

C. M. CASS.  
Lamp.

No. 201,867.

Patented April 2, 1878.

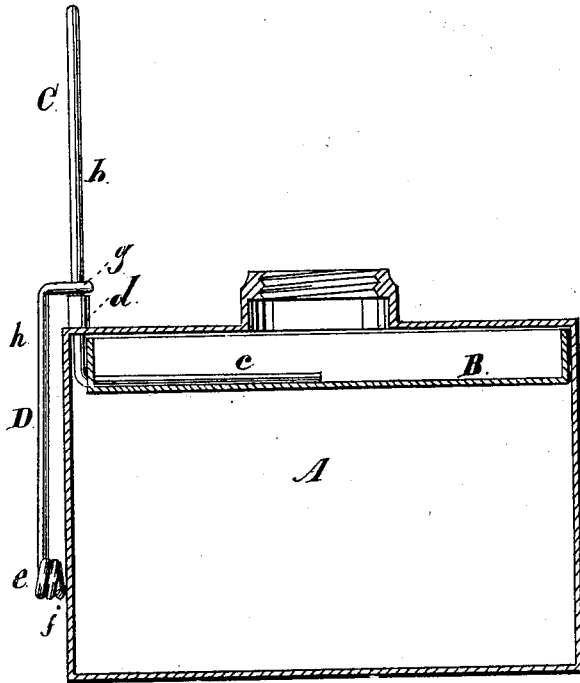


Fig. 1

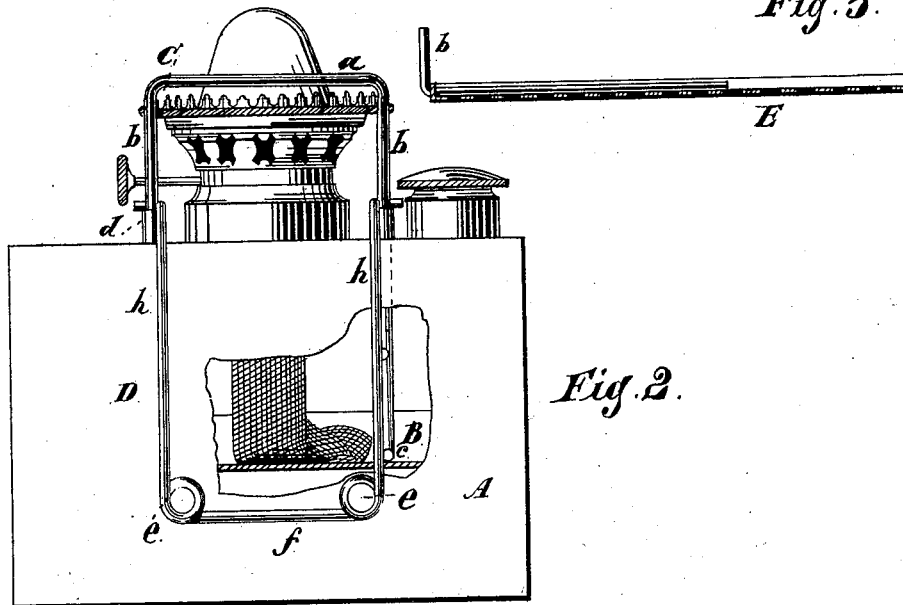


Fig. 3.

Fig. 2.

Witnesses  
*E. A. Wells*  
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Inventor:  
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# UNITED STATES PATENT OFFICE.

CHRISTOPHER M. CASS, OF SOUTH EVANSTON, ILLINOIS.

## IMPROVEMENT IN LAMPS.

Specification forming part of Letters Patent No. **201,867**, dated April 2, 1878; application filed January 18, 1878.

*To all whom it may concern:*

Be it known that I, CHRISTOPHER M. CASS, of South Evanston, Cook county, State of Illinois, have invented new and useful Improvements in Lamps, of which the following is a full description, reference being had to the accompanying drawings, in which—

Figure 1 is a vertical longitudinal section. Fig. 2 is an end elevation with a portion cut away, and showing the movable oil-cup in section. Fig. 3 is a variation.

In many places oil is burned in street-lamps. The leading objects of my invention are to construct a lamp suitable for a street-lamp, so that the main oil-reservoir will hold oil enough for several nights, and so that a supply of oil sufficient for a single night can be brought near to the wick each night without filling the main reservoir; to so construct the lamp that it will be self-extinguishing, dispensing with the services of an attendant for that purpose, and at the same time to provide for the burning of only a given quantity of oil each night. These objects I accomplish by providing a secondary movable oil cup or reservoir located within the main reservoir, which movable cup is to hold oil enough for a single night, and in which the wick rests, and by means of devices by the use of which the movable cup can be lowered into the main reservoir to be filled, then raised up, and held near to the burner.

In the drawings, A represents the main oil-reservoir. As shown, it is square. It may contain a supply of oil sufficient for several days—say a little more than enough for one week. B is a shallow movable oil-reservoir, located within A, adapted to hold only oil enough for a single night. C is a movable bent wire. It has a horizontal part, *a*, two vertical parts, *b*, which pass down into A, and the ends are bent at right angles to *b*. As shown, these bent ends *c* pass through one side of the cup B, and they are permanently secured to the bottom of the cup B. They might be secured to the under side of the bottom of this cup; but then B could not be pushed down onto the bottom of A, and A would have to be somewhat enlarged to have the same utilized capacity. *d* are sockets through which *b* pass. D is another wire, bent so as to have two coil-

springs, *e e*. From these springs the wire is carried up on each side, and the two ends are bent so as to hook over, and engage with, the vertical parts *b b* of C. The horizontal part *f* of this wire D is permanently secured to the outside of the lamp A, but the other parts are free. The ends *g* of the wire D engage with notches in *b b*, and hold the oil-cup B in position. *h h* are the vertical parts of D.

In use, the reservoir A is to be filled with oil. This will be likely to be done when the cup B is down to the bottom of A. Then, by means of the wire C, the cup can be raised up to the position shown in Fig. 1, being filled with oil, and the wick being in the cup B, and this cup will be held in this position by the ends *g* of the wire D engaging with the notches in *b b*.

When the oil in B has burned out, the wick, being in this cup, can receive no further supply, and the flame must go out.

The cup B can be refilled each succeeding night, so long as there is a supply in A, by lowering the cup B down into the oil in A, which can be done by releasing *g g* from *b b*, and pushing down the wire C, which will carry the cup with it. After the cup has been thus filled, it is to be brought back to the position shown in Fig. 1.

Thus the oil being consumed will always be near the burner, and a uniform flame be obtained.

These advantages also follow this construction: The wick will seldom need trimming; no crust will form thereon, but the wick above the wick-tube will burn away, and it will only be necessary for the attendant to pass his finger over the top of the wick to brush away the ashes; only a given quantity of oil can be consumed each night, so that waste will not follow the negligence of the attendant.

The lamp A must be refilled as occasion requires.

As described, the cup B is so made that it will hold oil, and to secure all of the objects of my invention it must be so constructed; but the two features of providing for burning only a given quantity of oil each night, and for self-extinguishing, can be secured even if the cup would not hold oil, by a slight modification, it only being necessary to provide for

lowering B a given distance each night, and holding it in such position, which can be done by providing the vertical parts *b* of C with a series of notches, with which *g* can engage, the distance between the notches depending on the quantity of oil to be burned each night. Then, if B be lowered each night the required distance, and be left in that position, a given quantity of oil will be consumed each night, and the light will be self-extinguished. In this case B will not be an oil-cup, but simply a shelf for supporting the wick, which could be made as shown in Fig. 3, in which E represents a perforated wick-shelf, provided with a flange to strengthen it, and to aid in keeping the wick upon the shelf.

I do not limit myself to the exact manner

shown of operating and holding the movable oil-cup or shelf.

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

1. In combination with a lamp-pot, A, a movable cup or shelf and the supporting-wire C, substantially as and for the purposes set forth.

2. In combination with a lamp-pot, A, a movable cup or shelf, supporting-wire C, and holding-wire D, substantially as and for the purposes set forth.

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Witnesses:

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O. W. BOND.