

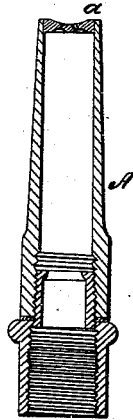
J. L. SMITH.

Gas Burner.

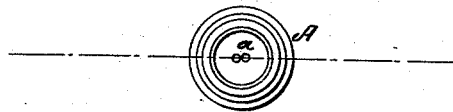
No. 54,971.

Patented May 22, 1866.

*Fig: 1.*



*Fig: 2.*



*Witnesses:*  
*Jher Tusch*  
*C. L. Tyleff.*

*Inventor.*  
*J. L. Smith*  
*By Munn & Co.*  
*attys.*

# UNITED STATES PATENT OFFICE.

J. LAWRENCE SMITH, OF LOUISVILLE, KENTUCKY.

## IMPROVEMENT IN GAS-BURNERS.

Specification forming part of Letters Patent No. 54,971, dated May 22, 1866.

*To all whom it may concern:*

Be it known that I, J. LAWRENCE SMITH, of Louisville, in the county of Jefferson and State of Kentucky, have invented a new and useful Improvement in Gas-Burners; and I 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 drawings, forming part of this specification, in which—

Figure 1 represents a longitudinal central section of this invention. Fig. 2 is an end view of the same.

Similar letters of reference indicate like parts.

This invention consists in the use of aluminium or any of its alloys for gas-burners or their tips, either for illuminating or heating purposes.

The burner A, which is represented in the drawings, represents an ordinary fish-tail burner. It is made of a brass tube, with a tip, *a*, of aluminium. The invention is, however, applicable to a bat-wing or any other burner, as well as to an ordinary fish-tail burner, and the body of the burner may be made of aluminium as well as the tip.

A great desideratum in case of gas-burners is to obtain tips that will resist the chemical as well as mechanical actions to which said

burners are subjected, especially such as are in use for street-lamps and other public lights. To accomplish these results up to the present time metals have been substituted by porcelain, lava, and other stony materials. These, however, while they overcome the chemical objections, not unfrequently crack under the influence of the heat of the flame, and cannot be subjected to the usual operation of cleansing by brushes while in position, but have to be dismantled in order to be cleansed.

From long and careful experience I find that aluminium accomplishes the above results more completely than any other known substance; and while I do not claim to have discovered any new property of aluminium, I have discovered a very important application of the same to an instrument of extensive use, which application will give further extension to the uses of aluminium.

What I claim, and desire to secure by Letters Patent, is—

A gas-burner constructed, as herein described, with an aluminium tip, to adapt it to resist corrosion and to be readily and safely cleansed.

J. LAWRENCE SMITH.

Witnesses:

JOHN S. CAIN,  
G. D. MARSHALL.