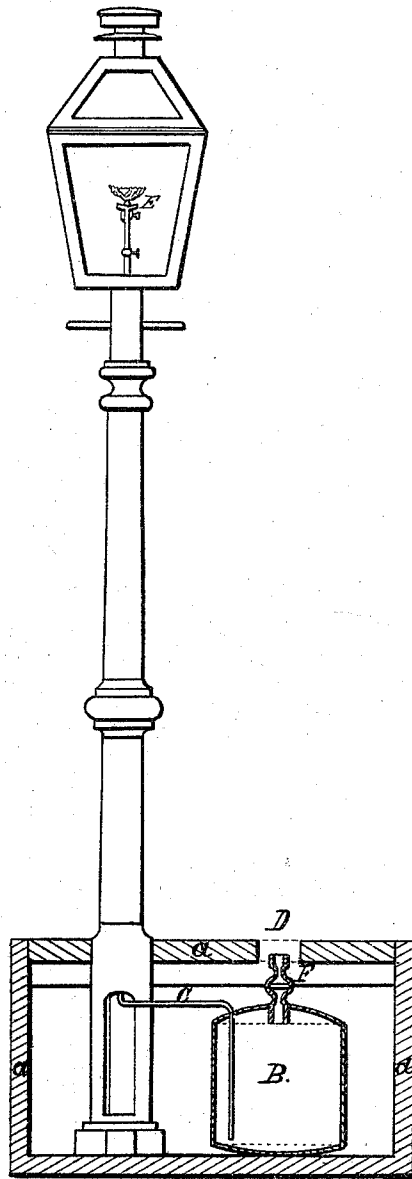


R. V. de GUINON.

Supplying Oil to Street-Lamps.

No. 140,815.

Patented July 15, 1873.



Witnesses.
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UNITED STATES PATENT OFFICE.

RICHARD V. DE GUINON, OF JERSEY CITY, NEW JERSEY.

IMPROVEMENT IN SUPPLYING OIL TO STREET-LAMPS.

Specification forming part of Letters Patent No. 140,815, dated July 15, 1873; application filed June 12, 1873.

To all whom it may concern:

Be it known that I, RICHARD V. DE GUINON, of Jersey City, Hudson county and State of New Jersey, have invented certain Improvements in Supplying Carbon-Oil at the Point of Combustion in Street-Lamps, and for similar purposes, of which the following is a specification:

My invention consists and relates to the supply of hydrocarbon-oil at the point of combustion by means and in the manner hereafter set forth.

Several devices have been made to keep up a uniform supply at the combustion-points on the gravity principle, or law thereof. Such devices are unsightly and inconvenient, the impurities in the carbon-oil descending to the very small opening at the point of combustion, completely stopping up the orifice, thus putting out the light at once and causing a great deal of trouble to remove the same. This difficulty I have entirely overcome. Another important point in the present device: I can use and place out of sight, free from all dirt and impurities, any amount of oil from one to fifty gallons, and deliver the same at the point of combustion at a uniform pressure and perfectly free from any foreign matter.

The reservoir containing the hydrocarbon-oil, as in the case of street-lamps, is placed beneath the sidewalk and beside the lamp-post. Two or more lamps and posts may be connected with the same reservoir. Thus a whole park or building may be lighted from the one source.

The accompanying drawings fully illustrate my invention.

Figure 1 is a vertical elevation of the lamp-post and carbon-oil tank or reservoir in position.

a a a represents a section of sidewalk and curb-stone; B, the carbon-oil tank or reservoir; C, the supply-tube leading from reservoir to burner; D, opening in sidewalk to fill reservoir with oil and compressed air. The lamp-post and lamp are of the usual construction. The burner E is the subject of another patent.

The lamp and post are of ordinary construction and set in the usual way. An excavation is made beside the lamp-post of sufficient size to admit a box containing the reservoir. B is a suitable flagstone having an aperture of sufficient size to admit the hand to open and close the cock F. The said aperture is closed by a cast-iron cover and fastened by a secure device to prevent persons from tampering with the same. The supply-tube C for the burner descends to the bottom of the reservoir, or nearly so, leaving sufficient space for any impurities to settle on the bottom, which impurities may be removed from time to time by a pump introduced through the opening occupied by the cock F.

The reservoir B may be constructed of any material that will resist a pressure of four atmospheres. I prefer those made of cast-iron and of a capacity of about nine gallons.

Having thus constructed and arranged my invention, it is only remaining, to set the same in operation, to place in the reservoir, through the cock F, five gallons of carbon-oil; then connect an air-pump to the said cock F and compress the air in the said reservoir so that it will indicate a pressure of twenty to thirty pounds to the square inch; close the cock and detach the air-pump, and place a plug in the end of the cock F for greater security against any leakage or escape of the compressed air. This amount of pressure will deliver in a steady and uniform manner the whole amount of oil in the reservoir at the point of combustion—that is to say, in the event of no leakage.

I am aware that a patent was granted to Francis M. Randell, of Greenburg, New York, on the 10th day of January, 1871, for a device for supplying oil to lamps by the action of compressed air, the pressure being produced by forcing oil into a tight reservoir. This, therefore, I do not claim.

One feature of superiority in my device consists in the facility afforded for renewing the pressure daily by the simple application of an air-pump, which duty may be performed by the lamp-lighter, the pressure being regulated by means of a suitable gauge attached to the

air-pump. I thus avoid the loss of the air-cushion, which must occur sooner or later, by leakage of air, if oil only be forced into the reservoir.

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

The combination, with a street-lamp post of common form, of the separate subterranean reservoir B, the supply-pipe C extending from the burner E down through the lamp-post nearly to the bottom of the reservoir, and the

cock F connected with the top of the reservoir, the whole constructed and arranged, as herein specified, to admit of pouring oil into the reservoir at ordinary pressure, and subsequently forcing air into the reservoir above the oil with any necessary pressure, or as often as may be necessary in order to elevate and consume the whole quantity of oil.

R. V. DE GUINON.

Witnesses:

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