

P. REITMEIER.

Improvement in Gas Burners.

No. 123,047.

Patented Jan. 23, 1872.

Fig. 1

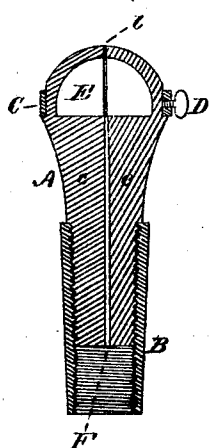


Fig. 2

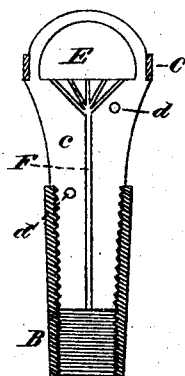
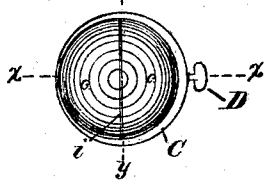


Fig. 3



Witness

W. Oscar Klein

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UNITED STATES PATENT OFFICE.

PETER REITMEIER, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN GAS-BURNERS.

Specification forming part of Letters Patent No. 123,047, dated January 23, 1872.

SPECIFICATION.

To all whom it may concern:

Be it known that I, PETER REITMEIER, of Chicago, in the county of Cook and State of Illinois, have invented certain Improvements in Gas-Burners, of which the following is a specification, reference being had to the accompanying drawing.

My invention relates to flat-flame gas-burners, in which the gas issues from a narrow slit; and consists in the novel construction of the same.

In the drawing, Figure 1 is a longitudinal section of my burner on the line *xx* of Fig. 3. Fig. 2 is a similar section on the line *yy* of Fig. 3; and Fig. 3 is a top-plan view of the burner.

A represents the body of the burner, consisting of two semi-cylindrical halves, *a*, having their faces planed or filed and provided with dowel-pins *d* for holding them in place. The two parts are bound together by a conical tube or thimble, B, which is screwed upon their lower ends, the same being properly shaped and provided with a screw-thread for that purpose; and also by a ring, C, slipped around their upper ends and provided with a jam-screw, D, as shown. The conical tube or thimble B is made sufficiently long to extend below the end of the body A, to connect the burner to the gas-pipe or other article through which the fluid for burning passes. The upper end of the burner is made hemispherical in form and provided with an interior chamber, E, of like form, as shown in Figs. 1 and 2. A longitudinal groove, F, is made in the face of one of the halves of the body, with its upper end spreading out into several branches which open into the chamber E. Between the two halves of the body I place a thin sheet of mica or other elastic non-combustible material, as a packing to form a gas-tight joint between them, and also for the purpose of holding their upper ends apart, and thus leave a slit, *i*, between them equal to the thickness of the mica, which may be varied as desired; and after the packing is in place, by means of the screw-thimble B and

the jam-screw D, it will be seen that the size of the slit may be varied, and that, by the use of my thin packing, the slit or opening may be made correspondingly thin and, of course, much finer than can be produced by any ordinary mechanical means.

In operation, the gas flows through the groove F and then on, through its branches, into the chamber E and out, through the narrow opening of the chamber, into the air, when, being lighted, a thin flat flame is furnished, equally bright with those furnished by the ordinary burners.

By this method of constructing a burner the opening may be reduced to one two-hundred-and-fiftieth or one two-hundred-and-sixtieth of an inch in breadth, or even finer, which is smaller than could be cut or made in a solid burner. For this reason, it allows the flow of a very thin sheet of gas, every particle of which must necessarily come in immediate contact with the air, and thus be entirely consumed.

A burner thus constructed will consume less gas and give equally as good a light as any of the burners now in use; and beside, whenever desired, it can be readily taken apart and cleaned.

It is obvious that by making the opposing surfaces of the body so as to fit closely, and by taking off a little from the portions of the same forming the opening, that the packing may be dispensed with.

Having thus described my invention, what I claim is—

1. A gas-burner consisting of the semi-cylindrical parts A, thimble B, and ring C, with jam-screw D or an equivalent device, when constructed or arranged substantially as and for the purpose set forth.

2. In combination with a gas-burner constructed as herein described, a packing of mica or other elastic non-combustible material, substantially as and for the purpose set forth.

PETER REITMEIER.

Witnesses:

CH. PROSSLER,
CHARLES ENOS.