

United States Patent Office.

FRANCIS M. RANDELL, OF GREENBURG, NEW YORK.

Letters Patent No. 110,866, dated January 10, 1871.

IMPROVEMENT IN APPARATUS FOR SUPPLYING NAPHTHA TO VAPOR-BURNING STREET-LAMPS.

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, FRANCIS M. RANDELL, of the town of Greenburg, Westchester county, State of New York, have invented a new and improved Apparatus for Supplying Naphtha to Vapor-burning Street-Lamps; 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 drawing forming part of this specification.

Figure 1 is a central vertical section of my invention.

The object of my invention is to place in every separate lamp-post, or adjoining thereto, a tank containing sufficient naphtha or gasoline to supply a burner for one or more weeks by placing the liquid in the base or lower part of the lamp-post, or in a separate tank buried in the ground adjoining the lamp-post and connected therewith by proper supply-pipes. The liquid I raise to the burner by compressed air contained in the naphtha-tank.

Hitherto the liquid has been supplied to vapor-burning street-lamps by elevating the naphtha-tank above the flame, and the required pressure has been obtained by the falling column of liquid. The small quantity of naphtha contained in a tank thus arranged requires the supply to be almost daily replenished. The labor and expense of the repeated refilling of the naphtha-tank is a great drawback to the use of this method of street-lighting.

My improvements are intended to remedy these defects, and are carried out as is hereinafter more fully set forth.

In the drawing—

A is the tank or reservoir formed in the base of the lamp-post.

This tank is supplied with gasoline by forcing the liquid down through pipe C. The air in the upper part of the tank becomes compressed in proportion to

the pressure put upon the liquid forced into it. The accumulated air-pressure drives the naphtha up pipe O to the burner. In this way pipe O serves both as an inlet for filling and also as an outlet for supplying liquid to the burner.

I cast the lamp-post of iron in two parts. The upper and lower parts of the post are securely joined and screwed together at B.

The circular projection D and plug E are made to fit snugly into corresponding recess F and aperture H, making, with suitable packing or cement, a perfectly air-tight joint.

To fill the tank, I conduct naphtha under pressure, by means of a suitable pipe, from a reservoir to the inlet-cock G. When this cock is open the liquid will flow into tank A from the reservoir until the pressure in the tank and reservoir is equalized. The filling-cock is then closed and the lamp is ready for lighting.

To prevent the naphtha being stolen or tampered with, I make the cock G so that it can be turned only by a certain key kept in the possession of the lamp-lighter.

Having now described my invention, and the manner of putting the same in operation, I would have it distinctly understood that I lay no claim to any of the parts separately except for the purposes of my invention.

I claim—

The combination, with a street lamp-post, of the naphtha-reservoir, pipe, and cocks, for the purpose of filling the reservoir with naphtha and supplying the latter to the burner under pressure, as described.

FRANCIS M. RANDELL.

Witnesses:

JOSHUA KIDD,
S. H. HILTON.