

C. A. GREENE.
Vapor Burner.

No. 20,153.

Patented May 4, 1858.

Fig. 1.

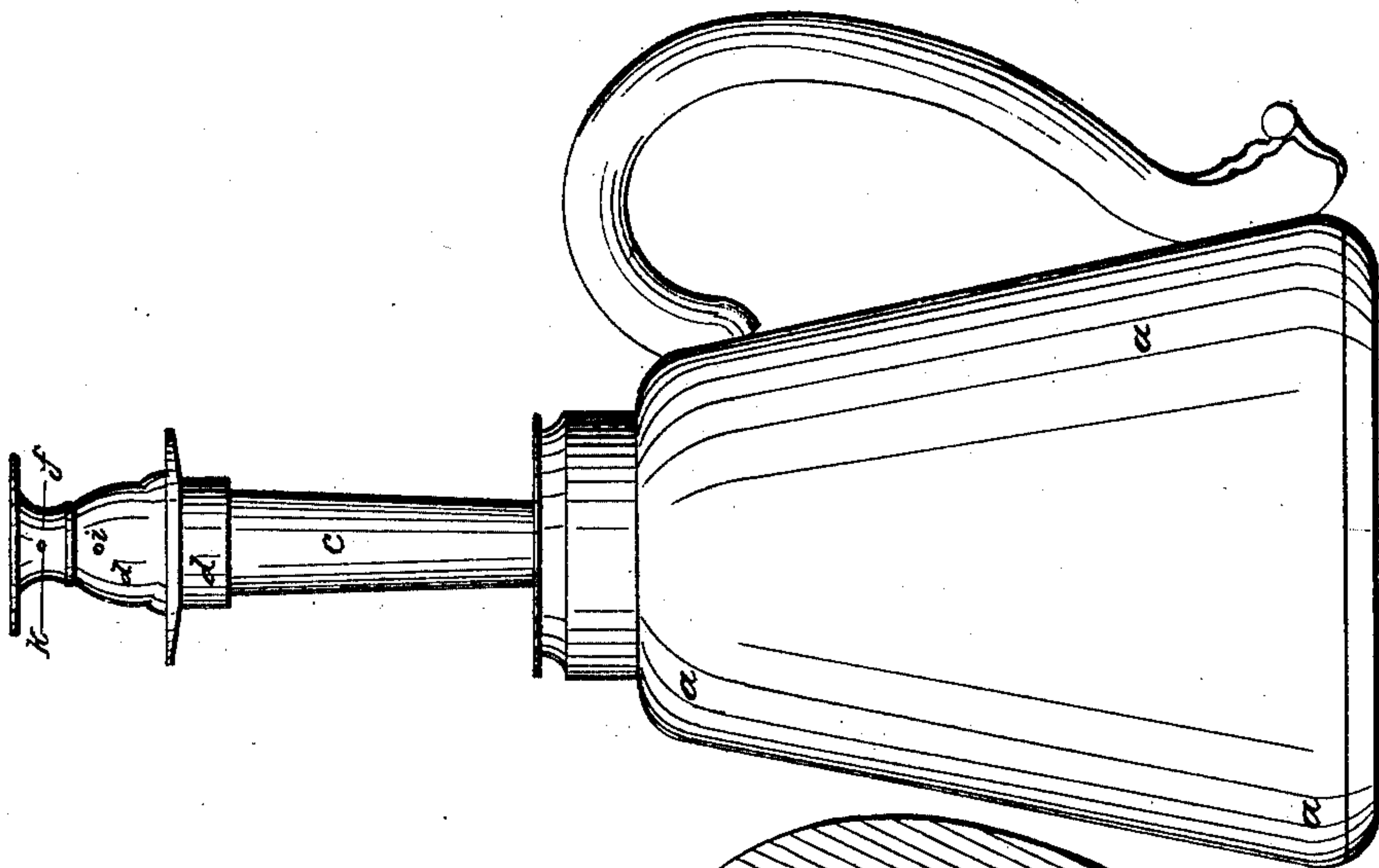


Fig. 2.

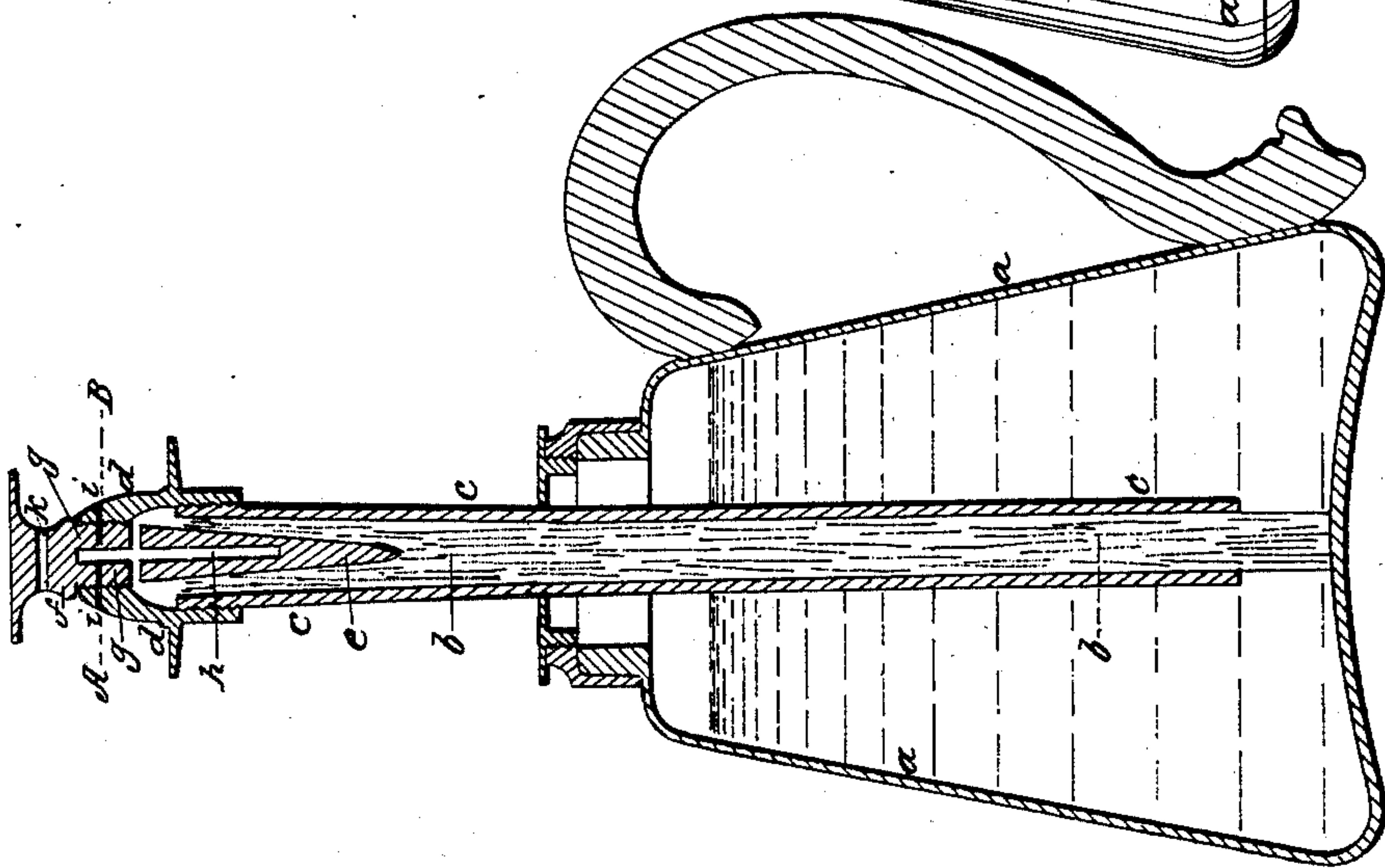
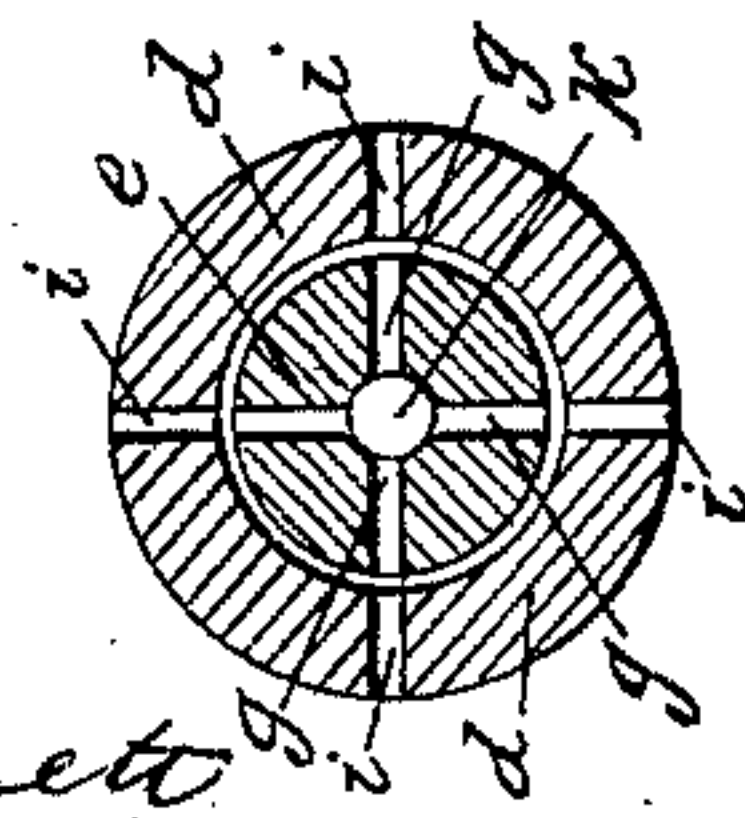


Fig. 3.



Witnesses:

Joseph Ganett
Albert W. Brown.

Inventor:

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UNITED STATES PATENT OFFICE

C. A. GREENE, OF BOSTON, MASSACHUSETTS.

VAPOR-LAMP BURNER.

Specification of Letters Patent No. 20,153, dated May 4, 1858.

To all whom it may concern:

Be it known that I, C. A. GREENE, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Fluid-Lamps, and that the following description, taken in connection with the accompanying drawings, hereinafter referred to, forms a full and exact specification of the same, wherein I have set forth the nature and principles of my said improvements, by which my invention may be distinguished from others of a similar class, together with such parts as I claim and desire to have secured to me by Letters Patent.

The figures of the accompanying plate of drawings represent my improvements.

Figure 1, is a side elevation of my improved fluid lamp. Fig. 2, is a central, vertical section of the same. Fig. 3 is a horizontal section taken in the plane of the line A, B, on an enlarged scale.

Many attempts have been made in those kinds of fluid lamps in which the light is produced by gas generated from the fluid in the wick, to provide some means for regulating the jet or flame, so as to increase or diminish the light at will, but no arrangement has been devised previous to my invention which would effectually accomplish this result.

My improvement is particularly applicable to those kinds of fluid lamps in which the wick is penetrated by a spur for heating the fluid in the wick and consists in so constructing the spur and the cap in which it moves as to form a valve of which the spur is the cut off and the cap the seat, so that by turning the spur slightly in either direction the height of the flame can be regulated at pleasure and without permitting any of the gas to escape.

a a a in the drawings represent the body of the lamp or receptacle for the fluid.

b is the wick passing through a tube *c* which extends upward from the lamp as shown. Upon the tube *c* is screwed a cap *d*, in which plays up and down by means of screw threads the hollow spur *e*, extending downward into the wick *b* as shown in Fig. 2 and terminating at the top in a plate disk *f*. Through that portion of the spur or projection *e* upon which the screw thread is

cut are formed four or any desired number of slits or apertures *g g* and *c*, Fig. 3, communicating with the chamber *h* within the stud *e*. Apertures *i i*, and *c*, corresponding to the number in the spur *e* are also formed through the cap *d* in the same horizontal line with the apertures *g* in the spur.

From the foregoing description it will be seen by turning the spur *e* in either direction by means of a winch inserted in a hole $\frac{1}{2}$ formed in its upper portion, the communication between the interior of the spur *e* and the apertures in the cap *d* through which the jets of flame issue, will be opened or cut off as the case may be, by bringing the apertures in the spur opposite to those in the cap as shown in Figs. 2 and 3, or carrying them away from the same, thereby regulating the force of the jets at pleasure.

I am aware that a ring or collar with small holes through it has been made to move on the outside of a shoulder on the wick tube, having similar holes in it as in the old phosgene lamp, and I, more than one year ago constructed and experimented with a similar device to regulate the flame, but this arrangement cannot possibly be made to accomplish the desired result, for various reasons, the most essential of which is, that the metals composing the ring or collar and the shoulder of the wick tube would expand in different degrees when heated, so that the collar would bind on the shoulder so tightly as to prevent its being turned, or if the collar was made loose enough to prevent its binding, the gas would escape. My regulator it will be seen is of entirely a different construction, the valve consisting of the spur moving on a screw thread within the cap which constitutes its seat, so that, as the spur travels on a screw thread it can be made loose enough to turn easily under all circumstances, without allowing any gas to escape.

Having thus described my improvements I shall state my claim as follows;

I do not claim a ring or collar having holes through it, turning upon the outside of a shoulder having corresponding holes through it, to form a regulator for a fluid lamp, as this is an old device and can not be made to operate successfully, but—

What I do claim as my invention and de-

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sire to have secured to me by Letters Patent,
is—

5 The combination of the hollow spur susceptible of being turned in either direction and having slits or apertures formed in it, with the cap *d*, through which similar slits or apertures extend, as described and for

the purpose of regulating the jet or jets of flame by the turning of the said spur.

CHAS. A. GREENE.

Witnesses:

JOSEPH GAVETT,
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