

M. F. GALE.
Vapor-Burners.

No. 140,030.

Patented June 17, 1873.

Fig. 1.

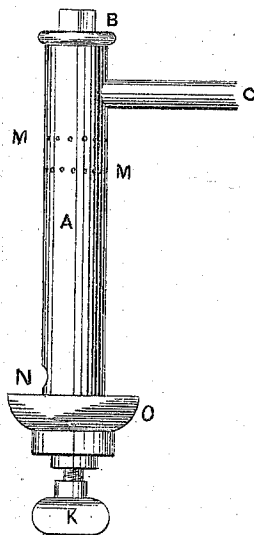
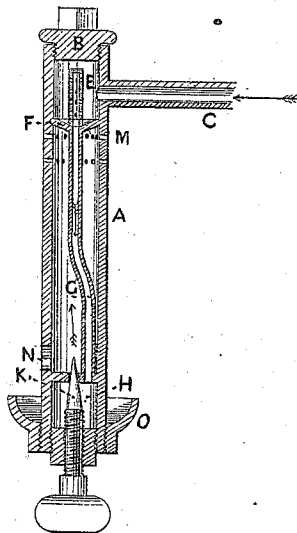


Fig. 2.



WITNESSES.

Boyd Elliot }
Geo. H. Collins. }

Moses F. Gale
INVENTOR.

UNITED STATES PATENT OFFICE.

MOSES F. GALE, OF NEW YORK, N. Y.

IMPROVEMENT IN VAPOR-BURNERS.

Specification forming part of Letters Patent No. **140,030**, dated June 17, 1873; application filed July 24, 1872.

To all whom it may concern:

Be it known that I, MOSES F. GALE, of the city, county, and State of New York, have invented certain Improvements in Vapor-Burners, of which the following is a specification:

This invention relates to certain improvements in vapor-burners provided with a retort to vaporize the fluid; and consists of a construction and arrangement of parts which will be fully hereinafter described.

Figure 1 represents the burner completed. Fig. 2 is a sectional view of the same.

The tube forming the body of the burner is shown at A, the upper end being closed by a screw-plug, as at B. A short distance below said plug is the inlet-tube C, to conduct the fluid from the reservoir to the retort or vaporizing-chamber shown at E, and which is formed in the tube A by fastening therein a diaphragm of metal just above the holes for the jets, as at F. Said retort may be charged with various substances for distributing and purifying the vapor previous to its passage through the tube G, which connects said retort with the regulating-chamber H. This tube may be arranged to conduct the vapor from the retort

outside of the tube A, as well as inside, as here shown. The chamber at H is formed in the lower end of the tube A, similar to the retort, but is provided with a valve, as at K, which regulates the flow of the vapor to the holes at M, where the jets are formed that give the required light. At N a hole is formed in the side of the tube A to supply the requisite quantity of air to the vapor for good combustion.

A drip-cup, as at O, may be attached to the lower end of the tube A to catch the condensed vapor or leakage, if any should occur.

The full pressure of the reservoir may be permitted within the retort, as the supply is properly regulated by the valve below.

I therefore claim—

The tube A provided with the tube G, vaporizing-chamber E, perforated diaphragm F, chamber H, valve K, and inlet-pipe C, all constructed and arranged substantially as and for the purpose described.

MOSES F. GALE.

Witnesses:

BOYD ELIOT,
GEO. H. COLLINS.