No. 740,425. PATENTED OCT. 6, 1903.

C. E. J. GRUBE.

LAMP BURNER.

APPLICATION FILED AUG. 30, 1902.

NO MODEL.

Fig. 1

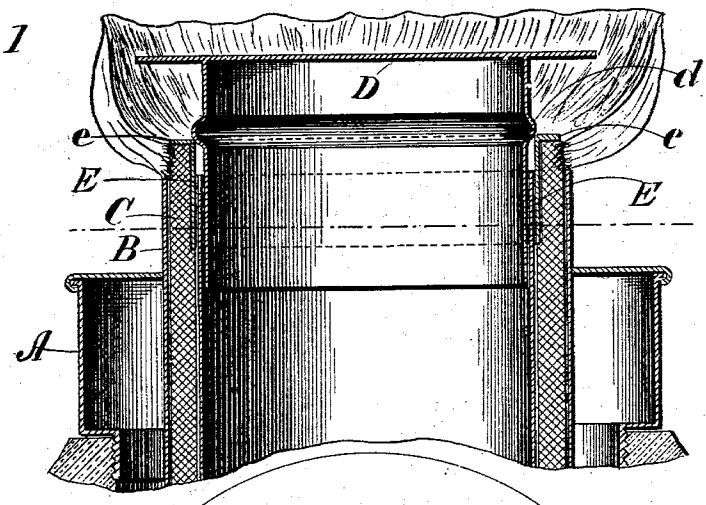


Fig. 2

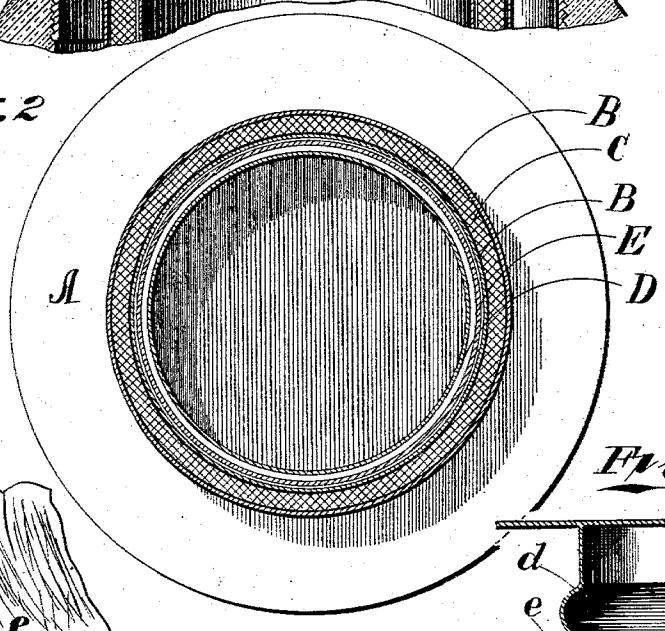


Fig. 3

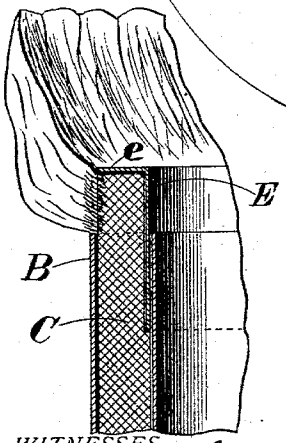


Fig. 4

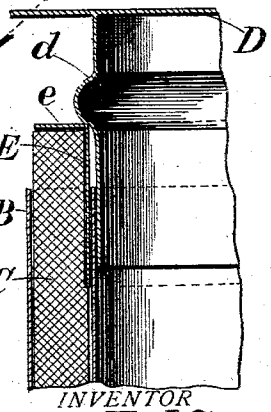
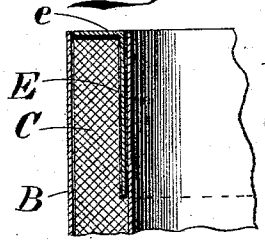


Fig. 5



WITNESSES

C. Edward Duffey.

James R. Mansfield

INVENTOR

Cord E. J. Grube

H. and W. Patakfy atty

BY Alexander & Dowell assoc Attorneys

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 740,425. Patented October 6, 1903.

UNITED STATES PATENT OFFICE.

CORD EDUARD JOHANNES GRUBE, OF ALT-RAHLSTEDT, NEAR HAMBURG, GERMANY.

LAMP-BURNER.

SPECIFICATION forming part of Letters Patent No. 740,425, dated October 6, 1903.

Application filed August 30, 1902. Serial No. 121,598. (No model.)

To all whom it may concern:

Be it known that I, CORD EDUARD JOHANNES GRUBE, residing at Alt-Rahlstedt, near Hamburg, in the Empire of Germany, have invented certain new and useful Improvements in Lamp-Burners, (for which I have applied for a patent in Germany, and which application is dated February 5, 1902,) of which the following is a specification.

This invention relates to improvements in lamp-burners in which a wick is employed, and has for its object to prolong the life of the wick, to increase the efficiency of the wick by preventing the charred part of said wick interfering with the flow of the oil or other combustible hydrocarbon employed, to readily extinguish the flame when the wick is lowered, and to limit the height to which the wick can be raised.

Various oil wick-burners have been provided with a cap covering one side and the rear surface of the wick and arranged so that the cap was moved by and with the wick upon the upward movements thereof until the cap was arrested by stops above and below. The object of these devices was to cause the wick to burn only upon the exterior, to limit the movement of the wick within bounds which were found to be most suitable, and to extinguish the light automatically upon turning down the wick. In these devices, however, the cap upon turning down of the wick could only follow with it as far as the lower stop. The wick would then withdraw from the cap, and was thereby damaged at its upper end. These prior devices, moreover, were all of special construction and adapted to only certain makes of burners.

The protecting-ring or wick-cap forming the present invention is so constructed and arranged that while it is restricted in its upward movement it can move freely in the downward direction, so that the wick-cap upon turning down the wick is not torn away from the latter, but sinks with it into the wick-tube. In this manner damage to the upper edge of the wick is prevented and the desired position of the wick may be maintained. Furthermore, the wick-cap is such that it can be readily adapted and applied to any of the ordinary types of oil wick-burners now on the market. The wick-cap is so proportioned that it fits the space between the wick-tubes, and consequently will serve as an extinguisher upon turning down the wick, although it does not, however, rest upon the wick-tube, but can follow the wick into the tubes.

The present invention therefore consists in the novel burner attachment hereinafter described and claimed, and illustrated in the drawings, in which—

Figure 1 is a vertical section of a burner with my invention applied. Fig. 2 is a transverse section on line 2 2, Fig. 1. Figs. 3, 4, and 5 are detail sectional views, enlarged, showing the attachment in different positions.

In said drawings, A designates a burner of the "Argand" type, B the wick-tube, C the wick, and D the flame-deflector, all of which may be constructed as in the commonly-known Argand burners. My attachment consists of a wick cap or ring E, which fits loosely between the inner wall of the wick-tube and the wick and is provided with an annular outwardly-projecting flange *e* on its upper end, which rests upon and extends across the top edge of the wick. This wick-cap is adapted to follow the movements of the wick as the latter is raised or lowered. When raised, the outer side of wick between the outer wall of the wick-tube and the flange of the wick-cap is exposed for the combustion of the hydrocarbon, thus reducing the liability of a charred part at the top of the wick interfering with the flow of hydrocarbon.

When the wick is lowered, wick-cap descends therewith and the aforesaid flange practically closing the space between the inner and outer walls of the wick-tube rapidly extinguishes the flame.

The extent to which the wick can be raised is limited by a stop carried by the fixed part of the burner and lying in the path of the wick-cap. This stop may in a circular burner conveniently consist of an enlargement or projection *d* on the support which carries the flame-spreading disk. The descent of the wick-cap is not limited by any stop, however, as it always rests upon and in contact with the top of the wick, following the latter into the wick-tube.

Having thus described my invention, what I therefore claim as new, and desire to secure by Letters Patent thereon, is—

In combination, a burner having an annular wick-tube, a wick, a wick-cap fitted loosely between the inner side of wick and inner wall of wick-tube, and having an outwardly-projecting flange resting upon the top edge of wick, said wick-cap moving with the wick into and out of the wick-tubes, so as to remain continually in contact with the top of the wick, so that the wick on being turned down is not drawn away from the wick-cap, and means to limit the upward movement of the wick-cap, all substantially as and for the purpose described.

In testimony whereof I have hereunto set my hand in the presence of two witnesses.

CORD EDUARD JOHANNES GRUBE.

Witnesses:

ALFRED RICBOUR,

E. H. L. MUMMENHOFF.