

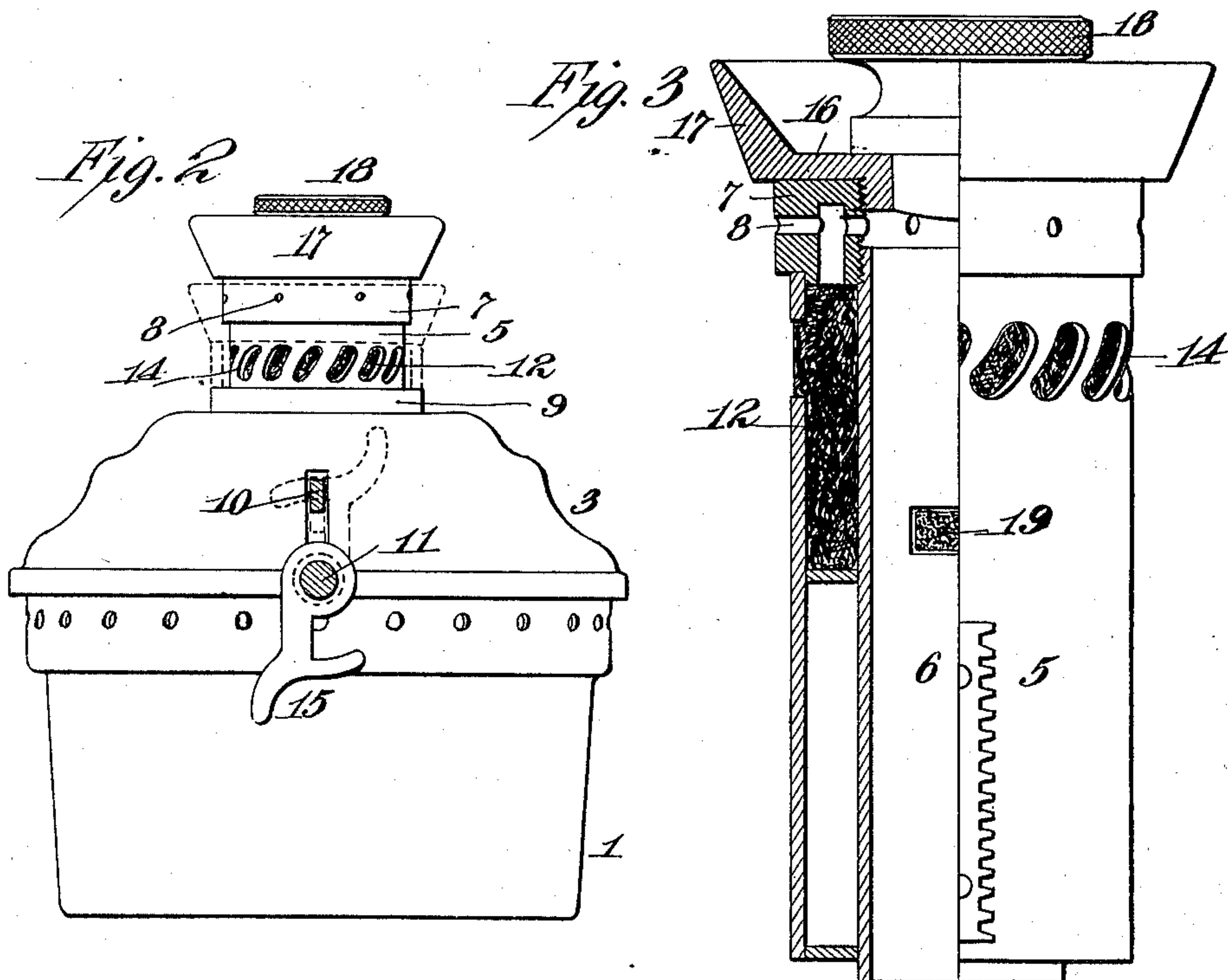
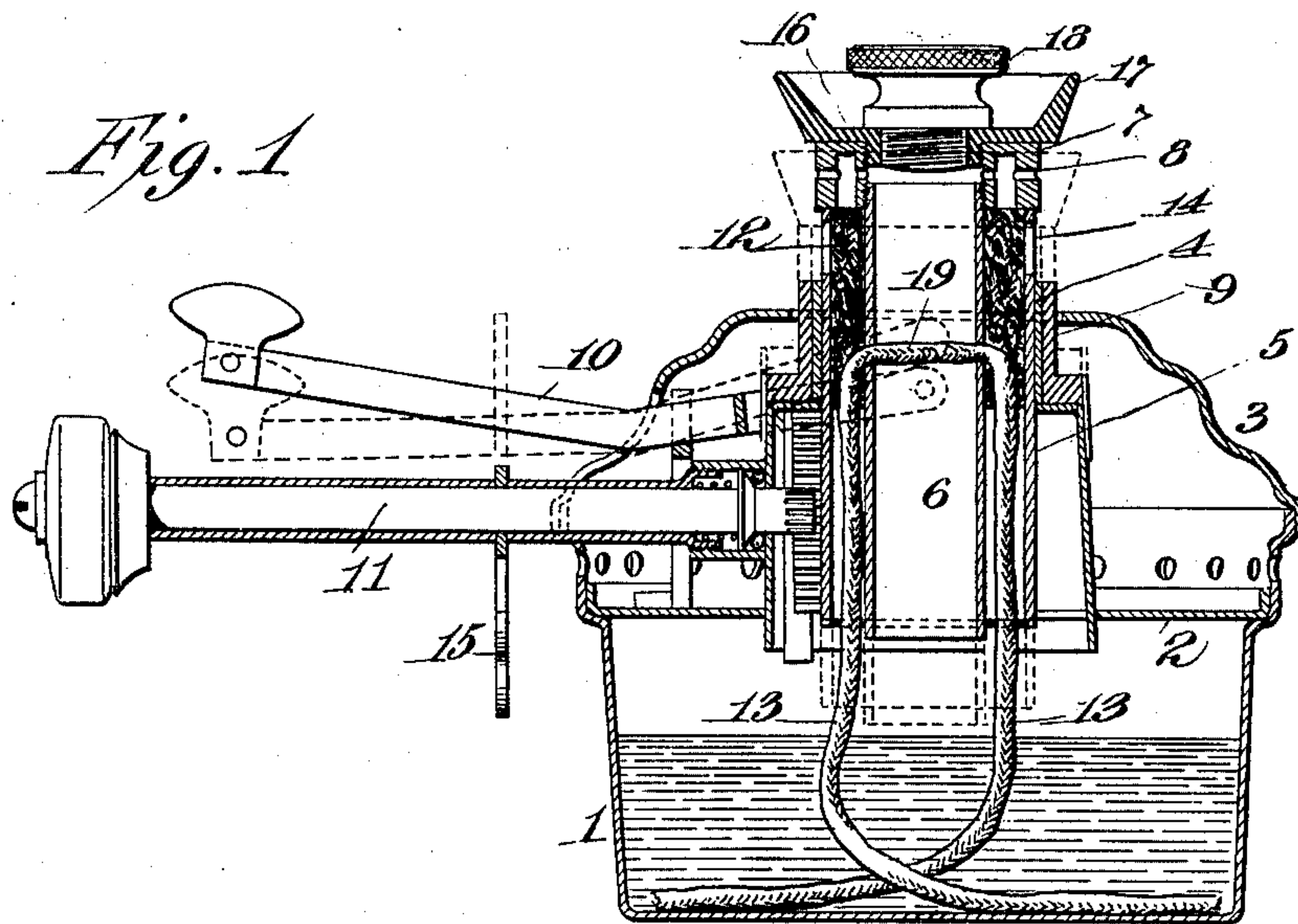
No. 736,454.

PATENTED AUG. 18, 1903.

J. P. STEPPE.  
ALCOHOL LAMP.

APPLICATION FILED OCT. 21, 1902.

NO MODEL.



Witnesses:

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# UNITED STATES PATENT OFFICE.

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## ALCOHOL-LAMP.

SPECIFICATION forming part of Letters Patent No. 736,454, dated August 18, 1903.

Application filed October 21, 1902. Serial No. 128,122. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN P. STEPPE, a citizen of the United States, residing in the borough of Brooklyn, county of Kings, and State of New York, have invented a certain new and useful Improvement in Alcohol-Lamps, of which the following is a description.

My present invention relates to improvements in alcohol-lamps of the type described in Patent No. 696,567, dated April 1, 1902, issued to Sternau and Strassburger, and in the application for patent filed by the same parties May 6, 1902, Serial No. 106,190. In alcohol-lamps of this type, and particularly when provided with an extinguishing-sleeve, as described in said application, opportunity is offered for evaporation of the alcohol or other spirits through the openings in the burner-tube, for the reason that when the flame is extinguished these openings remain exposed to the air. Practical experience with these lamps also shows that there is danger in filling the lamp of the spirits overflowing the filling-tube, and thereby flowing into the space between the top of the font and the outer shell, so as to result in the danger of ephemeral explosions when in use. A final difficulty which has been met in practice with these lamps is the difficulty of immediately starting the flame after the lamp is filled, since some time is required for the spirits to be drawn up by the wick to saturate the asbestos.

The objects of the present improvements are to produce a lamp in which these objections are overcome.

To this end the invention consists in employing a hook or latch by means of which the regulating-sleeve can be locked in its elevated position to inclose the burner-openings when the lamp is not in use, so as to thereby prevent evaporation of the spirits.

The invention consists, in the second place, of forming the top or cap of the filling-tube with a flaring or funnel portion, which not only facilitates the filling of the lamp, making a separate funnel unnecessary, but also acts as a skirt or deflector to spread the flame and thereby enlarge the heat-producing area.

Finally, the invention consists in extending a wick portion across the filling-tube and preferably immediately below the burner-

openings, so that in the operation of filling the lamp the asbestos will be immediately saturated. The wick portion in question may conveniently be an extension of the main wicks which dip into the font.

In order that the improvements may be better understood, attention is directed to the accompanying drawings, forming part of this specification, and in which—

Figure 1 is a vertical sectional view of a lamp of the type referred to with my present improvements embodied therein; Fig. 2, a detailed elevation, and Fig. 3 an enlarged detailed sectional elevation.

In all of the above views corresponding parts are represented by the same numerals of reference.

The lamp is provided with a font 1, having a top 2, an outer shell 3, a regulating-sleeve 4, a burner-tube 5, movable vertically in the regulating-sleeve, a filling-tube 6, secured to and movable with the burner-tube, a head 7, connecting the filling and burner tubes and provided with gas-openings 8 therein, an extinguishing-sleeve 9, movable with respect to the burner-tube, a lever 10 for operating said extinguishing-sleeve, a shaft 11 for moving the burner and filling tubes vertically, a layer of asbestos 12 between the burner and filling tubes, wicks 13, extending into the font for conveying the spirits into contact with the asbestos layer, and burner-openings 14 in the burner-tube through which the main supply of spirits passes to the flame. These parts are constructed and arranged as shown and described in the application for Letters Patent above mentioned.

My first improvement consists in mounting a hook or latch 15 on the operating-shaft 11, so proportioned and arranged as to engage the lever 10 for the extinguishing-sleeve to hold the latter in its elevated position to cover the burner-openings 14 when the lamp is not in use. In this position the extinguishing-sleeve will closely fit the head 7 and be maintained in engagement with the bottom of the cap 16, so as to effectively cover both the gas-vents 8 and the burner-openings 14 to prevent evaporation through the same.

The second part of my invention consists in providing the cap 16 for the filling-tube with



a skirt or flange 17, which acts as a funnel to facilitate the filling of the lamp and to prevent the spirits from overflowing into the space between the top of the font and the outer shell 3. This skirt or flange also acts as a deflector to spread the flame and increase its effective area. The cap 16 is provided with the usual screw-plug 18, which is introduced in position after the filling operation.

10 The third feature of my invention consists in arranging the wick 19 diametrically across the filling-tube, as shown, preferably immediately below the burner-openings 14. Preferably this cross-wick 19 is a continuation of the wicks 13. It will be seen that in filling the lamp the alcohol will saturate the wick portion 19, so as to be conveyed immediately to the asbestos layer, which will thus be supplied with alcohol concurrently with the filling of the font. By this arrangement there is no difficulty in starting the flame immediately, whereas if it is not used some time is lost in waiting for the asbestos layer to be saturated from the font.

25 Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is as follows:

1. In an alcohol-lamp of the character described, the combination with a burner-tube having burner-openings and gas-vents therein, an extinguishing-sleeve arranged to cover both the openings and vents, and a lever for operating said sleeve, of a latch for locking said lever to maintain the extinguishing-

sleeve in an elevated position, substantially as and for the purposes set forth. 35

2. In an alcohol-lamp of the character described, the combination with a burner-tube and a filling-tube concentrically arranged with respect to the same, of a cap for the filling-tube, and a flanged skirt carried by said cap, substantially as and for the purposes set forth. 40

3. In an alcohol-lamp of the character described, the combination with the font, the stationary regulating-sleeve, and the concurrently-movable burner and filling tubes and the asbestos layer between the same, of a wick portion extending diametrically across the filling-tube and in contact with said layer, substantially as and for the purposes set forth. 50

4. In an alcohol-lamp of the character described, the combination with the font, the stationary regulating-sleeve, and the concurrently-movable burner and filling tubes and the asbestos layer between the same, of a wick portion extending diametrically across the filling-tube and in contact with said layer, and extensions from said wick dipping into the font, substantially as and for the purposes set forth. 60

This specification signed and witnessed this 14th day of October, 1902.

JNO. P. STEPPE.

Witnesses:

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