R. N. STEWART.

Attachment for Gas Burners.

No. 94,922. Patented Sept. 14, 1869.

Fig: 1.

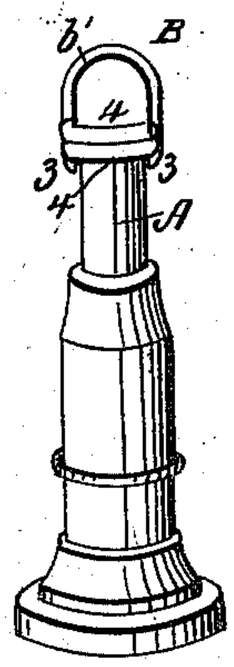


Fig: 2.

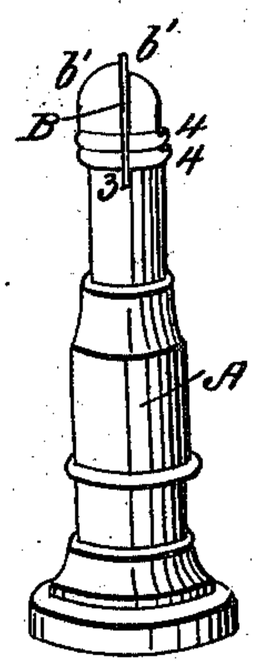
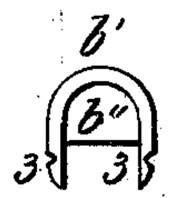


Fig: 3.

Fig: 4.



Witnesses:

Benj. Morison.

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ROBERT N. STEWART, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 94,922, *dated September* 14, 1869.

IMPROVEMENT IN ATTACHMENT FOR GAS-BURNERS.

The Schedule referred to in these Letters Patent and making part of the same

I, ROBERT N. STEWART, of the city of Philadelphia, in the State of Pennsylvania, have invented a certain Improvement in Gas-Burners, of which the following is a specification.

Nature and Object of the Invention.

My invention relates to the construction and mode of applying and securing the arched "warming-plate" of a bat-wing gas-burner, the object being to simplify and lessen the cost of construction and application without reducing or impairing its efficiency as a warmer for increasing the strength of the light, without increasing the flow of the gas through the burner.

Description of the Accompanying Drawings.

Figure 1 is an elevation of a bat-wing gas-burner, showing the face side of my invention applied thereto;

Figure 2 is a like elevation of the same burner, showing an edge or side view of the invention applied;

Figure 3 is a front view, showing the face side of the warmer detached from the burner; and

Figure 4 is a like view, showing the rear side of the said detached warmer.

General Description.

A is a common gas-burner, the outlet of which consists of a straight, narrow slit, sawed vertically downward across the middle of its upper, and so as to come into communication with the bore of the burner, whereby a broad flat flame, called a bat-wing flame, is produced by the ignited gas as it is discharged through the slit.

B is the warming-device. It consists of a bonnet, or cap, made of thin sheet-metal, the arched front of which constitutes the face side of the warming-plate *b′*, which fits over that part of the burner which has the slit in it. This plate is united closely at its rear side to a cap, *b″*, which fits over that part of the upper end of the burner which is in rear of the plate *b′*, when the whole warmer B is properly applied upon the burner A. (See fig. 2.)

The two ends 3 3 of the plate *b′* extend downward below the cap *b″* sufficiently far to cause them, when the warmer is applied to the burner, to project through appropriate slits cut across in the usual beads 4 4, which are around the upper end of the said burner A, as shown in figs. 1 and 2.

The under side of the plate *b′* is bevelled back in the usual manner, (see figs. 1 and 3,) so as to separate the face side of the plate *b′* from direct contact with the top of the burner A and its slit.

When the warmer B is properly applied, its face side is in the vertical plane of the rear side of the slit, which, in the burner A, produces the bat-wing flame, the two ends, 3 3, of the plate *b′* extending down vertically through the appropriate slits, which are cut across in the beads 4 4, and the lower edge of the cap *b″* at the same time resting on the upper bead 4. (See figs. 1 and 2.)

The ends 3 3 are each notched at a point which corresponds with the line of division between the two beads 4 4, whereby the warmer B can be readily secured in place on the burner by means of a fine wire tied around between the said beads; or, if preferred, the extreme ends of 3 3 of the plate *b′* may be readily bent to a right angle against the under side of the lower bead 4.

It will plainly be seen that this mode of constructing, applying, and supporting the warmer of a gas-burner is much more simple and inexpensive than any other heretofore used, while it is equally effective as a heater for increasing the strength of the light of a bat-wing burner, by rarifying the gas and increasing the current of air for its combustion.

Claim.

I claim as my invention—

The heater B, the same being constructed substantially as and for the purpose hereinbefore set forth.

ROBERT N. STEWART.

Witnesses:

BENJ. MORISON,

ROBERT WILDE.