

A. R. PRITCHARD.  
LAMP.  
APPLICATION FILED DEC. 31, 1904.

963,321.

Patented July 5, 1910.

FIG.1.

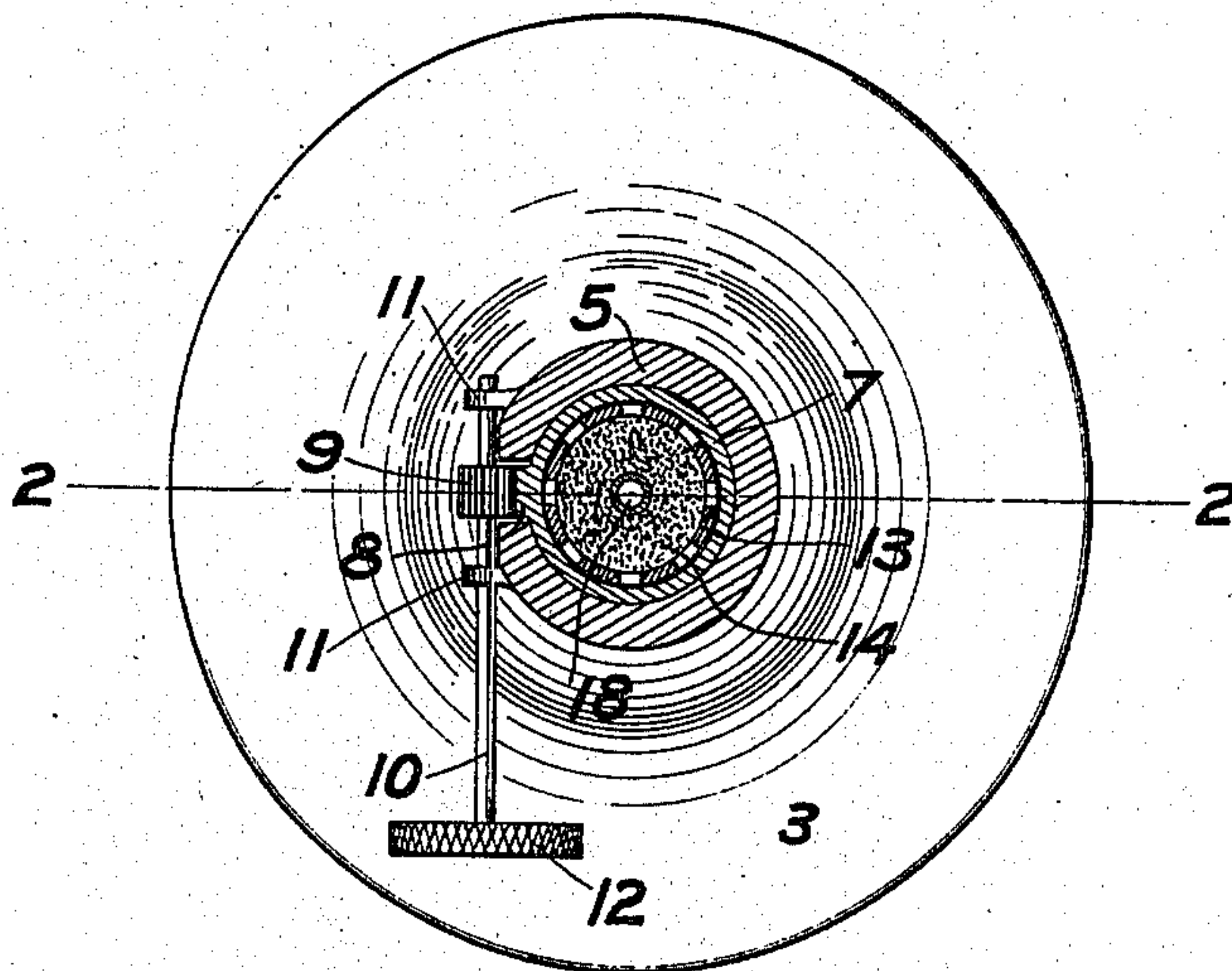
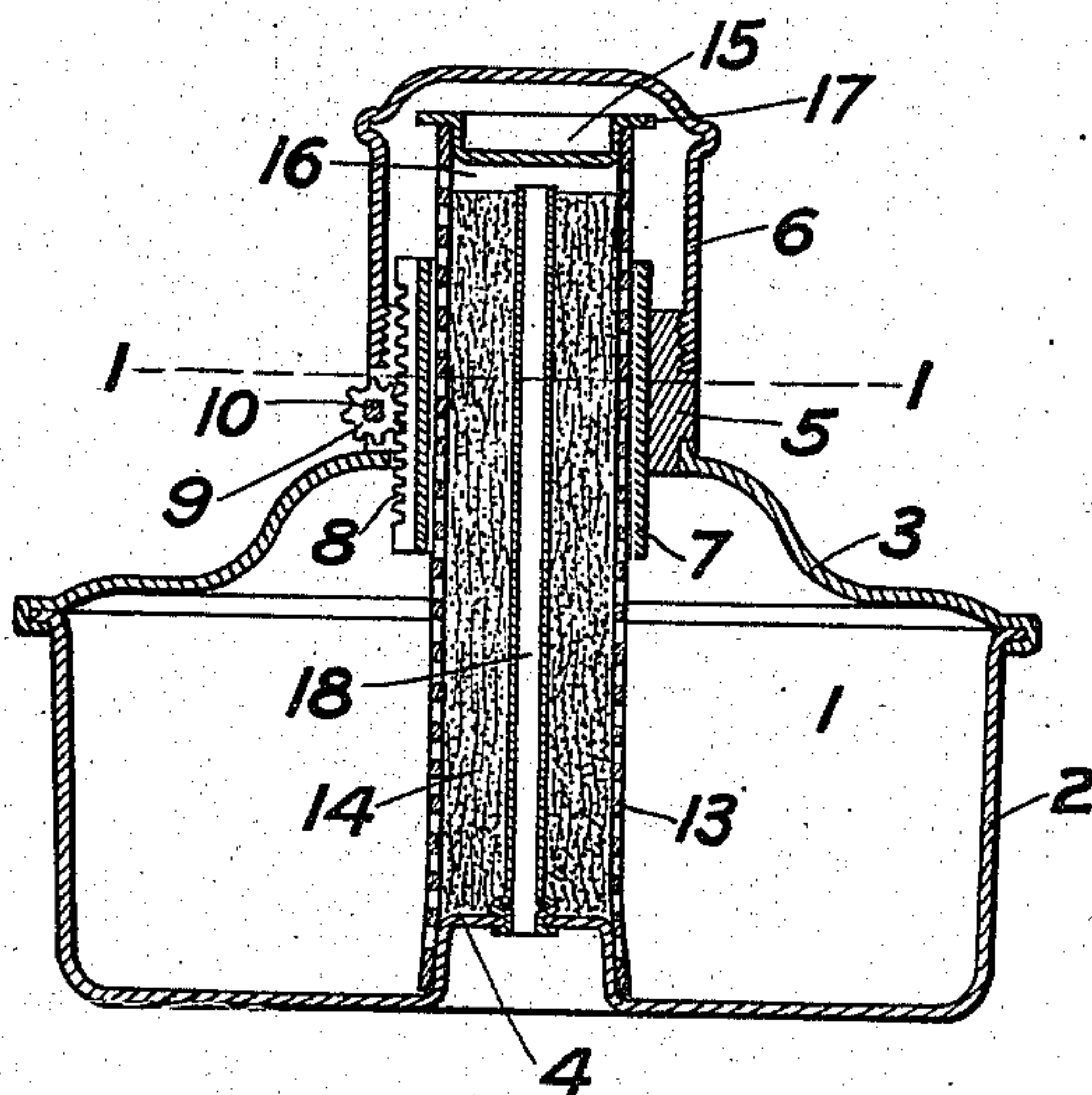


FIG.2.



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# UNITED STATES PATENT OFFICE.

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## LAMP.

963,321.

Specification of Letters Patent.

Patented July 5, 1910.

Application filed December 31, 1904. Serial No. 239,102.

*To all whom it may concern:*

Be it known that I, ALBERT R. PRITCHARD, 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 Lamps, of which the following is a specification.

In the drawings, Figure 1 is a top plan view of a lamp embodying this invention, showing a cross-section on the line 1—1 of Fig. 2; and Fig. 2 is a vertical section on the line 2—2 of Fig. 1.

The lamp font 1 is constructed in any suitable manner, as for instance, by making a bottom portion or cup 2, and a top portion 3, and seaming them together. In the bottom of the cup 2, I prefer to make an upward projection 4, for a purpose hereinafter described. This projection may be made by fastening a projecting block on the interior of the font 1; but a more convenient way, is as shown in Fig. 2:—to press up the projection from the bottom of the cup 2. To the top or upper portion 3 of the font is fastened, in any suitable way, a guide piece 5, upon which may be fastened the cap 6. The guide piece 5 is perforated to fit around the controller tube 7, which has on one side the rack or teeth 8, adapted to mesh with a pinion 9, having a shaft 10, arranged in suitable bearings such as the lugs 11, upon the top 3 or guide piece 5. Turning the milled head 12 on the shaft 10 revolves the pinion 9, which raises and lowers the controller tube 7. Fitting within the controller tube 7 is a perforated burner tube 13, containing capillary material 14, which is preferably fibrous, such as asbestos. The projection 4 extends into the lower end of the tube 13 with some tightness, and thus the torch, consisting of the tube 13 and the parts carried thereby, are held in place in the font. The controller tube 7, when raised or lowered by the pinion 9, covers more or less of the perforations in the tube 13 adjacent to its upper end in order to control the flame; and when the controller tube is raised to its highest position, it covers all the perforations from which the flame may be fed and extinguishes the lamp. In the upper end of the torch or tube 13 is set a cap 15, which is adapted to fit either end of the tube 13, and to leave preferably a slight space 16, between the asbestos 14 and the cap 15. The cap preferably has a flange 17 extending beyond the upper edges

of the tube 13, which enables the cap 15 to be the more easily grasped, and also assists in spreading the flame fed from the perforations in the tube 13. In some lamps further means of feeding air to the flame are provided. Into the bottom of the cup 2 or font, I fasten an air tube 18, which extends upward to connect with and lead air into the above mentioned chamber 16, between the capillary material 14 and the closed top of the tube 13. In the present instance, the said tube 18 is fastened to the top of the projection 4, and air enters from the outside, rises through the tube 18 and into the space 16, to feed oxygen to the flame.

This lamp is particularly advantageous for burning alcohol. The alcohol in the font is drawn by capillary attraction through the holes in the tube 13 at or near the bottom of the tube 13 into the material 14, and is led to the upper end of said tube, where it may be ignited. The alcohol will continue to be fed to the flame from the font through the holes in the upper part of the tube 13. The lamp is made still more efficient by the use of the interior air tube 18, for feeding air from outside the bottom of the lamp to a point in the upper end of the torch. The controller tube 7 reduces or increases the size of the flame, and extinguishes it, if desired.

What I claim is:—

1. A lamp having, in combination, a reversible burner tube provided with lateral gas orifices adjacent to each end thereof, a removable imperforate cap adapted to close either end of the burner tube, a font provided with a support projecting upward from the bottom thereof and formed to fit and close either end of the burner tube, and a filling of capillary material in the tube.

2. A lamp having a laterally perforated burner tube containing capillary material and closed at its upper end, a font from which said burner tube projects, the said font having a projection from its bottom fitting the bore of the lower end of said tube, and a tube extending from said projection through the bottom of said font and upward through said capillary material.

3. In a lamp, a reversible burner tube having lateral gas orifices adjacent to each end thereof, a filling of capillary material in said tube and so much shorter than said tube as to uncover said orifices at either end,

a removable imperforate cap adapted to close either end of said tube and to leave an empty gas space between the cap and the end of the capillary material, in combination with a font into which said tube projects, and a support in said font fitting either end of said tube.

4. In a lamp having a burner tube perforated laterally adjacent to its ends and containing capillary material, a removable imperforate cap adapted to close either end

thereof, a font from which said burner tube projects, the said font having a projection from its bottom fitting the end of said tube, and a tube extending from said projection through the bottom of said font and through said capillary material.

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Witnesses:

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