

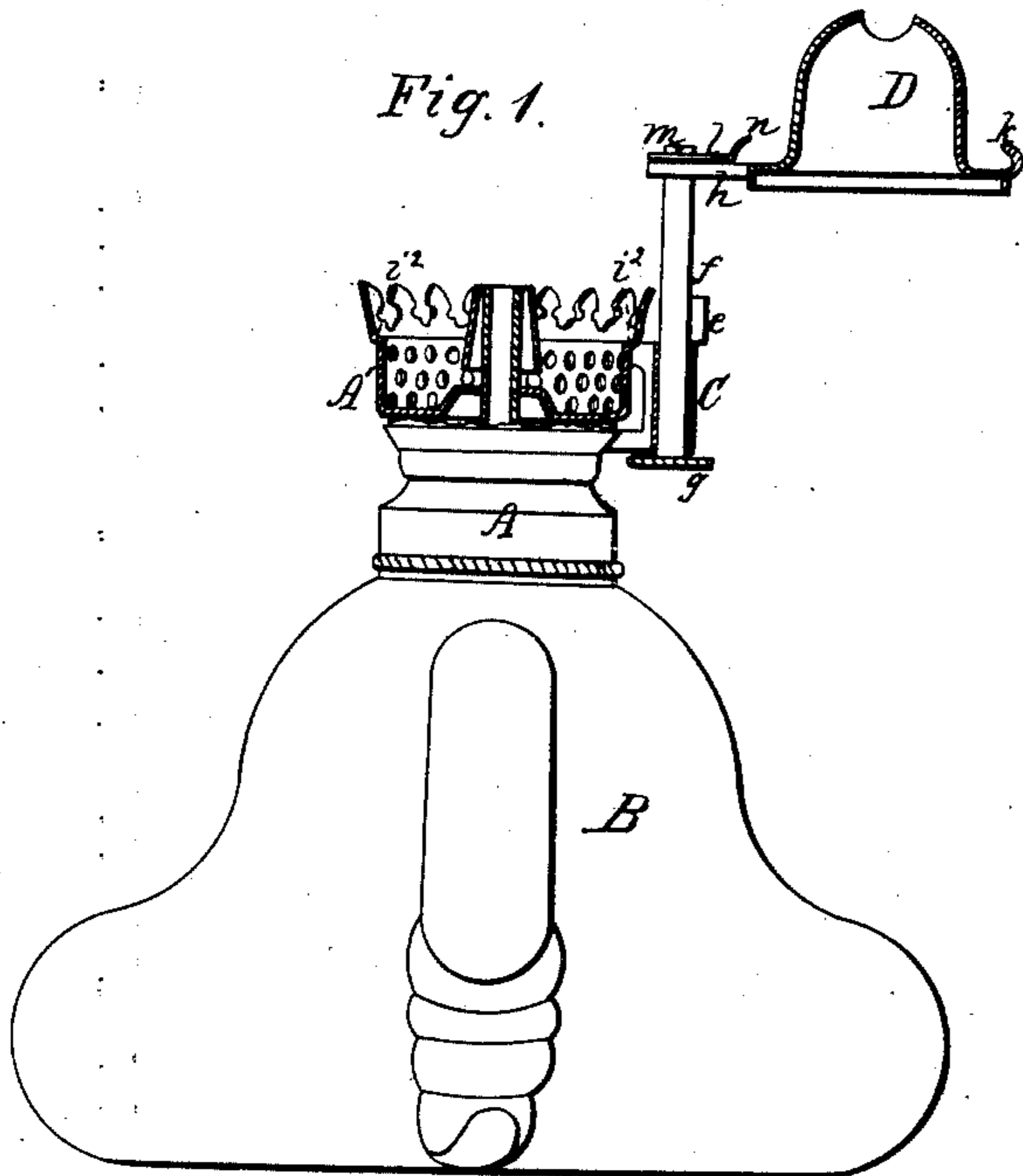
*P. D. Cummings.*

*Lamp Burner.*

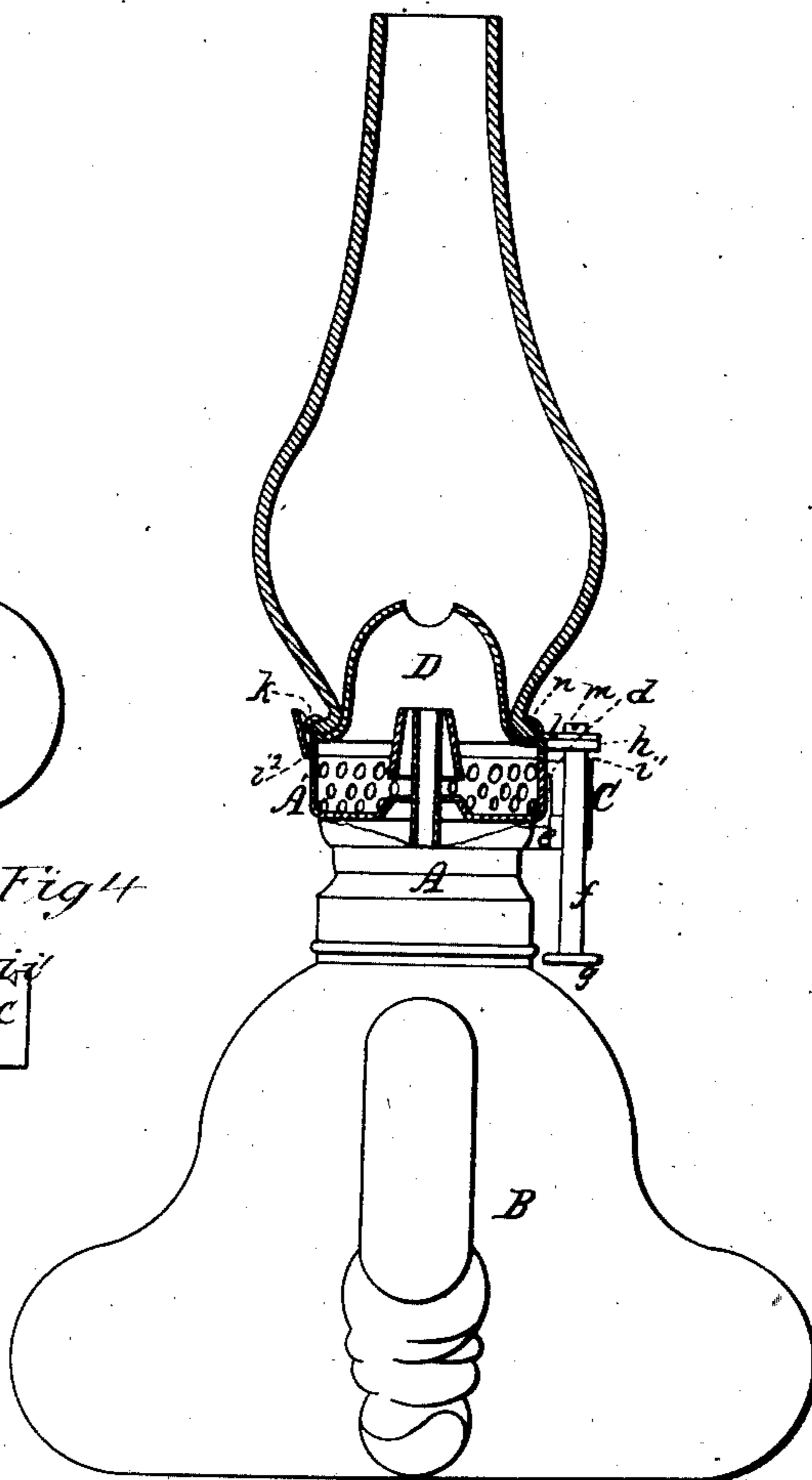
*N<sup>o</sup> 34,880.*

*Patented Apr. 8, 1862.*

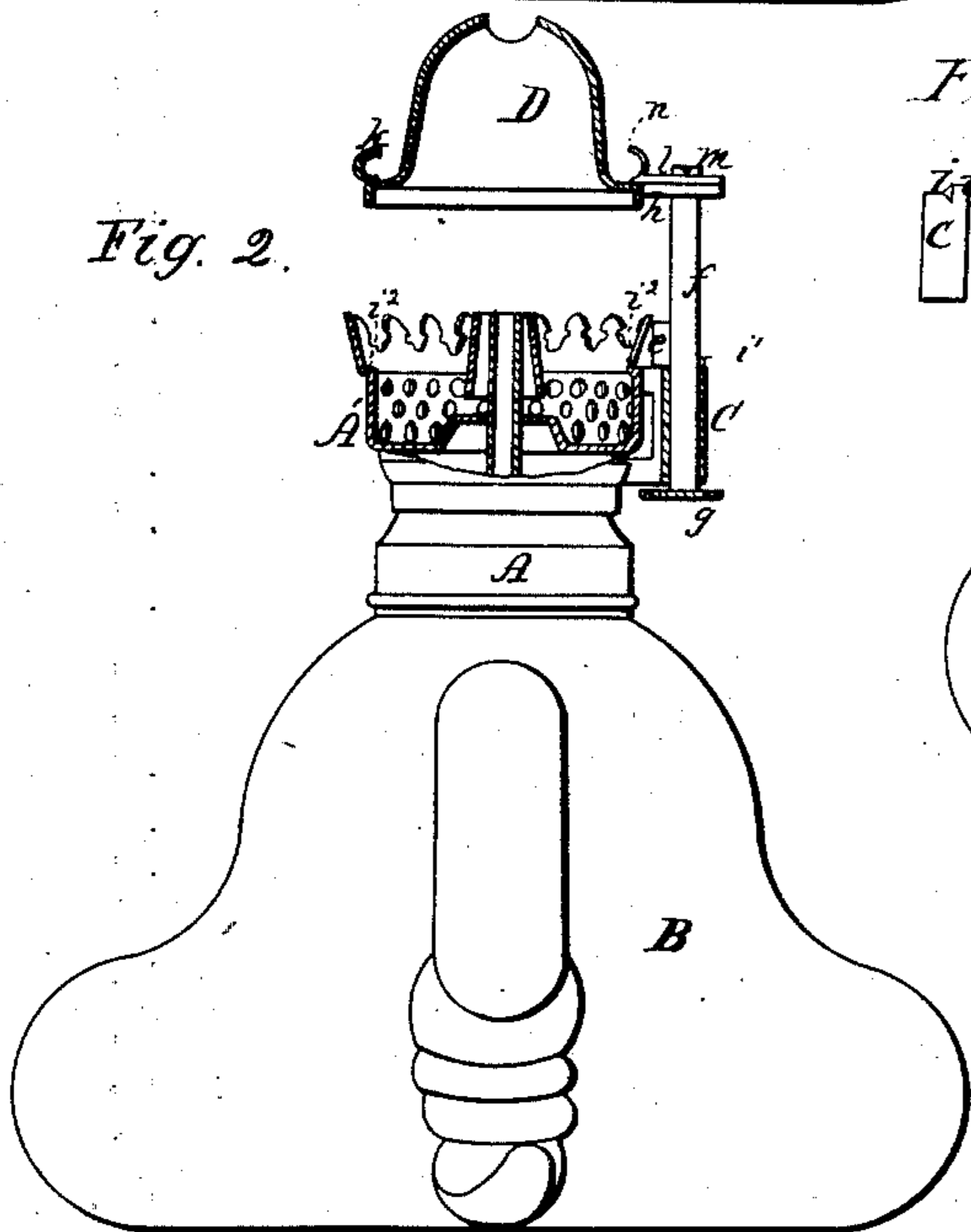
*Fig. 1.*



*Fig. 3.*



*Fig. 2.*



*Fig. 4.*



*Witnesses.*

*Gustavus Dietrich  
Edwin S. Jacob.*

*Inventor.*

*Perley D. Cummings  
by  
Mason, Bennett & Lamme  
Attys*

# UNITED STATES PATENT OFFICE.

PERLEY D. CUMMINGS, OF PORTLAND, MAINE.

## KEROSENE-OIL BURNER.

Specification forming part of Letters Patent No. 34,880, dated April 8, 1862.

*To all whom it may concern:*

Be it known that I, PERLEY D. CUMMINGS, of the city of Portland, in the State of Maine, have invented a new and useful Kerosene-Oil Burner; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming a part of this my specification, in which like letters indicate the same parts, and in which drawings—

Figure 1 is a longitudinal vertical section of my improvement, the lamp-cone being thrown back from over the wick-tube, wick, and flame and there held in position, as hereinafter described; Fig. 2, a longitudinal vertical section showing the cone elevated above its seat, and with the center of the opening in its top in exact line with the vertical axis of the lamp; and Fig. 3, a like section showing the cone upon its seat and in its normal position for ordinary use upon the lamp.

In the drawings, A and A' indicate the ordinary base and finishing of a kerosene-oil burner attached to the neck of a lamp B, as shown in the figures. To this base and finishing I attach in any suitable manner, by soldering or otherwise, a sheath C, open at each end, and having a slot or opening *d* from end to end so formed as to inclose and guide a projection *e* upon a rod *f* during its vertical movement in said sheath. The rod *f*, as will be seen in the drawings, is provided with a circular shoulder *g* at its lower extremity, and at its upper extremity sustains a burner-cone D, an arm *h*, extending from the base of the cone, being soldered or in any proper manner securely attached to the top of said rod, as shown.

It will be observed that at the top of the sheath C a portion of the sheath is cut away, as at *i*, (clearly shown in Fig. 4,) so as to form an inclined plane with a shoulder *i'*, against which the projection *e* abuts when the cone is thrown into the position indicated in Fig. 1, and which projection and shoulder, by coming in contact, prevents a further outward movement of the cone, the gravity of the cone and rod holding such parts in such position when so placed.

Supposing the cone and rod to occupy the position shown in Fig. 3, and that it is desirable to remove the cone in order to "dress"

the wick, the operator for this purpose will place his finger against the circular shoulder *g* with a slight upward pressure, whereupon the rod *f* will slide up the sheath C until the face of the shoulder *g* strikes against the bottom of the sheath, the projection *e* meantime traveling in the slot or opening *d* of the sheath, and thus the cone D will be made to assume the position shown in Fig. 2. The operator then by a slight forward thrust of his finger will cause the cone to assume the position shown in Fig. 1, thus leaving the wick and the top of the lamp uncovered. When the cone is made to assume the position shown in Fig. 2, it will be seen that there can be only one lateral movement of the cone from such position, since, while the projection *e* is permitted to travel down on the incline plane *i* on one side of the sheath, it is prevented from moving in the opposite lateral direction by striking against a portion of the top of the sheath, which is opposite to that cut away to form the incline plane.

Again, supposing the cone to be in the position shown in Fig. 1, and it is desired to return it to that shown in Fig. 3, the operator to effect this will by a slight quick "cant" of the lamp toward his person cause the projection *e* to travel up the inclined plane *i*, thus causing the cone to assume the position as shown in Fig. 2, whereupon by the mere force of gravity the cone will be returned to its seat on the shoulder *i'* of the base of the lamp. In other words, the cone, when in position as shown in Fig. 1, can be returned to its position as shown in Fig. 3 by its automatic action alone after the impulse is given it, as above described.

It may thus be seen that the object of my invention is to so construct a lamp-top for burning kerosene-oil that the cone can be removed to dress the wick without the liability of "smoking" the cone and glass chimney by making such removal in close relation or contiguity with the wick; and for this purpose I cause the cone first to be elevated in a vertical direction from its seat above the wick and flame, and then to be revolved or turned laterally away from the plane of the lamp; and, further, that after the cone is so turned away it may be by automatic action with certainty returned to the position shown in Fig. 3. I

would also observe that by my construction that portion of the metal burner which is pressed by the finger to effect the removal of the cone, being situated far away from the flame and disconnected from immediate contact with the main body of the burner, insures the operator against burning his finger during the act of manipulation, and that for the return of the cone to its seat no portion of the metal of the burner need be touched.

It is evident that a burner might be constructed so as to have the cone elevated in the first instance like mine, and then turn over and away from the flame, to do which the rod *f* might be held in an elevated position by the finger of the operator or by mechanical means, whereupon the cone could be made to turn back in the arc of a vertical circle by providing it with a hinge in its arm *h*; but this mode I deem objectionable and far inferior to that I have previously described.

*K K K* are hooks rising up from the base of the cone, and beneath which the flange at the base of a chimney or globe as ordinarily used upon kerosene-lamps is inserted, after which the clasp *l*, pivoted upon the screw *m*, as shown, may be turned with its lip *n* clasping the top of the flange, and so confine the chimney or globe to the base of the cone.

The cone portion of the burner, which I have shown of metal, might be cut out from its

flange or base, and in its place a cone of glass or other material of same form, having a base-flange, might be inserted up through the ring so left, and be secured therein from beneath in the same manner I have shown for securing a chimney on top of the base of the metal cone.

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

1. So constructing a lamp for burning kerosene-oil that its cone may be removed from over the top of the wick to a position at the side of the lamp, and thereafter be automatically returned to its position over the wick, substantially in the manner set forth.

2. The sheath *C*, in combination with the rod *f*, substantially in the manner and for the purpose specified.

3. Removing the cone from its seat upon the lamp, first by a vertical movement and then by a lateral movement of the cone, for the purpose specified.

Witness my hand, in the matter of my application for a patent for a kerosene-oil burner, this 12th day of March, 1862.

PERLEY D. CUMMINGS.

Witnesses:

R. L. COBBS,

EDWIN S. JACOB.