

(No Model.)

P. I. MILLER.  
GAS GRATE FOR PARLORS, &c.

No. 576,216.

Patented Feb. 2, 1897.

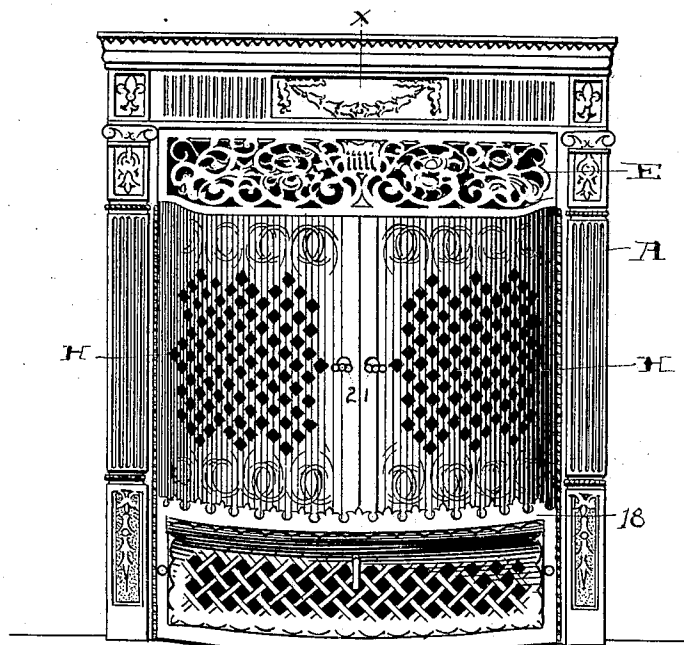


Fig. 1.

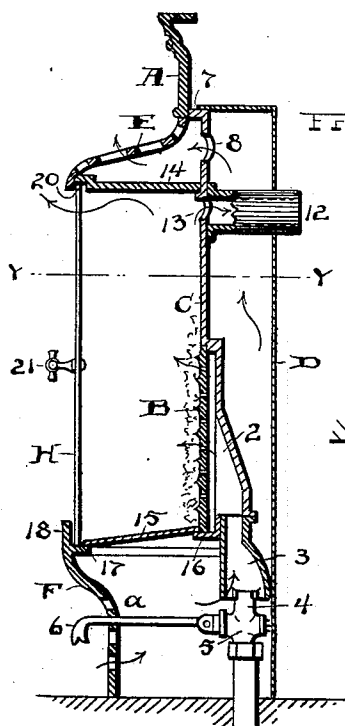


Fig. 2.

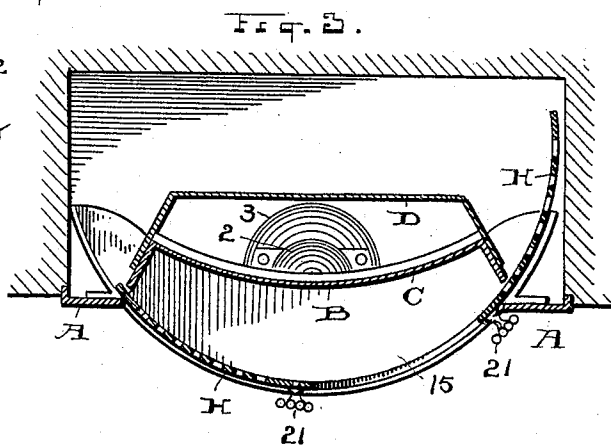


Fig. 3.

ATTEST  
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PETER I. MILLER, OF CLEVELAND, OHIO.

## GAS-GRATE FOR PARLORS, &c.

SPECIFICATION forming part of Letters Patent No. 576,216, dated February 2, 1897.

Application filed July 16, 1896. Serial No. 599,378. (No model.)

*To all whom it may concern:*

Be it known that I, PETER I. MILLER, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Gas-Grates for Parlors and the Like; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to gas-grates for parlors and the like; and the invention consists in a gas-grate having a hood across its top and a set of sliding summer-doors covered by said hood and operating substantially as shown and described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a front elevation of a grate embodying my invention and showing the sliding summer-doors closed. Fig. 2 is a vertical central sectional elevation of the grate on line *x x*, Fig. 1. Fig. 3 is a horizontal plan view on about line *y y*, Fig. 2.

The invention herein is designed strictly to be used in a gas-grate and is not intended to be adapted to grates or burners of any other kind.

A represents the grate front or frame, which may have the particular style shown in the drawings or any other style or fashion that may be preferred and can be utilized in connection with the other and essential elements shown.

B is the burner-plate, which is perforated to receive gas from the small distributing-chamber 2 at its rear, and the usual asbestos, mineral wool, or other like non-combustible material is affixed to the face of said plate B and the extension C thereof above the same.

Beneath the distributing-chamber 2 is the mixer 3, the gas entering through pipe 4 and the air about the same. A valve 5 and rod 6 therefor control the flow of gas to the grate. Outside of these several parts and over the rear of all is the back wall D. This wall extends from bottom to top of the grate and forms the inclosing wall of an air-circulating chamber at the rear of the grate.

It will be seen that the main plate C of the grate extends upward to the rear of the hood

E and that the plate D is bent forward at right angles at its top and rests on the shoulder 7 of plate C. The said plate C has perforations 8 at its top to permit the flow of air from the hot-air chamber thus formed behind the grate, and air to supply said chamber is drawn from its bottom through the base F or other source of supply. If there be gas that has crept up in the asbestos and escaped ignition, it is drawn off through short vent-pipes 12, arranged to communicate with the openings 13 in the top of plate C, immediately beneath the top reflector-plate 14. These short pipes or flues 12 discharge into the chimney and the gas goes thence out of the building.

It will be noticed that the hood E is curved forward so as to stand well to the front and is ornamented with open-work, so as to admit the heated air from the chamber D through the same. The reflector-plate 14, being especially exposed to the heat, becomes very hot, and as the air from chamber D is compelled to pass directly over this plate the said plate serves a very important part in heating the air and maintaining a circulation thereof from behind the grate.

Another reflector-plate 15 is used at the bottom and rests on ledge 16 of the mixer at its rear and on ledge 17 on the base F at its front.

Both the hood E at the top and the front base F at the bottom are curved on the arc of a circle from side to side of the grate, and they extend out to the front of the frame the full depth of their curvature, forming a very noticeable and considerable swell; hence the double value and importance of top plate 14 and the hood, which serve also to protect the mantel above from the direct heat of the grate. If these parts were not present, or at least the plate 14, the heat from the flame would flow uninterrupted to the mantel and of course ruin it. Now having the outwardly-curved hood and base, as described, I have provided sliding doors H to be used therewith and form a perfect inclosure for the grate when it is not in use.

It will be seen that the base-plate F extends out into the same vertical plane with the front edge of hood E, being curved outward from about its middle portion *a* to its upper edge in addition to being curved from side to side. Near its top and on its inside is the ledge or

flange 17, above referred to, and this ledge serves as a support for the sliding doors on both sides, the edge 18 of said plate at the front confining the doors in their channel.  
 5 At the top said doors are confined within the edge of hood E and run in a channel 20, formed by shouldering the curved front edge of reflector-plate 14. Each door is separately movable and has a knob 21 to grasp and slide  
 10 it back and forth.

What I claim as new, and desire to secure by Letters Patent, is—

1. The grate described, consisting of the burner portion proper, the fresh-air chamber  
 15 at the rear thereof, the open-work hood at the top of the grate and the reflector-plate 14 beneath the same and a passage for the air from said fresh-air chamber into the space between said plate and hood, said fresh-air chamber  
 20 above the burner being separated by a perforated wall from the space behind the open-work hood, substantially as described.

2. The burner portion proper, the hood and

the base-plate curved on the segment of a circle from side to side and having their front  
 25 edges in the same vertical plane, and the top and bottom reflector-plates 14 and 15 lying within the edges of the said hood and base-plate, substantially as described.

3. The grate described, consisting of the  
 30 burner curved outwardly at its center, the hood E at the top of the grate and the base-plate F curved from side to side on substantially the same curvature as the said burner, said base-plate having a ledge 17 on its in-  
 35 side, the bottom reflector resting on said ledge, the top reflector-plate shouldered about its front edge behind the said hood and the curved doors H sliding on the said ledge 17 and behind said hood, substantially as described. 40

Witness my hand to the foregoing specification this 2d day of March, 1896.

PETER I. MILLER.

Witnesses:

H. T. FISHER,  
 R. B. MOSER.