

REBBECK & DAVIES.

Lamp Burner.

No. 36.367.

Patented Sept. 2, 1862.

Fig. 1.

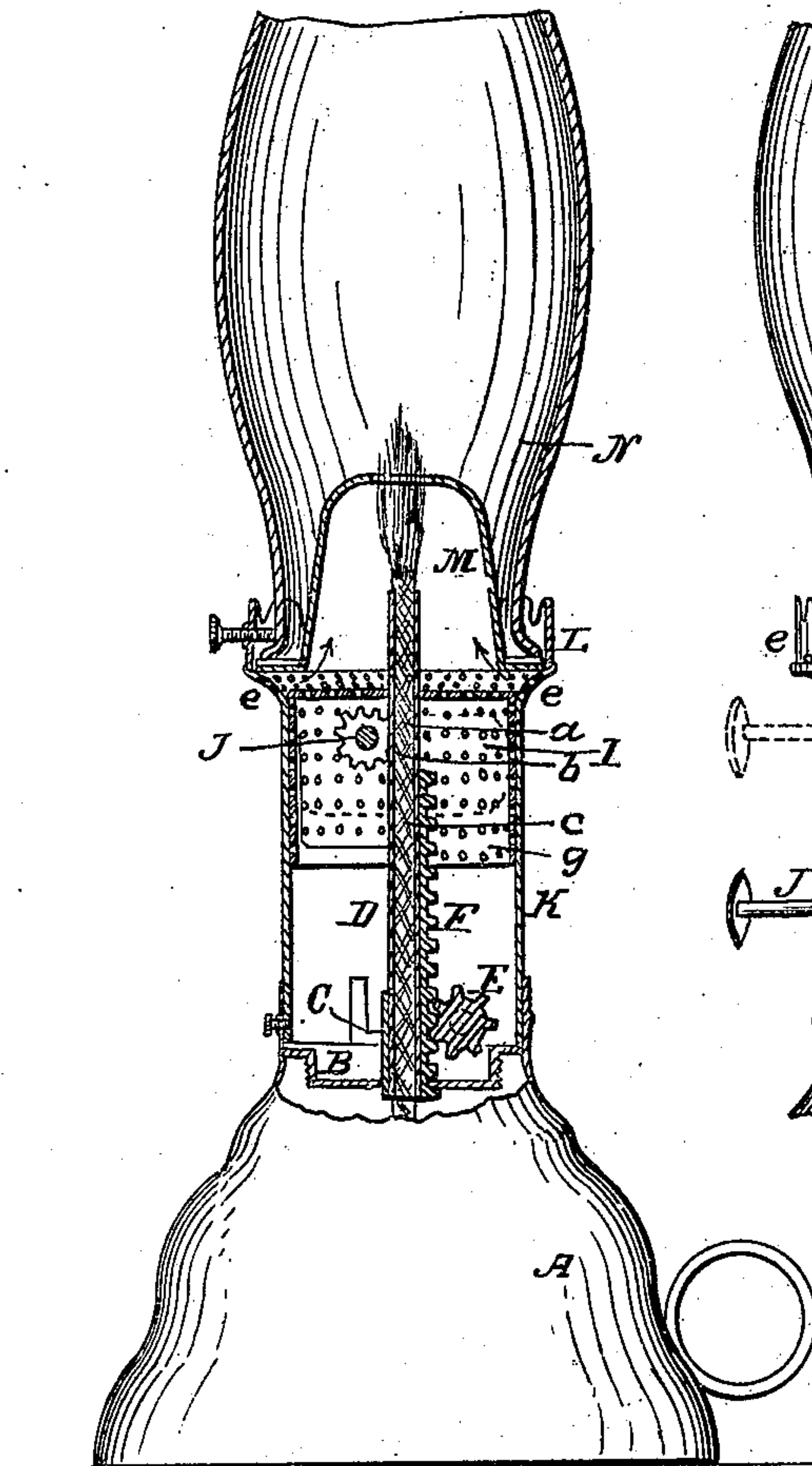


Fig. 3.

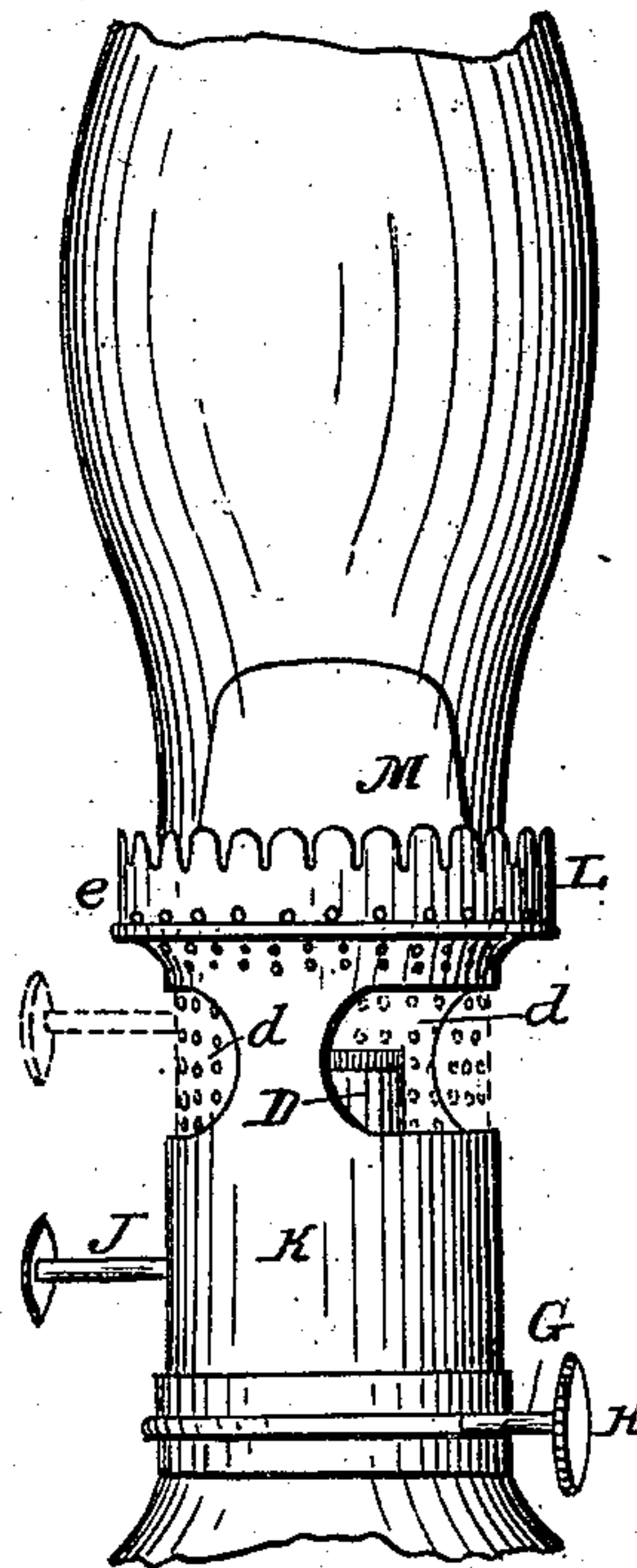
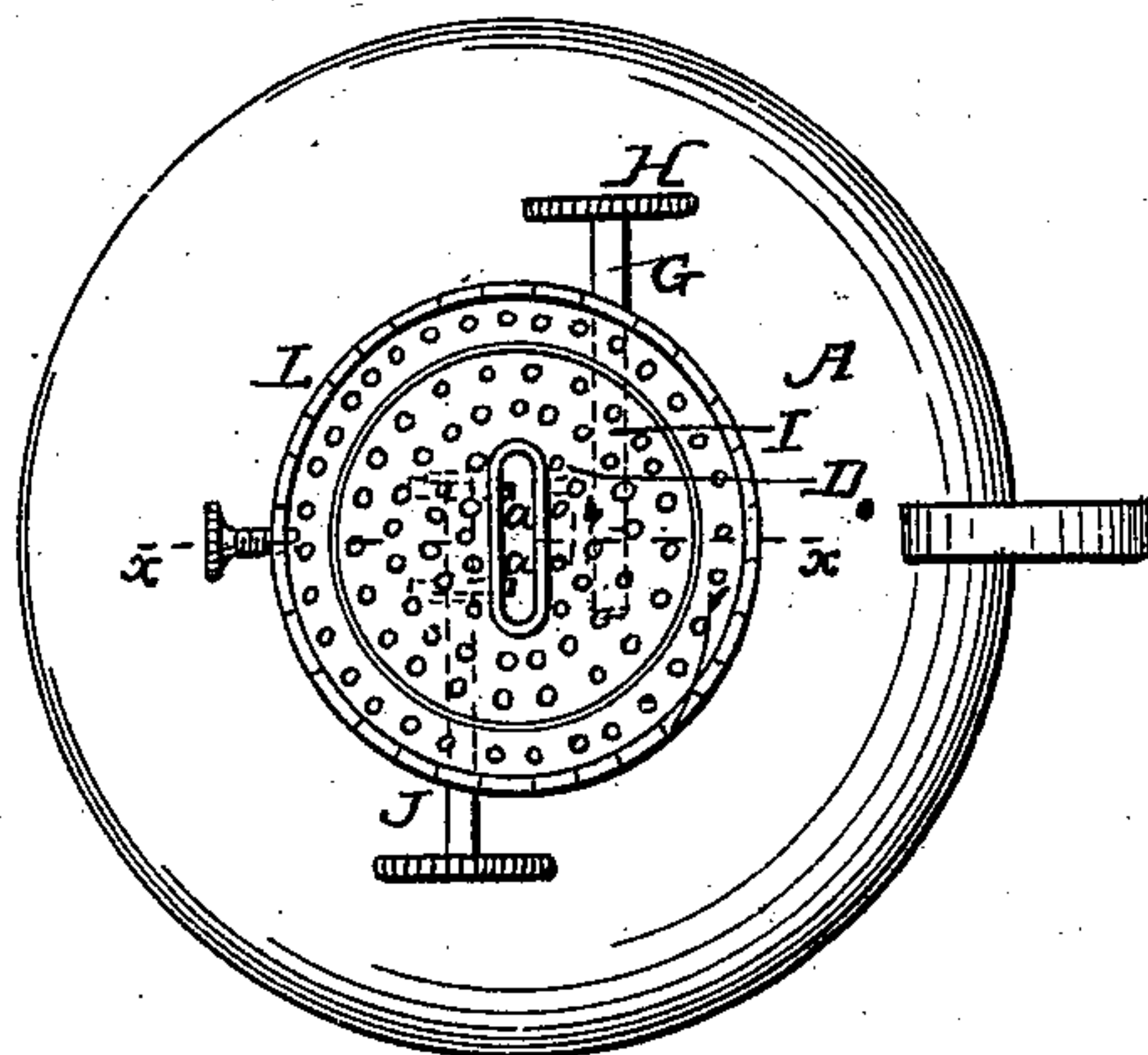


Fig. 2.



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UNITED STATES PATENT OFFICE.

F. J. REBBECK AND EDWARD M. DAVIES, OF PITTSBURG, PENNSYLVANIA.

IMPROVEMENT IN LAMP-BURNERS.

Specification forming part of Letters Patent No. 36,367, dated September 2, 1862.

To all whom it may concern:

Be it known that we, F. J. REBBECK and EDWARD M. DAVIES, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Lamp-Burners, such as are used with glass chimneys for burning coal-oil and similar hydrocarbons; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a vertical central section of our invention, taken in the line *xx*, Fig. 2. Fig. 2 is a plan or top view of the same with the chimney and cone or deflector removed; Fig. 3, an external view of the same.

Similar letters of reference indicate corresponding parts in the several figures.

The object of this invention is to obtain a lamp-burner for burning coal-oil and similar fluid hydrocarbons, which will admit of the wick being lighted, and also trimmed when necessary without removing the glass draft-chimney or detaching any of the parts of the burner.

To this end the invention consists in exposing the upper part of the wick-tube either by moving the same vertically or moving a case which encompasses it, one or more openings being made in the latter and the former provided with a perforated cylinder, which, when the burner is in use, serves to close the openings in the external case which incloses the wick-tube.

To enable those skilled in the art to fully understand and construct our invention, we will proceed to describe it.

A represents the body or fountain of the lamp, and B a metal cap, which is screwed into the upper part of the latter, said cap having a flat or oblong rectangular socket, C, secured centrally within it, and through which socket the wick-tube D passes into the fountain A. The wick-tube is allowed to work freely up and down through the socket C, and it is thus operated by means of a pinion, E, gearing into a rack, F, attached to the wick-tube, as shown clearly in Fig. 1, the pinion E being placed on a shaft, G, provided with a thumb-wheel, H, at one end.

The wick-tube D is provided near its upper part with a perforated cylinder, I, in which a

shaft, J, is fitted, having upon it two serrated wheels, *aa*, which pass through slots *bb* in the wick-tube and are in contact with the wick *c*. By turning these wheels the wick may be raised and lowered, as usual.

K is a case or hollow cylinder which encompasses the wick-tube D, and is secured at its lower end to the cap B. To the upper end of this case K there is attached permanently a flange, L, in which the cone or deflector M is fitted, and also the base of the glass chimney N, as shown in Fig. 1. The upper part of the case K, just below the flange L and at opposite sides, is provided with two openings, *dd*, as shown in Fig. 3, and the flange L is perforated, as shown at *e*. The upper surface or top of the cylinder I is also perforated, as shown at *f*, and is open at its bottom. (See Fig. 1.)

When the burner is in use, the wick-tube D is raised, so that the perforated cylinder I will close the openings *dd* of the case K, air being admitted to the flame through the perforations of said cylinder and also through the perforations in the flange L, as indicated by the arrows in Fig. 1.

When the wick-tube D is thus raised, its upper end bears the same relative position with the cone or deflector M as that of an ordinary burner.

In order to light or trim the wick, all that is required is simply to move down the wick-tube D and its cylinder I, which is done by turning the shaft G of the pinion E until the upper end of the wick-tube arrives opposite the openings *dd*, the cylinder I being then below said openings, and the upper end of the wick-tube exposed, so as to render the wick accessible to either a match or shears. When the wick is lighted, the wick-tube is raised or moved upward to its former position through the medium of the rack and pinion F E. Thus by this simple arrangement the wick may be trimmed and lighted without removing the chimney or detaching any of the parts of the burner; and its principal advantage over other devices of the kind consists in the obtaining of better draft, which is due to the increased length of the burner obtained by the arrangement, as described, of the wick-tube and case, and, further, the facility with which the wick may be trimmed, the shears being allowed to pass entirely through the case. This

result cannot be attained by a stationary wick-tube within the deflector, and in this respect our invention differs from all others of the kind that have passed under our observation.

It will be seen from the above description that the same end may be attained by having the wick-tube stationary and the case K arranged to slide up and down; but the same parts would be necessarily used in both cases and the character of the invention not be in the least changed.

We would remark that in order to prevent the casual falling of the wick-tube D the cylinder I may be provided with a spring-catch, *g*, so arranged as to pass through one of the perforations at the side of cylinder I and project over the lower edge of one of the openings *d*. (See Fig. 1.)

Having thus described our invention, what

we claim as new, and desire to secure by Letters Patent, is—

The wick-tube D, provided with a hollow perforated cylinder, I, and encompassed by a case, K, having one or more openings, *d*, made in it, and provided with a flange, L, to receive the case or deflector M and draft-chimney N, when said parts are arranged to admit of the vertical sliding of either the wick-tube or case, so as to expose the upper end of the wick-tube when necessary for the purpose of lighting or trimming the wick, and also to inclose fully the wick-tube when the burner is in use, substantially as herein set forth.

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