A. COATES.

Lamp.

To all whom it may concern:

Be it known that I, ABRAHAM COATES, of New York, in the county of New York and State of New York, have invented an Improvement in Regulating the Flow of Oil to the Wick in Carcel Lamps; and I do hereby declare that the following is a full, clear, and exact description of the principle or character which distinguishes it from all other things before known, and of the usual manner of making, modifying, and using the same, reference being had to the accompanying drawings.

Figure 1 represents a vertical section through the lamp, as appearant; Fig. 2, a detached perspective of part of the lamp; and Fig. 3 represents a vertical section through the regulator.

My invention consists, first, in a mode of regulating the flow of oil to the wick in that class of lamps known as the "Carcel" lamp, or lamps in which the oil is made constantly to overflow the wick-tube, the construction and operation of which is as follows; and, second, in a mode of heating the oil for light-houses, as hereinafter described.

The lamp is designed chiefly for light-houses. The reservoir or fountain \( \alpha \) is placed over or upon the top of the Fresnal lens \( \Delta \), and has a passage, \( \beta \), through its center for the escape-draft of the lamp within the lens. A part of the vessel \( \alpha \) descends within the lens, as seen at \( \alpha' \). By this arrangement the oil in \( \alpha \) is kept constantly heated, and the fountain does not interfere at all with the operation of the lens.

It is not only an advantage at all times to keep the oil heated, but an economical arrangement for heating the oil, like that above, is of great importance in light-houses, where the oil is exposed to such intense cold. It will be seen by this arrangement of the fountain and the supply-pipe \( \delta \), which is wholly within the chamber of the lens, that the oil is not exposed to any cooling influence on its passage from the fountain to the lamp.

What I claim as my invention and improvement in lamps in which the oil is forced to the wick so as to overflow is—

1. Regulating the supply of oil to the burner by means of the self-emptying drip-cup, operating upon the supply-valve, as herein set forth.

2. Placing the fountain or reservoir for the oil above the lens, with its draft opening \( \beta \) and its supply-pipe \( \delta \), within the barrel or chamber of the lens, all arranged and operating substantially as set forth.

ABR. COATES.

Witnesses:

CHAS. G. PAGE,
WM. H. HARRISON.