

R. C. BIERBOWER.

VAPOR BURNER.

APPLICATION FILED MAY 10, 1909.

938,365.

Patented Oct. 26, 1909.

Fig. 1.

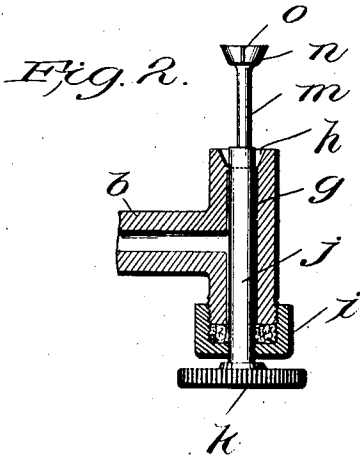
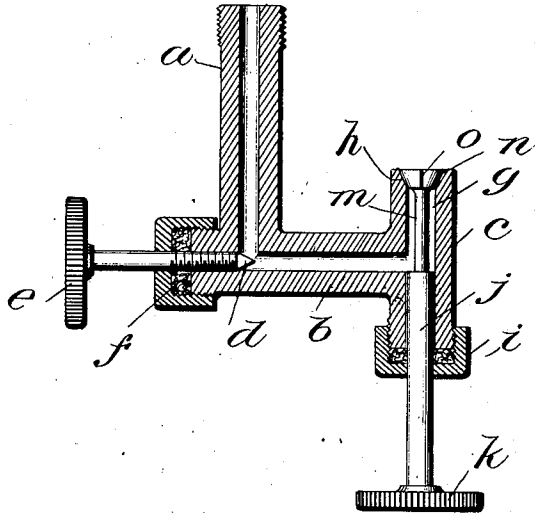
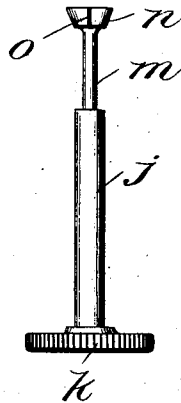


Fig. 3.



Witnesses

Geo. A. Bynne.
Gas E. Dodge.

R. C. Bierbower.

Inventor

By Wilkinson, Fisher & Witherspoon,
Attorneys.

UNITED STATES PATENT OFFICE.

RICHARD C. BIERBOWER, OF HOUSTON, TEXAS.

VAPOR-BURNER.

938,365.

Specification of Letters Patent.

Patented Oct. 26, 1909.

Application filed May 10, 1909. Serial No. 495,155.

To all whom it may concern:

Be it known that I, RICHARD C. BIERBOWER, a citizen of the United States, residing at Houston, in the county of Harris and State of Texas, have invented certain new and useful Improvements in Vapor-Burners; 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.

My invention relates to improvements in vapor burners and the object of my invention is to produce a simple and inexpensive burner by which the amount of oil fed to the burner can be accurately regulated, and whereby the burner can be readily cleaned, should it become clogged up for any reason.

With this object in view, my invention consists in the construction and combinations of parts as hereinafter described and claimed.

In the accompanying drawing—Figure 1 is a cross section of my improved burner in the position of use. Fig. 2 is a cross section of a part of the same, showing the manner of cleaning the burner, and Fig. 3 is a side view of the sliding valve stem and cleaner.

In the drawing, a complete apparatus has not been shown, but only that particular part of a vapor burner which illustrates my invention, and in this drawing *a* represents a vertical tube, through which gasolene or similar burning fluid is supplied. *b* represents a horizontal tube and *c* represents the vertical burner tube. These three tubes may be made integral with each other, or separate, or joined together, as desired. The opening from the tube *a* into the tube *b* can be closed, or its size regulated, by the needle valve *d*, provided with a hand wheel *e*, which passes through a suitable packing box *f*. The tube *c* is provided with an internal bore *g*, through which the gasolene is delivered, the upper part of said bore being flared outwardly, as shown at *h*.

Within the bore of the tube *c* is located a combined valve and cleaning device, which passes freely through a stuffing box *i* in the bottom of the casing. This valve and cleaner consists of a cylindrical rod *j*, provided with a hand wheel or operating head *k* and a re-

duced cylindrical portion *m*, terminating in a conical portion *n*, provided with a slit *o*.

The operation is as follows: The parts being in the position shown in Fig. 1, gasolene or other inflammable fluid flows through the tubes *a*, *b*, and *c* and out through the slot *o*, where it is ignited, giving the usual flame. The amount of gasolene delivered depends, of course, upon the position of the needle valve *d*. To extinguish the light the needle valve is closed.

Vapor burners are often subjected to heavy and irregular drafts and consequently deposits of carbon are apt to form in and around the burner, and by my invention particular provision is made for removing such deposits and cleaning the burner. For example, carbon and other impurities are apt to collect just beneath the portion *n*, thereby partially or wholly clogging up the hole *o*. When this occurs, all that has to be done to clean the burner is to shut off the fuel supply and push the cleaning and valve rod from the position shown in Fig. 1 to that shown in Fig. 2. This completely cleans out the interior of the tube *c* and the part *n*, while in its elevated position, can be readily cleaned, if needed.

I claim:

1. In a vapor burner, the combination of means for supplying oil, an open-ended burner tube, a combined cleaning rod and valve stem adapted to slide in said tube, consisting of two cylindrical parts, one of which is of substantially the same size as the bore of the tube, and the other of which is smaller, and a slotted head connected to the smaller portion, substantially as described.
2. In a vapor burner, the combination of a burner tube having the burner opening flared outwardly, a combined valve rod and cleaner adapted to slide in said tube, consisting of a cylindrical part of substantially the same size as the bore of the tube, a smaller cylindrical part, and a conical head connected to the smaller portion and provided with a slot, substantially as described.

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

RICHARD C. BIERBOWER.

Witnesses:

A. HARRIS,
L. E. MILLER.