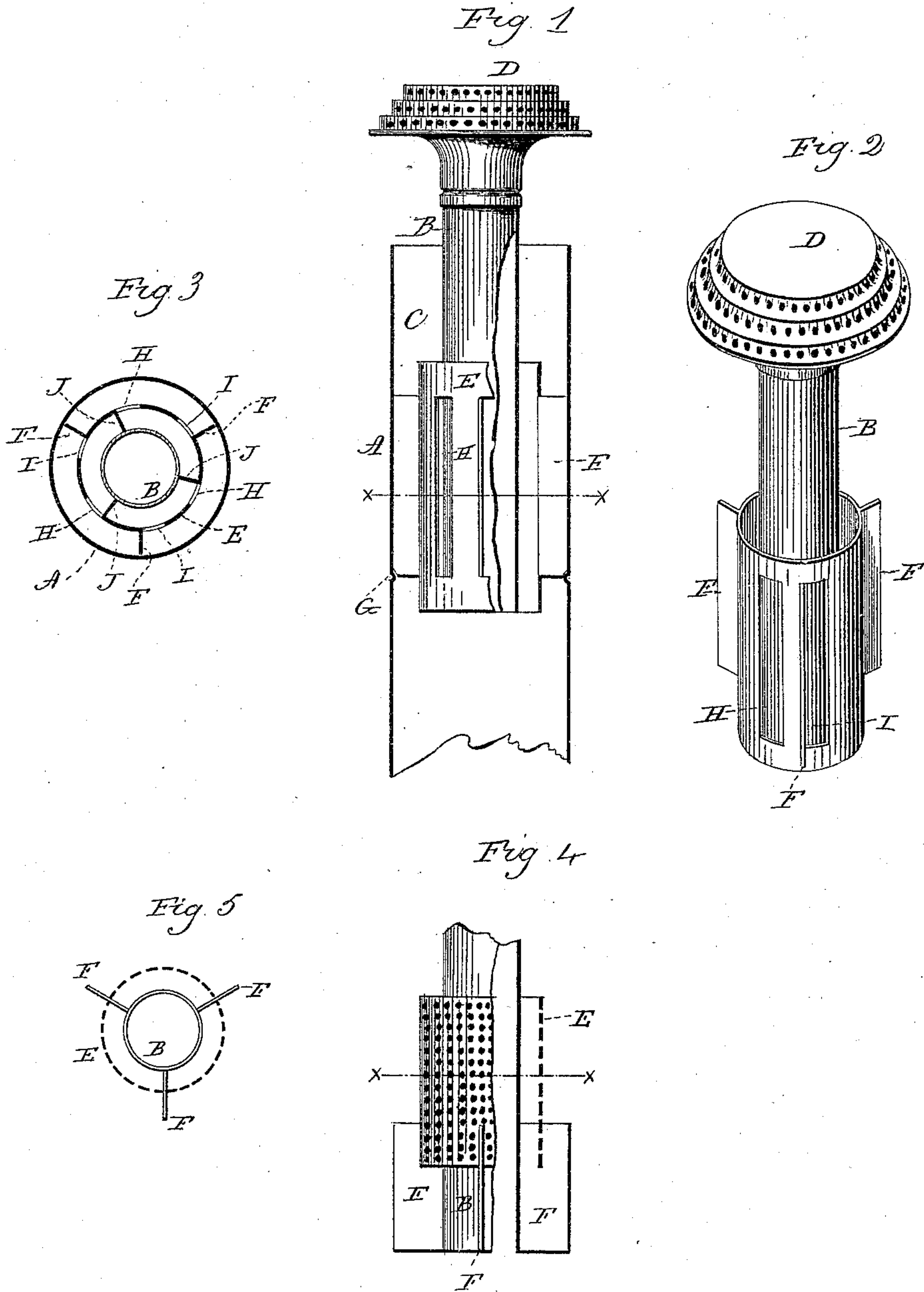


(No Model.)

J. JAUCH.  
CENTRAL DRAFT LAMP.

No. 431,359.

Patented July 1, 1890.



Witnesses

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# 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. 431,359, dated July 1, 1890.

Application filed November 25, 1889. Serial No. 331,491. (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 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 vertical central section through the central draft-tube of a lamp, showing a side view of the inner tube, its distributor and supports, the tube B and its support being in partial section. Fig. 2 represents the distributing-tube complete in perspective detached; Fig. 3, a transverse section on line  $x$  of Fig. 1; Fig. 4, a sectional side view; Fig. 5, a transverse section illustrating a modification.

This invention relates to an improvement in that class of lamps which employ a tubular wick, and in which the wick is arranged around a central tube, which tube also serves as an air-passage to supply air to the interior of the flame, and particularly to lamps of this class in which a perforated air-distributor is employed within the flame and near its base to discharge air laterally into the flame to produce more perfect combustion.

Central-draft lamps having an air-distributor within the flame are of two classes: first, a lamp in which the distributor covers the upper end of the central draft or wick tube, so that all the air coming through the said central tube must pass through the perforations of the distributor to the flame, and, second, a lamp in which a vertical tube is arranged within the central draft or wick tube concentric therewith and of considerably less diameter than the said wick-tube, and so as to leave an air-space between the two tubes, that a portion of the air coming through the central draft-tube may pass outside the inner tube directly to the base of the flame, while the remainder of the air will pass up through the said inner tube, and the inner tube provided at its upper end with a distributor through which the portion of air passing

through the said inner tube will be directed into the flame. It is to this latter construction of lamps that my invention particularly relates, and it has for its object a simple construction combining the inner tube and distributor in such manner that it may be introduced or removed from the central draft or wick tube and yet be firmly supported therein; and it consists in the construction as hereinafter described, and particularly recited in the claim.

In illustrating the invention I show only the central tube A of a central-draft lamp. The construction of the fount or the burner may be any of the usual constructions, this central tube A being common to all such lamps.

B represents the inner tube, which is of considerably less diameter than the tube A, and is arranged vertically in the said tube A, so as to leave a free space C between the tubes A and B. The tube B is provided at its upper end with a distributor D, which may be any of the known distributors adapted to receive air through the tube B, and perforated so as to discharge that air in jets into the flame. The lower end of the tube B is open to the atmosphere below.

To firmly support the tube B within the tube A, but yet allow air to pass freely around it and at the same time to distribute that air so as to avoid irregular flow of air through the tube C to the flame, I combine with the tube B a surrounding tube E of larger diameter than the tube B, but less than the diameter of the tube C. This is made fast to the tube B concentric therewith, and from the surface of the tube E radially-projecting wings F are formed, the diameter through the said wings corresponding substantially to the internal diameter of the tube C. The tube A is constructed with a suitable stop G, here represented as an annular internal bead in the tube at a point corresponding to the lower end of the wings F, and so that when the distributor-tube is set into the tube A the wings F will come to a bearing on the stop G and support the distributor in the proper relative position to the flame, the wings F being of a length and so as to take sufficient bearing within the tube A to support the tube B



in its proper vertical position, and consequently the distributor in its proper central position.

5 The tube E is constructed with openings or perforations H I, more or less in number. (See Figs. 2 and 3.) In the best construction of these perforations or openings H I the openings H are formed by cutting around three sides of the opening and turning the parts so  
10 cut inward to form wings J, the width of the wings corresponding to the distance between the tubes E and the tube B; as seen in Fig. 3. These wings J serve to make a connection between the tubes B and E, so as to firmly  
15 support them in their proper concentric relation to each other. The openings I are best constructed in the same manner as the openings H, except that the metal is turned outward to form the wings F, as clearly seen in  
20 Fig. 3; but the tube E may be perforated, as seen in Figs. 4 and 5, and the wings F be of a width to extend into the inner tube and be secured thereto, the tube E interlocking with the wings, as seen in Fig. 4.  
25 The division of the space between the two tubes and the perforations of the tube E serves to distribute the air passing into the space between the tubes A and B, so as to prevent irregular currents, which would be  
30 liable to occur were the said space open or not thus broken.

By the employment of the vertical wings the further advantage is attained of firmly supporting the inner tube and the distributor it carries in the proper relative and concentric position with relation to the principal central draft or wick tube A. 35

I claim—

In a central-draft lamp, the combination of a tube B, concentrically arranged within the central draft-tube and so as to leave a space  
40 between the two, the said tube B carrying a distributor at its upper end, its lower end open to the atmosphere below, the tube E, of larger diameter than the tube B, but less than  
45 the diameter of the central draft-tube, the tube E constructed with openings and radially-projecting vertical wings turned outward and inward from said openings, the said outer wings of a diameter corresponding to the  
50 internal diameter of the said central draft-tube and the inner wings adapted to engage the said tube E, whereby the said tube E becomes substantially a part of the tube B, and the central draft-tube constructed with a stop,  
55 as G, substantially as and for the purpose described.

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Witnesses:

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