

Lewis J. Atwood

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Fig. 1.

Impt. Lamps

PATENTED
JAN 21 1868

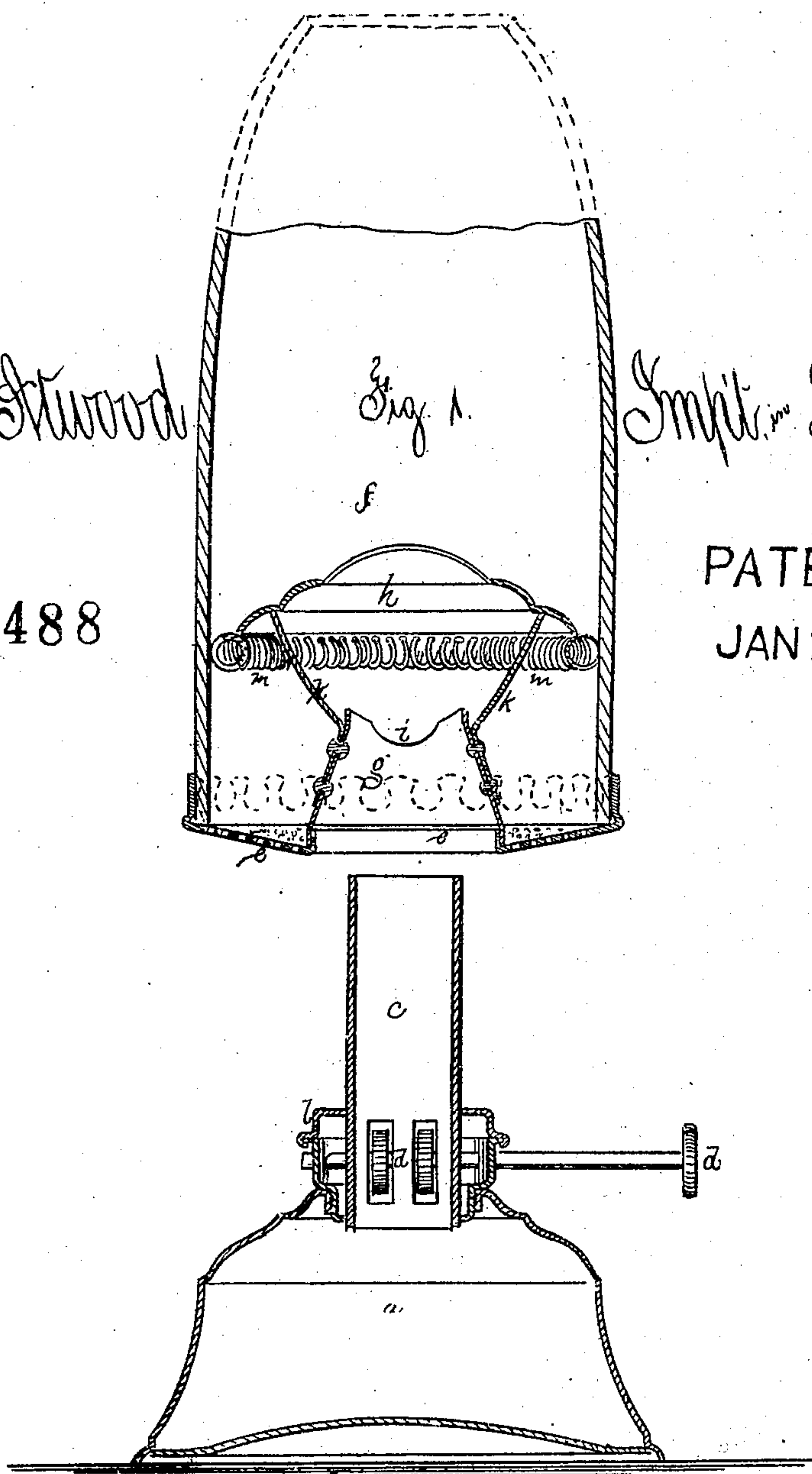
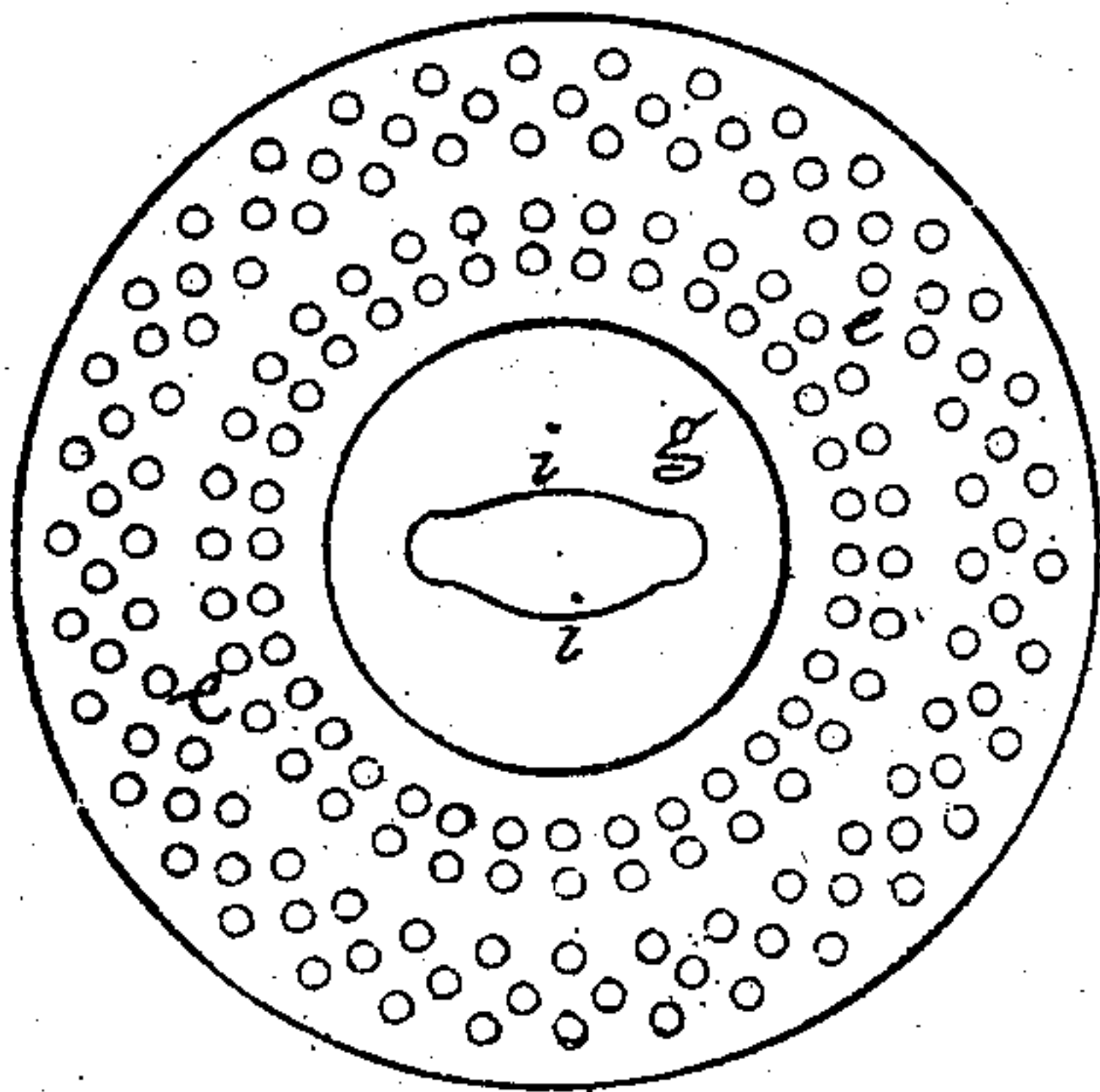


Fig. 2.



Witness

Geo. W. Allen
Charles H. Allen

Lewis J. Atwood
per L. W. Perrell
Atty.

United States Patent Office.

LEWIS J. ATWOOD, OF WATERBURY, CONNECTICUT, ASSIGNOR TO HIMSELF
AND HOLMES, BOOTH, AND HAYDENS, OF SAME PLACE.

Letters Patent No. 73,488, dated January 21, 1868.

IMPROVEMENT IN LAMPS.

The Schedule referred to in these Letters Patent and making part of the same.

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, made, and applied to use a certain new and useful Improvement in Lamps; and I do hereby declare the following to be a full, clear, and exact description of my said invention, reference being had to the annexed drawing, making part of this specification, wherein—

Figure 1 is a vertical section of my improved lamp, the draught-plate and chimney being shown as raised off the wick-tube and reservoir.

Figure 2 is an inverted plan of the air-distributor and tapering wick-tube guide.

Similar marks of reference denote the same parts.

Heretofore an argand-lamp has been made with a glass chimney, in which a draught-plate was affixed, to direct the air upon the flame. The glass chimney has also been contracted for a similar purpose. In Letters Patent granted to me, October 13, 1863, a draught-plate is shown in the chimney, in connection with a hinged burner.

The nature of my present invention consists in a helical expansive chimney-clamp applied to the burner, and acting within the chimney, to retain the same in place; also, in a series of vertical scallops or spring around the edge of the air-distributor, to receive the base of the chimney, in combination with a draught-plate within the chimney, so that the chimney is removable, but firmly steadied in use. I also make use of a tapering guide between the air-distributor and the base of the burner, in combination with said draught-plate, so that the flame-slot in the same is brought to the proper position by the act of placing the movable portion on the stationary part of the burner.

In the drawing, *a* represents the reservoir for kerosene or other hydrocarbon, *b* the screw-cap, *c* the wick-tube, *d* the wick-raiser, and *l* the cover to the ratchet. *e* is the perforated air-distributor, upon the edge of which the chimney *f* is to rest, and a rim of any desired ornamentation may be turned up for the said chimney to set within. In the central part of the air-distributor *e* is the tapering guide *g*, that has a circular open base, and tapers up to an opening corresponding to the shape of the wick-tube *c*, but with notches at *i*, to allow the air-distributor and other parts to be lifted up off the wick-tube without extinguishing the flame, or replaced thereon, as occasion may require, and when in place, the upper portion *l* of the cap *c*, receiving the base of the conical guide *g*, causes the parts to set firmly upon the lamp, and the tapering or conical form of said guide *g* allows the parts to be placed over the wick-tube with great facility, and it is impossible for the same, and the parts connected with it, to be misplaced. The draught-plate *h* is of a size to set freely within the chimney *f*, and the said draught-plate *h* is supported by the metallic strips or connections *k*, that extend from it to the guide *g*, or to the air-distributor *e*. Around the periphery of this draught-plate *h*, I form a range of small holes, and thread thereinto the expansive helical spring *m*. This is effected by revolving the spring, and having been wound with its coils rather farther apart than the distance between said holes, the spring becomes an expansive interior clamp to the chimney, that is forced over it with great ease, but is securely held by that and the edge of the air-distributor *e*. It will now be understood that the lower part of the chimney *f* and air-distributor *e*, being so far removed from the flame, are but little heated, and can be removed entirely from the lamp, to give access for trimming or lighting the wick, or for taking a light therefrom while the lamp is burning, the screw-cap *b* and its cylindrical upper portion *l*, forming a closed cap that receives the base of the tapering wick-tube guide and the perforated air-distributor. The wick-tube and reservoir are kept cool, and danger from escaping vapors avoided.

I do not herein claim a lamp-burner formed with a chimney-holder and metal cone that can be lifted off the wick-tube, neither do I claim herein a draught-plate removable from the wick-tube, nor a stationary perforated air-distributor, these being in my aforesaid patent.

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

1. The helical expansive interior chimney-clamp *m*, applied substantially as and for the purposes specified.

2. The closed cap *b* *l*, in combination with the removable air-distributor *e* and tapering wick-tube guide *g*, as and for the purposes set forth.

3. Supporting the chimney upon the burner, by the joint action of the draught-plate *h* and the vertical springs or scallops around the edge of the air-distributor *e*, substantially as set forth.

4. The removable air-distributor *e* and tapering guide *g*, in combination with the draught-plate *h*, substantially as and for the purposes specified.

In witness whereof, I have hereunto set my signature, this fourteenth day of December, 1867.

L. J. ATWOOD.

Witnesses:

GEO. D. WALKER,

CHAS. H. SMITH.