

C. D. PAYNE.
Gas-Burner.

No. 163,402.

Patented May 18, 1875.

Fig. 1

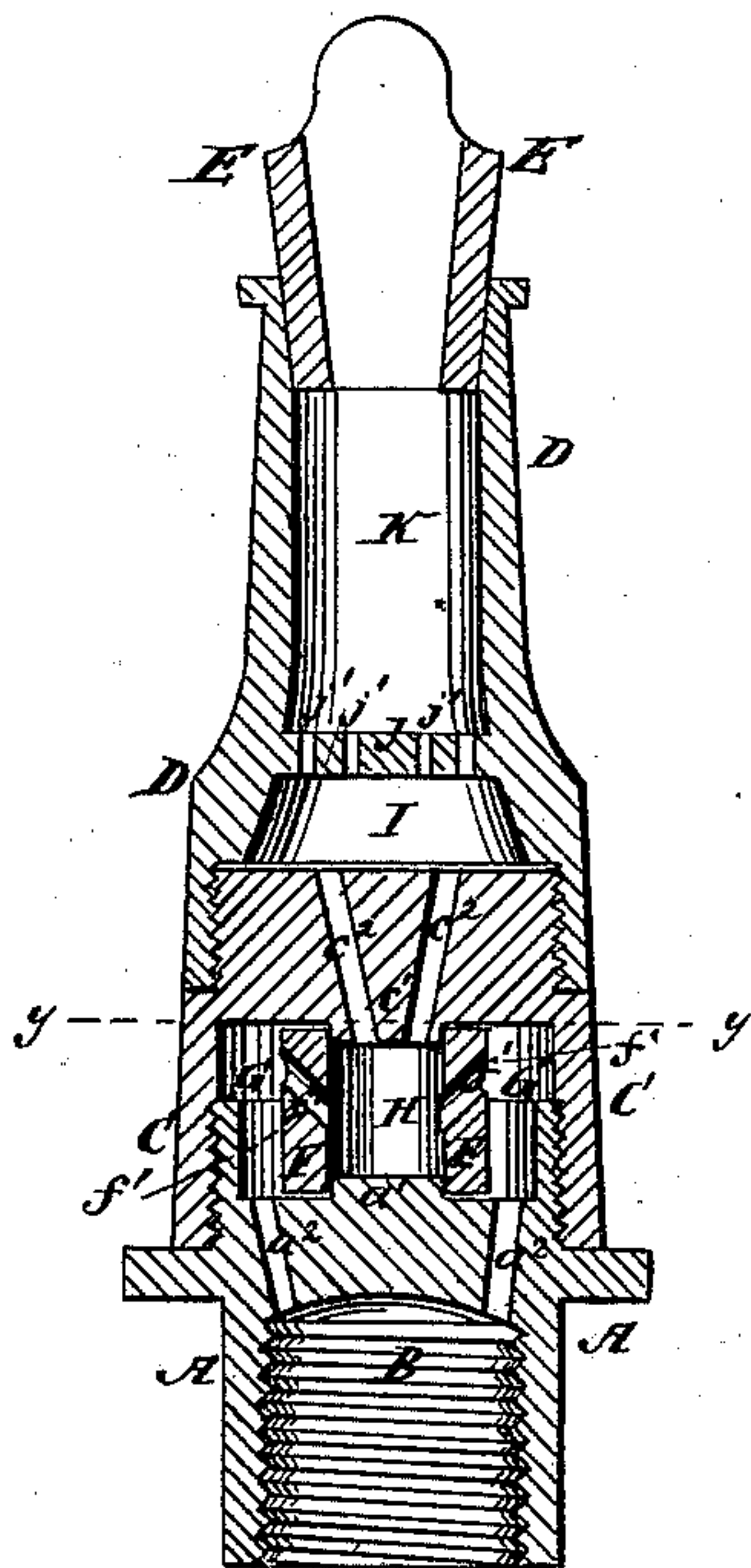
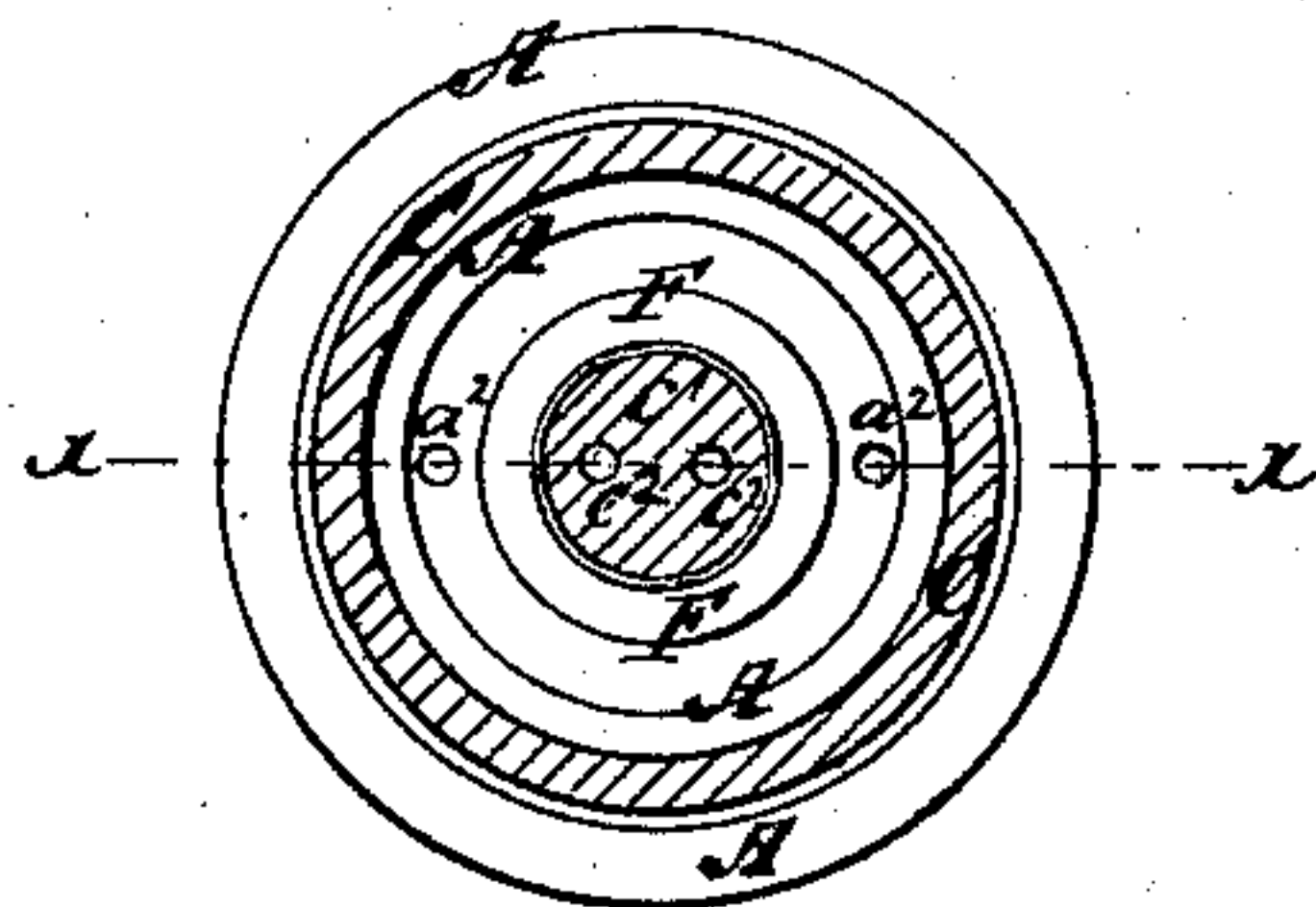


Fig. 2



WITNESSES:

E. Wolff.
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UNITED STATES PATENT OFFICE.

COLEMAN D. PAYNE, OF MOSELLE, MISSOURI.

IMPROVEMENT IN GAS-BURNERS.

Specification forming part of Letters Patent No. **163,402**, dated May 18, 1875; application filed April 17, 1875.

To all whom it may concern:

Be it known that I, COLEMAN D. PAYNE, of Moselle, in the county of Franklin and State of Missouri, have invented a new and useful Improvement in Gas-Burners, of which the following is a specification:

Figure 1 is a longitudinal section of my improved gas-burner, taken through the line *x x*, Fig. 2. Fig. 2 is a cross-section of the same, taken through the line *y y*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved gas-burner which shall be so constructed as to counteract the pressure from the gas-reservoir, and admit the gas to the tip with a gentle and steady flow. The invention consists in an improved gas-burner, formed by the combination of the lower part, provided with a circular projection and two or more holes, the middle part, provided with a circular projection and two or more holes, the tube, provided with two or more holes, the upper part, provided with a perforated plate, and the tip, with each other, to form the five chambers for the gas to pass through, as hereinafter fully described.

A is the lower part of the burner, which has a screw-thread cut upon its inner surface to screw upon the end of the gas-pipe or arm of a chandelier, and which forms the first chamber B of the gas-burner. Upon the outer surface of the upper end of the part A is formed a screw-thread, to receive the screw-thread formed upon the inner surface of the lower end of the second part C of the gas-burner. Upon the outer surface of the upper end of the part C is formed a screw-thread to receive the screw-thread cut upon the inner surface of the lower end of the part D of the gas-burner. To the upper end of the part D is secured a lava or other tip, E. Upon the center of the upper surface of the top of the part A, and upon the center of the lower sur-

face of the top of the part C, are formed circular projections $a^1 c^1$, to serve as seats for the ends of the tube F, which ends are secured in place by plaster-of-paris, or other suitable cement. In the top of the lower part A are formed two or more holes, a^2 , according to the size of the burner, and leading from the first chamber B into the ring-chamber G, around the tube F, and which forms the second chamber of the burner. From the upper part of the second chamber G the gas passes through two or more inclined holes, f' , in the tube F, into the cavity of said tube, which cavity forms the third chamber H of the burner. From the chamber H the gas gasses through two or more small holes, c^2 , in the top of the middle part C of the burner into the lower part of the cavity of the upper part D of the burner, which forms the fourth chamber I of the burner. From the chamber I the gas passes through the small holes j in the plate J, secured in the cavity of the said part D, into the space above said perforated plate, which forms the fifth chamber K of the burner, and from which the gas escapes through the tip E, and is burned as it escapes from said tip.

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

An improved gas-burner, formed by the combination of the part A, provided with the circular projection a^1 and the holes a^2 , the part C, provided with the circular projection c^1 and the holes c^2 , the tube F, provided with the holes f' , the part D, provided with the perforated plate J, and the tip E, with each other, to form the five chambers B G H I K, for the gas to pass through, substantially as herein shown and described.

COLEMAN D. PAYNE.

Witnesses:

W. T. JEFFRIES,
G. J. WILEY.