

(No Model.)

L. J. ATWOOD.

LAMP BURNER.

No. 327,054.

Patented Sept. 29, 1885.

Fig. 2.

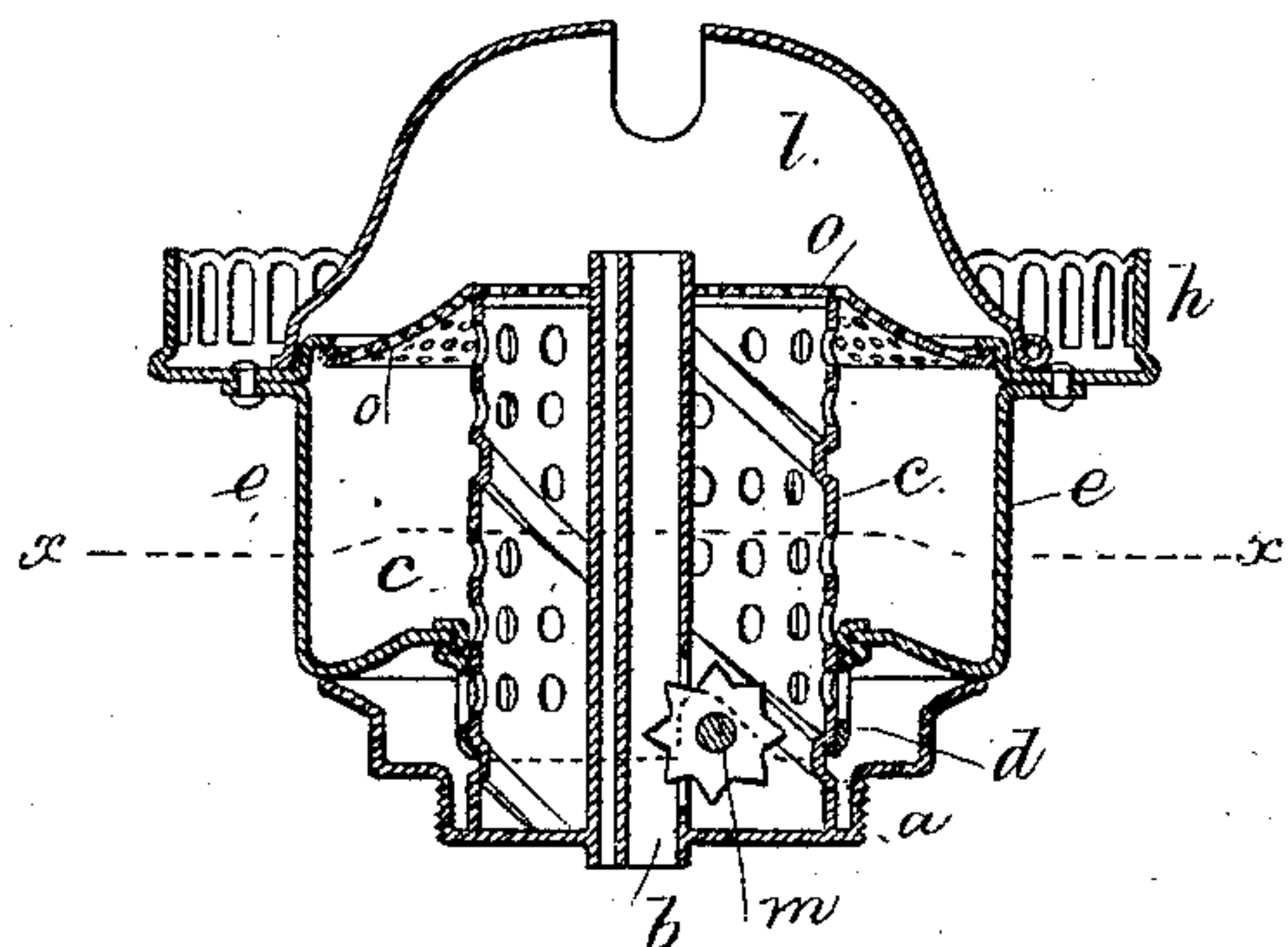


Fig. 3.

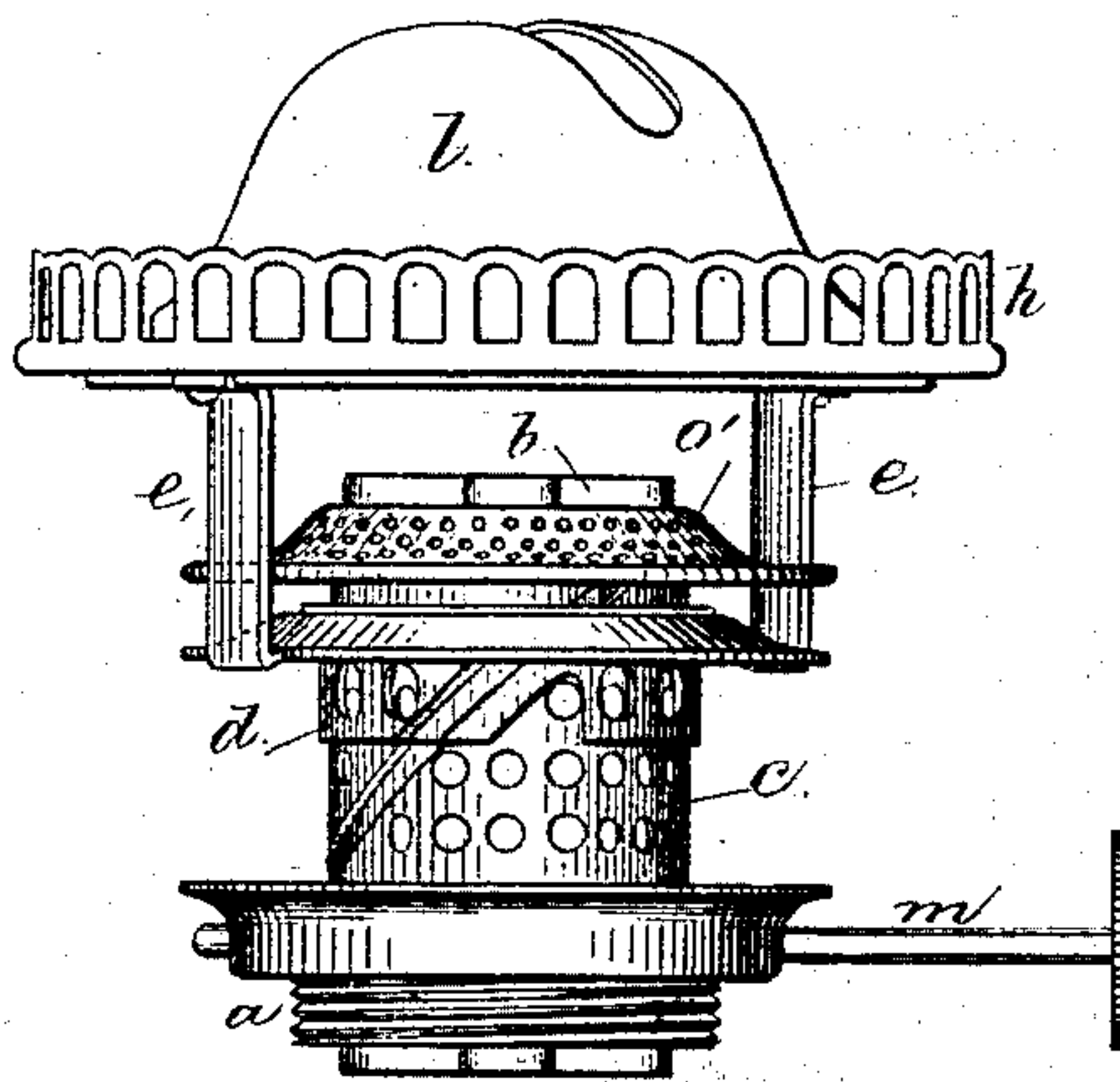


Fig. 1.

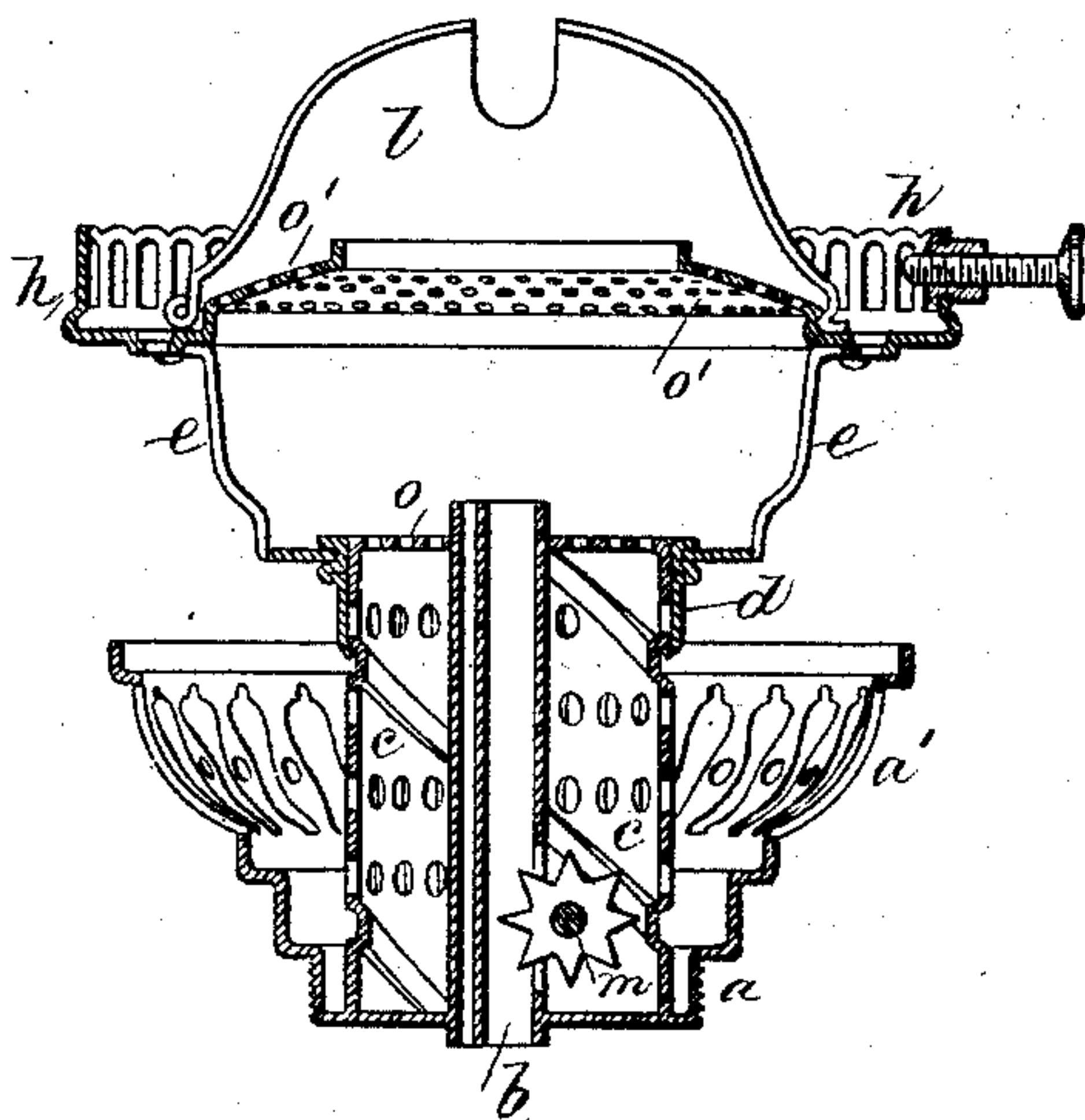
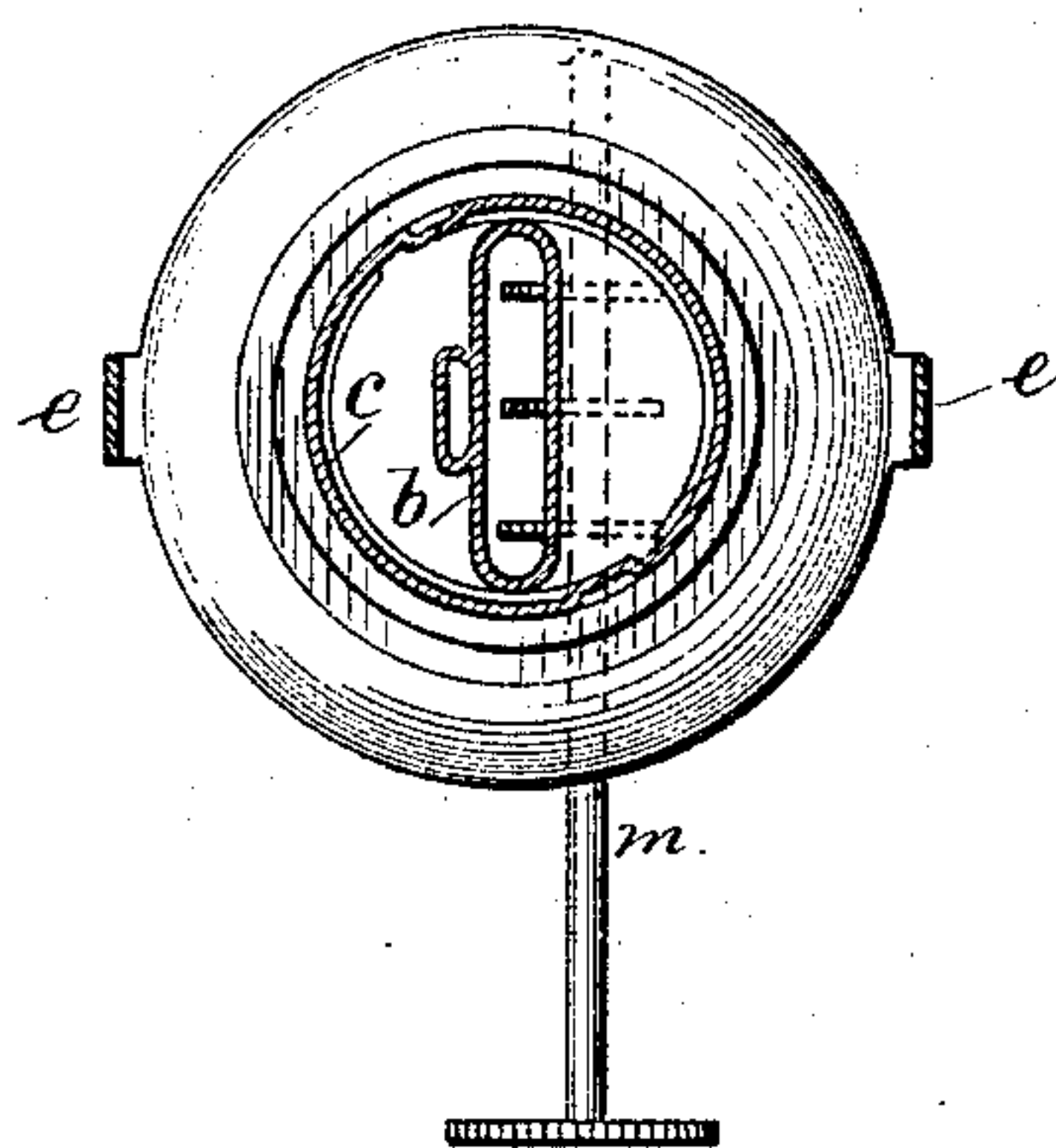


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

LEWIS J. ATWOOD, OF WATERBURY, CONNECTICUT.

LAMP-BURNER.

SPECIFICATION forming part of Letters Patent No. 327,054, dated September 29, 1885.

Application filed September 10, 1884. (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 an Improvement in Lamp-Burners, of which the following is a specification.

In some lamps containing an air-distributor at the base of the deflector a cylinder has been used around the wick-tube and a sleeve sliding upon the same, so that the chimney-holder and air-distributor can be lifted, the sleeve sliding upon the cylinder. In this lamp the sleeve may adhere to the cylinder, and when the friction is overcome the lifting motion may be sudden. Inclines have been used within a circular air-distributor, but the same are liable to bend and become inefficient.

My improvement is made for raising the chimney-holder and deflector more easily and reliably, and for lessening the risk of the chimney-holder being separated from the base of the burner, or for entirely preventing such separation.

In the stationary guide surrounding the wick-tube I provide a screw or incline having one or two threads, and a nut or lifter around such guide having corresponding threads or inclines, and from this lifter there are arms extending to the chimney-holder and deflector, so that the chimney and holder are raised bodily from the wick-tube by a partial rotation of the nut or lifter, and this can be very easily done by hand without risk of a sudden movement. The parts are arranged so that the arms do not interfere with trimming or lighting the lamp.

In the drawings, Figure 1 is a vertical section of the lamp. Fig. 2 shows the same slightly modified with the chimney-holder and deflector lowered. Fig. 3 is a side view of the burner, Fig. 2, with the chimney-holder and deflector partly raised; and Fig. 4 is a sectional plan at the line *x x*, Fig. 2.

The screw-base *a* is adapted to fit the lamp-reservoir, and the wick-tube *b* is fastened to the same. So, also, is the stationary guide *c*, which is preferably of sheet metal, surrounding the wick-tube. It contains perforations, especially in the upper part, so that air can pass in through the same and reach the base of the flame at the top of the wick-tube.

The inclines or threads in or upon the stationary guide are usually rolled into the same; but they may be made by slots in the metal or otherwise.

The nut or lifter *d* surrounds the tube *c*, and is provided with threads or a pin fitting the threads or slots of the screw. The arms or supports *e* extend outwardly and upwardly from the lifter *d*, and these arms support the chimney-holder *h*, and the cone or deflector *l* rests upon such chimney-holder.

It will now be understood that the inclines act to raise or depress the chimney-holder, and that the movement given to the chimney-holder is a partial rotation; hence the lifter is not liable to pass up too far or to become detached from the tubular screw, and by providing a stop at the end of the screw-thread or incline the parts are held so that they cannot be separated.

It is usual to provide wick-raisers and a shaft, *m*, and as the lifter should be in the form of a cylinder around the stationary guide *c*, in order to steady the chimney-holder, it is preferable to notch the lifter where it passes the wick-raising shaft, so that such lifter may pass down into the screw-base and the burner be made as compact as possible.

The air-distributor *o* is provided for rendering the supply of air uniform. In Fig. 2 this air-distributor is made of one piece of perforated metal, surrounding the wick-tube *b*, and attached to the top of the guide *c*, and it is of a size adapted to receive upon its edge the interior portion of the chimney-holding ring *h* when the same is turned down. When the chimney-holder is partially revolved, the inclines raise the holder, so that access is given to the wick for trimming or lighting, and when so raised the arms are not in the way of the scissors, because they are opposite to the sides of the wick, as shown.

In Fig. 1 the air-distributor is shown as made in two parts. The portion above and within the guide *c* is attached thereto and the other portion, *o'*, is formed with the chimney-holder *h*. These parts come together when the chimney-holder is turned down, and usually there will be a foraminous casing, *a'*, extending up from the base *a*, and upon the top edge of the casing the chimney-holder rests.

I do not herein claim a cylindrical guide within the burner and around the wick-tube, nor a perforated air-distributor and inclines to act in raising or lowering the deflector and chimney-holder, as a burner having such parts is shown in my application No. 142,553, filed September 10, 1884.

I claim as my invention—

1. The combination, with the burner-base, wick-tube, deflector, and chimney-holder, of the stationary cylindrical guide around and adjacent to the wick-tube, and having screw-threads or inclines, and a lifter around such guide acted upon by the inclines, arms connecting the lifter with the chimney-holder, and an air-distributor connected at the upper end of the guide, substantially as specified.

2. The combination, with the burner-base,

wick-tube, deflector, and chimney-holder, of the stationary cylindrical guide around and adjacent to the wick-tube, and having screw-threads or inclines, and a lifter around such guide acted upon by the inclines, arms connecting the lifter with the chimney-holder, an air-distributor connected at the upper end of the guide, and a foraminous casing, *a'*, extending up from the base *a*, and upon which the chimney-holder rests when in use, substantially as specified.

Signed by me this 30th day of August, A. D. 1884.

L. J. ATWOOD.

Witnesses:

R. T. LATTIN,
B. B. BRISTOL.