LAZEAR & SHARP.

Gas Stove.

No. 92,322. Patented July 6, 1869.

Fig. 1

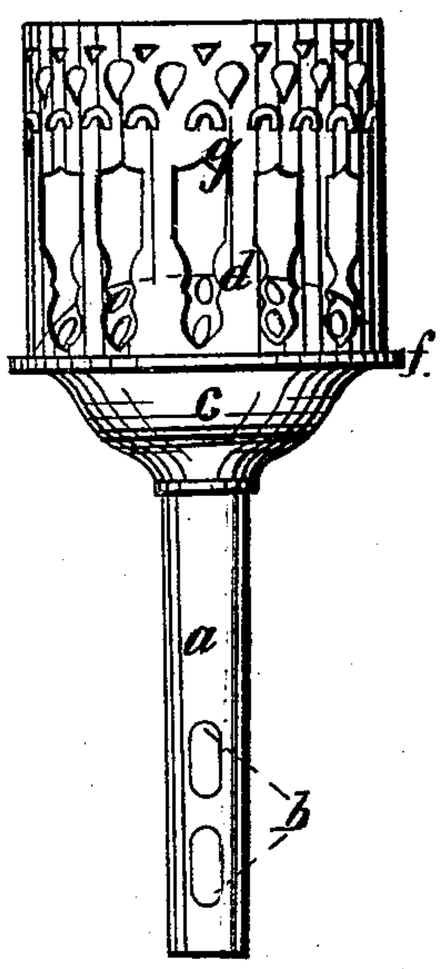
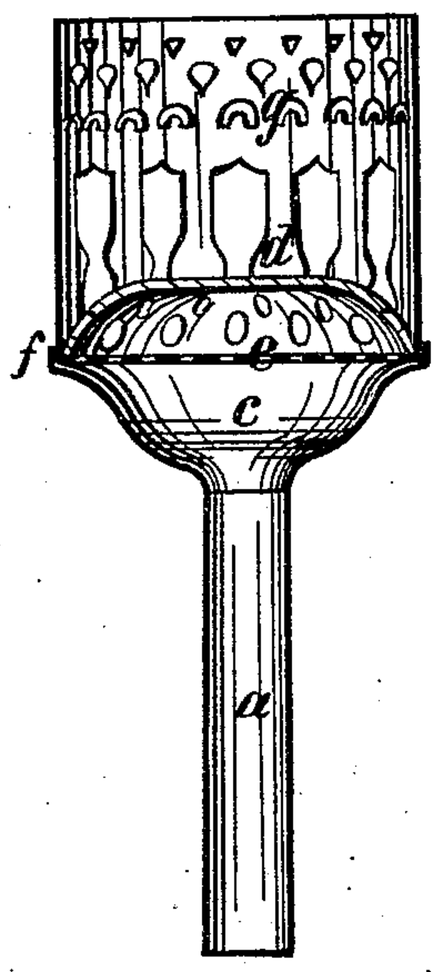


Fig. 2



Witnesses.
J. Smith
L B Jones

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by atty F. F. Everett

UNITED STATES PATENT OFFICE.

H. Y. LAZEAR AND J. L. SHARP, OF NEW YORK, N. Y.

GAS-HEATER.

Specification forming part of Letters Patent No. **92,322**, dated July 6, 1869.

To all whom it may concern:

Be it known that we, H. Y. LAZEAR and J. L. SHARP, of the city of New York, in the State of New York, have invented a certain new and useful Improvement on Gas-Burners; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters and marks thereon, which said drawings form part of this specification, and show a gas-burner with our improvement as a part thereof—

Figure 1 being a view in elevation, and Fig. 2 being a view by vertical section.

In both of these figures, where like parts are shown, like marks and letters are used to indicate the parts.

The burner here shown is more particularly intended for nursery purposes—for heating water, making coffee, tea, gruel, and the like—but of course may be used for various other purposes. It will accommodate any vessel, from a small tin cup to a good-sized coffee-pot, and will work perfectly over an ordinary fish-tail burner. A leading object in its construction is to prevent smoke or "light-down," which object is attained by having a free and full commingling of the gas and atmospheric air before the point of combustion is reached.

In the tube *a*, which fits upon the ordinary burner, are holes or slots *b* for the admission of atmospheric air. Attached to the upper part of this tube is an expansion-chamber, *c*, between which and the top perforated plate, *d*, is a perforated diaphragm, *e*, and resting upon or affixed to the rim *f* is the frame *g* for supporting the cup or vessel containing the fluid to be heated.

It will be noticed that the perforated diaphragm *e* is some distance above the end of the tube *a*, and of much greater diameter. This is therefore far better than to have the perforated plate directly on the end of the tube, as has heretofore been the usual point of connection; and by this arrangement of the parts we are enabled to have the chamber *c* between the end of the tube and the perforated plate. In this chamber there will be a free and full commingling of the gas and atmospheric air, so that smoking will not occur, but the flame will be bright and clean.

We are aware that perforated plates have been used in connection with other plates forming chambers above it when such perforated plates are attached to the end of the tube, and of or about the same diameter as the tube; but we are not aware that a plate of this character has been so far placed above the end of the tube as to allow of its being made of much greater diameter than the tube, and leave an expansion and comming-ling chamber between it and the end of the tube.

We are aware that a patent was granted to Wm. F. Shaw on the 26th day of February, 1856, No. 14,325, for an improvement on gas heating apparatus, of the invention of which, or of the parts thereof as claimed, we make no claim to.

What we therefore claim as our invention, and desire to secure by Letters Patent, is—

1. The expansion or commingling chamber *c* above the end of the tube and between it and the perforated diaphragm *e*, as herein recited.

2. The perforated diaphragm or plate *e*, in combination with the chamber *c* and plate *d*, as herein set forth.

This specification signed this 30th day of March, 1869.

H. Y. LAZEAR.
J. L. SHARP.

Witnesses:

AUGUSTUS LELAND,
LEWIS L. PIERCE.