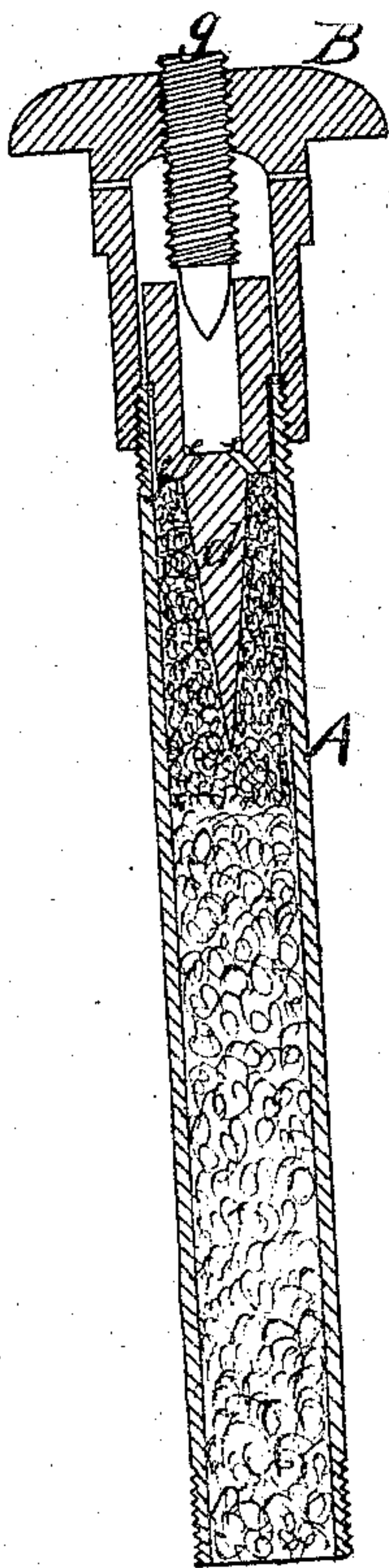


Coolidge B. Brown Burner for Vapor Lamps.

PATENTED AUG 22 1871

118192



Witnesses.  
Wm. H. Paine  
J. L. Boone

Inventor.  
Coolidge B. Brown.  
by Dewey & Co  
His Attorney

# UNITED STATES PATENT OFFICE.

COOLIDGE B. BROWN, OF PLACERVILLE, CALIFORNIA.

## IMPROVEMENT IN VAPOR-BURNERS.

Specification forming part of Letters Patent No. 118,192, dated August 22, 1871; antedated August 21, 1871.

*To all whom it may concern:*

Be it known that I, COOLIDGE B. BROWN, of Placerville, county of El Dorado, State of California, have invented an Improved Vapor-Burner for Gas-Generating Lamps; and I do hereby declare the following description and accompanying drawing are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention or improvement without further invention or experiment.

My improvement relates to that class of burners which is employed for generating and burning gas in what is known as the self-generating-gas lamps, and in which gasoline, naphtha, or other light hydrocarbon is employed as a burning-fluid; and it consists of a regulating-screw which passes down through the top of the cap of the burner and into an opening in the inverted cone by means of which the flow of gas is regulated, in combination with a conical plug which fits into the upper end of the tube, and which, by becoming heated, will greatly aid in the conversion of the vapors into gas before it reaches the reservoir from which it is fed to the flames. I do not claim broadly either of these devices when separately used.

In order to more fully explain my invention, reference is had to the accompanying drawing forming a part of this specification, in which—

A represents the generating-tube, upon the upper end of which the burner or cap B is screwed. This tube is usually filled with cotton or other fiber, which conveys the oil by capillary attraction from the lower end, against which it is forced by the pressure of oil in the reservoir up to the burner, where it is converted into gas. Instead of packing this tube with cotton, I use either wholly or partly the mineral called asbestos. This substance is fibrous in texture, and when packed in the tube will serve to raise the oil in the same manner as the cotton, and, being

indestructible by heat, it forms a permanent packing for the tube. I prefer to pack the lower half of the tube with cotton and the upper half with asbestos, so that when the asbestos has become heated it will greatly aid in converting the oil into vapor. In the upper end of the tube I insert an inverted conical plug, *d*. The upper end of this plug is hollow, as shown, and small holes *e* connect this hollow portion with the outside below the shoulder *f*. The apex of this conical plug is inserted into the tube A, and extends down into the asbestos packing, the plug being inserted far enough to bring the small holes *e* down into the tube, so that the vapor can pass through them into the hollow of the cone, and thence into the reservoir above. Through the top of the cap B passes a screw, *g*, the lower end of which, when the screw is partially down, enters the hollow in the cone *d*, and limits the supply of gas according to the space left between the two.

By thus constructing the burners of vapor-lamps, the oil will be subjected to sufficient heat in the burner-tube to convert it into gas before it goes to the reservoir; the asbestos will provide a permanent, neat, and effective packing; while the regulating-screw permits of a ready adjustment of the amount of gas it is desired to supply to the flames.

Having thus described my invention, what I claim and desire to secure by Letters Patent, is—

The regulating-screw *g*, in combination with the hollow conical plug *d* with its communicating-hole *e*, substantially as and for the purpose set forth.

In witness that the above-described invention is claimed by me I have hereunto set my hand and seal.

COOLIDGE B. BROWN. [L. S.]

Witnesses:

GEO. H. STRONG,  
I. L. BOONE.