F. E. FENDER.

BURNER.

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962,329.

Patented June 21, 1910.

Fig. 1.

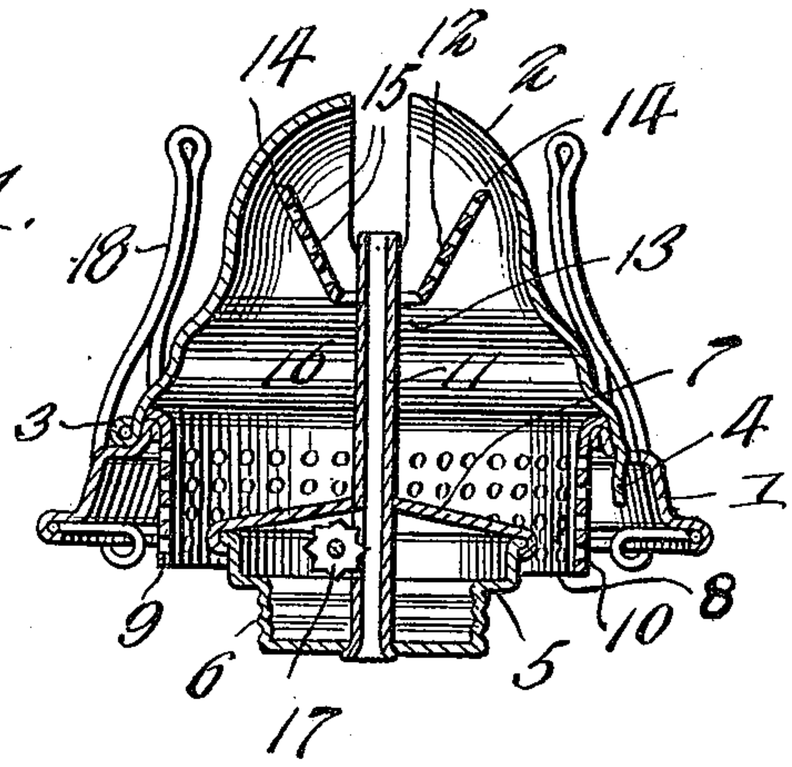


Fig. 2.

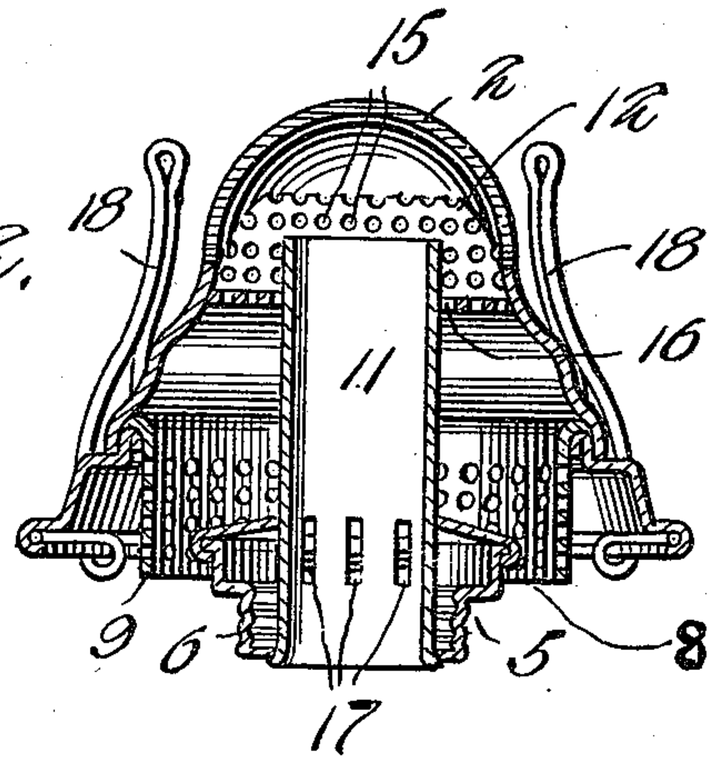
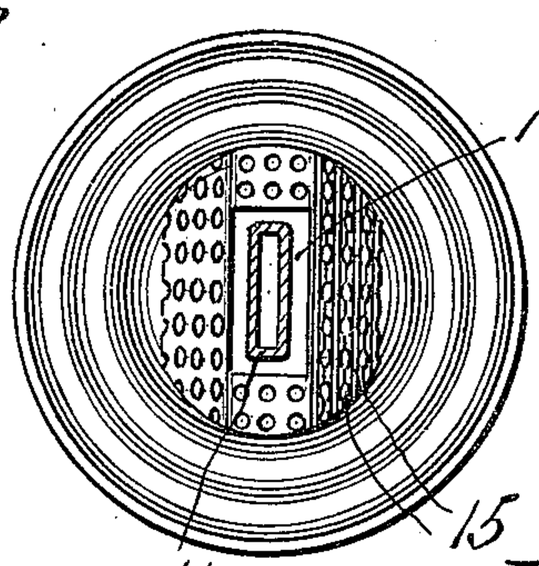


Fig. 3.



Witnesses

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FRANK E. FENDER, OF LINCOLN, NEBRASKA.

BURNER.

962,329. Specification of Letters Patent. **Patented June 21, 1910.**

Application filed November 10, 1909. Serial No. 527,286.

To all whom it may concern:

Be it known that I, FRANK E. FENDER, a citizen of the United States, residing at Lincoln, State of Nebraska, have invented new and useful Improvements in Burners, of which the following is a specification.

This invention relates to improvements in lamp burners, particularly with reference to the provision of improved means for protecting the flame from drafts to prevent the flame from flaring or being blown out and to increase the brilliancy of the light produced by the burner and also with reference to the provision of means for clearing and discharging carbon deposits and preventing the same from accumulating in the burner, the invention consisting in the construction, combination and arrangement of devices hereinafter described and claimed.

In the accompanying drawings:—Figure 1 is a vertical, central sectional view of a lamp burner constructed in accordance with my invention. Fig. 2 is a similar view of the same on a plane at right angles to that of Fig. 1. Fig. 3 is a plan, the wick tube being shown in cross section.

The gallery 1 of the burner and the dome or cap 2 may be of the form here shown or of any other suitable construction. In the present instance the dome or cap is shown hinged at one side as at 3 to the gallery and is provided at the opposite side with a spring tongue 4 for engaging an opening in the gallery and fastening said dome or cap in a closed position. The base 5 of the burner is provided with the usual screw threaded portion 6 to enable the burner to be attached to the threaded collar of the lamp bowl and the said base is provided with a conical cap 7 which serves as a deflector as hereinafter described. The gallery has a central opening 8, the diameter of which considerably exceeds that of the base so that the latter which is disposed concentrically with reference to the gallery is spaced therefrom.

A cylindrical curtain 9 is fitted in the opening 8 of the gallery and extends downwardly therefrom and to a point below the upper side of the base, the interior diameter of the said curtain also considerably exceeding the diameter of the base so that the latter which is concentric with reference to the curtain is spaced therefrom. The curtain is provided with perforations 10 for the admission of air to the burner and is open at its upper and lower ends. The gallery, while spaced from the base, is connected therewith in the usual manner by arms or other well known supporting means which do not appear in the drawings to avoid confusion.

The wick tube 11 which is of the usual construction for a flat wick has its lower portion secured to and extending upwardly through the base and its cap, the upper portion on the wick tube being disposed in the dome 2 and said wick tube also extending through the perforated curtain 9. A protecting plate 12, which is substantially U-shaped cross-sectionally extends across and is secured in the upper portion of the dome 2, the said protecting plate comprising the horizontal, central lower portion 13 and the upwardly, outwardly inclined wings 14, the said wings being provided with perforations 15 and the said lower central portion 13 being provided with an opening 16 through which the wick tube extends, the length and width of the said opening considerably exceeding the corresponding cross sectional dimensions of the wick tube so that the latter is entirely spaced from the sides of the said opening and any carbon deposits resulting from the charring of the wick or other like causes and which drop from the wick are free to pass through the said opening 16 and are, hence, prevented from accumulating. Said carbon deposits and other foreign matter drop through the opening 16 and fall upon the conical cap 7 of the base and are discharged thereby through the space and the cylindrical curtain and, hence, the accumulation of foreign substances in the burner is prevented, and the burner is kept clean and adapted for the passage of air to the flame so that the lighting efficiency of the burner is materially enhanced. Owing to the provision of the perforated protecting plate 12, the oppositely inclined wings of which are disposed at opposite sides of the upper portion of the wick tube and extend across and within the dome of the burner strong drafts of air are prevented from passing through the burner and, hence, the flame is caused to burn steadily without flaring and with increased brilliancy. Since the protecting plate is secured to and within the dome and has the clearing opening 16 around the wick tube, it will be understood

that when the dome is opened, the protecting plate is entirely removed from the wick tube and the interior of the burner is rendered readily accessible so that it may be thoroughly cleaned with very slight effort. The usual wick raiser is shown at 17 in Fig. 1 for the purposes of this specification and the usual spring arms for engaging and holding the base of the lamp chimney are shown at 18.

Having thus described the invention, what is claimed, is:—

1. A lamp burner comprising a gallery, a base, a wick tube and a dome, said gallery having a central opening, the diameter of which exceeds that of the base so that a space is formed around the latter, a cylindrical curtain in the said opening of the gallery, open at its upper and lower ends, perforated, and extending down and around and spaced from the base, and a protecting plate extending across and secured in the dome, said protecting plate providing a central lower portion having an opening clearing and through which the wick tube extends and also providing a pair of upwardly outwardly inclined perforated wings on opposite sides of the upper portion of the wick tube.

2. A lamp burner comprising a gallery, a base, a wick tube and a dome, said gallery having a central opening, the diameter of which exceeds that of the base so that a space is formed around the latter, a cylindrical curtain in the said opening of the gallery, open at its upper and lower ends, perforated, and extending down and around and spaced from the base, and a protecting plate extending across and secured in the dome, said protecting plate providing a central lower portion having an opening clearing and through which the wick tube extends and also providing a pair of upwardly outwardly inclined perforated wings on opposite sides of the upper portion of the wick tube, the said base having a conical cover for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

FRANK E. FENDER.

Witnesses:
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