J. J. & F. G. PALMER.

Vapor Burner.

No. 112,624. Patented Mar. 14, 1871.

Fig. 1

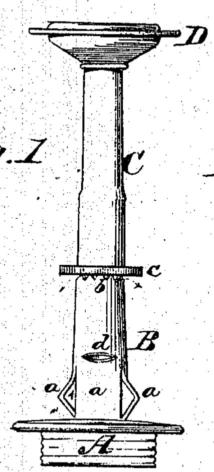

Fig. 2

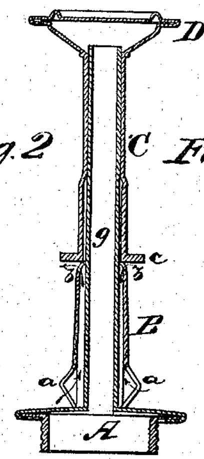

Fig. 3

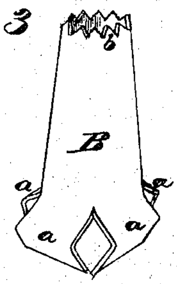

Fig. 4.

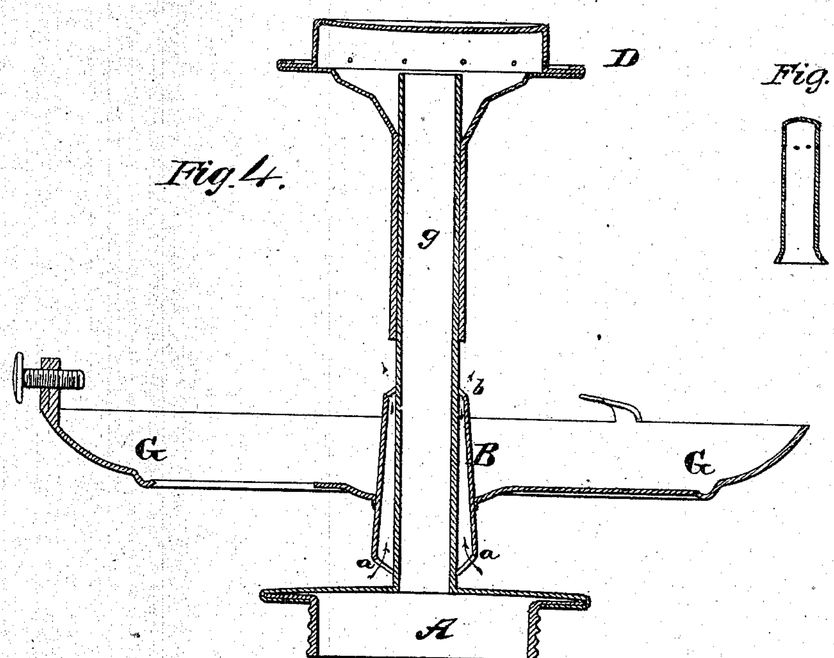

Fig. 5

Witnesses.
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UNITED STATES PATENT OFFICE.

JASON J. PALMER AND FRANKLIN G. PALMER, OF PITTSBURG, PA.

IMPROVEMENT IN GLOBE HOLDERS AND COOLERS COMBINED, FOR VAPOR-BURNERS.

Specification forming part of Letters Patent No. **112,624**, dated March 14, 1871.

To all whom it may concern:

Be it known that we, JASON J. PALMER and FRANKLIN G. PALMER, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a Cooler for Vapor-Burners; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, making a part of this specification, as follows:

Figure 1 is a side view of a well-known form of vapor-burner having our invention applied to it. Fig. 2 is a diametrical section through Fig. 1. Fig. 3 is a perspective view of the cooler detached from the burner. Fig. 4 is a vertical central section through a vapor-burner, showing a globe-holder combined with the cooler.

The nature of our invention consists in the combination of a globe-holder and a cooling-tube, in such manner that the latter will afford an adjustable support for the globe-holder, as will be hereinafter explained.

The following description will enable others skilled in the art to understand our invention and carry it into effect.

In the accompanying drawing, A represents the lamp-cap, from which the wick-tube *g* rises and receives on it a tube, C, that has the burner-jet D formed on its upper end. On the lower end of the tube C is a flange, *c*. This is a well-known form of vapor-burner for light volatile fluids, and is not claimed.

B represents a tube of metal, which may be cylindrical, but which we prefer to make tapering, as shown. The upper and lower extremities of this tube are cut and bent, so as to form clasps or holders *a b*, which, by embracing the wick-tube *g*, will hold the tube B at any desired point on this tube *g*.

In Fig. 4 we have represented attached to the tube B a globe-holder, G.

The tube B forms the stock or hub of the globe-holder, and serves as a means for attaching the same to the wick-tube *g*, and allowing a vertical adjustment of this holder.

When the tube B is applied to the wick-tube and the gas ignited, the heat of that portion of the wick-tube above the tube B will cause currents of cool air to rise through the space between the two tubes, and thereby prevent the transmission of heat to the lamp-cap A.

We do not confine ourselves to the precise form of cooling-tube, nor to the precise mode of constructing the clamping portions of this tube.

Fig. 5 is a diametrical section through a form of burner which may be used on either one of the wick-tubes *g g* in place of the enlarged burner D.

We claim as our invention—

A globe-holder, G, and cooling-tube B, combined substantially as described.

JASON J. PALMER.
FRANKLIN G. PALMER.

Witnesses:
J. G. BACKOFEN,
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