

J. E. STANWOOD.

Gas Burner.

No. 21,090.

Patented Aug. 3, 1858.

Fig: 1.

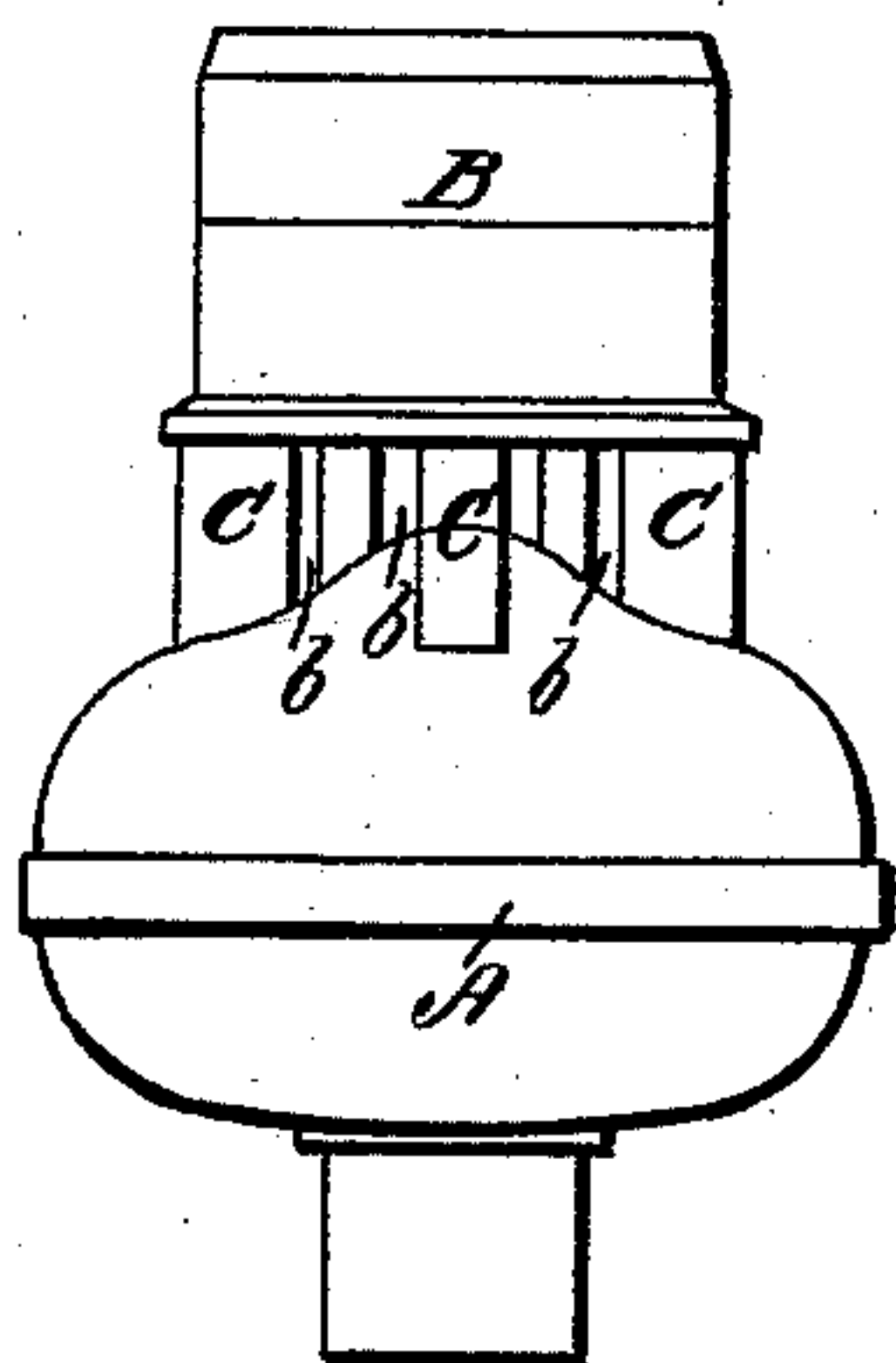


Fig: 2.

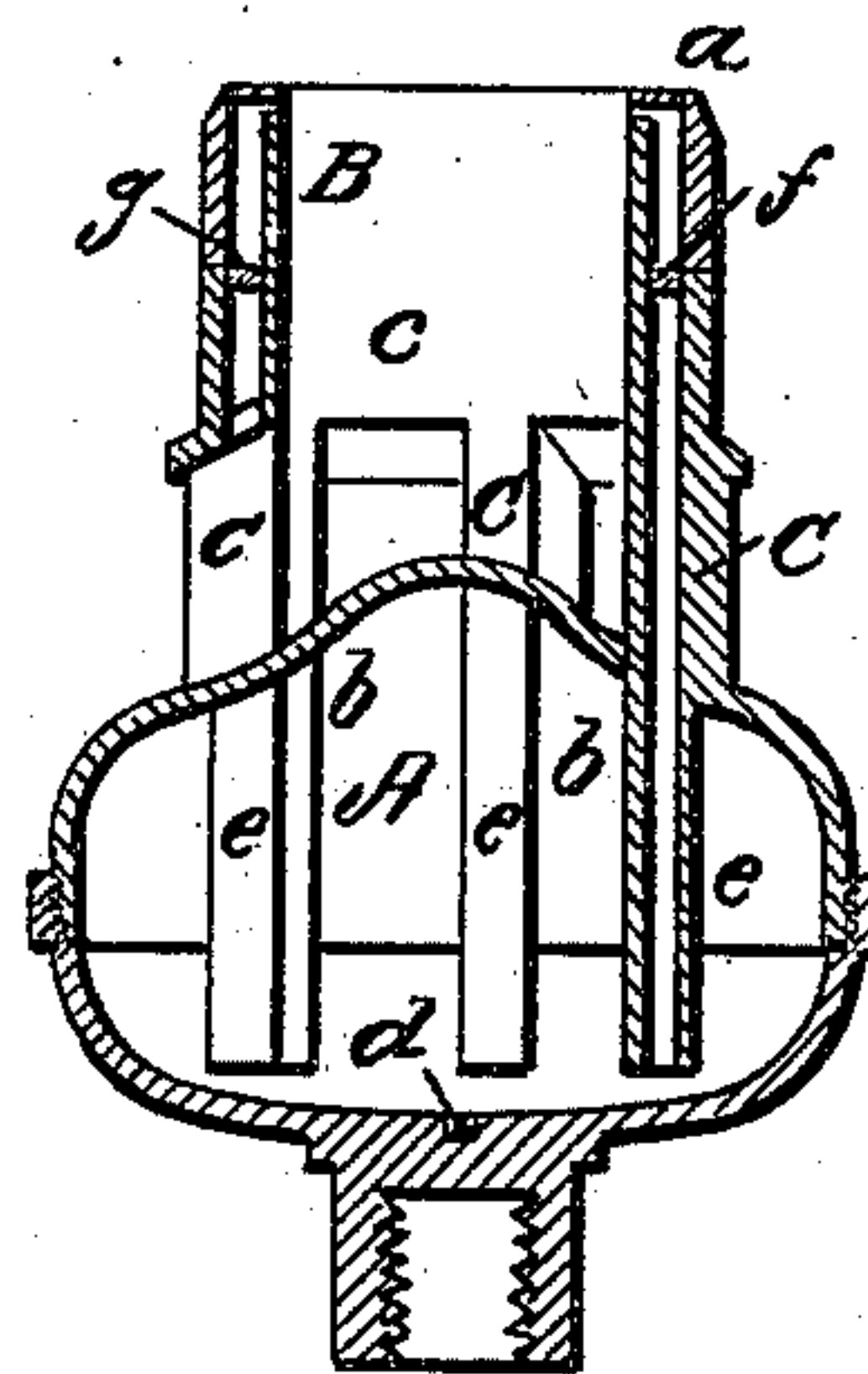


Fig: 3.

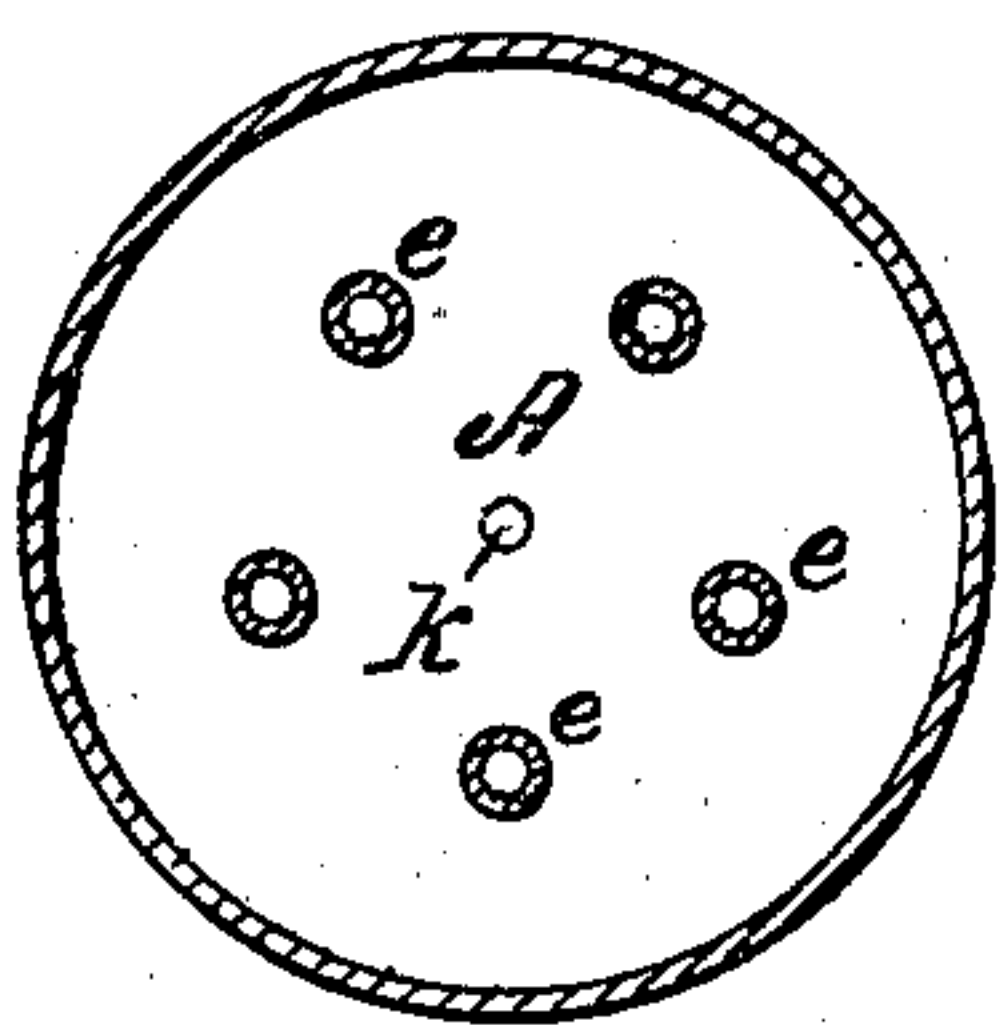
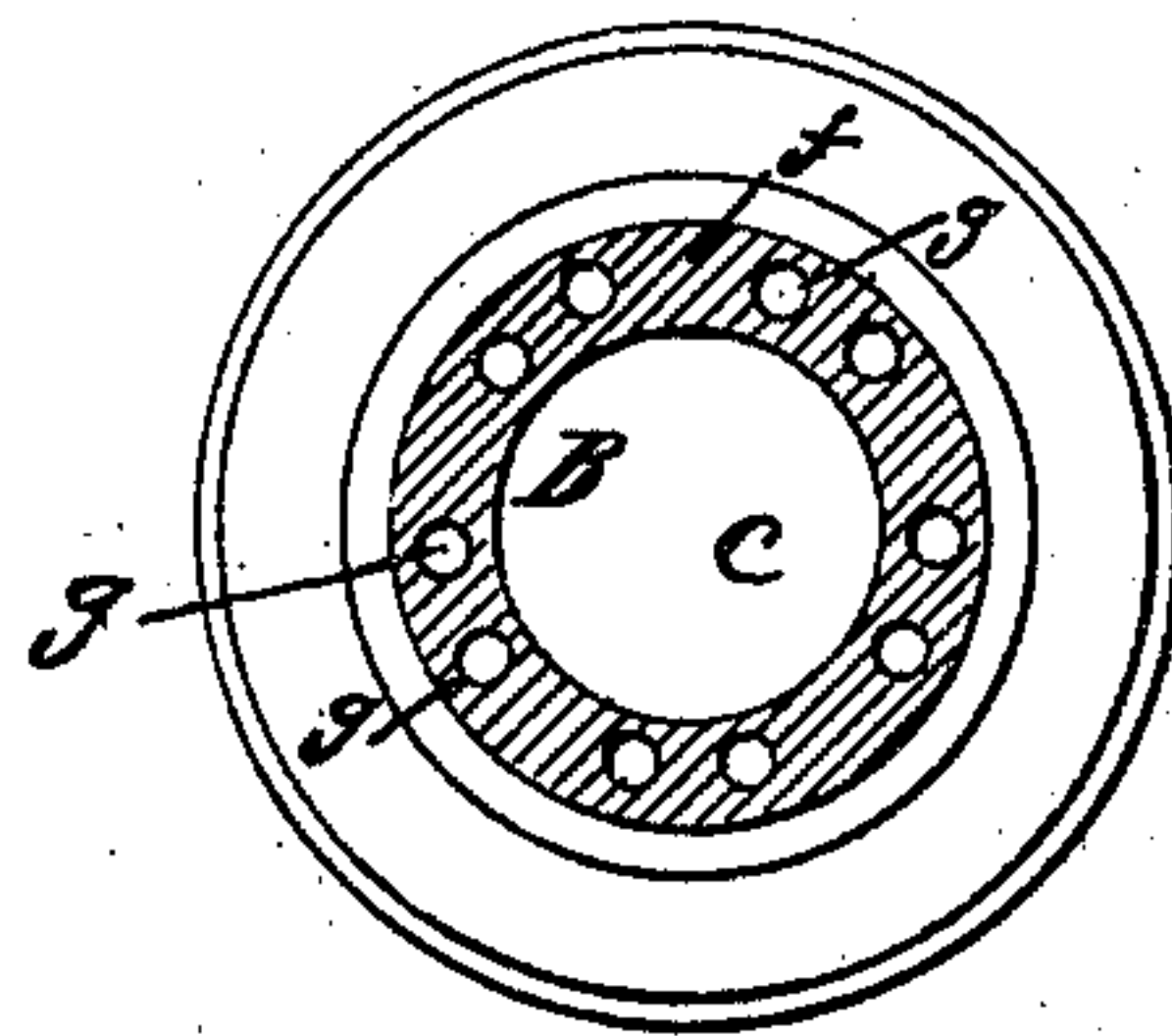


Fig: 4.



UNITED STATES PATENT OFFICE.

J. E. STANWOOD, OF MALDEN, MASSACHUSETTS.

ARGAND GAS-BURNER.

Specification of Letters Patent No. 21,090, dated August 3, 1858.

To all whom it may concern:

Be it known that I, JOSEPH E. STANWOOD, of Malden, in the county of Middlesex and State of Massachusetts, have invented an Improved Argand Gas-Burner; and I do hereby declare that the same is fully described and represented in the following specification and the accompanying drawings, of which—

Figure 1, denotes an external elevation and Fig. 2, a vertical section of it. Fig. 3, is a horizontal section of its lower chamber, while Fig. 4, is a horizontal section of its upper chamber, the plane of section being through the perforated partition to be hereinafter described.

The object of my invention is to prevent the usual noise or "singing" of the Argand burner, also to produce a steady flame or one of uniform height and not liable to either fork or smoke.

In the drawings A, is the main or lower chamber of the burner, while B, is its annular or upper chamber provided at its upper end with a foraminous discharging ring *a*. In the ordinary construction of the Argand gas burner, the said two chambers are connected by a series of tubes or tubular standards C, C, C, extending from the top of the lower up to the bottom of the upper of such chambers and having spaces *b, b, b*, between them, for the purpose of allowing air to pass into the space *c*, surrounded by the annular chamber and from thence into the flame when the burner may be in use.

A great and serious objection to the Argand burner, so made has been that it invariably produces a noise or what is usually termed a "singing" of the gas while the burner is in operation. I have discovered that by continuing the several connecting tubes down into the chamber A and around its inlet orifice *d*, as shown at *e, e, e*, in Figs. 2 and 3, the singing noise is completely stopped or so lessened as to be nearly if not entirely imperceptible. I have also found

that by extending across the annular chamber, a ring or partition *f* punctured with several holes *g, g*, and having a space between two of them arranged directly over each of the tubes C, C, all forking or sudden streaming upward of part of the flame is prevented, and that the flame will be maintained at one uniform height under any uniform pressure of the gas.

The foraminous mouth or top of the chamber B is not sufficient to prevent the flame from forking when the inlet tubes C, C, are arranged so as to lead directly upward through the bottom of the said chamber, but by combining with the chamber and its tubes so arranged a foraminous partition having its orifices or holes disposed with respect to the said tubes as described forking of the flame will be overcome.

I do not claim the Argand burner as constructed with two chambers connected by tubes so arranged as to allow the air to flow between them into the space surrounded by the upper or annular chamber, but

What I do claim is—

1. The improved Argand burner as made with its several supporting tubes of its annular chamber extended down within the lower or receiving chamber and around its entrance hole or passage substantially in manner as described and for the purpose of preventing noise or singing of the flame, when the burner is in operation.

2. I also claim the combination and arrangement of the above described perforated partition with the annular or upper chamber of the burner and having its perforations or spaces between the same disposed with respect to the mouths of the inlet tubes substantially as specified.

In testimony whereof, I have hereunto set my signature.

JOSEPH E. STANWOOD.

Witnesses:

R. H. EDDY,
F. P. HALE, Jr.