



# UNITED STATES PATENT OFFICE.

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## LIGHTING DEVICE FOR HYDROCARBON-BURNERS.

SPECIFICATION forming part of Letters Patent No. 621,933, dated March 28, 1899.

Application filed April 22, 1898. Serial No. 678,477. (No model.)

*To all whom it may concern:*

Be it known that I, ORVILLE P. MOON, a citizen of the United States, residing at Lorain, in the county of Lorain and State of Ohio, have  
5 invented certain new and useful Improvements in Lighting Devices for Hydrocarbon-Burners; and I do declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the  
10 art to which it appertains to make and use the same.

My invention relates to lighting devices for hydrocarbon-burners; and the invention consists in the construction and combination of  
15 parts, substantially as shown and described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a vertical central sectional elevation of an oil-tank designed more especially to be used with  
20 a gasolene-stove and showing a longitudinal section of the lighting device or oil-conveyer in its position as appears when out of use. Fig. 2 is a vertical central sectional elevation of a hydrocarbon-burner, presumably a gaso-  
25 lene-burner, and an elevation of the oil-conveyer in position to supply a quantity of the fluid to the burner.

The idea of this invention is to take from the oil-tank a sufficient quantity of oil to afford  
30 initial lighting of the burner. Hitherto in gasolene-burners there have been provided what is generally known as a "drip-pan" at some suitable point outside the burner and an arrangement whereby more or less of the oil was  
35 permitted to flow into said pan and the oil was lighted and the burner thereby heated to a vaporizing condition. Sometimes a separate valve mechanism and sometimes the main valve served to flow the oil to the drip-pan.  
40 Indeed numerous devices for initial lighting have from time to time been made and patented, so that the present invention is an improvement in the art of lighting this class of burners. In this instance the purpose is to  
45 take from the oil-tank only a fixed and limited quantity of oil and transfer it by hand to the burner. To this end I provide what is termed by some a "lighting" device, but more properly an oil conveyer or carrier, and comprising a barrel 2 and a stem 3, which is projected  
50 through the barrel and has a valve 4 at its lower end adapted to close the barrel oil-tight

from without at the bottom. This stem 3 extends through the barrel above some distance, as shown, and is provided with a spiral spring  
55 5, arranged and adapted to produce an upward pull on the stem and hold the valve 4 in closed position. The barrel 2 is cored out sufficiently to hold the desired quantity of oil, which of course is a relatively small quantity, and in order that the oil-supply may flow  
60 freely when the valve is opened the valve-stem is more or less flattened on opposite sides, or may be fluted or the like at 6, thus facilitating the outflow of oil as soon as the valve  
65 is opened, relatively as shown in Fig. 2.

In Fig. 2 it will be seen that the burner A has a central web or support 7 for the oil-conveyer, with an aperture through which the valve is projected and beneath the aperture a  
70 bridge or cross-piece 8, which serves as a stop or rest for the valve when opened, the barrel 2 in the meantime resting upon the support 7 and the bridge preventing the valve being depressed beyond the requisite point. When  
75 in this position, the barrel readily discharges the oil, which flows down over the central supply-pipe of the burner and quickly volatilizes as it is exposed to the atmosphere; but any surplus will drop into the cup 9 below. This  
80 cup and the space above it preferably are protected round about by a perforated sleeve 10, overlapping the perforated tube 11 above and adapted to slide up on said tube so as to get  
85 at the cup 9 and clean it, if required. Then in order to light the vapor a match applied in proximity to the perforations of the tubes 10 or 11 will ignite the vapor within and the  
90 burner will be promptly heated to a starting condition. Of course the moment that the oil is discharged from the barrel 2 the lighting device or conveyer B is restored to position, as in Fig. 1, where it remains until used again.

It will be further noted that upon the stem  
95 3 there is a sliding plug or cork 12, adapted to close the upper end of the long tube C. This tube projects in this instance at an angle through the oil-tank D, so that its upper end either passes immediately outside of  
100 the filling-funnel 13 of said tank, as shown, but it may pass through said funnel and thus be hidden except at its extremity. At its opposite end the tube C projects through the



tank relatively as shown and has a cavity 14, into which the valve 4 may be projected when the barrel 2 is to be filled with oil, and the said barrel fits easily into the said tube, so that  
 5 there will be a prompt flow of oil to the inside thereof when the valve is opened for that purpose, and the air in the barrel will readily escape at the top thereof. An oil-inlet 15 is shown at the bottom of the tank to said tube,  
 10 so that if there be any oil in the tank the barrel will be filled, and a slot 16 in the tube higher up not only affords ventilation but an escape for the oil that may be in the tube behind the barrel when the barrel is withdrawn  
 15 for lighting.

The position and relation of the tube C in respect to the tank and its funnel 13 are purposely as shown, so that when the tank is laid down for filling the mouth of the tube  
 20 will always be above the filling-level and thus prevent escape of oil when the tank is being filled. Otherwise any position of the tube C in the tank would serve the purpose. The plug 12 is adapted to slide freely on stem 3  
 25 and serves to close the upper end of the tube C, as shown in Fig. 1.

In operation, having filled the barrel 2 with oil and withdrawn the thumb from the cap 18 on the upper end of the valve-stem the valve  
 30 4 closes and the barrel can be safely with-

drawn without danger from spilling or overflowing any portion of the oil, and it is then set in position from the top of the stove or burner, as seen in Fig. 2, and when placed into position is depressed, as therein shown, 35 and the oil liberated, as hereinbefore described.

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

1. The burner having a central portion to 40 serve as a rest for an oil-conveyer and a valve-rest beneath said support, in combination with the oil-conveyer having a downwardly-opening valve to seat on said rest, substantially as described. 45

2. The oil-conveying barrel, a combined valve-stem and handle projecting through the barrel at both ends and a valve at its lower end arranged to seat from the outside, and a spring about said stem and handle bearing 50 on the end of said barrel to close the valve, in combination with the burner having a rest for the oil-conveying barrel and a valve-rest at its center, substantially as described.

Witness my hand to the foregoing specification this 25th day of March, 1898. 55

ORVILLE P. MOON.

Witnesses:

GEO. W. GRAVES,  
 THOS. RATH.