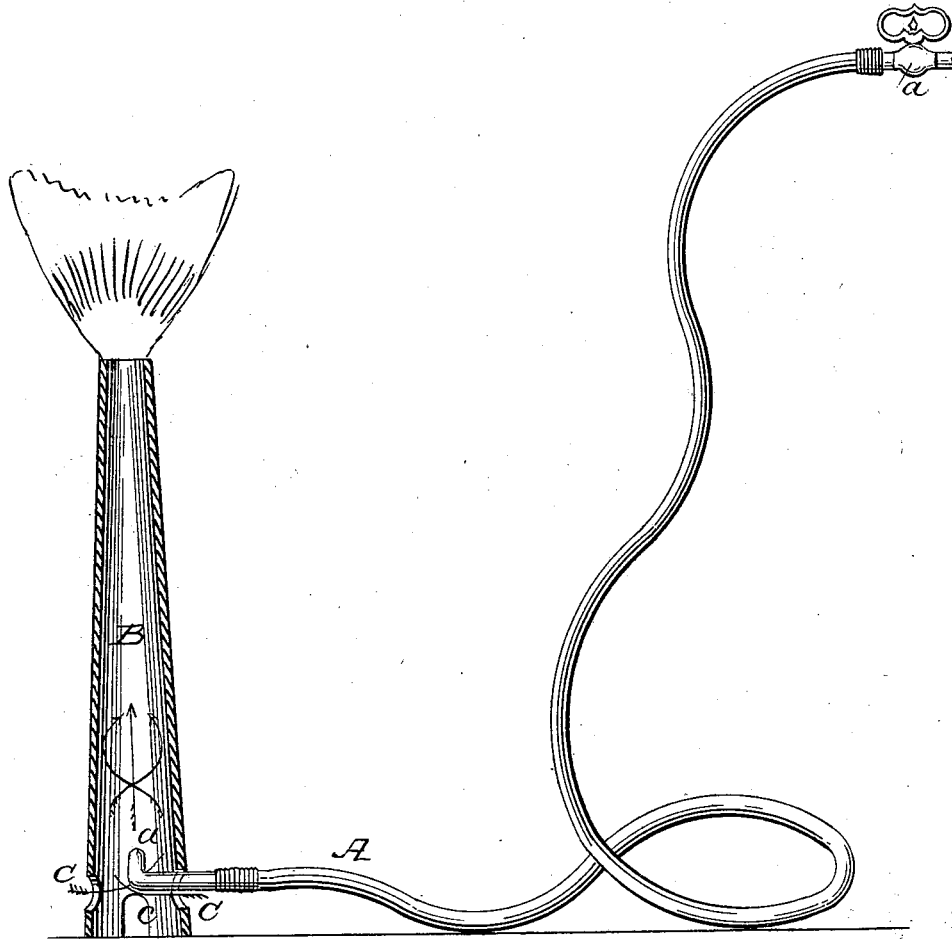


E. OSMOND.
Burner for Gas Stoves.

No. 46,861.

Patented March 14, 1865.



Witnesses
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UNITED STATES PATENT OFFICE.

EDMUND OSMOND, OF CINCINNATI, OHIO.

BURNER FOR GAS-STOVES.

Specification forming part of Letters Patent No. 46,861, dated March 14, 1865.

To all whom it may concern:

Be it known that I, EDMUND OSMOND, of Cincinnati, Hamilton county, Ohio, have invented a new and useful Improvement in Gas-Burners; and I do hereby declare the following to be a full, clear, and exact description of my invention, reference being had to the accompanying drawing, making part of this specification.

My improvement relates to the class of burners for use with the common carbureted-hydrogen gas of the streets, employed for heating purposes solely, and in which the aim is to secure perfect combustion at the expense of illuminative properties, by mingling atmospheric air with the gas before combustion; and the special object of my invention is a form of burner which enables the occasional use of a very small flame without the tendency (which the flames of heating-burners are now subject to) to leap from the outer and proper place of burning to the escaping-aperture of the service-pipe at the bottom of the tube or mingling-chamber.

The drawing illustrating my invention is an axial section of the form of burner preferred by me.

A represents a gas-pipe having a customary cock, *a'*, and ventage nozzle *a*. B is my mingling-chamber or burner proper, and consists of a tube which contracts or tapers upward, and which is open at both ends, and is so secured to the service-pipe as for its lower and larger end to inclose the nozzle *a*. C are

the inlets for atmospheric air. The contraction of the mingling-chamber upward is doubly useful, first, by causing the ascending body of mingled air and gas to assume a greater velocity as they ascend, which velocity opposes the descent of the flame into the chamber; and, secondly, the decreasing velocity of descending currents also opposes the descent of the flame.

I have selected to illustrate my invention the form which has appeared preferable after a practical test thereof; but I have found other modes of contracting the upper end of the mingling-chamber also measurably effective in producing similar results. For example, I have inserted a circular flange or ledge within the chamber near its upper end. I have also inserted in the upper end a small bush or thimble, acting to contract its place of issue, and I have applied to the upper end of the conveying-tube here represented another tube, which was set over the same loosely, so as to admit a second entrance of atmospheric air.

I claim herein as new and of my invention—

The heating gas-burner formed of the tapering or contracted tube B C, applied to the service-nozzle *a* in the manner set forth.

In testimony of which invention I hereunto set my hand.

EDMUND OSMOND.

Witnesses:

GEO. H. KNIGHT,
JAMES H. LAYMAN.