

(No Model.)

L. J. ATWOOD.

LAMP BURNER.

No. 270,722.

Patented Jan. 16, 1883.

Fig 2.

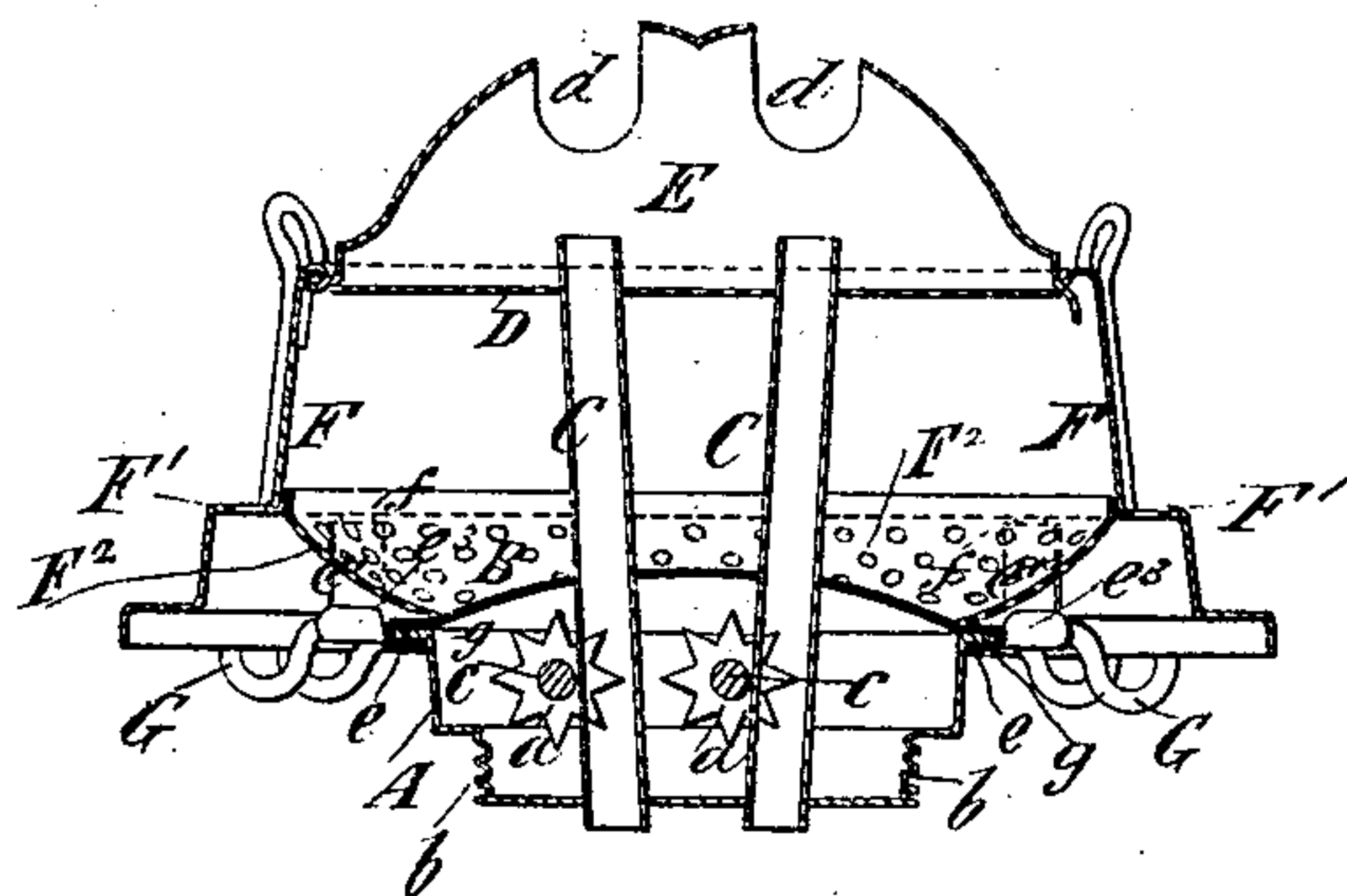


Fig 1.

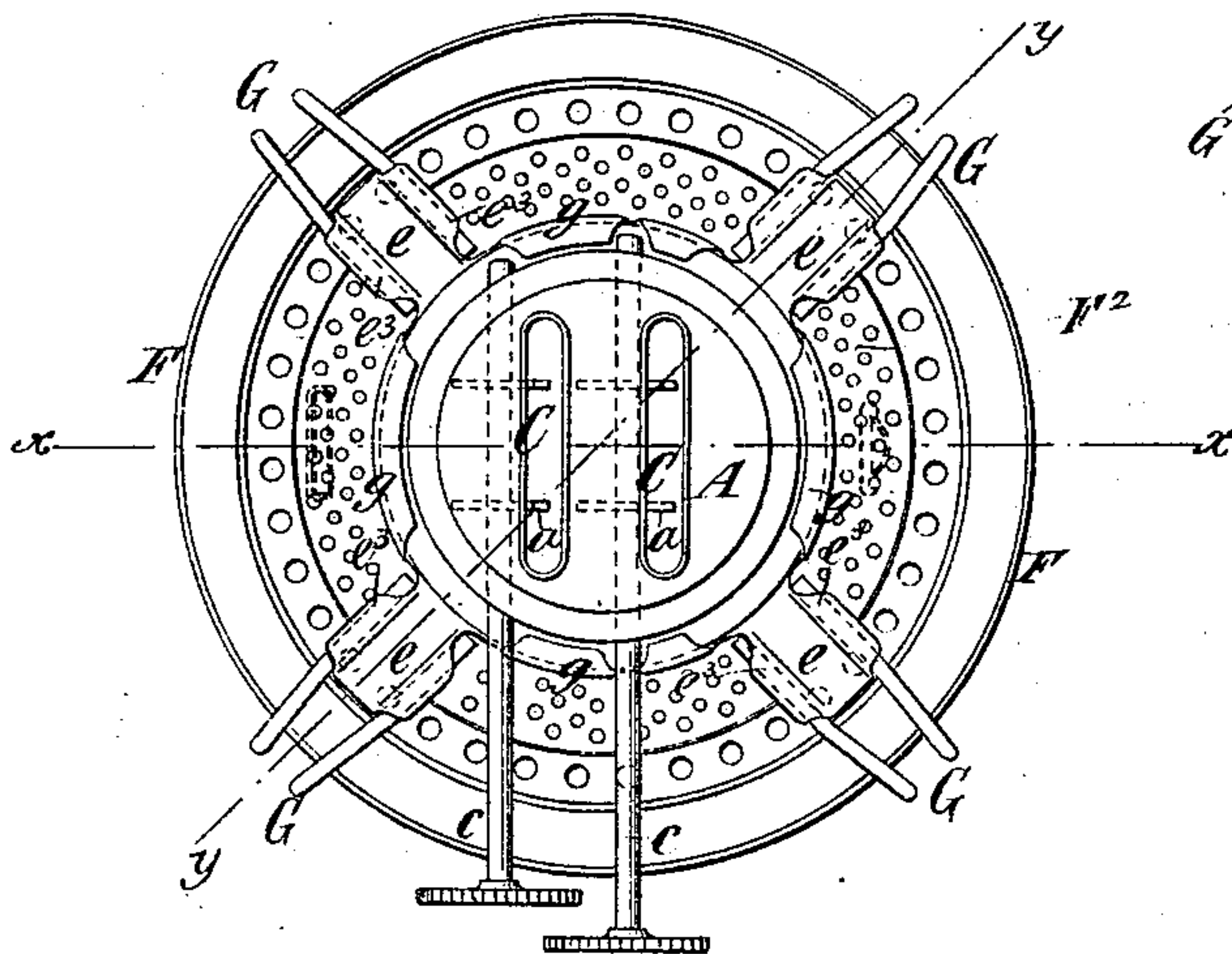
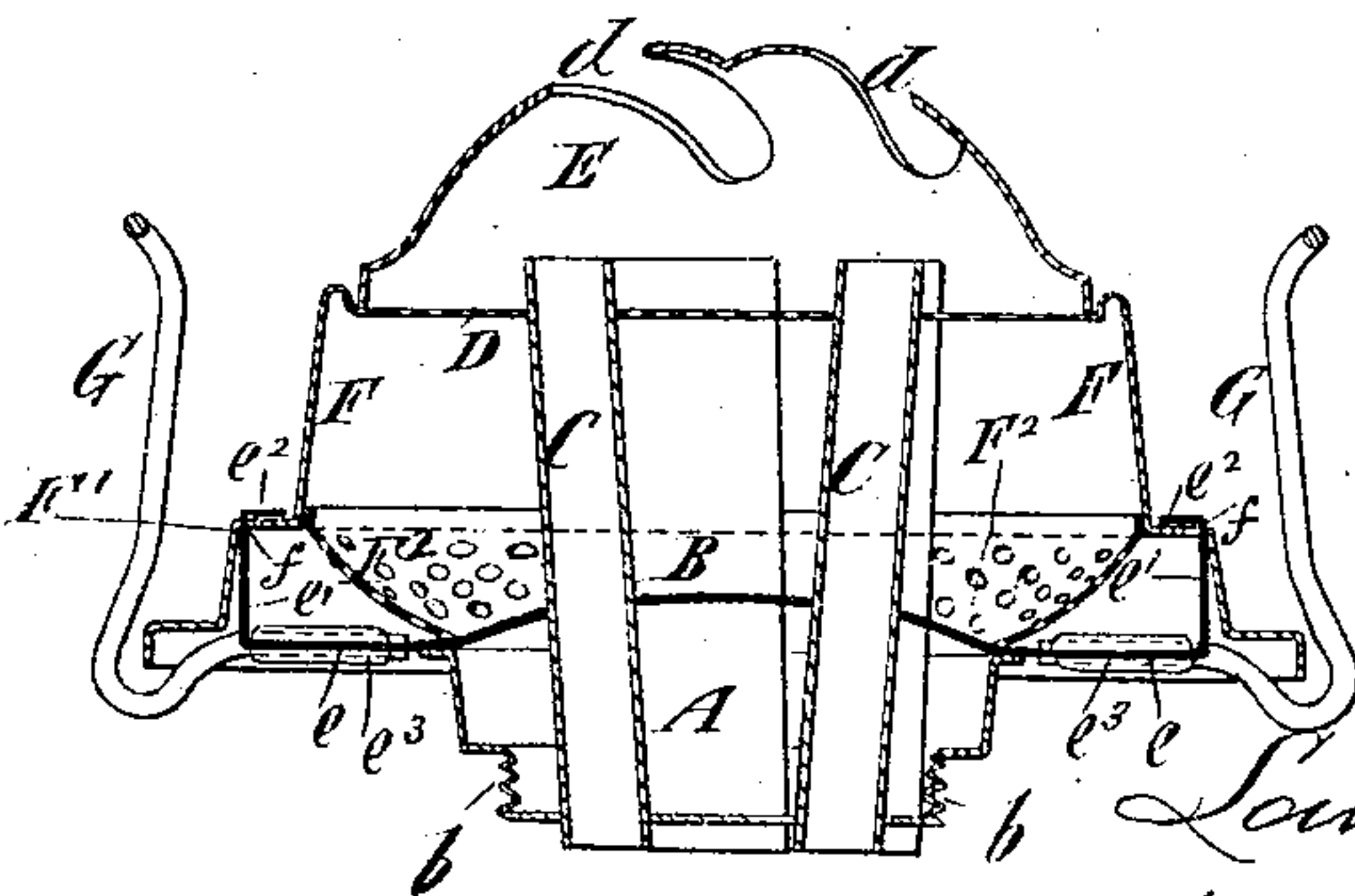


Fig 4.



Fig 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

LEWIS J. ATWOOD, OF WATERBURY, CONN., ASSIGNOR TO THE PLUME & ATWOOD MANUFACTURING COMPANY, OF SAME PLACE.

LAMP-BURNER.

SPECIFICATION forming part of Letters Patent No. 270,722, dated January 16, 1883.

Application filed November 3, 1882. (No model.)

To all whom it may concern:

Be it known that I, LEWIS J. ATWOOD, of Waterbury, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Lamp-Burners, of which the following is a specification.

My invention relates to burners in which the wick-raising ratchets are inclosed within the base of the burner by means of what has been termed a "ratchet-cap."

The invention consists in a method of combining the base and ratchet-cap with the body of the burner, and of attaching the chimney-holding springs to the ratchet-cap, whereby I dispense with rivets and solder; also in novel combinations of parts hereinafter described and claimed.

In the accompanying drawings, Figure 1 represents an inverted plan of a two-wick burner embodying my invention. Fig. 2 represents a vertical section thereof in the plane of the dotted line *x x*, Fig. 1. Fig. 3 represents a similar section on the plane of the dotted line *yy*, Fig. 1; and Fig. 4 represents a detail view illustrating the manner of securing the chimney-holding springs in place.

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

A designates the burner-base, in which the wick-raising ratchets *a* are placed, and which has an external screw-thread, *b*, providing for the attachment of the burner to a lamp-collar. The wick-raising ratchets *a* are actuated in the usual way by means of ratchet-spindles *c*.

B designates the ratchet-cap, which covers the base A; and C C designate the two-wick tubes, which extend upward through the air-distributor D; and E designates the cone or deflector, provided with two flame-slots, *d*. The air-distributor D is here represented as formed integral with the body E of the burner, and said body is supported upon arms, *e*, extending from the base A. The arms *e* are formed integral with and project radially from the ratchet-cap B. They extend horizontally from the ratchet-cap, and are then bent upward, forming upright portions *e'*, and the body F has a horizontal shoulder or flange, *F'*, having in it

slots or holes *f*. The points *e'* of the arm portions *e'* are inserted through the holes or openings *f*, and are bent over or clinched on the shoulder *F'*, as seen clearly in Fig. 3. The ratchet-cap B is provided between the arms *e* with lips *g*, which are turned under the edge of the ratchet-case A, as shown in Figs. 1 and 2, and serve to secure the cap B to the base A. The space between the ratchet-cap B and the body F of the burner is closed by a perforated lower air-distributor, *F'*, the lower edge of which rests upon the ratchet-cap and the upper edge of which is slipped into the body F.

G designates the chimney-holding springs, which are of usual form, and the lower ends of which extend horizontally inward.

The arms *e* have side lips, *e''*, which are bent up into tubular form, as shown best in Fig. 4, which represents a transverse section through one of the arms. The tubular portions or lips *e''* are closed down upon or around the horizontally-extending end portions of the springs G, and the latter are thereby secured firmly in place.

It will be seen that by my invention I provide for securing the body of the burner to the arms *e*, and for securing the chimney-holding springs without solder or rivets, which is of importance in the manufacture of burners.

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

1. The combination of the base A, the ratchet-cap B, provided with the integral arms *e*, having the upwardly-extending portions *e'*, and the body F, provided with slots or holes *f*, through which the points of the arms *e'* are inserted and then clinched, substantially as described.

2. The combination of the base A and the ratchet-cap B, united by folding one over the edge of the other, the ratchet-cap being provided with integral arms *e*, extending beyond said base, and the chimney-holding springs attached directly to and supported by said arms, substantially as herein described.

3. The combination of the body F, the base A, the ratchet-cap B, provided with the integral arms *e*, connected with the body and

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having side lips, e^3 , and the chimney-holding springs G, over which the lips e^3 are closed, substantially as described.

- 5 4. The combination of the two wick-tubes C, the base A, the ratchets a and their spindles c , the ratchet-cap B, provided with the integral arms $e e'$, the body F, provided with slots or holes f , through which the points of

the arms $e e'$ are inserted and clinched, the air-distributor D, and the cone or deflector E, all 10 substantially as described.

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Witnesses:

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