

(No Model.)

3 Sheets—Sheet 1.

J. P. McGARRY.
HYDROCARBON ILLUMINATING LAMP.

No. 556,361.

Patented Mar. 17, 1896.

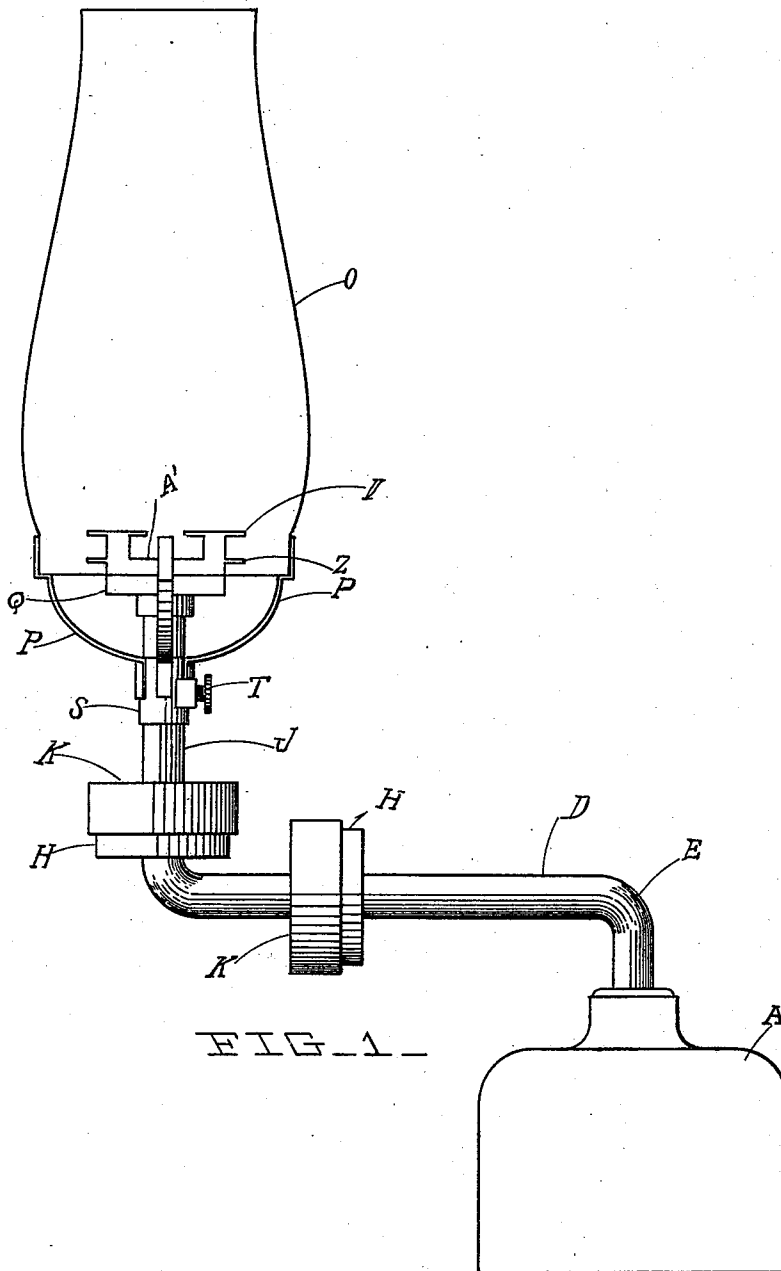


FIG. 1

Witnesses:

Ada L. Waters
E. R. Monte Jr

James P. McGarry

Inventor.

By John C. Gregg

Attorney.

(No Model.)

3 Sheets—Sheet 2.

J. P. McGARRY.
HYDROCARBON ILLUMINATING LAMP.

No. 556,361.

Patented Mar. 17, 1896.

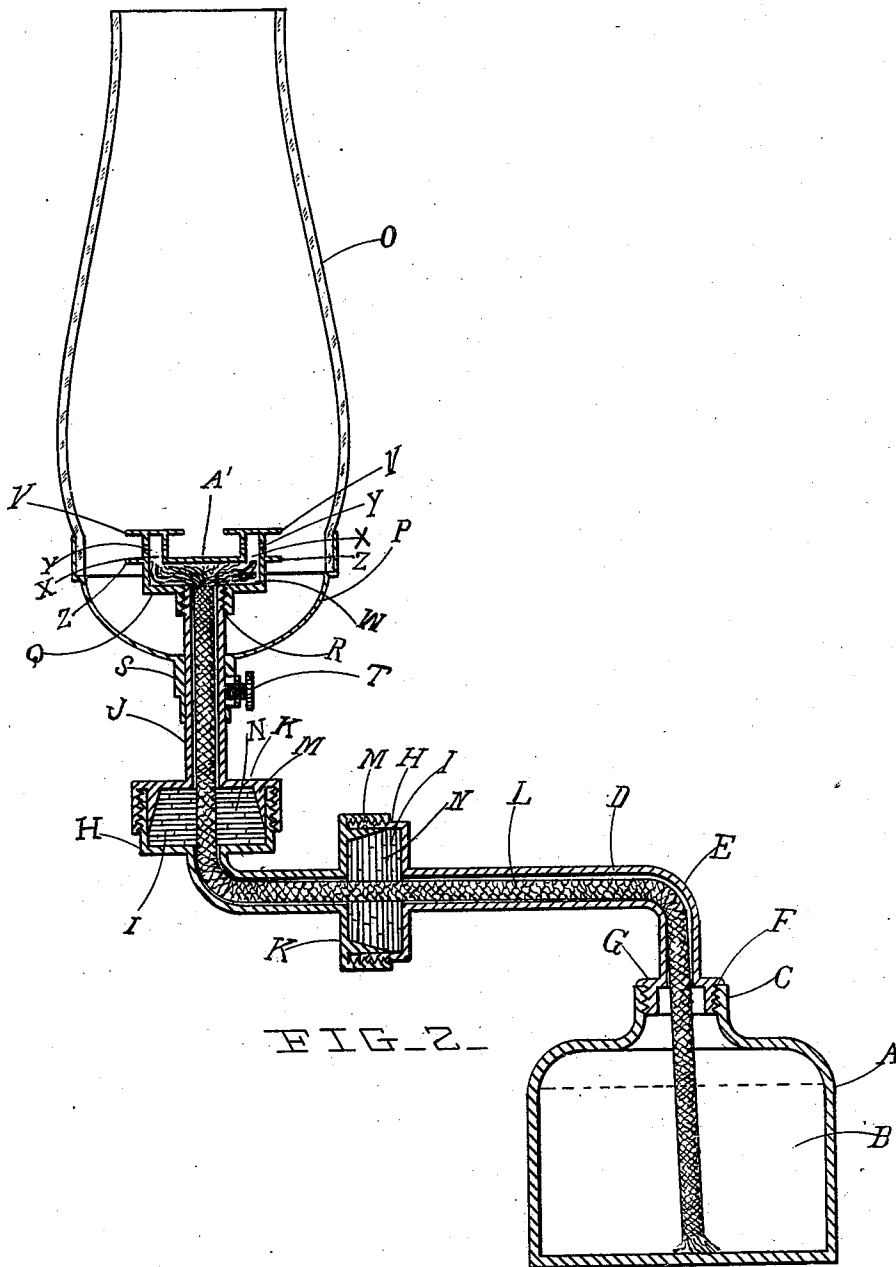


FIG. 2.

Witnesses:
Ada L. Waters
G. R. Monke Jr.

James P. McGarry.
Inventor.
By John A. Gregg

Attorney.

(No Model.)

3 Sheets—Sheet 3.

J. P. McGARRY.
HYDROCARBON ILLUMINATING LAMP.

No. 556,361.

Patented Mar. 17, 1896.

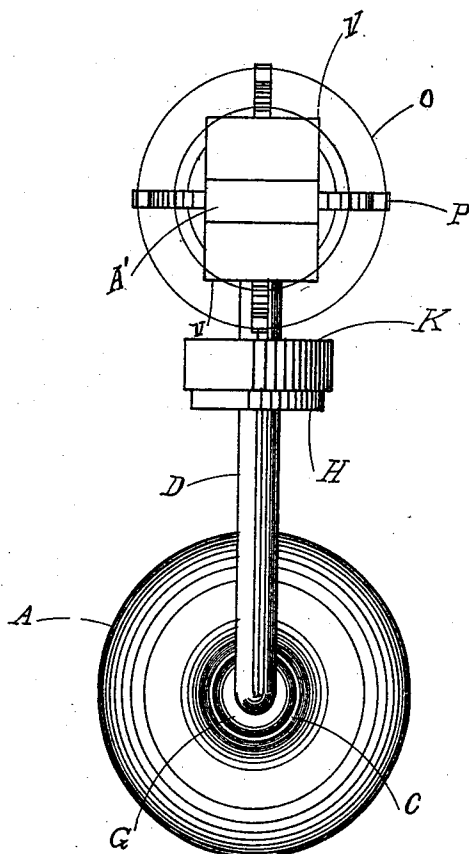


FIG. 3—

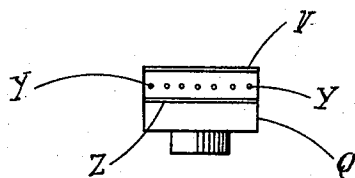


FIG. 4—

James P. McGarry

Inventor.

Witnesses:

Ada L. Waters
G. R. Monte Jr.

By John A. Gregg

Attorney.

UNITED STATES PATENT OFFICE.

JAMES P. MCGARRY, OF BAY CITY, MICHIGAN.

HYDROCARBON ILLUMINATING-LAMP.

SPECIFICATION forming part of Letters Patent No. 556,361, dated March 17, 1896.

Application filed August 19, 1895. Serial No. 559,721. (No model.)

To all whom it may concern:

Be it known that I, JAMES P. MCGARRY, a citizen of the United States, residing at Bay City, in the county of Bay and State of Michigan, have invented certain new and useful Improvements in Hydrocarbon Illuminating-Lamps; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in hydrocarbon illuminating-lamps; and it consists in the arrangement and construction of the parts with the object of producing an illuminating-lamp with the burner so arranged that the fluid will be vaporized and burned in its gaseous state, with the object of producing a bright light without smoking the chimney of a lamp and to avoid the trimming and care of the lamp-wicks, and at the same time to produce a hydrocarbon illuminating-lamp that may be used with or without a lamp-chimney, as a person may desire.

Another object of the invention is to produce a hydrocarbon illuminating-lamp that may be placed on a bracket against the wall of a house or on the back part of a desk or table provided with a horizontal outwardly-projecting arm at right angles with the fluid chamber or bowl of the lamp.

A further object is to provide a hydrocarbon illuminating-lamp that may be fed by capillary attraction or by gravity provided with means for controlling the feed from the fuel to the burner, that will be easy of operation and effective and at the same time simple and cheap in its design and manufacture.

To this end my invention consists in the construction and arrangement which will be hereinafter fully described, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all of the views.

Figure 1 is a perspective view of a hydrocarbon illuminating-lamp embodying my invention. Fig. 2 is a vertical section of the same. Fig. 3 is a top plan perspective view

showing the top plan of the burners. Fig. 4 is a perspective side view of the burners.

A represents the fluid chamber or bowl of the lamp, and B the opening contained therein provided with a threaded opening at C. D is a horizontal arm that supports the lamp-wick consisting of a tube or pipe-light piece provided with a right-angled bend at E with its lower end threaded at F. This threaded end F is screwed into the opening C, provided on the lamp-bowl A, and a joint made by means of a flange provided on the lower end of the horizontal arm at G. L is the wick, and H H are cylindrical-shaped cups provided with threaded ends, and I I are their openings contained therein. The said cups H H are formed on the horizontal arm or lamp-wick support D and its vertical portion J provided with cylindrical-shaped caps or covers K K, which are also provided with threaded ends. These cups H H have their openings I I firmly packed with asbestos or any other suitable material around the wick L.

The caps or covers K K are provided with inner wedge-shaped annular flanges M M with their inclined sides within and the straight sides next to the inner walls of the cups H H, so that when the covers K K are screwed down the wedge-shaped flanges M M, having their incline next to the packing N N, squeeze the packing around the wick L, whereby the fluid may be shut off or released to any desired quantity.

O is the lamp-chimney, P the chimney-support, and Q represents the burner provided with a threaded opening at R secured to the vertical portion J of the horizontal arm or pipe-like wick-support D by means of a threaded end provided thereon. The chimney-support P is also supported by the vertical portion J by means of a collar S and a thumb-screw T, whereby the chimney O may be raised or lowered to the desired height and the chimney-support P be easily removed when the use of the chimney O is not desired.

The lower portion or body of the burner Q consists of a rectangular-formed horizontal body provided with a chamber W within provided at its ends with right-angled arms X X. These arms X X may be made rectangular or

annular in form, either of which a person may desire, with their caps or covers projecting over their outer walls and providing outwardly-projecting flanges V V. The said arms X X are provided with openings Y Y made either annular or rectangular in form. The said arms X X are also provided with flanges below the openings Y Y at Z Z. The upper end of the wick L presses up with its upper end against the top wall of the rectangular burner Q with its fiber pulled asunder and spread against the said top wall of the burner Q at A'. The fluid is raised through the wick by capillary attraction up and into the burner Q, where it is vaporized by means of the heat generated by the flame around the arms X X, where the vapor has exit through the perforated openings Y Y, and the hydrogen and carbon may be completely consumed and consequently no smoke produced, and whereas the wick L is not exposed to the flame it will last for an indefinite length of time without trimming or being consumed.

When first putting the lamp in operation it is only necessary to put the wick L in its position as represented in the tube or pipe-light piece B, Fig. 2, then to saturate the said wick L with the fluid by pouring it on the wick and allowing it to penetrate its way down to the opposite end of the said wick L, whereby the said wick becomes saturated and ready for use, and when lighting the burner it is only necessary to hold the lighting device with the blaze to the openings Y Y until the arms X X become heated, whereby evaporation takes place from the saturated wick L. The vapor finding exit to the blaze of the lamp-lighting device combustion takes place at the perforated openings Y Y, and the lamp is then in operation.

Of course I do not confine my tube or pipe-light wick-support to any particular form or angle, as it may be placed on a vertical or inclined line, and with the aid of the means for controlling the feed will have substantially the same effect; and I wish it understood that I do not confine the cups H H for regulating the fluid to any certain number, as one or more may be used, whereas, for instance, where the lamp is fed by gravity the number of cups, as shown at H H, will be determined by the height of the fluid-tank, whereas when the lamp is fed by capillary attraction one of the said cups will be sufficient to control the light from its maximum to its

minimum quantity, and I further wish it understood that while I have illustrated a burner with two arms, as shown at X X, I do not confine it to any certain number, whereas the burner Q may be made any length and provided with a wick or any suitable fabric and any desired number of arms placed in line with each other, and all other parts being equal will produce any desired number of lights.

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

1. The means for controlling the feed from the chamber of the bowl A, to the burner, consisting of cylindrical-shaped cups, their chambers I, I, packed around the wick L, with asbestos packing, the threaded caps provided with inner wedge-shaped flanges, substantially as described.

2. In a hydrocarbon illuminating-lamp, the combination of a lamp-wick support consisting of a tube or pipe like piece, provided with cylindrical-shaped cups with threaded ends, the threaded caps provided with inner wedge-shaped flanges, and the asbestos packing around the wick L, substantially as described.

3. In a hydrocarbon illuminating-lamp the combination of the lamp-wick support consisting of a tube or pipe-light piece, its threaded end at F, and the flange G, the right-angled bend on its outer threaded end serving for the support for the burner, the means provided for regulating the feed from the fluid to the burner, consisting of cylindrical-shaped cups and the asbestos packing contained therein the said cups formed on and being a part of the said pipe-like wick-support, the threaded covers and their inner wedged flanges substantially as described.

4. In a hydrocarbon illuminating-lamp the bowl A, combined with the wick-support D, with its threaded end F, screwed therein in combination with the means for regulating the feed from the fluid to the burner, consisting of a cylindrical-shaped cup formed on and being a part of the said wick-support D, the threaded cover and its wedge-shaped flanges, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES P. MCGARRY.

Witnesses:

JOHN A. GREGG,
ADA L. WATERS.