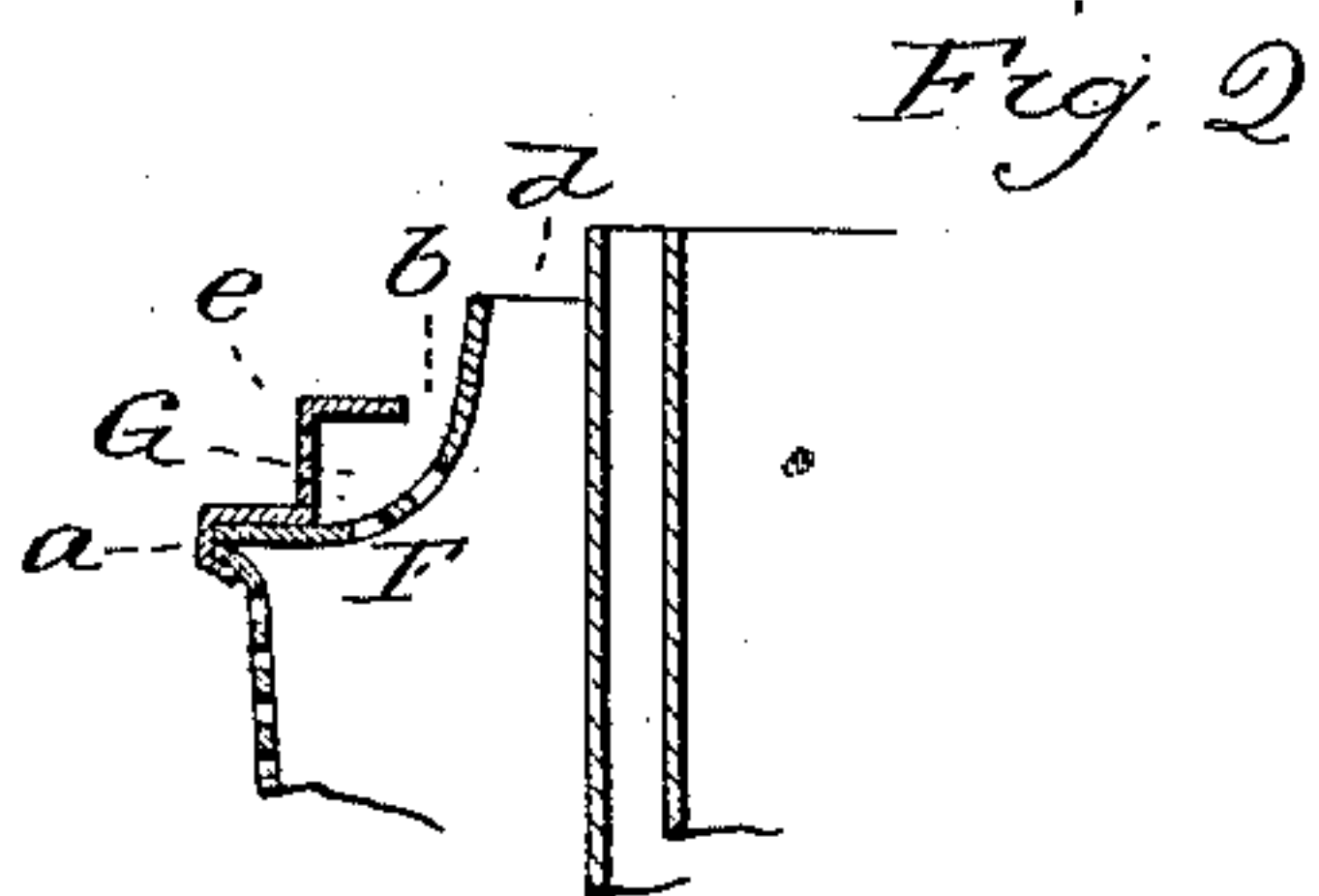
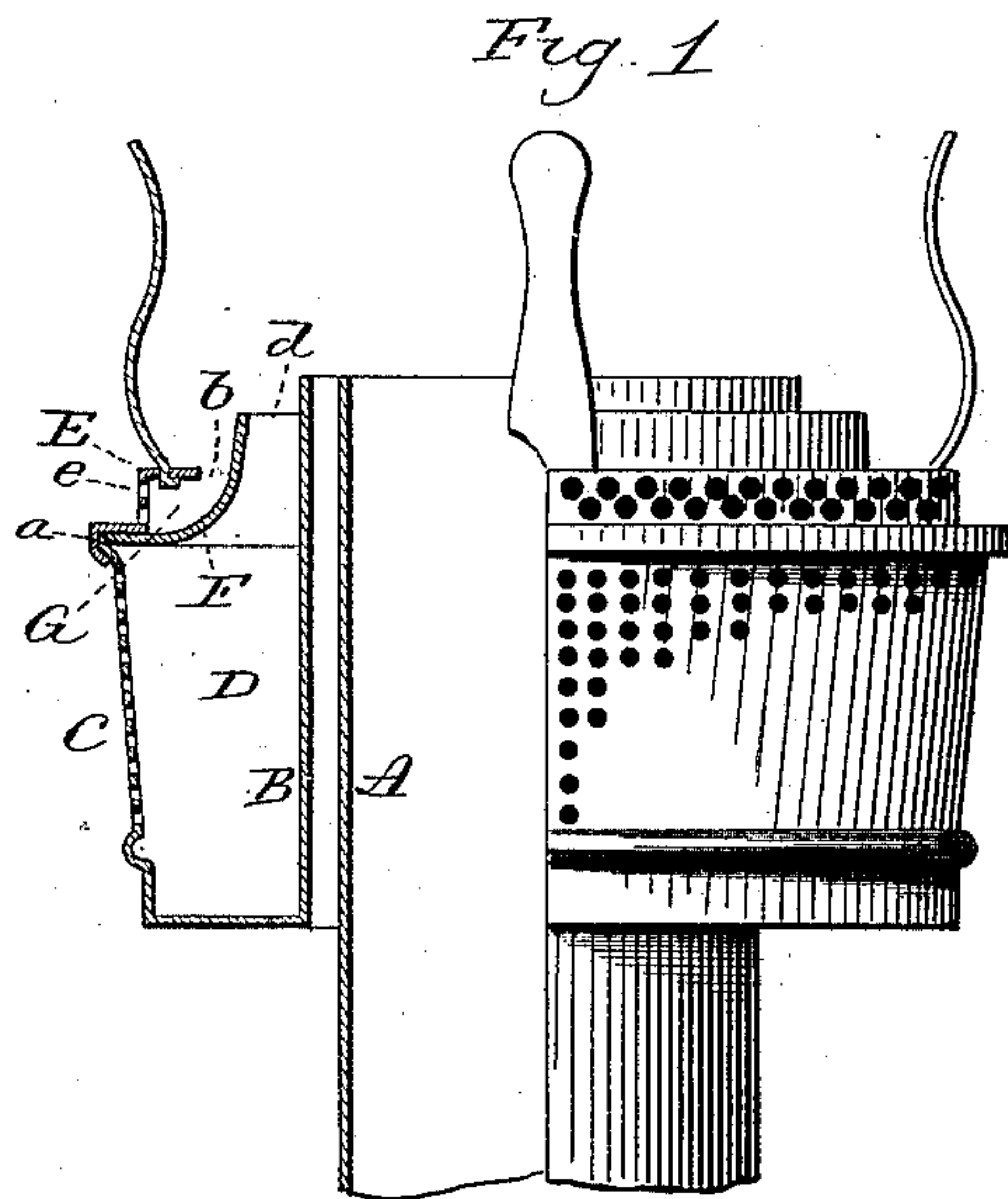


(No Model.)

J. JAUCH.  
CENTRAL DRAFT LAMP.

No. 421,171.

Patented Feb. 11, 1890.



Witnesses.  
J. H. Shumway.  
Fred C. Earle.

Joseph Jauch.  
By atty. Inventor.  
J. M. Earle.

# UNITED STATES PATENT OFFICE.

JOSEPH JAUCH, OF MERIDEN, CONNECTICUT, ASSIGNOR TO THE BRADLEY & HUBBARD MANUFACTURING COMPANY, OF SAME PLACE.

## CENTRAL-DRAFT LAMP.

SPECIFICATION forming part of Letters Patent No. 421,171, dated February 11, 1890.

Application filed May 24, 1889. Serial No. 311,973. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH JAUCH, of Meriden, in the county of New Haven and State of Connecticut, have invented a new Improvement in Burners for Central-Draft Lamps; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a side view of the burner, half in vertical central section; Fig. 2, a modification.

This invention relates to an improvement in that class of burners which are adapted to employ a tubular wick, the wick being arranged around a tube, which forms a flue to conduct a portion of the air for the support of combustion centrally through the wick, commonly called "central-draft lamps." These burners usually employ a chimney, and in addition to the supply of air through the central tube there must be an abundant supply around the outside of the wick to the flame within the chimney. This outward supply is usually produced by making the chimney-rest of considerably larger diameter than the wick, and the base of the burner below the chimney-rest perforated for the admission of air into the chamber surrounding the wick, whence it flows upward into the chimney to be brought upon the flame by the natural tendency of the draft.

In employing wicks of large diameter, in which a correspondingly large flame is produced, a great supply of air around the outside of the wick and into the burner is necessary, and as the outer wall of the burner through which the air passes is exposed to surrounding influences or currents the flow of air is unavoidably variable. Again, the space between the chimney and the wick is so large that there is an opportunity for a great proportion of the air to pass upward outside the flame without contact therewith, and so as not to materially aid in combustion, the result of which is a more imperfect combustion than is desirable.

The object of my invention is to avoid these difficulties, to prevent the influence of the ex-

terior currents of air upon the outer supply, and at the same time to direct the air into the base of the flame, so as to produce the more perfect combustion; and the invention consists in the construction, as hereinafter described, and particularly recited in the claim.

In the illustration I show only so much of a burner as necessary to the full understanding of the invention.

A represents the central-draft tube, around which the wick is arranged in the usual manner; B, the inner wall of the burner, which surrounds the wick, and so that the wick stands between this inner wall B of the burner and the tube A. The outer wall C of the burner extends upward in the usual manner and so as to form the usual air-chamber D within the burner. This outer wall C terminates at its upper edge in a chimney-rest E. The wall C is perforated in the usual manner for the admission of air, there being an opening between the chimney-rest and the inner wall B of the burner for the passage of air. This opening is usually left clear, so that there is a free and clear passage for the air from the chamber upward into the chimney outside the flame.

To form a deflector for the air thus supplied to the outside of the flame and to insure its impingement directly upon the flame, I introduce an annular partition F, extending from the wall of the burner from a point *a* below the chimney-rest, curved inward and upward, and so as to divide the passage into the chimney into two parts *b* *c*. The outer edge of the said partition is secured between the top or upper edge of the outer wall C and the chimney-rest, the outer edge of the chimney-rest being closed over the outer edge of the said partition and the upper edge of the said wall C, so as to firmly unite the parts and securely hold the partition F as a permanent part of the burner, the curve of the partition F from the outer edge inward and upward producing the division and giving an inclination to the partition, which serves as a deflector in turning the air. This partition forms a deflector for the air which passes through the outer wall of the burner to direct or bring it into a position close upon the base of the flame.

The partition F forms an air-chamber G



above the air-chamber D, and into this chamber G perforations below the chimney-rest, open for the admission of air. The admission of air into this chamber G forms a second current independent of the main current coming through the chamber D. The current from the chamber G will enter the chimney through the passage *b*, and in its flow will be directed against the current which is coming up through the passage *d*, and these two currents combining, one through the passage *d* being nearly vertical while that through the passage *b* will be inward and through the flame, will tend not only to force itself into the flame, but also to force that current which passes up through the passage *d*, thus controlling the entire amount of air and directing it upon the flame close upon its base, so as to insure a sufficient supply for the most perfect combustion. The result of this construction is to make a flame very white and give to it an intensity of light very much greater than can be attained without the introduction of the partition, as I have described, producing the two currents of air directed upon the flame.

While I prefer to make the partition without perforations, as I have described, it may be perforated, as represented in Fig. 2. The partition in either case will perform the same

function of dividing and deflecting the currents.

I do not claim, broadly, a division in a lamp-burner adapted to turn a portion of the air admitted to the chimney directly to the flame and another portion into the chimney outside the said first portion of the air, as such I am aware is not new.

I claim—

In a burner for central-draft lamps, the combination of the inner wall B, the outer perforated wall C, forming an air-chamber D, a chimney-rest E above said chamber D, an annular partition F, resting upon the upper edge of the said wall C, the chimney-rest closed over the said upper edge of the wall and the outer edge of the partition to secure the parts together, the said partition curved inward and upward, forming the top of the chamber D and the bottom of a second air-chamber G, the side wall of the chimney-rest forming the side wall of said chamber G and perforated for the admission of air thereto, substantially as described.

JOSEPH JAUCH.

Witnesses:

F. B. FAIRBANKS,  
A. E. HALL.