

L. J. Marcy,
Lamp Burner.

No. 80,984.

Patented Aug 11. 1868.

Fig. 1.

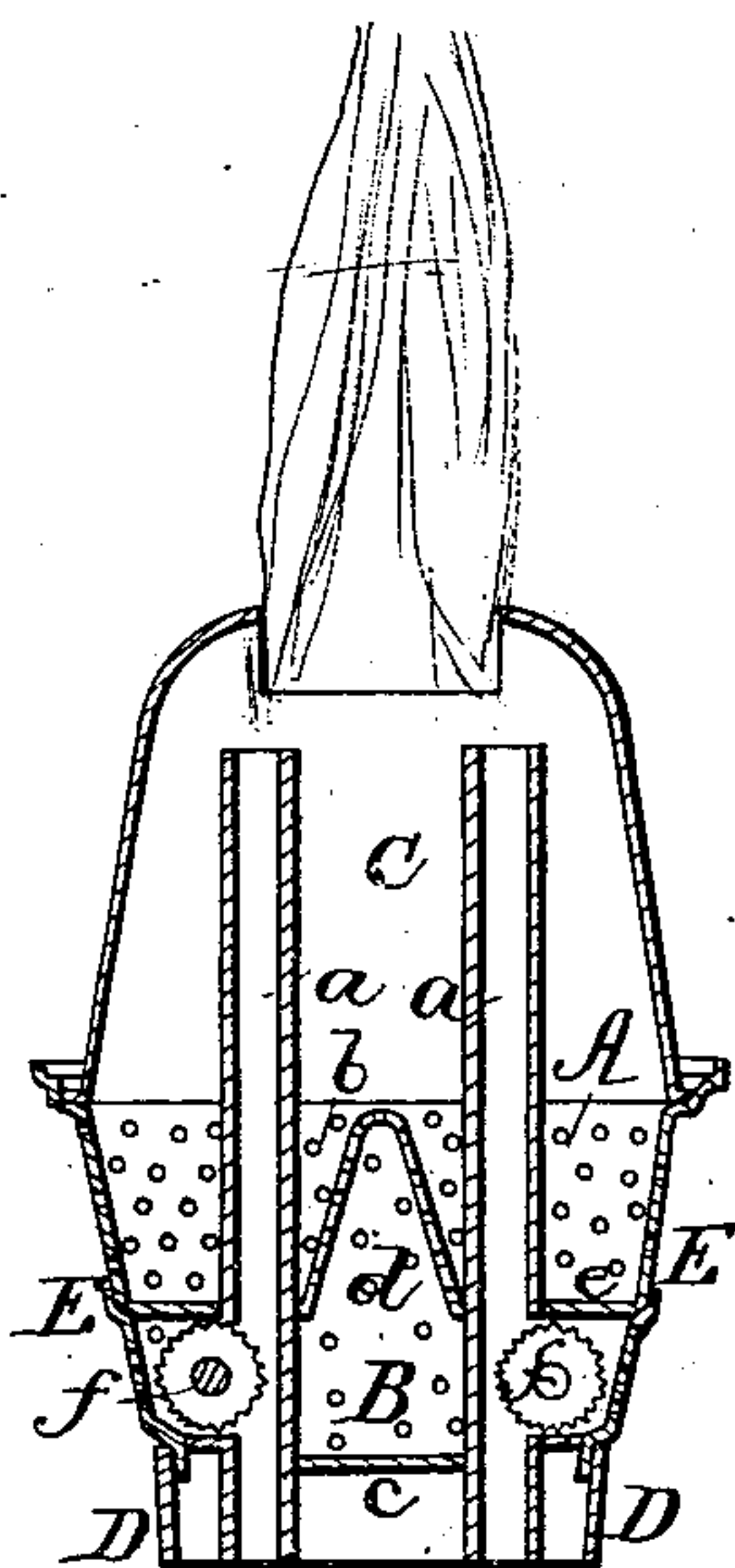
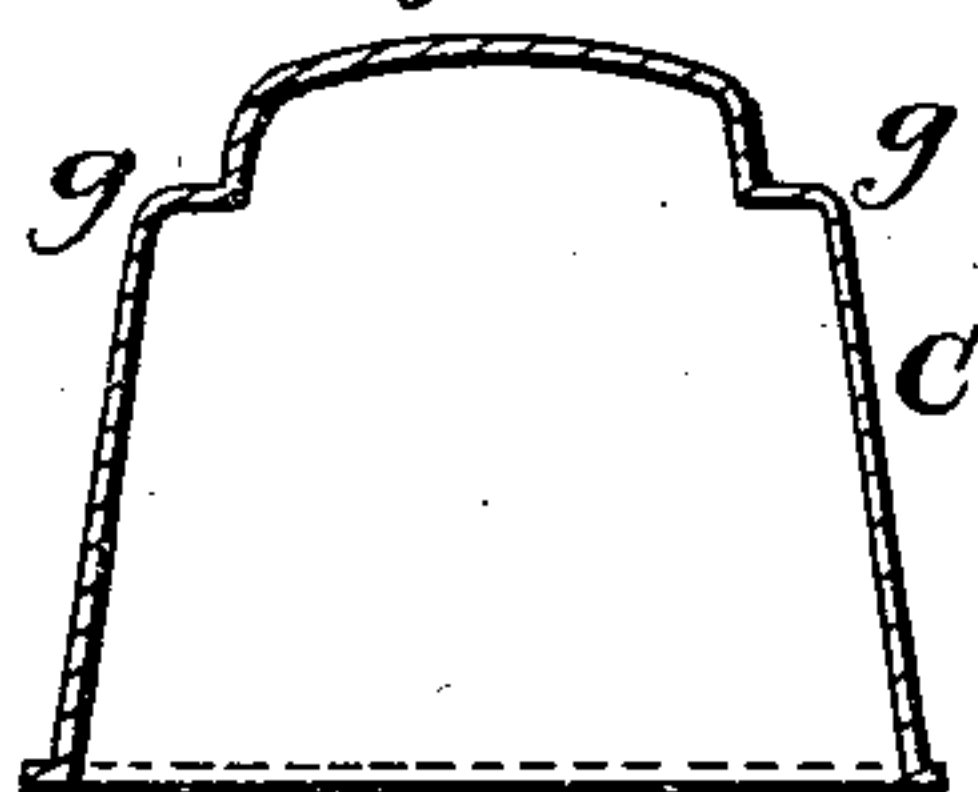


Fig. 2.



Witnesses.

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L. J. MARCY, OF NEWPORT, RHODE ISLAND.

Letters Patent No. 80,984, dated August 11, 1868.

IMPROVEMENT IN LAMP-BURNERS.

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, L. J. MARCY, of Newport, Newport county, State of Rhode Island, have invented a new and useful Improvement in Lamp-Burners; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a central vertical section through the burner.

Figure 2 represents a similar section at right angles to that of fig. 1.

Similar letters of reference indicate like parts.

The object of this invention is to obtain increased illuminative power from double wicks, and is intended for burning kerosene-oil.

It consists in the formation and arrangement of the parts, as set forth in the following.

The part E, holding the wick-tubes *a a*, is divided into an upper and lower chamber, A and B respectively, which are formed by the diaphragm *e e*, through which the flat-wick tubes *a a* pass. The air enters through the lateral perforations of both chambers, and the air from the lower chamber passes upward between the wick-tubes, through the openings *d*, and supplies the inner sides of the flame.

A perforated plate, *b*, is placed between the wick-tubes and above the opening, as shown, and serves to break the upward current of air, and prevent the flame from flaring by the eddying of the air, which would otherwise result when the upward current encounters the lateral currents entering through the perforations of the upper chamber. Thus the air is supplied to the proximate sides of the flames, which are thus kept from merging with each other by the flattened current passing upward between them.

By my invention, the employment of a tube, passing down through the body or oil-chamber of the lamp, is obviated.

f f are the spur-wheels for elevating the wicks, and are of the usual construction.

The part E E is affixed to the part D D, which latter may be formed with a screw-thread or other suitable device for fitting the lamps now in use.

The bottom of the lower chamber is shown at *c*.

The plate *b* extends across the chamber A, and is bent, as shown, for the purpose of giving a greater perforated surface.

The cap, C, is removable, it merely resting within the flanged rim of the part E E, as shown.

This cap or cone contains an important feature of improvement, and one which is the result of much experimental trial, for the purpose of obtaining the perfect combustion of two flat wicks within the same cone.

The invention consists in forming the cone with two abrupt shoulders, *g g*, obtained by swaging the cone at the ends of the opening in the same, so as to form a horizontal surface at each end of the opening, as is more distinctly shown at fig. 2.

The function of these shoulders is to deflect the upward current of air at these points, thereby actuating it in two currents between the proximate surfaces of the flames.

The currents thus thrown in between the flames meet each other, and again react outward, thus spreading each flame in a fan-shaped blaze, and obtaining an increased surface of the same, whereby their proximate surfaces are completely oxidized by the deflected lateral currents, and also by the central current from below, and an increased brilliancy is the result.

I am aware that a number of double-wick burners have been made, some of which remotely resemble the one described, but the points of difference above shown are the result of repeated experimental trials to produce a perfectly-operating double-wicked burner for hydrocarbons, as such a one was not found by me in my experiments with those previously patented.

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

1. The arched perforated plate *b*, arranged between the wick-tubes, whereby the upward current of air from the chamber B is broken, to prevent the formation of eddies when it encounters the lateral current which enters through the perforations in the upper chamber A, as herein shown and described.

2. The cap or cone C, when formed with two abrupt lateral shoulders, *g g*, substantially as described, and for the purpose set forth.

The above specification of my invention signed by me, this 10th day of March, 1868.

L. J. MARCY.

Witnesses:

WM. F. McNAMARA,
ALEX. F. ROBERTS.