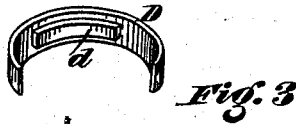
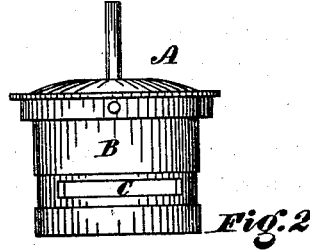
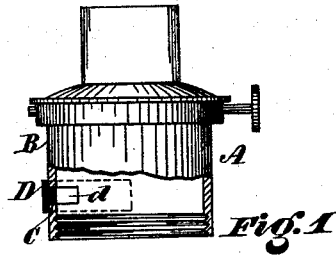


R. WETHERILL.  
Lamp-Burner.

No. 198,719.

Patented Dec. 25, 1877.



WITNESSES:  
*Saml. J. Van Stavoren*  
*Jos. B. Connolly*

INVENTOR  
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*By Connolly, Attorneys.*

# UNITED STATES PATENT OFFICE.

ROBERT WETHERILL, OF PHILADELPHIA, PENNSYLVANIA.

## IMPROVEMENT IN LAMP-BURNERS.

Specification forming part of Letters Patent No. **198,719**, dated December 25, 1877; application filed November 13, 1877.

*To all whom it may concern:*

Be it known that I, ROBERT WETHERILL, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Lamp-Burners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification, in which—

Figure 1 is a side elevation of a lamp-burner, partly in section, showing my invention applied thereto. Fig. 2 is a side elevation of the same with my improvement removed therefrom. Fig. 3 is a perspective of my invention.

My invention has for its object to prevent disastrous effects resulting from the explosion of kerosene-oil in lamps; and my improvement consists in forming the burner with an opening for the escape of violently-expanding gas, said opening being covered by an elastic band, forming a valve, which holds to its seat with sufficient force resist the static or the dynamic pressure of the liquid, but will yield to the pressure of gas when an explosion occurs, as hereinafter more fully set forth.

Referring to the accompanying drawing, A represents a lamp-burner of the usual or any suitable construction, having a stem, B, adapted to fit the neck of an oil-lamp. C is an opening in said stem, which is, by preference, made in the form of an oblong slot. D is an elastic metal band or ring, which partly surrounds the stem B, so as to clamp thereon and cover the opening C, and *d* is a rib or tongue on the inner side of said ring, exactly fitting the said opening, so as to form a tight joint.

The spring-band D clamps the stem B so tightly as not to be displaced by the pressure of the oil within the lamp-bowl should said liquid be agitated so as to surge or splash as high as the opening C when the lamp is moved.

Should an explosion of gas within the lamp-bowl occur from any cause, the sudden and forcible expansion produced thereby will press back the band, uncovering the opening C, and allowing the free exit of the gas, thus avoiding the breakage of the lamp and other disastrous results.

The opening C may be formed in the neck of a lamp and the band D applied thereto, if desired. I prefer, however, to form such opening in the burner-stem and apply the band to said burner, as herein set forth.

What I claim as my invention is—

1. The combination, with a burner-stem, B, having an opening, C, for the escape of gas, of a valve or cover adapted to open automatically from the pressure of confined gas, and consisting of an elastic band, D, applied to said stem without fastening, as shown and described.

2. The elastic band or clamp D, having a rib or tongue, *d*, and forming a tight-fitting automatic gas-valve, attachable to a lamp without permanent fastening, as shown and set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 10th day of November, 1877.

ROBERT WETHERILL.

Witnesses:

GEO. C. SHELMEKDINE,  
M. D. CONNOLLY.