a port or passage, of peculiar form, whereby no sharp corners or edges are presented to the impinging action of the gas as it passes to the said burner, thereby effectually securing the desired result.

To enable others to understand the nature and construction of my invention, I will proceed to describe it with reference to the drawing.

A indicates the gas-pipe, having attached to it the burner B, at a suitable distance from which is situated the socket *a*, secured in the pipe A, in any ordinary or suitable manner, and having fitted therein the cock-plug C, the external knob or handle of which is shown at *b*. The port or passage of the cock-plug is shown at *c*, and consists of a groove, semicircular in its cross-section, and extending circumferentially somewhat more than half way around the central part of the plug, as shown more clearly in figs. 2 and 3, the bottom of the groove, at the ends thereof, sloping gradually to the surface of the plug, in such manner that when the plug is turned into the position represented in figs. 1 and 2, the port or passage *c* will be continuous with the bore *e* of the socket *a*, with no sharp edges or corners exposed to the impinging action of the current of gas passing through the same, and which, from the form of the burner, when the same is of the argand variety, is caused to move through the passage and bore just mentioned, with a comparatively high velocity, the said form of the burner also causing the vibrations communicated to the current of gas by the flame to extend farther inward into the pipe A than with the more ordinary kind of burners. The passage for the gas-current being thus rendered smooth and continuous, no whistling can be produced by the flow of the gas to the burner, thus effectually obviating the objection hitherto existing to this class of gas-burners. The plug C should be furnished with suitable stops *f*, to prevent it from being turned in a wrong direction, and the course of the groove *c*, which constitutes the port or passage thereof, being curved around the plug, as hereinbefore described, it follows that in case the said plug is turned only part of the way around, to but partially open the way through the socket *a*, the said passage will still present no sharp shoulders, corners, or edges to the current passing through the same, so that the same result is secured, whatever the quantity of gas admitted to the burner. The bore *e* of the socket *a* is of course closed when desired, by turning the valve-plug into a position at right angles to that hereinbefore fully set forth, as shown in fig. 3.

What I claim as my invention, and desire to secure by Letters Patent, is—

The gas-burner cock, having the round-edge port or passage *c*, constructed around about two-thirds of the circumference of the plug, substantially as shown and described, and for the purpose herein specified.

SAML. B. H. VANCE.

Witnesses:

J. W. COOMBS,

A. LE CLERC.