F. A. SATTER.

LAMP BURNER.

APPLICATION FILED DEC. 14, 1906.

920,495. Patented May 4, 1909.

FIG. 1.

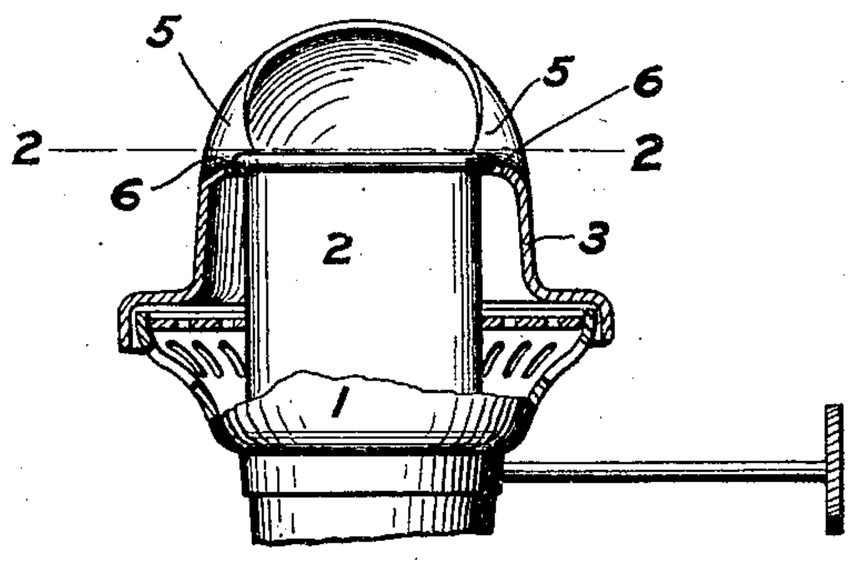


FIG. 2.

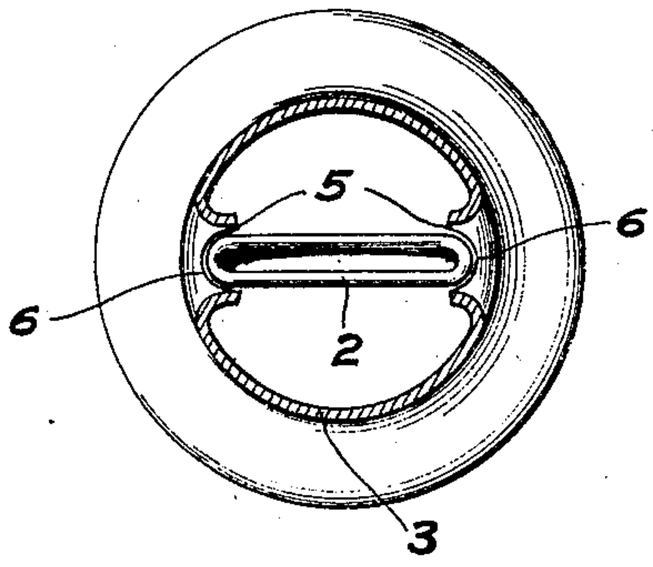
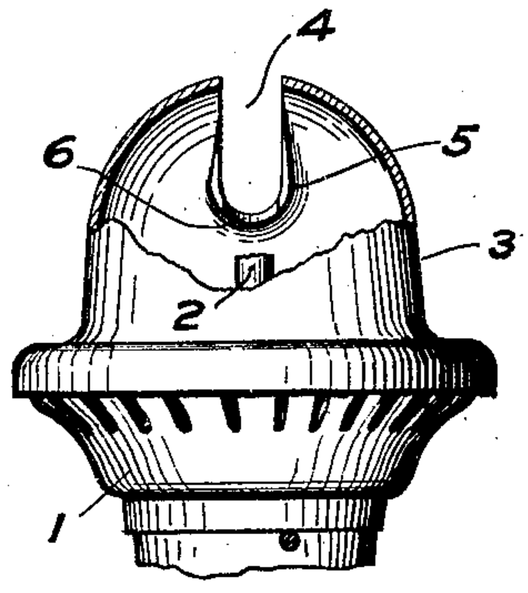


FIG. 3.



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UNITED STATES PATENT OFFICE.

FRANK A. SATTER, OF ROCHESTER, NEW YORK, ASSIGNOR TO PRITCHARD-STRONG COMPANY, OF ROCHESTER, NEW YORK.

LAMP-BURNER.

No. 920,495. Specification of Letters Patent. Patented May 4, 1909.

Application filed December 14, 1906. Serial No. 347,896.

To all whom it may concern:

Be it known that I, FRANK A. SATTER, a citizen of the United States, and resident of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Lamp-Burners, of which the following is a specification.

This invention relates to lamp burners, and consists in the apparatus hereinafter described and claimed.

The object of the invention is to provide a lamp giving a flame of greater brilliancy than lamp burners of the same size ordinarily in use.

In the drawings:—Figure 1 is partly a vertical section and partly an elevation of a device embodying this invention; Fig. 2 is a cross section on the line 2—2 of Fig. 1; and Fig. 3 is an elevation of the same device, parts being removed to exhibit interior construction.

In the drawings, 1 is a burner having a flat wick tube 2. A burner cone 3 has the usual somewhat spherical top and a cross slot 4 in the top of said cone. From the ends of the cross slot deflectors 5, 5 project inward to the edges of the wick tube. These deflectors are rounded on the bottom and are notched at 6, 6 to fit closely against the edges of the wick tube 2. The upper portions of the deflectors 5 gradually merge into the edges of the slot 4. By the said deflectors currents of air rising in the burner cone 3 are prevented from meeting the edges of the flame of the lamp. Because the said deflectors 5 are rounded on their bottoms, currents of air rising inside said wick tube are deflected, or more properly reflected, to those portions of the interior of the burner cone opposite the sides of the flame, and thus the flame, being subjected to air pressures on both sides is thinned and is spread out edgewise. The outer lower surface of the deflectors 5 is shown curved (see Fig. 3), and since all curved surfaces are in principle composed of a large number of flat surfaces at varying angles to each other, the said curved surface shown in the drawings may be considered as a surface set at such an angle to the upward movement of the air current in the burner cone, that the air currents are deflected.

By the use of the deflectors 5, which fit close against the edges of the wick tube (see Fig. 2), and the form of the reflecting surfaces thereof, the speed of movement of the rising air current is checked as little as possible, and consequently the air pressures against the sides of the flame have the maximum efficiency.

In the form shown the deflectors 5 are formed of the same material as the cone itself, being turned in to form the ends of the slot 4.

It is found that in the use of this apparatus the flame is more brilliant, and is spread out much more than when the deflectors 5 are omitted, and the above explanation of the drafts of air is believed to be the correct one.

What I claim is:—

1. In a lamp burner, a flat wick tube, a burner cone having the usual slot for the emergence of the flame and an inward projection adjacent to each end of said slot extending substantially to the adjacent edge of the wick tube and having a lower surface, whereby the air current is substantially cut off from and is deflected away from the edges of the flame to both sides of the flame.

2. In a lamp burner, a flat wick tube, a burner cone having the usual slot for the emergence of the flame and an inward projection adjacent to each end of said slot extending substantially to the adjacent edge of the wick tube and having a curved lower surface, whereby the air current is substantially cut off from and is deflected gradually in a curved path away from the edges of the flame to both sides of the flame.

3. In a lamp burner, a flat wick tube, a burner cone having the usual slot for the emergence of the flame and an inward projection at each end of said slot extending to and spanning the adjacent edge of the wick tube and having a lower surface, whereby the air current is cut off from and is deflected away from the edges of the flame to both sides of the flame.

4. In a lamp burner, a flat wick tube, a burner cone having the usual slot for the emergence of the flame and an inward projection at each end of said slot extending to and spanning the adjacent edge of the wick tube and having a curved lower surface, whereby the air current is cut off from and is deflected gradually in a curved path away from the edges of the flame to both sides of the flame.

FRANK A. SATTER.

Witnesses:
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H. L. OSGOOD.