

R. HALE.
Gas-Burner.

No. 197,268.

Patented Nov. 20, 1877.

Fig. 1.

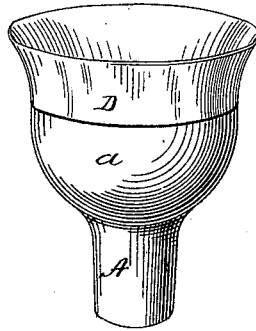


Fig. 2.

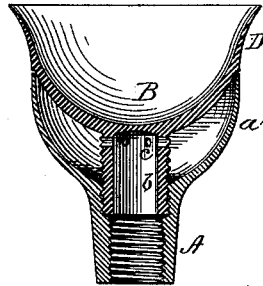
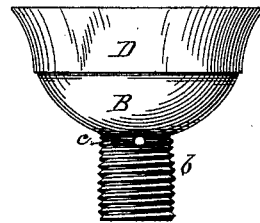


Fig. 3.



WITNESSES:

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ROBERT HALE, OF MINNEAPOLIS, MINNESOTA.

IMPROVEMENT IN GAS-BURNERS.

Specification forming part of Letters Patent No. **197,268**, dated November 20, 1877; application filed October 26, 1877.

To all whom it may concern:

Be it known that I, ROBERT HALE, of Minneapolis, Hennepin county, State of Minnesota, have invented a new and useful Improvement in Gas-Burners, of which the following is a clear, full, and exact description, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of my new burner. Fig. 2 is a vertical section of the same. Fig. 3 is a detached view of the spreader or upper cup.

My invention has reference to that class of burners designed for burning gas; and it consists in the peculiar form and combination of parts, as will be hereinafter more fully described and claimed.

To enable others skilled in the art to make and use my invention, I will proceed to describe the exact manner in which I have carried it out.

In the drawings, A represents the tube of the burner, which screws upon the tube of the gas-fixture, in the ordinary way. This tube is provided with a hollow cup-shaped enlargement, *a*, of a sufficient diameter at its mouth to receive the cup or spreader B, which is provided with a hollow screw-shank, *b*, fitting into a female screw in the upper part of the burner-tube A. The hollow tube in the screw-shank *b* is closed at its upper end, and is provided with perforations *c c*, through which the gas passes from the gas-fixture to the semi-globu-

lar chamber formed between the cup *a* and spreader B.

It is evident, from this explanation of the construction, that the outward flow of gas between the cup and the spreader is readily adjusted by the screw-shank *b*.

From the top of the spreader B rises an annular outwardly-curving reflector, D, of any desired height or curve, and surrounding this reflector passes the flow of gas for illumination, the flame forming a ring encompassing the reflector, thus securing a largely-increased illumination in all directions from the burner.

This burner is simple in construction, readily adjusted, and easily taken apart for cleaning.

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

1. The burner-tube A, provided with its cup-shaped enlargement *a*, in combination with the spreader B, provided with the hollow screw-shank *b*, substantially as and for the purpose set forth.

2. The burner-tube A, provided with the enlargement *a*, in combination with the spreader B and reflector D, substantially as and for the purpose set forth.

ROBERT HALE.

Witnesses:

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