T. WARD & H. C. HUNT.

Improvement in Vapor-Burners.

No. 115,398. Patented May 30, 1871.

Fig. 1.

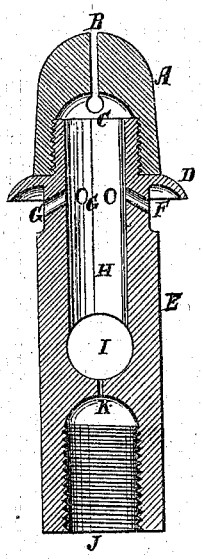
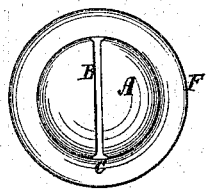


Fig. 2.



Witnesses:

A Benneindorf.

Wm H. C. Smith.

Inventor:

T. Ward.

H. C. Hunt.

PER Munn & Co

Attorneys.

UNITED STATES PATENT OFFICE.

THOMAS WARD, OF COLUMBUS, OHIO, AND HENRY C. HUNT, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN VAPOR-BURNERS.

Specification forming part of Letters Patent No. 115,398, dated May 30, 1871.

To all whom it may concern:

Be it known that we, THOMAS WARD, of Columbus, in the county of Franklin and State of Ohio, and HENRY C. HUNT, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Vapor-Burner; and we 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.

This invention relates to a new and useful improvement in burners for volatile hydrocarbon-vapor generators; and consists in the construction, arrangement, and combination of parts, as hereinafter described.

In the accompanying drawing, Figure 1 represents a vertical section of the burner. Fig. 2 is a top-end view.

Similar letters of reference indicate corresponding parts.

A is the cap of the burner, of conical form, having a slit, B, with an enlargement, C, at its base. D is a concave overhanging flange on the burner E. F is a groove directly beneath the flange, and G represents holes from the groove, which penetrate to the gas-chamber H. This groove serves to intensify and retain the heat in proximity to the heating-chamber, and thus to afford the latter an opportunity of absorbing a larger proportion of said heat. I is an air-orifice. J is a vapor-tube.

Jets of vapor are allowed to escape through the perforations G, which, when ignited, produce blue jets of flame, the heat from which is deflected downward by the concave flange, and serves to heat the body of the burner, thereby communicating heat to the reservoir and vaporizing the liquid. The vapor thus generated rises in the tube J and passes up through the small orifice K, and through the air-orifice into the chamber H, from whence the jets escape and are ignited, as before stated.

By means of the curved flange D the heat is thrown downward and absorbed by the burners.

Light hydrocarbon fluid is used for this burner, a fluid that will vaporize at a low temperature.

The light produced is of high illuminating power, and quite equal, if not superior, to the best street gas.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

In combination with a slitted cap, A B, a burner, E, having the apertures G, recess F, and downwardly-concave deflector D, arranged as and for the purpose specified.

THOMAS WARD.
HENRY C. HUNT.

Witnesses:
GEO. W. MABEE,
ALEX. F. ROBERTS.