

(No Model.)

E. J. HALE.  
BURNER FOR LAMPS.

No. 351,374.

Patented Oct. 26, 1886.

Fig. 1.

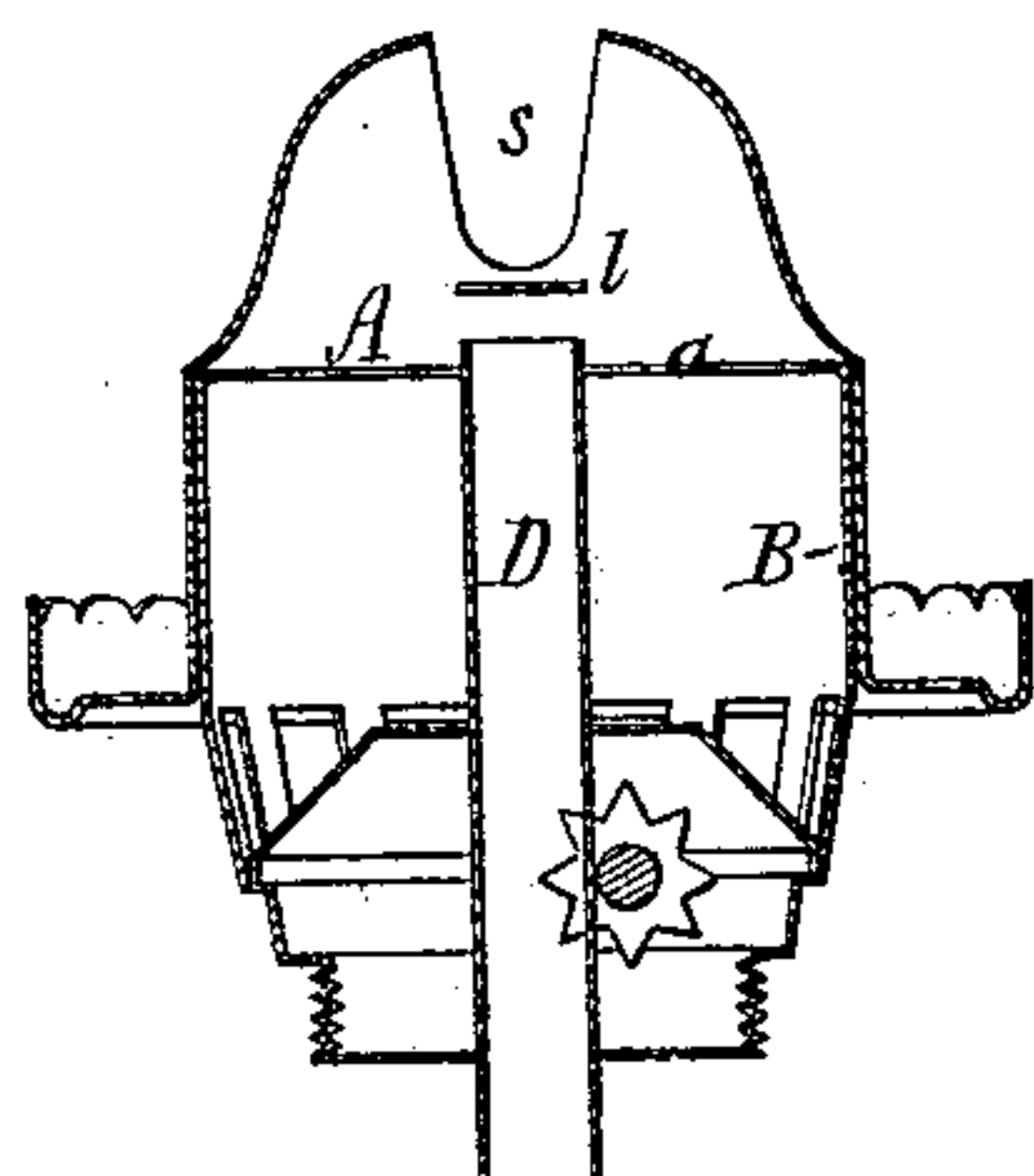


Fig. 2.

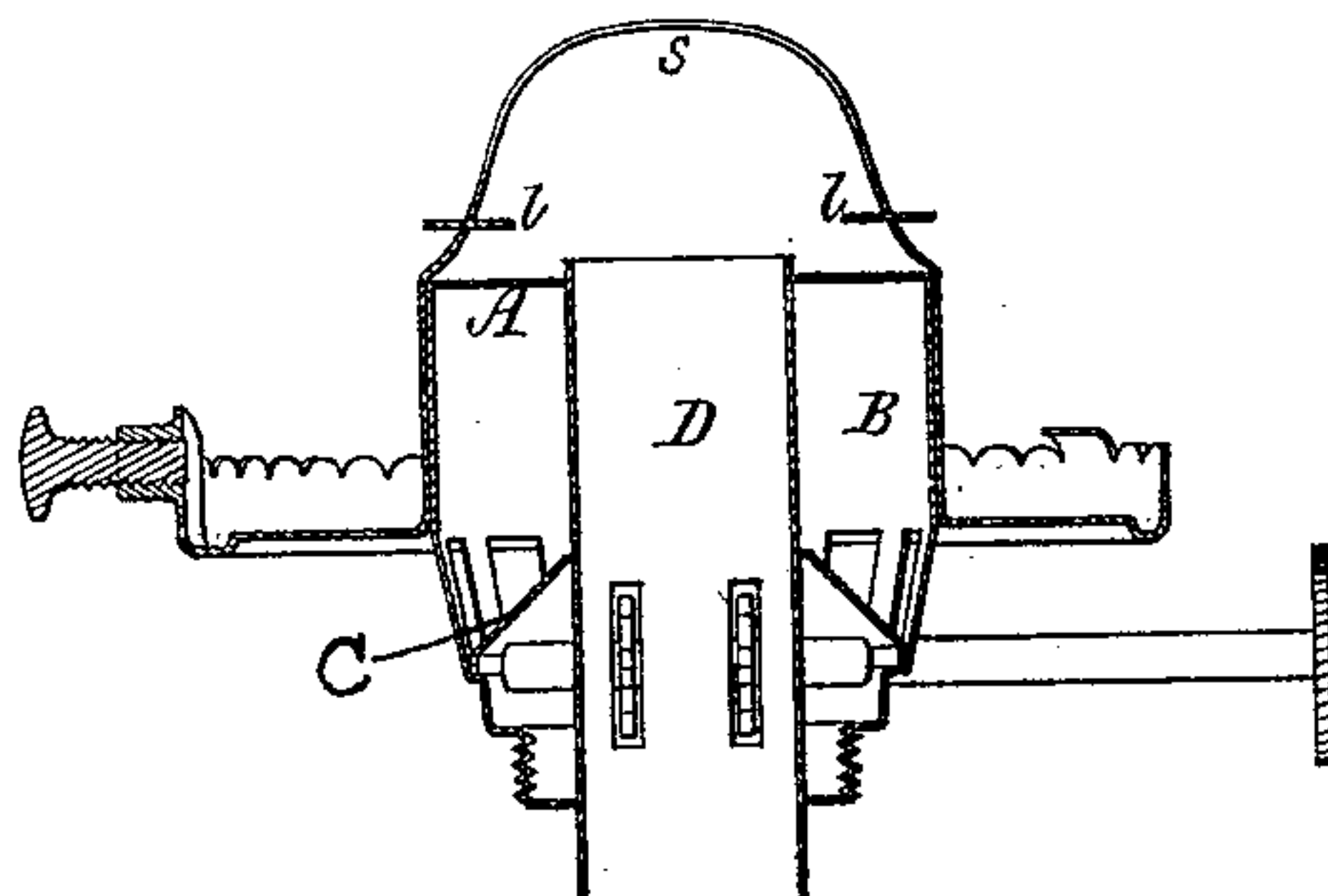


Fig. 3.

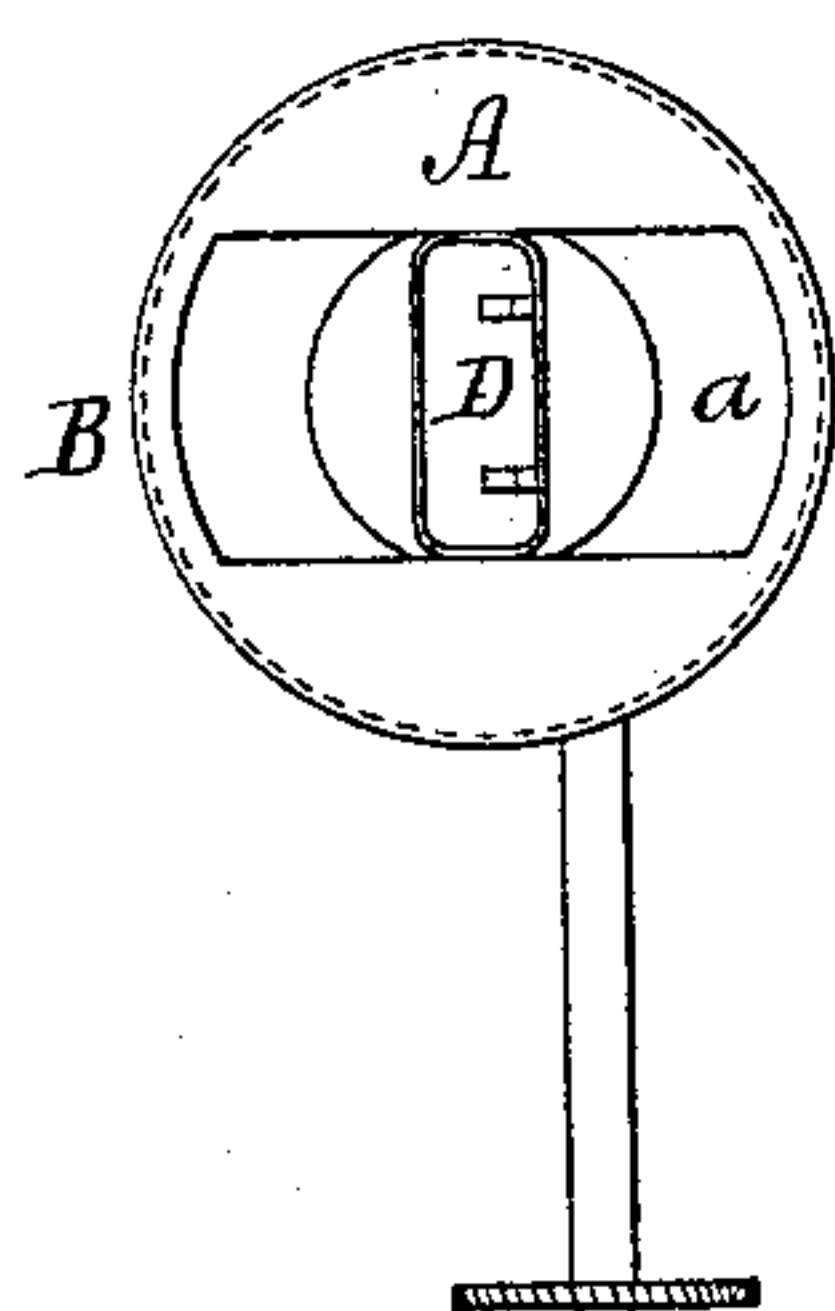


Fig. 4.

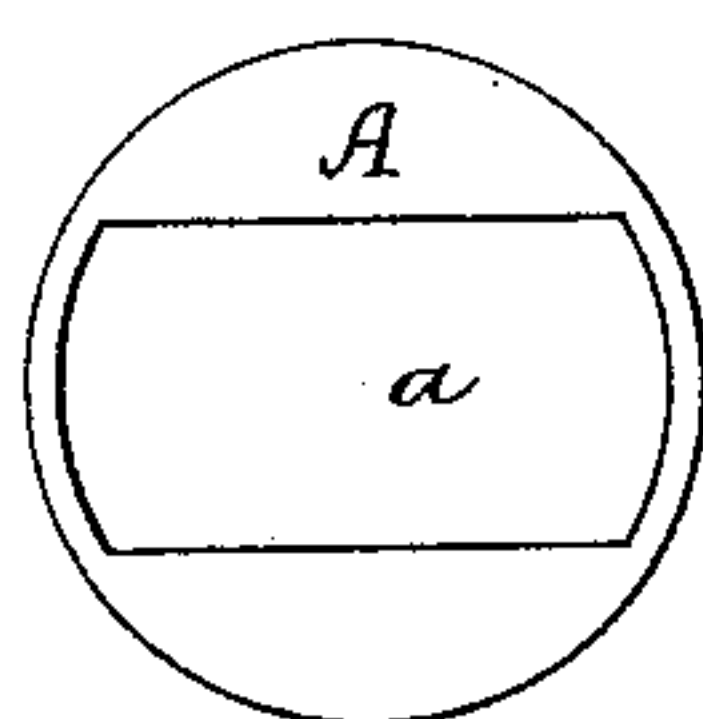


Fig. 5.

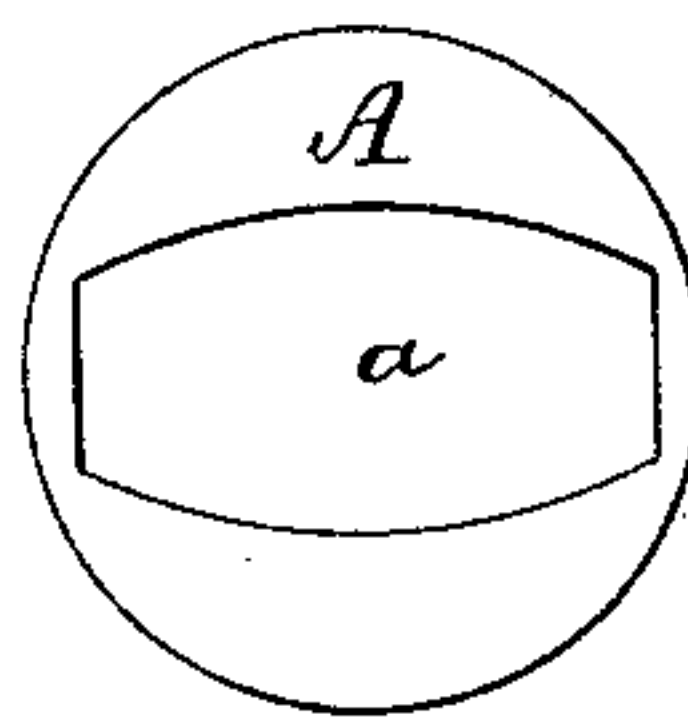
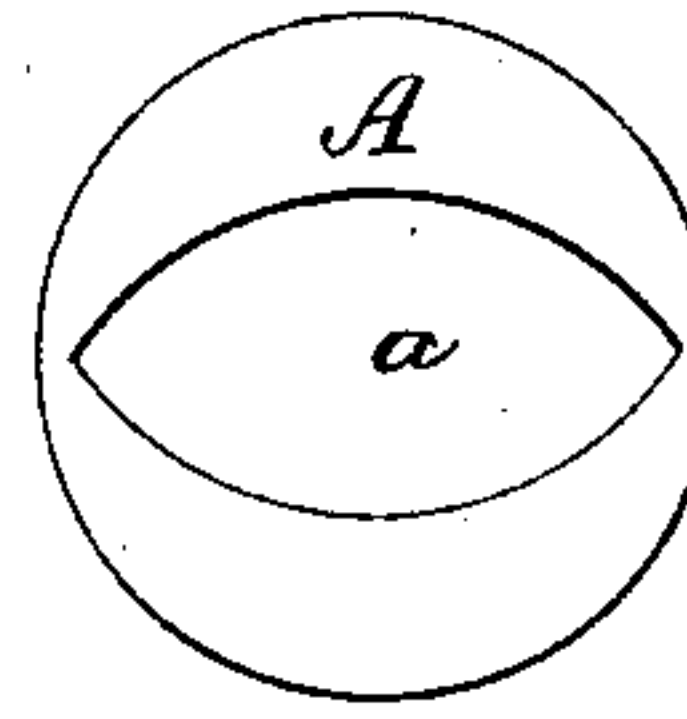


Fig. 6.



Witnesses.

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# UNITED STATES PATENT OFFICE.

ELIAS JONES HALE, OF FOXCROFT, MAINE.

## BURNER FOR LAMPS.

SPECIFICATION forming part of Letters Patent No. 351,374, dated October 26, 1886.

Application filed April 12, 1886. Serial No 198,586. (No model.)

*To all whom it may concern:*

Be it known that I, ELIAS JONES HALE, of Foxcroft, in the county of Piscataquis, of the State of Maine, have invented a new and useful Improvement in Burners for Lamps; and I do hereby declare the same to be described in the following specification, and represented in the accompanying drawings, of which—

Figures 1 and 2 are transverse sections, in planes at right angles to each other, of a burner provided with my invention. Fig. 3 is a top view of it as it appears without its cone. Figs. 4, 5, and 6 are top views of its "O-deflector" under different shapes, it being generally shaped very like the capital letter O—that is, it is a disk, A, of plate metal, having an elongated opening, a, extending through it, as shown.

This disk is arranged within and fitted to the body B of the burner, or in that of the cone C, so as to be on or about on a level with the top of the wick-tube D, which is flat, and is to extend transversely across the opening at its middle, from edge to edge thereof, as shown in Fig. 3, from which it will be seen that the currents of air, when ascending through the body of the burner to the flame of the wick, are contracted so as to flow mostly, if not entirely, against the two opposite sides of the flame of the wick, thereby causing the flame to expand or spread out to better advantage than it would without the O-shaped deflector.

The cone is applied to the body of the burner so as to be turnable or revoluble thereon in order to cause the flame-orifice of the said cone to be properly adjusted to the wick-tube and the O-shaped deflector, when the latter is fixed in the body of the burner, such being to prevent the flame of the wick from "spearing," forking, or becoming irregular in shape.

I do not herein claim anything claimed and described in the United States Patent No. 312,267, granted to me February 17, 1885, my present invention differing materially in construction and operation therefrom. Furthermore, within the cone, just at or a little below each terminus of its flame and air-orifice s, there is a small lip, l, that extends toward the edge of the wick-tube. These lips aid in keeping the upward currents of air against the sides of the flame, and insulate the edges of the flame from the aerial currents, thereby allowing the flame to spread to better advantage. With the cone revoluble on the body of the burner, these lips are useful in varying the flame, especially with the O-shaped deflector in the burner.

I am aware of United States Patent No. 179,589, wherein is a deflector located at the top of the wick-tube. In this device the deflector does not occupy the whole space within the burner, but outside of the deflector within the burner there is a large space. In my device the only opening at the deflector is made by its opening a, so that all the ascending air is conducted to the wick.

What I claim is—

A lamp-burner provided with the O-shaped deflector within said burner and formed with a single orifice, which is placed transversely to the wick-tube and near the top of said tube, in combination with the lips extending inwardly toward the edge of the wick-tube, and a revoluble cone around said deflector, substantially as described.

ELIAS JONES HALE.

Witnesses:

NEWELL OBER,  
FANNIE QUAIL.