

J. WHITE.
Vapor Burner.

No. 106,753.

Patented Aug. 23, 1870.

Fig. 1.

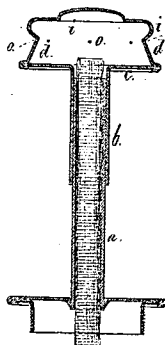
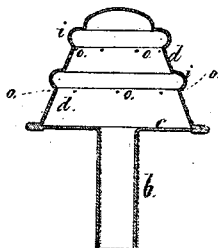


Fig. 2.



Witness,

Chas. H. Smith
Geo. S. Walker

Joseph White
for Lemuel W. Lowell
Att'y

United States Patent Office.

JOSEPH WHITE, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO HIMSELF AND J. B. WICKERSHAM, OF SAME PLACE.

Letters Patent No. 106,753, dated August 23, 1870.

IMPROVEMENT IN VAPOR-BURNERS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JOSEPH WHITE, of Philadelphia, in the State of Pennsylvania, have invented and made a new and useful Improvement in Vapor-Burners, and the following is declared to be a correct description thereof.

Heretofore vapor-burners have been made with hollow heads or caps, into which the hydrocarbon vapors pass, and issue in jets from holes around such caps, and the heat imparted by the flames to the metal of such caps causes the generation of vapor from liquid hydrocarbon in a cotton wick.

My invention consists in a cap, made of thin metal, with projecting peripheral beads, beneath which are the holes for the vapors to issue and burn as jets.

By this construction the gaseous vapors become heated before issuing from the cap, because the beads are over the flames, and become highly heated, and the vapors are in contact with the inner sides of such hollow beads, and hence issue in a condition more favorable to perfect combustion than is the case with the ordinary vapor-burners.

In my burner the thin sheet metal of the cap only conducts sufficient heat to the wick-tube to vaporize the liquid hydrocarbon.

In Figure 1 of the drawing I have shown a vertical section of my vapor-burner upon a wick-tube, and in

Figure 2 a section of the burner detached, and made with two ranges of perforations for the flame-jets.

In the drawing—

a is the wick-tube, of ordinary character.

b is a sleeve, slipping upon the wick-tube, and carrying the head or button *c*, above which is the sheet-metal cap *d*.

Around this cap *d* I make one or more peripheral hollow ribs, *i*, either circularly or spirally, and holes are perforated at *o*, to allow the gaseous vapors to escape, just below the hollow rib, and form jets of flame that heat the bead above to a high temperature, that it may communicate to the vapors that are evolved from the hydrocarbon in the wick, the necessary temperature for obtaining a bright, steady, uniform light.

I claim as my invention—

The vapor-burner, made with a hollow bead, of sheet metal, projecting around the periphery of the cap, and above the perforations, for the vapor to issue and burn in jets, as and for the purposes set forth.

Signed by me this 27th day of April, A. D. 1870.

JOSEPH WHITE.

Witnesses:

NORMAN H. STEVENS,
HENRY WATT.