(No Model.)

J. F. HEWITT.

GAS BURNER.

No. 603,273. Patented May 3, 1898.

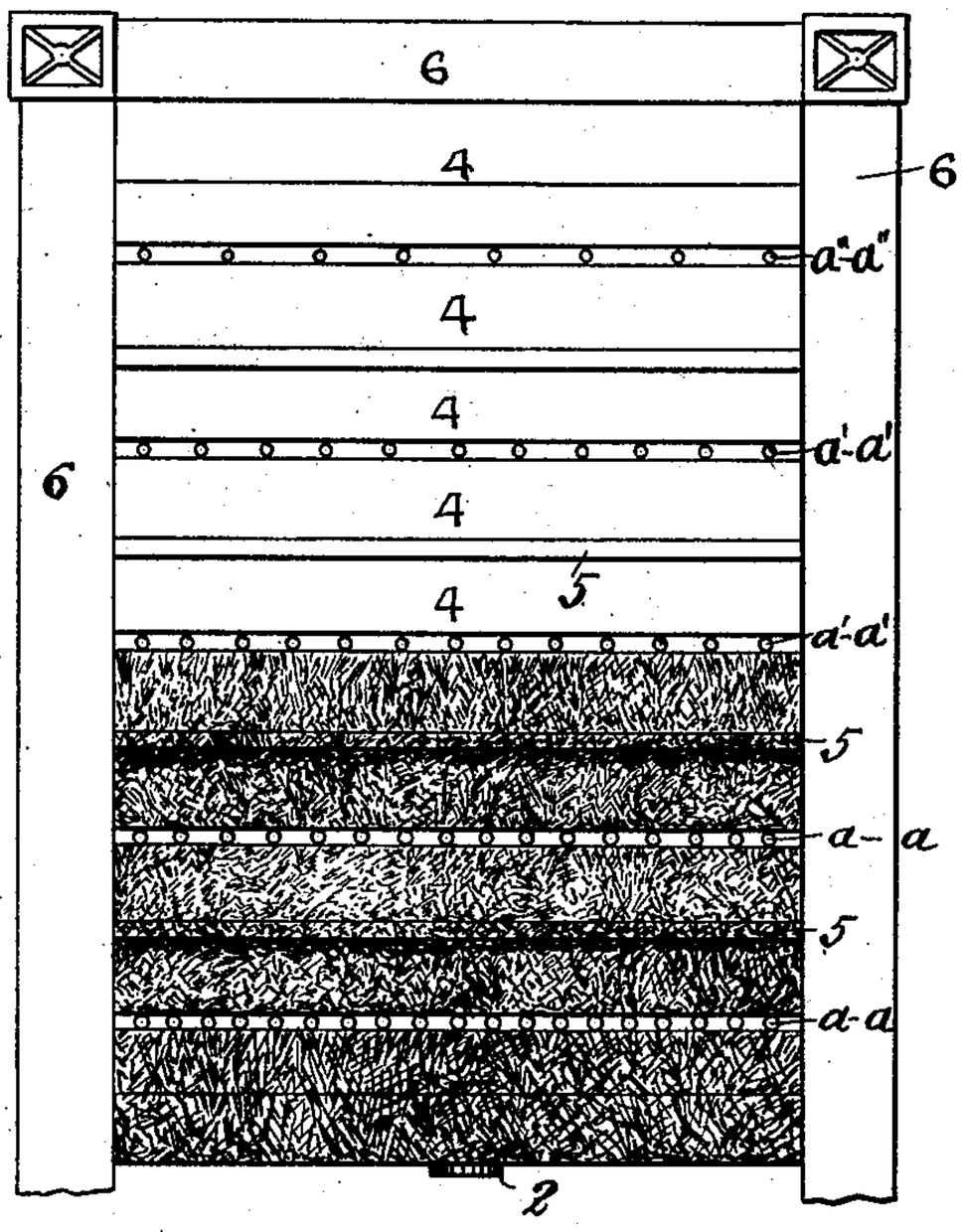

Fig. 1

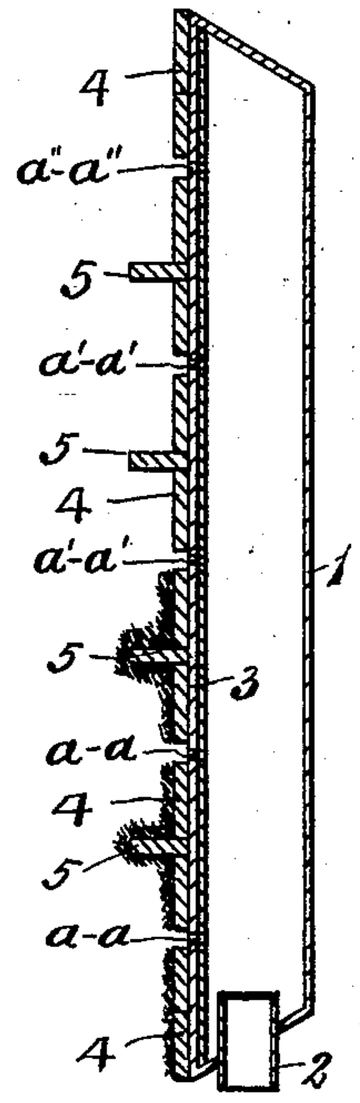

Fig. 2

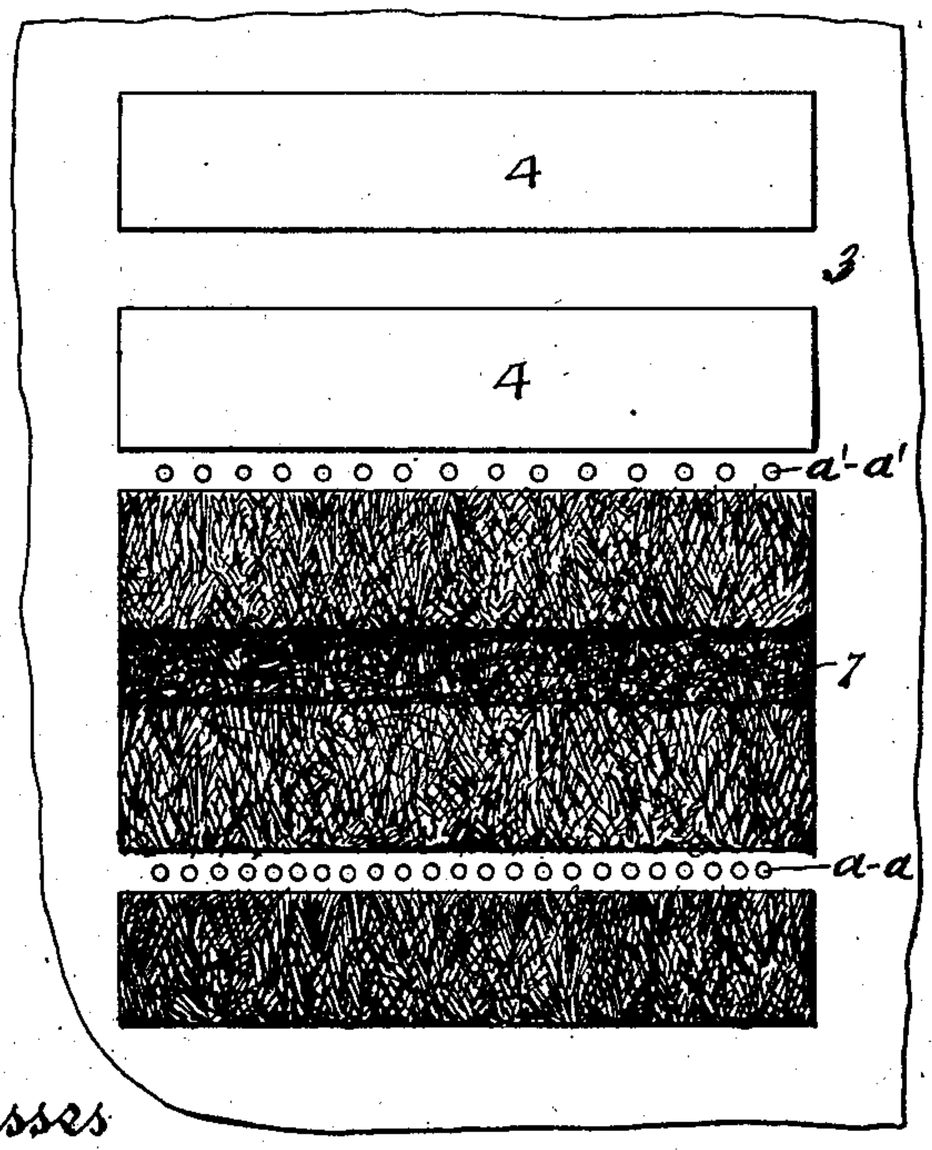

Fig. 3

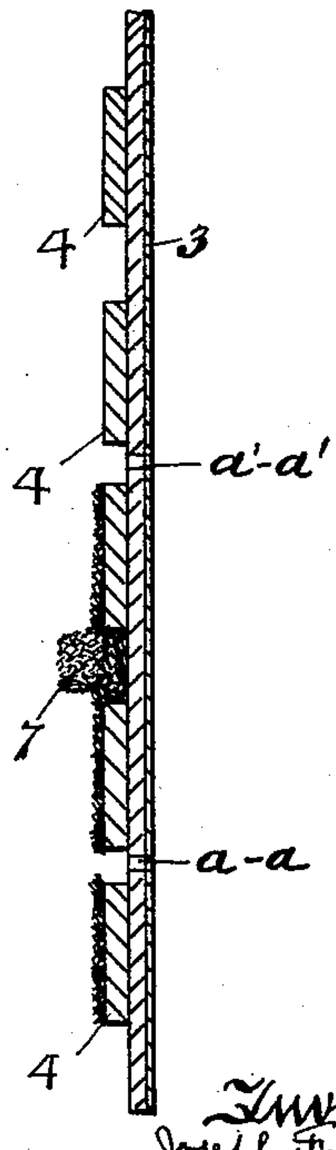

Fig. 4

Witnesses
M. V. Caskey.
Edward A. Laurence.

Inventor
Joseph F. Hewitt
by Wm L. Pierce
his Attorney

UNITED STATES PATENT OFFICE.

JOSEPH F. HEWITT, OF ALLEGHENY, PENNSYLVANIA.

GAS-BURNER.

SPECIFICATION forming part of Letters Patent No. 603,273, dated May 3, 1898.

Application filed February 5, 1897. Serial No. 622,084. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH F. HEWITT, a citizen of the United States, residing at Allegheny, in the county of Allegheny and State of Pennsylvania, have invented or discovered new and useful Improvements in Gas-Burners, of which the following is a specification.

In the accompanying drawings, which make part of this specification, Figure 1 is a front elevation of my improved fireplace-burner. Fig. 2 is a vertical section of same. Fig. 3 is a front elevation of a modification of the same, and Fig. 4 is a vertical section of this modification.

The purposes of my invention, generally stated, are to devise a gas-burner in which the gas shall be more uniformly distributed over the face of the burner than those now in use and in which there shall be less liability of the upper rows of gas-jets being blown out by the lower rows, particularly when the burner is turned low.

In the accompanying drawings, which make part of this specification, 1 is the metal shell of the burner, adapted for use in a fireplace.

2 is the gas-inlet.

The face of the burner is preferably covered with a thin sheet of asbestos 3. This sheet of asbestos and the front of the burner are perforated with horizontal rows of holes, being preferably spaced apart in the following manner: The holes in the lower part of the burner *a a* are preferably spaced apart five-sixteenths of an inch. The holes *a' a'* in the central part of the burner are spaced apart ten-sixteenths of an inch, and the top of the burner the holes *a'' a''* are spaced apart fifteen-sixteenths of an inch.

I secure to the face of the asbestos board 3 the pairs of stiff horizontal asbestos strips 4 4. Supported between them and at right angles thereto are the transverse projecting ribs 5 5. Each pair of strips 4 4 is slightly separated from its adjoining pair, so as to leave room for the rows of perforations for the gas. If desired, the pairs of transverse strips and the ribs may be tufted with asbestos fiber, as shown in the lower part of Figs. 1 and 2, or the whole may be left plain, as shown in the upper part of said figures. 6 6 are the usual border pieces. If the asbestos is tufted out to a considerable degree, as shown at 7 in Fig. 4, it will itself protect the gas-jets above.

The distribution of the gas can now be clearly understood. The perforations at the bottom of the burner being more numerous than at the top of the burner the natural tendency of the gas to rise and distribute unevenly is counteracted. Since the ribs 5 5 project some little distance from the face of the board, they protect the perforations lying above them from the blowing-out effect of the gas-jets below them, and as a result the burner can be turned quite low without the upper tiers of gas-jets going out, as is particularly the case with the old-style burners. Where the transverse pieces 4 4 are thick enough, these will answer the same purpose of protecting the upper gas-jets from the lower, and the ribs may be here dispensed with, if desired.

I have ascertained by actual experience that the burner thus constructed nicely proportions the amount of gas to various parts thereof and keeps the whole surface lighted and is economical in the consumption of gas.

Having described my invention, I claim—

1. In gas-burners, the combination of a shell; pairs of transverse incombustible strips secured to the face of said shell; ribs of incombustible material secured between said strips and projecting at right angles to the face of the burner and gas-outlets between said pairs of transverse strips whereby the upper gas-jets are shielded from the blow-out effect of the lower gas-jets.

2. In gas-burners the combination of a shell; pairs of transverse strips of incombustible material secured to said shell; gas-outlets extending across said burner between adjacent pairs of said strips and incombustible material projecting horizontally intermediate of the pairs of the strips and shielding the gas-outlets.

In testimony whereof I have hereunto set my hand this 3d day of February, A. D. 1897.

JOSEPH F. HEWITT.

Witnesses:

WM. L. PIERCE,

C. C. LEE.