Dec. 8, 1925. 1,564,362

C. M. LOEPFE

BURNER MANTLE

Filed March 2, 1925

Fig. 1.

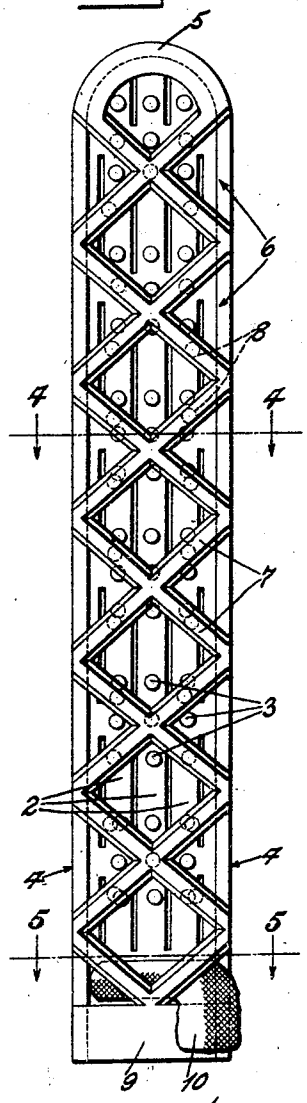


Fig. 2.

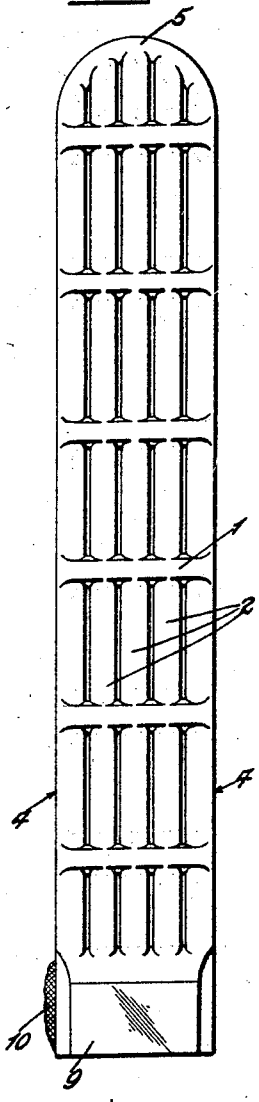


Fig. 3.

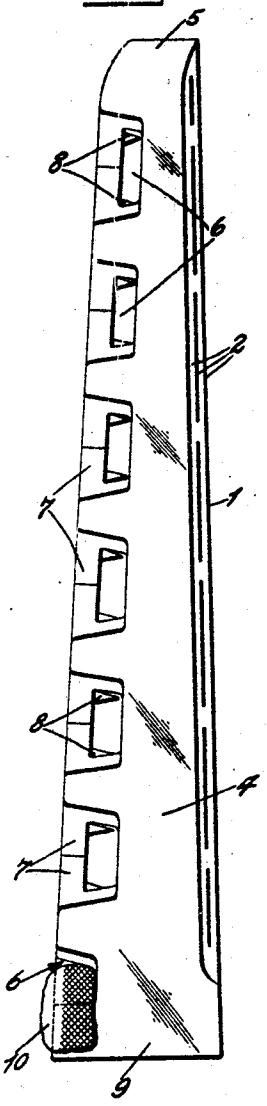


Fig. 4.

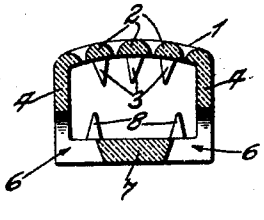
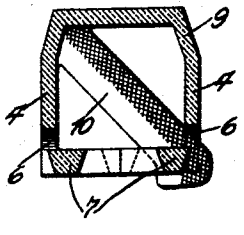


Fig. 5.



Inventor:
Charles M. Loepfe,
by Pippy & Kingsland,
His Attorneys.

Patented Dec. 8, 1925. 1,564,362

UNITED STATES PATENT OFFICE.

CHARLES M. LOEPFE, OF ST. LOUIS, MISSOURI, ASSIGNOR TO COTTONWOOD FIBER COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF MISSOURI.

BURNER MANTLE.

Application filed March 2, 1925. Serial No. 12,598.

To all whom it may concern:

Be it known that I, CHARLES M. LOEPFE, a citizen of the United States, residing at St. Louis, Missouri, have invented a new and useful Burner Mantle, of which the following is a specification.

This invention relates to improvements in burner mantles, and consists in the novel construction hereinafter disclosed.

An object of the invention is to provide a mantle comprising an open-walled frame of radiant refractory material adapted to be placed over a burner jet, equipped with a transverse wick or baffle device for holding the flame to a point near the burner jet.

Additional advantages of the construction will be apparent from the following detailed description, taken in connection with the accompanying drawing, in which—

Fig. 1 is a front view.

Fig. 2 is a rear view.

Fig. 3 is a side view.

Fig. 4 is a cross section on the line 4—4 of Fig. 1.

Fig. 5 is a cross section on the line 5—5 of Fig. 1.

In the embodiment of the invention illustrated in the drawing the device is shown as including a frame the back wall 1 of which is formed by a series of spaced ribs 2 having at suitable intervals inwardly projecting lugs 3, and the side walls 4 of which taper inwardly toward the top and are joined by a rounded top wall 5 having in their vertical edges a series of notches 6.

The front wall of the frame is formed by a series of crossed ribs 7, said ribs having thereon inwardly extending lugs 8. At the bottom of the frame is a quadrilateral strip 9 providing a substantially rectangular opening that fits over the burner jet.

The whole frame is made from suitable refractory radiant material and is cast or formed as a unit.

When the gas is burned within the confines of the frame the frame becomes hot and, being of radiant refractory material, increases the radiation of the heat from the flame and at the same time gives a radiant appearance to the heater.

In practice it has been found that where the gas is emitted from the jet under a relatively high pressure it will mount upwardly to a high point in the frame and the heat will tend to dissipate. In order to prevent this tendency there is provided across the opening at the bottom of the frame and running preferably crosswise from diagonally opposite corners of the portion 9 a baffle 10. This baffle is formed preferably, although not essentially, from a wicking of asbestos, its function being to prevent the direct passage of the gas from the jet upwardly in the frame and to hold the flame near the bottom of the mantle, thus increasing the efficiency of the heating effect of the burner.

I am aware that the invention may be modified in various particulars without departure from the spirit and scope thereof. I do not limit myself unessentially, but what I claim and desire to secure by Letters Patent is:—

1. The combination with a radiant refractory open frame, of a baffle arranged transversely of the inner portion of the frame and adjacent to the lower end thereof.

2. The combination with a radiant refractory open frame, of a baffle comprising a wicking of asbestos arranged transversely of the inner portion of the frame and adjacent to the lower end thereof.

3. The combination of a radiant refractory frame having a substantially rectangular opening at its lower end, and a transverse baffle device extending from opposite corners of said opening and near the lower plane of said opening.

4. A mantle for burner jets comprising a frame of refractory radiant material, said frame having a solid lower marginal wall of relatively narrow width, and a baffle running horizontally across the upper edge of said wall adapted to restrict the upward movement of the flame within the mantle.

5. A mantle for burner jets comprising a frame of refractory radiant material, said frame having a solid lower marginal wall of relatively narrow width, and a baffle comprising a transversely diagonally disposed body of non-combustible material, the cross area of which is less than the cross area of the opening at the bottom of said wall.

CHARLES M. LOEPFE.