

A. KAESTNER.

Lamp Burner.

No. 33,649.

Patented Nov. 5, 1861.

Fig. 2.

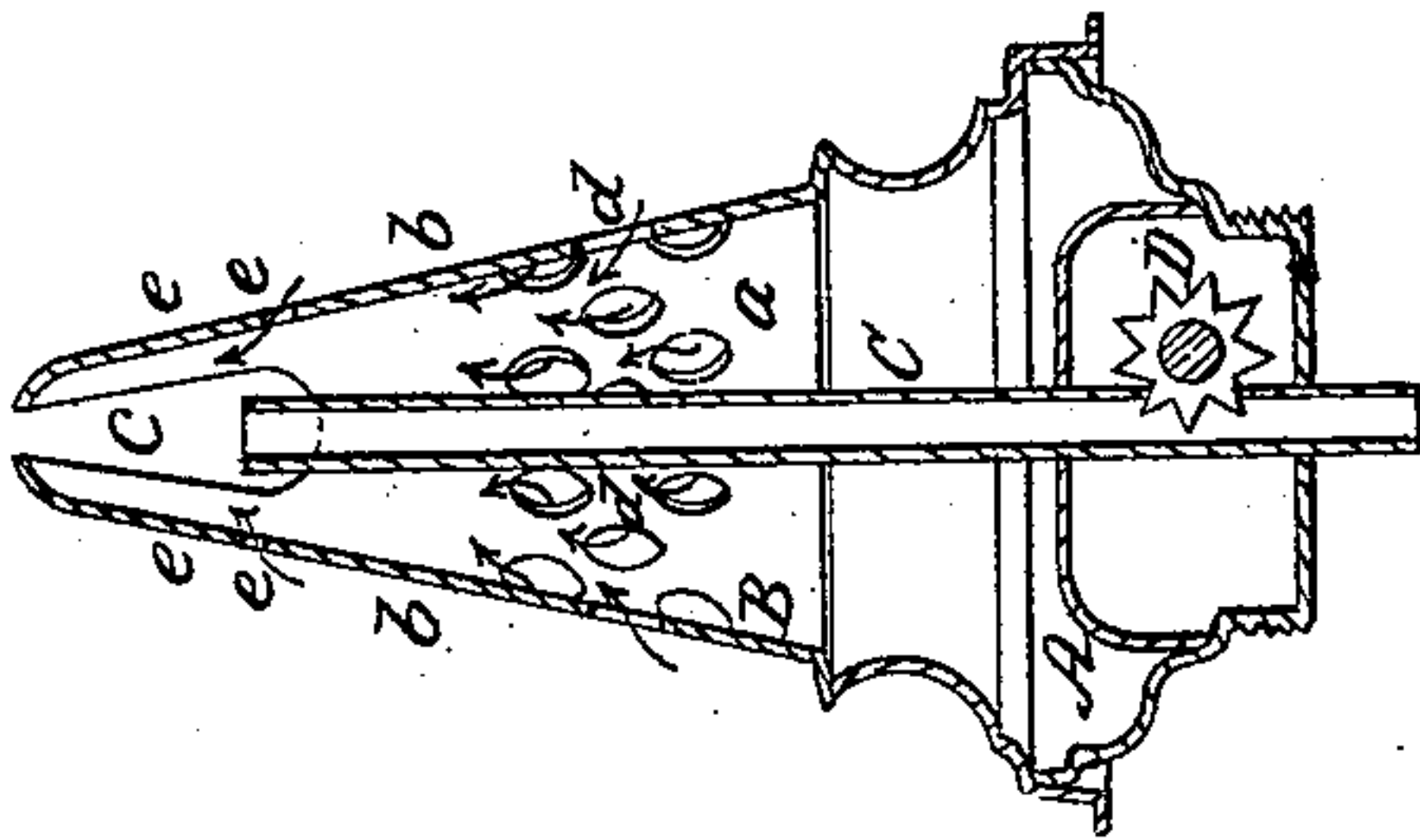
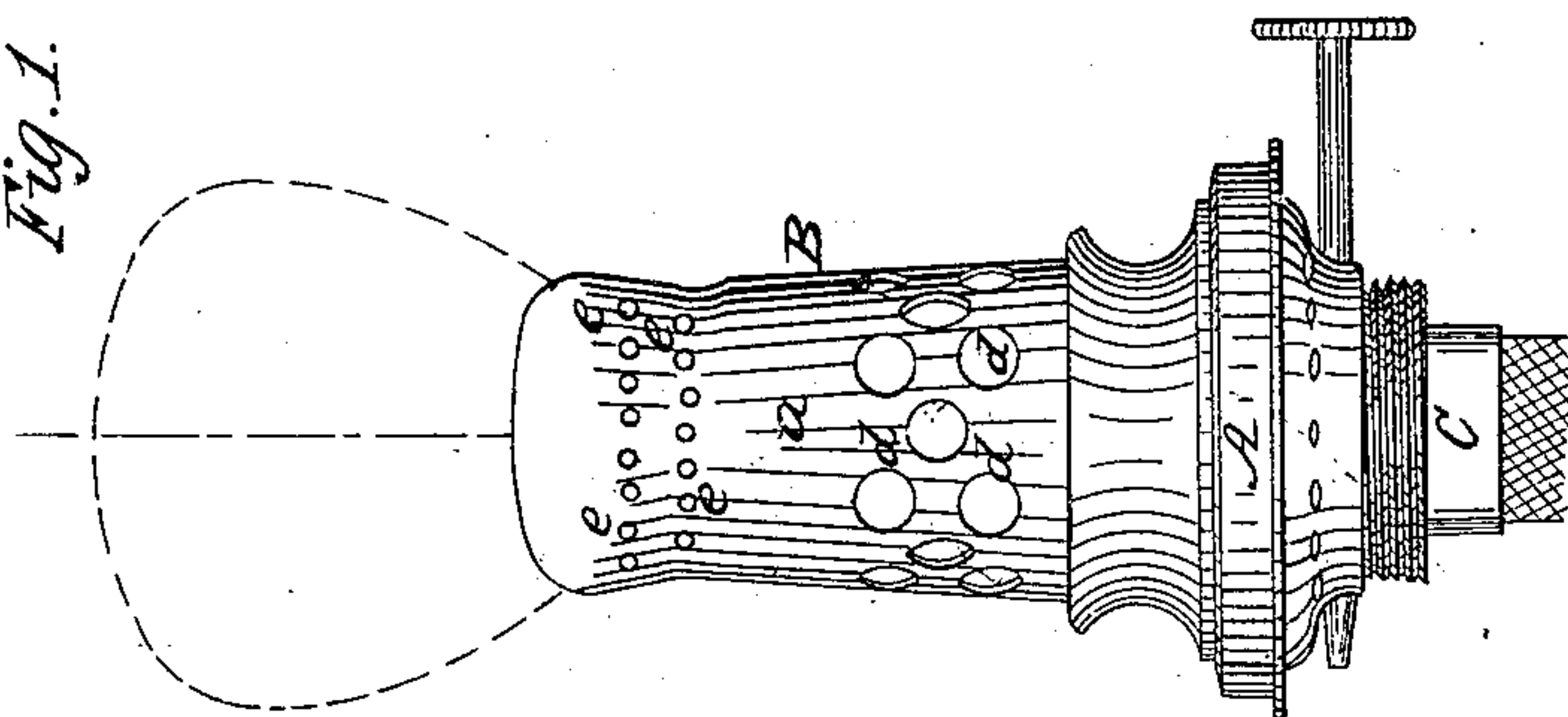


Fig. 1.



Witnesses:

James Land  
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# UNITED STATES PATENT OFFICE.

AUGUST KAESTNER, OF NEW YORK, N. Y.

## IMPROVEMENT IN LAMPS.

Specification forming part of Letters Patent No. 33,649, dated November 5, 1861.

*To all whom it may concern:*

Be it known that I, AUGUST KAESTNER, of the city, county, and State of New York, have invented a new and Improved Lamp; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is an external view of my invention. Fig. 2 is a vertical central section of the same, taken in the line *x x*, Fig. 1.

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

The object of this invention is to obtain a lamp for burning coal-oil without a glass chimney and with a good illuminating-flame.

The invention consists in the employment of a certain combination and arrangement of parts hereinafter described to promote proper combustion.

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

A represents the base of the cap, which is screwed into the top of the lamp, as usual. On this base A there is a tube B, which is of equal width at two opposite sides *a a*, the other two sides *b* being of taper form, as shown in Fig. 2.

The tube B extends a short distance above the wick-tube C, and the latter is fitted permanently in the cap, the wick being raised and lowered by the ordinary serrated wheels D. The upper end of the tube B has a slot *c* made in it. This slot extends down at each side of the tube B, as shown in Fig. 2, the lower part of the slot at each side of the tube being wider than the upper part.

The tube B is perforated at its lower part with a series of quite large holes *d*. These holes extend entirely around the tube B, and at the upper part of the tube, in the sides *a*, there are made small holes *e*, which are in one or more horizontal rows. These holes *e* admit of small jets of air directly to the base of the flame, the jets impinging against the flame at the top of the wick, while the air that passes through the holes *d* is heated in passing upward and supplies the flame with a volume of warm air. An excess of cold air would cool the flame and prevent proper combustion; but the cold air admitted through the holes *e*, being in fine jets, does not cool the flame, and it compensates for the comparatively sluggish movement of the ascending rarefied air below.

The top of the wick-tube C extends but a trifle above the base of the slot *c*, as shown in Fig. 2, and air is admitted to the flame at each side of the slot *c*. The arrangement, it will be seen, is an exceedingly simple one, and a good illuminating-flame is obtained without any disagreeable odor being evolved.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination of the tube B, taper slot *c*, large perforations *d*, and horizontal ranges of small perforations, all constructed and arranged in relation to each other and to the wick-tube C, in the manner and for the purposes explained.

AUGUST KAESTNER.

Witnesses:

JAMES LAIRD,

M. M. STOMPTON.